



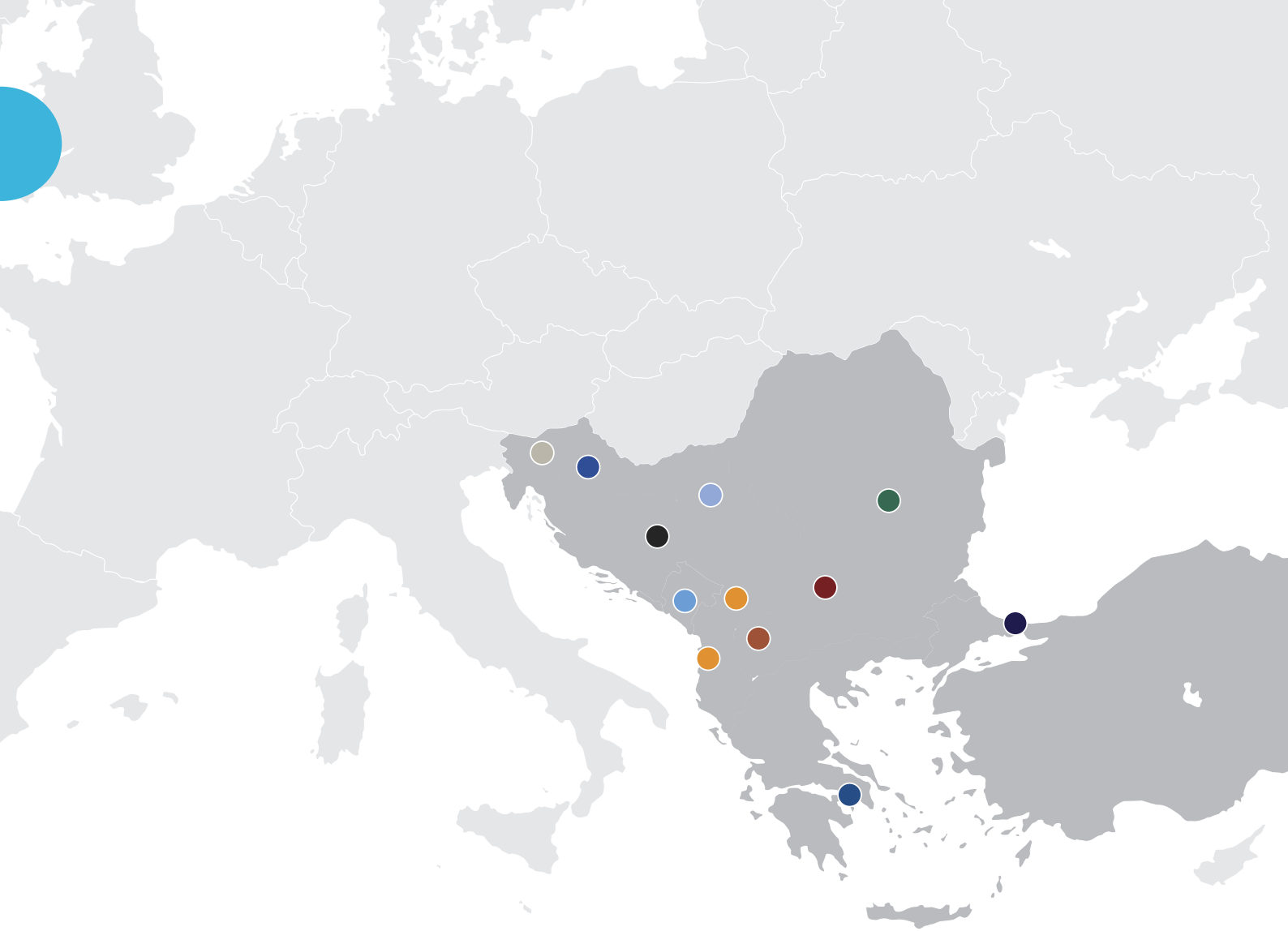
# The Southeast Europe Energy Handbook 2019





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# MEMBERS

## Albania

### KALO & ASSOCIATES

Kavaja Avenue  
Tirana Tower  
5th Floor, Tirana  
T: +355 4 2233 532  
info@kalo-attorneys.com  
www.kalo-attorneys.com



## Greece

### Kyriakides Georgopoulos Law Firm

28, Dimitriou Soutsou Str.  
115 21 Athens  
T: +30 210 817 1500  
kg.law@kglawfirm.gr  
www.kglawfirm.gr



## Romania

### Nestor Nestor Diculescu Kingston Petersen

201 Barbu Vacarescu Str.  
Globalworth Tower, 18th Floor  
District 2, 020 276 Bucharest  
T: +40 21 201 12 00  
office@nndkp.ro  
www.nndkp.ro



## Bosnia and Herzegovina

### Maric & Co

Mehmeda Spahe 26  
71000 Sarajevo  
T: +387 33 566 700  
contact@mariclaw.com  
www.mariclaw.com



## Kosovo

### KALO & ASSOCIATES

Qyteza Pejton, Mujo Ulqinaku 5/1 Str.  
10000 Pristina  
T: +383 38 609181  
pristina@kalo-attorneys.com  
www.kalo-attorneys.com



## Serbia

### BDK Advokati

Bulevar kralja Aleksandra 28  
11000 Belgrade  
T: +381 11 3284 212  
office@bdkadvokati.com  
www.bdkadvokati.com



## Bulgaria

### BOYANOV & Co.

82, Patriarch Evtimii Blvd.  
1463 Sofia  
T: +359 28 055 055  
mail@boyanov.com  
www.boyanov.com



## Montenegro

### BDK Advokati

11, Cetinjska, The Capital Plaza  
81000 Podgorica  
T: +382 20 230 396  
office.cg@bdkadvokati.com  
www.bdkadvokati.com



## Slovenia

### SELIH & PARTNERJI Law Firm

36, Komenskega Str.  
1000 Ljubljana  
T: +386 1 300 76 50  
info@selih.si  
www.selih.si



## Croatia

### Divjak, Topic & Bahtijarevic

EUROTOWER, 18th Floor  
Ivana Lucica 2A  
10000 Zagreb  
T: +385 1 5391 600  
info@dtb.hr  
www.dtb.hr



## Republic of North Macedonia

### Polenak Law Firm

98 Orce Nikolov Str.  
1000 Skopje  
T: +389 2 3114 737  
info@polenak.com  
www.polenak.com



## Turkey

### Kolcuoglu Demirkan Kocakli

Saglam Fikir Sokak  
Kelebek Cikmazi No. 5  
34394 Esentepe, Istanbul  
T: +90 212 355 99 00  
info@kolcuoglu.av.tr  
www.kolcuoglu.av.tr





# PREFACE

Dear Partners and Friends of SEE Legal,

This is the Southeast Europe Energy Handbook 2019 (5th ed.), a product of the Energy-Infrastructure Practice Group functioning within the South East Europe Legal Group ("SEE Legal").

Our aim, through this Handbook, is to highlight the major aspects in the energy sector, such as market structures, licensing, price regulations, access to the grid, etc., and to provide the major legislative updates which took place over the past year in our region.

We are confident that this edition will once again prove to be a helpful desk-book resource when dealing with complex and highly regulated energy related matters in the eleven of the twelve jurisdictions of South East Europe in which our member firms operate. The Energy Handbook is not meant to be a treatise on any particular country's energy legislation and is not exhaustive to the point of eliminating the need of professional advice, but its main purpose is to raise readers' attention as to the energy legislation of each jurisdiction covered by SEE Legal and assist in identifying the issues that might have a significant impact on investment and business development decisions.

Established in 2003, SEE Legal continues as the strongest and longest-standing regional organisation of ten leading independent national law firms covering twelve jurisdictions of South East Europe with a legal force of more than 490 lawyers and an impressive client base of multinational corporations, financial institutions and governmental bodies. Our duty of care to our clients remains at the highest level and we are proud that our achievements in client service continue to distinguish SEE Legal as the leading group of law firms in South East Europe according to Chambers Europe and Chambers Global 2019 rankings. Our member firms continue to be instructed to work on major energy – infrastructure related investment transactions and are associated with most of the important and high profile energy deals in our region. All member firms enjoy the highest recognition from their peers and are constantly ranked every year as market champions.

The Southeast Europe Energy Handbook 2019 is part of the various initiatives undertaken by the Energy-Infrastructure Practice Group to promote our members' capacity and profile in the region in order to maintain our strong presence in the legal market and is a statement of our continuing commitment to further assist you in your legal and business matters.

Sincerely,

**Gus J. Papamichalopoulos**

*Co-Chair of SEE Legal  
Head of Energy-Infrastructure Practice Group*



**Kristijan Polenak**

*Co-Chair of SEE Legal*



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## Disclaimer

*This publication is intended to provide a general guide to the law and regulation in the individual jurisdictions described and to be used for reference purposes only. The information contained herein is based on the respective legislation as of June 2019 (unless otherwise indicated) and is not intended to be a comprehensive study nor to provide legal advice. Specific legal advice should always be sought before taking any action based on the information provided herein.*







# ALBANIA

## 1. INTRODUCTION TO THE ENERGY MARKET

Albania has been a potential candidate for accession to the European Union since January 2003. It formally applied for EU membership on 28 April 2009 and is in the process of harmonising its legal framework with that of the EU. The institutional and regulatory framework for energy and in general the energy market in Albania reflects the policy progress achieved over the last decade. In the context of the energy market, Albania is party to, *inter alia*, the Athens Memorandum, Kyoto Protocol, and the European Community Treaty and strives to comply with the targets set therein to create a unified and sophisticated market foreign investors can rely upon.

The energy sector is one of the strategic sectors and a priority of the Government of Albania ("GoA") given the diversity of energy resources (water, wind, solar, oil, gas, etc.) that the country possesses, which so far are not fully exploited. Albania has both thermal and hydropower to generate electricity, with the latter being more significant and having a greater potential for development. Liberalisation of the energy market continues to be among the reform priorities of the GoA, along with the diversification of the energy sources and reducing energy dependence from imports. In the energy sector, the progress made to reduce distribution losses and by improving bill collection rates needs further consolidation despite the promising results. The reform for diversifying energy sources is crucial for having sustainable and growth-promoting public finances.

## 2. ELECTRICITY

### 2.1 Market overview

The introduction of the new Power Sector Law<sup>1</sup>, a Third Energy Package Compliant Law was proclaimed as a major step forward, providing the legal ground for the establishment of a liberalised energy market. However, for the third year in a row, the country focus remained on the implementation of the Third Energy Package and its major tasks such as unbundling and certification of transmission system operators, unbundling of distribution system operators and full market opening. This required further concrete reforms with respect to market rules, e.g. related to balancing, day-ahead markets, market coupling, etc.

In 2016, the GoA approved the Albanian Market Model ("AMM"), developed in accordance with the EU Directives on Electricity and also adopting the requirements of the Energy Community Treaty. The AMM outlines the main responsibilities and relationships among the market participants and Energy Regulatory Entity ("ERE"). In simple terms, the AMM is characterised by bilateral contracts for electricity between and among market participants. Ancillary services for Transmission System are purchased by the Transmission System Operator ("TSO").

Also, in 2017 the ERE approved the Albanian Energy Market Rules ("Market Rules") which define:

- (a) a set of rules that establish the procedures for market operations and management;
- (b) a coherent framework under which participants in the electricity market can interact with each other;
- (c) sale and purchase of electricity at freely negotiated prices; and
- (d) conditions for participating as part of the Balancing Electricity Market.

<sup>1</sup> Law No. 43/2015, dated 30 April 2015 on Power Sector, as amended.

These Market Rules promote an effective generation and supply of electricity and also the competition in sale and purchase of electricity.

Until 2008, all energy operations (from production to supply) were in the hands of a single state-owned enterprise, the National Power Corporation ("KESH"). Following the unbundling of the TSO (which is still state-owned), the distribution arm was unbundled from KESH and subsequently, a majority stake therein was sold through privatisation to the Czech Company ("CEZ") in 2009. The market has since undergone liberalisation and indeed the restructuring of the state-owned electricity enterprise had at first enhanced its technical, economic and corporate performance. However, in early 2013, the ERE withdrew the licence of CEZ that owned the Electric Power Distribution Operator in Albania ("OSHEE") and put the company under public administration. To complete legal unbundling, OSHEE established three independent subsidiaries for distribution system operation, provision of universal service and supply of consumers on the market. Their assets, however, remain with OSHEE, which challenges their independence and leaves the formally unbundled service providers without operational capacity.

Balance responsibility is implemented by "transitional" balancing rules and KESH is still the sole service provider. In the absence of a local market price, the imbalances are settled using reference hourly prices from the Hungarian day-ahead market. Liquidity of the balancing market could be provided by services across the border, however, cross-border balancing between TSO and neighbouring transmission system operators is not in place yet. The amendments to the Power Sector Law of March 2018 have put in place the missing legal framework for the future organised day-ahead and intraday markets and set the timing of the Government's decision on the establishment of the Albanian power exchange (APEX) to be taken by September 2018. The day-ahead and intraday market rules were developed and approved by ERE but their application is postponed until the corresponding functions are set. The momentum needs to be regained in order to accomplish the establishment of the independent market operator in 2019.

In order to address importing capacity and to integrate Albania into the European energy network, the GoA has undertaken several projects and has licensed private companies to build interconnection lines. One is the interconnection line between

Albania and Montenegro 400 kV voltage, 50 Hz with a transmission capacity of 100 MW. In 2016 the construction of an interconnection line between Albania and Kosovo of 400 kV was finalised. The whole project cost was EUR 70 million and the interconnection line is 241.1 kilometres long, out of which 155.5 is located in Albania. Part of the project included also the construction of an installation of high voltage substations. The implementation of this project has ensured the physical unification of the Albanian and Kosovar energy markets. This contributed to an increase in the energy exchange at a regional level and further ensures the optimal use of common energy production resources. The GoA has also granted an authorisation for the construction of two merchant lines, 400 kV voltages undersea interconnection cable lines voltage, connecting Albania and Italy. The respective Albanian and Macedonian Ministers with responsibility for energy signed a memorandum of collaboration for the construction of a high voltage transmission interconnection line. Construction of the 400 kV Elbasan-Manastir interconnection line is expected to be completed by 2020. This will be the first interconnection between Albania and North Macedonia, and the project will provide the missing link in the initiative to establish an East-West electricity transmission corridor between Bulgaria, North Macedonia, Albania, Montenegro, and Italy.

## 2.2 Regulatory overview

On 30 April 2015 the Albanian Parliament adopted the new Power Sector Law to fully transpose the Third Energy Package. The key objectives of the new Power Sector Law include (a) encouragement and integration of an electricity market; (b) designation of rules relating to the organisation and functioning of a fully open market and improvement of participating in the energy market; (c) the criteria for granting authorizations and licenses in the energy market; (d) universal service obligations and the rights of electricity consumers protection; and (e) integration of the Albanian market in the operational regional and European electricity market.

As part of the obligation to establish an open electricity market and to develop competition in the internal market, all customers (including wholesale or final customers of electricity) are entitled to choose their supplier (domestic or foreign) and enter into a supply contract with unregulated tariffs, pursuant to the Albanian Market Rules and general conditions for supply as approved by ERE.

The Power Sector Law has further provided for the unbundling of the activities of the market participants in the electricity sector to an extent consistent with the applicable EU Directive 2009/72/CE. It provides certain obligations relating to the TSO which, in the mid-term, will have to comply as fully as practicable with the separation of accounting, management and assets, as well as the provisions of the applicable EU directives concerning transmission system operators under joint ownership. The Distribution System Operator and the Retail Public Supplier also must fully comply with the division into two separate legal entities and all other separation and independence requirements, as well as all applicable EU directives concerning the separation of the distribution system operator from the retail supplier. The new law has established the necessary legal framework for the power sector which shall be organised and fully implement the European Union energy related Directives and Third Package of European Union Directives.

The Power Sector Law regulates activities in the electrical power sector defining the rights and obligations of all market participants involved in this sector as well as the procedures for selecting and developing a market model and the rules for an electricity open market. An important element is that it provides for the oversight of the independent electrical energy regulator (ERE) - a legal public entity that receives funding from annual regulatory fees that it sets itself. The ERE is, *inter alia*, responsible for:

- (a) setting the rules and requirements for the granting, modifying and revoking of licences to companies for the generation, transmission, distribution, supply, export and import of power;
- (b) setting, regulating and reviewing tariffs (which are to be set on a cost recovery basis) and the terms and conditions of service of electrical energy proposed by a licensee, or review them according to the circumstances;
- (c) imposing to all licensee the obligation to ensure public service, including the universal supply service;
- (d) ensuring the implementation of measures to protect end-use customers;
- (e) resolving disputes between licensees and consumers, and between or among licensees; and
- (f) monitoring and controlling the operation of services by licensees, with powers of inspection, access, seizure of documentation or relevant information.

The Ministry of Infrastructure and Energy ("MIE") is the other important public stakeholder in this sector, particularly with regard to policymaking. The MIE supervises the operation of the energy sector and has specialised internal Directorates dealing with electricity and hydrocarbons. The MIE plays a crucial role in drafting the development policies of the energy sector. The MIE also represents the state as the named owner of the remaining state energy companies and shall continue to be responsible for the effective management of these companies until their eventual privatisation.

## 2.3 Regulated electricity market activities

The Power Sector Law and the AMM define the participants in the energy market which include several operators and the ERE. Although presently, the contracts and tariffs between the various market participants are regulated at their inception in the energy market, under the new Power Sector Law the applicable tariffs shall be determined by free negotiations between parties to the contract. Regulated tariffs within the open market shall remain in place for third parties' access to the transmission and/or distribution system and specific customer's categories, whilst ERE shall have the right to impose the obligation of public service to market participants (i.e. obligations imposed to electricity undertakings to operate a public service which may relate to security, including security of supply, regularity, quality and price of supplies and environmental protection, including energy efficiency, energy from renewable sources and climate protection). All end-user customers shall be entitled to pay regulated tariffs for the universal service for the electricity supplied as part of the public service (that is the right to be supplied with electricity of a specified quality within the territory of the Republic of Albania at reasonable, easily and clearly comparable, transparent and non-discriminatory prices).

The regulated market is presently organised and regulated through the following contracts between:

- (a) KESH Gen and Wholesale Public Supplier ("WPS") (primarily for transparency of sale prices charged);
- (b) WPS and Retail Public Supplier ("RPS");
- (c) Transmission System Operator ("TSO") and other market participants for transmission-related services, including ancillary services;
- (d) Distribution System Operator ("DSO") and other market participants for distribution-related services;
- (e) Small Power Producers ("SPPs") and the WPS;

- (f) RPS and its tariff customers;
- (g) KESH Gen and Traders, including import contracts for the exchanges of power, which are subject to ERE scrutiny or procurement rules;
- (h) TSO and KESH Gen, SPPs, Independent Power Producers ("IPPs") and Traders for the transmission losses and Ancillary Services.

The ERE retains the right to adopt standard agreements or procurement rules that are obligatory to be executed by Eligible Suppliers ("ESs"), IPPs, SPPs and other market participants when carrying out a bilateral contract with the WPS.

Pursuant to the provisions of the AMM, some contracts between market participants are not regulated; thus, they are freely negotiable between the parties and these include:

- (a) contracts between ESs and Eligible Customers ("EC");
- (b) contracts between SPPs, IPPs, ECs and Traders;
- (c) contracts between KESH Gen (i.e. the generating arm of the WPS and ESs or Traders, to the extent permitted under the present or other restrictions on WPS sales; and
- (d) contracts between DSO and Traders, ESs, SPPs and IPPs for the necessary energy required to cover losses in the distribution system.

See figure 1 for the electricity market structure in Albania.

The amendments also extended the duration of the supply of last resort in a way that *de facto* imposes the regulated supply of all medium voltage customers for two years after the switching conditions are met. Thus, only a few 35 kV customers have actually switched their supplier. The regulated wholesale contract between KESH and OSHEE is extended until 2019, while a public service obligation is imposed on both companies to provide the electricity required to supply all consumers enjoying regulated service conditions. This set of conditions effectively curtails competitive supply for the immediate future. It is of the highest priority to abandon conservative measures and promptly apply conditions for effective deregulation. The Memorandum signed between transmission system operators and regulators of Albania and Kosovo\* in August 2018 is targeting the end of June 2019 as the deadline for coupling of the day-ahead electricity markets. The transmission system operator of Kosovo ("KOSTT") already expressed its interest to join the Albanian power exchange (APEX)

as a shareholder. The key precondition for practical implementation of the overall activity, however, is the resolution of the dispute between KOSTT and the transmission system operator of Serbia. This would facilitate the putting into operation of the 400 kV interconnector developed with KOSTT as the backbone infrastructure in the integration of the markets, which was commissioned in June 2016 but failed to go live due to the ongoing dispute.

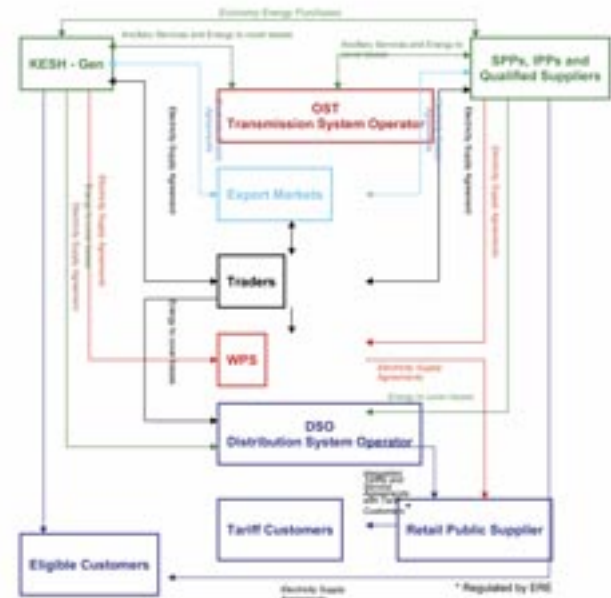


Figure 1: Electricity Market Structure in Albania (Source: ERE)

## 2.4 Trading and supply of electricity

The present AMM is a vertically integrated market model characterised by bilateral contracts for electricity between and among market participants. The AMM has directed that Wholesale and Retail Supply be public activities. Thus, after the unbundling of KESH, three different entities now fulfil the activity of the wholesale production, supply and retail supply of electricity.

KESH Gen retains the licence for the generation of electricity and is entitled to sell electricity produced to the WPS at prices approved by the ERE. Sales are subject to and regulated through annual contracts (or based on different durations) as approved by the ERE. In all cases, the ERE is entitled to monitor the process of the exchange and sale of electricity, in order to ensure compliance with the rules and procedures of sale and exchange of electricity, as approved by the ERE.

The WPS, being a separate entity in possession of a licence for the wholesale supply of electricity is entitled to purchase from KESH Gen all the electricity produced by KESH Gen from its hydropower plant and other generation plants, as well as from IPPs, SPPs, ESs and Traders to fulfil its obligations to the Retail Public Supplier ("RPS"), i.e. to service all the Tariff Customers.

The AMM also comprises: the RPS - an entity licensed for the retail supply to tariff customers at regulated prices determined by the ERE; IPPs - entities producing electricity that are not connected with the grid; Grid System Operators which maintain, operate and upgrade the grid in high, medium and low voltage levels and SPPs which are entities licensed to produce electricity by hydro, wind or other sources which qualify for feed-in tariff if their installed capacity fulfils the legal requirements (for hydro sources - up to 15 MW); and lastly, Traders and Tariff Customers conclude the list of participants of the AMM. All contracts and tariffs between the various market participants are regulated upon inception in the energy market. Pursuant to the provisions of the AMM some contracts amongst market participants are not regulated and so are freely negotiable.

Under the AMM, Traders are licensed entities which buy and sell electricity with the exception of sales to the RPS and end-user customers. Traders should be established as legal entities and the scope of their activity should be the wholesale buying and selling of electricity. Traders can buy electricity from KESH Gen (i.e. surpluses), IPPs and SPPs to then sell on to Qs, WPS, or a DSO (covering the distribution losses). When IPPs or SPPs sell directly to the WPS or other ESs, they require only a production licence and not a trading licence.

IPPs, SPPs and ESs may also be Traders, engaged in wholesale transactions, on the condition they obtain the necessary trading licence. The ERE shall ensure that the licences and licensing procedures for ESs and Traders are transparent and non-discriminatory and do not create an undue burden on the entry of Traders into the Albanian market, subject to any reciprocity agreement.

The Power Sector Law ensures the implementation of a system of third-party access to the transmission and distribution systems based on approved and published tariffs by ERE, applicable to all eligible customers and applied objectively and without discrimination between system users.

The Market Rules were recently amended by the ERE to reflect the obligation of all market participants to balance the electricity system under the Power Sector Law as of 1 January 2016.

## 2.5 Transmission and grid access

Transmission is regulated by the Transmission System Code - a document describing the relations between TSO and users and establishes procedures for the operation and development of the Transmission System according to the development of the Albanian and Regional Electricity Market. The Transmission System Code contains specific provisions which:

- (a) facilitate economic, efficient and coordinated development, operation and maintenance of the Transmission System according to the Albanian and Regional Electricity Market;
- (b) help the TSO comply with its obligations regarding electricity transmission with neighbouring countries;
- (c) eliminate discrimination in the preparation and application process of the Transmission System maintenance program.

As an indivisible part of the Transmission System Code, the Connection Code specifies the conditions, criteria and deadlines that users need to fulfil for connection to the Transmission System or modification of their existing connections. Any user which needs to use the Transmission System may file an application (in the format prepared by the TSO) to the TSO for connection. The TSO Connection Agreement should specify the general conditions of connection and all specific technical and financial conditions for connection. Currently, there is no approved standard form of a TSO Connection Agreement.

The new Power Sector law provides the unbundling of the TSO and the DSO. The TSO will conduct its activity solely related to electricity' transmission and shall be independent in terms of its organisation and decision-making from the other activities not related to transmission, such as generation, distribution, wholesale and supply of electricity, starting from 1 January 2016. Prior to being licensed for the operation of the transmission system, the TSO should be certified by ERE, according to the new Power Sector Law.

### 3. RENEWABLE ENERGY

#### 3.1 Market overview

Albania is almost entirely depending on hydropower as hydropower resources now account for almost 98 per cent of the country's energy production. Hydropower production fluctuates and is not equal throughout the year and, especially during 2017, has resulted in high energy imports, both in quantity and in prices due to dryness periods. This disbalance underestimated the great potential that Albania has in developing other sources of renewables, such as solar or wind sources of energy.

In February 2017, the Parliament approved the new law on promotion of the use of energy from renewable sources (the "2017 RES Law"),<sup>2</sup> which is partially aligned with the EU RES Directive No. 2009/28/EC, as part of the *Acquis* – an obligation Albania has as a potential candidate for accession to EU. The adoption of the 2017 RES Law has promoted and encouraged other sources of energy to start with pre-sale electricity contracts for generating works that are not subject to concession, thus proving for a diversified renewable energy resource policy. This is also due to the advancement on electricity production from renewable sources by technologies other than the one dominating domestic electricity production actually, with hydro resources only, as well as the rapid reduction of electricity generation costs from solar energy (PV) and wind (Aeolian), are globally the main sources of energy capacity increase in the wholesale market.

The Power Sector Law provides renewable energy producers with priority and guaranteed access to the electricity networks and also priority dispatch of electricity produced from renewable sources. All market participants including renewable energy producers are required to take balance responsibility. Albania has taken a number of steps to include in its energy policy the requirements of the EU Directives for the establishment and development of the internal energy market and the promotion of production and consumption of energy from renewable energy sources.

Under the existing legal framework, the ERE is tasked with approving the necessary procedures and documentation for the

connection of generation facilities to the grids. The alignment of the existing procedures for connecting renewable producers to the transmission and distribution networks as well as methodologies for establishing the cost of connection, in order to comply with the requirements of the Power Sector Law have not been yet completed. The ERE has adopted simplified procedures for the licensing of renewable energy producers which are connected to the distribution grids.

The main priorities of the Albanian energy policy are energy efficiency and the promotion of renewable energy sources. Both these objectives are on track to be harmonised with European Community Directive 2001/77 as well as with the Energy Community Treaty principles concerning energy efficiency and renewable energy sources. Promotion of renewable energy is well-defined in the Albanian government energy policy.

At present renewable energy makes up around 40 per cent of Albania's energy supply. This is largely due to the fact that virtually all electricity production is generated from hydropower. Many concessions and licences have been granted over the years to private companies for the construction and operation of small hydropower plants although only a small percentage have been constructed to date (many still requiring financing). Diversification of energy sources through the promotion of production and consumption of energy from renewable sources remains one of the major reforms in this sector.

Other renewable sources are being explored, several licences have been issued for the construction and operation of wind farms. Given the beneficial conditions of the Mediterranean climate, solar power and photovoltaic energy generation are viable options, in addition to biomass and waste to energy sources for which some licences have been granted to date.

Based on Article 5 of Law No. 7/2017 of 2 February 2017 on Promotion of the Use of Energy from Renewable Sources, the National Renewable Energy Action Plan 2018 – 2020 ("NREAP") was approved,<sup>3</sup> which sets out the roadmap for achieving the national target for the share of energy produced from renewable sources, consumed in the Electricity sector, transport and in the

<sup>2</sup> Law No. 7/2017 of 2 February 2017 on Promotion of the Use of Energy from Renewable Sources. The Law 2017 RES Law is partially aligned with the Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.



heating and cooling sector by 2020. Specifically, the NREAP foresees an increase of the consumed electricity generated from renewable sources, with at least 172 ktoe (2,044 GWh) by 2020. NREAP also foresees the expansion of installed electricity generators based on renewable sources to 798 MW. The NREAP takes into consideration the progress in the development of these technologies towards these targets and adjusts them accordingly to ensure the achievement of the national target of RES consumption (38 per cent) in 2020.

### 3.2 Support schemes

The existing Power Sector Law and the wider legal framework provide for certain types of support mechanisms that are granted to investors exploiting renewable energy sources. These are summarised below:

- (a) Custom Duties Exemptions: a specific law has been approved to promote the construction of installations using renewable energy sources and which grants exemptions from custom duties for the import of machinery and other equipment to be used in the construction of installations using renewable sources.
- (b) Feed-in Tariffs: this is the most successful form of support scheme and although in the renewable energy law feed-in tariffs are to be applied to many renewable energy sources, currently the option is only available for new and existing small hydropower plants ("SHPP") (i.e. with installed capacity up to 15 MW). The feed-in tariff is set by the ERE annually and any SHPP producer can upon request benefit from a 15-year power purchase contract with the WPS using the feed-in tariff for the entire term; the new Power Sector Law does not provide any longer for this form of support scheme.
- (c) Guarantee of Origin Certificates ("GOC"): GOC's are official certificates issued as evidence that the power generated is from renewable sources. This certificate is issued after the qualification of the plant as being a generator from renewable sources and must be acquired prior to receiving a Green Certificate. The certificate shall include the amount of power generated by renewable sources, the name of the power plant and its capacity. GOCs can be transferred together with the power in accordance with rules and procedures defined by ERE.
- (d) Green Certificate ("GC"): GC's are official certificates proving that the power was generated through renewable sources or by a combined generating mode which can be transferred (i.e. traded), separately from the power it certifies. The GC certifies the owner and also the place of generation, date of generation and the generating plant. GCs can be transferred in accordance with the rules and procedures defined by ERE.

To date there is only one international agreement for the sale and purchase of GCs and GOCs: the Agreement between the Italian Ministry of Productive Activities, the Italian Ministry of Environment and Protection of Territory and the Albanian Ministry of Infrastructure and Energy. With this agreement, Albanian and Italian power generators are able to sell their respective GCs and sell power with GOC to buyers from the other country.

The 2017 RES Law establishes a broad framework for the auction mechanism and Contract for Difference ("CfD") in future renewable projects. Currently, the state support in support schemes of RES in the energy market in Albania is intended to be restructured for renewable energy sources and aims to replace the existing scheme of the feed-in tariff with a system based on CfD.

The new AMM (approved pursuant to Law No. 43/2015 on Energy Sector, as amended), provides for the trading of energy from renewable sources to the advanced/ liberalised market aimed to be opened by means of establishment of the Albanian Power Exchange (intended to start from January 2019).

#### Auction process

The GoA has recently passed a resolution in July 2019 ("CMD 349/2018 on RES Support Schemes"), designating the means for promoting the use of energy generated from solar and wind power plants and which stipulates the procedures for electing the eligible projects to benefit from such means.

According to the 2017 RES Law, feed-in-premium tariffs for renewables with over 2 MW of installed capacity should be granted through a competitive auction process, on a non-discriminatory, clear and transparent basis. Notably, the CfD will not apply to small RES facilities (i.e. projects with an installed capacity up to 2 MW and 3 MW in solar and wind energy respectively), as these projects are supported by separate measures.

<sup>3</sup> By operation of the Council of Ministers Decision No. 179 of 28 March 2018 on the Approval of the National Renewable Energy Action Plan (NREAP) 2018 – 2020.

Specific rules on how the auction process will be organised are broadly introduced in the CMD 349/2018 on RES Supportive Schemes. It, therefore, remains to be seen whether the supportive scheme will help to create a suitable investment environment for RES projects in Albania.

Just recently, Albania has opened the call for bids to build the Adriatic country's first solar power station, for a 30 years term, which can be renewed, intended to have an initial installed capacity of 50 MW (that will be subjected to the new designated support schemes), with possibility of extension to up to further 50 MW (that will not be subjected to the new designated support schemes). The financial criterion in this round of bids is designated as the decisive winning factor, as 30 points will be given to the company choosing to sell at a cheaper price to the OSSHE, securing a guaranteed buyer for the first half of the renewable 30-year-term.

#### ***Contract for Difference***

Under the 2017 RES Law, the main promotional measure is a specific form of a feed-in tariff termed contract for difference. The CfD can be characterised as a sliding feed-in-premium system, meaning that renewable energy producers will sell the electricity in the market and receive the variable difference between the auction price and the electricity market price (reference price) as a support measure.

The CfD will have a duration of 15 years. Interestingly, if prices in the electricity market go up and are higher than the auction price, the RES producers will be obliged to pay such difference.

The legal criteria of RES generation established by the ERE provide that only the generators that fulfil the legal conditions might be supported pursuant to a CfD. The renewable technologies that will be acceptable for support according to CfD scheme include the following: (i) biomass transformation, (ii) wind in terrestrial boundaries, (iii) solar photovoltaics, (iv) hydro energy, (v) energy from the waste through CHP, (vi) gas from landfills and (vii) gas from the waste urban water.

### **3.3 Other supporting measures**

The CMD 349/2018 on RES Supportive Measures provides for further support measures, including:

- (a) making available to the RES producer the immovable properties required for the project implementation;

- (b) priority access to the transmission and distribution grids; and
- (c) producers receiving a guarantee of origin for their produced electricity.

However, the RES producers will not receive support in the form of an assumption of imbalances responsibility, as they will be responsible for their own imbalances and will be required to conclude either a contract with the TSO or to transfer the balancing responsibility to another responsible balancing party, thus becoming a member of a balancing group.

#### ***Applicability of supporting schemes in practice***

The applicable target for RES share in the gross final consumption of energy in Albania for the year 2020 is 38 per cent. Given the great potential Albania has for the construction and operation of new solar or wind power plants, the new support scheme under the 2017 RES Law can be a valuable tool.

In practice, none of the schemes has been implemented, thus causing further delays in implementing the new legislation, mainly for the following reasons:

- (i) Necessary secondary legislation for net metering schemes, access to and connection with a grid as well as guarantees of origins are not in place as yet (this and other documentation is to be drafted as part of an ongoing project financed by EBRD).
- (ii) No CfD model has been drafted.
- (iii) Market openness and establishment of Power Exchange is postponed to January 2020.

Finally, the actual implementation of the 2017 RES Law will highly depend on the real willingness of the GoA to promote RES.

Based on the 2017 RES Law, the Council of Ministers Decision No. 369 of 26 April 2017 on the Approval of the Methodology to Decide the Purchase Price for Electricity Generated by Small Renewable Sources from Sun and Wind was approved. The Decision of the Council of Ministers provides the tool to calculate the true cost of solar and wind implementation in Albania. As stipulated by this CMD, ERE is obliged to approve the purchase price of electricity produced from small renewable sources of sun and wind, in accordance with this methodology and averaged costs. Based on this CMD, the ERE Board by means of Decision No. 120 of 27 July 2017 decided that the electricity purchase price to be paid to small renewable sources from sun and wind for 2017 is 100 Euro/MWh for photovoltaic and 76 Euro/MWh for wind. Actually, ERE with the Decision of the Board of Commissioners No.

19 of 19 January 2018 on the Annual Purchase Price to be Paid to Existing Priority Producers of Electricity for the Year 2018 has approved the initiation of procedures for the approval of new price for the year 2018, to be paid to priority producers.

Based on the 2017 RES Law, the Council of Ministers Decision No. 349 of 12 June 2018 on the Approval of Support Measures for the Promotion of the Use of Electricity from Renewable Sources of Sun and Wind, as well as Procedures for Selecting Projects for their Benefit was approved. This Decision establishes support measures for the promotion of the use of electricity from renewable sources of sun and wind and procedures for selecting projects that benefit from these measures, according to Article 8(1) of the 2017 RES Law and the objectives of the National Renewable Action Plan 2018 – 2020. Supportive measures to promote the use of electricity from renewable sources of sun and wind are provided through a competitive, open, transparent and non-discriminatory process that provides credibility to participants and guarantees the provision of these measures to Albania's Economic Reform Programme 2019-2021, 80 entities that provide the best conditions for as regards the price of energy, technology used and the way of building the plant.

Based on the Council of Ministers Decision No. 349 of 12 June 2018 and the objectives of the National Renewable Action Plan 2018 – 2020, the MIE opened the bidding procedure to select the developer of the project for the construction of a photovoltaic plant with an installed capacity of 50 MW, as part of the Support Measures, in the Akërne Area (close to Vlora) and the construction of additional capacity of 20 MW up to 50 MW, which will not be part of the Support Measures. The winning bid of this project provides a 50 MW energy price of 59.9 Euro / MW for 15 years and an additional capacity of 50 MW (100 MW in total) without support for energy purchases. We appreciate the results of this auction as it has managed to secure one of the lowest prices in the region for this type of technology (Greece 63 Euro / MW and Turkey 62 Euro / MW), lower than average prices import in our country, and an additional capacity of 50 MW, making this offer very advantageous for the energy market in the country.

### Activities planned 2019

Implementation of the National Action Plan for Renewable Energy Sources (2018-2020), and achieving the national target for the share of energy produced from renewable sources:

- The signature of the contract and the beginning of the implementation of the Project for the construction of a photovoltaic plant with an installed capacity of 50 MW, as part of the Support Measures, and the construction of additional capacity of 50 MW, which will not be part of the Support Measures, in the Akërne Area (close to Vlora).
- The preparation and the approval of secondary legislation based on the 2017 RES Law.

## 4. NATURAL GAS

### 4.1 Market overview

Albania does not have a developed gas market at present and such development is one of the priorities set out in the National Strategy of Energy. Albania has a very low level of gas consumption, particularly with over 90 per cent of its energy being produced from hydropower. However, it is in a prime location to serve as a transit country and is not yet connected to the international gas networks though this shall change in the future. It is thus important for the country to expedite the process of implementation of the Gas Master Plan and thus the gasification of the country.

Development of the TAP Project that will be dedicated in the first place to the transportation of gas sourced from the Azerbaijan gas field Shah Deniz II to Europe<sup>4</sup>, and therefore, certification of the Trans Adriatic Pipeline AG as an independent transmission operator under an exemption decision in 2016 on one hand and certification of Albga as a transmission and DSO under the ownership unbundling model on the other, are a key step forward in this sector.

The TAP has major implications for European energy requirements and it shall largely affect Albania as well, especially with the

<sup>4</sup> In 2013, the developers of a major Azerbaijani natural gas field in the Caspian Sea picked the Trans-Adriatic Pipeline (TAP) project over the Nabucco West project to transport Caspian natural gas to Europe. With the commencement of operations set to take place by 31 December 2020, the 870km long pipeline will run from the Turkish border through Greece and Albania, and then cross the Adriatic sea to Italy. The Decision was developed jointly with the regulators of Italy and Greece. Shah Deniz Gas will be brought to the entry point of the TAP Transportation System near Kipoi at the border of Turkey and Greece through an extensive transportation route starting in Azerbaijan and composed of several separate transportation projects (to be) developed independently from the TAP Transportation System. The TAP Transportation System, standing at the end of this energy value chain, is, therefore, a vital component of the export route of Shah Deniz Gas to Europe.

promotion of the economic development, job creation and foreign direct investments in Albania as well as the complete restructuring of the gas sector in Albania with it to benefit from direct gas supply. The diversification of sources and routes in the supply of energy, to increase its energy security, is a strategic objective of Albania. The immediate effect of the gasification of Albania is to provide the energy customers with cleaner and more affordable energy by fuel switching from petroleum products and electricity to gas. The potential applications of gas include thermal power plants ("TPP"), in the power generation sector, alongside industrial scale gas applications in the production processes of the potential metallurgic and cement industries. However, Albania has a small and run-down domestic gas supply network, which is not connected to the regional and the European gas network, and the gas market is almost inexistent.

A project however funded by the European Commission aimed to prepare a short-term comprehensive Master Plan and the Project Identification Plan for Natural Gas ("GMP")<sup>5</sup>. It aimed at investigating the potential for the diversification of energy resources, connection to regional and European gas networks and the establishment of the gas sector and market in Albania. The goal of the GMP is to build a sustainable natural gas system that makes a balanced contribution to the energy system, the security of natural gas supply, to competitiveness and environmental protection, thus providing for security in and availability of natural gas supply for the citizens and the business sector in Albania. In order to assess the future competitiveness of natural gas in Albania, the current energy supply has been analysed and an overview of the current EU gas-related regulations and recommendations has been explained in the GMP. The basics of market models implemented in the modern gas markets have been presented together with basic gas system regulation and tariff principles. In parallel, Albania is also strengthening its administrative capacities related to the gas sector.

The current energy strategy for Albania envisages new exploitation of natural gas and gas supply via the Trans Adriatic Pipeline ("TAP Project") and the Ionian Adriatic Pipeline ("IAP"), mainly. The TAP is expected to bring gas to Albania between 2020 and 2022. The IAP is expected to become operational in the same period. The adoption of the Third Package compliant Law provided a legal basis

for the certification of TAP in Albania, which certification was a precondition for its construction within Albanian territory. The IAP will also be part of the Energy Community Gas Ring (Energy Community Gas cycle), a regional project approved by the Energy Community and the EU.

## 4.2 Regulatory overview

Law No. 102/2015, dated 23 September 2015 on the Gas Market ("Gas Law") transposing the Third Energy Package was adopted in October 2015. It sets out a deadline of 18 months for the adoption of secondary legislation. This deadline was introduced taking into account the current absence of gas infrastructure and a gas market in Albania. The development of secondary legislation with the support of the Energy Community Secretariat commenced in December 2015. The Gas Law defines two main roles:

- (a) The Ministry responsible for the energy sector, i.e. MIE is the supreme institution responsible for: (i) developing policies and plans for sustainable development; (ii) guaranteeing the sustainable and safe development of new natural gas infrastructure; (iii) approving and updating the National Energy Strategy which is further adopted by the Council of Ministers; (iv) preventing and managing crisis situations; (v) approving technical and safety rules; (vi) collecting and processing all information and data on the national energy balance, including the gas market.
- (b) The ERE is responsible for regulations of natural gas activities and also for monitoring the security of gas supply (except for natural gas exploration and production, which is regulated under the Hydrocarbons Law).

With the enactment of the new Gas Law, the ERE has expanded its scope of regulation to cover gas and has begun the preparation of the regulatory framework for the Natural Gas Sector. To date it has amended its Rules of Practice and Procedures and with the assistance of international advisors and donors it has completed the Licensing Procedures for the Natural Gas Sector and is working towards completing the set of rules and regulations to ensure proper functioning of the sector. However, the new Gas Law has substantially improved to ensure full and proper transposition of the Third Energy Package and is to a large extent aligned with the *gas acquis*.

<sup>5</sup> Approved by means of a Council of Ministers Decision No. 87, dated 14 February 2018 on the Approval of the National Plan of the Gas Sector.

The Gas Law provides for the unbundling of the TSO and the DSO. The TSO will conduct its activity solely with regard to the transmission of natural gas and shall be independent in terms of its organisation and decision-making from the other activities not related to transmission. In order to ensure the independence of TSO, the same legal entities shall not be entitled simultaneously to exercise direct or indirect control over the decision-making process with regard to a licensee conducting any activity related to the production or supply of natural gas or electrical energy. Albpetrol, a vertically integrated oil and gas company, is licensed as a natural gas transmission and distribution system operator. Albania has not completed the unbundling of Albpetrol from activities related to the production and supply of natural gas as required by either new Gas Law or with the Third Package requirements.

### 4.3 Regulated natural gas market activities

As noted above the natural gas market is largely regulated and supervised by the ERE. Under the Gas Law the following activities require a licence: (a) transmission; (b) distribution; (c) supply (retail sale); (d) trading (wholesale); (e) operation of natural gas storage facilities; (f) operation of LNG facilities. Each activity requires its own separate licence and the licensing procedures are regulated by the sub-legal acts approved by ERE<sup>6</sup>.

The Gas Law requires all natural gas undertakings to have obtained a license from the ERE before commencing activities in the gas sector, except for the operation of direct pipelines. The detailed procedure is specified in the relevant licensing rules adopted by decision of the regulatory authority - ERE. According to these rules, the duration of the validity of a licence for the transmission, distribution, storage and LNG issued by the ERE shall be for a term of no longer than 30 years with the right of renewal. The duration of validity of a licence for the supply and trading shall be for a term of no longer than 10 years with the right of renewal. In accordance with the relevant provisions of the Gas Law, the ERE can issue a license to a single company for the transmission of natural gas within a definite location. The same principle is also applicable in relation to distribution activities. An exception is applicable in the event of certain other activities and/or other infrastructure of national and strategic importance as determined by the Council of Ministers.

An application for a licence for any of the activities in the natural gas sector must be filed by companies which have a legal presence in Albania (by their duly authorised representative) through the completion of the relevant application with ERE. Together with the application form a set of legal, financial and technical documents must be submitted to the ERE (ensuring the criteria determined by the ERE for each type of activity is met). In the cases when a licensee does not comply with the provisions of the Gas Law, the ERE is entitled to take the necessary administrative measures ranging from the imposition of a fine to the revocation of the licence.

### 4.4 Exploration and production

The exploration and production of natural gas are both activities separately regulated under the Hydrocarbons Law (see below under Section 5).

### 4.5 Transmission and access to the system

As provided for under the Gas Law, the criteria for ensuring that users receive equal treatment and freedom of access to the gas transmission/distribution network are defined by the ERE. The activity of natural gas transmission and distribution is of public interest and is performed respectively by the TSO and DSO.

These operators own, operate, construct and maintain the transmission/distribution systems. They act with transparency and objectivity avoiding discrimination between the system users. The system operators must enter into grid connection and grid access agreements with third persons seeking access. The grid access can only be refused if such access is technically or economically impossible or unreasonable. Upon a request from interested parties and in cases when a TSO/DSO refuses third party access to the grid, the ERE can intervene and review such decisions and, in the event of an unjustified refusal, will order granting of access.

The TSO/DSO publishes the terms and conditions approved by the ERE for the granting of access to the transmission/distribution system to the third parties. There is, however, currently no DSO or TSO in the gas sector or any Codes published in this respect. In practical terms, Albpetrol, which produces natural gas in Albania, is licensed as both the country's only transmission and distribution system operator and it is therefore not unbundled in accordance

<sup>6</sup> Decision No. 9, dated 11 February 2011 of the Board of Commissioners of ERE on Natural Gas Sector Rules and Procedures on Licensing, Modification, Partial/full Transfer, Revocation and Renewal of Licences.

with Directive 2009/73/EC (legal, functional and accounting), putting Albania currently in a state of non-compliance in this respect.

In order to operate a distribution network, a distribution licence issued by the ERE is required in accordance with the Gas Law. This licence is issued on a case-by-case basis and shall contain such terms and conditions as are deemed necessary, convenient or prudent by the ERE. For a distribution licence application an environmental permit, construction site and construction permit are required.

A DSO should provide the efficient and stable distribution of natural gas in accordance with the licence terms. The DSO must connect local customers upon request, in a non-discriminatory manner, to its grid, provided that the operator has sufficient capacity and that the work necessary to make the connection is technically and economically feasible according to the criteria issued by the ERE. The ERE is entitled to order the DSO to provide capacity to new customers in cases where the operator has rejected access in violation of the rules issued on this matter. However, it cannot order the operator to expand its system if this is economically unreasonable. Additionally, the DSO and TSO will prepare long-term investment plans for the development and expansion of the distribution and transmission network for natural gas and such plans will be approved by the ERE based on cost recovery analysis.

The provisions of the EC Regulation related to third party access services, as well as certain transparency-related requirements and requirements for non-discriminatory access to the transmission and distribution networks are transposed by the Gas Law. The conditions for refusal of access are aligned with the *gas acquis*. Access is granted pursuant to the rules and tariffs approved by ERE. There are no obligatory provisions to establish a separate tariff for each entry and exit point to/from the transmission grid. In the absence of significant gas network activities, however neither those provisions nor tariffs for network operators have been implemented. Further, the Law requires a TSO to adopt a Grid Code which would transpose third party access services, capacity allocation and, transparency obligations. As of the present moment Albpetrol has not adopted such a Code.

TAP was granted an exemption from regulated tariffs for initial and expansion capacity in forward flow for 25 years under the

conditionality of providing the relevant methodology in due time and performing a market test for expansion. The tariffs for reverse flow will have to be regulated.

The possibility for an exemption from third party access to new infrastructure is provided in the new Gas Law according to the requirements of Directive 2003/55/EC. The exemption granted to the TAP project was based on the corresponding rules and procedures of the Third Package.

The Law requires all natural gas enterprises to have obtained a license from the ERE before commencing activities in the gas sector, except for the operation of direct pipelines. The detailed procedure is specified in the new Licensing Rules adopted by the ERE pursuant to Directive 2009/73/EC. The previous exception arising from a lack of a provision requiring the notification of a refusal to grant a license to the Secretariat has been rectified by the ERE in November 2015. An amendment was made to the Certification Rules of the natural gas TSO. This regulation is applicable to the authorised gas TSO or any legal entity requiring licensing as a gas TSO. The application of the regulation shall be guaranteed and monitored by ERE.

#### 4.6 Trading and supply

As provided for by the Gas Law, the ERE is authorised to regulate the procedures and principles for tariff-setting. Accordingly, the regulated activities for which the ERE is empowered to determine the tariffs are: entry into the transmission/distribution network, connection with the distribution/transmission network, entry into the deposit areas and LNG installations, auxiliary services, balancing and supply of the tariff consumers. Other activities such as the wholesale trade of natural gas between suppliers and retail trade between suppliers and eligible customers are non-regulated activities and the prices are adjusted on the basis of market demand. The ERE tariff methodology shall include prices, terms and tariff conditions, which are transparent, non-discriminatory to all users by taking into account the need for integrity of the gas system and reflecting the costs incurred to include an adequate return on investment ratio.

#### 4.7 LNG and storage capacity

The diversification of energy sources, through the development of the gas sector, consists of: creating a complete legal and institutional framework for the sector; the undertaking of a number of regulatory initiatives and investment projects in the gas



infrastructure and market, whose main objective is to ensure significant security of energy supply through integration of the Albanian natural gas network on the regional and European ones, and increased economic benefits for the population and the different sectors of the economy in the country.

(a) Activities planned for 2019

- (i) Adoption of Gas Master Plan for Albania and the Project Identification Plan (approved by the CMD No. 87, dated 14 February 2018), which are considered National Sectorial Plan for the gas Albania's Economic Reform Programme 2019-2021;
- (ii) Preparation by the Consultant SUEZ IPF6 of the preliminary technical design for the Albanian and Montenegrin part of the IAP pipeline, on the frame of the grant EUR 2.5 million financing by WBIF;
- (iii) Finalisation of the preparation by the Consultant COWI IPF4 of the prefeasibility study for the ALKOGAP project (Albania-Kosovo gas interconnection), on the frame of the grant EUR 0.3 million financing by WBIF;
- (iv) Starting preparation for the detailed technical design of the gas pipeline connecting Vlora TPP with the TAP project in the compression station in Fieri region (PIP 1, refer to the Gas Master Plan for Albania), based on the decision of the 19th Steering Committee Meeting of WBIF for the 20th Round of WBIF for approval of financing grant of EUR 1.1 million (referring to the Feasibility Study for the gas pipeline connecting the Vlora Thermo Power Plant with the TAP pipeline project at the compression station in the Fieri region, finalised in March 2018);
- (v) Construction by the Trans Adriatic Pipeline AG (TAP AG) of the Initial Albanian Exit Facility or IAEF) at the TAP gas pipeline near the Compressor Station on the Fieri Municipality (refer to the CMD No. 233, dated 21 March 2017 on the Approval of a Commitment Agreement for the Development of the Gas Market and the Agreement on Local Benefits, concluded between the Republic of Albania, acting through the Council of Ministers, and Trans Adriatic Pipeline AG, regarding the TAP Project). The investment for construction of the IAEF will be financed totally by TAP AG and is estimated at around EUR 3 million.
- (vi) Starting the preparation of the Feasibility Study for the Underground Gas Storage in the Dumrea Region (UGS Dumrea), based on the decision the 19th Steering Committee of WBIF for the 20th Round of WBIF for approval financing grant of EUR 1 million.

(b) Activities planned for 2020

- (i) Finalisation of the preparation by the Consultant SUEZ IPF6 of the preliminary technical design for the Albanian and Montenegrin part of the IAP pipeline, on the frame of the grant EUR 2.5 million financing by WBIF;
- (ii) Preparation of the detailed technical design of the gas pipeline connecting Vlora TPP with the TAP project in the compression station in Fieri region, based on the WBIF grant financing EUR 1.1 million;
- (iii) Entering into operation of the Initial Albanian Exit Facility (IAEF) at the TAP gas pipeline near the Compressor Station on the Fieri Municipality, constructed by the Trans Adriatic Pipeline AG (TAP AG). Total investment by TAP AG is around EUR 3 million;
- (iv) Preparation of the Feasibility Study and ESIA for the Underground Gas Storage in the Dumrea Region (UGS Dumrea), based on the WBIF grant financing EUR 1 million;
- (v) Starting the preparation of the feasibility study and ESIA for the ALKOGAP project (Albania - Kosovo gas interconnection), based on the conclusion of the prefeasibility study (application to WBIF for around EUR 1.15 million grant).

(c) Activities planned for 2021

- (i) Preparation for starting the construction works for the gas pipeline connecting Vlora TPP with the TAP project in the compression station in Fieri region;
- (ii) Finalisation of the preparation of the Feasibility Study and ESIA for the Underground Gas Storage in the Dumrea Region (UGS Dumrea), based on the WBIF grant financing EUR 0.8 million;
- (iii) Preparation of the feasibility study and ESIA for the ALKOGAP project (Albania-Kosovo gas interconnection), based on the conclusion of the prefeasibility study (application to WBIF for around EUR 1.15 million grant);
- (iv) Starting the preparation of the feasibility study for the gas pipeline project TAP - Fier – Ballsh (PIP 2), based on the conclusion of the prefeasibility study prepared on the frame of the Gas Master Plan for Albania, approved by the CMD No. 87, dated 14 February 2018 (application to WBIF for around EUR 0.8 million grant).

(d) Albania's Economic Reform Programme 2019-2021

The preparation of the feasibility study for the gas pipeline projects, which will connect Tirana and Durres municipalities with the IAP Project (PIP 3), based on the conclusion of the prefeasibility study prepared on the frame of the Gas Master Plan for Albania,

approved by the CMD No. 87, dated 14 February 2018, will start (application to WBIF for around EUR 0.8 million grant). Preparation of several studies like prefeasibility and feasibility studies, or preliminary and detailed technical design for the Albanian gas projects are planned to receive financial and technical support from WBIF. Meanwhile, the construction of the Initial Albanian Exit Facility (IAEF) at the TAP gas pipeline near the Compressor Station on the Fieri Municipality is agreed to be financed by the Trans Adriatic Pipeline AG (TAP AG). The total investment by TAP AG is around EUR 3 million.

## 5. UPSTREAM OIL MARKET

### 5.1 Market overview

All natural resources in Albania (inland and offshore) are owned by the state which has the right to explore, develop, extract, exploit and utilise them. Pursuant to Law No. 7746, dated 28 July 1993 on Hydrocarbons (exploration and production), as amended (the "**Hydrocarbons Law**"), the state acting through the MIE is entitled to grant a petroleum agreement to a person [one type of which is a Production Sharing Agreement ("**PSA**")], the right to explore, develop and exploit hydrocarbons in a defined area as agreed in the relevant PSA. The Natural Agency for Natural Resources ("**AKBN**") was created back in 2006 to deal, *inter alia*, with hydrocarbon activities on behalf of the Albanian state. The AKBN is a specialised institution dealing with the negotiations of the PSA, the monitoring of petroleum activities and policy-making processes.

The governmental objective is to negotiate the terms of the PSA with the oil industry in a fair and balanced manner, by taking into consideration the typical risks associated with exploration and the state's legal entitlement to revenue as the owner of the natural resources. There are predetermined means to grant a free block for exploration, development and production activities, so it can be either granted by the initiative of the MIE launching a tender process or the MIE inviting other interested parties to express their interest to this particular block in case a request or the same block has been lodged with the ministry. The blocks/ oilfields/ reserves designated for exploration, development and production are set out by the MIE itself.

Albania stands among 51 countries adhering to the Extractive Industry Transparency Initiative ("**EITI**"), a global initiative that

seeks to improve the governance of the extractive sector. As of April 2015, different public entities from local and central government levels as well as current contractors that have entered into PSAs, are obliged to report to the EITI, pursuant to the standards set forth from this later and secondary applicable legislation.

### 5.2 Regulatory overview

Petroleum operations are regulated under the Hydrocarbons Law which together with a few accompanying regulatory acts and the Decree No. 782, dated 22 February 1994 on the Fiscal System in the Petroleum Sector, as amended ("**Law on Petroleum Taxation**"), forms the legal framework for the exploration, development and exploitation of petroleum in Albania.

Any person wishing to carry out petroleum operations must firstly obtain either a prospecting permit or enter into a PSA with terms and conditions which will be negotiated with the AKBN. In the latter case there is no separate licence per se; all matters are regulated and encompassed in the relevant PSA.

Taxation on petroleum, regulated by Law on Petroleum Taxation is levied as flat tax on the taxable profit. Under this law, the taxable profit is equal to accumulated revenue less accumulated capital and operating expenses as specified in the terms of the Petroleum Agreement. Accordingly, profit tax is applied when cumulative revenue exceeds capital and operating expenses accumulated since the start of operations.

Foreign investors becoming part of a petroleum agreement may negotiate fiscal stability terms to prevent future changes in certain taxes, however, such stability should be limited to a certain period of time, applicable upon the entry into force of the relevant PSA and should not be extended during the entire term of the said PSA.

The current PSAs applicable in Albania are based on a cost-recovery contract model and the GoA share is determined from the split of profit oil pursuant to the relevant percentages specified in each PSA. The contractor is entitled to recover all costs and expenses under the abovementioned PSA model, out of the share of available petroleum (i.e. the cost oil, which is sometimes called "cost recovery petroleum, cost recovery crude oil or cost recovery gas", as applicable). Whereas the stock of petroleum outstanding after the recovery of the contract costs, which is considered as "profit oil", should be allocated between the contractor and the GoA in accordance with a scale/ formula specified in each PSA. The Hydrocarbons Law does not set out a specific manner of calculating

the share or parameters since such is subject to negotiations between the parties of the PSA. At the beginning of 2016, the MIE publicly announced changes in the cost recovery model aiming to obtain from the oil companies the profit tax since the start of the production phase. According to this new model, 90 per cent of revenue will be allocated for a cost recovery purpose, while 10 per cent of revenue will be classified as net profit and taxed in accordance with petroleum profit tax law and regulation. The new cost recovery model described above and limitations in fiscal stability clauses were incorporated in the most recent PSAs granted since 2017.

In February 2017 the Albanian parliament approved Law No. 8/2017, dated 2 February 2017 on the Status of Workers in the Petroleum and Gas Industry, which sets minimum financial and healthcare benefits for the workers in the petroleum and gas industry. Both current and former petroleum workers will benefit from this status. They will be entitled to a salary not less than 150 per cent of the minimum salary in force, higher pension payments and will further benefit from paid leave, which is double the time of paid leave labour regulatory framework in Albania. In case of illness, directly or indirectly caused by their work conditions, the GoA will cover the treatment costs through a special health fund. The workers are further entitled to a payment in case their employment is terminated due to sector/ company restructuring. Petroleum agreements awarded after the enforcement of this new law shall request oil companies to establish and manage a professional pension fund with contributes amounting to no less than 10 per cent of their employees' gross salaries.

### 5.3 Regulated oil market activities

With the exception of activities conducted pursuant to a prospecting permit, no person can engage in petroleum operations without being authorised by the MIE in accordance with the agreed terms and conditions stipulated in a Petroleum Agreement/PSA.

A prospecting permit authorises the holder to carry out, *inter alia*, perform prospecting activities in the areas covered by the permit by means of aerial, geophysical, geochemical, paleontological, geological, topographical and seismic surveys and to study their interpretation; and file an application for a PSA, if petroleum is discovered.

The Hydrocarbons Law states that the permit shall be valid for a two-year term, shall be not exclusive, shall not authorise the

drilling of exploration wells and shall not grant to the permit holder any priority right (over any other party/person) to enter into a Petroleum Agreement/PSA with MIE, except when expressly stated so in the prospecting permit.

The PSA is a contract entered into between the AKBN acting on behalf of the MIE and the contractor allowing for the exclusive rights for the contractor to undertake explorations within the contract area for a period of five years (subject to extension as noted below) and exclusive rights to exploit for a period of no more than 25 years. Other typical provisions in a PSA relate to:

- (a) Contractor property rights and right to construct and operate required infrastructure subject to third party rights and access under the law;
- (b) Contractor right to trade and export petroleum exploited under the terms of the PSA;
- (c) Fiscal regime applicable to operations (and exemptions applicable under the law);
- (d) Obligation to perform a minimum work program backed by a performance guarantee;
- (e) Obligation to present an annual work program and budget;
- (f) Preference given to local employment and supplies during petroleum operations, where these are competitive in terms of quality, availability and cost;
- (g) Change of law indemnities measures;
- (h) Obligation of the Contractor to carry out the Petroleum operations in a safe and proper manner in accordance with the generally accepted international petroleum industry practice and by causing minimal damage as is reasonably practicable to the general environment including, *inter alia*, the surface air, seas, lakes, rivers, marine life, animal life, plant life, crops, other natural resources and property, and shall forthwith repair any damage caused to the extent repairable, and shall pay reasonable compensation for all damage which is beyond repair.

Under the PSA the Contractor is authorised to conduct petroleum operations during an initial exploration period which can be extended twice. It is preferred that the exploration period includes a drilling commitment by the contractor. The phases of the Exploration Period are subject to negotiation. In the event that the Contractor declares a commercial discovery during the exploration period, it has the right then to proceed and extend for a development/production period of 25 years, which can also be

extended. During the exploration period, the Contractor is subject to minimum work programs and expenditure obligations.

Exploration expenditures and capital expenditures are recoverable only in the case of a commercial discovery but not before the start-up of production. Operating expenditures are recoverable during the year in which they are incurred. Reasonable and necessary administrative expenditures of the Contractor are also recoverable. The Contractor is subject to tax on profit at a rate of 50 per cent of the realised profit and the royalty at typically 10 per cent of sales revenues.

Last but not least, it is the main priority of the government to reform the oil sector by restructuring and privatising the national state-owned company Albpetrol, the changes provide confirmation that the petroleum agreement (“**Albpetrol Agreement**”) entered into on 26 July 1993 between Albpetrol and the Ministry at the time responsible for the energy sector, will be in force after Albpetrol’s privatisation process. In addition, all rights over the management of free oil and gas blocks (blocks yet not operated by contractors), previously granted to Albpetrol, have been transferred from Albpetrol to MIE. The Ministry will have the sole discretion to negotiate with possible investors the petroleum agreement related to any free block and Albpetrol, once privatised, will only be responsible for blocks in which Albpetrol is currently conducting petroleum activities autonomously. After Albpetrol’s privatisation, the MIE and Albpetrol will enter into a new Petroleum Agreement, to determine the terms and conditions of Albpetrol’s activities and to confirm the blocks in which Albpetrol will continue its activities.

#### **5.4 Material provisions of the hydrocarbons’ legislation and other licensing regulations**

As of February 2017, the procedures for entering into a hydrocarbon agreement for the exploration, development and production of hydrocarbons are made through either the notice of the relevant MIE inviting the interested parties to participate through applications (so through the launch of a tender process); or invitation of other entities for submitting their applications, invited by the MIE, once they have already received a request for exploring/developing a block /blocks or specified resource/s. Further, the MIE reasons of national security may refuse to enter into a new PSA or may refuse the approval of the assignment of shares of an existing hydrocarbon agreement.

The Petroleum law offers some incentives to foreign contractors, amongst which, the right to export their share of production derived from operations in Albania unless there is an emergency call on the supply of crude oil in the local market.

As a matter of law, the conclusion of a PSA is exclusively based on the provisions of the Hydrocarbons Law and two ‘umbrella’ agreements (in case of reserves administered by Albpetrol). The first is Albpetrol Agreement, a special petroleum agreement concluded on 26 July 1993 between the Albanian state oil company (Albpetrol) and the MIE, acting on behalf of the Albanian state which is the sole owner of oil deposits. Under the Albpetrol Agreement, Albpetrol is entitled to carry out petroleum operations in certain oilfields and to do so also in cooperation with private companies under individual petroleum agreements (PSCs, etc.). This is so, provided that Albpetrol has previously concluded for the specific oilfield, a so-called license agreement with MIE, duly represented by AKBN. Basically, by means of the license agreement, the Ministry (AKBN) entitles Albpetrol to conduct petroleum operations in the contract area and enter into PSAs with private contractors. The PSA between Albpetrol and the specific contractor makes them both part of the Licensee under a license agreement and jointly and severally liable to the Ministry (AKBN) pursuant to the license agreement. Albpetrol has no longer any pre-emption right over the free blocks. So, in case of early termination of a PSA entered between MIE, Albpetrol and a contractor, Albpetrol will not have the exclusive right to continue any petroleum activity until the expiry date of the said PSA. The MIE will have the right to assign the free blocks to potential new contractors, according to the regulation on new petroleum agreements’ approval procedure. As regards blocks administered directly by AKBN, only a single agreement, mostly in the form of a PSA is directly entered with the AKBN.

#### **5.5 Exploration and production activities in the past decade**

Albania is home to the largest onshore oil field in Europe (i.e. Patos Marinza with 7.5 billion barrels original oil in place). A number of foreign investors have already entered this market, most notably Bankers Petroleum which operates and has a 100 per cent interest in the development of the Patos Marinza oil field. Another potential oil and gas field in Albania is the Molisht-Shpirag hydrocarbon area, where Royall Dutch Shell through its wholly-owned subsidiary Shell Upstream Albania is at present carrying out hydrocarbon exploration operations, by drilling an oil appraisal

well, its fourth in the area, Shpirag-4 (the previous ones being Shpirag-2, Molisht-1 and Shpirag-3). Shell is currently appraising the oil and gas prospect of Shpirag, as following the drilling of Shpirag-4 well, and tests conducted in 2013 and 2018 in two different wells, are expected to notice a major discovery, the presence of a considerable quantity of oil and gas in this area.

The GoA granted several PSAs for exploration blocks in Albania over the last decade and counted two commercial discoveries, one of light oil in well Shpiragu-2 announced by the joint venture of Petromanas Albania GmbH and Shell Upstream Albania B.V. in 2013 and the second one in well Shpiragu-4 announced by Shell Upstream Albania B.V. in 2018. Yet, the MIE granted PSAs only for 14 out of 24 oil exploration blocks in Albania during the last decade, where:

- (i) PSAs concerning onshore block A, B, C, and D the contractor terminated the PSA due to loss of commercial interest;
- (ii) PSAs concerning offshore block Adriatiku 2, 3, and 4 have been abandoned by the licensed operator; and
- (iii) PSAs concerning offshore block Joni 5 and Durres are in process of early termination.

At the end of 2017, the MIE counts PSAs on eight exploration blocks (two of which are being explored by Shell Upstream Albania B.V.).

During 2015, the MIE announced procedures for allocation of the free onshore exploration blocks, namely 4, 5, C, Panaja and Dumre and free offshore exploration blocks, namely Joni-5 and Rodoni. In response to such announcement of new investment opportunities in the crude oil and gas production, only two bids resulted successfully, respectively block 4 which is awarded to Shell Upstream Albania B.V. (the relevant PSA was executed) and block of Dumre awarded to Delek Group (the relevant PSA was not executed). Also, in 2015 Pennine Petroleum SHA announced being awarded exclusivity to negotiate for the Velca Block, in south-central Albania, which finalised in signing a PSA with Albpetrol SHA in February 2017. However, the contract is under consideration from Albpetrol for potential termination due to the contractor's failure to fulfil outstanding obligations (bidding procedures announced in the past on this block had failed due to low attractiveness of this exploration block).

On 15 March 2016, MIE and AKBN undersigned a PSA with Albanides Energy Ltd, licensing the on-shore exploration block

number 8. MIE and AKBN have not announced any process of allocation of exploration block 8 or being in process of contract negotiations with Albanides Energy prior to the actual PSA sign off and approval.

## 6. FORTHCOMING DEVELOPMENTS IN THE ALBANIAN ENERGY SECTOR

The desired full and complete liberalisation of the energy sector is not quite accomplished yet and there are still fundamental reforms required and legal framework to be reinforced. The first step was made with the adoption of the new Power Sector Law which sets as a priority the development of a competitive energy market; the encouragement of a regional and European electricity trade and the improvement of investment conditions in the electricity sector. The subsidiary legislation is yet to be amended and aligned with the new Power Sector Law.

As part of the package of legislation in the energy sector, a new law on Energy Efficiency has been enacted, which has partially transposed the Directive 2012/27/EU and other amendments of this Law are currently under drafting process aiming the full transposition of the Energy Efficiency Directive.

The Gas Sector Law shall also be amended by fully bringing it in line with the Third Package of European Union Directives on the energy sector. Further, a market model, a gas penetration plan and tariff methodologies are still to be developed.

In respect of the oil and gas sector, regulatory and policy developments are also underway as part of the overall state energy strategy. A new regulation and a draft law on the activity of exploration and production of hydrocarbons in Albania are expected to be approved by the GoA. This regulation and the proposed draft law shall establish the main procedures, terms and conditions for licensing entities in the field of exploration and production of hydrocarbons in Albania and is also expected to adjust the competences and responsibilities of state authorities and entities involved in the hydrocarbons sector in Albania.



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# BOSNIA AND HERZEGOVINA

## 1. INTRODUCTION TO THE ENERGY MARKET

The central location of Bosnia and Herzegovina in the Balkans makes it the intersection of all major infrastructure related projects. In spite of its relatively complex legal and political system, Bosnia and Herzegovina represents an increasingly interesting market for foreign investors.

The strong hydro and wind power potential of Bosnia and Herzegovina gives it a natural predisposition in the development of renewable energy, making it one of the few non-EU countries that has already met EU targets in the amount of electricity produced from renewable energy sources. The latest political changes in Bosnia and Herzegovina have been followed by announcements of new legislation, aimed at simplifying and re-organising the complex legal and administrative framework related to the development of energy facilities.

Being a Contracting Party to the Treaty establishing the Energy Community, Bosnia and Herzegovina is obliged to transpose the so-called EU Third Energy Package into the domestic legislation and to ensure practical implementation of its requirements. Full transposition of the relevant EU legislation in electricity and natural gas sectors has to be done by the end of 2014, while its implementation through various reforms in regulatory, administrative and corporate fields – by the end of 2015. Additionally, Bosnia and Herzegovina is also bound by certain EU requirements regulating renewable energy sector, oil and petroleum products, environmental protection, energy efficiency and energy statistics.

Transposition and implementation of the EU law shall *inter alia* result in full opening of electricity and natural gas markets from 1 January 2015, as well as in unbundling of vertically integrated energy undertakings, practically ensured supplier switching,

liberalised trading schemes in energy products and financial derivatives, and market-based energy pricing. Together with an expected diversification of the use of primary energy sources, awaited legal and regulatory reforms will enhance the development of competitive and liquid energy markets.

## 2. ELECTRICITY

### 2.1 Market overview

The electricity sector in Bosnia and Herzegovina is characterised by its fragmentation. The legal, administrative and regulatory frameworks for electricity generation, distribution and supply are divided between the Entities of the Federation of Bosnia and Herzegovina and Republika Srpska, and the Brčko District. Despite the legal concept of a single electricity market in Bosnia and Herzegovina, the three jurisdictions operate in parallel under separate sets of legislative framework.

Each within the boundaries of its own jurisdiction, the Governments of the Entities and the Brčko District dominate with their ownership and management rights in the incumbent electricity companies. The two vertically integrated enterprises in the Federation of Bosnia and Herzegovina, *Elektroprivreda Bosne i Hercegovine* ("EP BiH") and *Elektroprivreda Hrvatske Zajednice Herceg-Bosne* ("EP HZHB") are 90 per cent owned by the Federation. In their respective territories they are distribution system operators, as well as factual monopolies for electricity generation and electricity supply to all customers. In Republika Srpska, the holding *Elektroprivreda Republike Srpske* ("EP RS") is 100 per cent owned by the Entity, and is the owner of 65 per cent of the shares in all of its subsidiaries (five for electricity generation and five for distribution and supply). The enterprise *Komunalno Brčko* is a horizontally integrated communal utility, 100 per cent owned by Brčko District, which operates the local distribution network and provides electricity supply to all customers in the District.

The transmission system is organised and operated at the State-level and is separated into two companies. The independent system operator *Nezavisni Operator Sistema BiH* ("NOS BiH") is a non-profit enterprise established in 2004, responsible for the dispatching of generation, operation and balancing of the electricity system and allocation of the cross-border interconnection capacity. NOS BiH is not corporatized and operates as a state-level service provider financed through a regulated tariff approved by the State Energy Regulatory Commission (DERK). NOS BiH is owned by the two Entities in the same ratio as the transmission company.

The shares of the transmission company *Elektroprenos-Elektrprijenos BiH* (also referred to as *Transco*) belong to the two Entities – Federation of Bosnia and Herzegovina (58.90 per cent) and Republika Srpska (41.10 per cent). *Elektroprenos* owns the transmission network and bears the responsibility for the connection of generation and loads to the network, its maintenance and development, the transmission of electricity and metering. The transmission network of Bosnia and Herzegovina is interconnected with the neighbouring systems of Croatia, Serbia and Montenegro.

The electricity market in Bosnia and Herzegovina is not sufficiently developed. Its fragmentation along the Entity borders follows the constitutional design of Bosnia and Herzegovina. The co-existence of several sets of legal frameworks and utilities could stimulate intra-domestic competition and market opening. However, despite the absence of legal or regulatory barriers for supplier switching, to date only one customer in Bosnia and Herzegovina is supplied by a supplier outside his own territory. With the production also monopolised by the utilities or their subsidiaries, and the cost of generation regulated at relatively low levels in all jurisdictions, the entry of any new supplier is hardly conceivable.

On the wholesale market, the only players are the three incumbent enterprises (all except *Komunalno Brčko*) and 22 licensed traders – supplying one another with energy for covering their local demands, providing ancillary services, and providing energy for balancing the system and for export. Trading patterns generally encompass bilateral OTC agreements – no spot-trading mechanisms have been established. Energy for balancing is provided by the incumbent generators under prices regulated by DERK, only exceptionally it is provided through imports performed by NOS BiH (under the market clearing price). The only balance responsible parties in Bosnia and Herzegovina are the distribution companies or utilities, each responsible for the imbalances of its own customers.

The active traders eventually licensed for supply, with their limited service portfolios do not comply with the needs of all categories of eligible customers. No customer except one (*Aluminij-Mostar*) has switched away from its local incumbent utility.

The utility *Komunalno Brčko* is supplied with electricity from one of the neighbouring utilities, through annual full-supply regulated contracts with a preferable supplier from one of the two Entities, including electricity supply for all customers in Brčko District, full balance responsibility and provision of network services. Since 2010 the supplier for Brčko District has been EP RS.

On the retail market, the largest importer and the only customer not supplied by its local incumbent was again the aluminium producer *Aluminij-Mostar* which covered 47.3 per cent of its consumption from HEP (Croatia). This translates into a market share of 8.2 per cent of the overall electricity supplied in Bosnia and Herzegovina.

In 2012, the final consumption of electricity in Bosnia and Herzegovina reached up to 11,047 GWh. Local electricity production amounted for 12,935 GWh, the absolute majority of which was generated by hydropower plants (including small hydropower plants and pump-storage power plant) and coal fired thermal power plants. Bosnia and Herzegovina also imported 4,215 GWh and exported 4,525 GWh of electricity.

## 2.2 Regulatory overview

Jurisdictional and regulatory competences in the electricity sector of Bosnia and Herzegovina, following its constitutional setup, are divided between the State level, the Entities and the Brčko District. Consequently, there are four regulatory frameworks which in parallel do regulate respective electricity activities in the country with a rather limited scale of their inter-harmonisation.

At the State level, the Law on Transmission of Electric Power, Regulator and System Operator of Bosnia and Herzegovina, as adopted in 2002 and further amended, regulates activities of the transmission system operation and transmission of electricity, cross-border trade in electricity, and designation, functioning and decision-making powers of DERK. This law defines the electricity market of Bosnia and Herzegovina as "a single economic space".

Also the Law Establishing the Company for the Transmission of Electric Power in Bosnia and Herzegovina, as adopted in 2004 and

further amended, and the Law Establishing an Independent System Operator for the Transmission System of Bosnia and Herzegovina, as adopted in 2004, respectively regulate corporate setup and competences of *Transco* and NOS BiH. Based on these laws, the operation of the electricity transmission system in Bosnia and Herzegovina is structured as a very specifically adapted model of an independent system operator. However, separation of functions between *Transco* and NOS BiH, including those related to the transmission of electricity, is not fully clear and creates dead-lock situations in decision-making which vital for effective and reliable functioning of the network. Therefore, unbundling of the transmission system operator is one of the key targets, both with legal and political reference, for further regulatory reforms.

In the Federation of Bosnia and Herzegovina, the electricity sector is regulated by the Law on Electric Power, a new wording of which was adopted in August 2013. In Republika Srpska, the regulatory framework for electricity is established by the Law on Energy, as adopted in 2009, and the Law on Electricity, as adopted in 2008 and further amended. As for the Brčko District, its Law on Electricity adopted in 2004 and further amended regulates electricity activities within the territory of the District.

Considering regulatory fields vested for an exclusive competence of the State level, the Entities and the Brčko District keep their jurisdictional powers in all remaining fields of the electricity sector, namely – generation, distribution, supply of and internal trade in electricity.

Divided jurisdictional and regulatory competences also mean that separate authorities are designated for regulation, monitoring and supervision of regulated electricity activities. As it was already mentioned, DERK is designated as an independent State-level regulatory authority in charge for the regulation of activities falling within the jurisdictional scope of the State. DERK is also designated as a regulatory authority of the Brčko District. In the Entities, the Regulatory Commission for Energy in the Federation of Bosnia and Herzegovina (FERK) and the Regulatory Commission for Energy of Republika Srpska (RERS) are designated for the regulation of respective electricity activities.

It has to be noted that the EU law expressly requires the countries to designate a single regulatory authority at the national level. Currently, DERK represent Bosnia and Herzegovina in international cooperation of regulatory authorities, however, its limited powers

outside the regulatory scope of the State make it impossible to act as a single – or senior – regulatory authority for electricity in Bosnia and Herzegovina. Restructuring of regulatory competences by granting DERK respective monitoring and enforcement powers in all fields of electricity is one of the issues to be targeted within the scope of future legal and regulatory reforms.

At the very beginning of 2014 the EU Instrument for Pre-Accession Assistance (IPA) project “Development of the EU *acquis*-compliant electricity legislative framework in Bosnia and Herzegovina” was concluded by submitting legal drafts for primary and secondary legislation transposing the EU Third Energy Package in all four jurisdictions of Bosnia and Herzegovina. Draft legislation proposed by the projects aims at full compliance of the legal framework with the EU law and maximum harmonisation of regulatory practices between different jurisdictions. Outcomes of the project shall be further on taken by competent authorities through the legislative procedures in order to meet the country's commitments under the Treaty establishing the Energy Community.

## 2.3 Regulated electricity activities

The following electricity activities are regulated in Bosnia and Herzegovina and are subject to licenses issued by competent regulatory authorities:

1. The State level:
  - Transmission of electricity—a license is issued to the company responsible for the transmission of electricity within the entire territory of the country (currently – *Transco*);
  - Operation of the transmission system – a license is issued to the transmission system operator in charge for the operation of the transmission network within the entire territory of the country (currently – NOS BiH); and
  - Cross-border trade in electricity – a license is issued for all electricity undertakings willing to perform an international trade in electricity (import/export of electricity).
2. The Entities and the Brčko District:
  - Generation of electricity—a license is issued to all undertakings operating electricity generation facilities and willing to perform the commercial production of electricity;
  - Distribution of electricity—a license is issued to electricity undertakings operating the distribution grid and providing electricity delivery services for final customers (currently EP BiH, EP HZHB, EP RS and *Komunalno Brčko*);

- Supply of electricity—a license is issued to all undertakings willing to sell electricity to final customers (does not include physical delivery); and
- Trade in electricity – a license is issued for all electricity undertakings willing to trade in electricity on the internal market (does not include cross-border trade and supply).

It has to be noted, that licences issued for the supply of or trade in electricity in any of the Entities or the Brčko District shall be acknowledged and fully valid within the entire territory of Bosnia and Herzegovina. Other activities – generation, transmission and distribution – are limited to the specific territory and/or energy facilities.

## 2.4 Material provisions of the electricity market law and licensing regulations

Only companies established, and registered, in accordance with the laws of Bosnia and Herzegovina, and provided that they have been licensed to perform the activities determined by these laws, may perform one or more electricity market activities.

Electricity licences, as listed hereinabove, are regulated under the licensing rules adopted by competent regulatory authorities and applicable in their respective jurisdictions. The licensing rules prescribe the procedures for decision-making on licence application, the contents of licence applications, criteria for licence issuance, the conditions for licensing, contents of licences, the requests for modification, amendment, transmission and revocation of licences, registry of licences and conditions of monitoring.

### *The State level*

The Regulation on Licences adopted by DERK defines procedure and criteria for licence issuing by the DERK, including the procedure for filing the application, review of the application and its issuing, as well as deadlines for decision making on the application, and criteria required for the approval or rejection of the application, for obtaining the licence and the content and requirements of the licence. The Regulation on Licences further defines the manner of modification, suspension, and revocation of the licence, as well as procedures for sale, granting, lease or transfer of the licence.

Together with the application, the documents defined in Article 18 and 19 point c) of the Regulation on Licences must be submitted. The general criteria for licensing are stipulated by Article 21 of the Regulation on Licences. In addition, the Applicant must fulfil specific

criteria related to the licences for international trade prescribed by Article 22 point c). The specific criteria for the licence for international trade are as follows:

- The Applicant has had no history of criminal or civil adjudications for fraud, financial impropriety or serious licence violations at electricity markets inside and outside of Bosnia and Herzegovina;
- The Applicant has a proven ability to provide appropriate financial and performance guarantees for his/her business activity;
- The Applicant has given a statement that he/she will comply with the market rules;
- The Applicant has registered capital to the amount of at least BAM 1 million, equivalent to EUR 511,291.88;
- The Applicant has provided evidence that he/she will obtain the appropriate trading licence from the FERK or the RERS prior to the commencement of the activity of the international trade in accordance with the DERK licence.

DERK issues licences for a defined time period. A licensee who intends to extend the licensed activity must file an application at least 180 days before expiration of the licence.

DERK may re-open and modify a licence either upon a request by the licensee or, as a result of clear and unpredictable changes in circumstances and the licensee has been provided with reasonable notice and the possibility of a hearing.

DERK may suspend the licence for a definite or an indefinite period, or revoke the licence permanently in the cases stipulated in Article 30 of the Regulation on Licences.

If the licensee wishes to sell, grant, transfer, lease or in another manner perform the transfer of his/her licence, the activities which are subject to the licence or assets from the licence, he/she must obtain permission from DERK for such an act. The new licensee must obtain permission for transfer of the licence issued by DERK before he/she starts performing the activity.

### *The Federation of Bosnia and Herzegovina*

#### (a) Generation licence

Together with the application for a licence for generation or distribution, the documents defined in Article 19 of the Licensing Rule adopted by FERK must also be submitted.

A production licence may be issued to an Applicant if the Applicant demonstrates the following:

- It has fulfilled all technical, operational, safety, and other conditions in accordance with applicable regulations and standards;
- It has fulfilled all established criteria for the protection of the environment and will ensure continuous control over the impact on the environment;
- It has provided high-quality power generation, from the point of view of safety, reliability, energy efficiency, and auxiliary services, and high-quality electricity for customers, in accordance with applicable regulations and standards;
- It has sufficient employees with expert qualifications for the performance of the activities;
- It or its management have not been found culpable of economic crime or convicted under criminal laws for fraud or financial impropriety, and have not been found liable for any significant licence violations or environmental infractions in the Applicant's electricity activities;
- It has provided the appropriate financial guarantees of performance to assure that the licensee will fulfil all licence conditions;
- It has demonstrated that it will comply with all market rules prescribed for the electricity market;
- It has demonstrated the capacity to provide accounting reports to the FERK in the format and detail required by FERK or other authorities;
- It has demonstrated the financial and technical capacity to dispose of all generation-related waste and to decommission and/or remove all generation facilities in compliance with technical and environmental requirements.

#### (b) Distribution licence

A power distribution licence may be issued to an Applicant if the Applicant proves the following:

- It has fulfilled all the technical, operational, safety, and other conditions in the operation of its distribution plants, devices and equipment;
- It has metering devices on electricity delivery points;
- It has fulfilled all established criteria for the protection of the environment and will ensure continuous control over impact on people and environmental protection;
- It has provided quality services regarding safety, reliability, energy efficiency, and quality electricity for customers, in accordance with the applicable regulations and standards;

- It has sufficient employees with expert qualifications for performance of the activities;
- It has established an efficient system of meter readings for the purpose of electricity billing;
- It or its management have not been found culpable of economic crime or convicted under criminal laws for fraud, financial impropriety, significant licence violations, or environmental infractions in the Applicant's field of activities;
- It has provided the appropriate financial guarantees of performance to assure that the licensee will fulfil all licence conditions;
- It has demonstrated that it will comply with all the prescribed market rules specified for the electric power market;
- It has demonstrated the capacity to provide accounting reports to FERK in the format and detail required by FERK or other authorities;
- It has proved the financial and technical capacity to decommission and/or remove all distribution facilities in compliance with technical and environmental requirements after the expiration of licence validity, and in the cases specified in the licence.

#### (c) Supply licence

There are two types of power supply licences:

1. "Tier 1 Supply Licence" is required for a distributor which supplies the electricity for non-eligible (tariff) customers and who has a separate trade activity;
2. "Tier 2 Supply Licence" is required for any legal person engaged in supply other than the distributor required to obtain a Tier 1 Supply Licence. A Tier 2 Supply Licence may also be granted to a distributor who holds a Tier 1 Supply Licence at the sole discretion of FERK but with sufficient licence conditions to ensure that the interests of non-eligible (tariff) customers are fully protected.

Together with the application for a Supply Licence (Tier 1 and 2), the documents defined in Article 29 of the Licensing Rule must be submitted.

The Tier 1 Supply Licence may be issued to a distributor who supplies electric power to non-eligible (tariff) buyers if the Applicant proves the following:

- It has fulfilled all the technical, operational, safety, and other conditions in the operation of its supply facilities and equipment;

- It has fulfilled all the established criteria for the protection of the environment and will ensure continuous control over any impact on the environment;
- It has provided high-quality service relating to safety, reliability, energy efficiency, and high-quality electricity to customers in accordance with the applicable regulations and standards;
- It has sufficient employees with expert qualifications for the performance of activities;
- It or its management have not been found culpable of economic crime or convicted under criminal laws for fraud, financial impropriety, significant licence violations, or environmental infractions in the Applicant's field of activity;
- It has provided the appropriate financial guarantees of performance to assure that the licensee will fulfil all the licence conditions;
- It has demonstrated that it will comply with the regulated electric power market rules;
- It has demonstrated the capacity to provide accounting reports to FERK in the format and detail required by FERK or other authorities;
- It has established an efficient system for reading, accounting, billing, and collection of supplied electricity;
- It has established an efficient system for providing information concerning electricity supply to non-eligible customers, including plans for the improvement thereof;
- It has provided evidence that it will be able to contract adequate supplies of electricity to supply its customers.

The Tier 2 Supply Licence may be issued to an Applicant who demonstrates the following:

- The Applicant fulfils all the technical, operational, safety and other conditions in its operation;
- The Applicant provides high-quality services related to safety, reliability, energy efficiency and quality electricity for customers, in accordance with applicable regulations and standards;
- The Applicant has sufficient employees with expert qualifications for the performance of activities;
- The Applicant or its management have not been found culpable of economic crime or convicted under criminal laws for fraud, financial impropriety, significant licence violations, or environmental infractions from the Applicant's field of activity;
- The Applicant has provided appropriate financial guarantees

of performance to assure that the licensee will fulfil all licence conditions;

- The Applicant has demonstrated that it complies with regulated electric power market rules;
- The Applicant has demonstrated the capacity to provide accounting reports to FERK in the format and detail required by FERK or other authority;
- The Applicant has provided evidence that it will be able to contract adequate supplies of electricity to services its customers.

FERK issues all licences for a limited time period. The licensee is obliged to file an application for licence renewal no later than 180 days before the expiry of the current licence validity.

Procedures for the modification or amendment of a licence can be initiated upon the request of the licensee or on FERK's own initiative.

FERK may revoke the licence in the cases stipulated in Article 43 of the Licensing Rule.

If the licensee requests the transfer of the licence to another entity, it must obtain the prior approval of FERK. The new licensee must obtain an operational licence or approval for transfer from FERK prior to commencing activities. If there are concerns regarding the guarantee of the security of supply, such as financial insolvency, FERK at its own initiative may start a licence transfer procedure, in order to ensure that the licence is transferred to a third party which will provide regular security of supply to the customers.

### ***Republika Srpska***

Together with the application for a specific licence, the documents defined in Article 23 - 27 of the Rulebook on Issuance of Licences adopted by RERS must be submitted.

The general criteria for licensing are set out in Article 28 of the Rulebook on Issuance Licence. In addition, the Applicant must fulfil additional criteria for the specific licence.

The licence for production of electricity is issued to the Applicant which in addition to the criteria defined in Article 28, can prove that:

- It meets the conditions for the safe operation of the plant and facilities with regard to the health and life of people and functioning of equipment and installations;



- It possesses water-management acts;
- It possesses the environmental and other acts defined by the law on protection of the environment;
- It possesses the prescribed rules on the maintenance and exploitation (operation) of the electric power structures and facilities (if there is no certificate on introduced system of the quality control and system of control of the environment protection following ISO standards);
- It has fulfilled the conditions for connection of the generation facility to the electric power network;
- It achieves energy efficiency in using primary sources, namely that it undertakes measures for improvement of efficiency;
- It possesses the approval for using new generation facility.

The licence for distribution of electricity is issued to the Applicant which in addition to the criteria defined in Article 28 can prove that:

- It fulfils the requirements for the safe operation of the distribution infrastructure and facilities for the health of people and the functioning of the equipment and installations;
- It possesses an environmental licence and other acts defined by the law on the protection of the environment;
- It possesses the prescribed rules on the maintenance and exploitation (operation) of the electric power structures and facilities (if there is no certificate for an approved quality control system and environment protection control system, fulfilling ISO standards);
- It fulfils the standards related to the quality of the electricity supply;
- It achieves energy efficiency while transferring electricity through the distribution system and that it undertakes measures for improvement of efficiency;
- It has established an efficient system of meter reading for measuring and recording the amount of electricity consumed.

The licence for the supply of tariff customers with electricity is issued to the Applicant which in addition to the criteria defined in Article 28, can prove the following:

- That it has established an efficient system of informing customers, including plans for its improvement;
- That it has established an efficient system of calculation, delivery of bills and payment for the electricity delivered.

Any licensee who intends to continue to perform the activity defined in its licence shall, submit an application for the extension of a new licence no later than three months before the expiry of the licence.

The amendment of the licence is made at the proposal of RERS or the licensee.

During the licence validity period, the licence may be transferred to a third party if the licensee sells his business or if he asks to transfer his licence or controlled (managerial) interest to that party.

The licensee must obtain consent from the new licensee regarding the acceptance of the licence requirements for which the transfer has been requested, before obtaining the approval from RERS for the licence transfer. The new licensee should possess the licence for performing activities in the energy sector in order to obtain RERS approval for transfer of the licence.

Licence transfer to a third party is preceded by a procedure for the transfer of the right for the use of the assets required for the realisation of the activity of the respective licence to that party.

RERS initiates the procedure of compulsory transfer of the licence to a third party in cases of financial incapacity or bankruptcy of the licensee or non-fulfilment of conditions related to the obligation to offer a public service to the consumers regulated with the issued licence.

RERS may cancel a licence if the licensee during a procedure for the issuance, extension, amendment or transfer of the licence, gives incorrect information based on which RERS made its final decision.

## 2.5 Trading and supply of electricity

Under the existing legal framework of Bosnia and Herzegovina, the following tariffs are subject to regulation performed by competent regulatory authorities:

- Electricity sales tariff – set by regulatory authorities for four public utility electricity companies (EP BiH, EP HZHB, EP RS and *Komunalno Brčko*);
- Electricity transmission tariff – regulated by DERK;
- Transmission system operation tariff – a joint contribution for the operation of NOS BiH;
- Auxiliary services tariff-determined and regulated by DERK.

The balancing and settlement of electricity demand and supply in the electricity market and the power grid is regulated by the State-level Law on Transmission of Electric Power, Regulator and System Operator. The distribution of respective competences is explained in Section 2.2 hereinabove.

### 3. RENEWABLE ENERGY

#### 3.1 Market overview

In those matters expressly conferred to the Entities for regulation, the entities have adopted their own legislation. Even though the entities' legislation is to a certain extent harmonised, some legal issues may be resolved differently. In the Federation of Bosnia and Herzegovina, cantons may also adopt their own legislation in legal matters that are of local relevance.

There are visible shifts in the development of energy strategies in Bosnia and Herzegovina, at the State- and Entity-levels. The energy development strategy in Republika Srpska is defined as follows: long-term aims of development of certain energy activities, priorities of development, determination of energy needs of Republika Srpska, sources and method of providing necessary quantities of energy, including long-term planning of the energy sources structures, a share of renewable sources, required levels of energy efficiency and energy savings, necessary investments in energy, measures for encouragement and method of providing means for investment in renewable energy sources and cogeneration, measures and mechanisms for increase of energy efficiency, improvement of protection of environment and prevention of climate changes, encouragement of competition and gradual liberalisation of the power market, mechanisms for providing protection of end users, mechanisms and measures for protection of vulnerable customers under the circumstances of liberalised market and other elements which are important for achievement of the aims of the energy policy. The objective of the Renewable Energy Law of the Federation of Bosnia and Herzegovina is to encourage greater production and consumption of electricity from renewable energy sources in the internal electricity market and the development of a regulatory and technical infrastructure for renewable energy.

With Bosnia and Herzegovina's great natural and energy potential, it is apparent that first and foremost energy production from renewable resources will become a practice in this country.

With the prospect of joining the EU, the production of energy from renewable resources will become an obligation which Bosnia and Herzegovina, as a potential member, will have to take seriously. Thus, manufacturers will be obliged to apply those standards and procedures which comply with environmental conservation.

#### 3.2 Support schemes

- (a) Groups of plants and the use of renewable energy and cogeneration ("REC"): depending on the installed capacity REC plants are divided into:
- Micro-systems: up to and including 150 kW;
  - Mini plants: from 150 kW up to and including 1 MW;
  - Small-scale plants: from 1 MW up to and including 10 MW;
  - Large plants: more than 10 MW.

Depending on the type of renewable source used for electricity production, the aforementioned plants are divided into the following groups:

- Group 1 - Micro plants connected to the distribution grid;
- Group 2 - Mini plants connected to the distribution grid;
- Group 3 - Small plants connected to the distribution grid or transmission grid;
- Group 4 - Large plants connected to the transmission grid;
- Group 5 - REC plants which are not connected to the transmission or distribution grid, or which operate in isolated regime;
- Group 6 - Cogeneration plants which are not connected to the transmission or distribution grid, or which operate in isolated regime;
- Group 7 - Cogeneration plants with installed power up to and including 1 MW connected to the distribution grid;
- Group 8 - Cogeneration plants with installed power capacity of over 1 MW connected to the transmission or distribution grid.

Within each group above, several plants are defined including their tariff price.

- (b) Fees, payment and encouragement of electricity production from REC: in order to establish the institutional structures needed for the operational production of electricity from REC, a REC Operator must be established. The production of electricity from REC by eligible producers which have entered into a compulsory purchase agreement is encouraged by the application of the following measures:
- Priority of delivery or acceptance of electricity produced from REC to the grid;

- Obligation of purchase of electricity produced from REC;
  - Guaranteed prices.
- (c) Connection to the Transmission System: a qualified producer which has entered into a compulsory purchase agreement has the advantage that it is able to dispatch electricity within the reported daily work schedule (timetable) of the network operator to which the plant is connected. The network operator must take the electricity from the qualified producers if it does not endanger the operation of the power systems.
- (d) Priority in Energy Sales: a qualified producer is entitled to enter into a contract for the obligatory purchase of electricity from REC with the REC Operator at a guaranteed price determined in accordance with the Renewable Energy Law of the Federation of Bosnia and Herzegovina. The contract, *inter alia*, defines the duration, the amount of electricity subject to the purchase and is concluded for a period of 12 years. A payment fee for the encouragement of REC is paid by all customers of electricity in the Federation of Bosnia and Herzegovina as a supplement to the price of electricity.
- (e) Building of plants: for the construction of REC energy the approval of the competent Ministry is needed. This approval is issued after the registration in the register of RES projects - projects under construction. Mandatory criteria for the issuance of the energy approval include:
- Registration of the applicant in the territory of the Federation of Bosnia and Herzegovina in accordance with applicable regulations;
  - Compliance of the Project with the strategic plan and program of development;
  - Professional competence, technical infrastructure and financial capability;
  - The application and installation of new technology and new (unused) equipment.
- (f) RES Certificate: Certificate of guarantee of origin of electricity produced from REC ("**Certificate**") is issued by the REC Operator on the basis of data obtained from producers of REC electricity and network operators. The Certificate is issued at the request of an eligible producer which has been granted such status by a decision issued by FERK in accordance with the Law on Electricity.

The Law on Energy of Republika Srpska defines two types of certificates which the generator of electricity receives upon installation. Pursuant to Article 29 of the Law on Energy of Republika Srpska, the generator of electricity may, upon its own request, receive a certificate of origin for electricity generated in generation installations which have a valid certificate (declaration) on the condition that it can prove that during the period for which the certificate is granted, it has been operating in such a way that it meets the terms and conditions prescribed for generation of electricity from renewable sources.

The certificate (declaration) for generation installations may be granted to a generator of electricity if such generation installations generate electricity from renewable energy sources in an economically appropriate way, protecting the environment or in efficient cogeneration.

The certificates are defined as follows:

1. Certificate of electricity origin – a document which enables the generator of electricity to prove that the electricity generated in its installation was generated from renewable energy sources or in co-generation with a high level of efficiency, duly containing the amount of electricity, energy source which was used for its generation, place and date of generation as well as other data which contribute to the accuracy and reliability of the document;
2. Certificate (declaration) of generation installation - a document which is issued to generator of electricity for a single generation installation certifying that such an installation fulfils the prescribed terms and conditions for the concurrent generation of electricity and heat with a high level of efficiency, or for the generation of electricity using waste or renewable energy sources in an economically appropriate way, harmonised with the regulations related to the protection of the environment.

## 4. NATURAL GAS

### 4.1 Market overview

The natural gas market in Bosnia and Herzegovina is still at the early stage of development. Due to the absence of domestic sources and dominance in external supplies, lack of network capacities and high concentration on the market, the role of

natural gas in the economy of Bosnia and Herzegovina is very limited and constitutes to a small part of gross energy consumption in the country.

First of all, Bosnia and Herzegovina does not have its own sources of natural gas and, subsequently, supplies are exclusively based on import from the only available external source – Russia. Natural gas are transported to Bosnia and Herzegovina through Ukraine, Hungary and Serbia, and delivered to the national transmission system at a single cross-border connection point in Sepak.

Secondly, the major part of the country remains non-gasified. Currently the transmission pipeline from the entry point at the border with Serbia connects Zvornik, Kladanj, Sarajevo and Zenica. In 2013 the gas system has been expanded by launching a new transmission pipeline from Zenica to Travnik and a new distribution pipeline from Sepak to Bijeljina. However, technical capacities of the network are not yet sufficient to ensure effective access to the system and to meet the natural gas demand of potential customers. Furthermore, a single cross-border point does not allow for any possibility for diversified supplies of natural gas to the country.

And thirdly, the natural gas market in Bosnia and Herzegovina is largely dominated by incumbent State-owned energy undertakings, which are fully bundled in terms of their infrastructure and commercial activities, thus restricting the market from any competition and entrance of new players. The market is not opened yet, meaning that in practice customers are not able to switch their gas supplier and the prices mainly remain regulated.

In 2012 natural gas consumption in Bosnia and Herzegovina reached up to 0.26 bcm, however, it is forecast that the factual demand will increase significantly and may reach up to 0.9 bcm in 2020 and may grow up to 1.6 bcm in 2030. In order to fulfil such a demand, significant increase of network capacities will be inevitable, both by expanding internal system and increasing cross-border capacities, noting that current entry point at Sepak with a total capacity of 0.75 bcm will not be sufficient to serve the system in a secure and reliable manner.

Considering the above, both Entities of Bosnia and Herzegovina are showing a strong interest in regional gasification projects. Construction of two branch pipelines from the projected *South*

*Stream pipeline* (from Serbia), interconnecting Slobodnica in Croatia and Zenica in Bosnia and Herzegovina, as well as participation in the *Ionian Adriatic Pipeline (IAP)* project connecting Croatia and Albania is on the agenda. Implementation of these projects, together with an intense gasification of the country, would allow Bosnia and Herzegovina to benefit from diversified supplies of natural gas in the region, including usage of potential LNG and storage capacities in neighbouring systems.

## 4.2 Regulatory overview

The natural gas sector in Bosnia and Herzegovina is separately regulated by legal acts adopted in both Entities – the Federation of Bosnia and Herzegovina and Republika Srpska. Due to the failure in reaching common political consensus, there is no State-level regulation of natural gas activities, thus leaving a significant legal gap, including absence of the State-level regulatory authority.

In the Federation of Bosnia and Herzegovina, activities in the natural gas sector are regulated by the Governmental Decree on Organisation and Regulation of the Gas Sector, as adopted in 2007, and other secondary legislation acts. The draft Law on Natural Gas of the Federation of Bosnia and Herzegovina was approved by the Government on 15 May 2013 and has been forwarded to the Parliament, however, its adoption in May 2014 was still pending.

In Republika Srpska, the Law on Pipeline Transport of Gaseous and Liquid Carbohydrates and Distribution of Gaseous Carbohydrates was adopted in 2012 and significant amendments to the Law on Natural Gas were passed in January 2013. Implementing regulations of the laws are being adopted by the Government, the Ministry of Industry, Energy and Mining, and by the designated Entity's regulatory authority – RERS.

Energy policy and its objectives in the natural gas sector are being formed and implemented by Governments and competent Ministries of the Entities without any clearly established form of mutual cooperation thereto. As it was already mentioned, there are no legal instruments regulating natural gas activities at the State-level, not to mention common strategy for gasification projects. Failure to establish a single regulatory authority at the State-level, despite competences assigned to the State under the Constitution of Bosnia and Herzegovina and mandatory requirements of the EU law, results that all natural gas activities are regulated at the level of Entities. In Republika Srpska, respective regulatory competences are clearly assigned to RERS; however, in

the Federation of Bosnia and Herzegovina, an independent regulatory authority for energy – FERK – is not yet vested with powers in the natural gas sector and respective functions are performed by the Federal Ministry of Energy, Mining and Industry.

Activities in the natural gas sector, i.e. operation of natural gas systems, transmission, distribution, storage and supply of and trade in natural gas, are subject to licenses issued by the competent authority. Licenses in Republika Srpska are issued by RERS, whereas in the Federation of Bosnia and Herzegovina, considering absence of a designated regulatory authority, by the Federal Ministry.

Licenses for operation of natural gas transmission and distribution systems, as well as for transmission and distribution of natural gas do authorise the performance of respective activities in a defined territory considering the Entity borders. Currently two companies – *Gas Promet a.d.* and *Sarajevo-gas a.d.* – are licensed for operation of the transmission system and transmission of natural gas in Republika Srpska and one – *BH Gas d.o.o.* – in the Federation of Bosnia and Herzegovina. All three companies are also licensed for the distribution activities.

Licenses for supply of and trade in natural gas do allow for respective activities within the entire territory of Bosnia and Herzegovina, irrespective of the issuing authority. Currently, there are five companies licensed for such activities, however, *BH Gas d.o.o.* remains a dominant supplier and covers over 90 per cent of the market. Absence of any competition and liquidity in the market, as well as failure to establish legal framework for effective opening of the market and implementation of the customers' rights results in a status quo situation that in practice customers are not capable to switch their supplier and have to purchase natural gas from market incumbents at regulated prices.

It may be concluded that the existing legal framework in both Entities establishes general principles for developments of the natural gas infrastructure and performance of natural gas activities. However, there is a noticeable lack of legal certainty in many aspects of the organisation and regulation of the natural gas sector, especially in the Federation of Bosnia and Herzegovina, not to mention the absence of any harmonisation of regulatory practices between the Entities.

Competent institutions of the Energy Community have several times noted the failure of Bosnia and Herzegovina to transpose

and implement requirements of the EU law mandatory to all Contracting Parties of the Energy Community, including unbundling of vertically integrated undertakings, designation of an independent regulatory authority, setting and publishing transmission and distribution tariffs, granting eligibility to non-household customers, etc.

Enforcement actions undertaken by the Energy Community Secretariat caused some movement in both Entities towards development of the legal framework in 2013; however, not much of a practical result has been reached in amending indicated non-compliances. Furthermore, the EU Third Energy Package has to be transposed to the domestic legislation of Bosnia and Herzegovina by the end of 2014, what requires for significant legal and regulatory reforms. So far, no steps were undertaken to comply with these EU pre-accession commitments in the field of natural gas.

## 5. UPSTREAM OIL MARKET

### *Market overview*

During the 1970s several studies have been performed on the territory of Bosnia and Herzegovina, in search of potential oil reserves. Unfortunately, however, these studies have found only symbolic amounts of hydrocarbon deposits which have no exploitation value. Accordingly, the oil market in Bosnia and Herzegovina has remained relatively undeveloped and almost all oil derivatives are imported. The only domestic oil production facility is the oil refinery in Modriča. However, this refinery produces sub-standard fuel and its participation in the oil market is practically insignificant.

The research and exploitation of hydrocarbons is regulated by the entity-level laws on mining, and, treating hydrocarbons as mineral deposits.

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# BULGARIA

## 1. INTRODUCTION TO THE ENERGY MARKET

The Bulgarian energy sector has undergone serious transformation in the last decades and continues to attract foreign investments in Bulgaria. Bulgaria is one of the few countries in the region with nuclear power facilities and due to its geo-economic location, it is a focal point for a number of strategic energy infrastructure projects.

The sector is mostly privatised and the market is fully liberalised (particularly in the electricity sector). The Bulgarian state still holds substantial energy assets by way of a holding company named Bulgarian Energy Holding EAD ("BEH"). BEH controls some large electricity generation capacities (including the largest lignite coal power plant and the only large pumped-storage hydroelectric power plant), the electricity transmission system, and the natural gas transmission, storage and supply.

Similarly to many of the countries in the region, the Bulgarian energy sector faces a lot of challenges, which will be also a source of major business opportunities in the future:

- (a) high energy intensity of the economy (still the highest in the European Union);
- (b) high dependency on imports of fuels;
- (c) competing goals of ensuring security of energy supply and of meeting environmental requirements (serious investments required for reduction of greenhouse gas emissions in power plants using local lignite coal);
- (d) delayed practical implementation of the market liberalisation (particularly in the gas sector);
- (e) controversial and often changing regulatory framework, etc.

In June 2011 the Bulgarian Parliament adopted the Energy Strategy of the country until 2020, which acknowledges the challenges and sets out five priorities for the sector aiming to ensure energy needs and protect consumer interests: guaranteeing the security of supplies; boosting energy from renewable sources; improvement of energy efficiency; development of a competitive energy market.

## 2. ELECTRICITY

### 2.1 Market overview

Bulgaria has been historically a major player and a leading exporter of electricity in Southeast Europe. Bulgaria's annual electricity exports since 2010 have been close to or exceeding 10 million MWh (with the peak year being 2015 with a close to 15 million MWh of annual exports)<sup>1</sup>. After certain slowdowns in 2017 and 2018, according to data of the Electricity System Operator ("ESO"), in the first three months of 2019 net exports increased up by more than 40 per cent and electricity production increased up by more than 4 per cent compared to the same period of 2018. At the same time, about 40 per cent of local electricity in Bulgaria is produced from local coal power plants, the vast majority of which comes from the power plants burning lignite from the Maritsa East mining region. The future of such power plants is uncertain in view of EU climate change and air pollution policies, and the sharp increase of the price of CO<sub>2</sub> emission allowances poses significant burdens to the financials of such plants and particularly, to the state-owned TPP Maritsa East 2. In 2018 the Bulgarian Parliament overturned its prior decision to cancel the project for construction of a new nuclear power plant at the Belene site and the government is currently preparing a process for selection of an investor for the potential completion of the 2,000 MW project using the equipment already produced by Atomstroyexport JSC.

<sup>1</sup> Source: Bulgarian National Statistical Institute.

After the implementation of the so-called Third Energy Package<sup>2</sup>, the liberalisation of the market has been a major trend and source of controversies in the last years. Practically, all customers other than household and small business or public consumers connected to low voltage networks were forced out of the regulated market. On the generation side, in the context of the commitments of BEH approved by the European Commission under the case opened against BEH for alleged abuse of dominant market position in the wholesale electricity market in Bulgaria, the generation subsidiaries of BEH were compelled to offer part of their electricity at the newly opened local electricity exchange ("IBEX"). By way of reforming the scheme for promotion of electricity generation from renewable sources, most of the local renewable generation facilities were also compelled to sell their electricity at the electricity exchange. The development of the open market and the electricity exchange as its backbone have not went as smoothly as planned with major local industrial consumers complaining of lack of transparency and predictability at the market and alleged market manipulation involving state-owned generation companies as a result of which major price spikes were recorded at the IBEX in the second half of 2018 and continuing in 2019. The insolvency of certain major electricity traders also caused turbulences in the market.

The only sector which has remained 100 per cent owned by the State is the national transmission grid and the supplies of electricity for the regulated market through the transmission grid. Currently, the national transmission network is owned by ESO after the unbundling of transmission assets from the assets of the National Electricity Company EAD ("NEC") which now remains responsible for national supplies in the regulated market and owns a number of generation capacities. Both companies are owned by the BEH which is also the owner of some project pipeline, mining and heat production companies and the nuclear power station Kozloduy. ESO deals with the operational regime planning and control of the electrical power system in Bulgaria, the synchronisation of the Bulgarian electrical power system operation with the electrical power systems of the European countries member of the Union for the Coordination of Transmission of Electricity ("UCTE") and coordination of joint operation with other electrical power systems.

The distribution and end-supply networks were privatised and are beyond the control of the State, albeit under a licence regime only. The production of electricity is currently performed by both state- and privately-owned companies with the Bulgarian state still controlling the vast majority of the (most cost-effective) generation through the Kozloduy NPP, the largest lignite power plant Maritsa East 2 and the largest hydropower plants owned by NEC. The indicative goals for the energy mix up to 2020 correspond with the EU goals for broadening the share of renewable energy and reduction of CO<sub>2</sub> emissions.

The regulatory framework has been constantly changing in recent years. A set of amendments to the Energy Act<sup>3</sup> were introduced in 2012/2013 aiming further liberalisation of the energy market. These implement in detail Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 and the Third Energy Package principles in general in the following manner:

- (i) division of transmission from production and sale of electricity and introduction of guarantees for independence of the grid operators;
- (ii) guarantees for the development of the grid;
- (iii) introduction of new powers to the Energy and Water Regulatory Commission;
- (iv) clear definition of consumer rights;
- (v) exclusion of the users of high and middle voltage electricity from the regulated market and the introduction of the last instance suppliers;
- (vi) setting up of the Independent Bulgarian Energy Exchange which started operations in January 2016.

Significant changes to the Energy Act and the Energy from Renewable Sources Act ("RES Act")<sup>4</sup> were also introduced in 2018 and again in May 2019 by way of which the framework for promotion of the generation of electricity from renewable sources and highly efficient co-generation was materially amended and such generation facilities (with exception of those with installed capacity of less than 1 MW) were compelled to sell their electricity at the IBEX.

<sup>2</sup> The package consists of two Directives, one concerning common rules for the internal market in gas (2009/73/EC), one concerning common rules for the internal market in electricity (2009/72/EC) and three Regulations, one on conditions for access to the natural gas transmission networks ((EC) No 715/2009), one on conditions for access to the network for cross-border exchange of electricity ((EC) No 714/2009) and one on the establishment of the Agency for the Cooperation of Energy Regulators ACER ((EC) No 713/2009). They were adopted in July 2009.

<sup>3</sup> State Gazette No. 107 of 9 December 2003, as amended from time to time.

<sup>4</sup> State Gazette No. 35 of 3 May 2011.

## 2.2 Regulatory overview

The regulation of the electricity sector has several layers.

The first layer is the core energy regulatory framework covering, among other things, the regulation of electricity generation activities, encouragement of production of electricity from renewable sources, relations between the investor and the distribution/transmission companies, etc. These issues are regulated mainly by the Energy Act. Special rules applicable to renewable energy projects are set out under the Energy from Renewable Sources Act and the Energy Efficiency Act of 2015<sup>5</sup>. There are also a number of secondary level regulations issued by the Council of Ministers or competent Ministers (such as the Minister of Energy) regulating various aspects such as price regulation, security and safety requirements for electricity equipment, connection to the grid, etc. The local energy regulator – the Energy and Water Regulatory Commission – also issues secondary level regulations such as Rules on Trading in Electricity, Rules for Access to Electricity Networks, etc.

The government bodies and institutions which are granted powers to monitor and regulate the electricity sector include:

- (a) The Parliament – according to the Energy Act, the Parliament of Bulgaria approves a Strategy for Sustainable Energy Development of Bulgaria which determines the main goals, strategies, milestones, means and stages for development of the energy sector;
- (b) The Council of Ministers of Bulgaria – the Council drafts and implements the above Energy Strategy approved by the Parliament;
- (c) The Minister of Energy (the “Minister”) amongst others (i) approves short-, medium- and long-term prognostic energy balances of Bulgaria in accordance with the Energy Strategy; (ii) proposes for approval by the Council of Ministers a list of the strategic enterprises in the energy sector; (iii) approves the obligatory criteria for the reliability of the electricity supply and gas supply; (iv) determines the annual overall quota for obligatory purchase of electricity from producers which use local primary electricity sources; (v) grants permissions for exploration and research of energy resources and organises the activities related to granting of concessions for extraction of energy resources; (vi) issues ordinances for the purpose of implementation of the laws approved by the Parliament, etc.;
- (d) The Energy and Water Regulatory Commission (the “Commission” or the “Regulator”) – this is the main regulatory body for the energy sector (as well as the water and sewage sector). The powers of the Commission include, amongst others: (i) issuing, amendments and cancellation of licences under the Energy Act; (ii) approval of general terms and conditions of licensees; (iii) control compliance with applicable rules in the sector; (iv) regulation of prices, determination of subsidies for electricity from renewables and cogeneration; (v) approval of rules for trade with electricity and natural gas as well as of the technical requirements for the networks; (vi) approval of rules for determining the prices of balancing electricity; (vii) approval of the rules for access to the electricity and gas networks; (viii) issuance of certificates of origin of co-generation electricity; (ix) granting of consents for corporate restructuring of licensees as well as change of significant shareholding in energy transmission or distribution companies; (x) granting of permissions for disposal with assets of companies which are holders of licence(s), etc. With the implementation of the Third Energy Package directives, the Commission was in addition empowered to, *inter alia*: (i) monitor the compliance with requirements for independence of the transmission network operator; (ii) approve the 10-year plans for development of the distribution and transmission grids and monitor their implementation; (iii) monitor the application of the law in terms of quality of the services provided, the protection of the consumers and the internal and international competition, etc. The Commission has been also granted investigatory and enforcement powers to control the enforcement of the prohibitions under Articles 3 and 5 and the obligations under Article 4 of Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency;
- (e) The Sustainable Energy Development Agency (“SEDA”) – this is a state authority responsible for the implementation of the State policy on encouragement of the production and consumption of electricity and heating power produced from renewables. The powers of this Agency include coordination, monitoring and control over matters related to the usage of renewables in the energy sector as well as issuance of certificates of origin for electricity produced from renewables;

<sup>5</sup> State Gazette No. 35 of 15 May 2015.

- (f) Electricity System Operator EAD – this is a company indirectly owned by the State. Although the company is a commercial entity as per the meaning of the Commerce Act of Bulgaria, the Energy Act and the applicable ordinances empower ESO with certain regulatory functions in the Energy sector, including: (i) operational regime planning and control of the electrical power system of Bulgaria; (ii) operation, overhaul and maintenance of the transmission network; (iii) administration of the trading in electricity and the balancing energy market.

### 2.3 Regulated electricity market activities

The Energy Act provides for licensing regimes in the electricity sector. Subject to licensing by the Regulator are:

- (a) generation (above 5 MW of installed capacity);
- (b) transmission;
- (c) trading;
- (d) distribution/distribution grid operation;
- (e) acting as an end supplier in the regulated market and/or as a supplier of last resort in the free market;
- (f) organising of an electricity exchange;
- (g) pulling power electricity distribution over the railroad transportation distribution networks.

Special rules were introduced in 2018 in respect of activities of operators of publicly accessible electricity charging points but those remain not subject to a licensing regime.

Subject to price regulation by the Regulator are the prices for the following activities:

- (i) connection, transmission through and access to the national transmission grid;
- (ii) connection, transmission through and access to the regional distribution networks;
- (iii) sale of electricity by generation companies to the public supplier NEC within certain quotas which are determined by the Regulator for the purposes of meeting the demand of the regulated market;
- (iv) generation from renewable energy sources (subsidies) in certain cases;
- (v) sale of electricity by the public supplier NEC to the end suppliers for sales at the regulated market which comprises business and household customers connected to the low voltage grid;
- (vi) sale of electricity by end suppliers to their clients at the

regulated market – households or business consumers which are connected to the low voltage grid;

- (vii) the prices for other services determined by the Regulator related to the core licensing activities of a licensee.

The prices for electricity at the balancing market as well as the prices for the electricity supplied by the last resort suppliers are not determined by the Regulator (thus not subject to regulation in the strict sense) but are determined by the licensee for the respective activity under rules and methodology approved by the Regulator.

### 2.4 Material licences for electricity generation

Under the Energy Act, any company which owns or intends to construct electricity generation facilities with an installed capacity of over 5 MW must obtain a generation licence from the Commission. The requirements for the persons applying for a licence are set forth in the Energy Act and the Ordinance for licensing of the activities in the energy field<sup>6</sup> ("Licensing Regulation").

The licence may be issued with a term of validity between one and 35 years taking into account the service life of the generation assets and the financial status of the applicant. The term of the licence may be extended for a period not longer than the initial term, provided that the licensee meets the requirements of the Energy Act and duly performs all its obligations and complies with the requirements under the licence. An extension may be granted based on a written request of the licensee made at least 1 year prior to the expiry of the initial term of the licence.

Generally, the preconditions for issuance of a licence under the Energy Act are the following:

- (a) The applicant should be a legal entity registered in compliance with the Bulgarian Commerce Act or the legislation of any EU or EEA Member State. Such entity should not be insolvent or in liquidation.
- (b) The applicant should have the technical and financial capabilities, material and human resources and organisational structure necessary for performance of the licensed activity.
- (c) The energy facilities for carrying out the licensed activity should comply with environmental protection and safety operation requirements; and

<sup>6</sup> State Gazette No. 33 of 5 April 2013.

- (d) The applicant should have property rights over the energy facilities (if they are constructed). An application for a licence may also be filed before the facility is constructed.

The documents and information which need to be submitted with the application to evidence the applicant's compliance with the abovementioned requirements include: (i) business plan for up to 5 years; (ii) application for approval of prices (if the licensed activity involves regulated prices); (iii) information on the financing sources for the activity; (iv) information on the applicant's or its controlling shareholders' experience in carrying out an activity similar to the licensed one; (v) information on the applicant's management and organisational structure and the education and qualifications of the management personnel.

A licence preceding the construction of the energy production facility can be issued upon request of the applicant, provided that it can prove the necessary financial means to construct the facility. In this case the licence shall provide for the terms and conditions for construction of the facilities (i.e. wind turbines and the infrastructure thereof) and commencement of the licensed activity. The period for completion of the facility is not included in the term of the licence. In addition to the general documents required for the issuance of the licence, the applicant shall submit: (i) the design of the energy facilities and evidence of compliance with environmental regulations; (ii) an approved detailed construction time schedule; (iii) a proposed term of validity of the licence and substantiation thereof; (iv) an investment analysis and financial model, including the forecast prices of the service. The Commission's approval of these financial models is a precondition for the licence's issuance.

Upon completion of the facilities' construction, the licensee should request that the Commission issue a special permit for the facilities to enter into commercial operation. The above licences and permits are without prejudice to any other ancillary requirements which may be prescribed by the general legislation, such as building permits, health and safety approvals, environmental impact assessments, etc.

## 2.5 Trading and supply of electricity

### (a) Trading

The market in electricity was liberalised in theory since 2007 but the practical liberalisation occurred at a much slower pace and the

free market consisted of only about 100 (mostly high voltage grid) consumers as of 2012.

The amendments introduced in the Energy Act in 2012, 2013 and 2015 for implementation of the Third Energy Liberalisation Package directives and recently in 2018 and 2019 forced the market liberalization and the practical operation of the balancing market and the electricity exchange. As a result as of the end of 2017, there were more than 130,000 consumers active in the free market<sup>7</sup>. Raising wholesale prices at the IBEX during 2018 and major price spikes on numerous occasions, however, seem to undermine the confidence in the market of both customers and traders. Media reports note that numerous traders have exited the market in 2018 and according to the annual report of the local Regulator, about 25,000 customers have left the open market and moved back to supplies at regulated prices (an option that is yet available for small business consumers connected to the low voltage grid).

In January 2016 the long-expected exchange for electricity trading in Bulgaria started to operate. IBEX was originally incorporated as a state-owned company (a subsidiary of BEH) but in order to assure the independence of IBEX from the state-owned energy stakeholders in February 2018 the shares of IBEX were acquired by the Bulgarian Stock Exchange AD – the company that operates the only functioning regulated stock exchange market in Bulgaria.

In order to boost the IBEX market, new rules have been recently introduced pursuant to which all generation facilities with an installed capacity of 1 MW or more must sell their electricity at one of the market platforms of IBEX. Hence Bulgaria is one of the few European countries where mandatory off-take of electricity of local generators through the power exchange is introduced (the other one being Romania). Only generation companies which supply their own facilities or third parties' customers via direct electricity lines as well as renewable energy generation facilities put into operation after 1 July 2019 are exempted from the above requirement and may sell electricity via bilateral agreements.

IBEX opened with a day-ahead market and added a centralised market for bilateral contracts at the end of 2016 and an intraday market in April 2018. According to information from IBEX as of June 2019, there were 71 active members operating on the day-ahead market, 64 – on the centralised market for bilateral

<sup>7</sup> Data provided by the Association of traders with electricity in Bulgaria.

contracts and 53 on the intraday market of the exchange. On the first two platforms, deals are concluded automatically and at clearing prices determined by the exchange systems and IBEX is itself a counterparty on all deals and carries the corresponding risks and responsibilities. On the third segment, bilateral deals are actually concluded and the role of IBEX is as an intermediary between the trading participants but IBEX is not a party to the deals. Deals may be concluded by way of automatic or manual counteroffers matching or by way of organising of sale or purchase auctions by trading participants.

The Commission in accordance with its powers has approved Rules for Trading in Electricity<sup>8</sup>. The Rules regulate, *inter alia*, (i) the structure of the market of electricity; (ii) the rules for participation in the electricity market; (iii) the rules for trade with electricity under freely negotiated or regulated prices and on the exchange market; (iv) the rules for exchange and provision of different data and information between the market participants; (v) the terms and conditions for participation and functioning of the market of balance energy; (vi) the mechanisms for balancing of the trading participants; (vii) the determination of the prices for balance energy; (viii) the rules for supply of end consumers and (ix) the procedures for change of the supplier of electricity and the coordinator of a balancing group.

According to the Rules, the ESO administers deals with electricity as well as organises the balancing of the market (the covering of the differences between scheduled deliveries and actual physical deliveries). For the purpose of the balancing of the market, hourly schedules have to be provided to ESO by the free market solo participants and the coordinators of balancing groups. They arrange the imbalances by selling to or purchasing electricity from ESO covering the positive or negative imbalances.

Each year the Commission issues a decision for determining quotas (quantities) of electricity to be produced by certain producers and sold to NEC as a public supplier at prices determined by the Commission (for the purposes of the supplies at the regulated market).

In May 2019 the access and transmission fees, as well as the 5 per cent levy in favour of the ESF over exported electricity, were finally abolished as a consequence of a judgment of the ECJ in Luxembourg of December 2018 prohibiting the Member States from imposing a levy on the export of electricity produced on their

territory. Bulgaria was the only country in the European Union that imposed such levies on the electricity produced on its territory which were viewed as *de facto* export fees in breach of EU laws and were a substantial hindrance to the plans for market coupling of the Bulgarian electricity exchange market with those of neighboring countries.

#### (b) Supply

In accordance with Directive 2009/72/EU, the model of independent transmission operator was introduced and ESO has been licensed as such. In addition to the national high voltage network owned and operated by ESO, there are four distribution network operators in Bulgaria (owners and operators of mid and low voltage regional grids) and four end-supply companies (form the same corporate groups as the distribution system operators) - licensed entities which supply electricity at regulated prices to household consumers and companies connected to the low voltage grid who have not chosen a supplier at the free market.

Only household customers and (small) non-household customers connected at the low voltage network can be supplied in the regulated market. Theoretically, such customers may choose to be supplied at the open market as well but due to the more favourable and predictable conditions for supply at the regulated market, only a marginal number of them have so chosen. All other customers must choose a supplier in the open market.

The end suppliers in each distribution network as well as NEK act also as suppliers of last resort ("SLRs") with the obligation to supply electricity to customers who are to be supplied at the open market but have not chosen an electricity trader or when the chosen electricity trader fails to supply for reasons non-attributable to the customer. The SLRs' final selling prices are determined by the SLRs in accordance with a methodology approved by the energy regulator.

Any client has the right to choose a supplier (whether a local one or located in another EU country). The relevant grid operator performs the change of supplier pursuant to the Rules within three weeks as of receiving of a request in writing from the client. All consumers connected to the high and middle voltage grid are outside the regulated market and have to choose their supplier in the free market. In order to secure electricity supply for those who

<sup>8</sup> State Gazette No. 66 of 26 July 2013, as amended and supplemented.



have not made their choice of supplier/the supplier they have chosen is still not technically capable of supplying electricity in the respective region – the figure of the SLR has been introduced wherein the Commission determines the prices of the electricity to be sold by the SLR.

## 2.6 Transmission and grid access

### (a) Connection

The connection to the grid is regulated by the Energy Act and a special Ordinance No. 6 of 24 February 2014 (the “**Connection Ordinance**”). Connection to the grid shall be performed by either the ESO (the owner of the national transmission grid) or the respective company owner of the regional distribution network (depending on whether the generation capacity is below or above 5 MW).

According to the applicable rules, the procedure consists of three stages:

#### (i) Official statement on the terms and conditions for connection

Upon request by the respective applicant of connection, the network owner must issue a statement on the terms and conditions under which it shall connect the generation facility to the network. The statement describes the technical requirements for the facilities of the project and the facilities which have to be constructed in order for the connection to be made. Connection may be refused only on objective technical reasons and the refusal is subject to appeal before the Commission.

#### (ii) Preliminary connection agreement

As a next step, the applicant must sign a preliminary agreement for connection to the network based on the terms described in the statement for connection.

#### (iii) Final connection agreement

After the issuance of a Construction Permit for the respective facility applying for connection, a final Connection Agreement is signed.

The connection fees payable to the grid owner are regulated by the Commission.

### (b) Transmission and access to the grid agreement

Upon commissioning of the project, access to the grid agreement shall be concluded as a condition for the grid user to enter into a power purchase agreement and be supplied with energy. The access to the grid agreement must be subject to

general terms and conditions approved by the Commission. Consumer supplied at regulated prices are not obliged to sign access agreements but are supplied through the grid under general terms and conditions approved by the Commission. The agreement shall deal with the indemnification payable by the owner of the network to the company in the event of limitations of the evacuated electricity.

Fees, payable by grid users for the access to and transmission of electricity supplied to them through the grid, are regulated by the Commission. Until 2019 only local customers and photovoltaic (“PV”) and wind generation companies were obliged to pay access fees but as of July 2019, such fees were also introduced for all local generation companies.

## 3. RENEWABLE ENERGY

### 3.1 Market overview

The sector for generation of electricity from renewable energy sources has gone through significant turbulences and has been subject to numerous changes of the applicable legal regime in the last ten years.

Originally in 2007, Bulgaria adopted a scheme for promotion of electricity generation from renewable sources based on feed-in tariffs (mandatory off-take of all generated electricity at special preferential prices). In 2011 a new law was adopted – the RES Act preserving the same concept but introducing certain specific requirements. The declared purpose of the law was to deal with the issues created by the previous legal framework and namely the booming development of new projects which in many cases were built in environmentally sensitive areas.

However, due to the late adoption of the new rules and the inadequate regulatory decisions taken, the new rules have not helped “cool down” the developments in the sector and more than 900 MW of RES generation capacity was connected to the grid in 2012 alone (mainly PV) at preferential prices high above local market process. This created significant pressure on consumer electricity prices and urged the government and the energy regulator to practically halt any future developments and to seek various means to restrict the operation of renewable capacities already connected.

The government and the local regulator initially responded with certain controversial measures which were subsequently revoked by the courts in Bulgaria and only added more chaos to the system.

Ultimately, by amendments to the Renewables Act as of 2015, all support schemes for new projects commissioned after January 2016 were suspended, except for the projects with an overall capacity of up to 30 kW constructed over roofs or facades of buildings connected to the distribution grid or the land adjacent to such buildings in urbanized territories.

The efforts to optimise the promotional regime continued in 2018 by restructuring completely the promotional regime for all existing RES projects as well (see below for details).

### 3.2 Support schemes

The RES Act provides for a system of encouragement of generation of electricity from renewables based on feed-in tariffs ("FiTs"). The system comprises the following key elements:

- (a) The owners of the national transmission grid and/or regional transmission systems are obliged to connect renewable energy generation facilities, subject to compliance with the special procedures under the Renewables Act. The interconnection costs associated with interconnection facilities up to the boundary of the electrical facilities are borne by the generation company. General costs associated with the expansion of the capacity of the grid are borne by the grid owner.
- (b) The owners of the national transmission grid and/or regional transmission systems are obliged to provide guaranteed access to the grid and transmission as well as priority dispatching of electricity generated from renewable sources subject to relevant technical requirements for the security of the system.
- (c) The NEC and the regional suppliers (end-suppliers) are obliged to purchase all electricity generated from renewable sources, which is certified with a generation (origin) certificate (see below). This obligation is to be reflected in long-term power purchase agreements signed with the respective purchaser; and
- (d) Special preferential prices are set by the Commission at which electricity from renewable sources is purchased (see below).

### Feed-in Tariff System

A system of promotion of generation of electricity from RES involving conceptually a feed-in tariff system and long-term power purchase agreements ("PPAs") has been in place in Bulgaria since 2007 and until recently, even though the details of such system have been changed numerous times.

Originally, the system envisaged an entitlement of RES producers to sell all electricity generated to a dedicated off-taker. The off-taker was the national supplier NEK (for facilities connected to the transmission grid) or the relevant licensed regional end supplier (for facilities connected to the relevant distribution grid)<sup>9</sup>. That entitlement was guaranteed under a long-term PPA with the relevant off-taker for periods depending on the category of RES used for generation (12 years for wind and 20 years for PV). The tariffs at which RES producers were entitled under the PPAs were determined by the Commission annually and the prices were different depending on the type of RES and the capacity of the generation facilities. The price applicable to a particular facility was the one determined by the Commission for the period when the respective facility was put into operation. Such price was then applied for the whole period of the relevant PPA.

The legal framework envisaged that the costs of the off-takers for the purchase of electricity from RES under the relevant PPAs at prices significantly exceeding market prices must be covered ultimately by the end consumers. For that purpose, it was envisaged that the Commission must determine periodically certain fee or price (or a component of the electricity prices) per unit of electricity which must be paid by all end consumers of electricity based on their consumption.

Initially, all electricity generated by a RES facility was to be purchased at the special feed-in tariffs. In 2014 and 2015 the law was changed (including for projects already in operation) with the aim to reduce the quantities to be purchased. Under the new rules, only the annual quantities of electricity which were used in the respective calculations for setting the original feed-in tariffs by the Commission are to be purchased at such preferential prices (the so-called "net specific generation"). The rest of the electricity is to be purchased by the off-taker at a much lower price or sold to the free market. The "net specific generation" was defined as "the

<sup>9</sup> It is to be noted that there was a legal obligation of NEC to subsequently purchase all RES electricity from the other off-takers at the price at which they had purchased it from RES producers. Therefore, ultimately, the off-taker of all RES generated electricity was NEC.

average annual electric power generation by 1 kW of installed capacity in accordance with the Commission's decision fixing preferential prices after deduction of the producer's own needs".

In addition, in July 2015 the Energy Act was amended and a special Fund was established – the Electricity System Security Fund (the "ESF"). The cash accumulated by the fund should be mainly used for covering of the expenses of NEC and the end suppliers incurred in relation to the off-take obligations for RES electricity as well as the similar obligations for highly efficient co-generation.

The source of the funds to be accumulated into the ESF are:

- (i) a monthly levy in the amount of 5 per cent payable by all producers of electricity (including RES producers) as well as all by electricity and gas transmission operators and gas storage facilities over their income from sales of electricity (including income from premiums for RES producers) or respectively, fees for access, transmission or storage (VAT excluded);
- (ii) the so-called "payments for covering obligations to the society", i.e. the price or price component which all end consumers must pay to cover the costs of the promotional schemes, in the amounts determined by the Commission;
- (iii) other sources, such as proceeds from the sale of CO<sub>2</sub> allowances, etc.

### **Premiums System**

Significant changes to the legal framework on the promotion of RES generation were introduced in July 2018, with the aim to foster the energy market liberalisation and integrate RES generation into the open market. The changes affect not only RES producers, but also have a material effect on the relations between all market participants. The changes remove the "single-buyer model", i.e. NEK is no longer acting as the single off-taker for all RES electricity at preferential prices.

The changes originally affected only generation facilities with an installed capacity of 4 MW or higher but in May 2019 the application of the new regime was widened to cover generation facilities with an installed capacity of 1 MW or higher – the vast majority of local RES projects. For facilities with an installed capacity below 1 MW, the original feed-in tariff system was preserved.

Under the new rules the system of purchase of electricity at preferential prices under long term PPAs of the affected producers is terminated. In replacement, the affected producers will be

obliged to sell all their energy output at the local electricity exchange IBEX. For the purpose of covering the difference between the previously applicable preferential prices to which RES producers were entitled and the market prices at which they will have to sell their output under the new system, it is envisaged that producers will be entitled to receive "premiums" from the ESF under a contract with the same (the implemented scheme resembles the so-called "contract for differences" known to other jurisdictions).

The amount of the premium to be paid by the ESF will be a fixed amount per MWh and it is determined annually by the Commission. For the purposes of determining the amount of the premium, the Commission determines a reference price (named "prognostic market price") for the next 12 months. The reference price is different for the different types of technology (wind, PV, hydro, co-generation, etc.). The Commission then determines the premium as the difference between the preferential price to which each of the RES producers was entitled under the previous feed-in tariff regime and the fixed reference price for the respective technology. The Commission is entitled (but not obliged) to update the reference price and thus the amount of premiums during the 12-month period, but not more often than once per six months, if there are significant differences between the actual market prices and the reference price.

Premiums are only payable for the abovementioned "net specific generation" of each facility (as it was for preferential prices under the previous regime) but not for all the energy output of the facility. As a precondition for the payment of the premium, the relevant RES producer must obtain from the SEDA the so-called "guarantees of origin" for the electricity, subject to premium, and transfer them to the ESF.

Under the above structure, if a particular RES producer is able to sell all its output at the market and achieves market price higher than the reference price, it will receive gross income higher than the previously applicable feed-in tariffs. If, however, it is unable to sell all its output, or the sale price achieved is lower than the reference price as established by the Commission, the RES producer will not be fully compensated for the difference between the reference price and the achieved market price. In this case, it will effectively receive gross income lower than under the previous regime.

The new system enters into force (for each RES producer in particular) from the date of entry into force of its contract for premiums with the ESF but not later than 1 January 2019 for projects with installed capacity of 4 MW or more and not later than 1 October 2019 for projects with installed capacity from 1 MW to 4 MW. As of such dates, the long term PPAs with the relevant off-takers are terminated.

It is to be taken into account that the ESF is a special entity created with the purpose of the settlement and management of the financial relations related to the promotional scheme for RES generated electricity and other sources (such as highly efficient co-generation). Therefore, the ESF benefits from certain special protections. The funds managed by the ESF may not be subject to enforcement and the set-off of obligations of other entities to the ESF against receivables from the fund is prohibited by law. This creates potential risks for RES producers which are entitled to payments for premiums from the ESF. If for any reason, the sources for funding the ESF are insufficient to cover its obligations for premiums to the RES producers, there will not be effective measures for RES producers to obtain payment and at the same time, they will have to continue to make their 5 per cent instalments to the fund.

#### *Guarantees of origin*

It should be noted that under the wording of the RES Act, the mandatory off-take obligation under the feed-in tariff regime or the obligation to pay premiums under the new premiums' regime is conditioned on the issuance of the so-called guarantees of origin<sup>10</sup>, issued by the SEDA on a monthly basis. The specific terms and conditions for issuance, transfer and cancellation of certificates of origin are set out in an ordinance of the Minister of the Economy and Energy. In general terms each month a producer shall submit applications for issuance of guarantees of origin for the electricity produced during the previous month. In addition, reports for the electricity produced shall be submitted each quarter. This means that the relevant off-taker will be obliged to purchase and the ESF will be obliged to pay premiums only for the electricity for which a guarantee of origin has been issued. In this way the Renewables Act assigns an important role to such guarantees of origin (if for some reason the issuance of a guarantee of origin is refused or delayed, the project company will not be entitled to sell the electricity generated) and represents an additional administrative

restriction for generation companies. This role goes far beyond the concept of Directive 2009/28/EC which envisages that such instruments will be only used for proving to final customers the percentage or quantity of energy from renewable sources in an energy supplier's energy mix in accordance with Article 3(6) of Directive 2003/54/EC (i.e. they are not viewed as a condition for benefiting from the relevant encouragement system of obligatory purchase of electricity at preferential prices) and also that the issuance of such instruments will be only optional and at the request of the generation company.

#### *Access to the grid*

RES producers are entitled to priority access to the grid under the RES Act. At the same time, in order to account for the additional costs for ESO for balancing the national system which are generated by intermittent RES producers such as PV and wind facilities, the Commission introduces a special higher fee for access to the transmission grid for such producers. While for ordinary electricity generation facilities the amount of such a fee is BGN 2.12/MWh (as of July 2019), the special access fee for PV and wind facilities is in the amount of BGN 5.14/MWh.

## **4. NATURAL GAS**

### **4.1 Market overview**

The Bulgarian natural gas market is still in the process of development and the share of the open market is negligible with 98.90 per cent of the natural gas for local consumption in 2018<sup>11</sup> supplied by the state-owned national supplier Bulgargas at regulated prices (the only source of supplies for Bulgargas being its long-term supply contract with Gazprom, Russia). The remaining 1.10 per cent of supplies were realised by traders at free-market prices.

The country has a well-developed gas transmission network (mostly built during the socialist era), which is operated by Bulgartransgas – a state-owned company, which is used for internal supplies to distribution companies, large industrial consumers and power plants as well as for transiting gas to Turkey, Greece and North Macedonia. The system is currently underused (due to a drastic decline of the use of natural gas by industrial companies

<sup>10</sup> As envisaged by Article 15 of Directive 2009/28/EC.

<sup>11</sup> Data from the Annual Report of the Energy and Water Regulatory Commission of July 2019.

from the time when the system was built) - about 45 per cent of the capacity of the national transmission system was used in 2018. Currently, the system is fed almost exclusively with gas from Russia through Ukraine under long-term supply agreements (local natural gas sources add negligible quantities to the system – less than 1 per cent as of the end of 2018). Therefore, after the Russia-Ukraine gas crisis of 2009, which resulted in a cut of supplies to Bulgaria, the government intensified work on building interconnection lines with the systems of Romania, Serbia, Greece and Turkey. Projects for the construction of a terminal for liquefied natural gas (“LNG”) or use of the existing terminal in Greece as well for supply of compressed natural gas (“CNG”) from Azerbaijan across the Black Sea have been also discussed, although no practical steps for their implementation have so far been made.

A number of gas infrastructure projects involving the Bulgarian market have been included in the updated list of Projects of Common Interest (“PCI”) of the European Commission of November 2017. These include gas interconnectors with Serbia and Greece (Interconnector Greece-Bulgaria) (the interconnector with Turkey has been removed from the list of PCI), the expansion of the existing gas storage facility of Chiren, as well as a number of projects related to diversification of gas supplies to the Central and Southeastern European region, such as a pipeline from Bulgaria to Slovakia (Eastring), further enlargement of the Bulgaria - Romania - Hungary - Austria bidirectional transmission corridor, and the development of a gas hub in Bulgaria – the so-called Balkan Hub.

Out of the above projects, final investment decisions have been taken for two projects:

- (i) the Interconnector Greece-Bulgaria project which as of 2019 has secured the required construction permits in Bulgaria and Greece and is in the phase of procurement procedures for construction;
- (ii) the Balkan Hub project – Phase 1, involving the expansion of the Bulgarian transmission system from the Turkish border to the Serbian border (an effective continuation of the Turkish Stream project through Bulgaria) -for which procurement procedures for construction are in process as of 2019.

Local distribution to household and small and medium business consumers is a relatively new sector, the actual development of which started in 2000 by the issuance of a number of regional and municipal distribution licences. There were 24 licensed regional distribution network operators and suppliers holding licenses for

35 territories in 2018 where one company (Overgas) holds 62 per cent market share (in terms of the number of customers). This sector accounts for only about 17 per cent of local consumption of natural gas in 2018 (where the average number for the EU is approximately 45 per cent) and the household customers account for only about 3 per cent. The total number of customers of distribution companies is about 107,000 while in the electricity sector the comparable number of customers is above 5 million. Nevertheless, this sector registers steady growth in the last years (12 per cent increase in the number of customers in 2018 compared to 2017) and given the very low current penetration rates, it has significant potential.

The market is heavily dependent on imports from Russia which account for almost 99 per cent of local consumption as of 2018. In previous years, local deposits have covered up to 10 per cent of local demand but operating deposits are close to depleted. In 2011, the government granted a permit for exploration of shale gas to Chevron but in 2012 the Parliament imposed a moratorium on the use of “fracking” technologies in Bulgaria and Chevron suspended its activities in Bulgaria. A number of exploration operations in the Black Sea shelf are currently being conducted but far from commercial discoveries at this stage.

## 4.2 Regulatory overview

The natural gas sector is regulated by the Energy Act and a number of Ordinances and Rules issues on its basis by the Council of Ministers and the Commission. This legislation conforms to the fundamental EU guidelines in the sector. Among other things, the law provides for:

- (a) the unbundling of services through the establishment of an independent system operator Bulgartransgas which undertook the transportation activities previously performed by the national supplier Bulgargas;
- (b) the free development by private investors of transit and gas distribution networks and storage facilities under a licence;
- (c) the liberalisation of supply;
- (d) third party access to the national transportation system, including storage facilities, on the basis of tariffs approved by the Commission.

For a long time, the local regulatory framework allowing for an actual open market and choice of suppliers by customers was not developed which was a serious obstacle to effective development of free gas market (accompanied by the lack of choice of sources

of gas and lack of interconnections). In 2013, on a complaint by one of the major local gas distribution companies, the European Commission opened a case against BEH and its subsidiaries Bulgargas and Bulgartransgas on allegations for hindering competitors from accessing key gas infrastructures in Bulgaria, in breach of EU antitrust rules. In December 2018 the European Commission issued a decision confirming the violations and fined the respondents EUR 77,068,000. In the context of that procedure and forced by European Regulations for the internal gas market, in the past years the local Regulator intensified the process of preparation of new trading and balancing rules and such were adopted in 2015 and 2016 and substantially amended in 2019 allowing for an effective opening of the market and trading.

As of July 2019, a Bill of amendments to the Bulgarian Energy Act is pending approval by the Parliament with the purpose of setting the legal framework for creating a licensed trading platform (exchange) for gas and assuring liquidity for the same.

### 4.3 Regulated natural gas market activities

According to the provisions of the Energy Act, the supply and distribution of natural gas, as well as the construction and operation of gas transit, transmission and distribution networks and gas storage facilities, are permitted after issuance of a respective licence, which is granted by the Commission.

No licence is required for trading with natural gas including for the import and export of natural gas and that sector is currently open to competition without regulatory barriers. This peculiarity of a local regulatory framework is probably due to the marginal current share of the free market (about 1 per cent of total consumption) due to very limited sources of gas supply and a lack of diversified cross-border transportation routes. The licensing of an organised trading platform is envisaged by proposed changes to the Energy Act of 2019.

Only one licence for operation of the transmission network (high-pressure pipelines) and for public supply of electricity has been issued for the territory of Bulgaria. Bulgartransgas (under the control of the Bulgarian government) holds the licence for the operation of the national transmission network and Bulgargas (also controlled by the Bulgarian government) holds the licence for the public supply of gas. Bulgartransgas holds also the only currently effective licences for transit of natural gas and for operating a gas storage facility (Chiren).

Similarly, only one licence for operation of a distribution network and for supply of gas to end consumers has been issued for a particular licensed territory. Currently, 24 companies have been issued licenses for distribution of natural gas in regions comprising several towns or within the territory of individual towns.

In principle, licences are issued on a “first come, first serve basis” provided that the applicant meets the relevant requirements for obtaining a licence. If there is more than one applicant interested in a particular territory, the Commission must organise a competition procedure for granting the licence.

The initial term of these licences depends on the licensed activity and is up to 35 years. Upon request of the licence holder, the licences may be renewed for the same time period.

### 4.4 Exploration and production

All underground natural resources including hydrocarbons are exclusive public state property. The state provides rights for prospecting and exploration on the basis of a special permit. Rights for the extracting of natural resources are granted by way of a concession.

The intensification of local production of gas is one of the priorities of the Bulgarian government. Until now commercial exploitation of local deposits of gas has been modest and has represented less than 10 per cent of local consumption (mainly the Galata deposit, which has been operated since 2004 by Melrose Resources and is now depleted and in the process of being licensed as a gas storage facility). In 2010 Melrose Resources (now Petroceltic International) received two new concessions for the exploitation of local deposits. As of 2018 however, the local production is marginal – in the range of 120,000 MWh (both for local consumption and exports) which is less than 1 per cent of local consumption.

A number of exploration permits have been issued in recent years. In 2012 a tender for the Han Asparuh exploration block in the Black Sea shelf attracted serious attention and a permit was issued to a consortium between Total, OMV and Repsol. In 2014 procedures for granting permits for selection of a license holder for two other Black Sea shelf blocks were opened but only one of them (named Silistar) attracted interest and a permit was awarded to Shell in 2016. In July 2019 the government opened a new tender for the second Black Sea shelf block Teres (now named 1-26 Tervel).



The exploration of oil and gas deposits may be carried out only on the basis of an exploration permit issued by the Council of Ministers ("CoM") after a proposal by the Ministry of Energy. For that purpose, the CoM institutes a tender procedure and the bidder ranked in first place shall be granted an exploration permit with a term of up to five years (with an option for up to three extensions and the total duration of all extensions can be up to five years, i.e. maximum 10 years in total). Based on the exploration permit the respective bidder concludes an exploration agreement with the CoM outlining the terms and conditions for conducting exploration activities including minimum investments and business programme, fees payable to the government, etc.

The exploration rights require its holder to register the geological discovery and commercial discovery of oil and gas deposits. The geological discovery reveals the quantities and qualities of the oil and gas of the respective deposit and the exact location of the deposit, while the commercial discovery contains technical and commercial evaluation of the deposit and proposed methods for extraction of the underground resources.

A holder of an exploration permit which has registered a commercial discovery and has obtained a certificate for that commercial discovery may submit an application to the government for direct (i.e. without conduction of any tender procedure) granting of oil and gas concession within six months as of the issue of the certificate for commercial discovery.

If no certificate for commercial discovery has been issued upon expiry of the exploration permit or if the holder of the certificate does not apply for a concession within the 6-month term, the CoM will be free to issue a new exploration permit or an extraction concession for the respective territory following a tender procedure.

After the issuance of a decision of the CoM for granting the concession, the concessionaire shall conclude a Concession agreement for a maximum term of 35 years (which term may be prolonged with up to 15 years). During the concession the concessionaire has the right to extract and process oil and gas from the deposit and to sell the oil and gas products to third parties. The concessionaire is obliged to pay to the state a concession fee (the amount of which is to be determined in the concession agreement), to carry out the annual working programme and to re-cultivate the concession area after the conclusion of the extracting and processing works.

#### 4.5 Transmission and access to the system

The national natural gas transportation system (high-pressure pipelines) consists of two independent balancing zones – the national transmission system which is predominantly used for supplies to the local market and the transit transmission system, which is predominantly used for transit of gas from the border with Romania to Turkey, Greece and North Macedonia under long-term supply contracts with Gazprom. The two systems have two interconnection points so a physical exchange of gas between the two is possible. Both systems are owned and operated by Bulgartransgas. Bulgartransgas is also owning and operating the single local gas storage facility Chiren. Currently, there are a number of exit/entry points to the national system: one exit/entry point from the Romanian transmission system supplying Russian gas through Ukraine, the exit/entry point to the gas storage facility Chiren, an exit/entry point at the interconnector with Romania Rousse-Giurgiu (until certain improvements of the system on Romanian territory are made, as of 2019 the interconnector provides unidirectional transmission to Romania only) and two entry points connecting local deposits. The transit system has the following interconnection points: one exit/entry point with the Romanian transmission system, an exit/entry point with the Greek transmission system and two exit points to the transmission systems of North Macedonia and Turkey (in 2019 certain plans to refurbish the interconnection facilities with Turkey in order to allow for a reverse flow of gas were announced). As mentioned, a number of interconnection lines with the systems of neighbouring Greece, Turkey and Serbia are in process of development which will substantially diversify the transmission opportunities of the system.

By law Bulgartransgas and the licensed regional distribution companies are obliged to allow free and non-discriminatory access to the transmission systems to all users (consumers, traders, local producers and licensed owners of gas storage facilities) under terms and conditions established by Rules adopted by the Commission and pursuant to access agreements under general rules approved by the Commission. The fees for access and transmission are determined by the Commission.

Access to the system may be refused only on technical reasons - lack of capacity or hazard to the integrity and security of the transmission system. Refusal for access on the basis of potentially serious economic and financing difficulties for another user of the system due to contracts containing 'take or pay' clauses is also

possible, but only on the basis of an express derogation issued by the Commission, which must be notified to and is subject to control by the European Commission. The same obligation to provide access applies to the operators of gas storage facilities.

#### 4.6 Trading and supply

The prices under which the public supplier of natural gas supplies the final suppliers and customers are approved by the Commission. The prices at which final suppliers supply protected consumers are also approved by the Commission and transactions are concluded under general terms approved by the Commission. All other transactions are concluded at market prices under Rules approved by the Commission. The transmission system operator (part of Bulgartransgas) is responsible for the balancing and administration of the transactions.

Although in theory the market is fully liberalised, virtually all supplies to large consumers are performed by the public supplier Bulgargas with few deals realised between industrial consumers and the operator of local deposits and traders. It is expected that the liberalised market will grow significantly in the next years.

As of July 2019, a Bill of amendments to the Bulgarian Energy Act is pending approval in the Parliament with the purpose of setting the legal framework for creating a licensed trading platform (exchange) for gas and assuring liquidity for the same. Under the proposed rules and as part of the so-called Balkan Gas Hub concept, it is proposed that the operation of a trading platform (gas exchange) will be assigned to a licensed subsidiary of Bulgartransgas. In order to assure liquidity for the gas exchange, it is proposed that obligations are imposed on the public supplier Bulgargas to offer for sale at the exchange certain minimum quantities of gas (as a percentage of overall local consumptions) under a schedule which envisage that such quantities will gradually increase from 7 per cent in 2020 to 35 per cent in 2024 reach. Counter-obligations are also proposed for large industrial consumers to mandatorily supply certain percentages of their consumptions from the future exchange (from 10 per cent in 2020 to 25 per cent in 2024).

#### 4.7 LNG and storage capacity

There are no operating LNG terminals in Bulgaria. The government has discussed ideas for the construction of a local LNG terminal or signing arrangements for the use of the existing LNG terminal in Greece for supplies to Bulgaria but no specific steps have been taken so far.

Bulgaria has one operating gas storage facility, Chiren, which is operated under a licence by the transmission operator Bulgartransgas. The capacity of the facility is about 450 million m<sup>3</sup> and about 4.3 million m<sup>3</sup> of daily supplies. Currently, a process of upgrading the facility is underway which will increase its overall capacity and capacities for daily supplies.

It is expected also that the depleted Galata natural gas field, which was exploited by Petroceltic International under a concession which expires in 2026, will be converted into a new gas storage facility which will contribute greatly to the energy security and the liberalisation of the market.

## 5. UPSTREAM OIL MARKET

### 5.1 Market overview

Currently, the local production of oil in Bulgaria is negligible and virtually 100 per cent of oil is imported from Russia. In the last year the government has prioritised the exploration for local oil and gas deposits and has issued a number of exploration permits to international companies hoping to increase domestic production.

### 5.2 Regulatory overview

In respect of the legal regime for oil exploration and production, please refer to Section 4.4 above.

## 6. FORTHCOMING DEVELOPMENTS IN THE BULGARIAN ENERGY SECTOR

Major investment opportunities are expected in the Bulgarian energy sector in the next years in many different areas

### 6.1 Nuclear energy

The project for the construction of a new Belene NPP (two 1000 MW units) was officially restarted by the Bulgarian Government and Parliament in 2018 and in 2019 an international procedure for selecting a co-investor for the completion of the project was initiated. The project is expected to cost over EUR 10 billion and could reshape the local and regional electricity market.

## 6.2 Renewable energy

Investments in the new project have been effectively halted in the last years. However, there is quite an active market for existing projects in operation and it may be expected that this market will further grow after the new promotional schemes introduced in 2018 and 2019 are tested and investors obtain actual data about how the project financials perform in the new environment. In the context of declining costs of renewable energy technologies and rising electricity prices and CO<sub>2</sub> emissions costs, potential may appear for the development of new projects without subsidies.

## 6.3 New gas-burning co-generation facilities

Apart from certain district heating and industrial co-generation facilities, there are no major local gas burning generation facilities. With Bulgarian coal power plants facing serious issues with CO<sub>2</sub> emission costs and increased restrictions for air pollutant emissions and the rising importance of natural gas as a transition fuel, opportunities are appearing for new gas burning generation facilities in Bulgaria particularly co-generation facilities for district heating or industrial purposes.

## 6.4 Electricity and gas markets liberalisation

The liberalisation of the local electricity and gas markets, despite speeding up in the last years, is yet far from the level of matured markets. It is expected that measures for boosting free trade in both markets will continue which will bring significant opportunities for electricity and gas trading including cross-border.

## 6.5 Major gas infrastructure projects

Bulgaria has the chance to strengthen its position as a local energy hub. A number of gas infrastructure projects involving Bulgaria have been included in the updated list of PCI of the European Commission of November 2017.

## 6.6 Oil and gas

Further increase of local production of natural gas and oil is one of the priorities of the Bulgarian government in the aims of ensuring the security of supplies and a certain level of independence from imports of hydrocarbons. Therefore, the government continues to implement its plans to attract major investments by international companies in exploration activities.

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# CROATIA

## 1. INTRODUCTION TO THE ENERGY MARKET

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Croatia has, within the past decade and especially in the past couple of years, seen vivid development of the energy sector, in all of its areas such as electricity and gas markets, renewables and upstream regulation and activities.

Legislative framework of the energy sector in Republic of Croatia ("RoC") develops in the direction set by the obligations assumed by international agreements in fields of energy, environmental protection and climate, by the ever-present obligation to harmonise Croatian energy legislation with the European *acquis* in this area, within the EU membership, as well as by the real need to regulate relations between energy market stakeholders in line with the demands of economic, energy, environmental and social policies at European and national level. Croatian energy legislation is continuously harmonised in line with the European *acquis* requirements by updating its existing legislation, or by adopting new energy laws and regulations necessary for the transposition. Apart from becoming a member of the EU internal energy market which to a certain extent applied even before the accession as a result of the Ratification and Accession Treaty signed in 2001, by ratifying the Energy Charter Treaty, Croatia has undertaken to comply with the principles of market economy in the energy sector, enhancing energy efficiency and environmental protection. Also, by ratifying the Kyoto protocol, it has undertaken to ensure that 20 per cent of all energy consumed in Croatia comes from renewable energy sources. Consequently, in the last few years Croatia has been experiencing development of renewable energy projects such as wind, solar and biomass power plants, etc. It is important to mention that Croatia's share of renewable energy sources already stands at 29 per cent<sup>1</sup>. Therefore, Croatia has

exceeded the 20 per cent target level in the total energy consumption, the European Union has set for 2020.

Traditionally, energy policies have concentrated on energy security. However, due to climate change, energy security goals should now be achieved with the minimum greenhouse gas emissions. The energy sector is the largest source of greenhouse gas emissions, and climate change is one of the most important threats to modern mankind. Global challenges and instruments (like the United Nations Millennium Development Goals and Paris Accord) and EU policies (mostly, in the energy Union framework) create a framework for the development of energy policies in Croatia.

Owing to the Paris Accord, global efforts are aimed at reducing greenhouse gas emissions, aiming to keep Earth's average temperature rise below 2°C and preferably below 1.5°C. EU already has and wants to keep the leading role in the global climate change struggle, as a consequence thorough changes are needed within the energy sector. RoC, as an EU Member State, participates in the adoption and implementation of EU common policies, including the energy policy. The Ministry of Environment and Energy initiated the process of drafting the Energy Development Strategy of the Republic of Croatia by 2030 with a view to 2050 - an advisory document containing ideas, suggestions and possible directions for development of the energy sector. Said document serves to encourage debate and collect contributions from all stakeholders, a so-called Green Book. The basic purpose of the Strategy is to reach an agreement on priority development goals and to create robust scenarios that enable achievement of these goals, in these changing circumstances. The premises, analyses and results presented in the Green Book constitute the basis for public discussion and rethinking of the changes that are taking place and

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<sup>1</sup> Source: EUROSTAT.



will transform the energy sector and the use of energy in the coming decades. Changes are expected in the legal framework, sector structuring, business operations, system management, implementation of new technologies, construction of new infrastructure and strengthening the position of the end-users.

Ministry for energy, the regulatory agency and regulated subjects i.e. companies as service providers that were granted a special position in the legal system of the RoC, constitute the unique institutional framework of the energy sector of RoC. These are as follows.

The central administrative body responsible for energy is the Ministry of Environment and Energy ("**Ministry**"), entrusted with activities of defining and implementing energy policy, strategic planning and development of the energy sector, security of energy supply in RoC, drafting legislative proposals and regulations in the field of energy, issuance of energy approvals, record keeping, supervision, international cooperation and representation of RoC in professional and advisory bodies in the EU as well as other professional and administrative activities. The Ministry was conferred with said activities by the Energy Act<sup>2</sup> and accompanying sectoral acts and regulations.

The Croatian Energy Regulatory Agency ("**HERA**") is the body in charge of regulating<sup>3</sup> all energy activities in Croatia and has its own budget, whose revenues consist of remuneration for conducting energy regulatory activities. HERA is established as an independent and non-profit legal entity with public powers for the purpose of determining and implementing the regulation of energy activities in the electricity, heating, gas and petroleum sectors. HERA is responsible to the Croatian Parliament by submitting a yearly report on its activities.

Croatian Agency for Mandatory Oil and Oil Derivatives Supplies ("**HANDA**") was merged into the Agency for Hydrocarbons ("**CHA**"), by amendments and supplements to the Petroleum and Oil Products Market Act<sup>4</sup>. CHA, as the central body in RoC for compulsory supplies of oil and oil derivatives, is the only body

obliged and authorised to form, maintain and sell mandatory supplies of oil and oil derivatives. Supplies are maintained in order to ensure sufficiency of stock in case there is a threat to the country's energy security or certain exceptional disturbances in the market supply of said products, along with the fulfilment of RoC's international obligations, based on decisions of the International Energy Agency and the European Commission, to release compulsory supplies of oil and oil derivatives.

Croatian Energy Market Operator Ltd. ("**HROTE**") provides public service of organising the electricity and gas market, under the supervision of HERA.

During the reconstruction of the Croatian power sector, Croatian Transmission System Operator Ltd. ("**HOPS**") was established as an independent legal entity. HOPS is the only transmission system operator in RoC and the owner of the entire Croatian transmission network with a licence to carry out energy transmission activities as a regulated public service.

Croatian Power Exchange Ltd. ("**CROPEX**") is the central venue of organised electricity trading between market participants and stock exchange members, which assumes the risk of purchasing and selling electricity through closed stock exchange transactions.

HEP-Distribution System Operator Ltd. ("**HEP ODS**") is a company within the HEP Group<sup>5</sup>. HEP ODS has 21 distribution areas on the RoC territory. For the needs of network users, HEP ODS provides power distribution services that include network access and network usage. HEP ODS is responsible for the quality of the delivered electricity to all end customers and it guarantees steady supply of electricity. It also conducts, maintains, builds and develops a distribution network and ensures long-term network capabilities to meet future network access requirements.

HEP ELEKTRA Ltd. is the only energy company authorised to provide public electricity supply services in RoC, for households as well as for business entities. It is a company within the HEP Group.

<sup>2</sup> Official Gazette No. 120/12, 14/14, 102/15, 68/18 of 27 July 2018.

<sup>3</sup> HERA's primary activities are: issuance of licences for carrying out energy activities, adoption of methodologies for the determination of tariff items in tariff systems, prescribing fees and supervision of their application, granting status of eligible electricity producers, approval of development and network construction plans, sectoral legislative activities, giving expert opinions or approvals for energy sector acts and regulations and supervising the work and quality of service provided by regulated subjects.

<sup>4</sup> Official Gazette No. 19/2014, 73/2017 of 27 July 2018.

<sup>5</sup> Hrvatska elektroprivreda (HEP Group) is the national energy company, which has been dealing with generation, distribution and supply of electricity for more than a century. The parent company (parent body) of HEP Group is HEP d.d., which carries out the function of corporate governance of HEP Group and guarantees conditions for safe and reliable electricity supply to customers. Croatian transmission system operator (HOPS) has been unbundled from HEP Group, according to ITO model (Independent Transmission Operator).



The Plinacro Group consists of (i) PLINACRO Ltd., the parent company, (ii) Underground Gas Storage Ltd., a subsidiary owned by the parent company since 2009 and (iii) LNG CROATIA LLC, as a jointly controlled entity together with HEP d.d. PLINACRO Ltd., as the operator of the gas transportation system in RoC according to the provisions of the Gas Market Act<sup>6</sup>, is responsible for the management, maintenance and development of the gas transportation system, all to ensure reliable and steady gas delivery.

In RoC, the activity of oil transportation through a pipeline is carried out by the Adriatic Pipeline d.d. ("JANAF"), which is obliged to provide access to the transportation system in an impartial and transparent manner to natural persons and legal entities, in accordance with the Petroleum and Oil Products Market Act. In addition to oil transportation, JANAF's significant activities include: storage of oil and oil derivatives and transshipment of liquid cargo. The JANAF system was built as an international oil transportation system from Omišalj Port and Terminal, to domestic and foreign refineries in eastern and central Europe.

LNG CROATIA LLC is a company founded with the intent to build and manage the infrastructure necessary for the reception, storage and gasification of liquefied natural gas.

## 2. ELECTRICITY

### 2.1 Market overview

The performance of energy activities and the legal status and responsibilities of the participants in the electricity market are determined by the Energy Act, the Electricity Market Act<sup>7</sup> and regulations adopted for their implementation. The Electricity Market Act distinguishes six types of energy activities within the electricity sector – production of electricity, transmission of electricity, distribution of electricity, organisation of electricity

market, supply of electricity and trade of electricity. Only the energy operators holding energy licences issued by HERA are entitled to undertake the mentioned energy activities<sup>8</sup>.

As at 1 April 2019,<sup>9</sup> the following market participants were registered as holders of energy licences for undertaking specific energy activities in the RoC:<sup>10</sup>

- (a) for production of electricity – 55 different companies;
- (b) for transmission of electricity – Hrvatski operator prijenosnog sustava d.o.o. – HOPS d.o.o., owned by HEP d.d., a 100 per cent state-owned company;
- (c) for distribution of electricity – HEP-Operator distribucijskog sustava d.o.o. – HEP ODS, owned by HEP d.d.;
- (d) for organisation of electricity market – HROTE;
- (e) for electricity supply – 15 different companies;
- (f) for electricity trading – 33 different companies.

The consumption of electricity in Croatia has for the fifth year in a row experienced a fall, mainly due to the decrease in the activities of the industrial sector. According to statistics of HOPS in the 2017 Annual report, gross consumption of electricity<sup>11</sup> in Croatia in 2016 was 16.7 TWh which indicates a slight fall (-0.34 per cent) with respect to 2015 when gross consumption was 16.8 TWh.

The portion of imported electricity in 2016 was 12,3 TWh, which is -5.84 per cent lower than in 2015. On the other hand, the exported energy in 2016 was 6.0 TWh, which is 9.44 per cent higher than in 2015.

The electric energy taken in the Croatian electro energy system from renewable energy sources ("RES") in 2016 was in the amount of 10431 GWh, which is 13,41 per cent higher than in 2015. Out of the 10431 GWh, 5930 GWh was produced by hydroelectric power plants, 3617 by thermal power plants, 993 GWh by wind power plants, and 0,012 by industrial plants.

<sup>6</sup> Official Gazette No. 18/18 of 23 February 2018.

<sup>7</sup> Official Gazette No. 22/2013, 95/2015, 102/2015, 68/2018 of 27 July 2018.

<sup>8</sup> Certain exceptions do exist primarily in relation to the production of electricity wherein, in certain circumstances, legal or private persons will not be obligated to obtain the energy licence. In addition, with respect to undertaking of some of the activities such as supply and trading, among other, additional requirements are to be complied with – obtaining of EIC sign – Energy Identification Coding Scheme, entering into an Energy balancing agreement with HOPS d.o.o., and other various agreements.

<sup>9</sup> Information is available on the HERA's website – <https://www.hera.hr/hr/html/dozvole.html>.

<sup>10</sup> Wherever an energy activity is undertaken by more than three energy operators, only the number and not the names of such operators is given.

<sup>11</sup> Gross electricity consumption encompasses sale of electricity to end consumers, losses in transmission and distribution, work of hydropower stations Velebit as consumer (pumping of water) and own consumption of other power plants from the network. Gross electricity consumption encompasses sale of electricity to end consumers, losses in transmission and distribution, work of hydropower stations Velebit as consumer (pumping of water) and own consumption of other power plants from the network.

In all RES sectors, the gross amount of energy produced is positively higher than in 2015.

All legislation within the energy sector was significantly changed in the period from 2014 to 2019, and further modification is expected to continue since the energy sector represents the most important part of economic growth in the RoC.

The Croatian electricity market is only partially liberalised. Non-liberalisation exists, from both the legislative and market points of view, in relation to electricity transmission and distribution. All transmission and distribution activities in Croatia are undertaken by one of the HEP Group companies – HOPS for transmission and HEP ODS for distribution. On the other side, generation, supply and trade of electricity is liberalised from the legislative point of view while the opening of the market “in real life” is becoming more significant each year. The opening of the market is also reflected through the development of renewable energy projects.

CROPEX was incorporated in May 2014 and became officially operational on 10 February 2016. This represents a step towards the cooperation of the Croatian electric energy market with other markets in the area. It is also significant for the development of different cross-border transmission mechanisms. In June 2018, HOPS and CROPEX formally linked the Croatian electricity market to the European Multiregional Electricity Market, which was a first successful project of this kind for RoC. This was the very first introduction of the cross-border capacities with the ultimate goal to connect RoC with neighbouring wholesale electricity market.

## 2.2 Regulatory overview

Electricity Market Act secures implementation of the following directives in the Croatian legislative framework:

- (a) Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC;
- (b) Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC; and
- (c) Directive 2005/89/EC of the European Parliament and of the

Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment.

The Electricity Market Act secures implementation of the following regulations in the Croatian legislative framework:

- (a) Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency;
- (b) Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management;
- (c) Commission Implementing Regulation (EU) No 1348/2014 of 17 December 2014 on data reporting implementing Article 8(2) and Article 8(6) of Regulation (EU) No 1227/2011 of the European Parliament and of the Council on wholesale energy market integrity and transparency.

Some of the electricity market elements encompassed by the new Electricity Market Act are related to the supply of electricity as public service and protection of the buyers through the institutions of universal service and guaranteed supply, protection of vulnerable customers, monitoring of the security of supply, promotion of regional cooperation, further unbundling, introduction of smart grids, etc.

Apart from the Electricity Market Act and Energy Act, electricity activities in Croatia are mainly regulated by the following Croatian acts and regulations:

- (i) Statute on Licences for Undertaking Energy Activities and Keeping the Registry of Issued and Revoked Licences for Undertaking Energy Activities<sup>12</sup> (“Statute on Licences”);
- (ii) Act on renewable energy sources and high efficiency cogeneration;<sup>13</sup>
- (iii) Electricity Market Act;<sup>14</sup>
- (iv) Act on Regulation of Energy Activities;<sup>15</sup>
- (v) Grid Rules of Transmission System;<sup>16</sup>
- (vi) Grid Rules of Distribution System;<sup>17</sup>
- (vii) Regulation on Issuing of Energy Licences and Determining the Conditions and Deadlines for Connecting on the Electro-energy Grid;<sup>18</sup>
- (viii) Methodology for Determination of Tariff Items for Guaranteed Supply with Electricity;<sup>19</sup>

<sup>12</sup> Official Gazette No. 88/15, 114/2015, 66/18.

<sup>13</sup> Official Gazette No. 100/15, 123/16, 131/17, 96/18, 111/18.

<sup>14</sup> Official Gazette No. 22/13, 95/15, 102/15, 68/18.

<sup>15</sup> Official Gazette No. 120/12, 68/18.

<sup>16</sup> Official Gazette No. 67/17.

<sup>17</sup> Official Gazette No. 74/18.

<sup>18</sup> Official Gazette 7/18.

<sup>19</sup> Official Gazette No. 20/19.

<sup>20</sup> Official Gazette No. 116/13, 38/14.

- (ix) Methodology for Determination of Tariff Items for Supply with Electricity as Universal Service;<sup>20</sup>
- (x) Decision on Amount of Tariff Items for Guaranteed Electricity Supply;<sup>21</sup>
- (xi) Decision on Amount of Tariff Items for Distribution of Electricity;<sup>22</sup>
- (xii) Decision on Amount of Tariff Items for Transmission of Electricity;<sup>23</sup>
- (xiii) Decision on Determining the Body Responsible for Coordination of Procedures for Issuing the Permits for Projects of Common Interest in the Energy Sector;<sup>24</sup>
- (xiv) Decision on Reimbursement for Renewable Energy Sources and High Efficiency Cogeneration;<sup>25</sup>
- (xv) Statute on Usage of Renewable Energy Sources and Cogeneration;<sup>26</sup>
- (xvi) Decree on Incentives to Promote Electricity Production from Renewable Energy Sources and High Efficiency Cogeneration;<sup>27</sup>
- (xvii) Decree on the Share of the New Electricity Delivered by Eligible Producers that the Electricity Suppliers are Required to Take Over from the Electricity Market Operator;<sup>28</sup>
- (xviii) Statute on Acquisitions of Eligible Electricity Producer Status;<sup>29</sup>
- (xix) Decree on Criteria for Obtaining Status of Vulnerable Energy Customers from Connected Systems;<sup>30</sup>
- (xx) Decree on Monthly Amount of Compensation for Vulnerable Energy Customer, Method of Participation in Settling Energy Costs for the Customer and Procedures of Responsible Centres for Social Welfare;<sup>31</sup>
- (xxi) Tariff System for Production of Electricity from RES and Cogeneration;<sup>32</sup>
- (xxii) Tariff System for Production of Electricity from RES and Cogeneration;<sup>33</sup>
- (xxiii) Tariff System for Production of Electricity from RES and Cogeneration;<sup>34</sup>
- (xxiv) Decree on Establishment of Guarantees of Electricity Origin;<sup>35</sup>
- (xxv) Methodology on Establishment of Electricity Origin;<sup>36</sup>
- (xxvi) Decision on the Reimbursement Amount for Participation in the System for the Guarantee of Electricity Origin;<sup>37</sup>
- (xxvii) Rules on Organizing of Electricity Market;<sup>38</sup>
- (xxviii) Rules on Balancing of Electro Energy System;<sup>39</sup>
- (xxix) Rules on Changing the Energy Supplier;<sup>40</sup>
- (xxx) Criteria on Issuing the Approval for Construction and Operation of Direct Lines;<sup>41</sup>
- (xxxi) Methodology for Determination of Prices for Calculation of Balancing Electricity;<sup>42</sup>
- (xxxii) Methodology for Determination of Prices for Providing of Balancing Services;<sup>43</sup>
- (xxxiii) Decision on the Amount of Fees for Grid Connection and Increase of Connecting Power;<sup>44</sup>
- (xxxiv) Methodology for Determination of Fees for Electro-energy Grid Connection of New Grid Users and for Increasing the Connecting Power for Existing Grid Users;<sup>45</sup>
- (xxxv) Decision on the Fee for Organising of Electricity Market;<sup>46</sup>
- (xxxvi) Decision on the Fee Amount for Using the Premises Used by Production Plants to Produce Electricity;<sup>47</sup>
- (xxxvii) Decision on the Amount of the Fees for Undertaking Works of Regulation of Energy Activities;<sup>48</sup>
- (xxxviii) Conditions on Quality of Electricity Supply;<sup>49</sup>
- (xxxix) General Conditions for Grid Use and Supply of Electricity;<sup>50</sup>
- (xl) Decision on the Reimbursement Amount for Participation in the System for the Guarantee of Electricity Origin;<sup>51</sup>
- (xli) Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance

<sup>21</sup> Official Gazette No. 25/19.

<sup>22</sup> Official Gazette No. 112/18.

<sup>23</sup> Official Gazette No. 112/18.

<sup>24</sup> Official Gazette No. 137/14, 31/17.

<sup>25</sup> Official Gazette No. 87/17.

<sup>26</sup> Official Gazette No. 88/12, 120/12, 100/2015, 116/18.

<sup>27</sup> Official Gazette No. 116/18.

<sup>28</sup> Official Gazette No. 116/18.

<sup>29</sup> Official Gazette No. 132/13, 81/14, 93/14, 24/15, 99/15, 110/15.

<sup>30</sup> Official Gazette No. 95/15.

<sup>31</sup> Official Gazette No. 140/15.

<sup>32</sup> Official Gazette No. 33/07, 63/12. This act is applicable only in relation to projects that signed FIT PPA prior to 6 June 2012.

<sup>33</sup> Official Gazette No. 63/12, 120/12, 121/12, 144/12, 133/13. This act is applicable only in relation to projects that signed FIT PPA prior to 1 January 2014.

<sup>34</sup> Official Gazette No. 133/13, 151/13, 20/14, 107/14, 100/15, 100/15. This act is applicable only in relation to projects that signed FIT PPA prior to 1 January 2016.

<sup>35</sup> Official Gazette No. 84/13, 20/14, 108/15.

<sup>36</sup> Official Gazette No. 133/14.

<sup>37</sup> Official Gazette No. 34/15.

<sup>38</sup> Official Gazette No. 121/15, 48/16, 50/18.

<sup>39</sup> Official Gazette No. 133/06, 135/11.

<sup>40</sup> Official Gazette No. 56/15, 33/17.

<sup>41</sup> Official Gazette 43/17.

<sup>42</sup> Official Gazette No. 71/16, 112/16.

<sup>43</sup> Official Gazette No. 85/15.

<sup>44</sup> Official Gazette No. 52/06.

<sup>45</sup> Official Gazette No. 51/17, 31/18.

<sup>46</sup> Official Gazette No. 94/07, 38/12.

<sup>47</sup> Official Gazette No. 84/13, 101/13, 72/15.

<sup>48</sup> Official Gazette No. 155/08, 50/09, 103/09, 21/12.

<sup>49</sup> Official Gazette No. 37/17, 47/17, 31/18.

<sup>50</sup> Official Gazette No. 85/15.

<sup>51</sup> Official Gazette No. 34/15. Croatian agencies and bodies competent for providing and regulating energy services issue publications with regard to the specific areas of energy services' provision (e.g. amount of tariff items, HOPS non-standard service fees, usage of the certain registries etc.). Such publications are regularly updated to be in compliance with the relevant legislation (e.g. the Energy Market Act).-

of the Energy Union and Climate Action.

### 2.3 Regulated electricity market activities

The Electricity Market Act differentiates between the market-based and regulated energy activities. Regulated activities are undertaken as public services. Such activities are transmission and distribution of electricity, organisation of the electricity market which is undertaken by HROTE, and the supply of electricity in the amount and manner prescribed by the law. Other energy activities are performed as marked/based activities that are regulated by the market itself.

Electricity supply undertaken as public service is defined as *sale of electricity to the end consumers who are entitled to such type of supply and are free to choose it themselves, or are using it by way of automatism*. Such suppliers may supply the buyers under the regulated conditions by way of undertaking a universal service or a service of the guaranteed supplier.

Particularities of the regulated electricity market activities will be discussed in more detail in Sections 2.5 and 2.6 below.

### 2.4 Material provisions of electricity market law and licensing regulations

The Statute on Licences regulates requirements which any energy operator undertaking an energy activity is obliged to meet. These requirements are specific to the type of energy activity. According to the Energy Act, all energy entities must meet the following requirements:

- (a) be registered for undertaking the respective energy activity in the RoC;
- (b) have sufficient technical qualifications for undertaking the subject activity;<sup>52</sup>
- (c) prove employment of sufficient number of employees professionally qualified for undertaking of the subject activity;
- (d) hold sufficient financial means necessary for undertaking of the subject activity or a proof of their capability to obtain one;<sup>53</sup>
- (e) not to have any energy licence for undertaking of the subject energy activity revoked from the entity in the five years

preceding the submission of the request;

- (f) that the members of the management board or other responsible persons within the entity have not been convicted of a crime in an economic sector in the last five years, or that the natural person seeking the licence has not been convicted of a crime in an economic sector in the last three years.

Moreover, HERA may issue a licence to the entity which does not meet the aforementioned criteria if the entity is a holder of a project of a common interest which has been listed on a list of projects of the common interest of the European Union.

The entity is further obligated to pay a fee for the issuance of the energy licence determined by the Decision on the Amount of the Fees for Undertaking Works of Regulation of Energy Activities. The fees are as follows: HRK 20,000 (EUR 2,631.57) for production, HRK 15,000 (EUR 1,973.00) for distribution, and HRK 10,000 (EUR 1,315.78) for supply or trade of electricity. Energy operators are also obligated to pay a fee to HERA for its work related to the regulation of energy market. The fee amounts to 0.05 per cent of the total annual profit made out of sale of goods and services while undertaking respective registered energy activity in the preceding year.

The issued energy licence indicates the period of its validity which can be extended if an application is made three months prior to its expiry. HERA is entitled to revoke the energy licence on a temporary basis if the energy operator no longer fulfils the conditions of technical qualifications and competencies, financial or any other conditions pursuant to which the licence to perform energy activities had been issued. Likewise, among other reasons, HERA is also entitled to revoke the energy licence on a temporary basis if the entity is not performing the activities in a way prescribed by law, if it is not timely fulfilling its obligations towards other energy subjects (which perform the activities on the ground of a public service) in a period of three consecutive months, and if the competent inspection determines the safety deficiencies of the facilities, devices, networks or systems and informs HERA thereof. Finally, the Energy Act specifies that HERA is entitled to revoke the

<sup>52</sup> Specific technical qualifications are set forth for each type of energy activity with the Statute on Licences. This applies to the human resources and financial obligations requirements also.

<sup>53</sup> The energy licence holder (entity) needs to have sufficient financial means as determined by law or a proof of its capability to obtain such means in the following amounts: HRK 50,000 (approx. EUR 6,600) for production of electricity, HRK 300,000 (approx. EUR 39,500) for distribution, HRK 100,000 (approx. EUR 13,200) for transmission, HRK 20,000 (approx. EUR 2,650) for trade, and HRK 30,000 (approx. EUR 4,000) for supply of electricity.

licence on a permanent basis.

Transfer of energy licence is regulated under the Statute on Licences. It stipulates the possibility to transfer the energy licence only in cases of spin-off of an energy licence holder, or its merger to or with another legal entity. In the event of spin-off and merger, the transfer of energy licence is possible to only one legal entity which is the universal successor of the energy licence holder in question, subject to the filing of the request for such transfer to HERA within the timelines specified in the subject statute.

## 2.5 Trading and supply of electricity

As previously mentioned, energy activity may be undertaken by a natural or legal person who has obtained an energy licence from HERA. Up-to-date practice of HERA was to issue energy licences only to those natural or legal persons registered for the undertaking of energy activities in the RoC (such registration in relation to the legal persons would imply a registration of undertaking energy activity as a business activity of such legal person in the court registry of the respective commercial court in the RoC).

In accordance with the Electricity Market Act, the supplier or trader of electricity coming from the EU Member State or from the Energy Community member state wishing to participate in the electricity market of the RoC, as a supplier or trader, is also obligated to obtain a respective energy licence from HERA. As of 2016, HERA may issue an energy licence to the trader or supplier of electricity coming from the EU and/or Energy Community member state under more simplified rules in line with the Statute on Licences. The logical interpretation of this provision would be that foreign entities from the EU and/or Energy Community member states will be allowed to undertake energy activities in the RoC subject to obtaining energy licence from HERA, without any type of establishment in the RoC. In line with the abovementioned, the Statute on Licences, allows HERA to issue a licence to an active trader from the EU and/or Energy Community without the need for establishing a branch office. However, the abovementioned Statute on Licences remains silent in relation to the supplier. Therefore, the provisions of this statute enable foreign entities from the EU and/or Energy Community Member States to undertake energy trading activities in RoC without any type of establishment in the RoC, after obtaining a licence from HERA.

Nevertheless, this provision may be in contradiction with the provision of the Croatian Companies Act<sup>54</sup> according to which anyone who wishes to undertake permanent business activities in the RoC, shall be obliged to establish a branch office at least. From HERA's publicly available registry, it seems that on the Croatian market there are indeed traders and suppliers with the registered seat in other countries in the EU and/or Energy Community.

Apart from the energy licence, Electricity Market Act sets forth additional requirements that the participants, i.e., electricity traders, must comply with. For example, each electricity trader is obligated to make accessible, during the five-year period, to HERA, to the Croatian Competition Agency, and to other competent agencies in the Energy Community and/or EU, relevant data referring to all transactions contracted with electricity buyers on the wholesale market, HROTE and HOPS, in relation to the purchase or sale of electricity, including electricity derivatives.

In addition, the producer, trader and supplier of electricity (each referred to as "**Participant**" and altogether as "**Participants**"), aside from obtaining the respective energy licence, must also enter into other contracts. These are: (i) contract with HROTE which regulates the rights and obligations between the Participant and HROTE,<sup>55</sup> and (ii) energy balancing contract with HOPS. Also, in order to secure a cross-border trading, the Participants must enter into a contract on securing cross-border capacities with HOPS.

Finally, according to the Electricity Market Act, the electricity market consists of retail and wholesale electricity market, whereas the wholesale market consists of "bilateral agreements market", "energy balancing market", and "electricity stock market". HROTE and HOPS are responsible for organising the stock electricity market for physical trading with electricity on the whole territory of the RoC, and for the connection with other stock electricity markets. Croatian electricity stock market known as CROPEX is a central counter party between the sellers and buyers of electricity.

The producer, supplier and trader provide HROTE with "agreed schedules" of sale and purchase of electricity which need to be balanced in such a way that the hourly plan of total take-over of electricity corresponds to the hourly plan of total delivery of electricity. The subject balancing is regulated under the Energy

<sup>54</sup> Official Gazette No. 111/1993, 34/1999, 121/1999, 52/2000, 118/2003, 107/2007, 146/2008, 137/2009, 125/2011, 111/2012, 68/2013, 110/2015 of 13 October 2010

<sup>55</sup> Prior to entering into the contract with HROTE, the Participant is obliged to obtain an Energy Identification Coding Scheme.

balancing agreement concluded with HOPS and the Rules on Balancing of Electro Energy System. Such rules determine the (i) entities responsible for deviations, i.e. producer, supplier and trader (**"Responsible entities"**), (ii) entities in charge of providing the balancing services, (iii) way of calculation of energy needed for the balancing (the **"Balancing energy"**), and (iv) way of paying for such Balancing energy. In case of misbalance, HOPS guarantees the balance in energy. Whichever entity is responsible for the misbalance is liable to pay for the balancing according to the unit price of the Balancing energy in line with the rules on balancing in electro energy system.

The existing Croatian legislation differentiates between the electricity consumers entitled to choose their own supplier and paying the price of electricity determined by the market on the one hand, and the electricity consumers entitled to the electricity supply provided as public service, on the other hand. The "public service supply" is undertaken as regulated service, under the regulated prices. Furthermore, the Electricity Market Act differentiates between the (i) public service supply as universal service established for the need of households and the (ii) public service supply as guaranteed service which is, according to its statutory definition, applied when an end consumer, under certain circumstances, remains without a supplier.

According to the Electricity Market Act, the Government of RoC determines those energy operators that are (in line with the provisions of the Electricity Market Act) obligated to provide a service of electricity supply as universal service or as guaranteed supply on the territory of the RoC. Such energy operators are obligated to procure the electricity needed for a safe and continuous electricity supply from the producers, traders, other suppliers, and the organized electricity market or from import, wherein the priority is given to the electricity produced from renewable energy sources and cogeneration.

## 2.6 Transmission and grid access

There are only one transmission system operator and one distribution system operator in Croatia, respectively HOPS and HEP-ODS. They are a part of a vertically integrated company – HEP Group and are independent from one another with respect to their form, organisation and decision making.

One of the most important aspects of the transmission system is the execution of unbundling by choosing one of the possible

models. Both the Directive 2009/72/EC and the Electricity Market Act recognize three types of models: ownership unbundling, ISO – Independent System Operator and ITO – Independent Transmission Operator models. The Croatian legislator has opted not to impose any of the models onto the transmission system operator but has rather left it to the vertically integrated company – HEP d.d., initial owner of the network system, to choose the model. HEP d.d. has chosen the ITO model, thus making the transmission system operator – HOPS - the owner of the network system. Electricity Market Act, in line with the respective directive, sets forth all other requirements which must be met for unbundling to be fully and properly completed and whose completion and maintenance will always be subject of monitoring by HERA undertaking the certification procedure.

Electricity generation facilities have a right to connect to and use the electricity grid, and those which are already connected can have their connecting power increased. TSO and DSO are in charge of reviewing technical possibilities for carrying out such connection and calculate the connection fee in accordance with the Methodology for Determining the Fee for Connecting to the Power Grid of New Network Users and for Increasing the Connecting Power of Existing Network Users, and the Decision on the Amount of Fees for Grid Connection and Increase in Connecting Power.

According to the Electricity Market Act, TSO and DSO are obligated to secure third party access to the grid in accordance with the General Terms on Grid Use and Supply of Energy. Such third-party access may be denied only due to limited technical conditions of the grid in which case the refusal must be explained. The party which has been denied the access may file an appeal to HERA whose decision on the issue is final.

A successful grid connection process can be made through a simplified or complex connection. Simplified connection includes, but is not limited, to the following: (i) issuance of the Electro Energy Approval (the **"EEA"**), (ii) issuance of the main design confirmation, (iii) payment of the connection fees (acceptance of the bidding offer), (iv) construction of the connection point, (v) concluding a grid usage agreement, (vi) putting a connection point under the voltage and issuing a confirmation on beginning of the use of the power grid, (vii) test drive and issuance of a permanent operation certificate (if tested in the EEA). On the other hand, complex connection procedure includes, but is not limited, to: (i) preparation of Survey on Optimal Technical Solution for



Connection (the “SOTSC”), (ii) concluding a grid connection agreement, (iii) issuance of the EEA, (iv) issuance of the main design confirmation, (v) payment of the connection fees, (vi) construction of the connection point and preparation of the conditions on the power network, (vii) concluding a grid usage agreement, (viii) putting a connection point under the voltage and issuing a confirmation on beginning of the use of the power grid, (ix) test drive and issuance of a permanent operation certificate (if conditioned under the EEA).

The grid connection agreement is concluded between the grid system operator and the producer of electricity in accordance with the Statute on Issuance of the Energy consents and Determination of Conditions and Deadlines for connection to the Electro Energy Grid. The connection fee is payable by the producer and covers the costs of the connection construction and securing of adequate technical conditions of the grid. The grid usage agreement is concluded between the grid system operator and the owner (or a holder of other *in rem* rights) of the building or a part of the building which is connecting to the grid. Such an agreement governs the terms and conditions of the grid usage and is usually made for an indefinite time period.

## 2.7 General approvals and permits for electricity generation facility project implementation

There is a set of interdependent regulatory steps essential to the constructing and running of an electricity generation facility. Apart from the energy licence issued by HERA, each electricity generation facility construction also requires energy approvals (a requirement in addition to the regular construction-permitting process). Before obtaining the necessary approvals and licences, a new company has to be incorporated or the existing company's incorporation deed needs to be changed; in both cases, the generation of electricity as a business activity of the company must be registered with the court registry of the respective commercial court. Also, in the events of renewable electricity generation, the investor/project developer should choose the appropriate project site bearing in mind the investment feasibility with regards to the optimal usage of a specific RES, and difficulties regarding the grid connection, both of which depend on the location of generation facility. Also, the investor's decision on the location should be based on the respective construction possibilities provided for in the spatial plans, current land

ownership status, as well as on other technical and economic factors.

Please note that the list of necessary licences and approvals will also include those approvals required for the renewable electricity generation facilities.<sup>56</sup>

### Licences and approvals

- (a) Location permit is issued by the local government where the facility is to be constructed or by the Ministry of Construction and Spatial Planning (in case of a facility with more than 20 MW). Location permit is issued in cases such as those when construction is scheduled in phases (*fazna izgradnja*) and/or in stages (*etapna izgradnja*), or in case of unresolved property relations, or when expropriation is needed, etc.
- (b) Securing the Grid Access – during the location permit issuing process, a grid connection agreement or pre-agreement is concluded.
- (c) Energy approval – the energy approval is a requirement for the construction of the facility. It is a precondition for the issuance of the construction permit.
- (d) Construction Permit – must be obtained within two years as of the validity of the energy approval.
- (e) Preliminary Eligible Producer Status applies to renewable electricity generation facility and cogeneration heating plants only. IT (eventually) shall give its holder the right to a FiT price for produced electricity.<sup>57</sup>
- (f) EEA is a precondition for the grid connection of the generation facility.
- (g) A usage permit is issued by the same body which issued the construction permit, once the construction is complete. It is a precondition for the usage of the facility. The usage permit confirms that the construction has been completed and that it fully complies with the construction regulation.
- (h) The energy licence entitles its holder to undertake energy activities. It is issued by HERA which also keeps a registry of the issued energy licences.
- (i) Eligible Producer Status (“EP Status”) is preconditioned by the issuance of the energy licence, valid usage permit and grid usage agreement. When these are met and the EP Status is issued, the eligible producer may start engaging in market activities and collecting the FiT price for the power generated according to the FiT PPA with HROTE.<sup>58</sup>

<sup>56</sup> Usage of different renewable energy sources may require less (simple solar) or more (hydro) approvals to be undertaken.

<sup>57</sup> Please see Chapter 3.2 for further explanation on the PEP Status and the FiT PPA.

<sup>58</sup> For more information on the EP Status, please refer to Chapter 3.2 below.

(j) Grid Connection is carried out by TSO or DSO, depending on the installed capacity of the facility. It is preconditioned by the completion of construction works, EEA, conclusion of the grid usage agreement and fulfilment of all obligations from the grid connection agreement.

## 2.8 Forthcoming developments

Although RoC has made progress in the last couple of years in using the RES, there is still more potential to be exploited. It should be noted that Croatia is a sunny country with a desirable environment especially for wind and solar powerplants, but there is a lack of political will for certain changes. The last and certainly outdated energy development strategy was implemented in 2009. In November 2018, the Energy Institute "Hrvoje Požar" published the new energy strategy called "Green Book," which represents a strategy until 2030 with a view to 2050. In one of the scenarios in the Green Book, it was envisaged that the increase in RES as a share of total energy consumption will amount to the required 32 per cent in 2030 (as required by Directive (EU) 2018/2001). While it was envisaged that the Green Book will be enacted in 2018., the newest anticipations suggest that the draft of the energy strategy will be held for a public hearing at the end of April 2019.

On 24 December 2018, the Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action entered into force. The goals of the new regulation is to (i) implement strategies and measures which ensure that the objectives of the energy union, in particular, the EU's 2030 energy and climate targets, and the long-term EU greenhouse gas emissions commitments are consistent with the Paris Agreement, (ii) stimulate cooperation between Member States, (iii) promote long-term certainty and predictability for investors, (iv) reduce administrative burdens, and (v) ensure consistent reporting by the EU and Member States. Also, according to the new rules laid out in the governance regulation, EU countries are required to develop national long-term strategies by 1 January 2020, and consistency between long-term-strategies and national energy and climate plans has to be ensured.

In addition, it is noteworthy to mention that in June 2018, HOPS and CROPEX formally linked the Croatian electricity market to the

European Multiregional Electricity Market, which was the first successful project of this kind for RoC. This was the very first introduction of the cross-border capacities with the ultimate goal to connect RoC with the neighbouring wholesale electricity market.

Also, HOPS and ELES<sup>59</sup> as transmission system operators, and HEP ODS and SODO<sup>60</sup> as distribution system operators signed a joint co-ordination agreement between Croatian and Slovenian partners in the international project SINCRO.GRID (Advanced Network Project). The purpose of the SINCRO.GRID project is to manage power flows by improving the voltage quality of the power system and by increasing the transfer power of existing lines, thereby ensuring better integration of renewable energy sources into the power system and increasing steadiness of customer supply, all by using advanced technical systems and algorithms. The Connecting Europe Facility approved co-financing in the amount of EUR 40.5 million in 2017 (51 per cent of the project's total budget). The investment should be completed in 2020. Namely, Croatian and Slovenian transmission and distribution system operators have voltage problems, especially in 220kV and 400kV grids, due to transit flows through two countries. These problems affect the security of supply. Therefore, the project's goal is to link the operational security of the Croatian and Slovenian electricity system by increasing transmission capacity, solving the voltage problem, monitoring frequency and congestion. The project includes the construction of six compensation devices of which three are in Croatia (in the Konjsko, Melina and Mraclin transformer stations) to address at cross-border level the overvoltage and voltage instability issue. In addition to compensation devices reactive energy, the project also includes the construction of a dynamic thermal rating system. SINCO.GRID, therefore, contributes to the goal of decarbonisation, allows for energy transition and encourages cross-border collaboration between Croatia and Slovenia.

## 3. RENEWABLE ENERGY

### 3.1 Market overview

The Croatian Energy Development Strategy 2009 defines that the RoC has good natural conditions for the usage of RES and sets

<sup>59</sup> Elektro-Slovenija, d.o.o. (ELES) is a state-owned electricity transmission company of Slovenia.

<sup>60</sup> SODO is a distribution system operator for electricity in Slovenia.

forth the following goals:

- (a) fulfilling obligations from the 2009/28/EZ Directive on the promotion of the use of energy from RES in the amount of 20 per cent of direct gross energy consumption;
- (b) securing that 10 per cent of energy consumed in transport comes from RES;
- (c) ensuring that the electricity production from RES is at 35 per cent by 2020; and
- (d) securing that 20 per cent for the gross direct energy consumption for heating and cooling from RES.

Apart from the Croatian Energy Development Strategy, the National Action Plan as of October 2013 ("NAP") to a certain extent sets out the development strategy differently than has been set out in the Energy Development Strategy 2009. According to the NAP, the goals to be achieved until 2020 are as follows:

- (i) 39 per cent of RES in gross direct consumption of electricity;
- (ii) 10 per cent of RES in gross direct consumption of energy for transport;
- (iii) 19,6 per cent of RES in gross direct consumption for heating and cooling.<sup>61</sup>

The Energy Act as well as the Act on Renewable Energy Sources and High Efficiency Cogeneration<sup>62</sup> ("Act on RES and CHP") determines the usage of RES and CHP to be of interest for the RoC.

The Statute on the Usage of RES/CHP determines the plants and cogenerations which use RES, terms and conditions of their usage, and other matters of importance for using RES/CHP. This statute will remain applicable until the new one is adopted. This was announced in the Act on renewable energy sources and high efficiency cogeneration. The Registry for registration of the RES power plant projects (the "RES Registry") is kept by the Ministry. The Registry in fact shows the number of RES projects (and their respective capacity expressed in MWs) whose development has been initiated.<sup>63</sup> Nevertheless, the status of the RES Registry shows a great interest in the development of the RES projects in the RoC. Keeping in mind the aforementioned in Section 2.8, although RoC meets its goals regarding the share of renewables by 2020, there is a significant potential for continued integration of renewables

which has not yet been used.

In the belowmentioned tables you can find information regarding the RES and CHP project. Namely, Table 1 shows the percentage of each type in the whole RES scheme together with the percentage of the total installed strength. It can be observed that the greatest power and energy production in 2018 was predominantly based on the wind power plant. Table 2 shows the number and capacity of the RES projects currently in operation. According to Table 2, most projects are solar projects (i.e., integrated solar systems). Nevertheless, the greatest installed capacity and exponential growth is currently on the wind power.

**Table 1 – RES Production and Strength<sup>64</sup>**

| Type of RES                  | Percentage in the energy production | Percentage in the total installed strength (MW) |
|------------------------------|-------------------------------------|---|
| Solar                        | 2.79                                | 6   |
| Hydro                        | 0.99                                | 0.7   |
| Wind                         | 54.20                               | 67  |
| Biomass                      | 11.76                               | 7   |
| Biogas                       | 12.75                               | 5   |
| Landfill Gas                 | 0.01                                | 0.3   |
| High-efficiency Cogeneration | 17.52                               | 14  |

**Table 2 – RES Projects in Operation<sup>65</sup>**

| Type of RES                                | No. of plants | Installed capacity (kW) |
|--|---------------|-------------------------|
| Wind                                       | 26            | 717,800                 |
| Biomass                                    | 54            | 112,098                 |
| Biogas                                     | 48            | 53,920                  |
| Solar                                      | 1,232         | 53,466                  |
| Hydro                                      | 16            | 6,719                   |
| Cogeneration                               | 6             | 113,293                 |
| Geothermal                                 | 1             | 10,000                  |
| Gas power plant from waste water treatment | 1             | 2,500                   |
| <b>Total</b>                               | <b>1,384</b>  | <b>1,069,796</b>        |

<sup>61</sup> Discussed in Section 3.2 below.

<sup>62</sup> Official Gazette No. 100/15, 123/16, 131/17, 96/18, 111/18.

<sup>63</sup> <http://oie-aplikacije.mingo.hr/pregledi/>.

<sup>64</sup> Data collected from the website of HROTE. It shows the data as at 31 December 2018.

<sup>65</sup> Data collected from the website of HROTE. It shows the data as at 31 December 2018.

### 3.2 Support schemes

A system of incentives for the production of renewable electricity<sup>66</sup> was developed in 2007, and it has been conducted from 1 July 2007 until 31 December 2015 through the following feed-in tariff ("FiT") system - the Tariff System for the Production of Electricity from Renewable Energy Sources and Cogeneration<sup>67</sup>.

On 1 January 2016, a new Act on RES and CHP has come into force and the previous FiT systems became inapplicable, except for those producers which have entered into a Power Purchase Agreement ("PPA") with HROTE based on the FiT systems. Namely, there is no more guaranteed feed-in price for the purchase of power for 14 years by the HROTE. Instead of a guaranteed feed-in price, a new premium system has been adopted. This will include public tenders for the market premium and for the purpose of entering into a PPA with guaranteed purchase price. This will also apply to entering into a market premium agreement and PPA with guaranteed purchase price, instead of FiT PPA. However, all projects which have signed FiT PPA before 31 December 2015 are covered by the "old" FiT incentive scheme.

The newest amendments to the respective Act were made on 20 December 2018, which intensely changed the Act and upon which the Croatian government has passed new regulations.<sup>68</sup> The Incentives Decree specifies the manner and the conditions for the implementation of new incentive models by awarding the market premium or payment of guaranteed purchase price, determination of maximum reference values, determination of maximum guaranteed purchase prices, determination of incentive quotas, primary energy sources and similar. This Incentives Decree determines the new rules of procedure from which HROTE will enter into PPAs from RES. Namely, such procedure is conducted through the public tenders for granting market premiums or through entering into an agreement with the guaranteed purchase price based on a decision on the best bidder. It is noteworthy that other prescribed and envisaged bylaws<sup>69</sup> have not been enacted in 2018, hence HROTE was not able to enter into a new PPA from the RES. Nevertheless, from 2007 up until the end of 2018, HROTE entered into 1,384 PPAs from RES and CHP.

The incentive price at which HROTE pays to the eligible producer of electricity delivered to the power system is paid out of funds which are collected on the following basis:

- (a) Funds collected on the basis of the obligation of each supplier to take over the part of electricity produced from RES and CHP depending on the share in total supply

For the total gross delivered electricity from the eligible producers, the suppliers were obliged to take over a part of energy in accordance with their share. Until 31 December 2018, such regulated price was 0.42 HRK/kWh. In addition, with each supplier, HROTE also enters into an agreement for regulation of rights and obligations regarding the takeover of the electricity.

- (b) Funds collected on the basis of the incentive fees

The RES and CHP fee is an arbitrary fee charged by electricity suppliers from the final customers and it is a fixed fee on each kWh of electricity sold. HROTE concludes with each individual supplier a contract detailing all mutual rights and obligations related to the collection of such fee and its calculation. This fee is determined in the amount of 0.105 HRK/kWh for all end purchasers of the electricity, with an exception of end-purchasers who are obliged to obtain a licence for greenhouse gas emissions (0,007 HRK/kWh).<sup>70</sup>

Furthermore, producers of electricity and other persons which are performing activities regarding electricity production and which have a right to an incentive price in accordance with FiT PPA systems or a right to a guaranteed purchase price based on a PPA are included in the ECO balance group automatically in accordance with the Act on RES and CHP. The ECO balancing group is run by HROTE as a separate activity from all other activities of HROTE. It is noteworthy that all producers are members of the ECO balancing group regardless of when the PPA was entered into.

One of the biggest changes in the last several years in the RES field is on the manner how balancing costs are paid. Previously, the balancing costs were paid in accordance with the FiT systems, while now it is determined by the Act itself. Regardless of whether the producers of energy entered into an agreement based on the

<sup>66</sup> Renewable electricity is electricity produced from the RES.

<sup>67</sup> Official Gazette No. 33/07; Official Gazette No. 63/12, 121/13, 144/13; Official Gazette No. 133/13, 151/13, 20/14, 107/14, 100/15.

<sup>68</sup> Decree on Incentives to Promote Electricity Production from Renewable Energy Sources and High Efficiency Cogeneration (Official Gazette No. 116/18) ("Incentives Decree") and Decree on the Share of the New Electricity Delivered by Eligible Producers that the Electricity Suppliers are Required to Take Over from the Electricity Market Operator (Official Gazette No. 116/18) ("Share Decree").

<sup>69</sup> Decree on Quotas to Promote Electricity Production from Renewable Energy Sources and High Efficiency Cogeneration; State Aid Program.

<sup>70</sup> Decision on the Fee amount for RES and CHP (Official Gazette No. 87/17).

FiT system or not, their rights and obligations are also regulated by the Act on RES and CHP. Thus said, the respective Act prescribes that HROTE is obliged to pay for the balancing costs from the funds collected on the basis of the incentive fees and from the monthly commission payable for each and every member of the ECO balancing group which connecting power is above 50 kW. A special regulation determines the amount of such monthly commission on an arbitrary basis.

## 4. DISTRICT HEATING

### 4.1 Market overview

Energy activities within the heating sector in the RoC are production, supply and distribution of heating energy. While the production and supply of heating energy are undertaken as market activities, distribution is undertaken as public service. All energy entities operating in the district heating sector must obtain a licence for undertaking these activities from HERA and must meet the requirements determined by the Ordinance on Licences for Undertaking of Energy Activities.<sup>71</sup>

Data on energy operators undertaking one of the abovementioned activities is provided on HERA's website ([www.hera.hr](http://www.hera.hr)). As of 29 March 2019, 30 energy operators held energy licence for the production of heating energy, nine energy operators for the distribution of heating energy, and 25 energy operators for the supply of heating energy.

According to the latest available data from the 2016 HERA Annual Report, energy operators within the heating sector provide services of space heating and sanitary hot water preparation for more than 155,000 buyers (end consumers) of heating energy, more than 95 per cent of which are households. Heating energy is produced in the large cogeneration thermal power plants in Zagreb, Sisak and Osijek, as well as in the county heating plants and boiler systems which can be found in almost all larger Croatian cities.

Energy operators have in 2016 delivered to the households and industrial consumers over 2.1 TW/h of heating energy. The total longitude of the heating distribution system is 430 km

approximately.

HEP Toplinarstvo Ltd for production and distribution of heating energy, a member of the HEP Group, supplies with heating energy more than 80 per cent of the total number of heating energy end consumers, thus covering the majority of the heating energy supply market.

Energy operators which undertake energy activities of production, distribution and supply of heating energy are mostly owned by municipalities or the state; while a few of them are partially in private ownership.

As of 2012, due to the legislative changes, HERA is authorised to enact or approve prices, tariff systems and fees according to methodologies for production and distribution of heating energy. Application for enacting or changing the amount of tariff items to HERA is done by an energy operator. HERA adopted Methodology on Determination of Tariff Items for Production of Heating Energy<sup>72</sup> and Methodology on Determination of Tariff Items for Distribution of Heating Energy<sup>73</sup>, which are used as basis for the adoption of decisions on the amounts of tariff items for distribution or production of heating energy with respect to the existing central heating systems.

### 4.2 Regulatory overview

The heating energy sector in the RoC was harmonised with the Third principles, by way of adoption of the Heating Energy Market Act<sup>74</sup> and respective by-laws.

Heating Energy Market Act<sup>75</sup> was used for the implementation of the following directives:

- (a) Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC;
- (b) Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings; and
- (c) Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency.

<sup>71</sup> Official Gazette No. 88/15, 114/15, 66/18. Certain exception with respect to the production of heating energy exists and relates to those production facilities whose capacity does not exceed 2 MW. This is also discussed in Section 4.3 below.

<sup>72</sup> Official Gazette No. 56/14.

<sup>73</sup> Official Gazette No. 56/14.

<sup>74</sup> Official Gazette No. 80/2013, 14/2014, 102/2014, 95/2015, 76/2018.

<sup>75</sup> Official Gazette No. 80/2013, 14/14, 102/14, 95/15, 76/18.

The main legal act regulating heating energy market is the Heating Energy Market Act acting as an umbrella law for the heating energy sector in Croatia. It defines the conditions for the performance of production, distribution and supply of heating energy.

Legislative and regulatory framework of the heating energy market is comprised of the following legal acts:

- Energy Act;
- Heating Energy Market Act;
- Act on Regulation of Energy Activities
- Ordinance on Licences for Undertaking of Energy Activities and Registry for the Provided and Revoked Licences<sup>76</sup>;
- Ordinance on the Method of Allocating and Calculating the Costs of Supplied Heating Energy<sup>77</sup>;
- Methodology for Determination of Tariff Items for Production of Heating Energy<sup>78</sup>;
- Methodology for Determination of Tariff Items for Distribution of Heating Energy<sup>79</sup>;
- Methodology for Establishing the Fee for Connection to the Heating Distribution Network and for Increase in the Connection Capacity<sup>80</sup>;
- General Conditions for Supply of Heating Energy<sup>81</sup>;
- General Conditions for Delivery of Heating Energy<sup>82</sup>;
- Grid Rules for Distribution of Heating Energy<sup>83</sup>.

According to the Energy Act, all energy entities must meet the following requirements:

- (i) to be registered for undertaking the respective energy activity with the court registry of the respective commercial court;
- (ii) to have sufficient technical qualifications for undertaking the subject activity<sup>84</sup>;
- (iii) to prove employment of sufficient number of employees professionally qualified for undertaking of the subject activity;
- (iv) to hold sufficient financial means necessary for undertaking of the subject activity or a proof of its capability to obtain one;
- (v) that no energy licence for undertaking of the subject energy activity has been taken away from the entity in the last five years prior to the submission of the request;

- (vi) to provide a statement that the members of the management board or other responsible persons within the entity have not been convicted of a crime in an economic sector in the last five years.

The entity is also obliged to pay the fee for the issuance of the energy licence determined by the Decision on the Amount of the Fees for Undertaking Works of Regulation of Energy Activities<sup>85</sup>. The fees are as follows: HRK 20,000 (approx. EUR 2,691.79) for the production of heating energy; HRK 15,000 (approx. EUR 2,018.84) for distribution of heating energy; HRK 10,000 (approx. EUR 1,345.89) for heating energy supply. Energy operators are also obliged to pay a fee to HERA for its work related to the regulation of the energy market. The fee equals to the amount of 0,05 per cent of the total annual profit made out of sale of goods and services while undertaking respective registered energy activity in the preceding year.

Please note that the applicable Croatian energy legislation does not set forth specific legal rules on the minimum share capital or share transfer restrictions different from the general corporate rules regulating the same issues. For example, the minimum share capital of an entity undertaking energy activity is HRK 20,000 (approx. EUR 2,691.79) for a limited liability company and HRK 200,000 (approx. EUR 26,971.90) for a joint-stock company. However, the energy licence holder needs to have sufficient financial means or a proof of its possibility to obtain them, as determined by law: HRK 15,000 (approx. EUR 2,018.84) for production and distribution of heating energy, and HRK 10,000 (approx. EUR 1,345.89) for supply of heating energy.

The issued energy licence determines the period of its validity which can be extended if an application is made three months prior to its expiry. HERA is entitled to revoke the energy licence on a temporary basis if the energy operator no longer fulfils the conditions of technical qualifications and competencies, financial or any other conditions pursuant to which the licence to perform energy activities had been issued. Transfer of energy licence is regulated under the Ordinance on Licences for Undertaking of

<sup>76</sup> Official Gazette No. 88/15, 114/15, 66/18.

<sup>77</sup> Official Gazette No. 99/14, 27/15, 124/15.

<sup>78</sup> Official Gazette No. 56/14.

<sup>79</sup> Official Gazette No. 56/14.

<sup>80</sup> Official Gazette No. 42/16.

<sup>81</sup> Official Gazette No. 35/14.

<sup>82</sup> Official Gazette No. 35/14, 129/15.

<sup>83</sup> Official Gazette No. 35/14.

<sup>84</sup> Specific technical qualifications are set forth for each type of energy activity with the Statute on licences for undertaking of energy activities and registry for the provided and revoked licences (Official Gazette No. 114/2015, 66/2018 of 20 July 2018). This applies to the human resources and financial obligations requirements also.

<sup>85</sup> Official Gazette No. 155/2008, 50/2009, 103/2009, 21/2012.



Energy Activities and Registry for the Provided and Revoked Licences. The aforementioned Ordinance stipulates the possibility of the transfer of the energy licence only in cases of spin off of an energy licence holder, or its merger to or with another legal entity. In the event of spin off and merger, the transfer of energy licence is possible to only one legal entity which is the universal successor of the energy licence holder in question, subject to the filing of the request for such transfer to HERA within the timelines specified in the subject Ordinance.

Finally, the Heating Energy Market Act recognised the buyer of energy who is different from the end consumer and the supplier. The buyer is a legal or natural person who, in the name and on behalf of the owners and/or co-owners of a building which comprises of more than one individual usable units, buys (i) fuel for production of heating energy in the self-supported heating system (*samostalni toplinski sustav*); or (ii) heating energy from the supplier of heating energy in a closed (*zatvoreni toplinski sustav*) or central (*centralni toplinski sustav*) heating systems. Each such legal or natural person must be registered with the registry of buyers of heating energy kept by HERA.

### 4.3 Generation

According to the Heating Energy Market Act, a heating energy producer is a legal or natural person which has obtained from HERA a licence for performing energy activity of heating energy production. However, the aforementioned licence is only required for the production of heating energy by the use of the boilers heating system whose installed capacity exceeds 2 MW. Preferential energy operators (*povlašteni proizvođači*) that produce both electricity and heating energy within the co-generation activity, are obliged to obtain two licences- for the production of electricity and the production of heating energy.

Although it has been stated previously, and the Heating Energy Market Act states that the production of heating energy is undertaken as a market activity, other provisions from the same act and General Conditions on Supply of Heating Energy in fact recognise further regulation of the heating energy production price. According to the law, the production of heating energy will be considered as public service and not as market activity as long as the quantity of the heating energy produced by one producer

exceeds 60 per cent of the needs of a specific district (central) heating system.<sup>86</sup> Under such conditions, the production price is regulated and not negotiated, i.e., the price is determined by HERA based on the methodology prepared also by HERA. The rule on regulated price applies in relation to the heating energy produced within the co-generation; however, such regulated price will be a bit lower than the price not produced from co-generation.

As soon as the portion of the heating energy market taken by another energy operator within the same district heating system exceeds 40 per cent, it will be considered that the conditions for opening of the heating energy market have been fulfilled and the producer will be in position to negotiate the price with the supplier.

General Conditions for Supply of Heating Energy recognizes several types of agreements which are concluded in the heating energy sector, some of which are those concluded by the producer – agreement on usage of distribution network (between producer and distributor), and agreement on sale of heating energy (between producer and supplier).

Amendment to the Heating Energy Market Act from 2018 prescribed that the producer of the heating energy in closed and central heating systems, as well as the buyer in the self-supported heating system, have the right to procure gas from suppliers which are public service providers in order to produce heating energy for households, if they are considered as small or medium enterprises and are connected to the gas distribution system. This option will be available until 31 March 2021. The suppliers are obliged to supply the gas in amounts necessary for the production of heating energy for buyers in the category of households.

### 4.4 Distribution

Municipalities that have distribution networks on their respective territories are obliged to secure a permanent distribution of heating energy. The right to perform heating energy distribution is acquired pursuant to a concession right to distribute heat energy or a concession to build energy facilities for heat energy distribution, and the licence for distribution of heat energy. The Concession Act and Heating Energy Market Act stipulate criteria according to which the selection of the concessioner for the distribution of heat energy is based. The concessionaire is obliged

<sup>86</sup> A central (district) heating system is a heating system which is comprised of more than one building in which heating energy production and supply may be undertaken by one or more energy operators, and in which the distribution of heating energy is undertaken by one energy operator, based on the concession agreement for distribution of heating energy or concession agreement for construction of distribution network.

to pay a concession fee in the amount and manner stipulated by the concession agreement. The financial amount of the concession fee is determined as a variable amount of the concessionaire's income from heating energy distribution in the previous year regarding the distribution territory for which the concession has been granted. The Government of RoC determines the minimum initial amount, and manner of the concession fee payment. The concession fee is the income of the municipality.

Unfortunately, a large proportion of production capacities and heat distribution networks are technologically outdated and energetically inefficient. Losses in heat energy distribution are therefore high, with average losses according to the 2016 HERA Annual Report amounting to 20 per cent.

An energy operator performs heating energy distribution by using its own energy facilities for heating energy distribution or energy facilities used pursuant to an agreement executed with the facility owner.

#### 4.5 Forthcoming developments

According to the Fourth National Action Plan of Energy Efficiency for the period until the end of 2019, the required heating energy in the industry sector is expected to increase to almost 30 PJ.

An analysis of the existing state of the thermal power plants, which included the existing four HEP's cogeneration plants and three industrial cogeneration plants with a thermal power greater than 20 MWt, showed that some of HEP's cogeneration plants could potentially meet the requirements for high-efficiency cogeneration, however not one analysed industrial cogeneration plant is a viable candidate.

The analysis of the potential new locations of heat energy consumption has identified 18 locations that could potentially be used for building new high-efficiency cogeneration plants. The relevant theoretical thermal potential of these 18 locations is 29,982,128 GJ, i.e., 8,328,369 MWh per year by 2030. The potential of primary energy savings by 2030, assuming high-efficiency cogeneration, could be up to 14,634,591 GJ at best.

Despite the long tradition of supply of the central heating systems in RoC, the state of the existing systems is not satisfactory due to various reasons, such as the oldness of the plants and their low

efficiency, the oldness of networks, high fuel prices, inadequate insulation of buildings which use centralised heating systems, and inadequate heating energy price policy, which did not cover production costs.

## 5. NATURAL GAS

### 5.1 Market overview

Gas Market Act recognizes nine types of energy activities within (natural) gas sector – gas production, transport of gas, gas storage, LNG terminal management, distribution of gas, organisation of gas market, gas trading, and gas supply. Only those energy operators which hold energy licence are entitled<sup>87</sup> to undertake the mentioned energy activities.

As at 01 April 2019<sup>88</sup>, the following market participants were registered as holders of energy licences for undertaking specific energy activities in the RoC<sup>89</sup>, namely for:

- natural gas production – INA d.d.;
- storage of natural gas – Podzemno skladište plina d.o.o., a company in 100 per cent ownership of Plinacro d.o.o.;
- transport of natural gas – Plinacro d.o.o., a state-owned company;
- distribution of gas – 35 companies;
- management of LNG terminal ("LNG") – LNG HRVATSKA d.o.o., a company owned by HEP d.d. and Plinacro d.o.o.;
- gas supply – 54 companies;
- gas trading – 12 companies;
- organisation of gas market – HROTE;
- management of the location for the supply of LNG and/or CNG – 0.

According to the HERA's 2012 Annual Report, the year 2012 is considered as a year of real opening of the Croatian gas market. The new legislative framework together with the market activities resulted in the changes within the gas wholesale sector, whereby seven per cent of the wholesale gas market held by Prirodni plin d.o.o. was taken over by new market participants in the gas wholesale market. The opening of the gas retail market was not as significant.

### 5.2 Regulatory overview

Gas Market Act was firstly enacted in 2013 for the purpose of further liberalisation of the gas market and its harmonisation with the Third

<sup>87</sup> A Exceptionally, it is not necessary to obtain a licence if this energy business is carried out solely for its own needs.

<sup>88</sup> Information is available on the HERA's website – [www.hera.hr](http://www.hera.hr).

<sup>89</sup> Wherever the subject energy activity is undertaken by more than three energy operators, only the number and not the names of such operators is given.

Energy Package, in particular, Directive 2009/73/EC of the European Parliament and the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (OJ L 211, 14.8.2009) ("Gas Directive").

In 2018 a new Gas Market Act was enacted due to the fact that the obligations imposed by the old Gas Market Act were not entirely in compliance with the Gas Directive. The key changes refer to transparent regulation of rules and procedures for providing energy activities in the gas sector and to enabling all participants to have transparent rules of market participation. The protection of households as end-customers is also one of the main ideas of the newly enacted Act. Moreover, the new Act was enacted for setting the conditions for constructing of the private LNG terminal on the island of Krk. Such an LNG terminal is determined as one of the projects of common interest proclaimed by the European Commission. In order to respect such obligation imposed by the EU, RoC had to update and change its gas market legislation in order to realise and fulfil the European energy goals.

Gas energy activities are regulated under the following acts:

- Energy Act;
- Act on Regulation of Energy Activities;
- Liquefied Natural Gas Act<sup>90</sup>;
- Statute on licences for undertaking of energy activities and

registry for the provided and revoked licences;

- Gas Market Act;
- Act on Exploration and Exploitation of Hydrocarbons<sup>91</sup> ("Hydrocarbons Act");
- Regulation (EC) No 715/2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005;
- Regulation (EU) No 1227/2011 of the European Parliament and of The Council of 25 October 2011 on wholesale energy market integrity and transparency;
- Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010;
- Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators.

The gas market topic is also regulated by the set of methodologies and other decisions regarding the setting of the amounts of tariff items related to undertaking of regulated gas market activities<sup>92</sup>. What is more, HERA regularly issues publications with regard to relevant matters on the gas market (e.g. Decision on the average hourly prices for non-standard gas service providers for the second regulatory period 2017-2021).

<sup>90</sup> Official Gazette No. 57/18 of 27 July 2018.

<sup>91</sup> Official Gazette No. 52/2018 of 6 June 2018.

<sup>92</sup> General Rules for Gas Supply (Official Gazette No. 50/2018 as of 1 June 2018);

- Network Rules for the Gas Distribution System (Official Gazette No. 50/18 of 1 June 2018);
- Rules for Gas Market Organization (Official Gazette No. 50/2018 as of 1 June 2018);
- Grid Rules of Transport System (Official Gazette No. 50/2018, 31/2019 as of 27 March 2019);
- Grid Rules for Distribution System (Official Gazette No. 74/2018 of 17 August 2018);
- Rules on Usage of Gas Storage System (Official Gazette No. 50/18 of 1 June 2018);
- Methodology for Determining the Amount of Tariff Items for the Public Gas Supply Service and the Guaranteed Supply (Official Gazette No. 34/2018 of 11 April 2018);
- Decision for Amount of Tariff Items for Public Gas Supply for the Term from 1 April to 31 December 2019. and for the Term from 1 January to 31 March 2020 (Official Gazette No. 15/2019 of 13 April 2019);
- Methodology for Determination of the Amount of Tariff Items for the Gas Distribution (Official Gazette No. 48/2018 of 25 May 2018);
- Decision on the Amount of Tariff Items for the Gas Distribution (Official Gazette No. 127/2017, 48/2018 of 25 May 2018);
- Methodology for Determination of the Amount of Tariff Items for the Gas Transport (Official Gazette No. 48/2018, 58/2018 of 30 June 2018);
- Decision on the Amount of Tariff Items for the Gas Transport (Official Gazette No. 111/2018 of 12 December 2018);
- Decision on the Indicative Amount of Tariff Items for Gas Transportation (Official Gazette No. 56/2018 of 20 June 2018);
- Methodology for Determination of the Amount of Tariff Items for the Gas Storage (Official Gazette No. 48/2018 of 25 May 2018);
- Decision on the Amount of Tariff Items for the Gas Storage (Official Gazette No. 122/2016, 48/2018 of 25 May 2015);

- Methodology for Determination of the Amount of Tariff Items for the Reception and Dispatch of Liquefied Natural Gas (Official Gazette No. 48/2018 of 25 May 2018);
- Decision on the Indicative Amount of Tariff Items for the Reception and Dispatch of Liquefied Natural Gas (Official Gazette No. 56/2018 of 20 June 2018);
- Methodology for the Determination of the Fee for Connection to the Gas Distribution or Transport System and for Increasing the Connection Capacity (Official Gazette No. 48/2018 of 25 May 2018);
- Decision on the Determination of the Fee for Connection to the Gas Distribution or Transport System and for Increasing the Connection Capacity for the Term 2017-2021 (Official Gazette No. 122/2016 of 28 December 2016);
- Methodology for the Determination of the Non-Standard Price for the Gas Transport, Gas Distribution, Gas Storage, Reception and Dispatch of the Liquefied Natural Gas and for Public Service of Gas Supply (Official Gazette No. 48/2018, 25/2019 of 13 March 2019);
- Decision on the Fee for Gas Market Organisation (Official Gazette No. 23/2016 of 13 March 2016);
- Regulation on Amount and method of payment of Concession Fees for Gas Distribution and Concession for Construction of Distribution System (Official Gazette No. 31/14, 18/2018 of 23 February 2018);
- Regulation on Criteria for Acquisition of a Protected Customer's Status Under the Conditions of a Gas Supply Crisis (Official Gazette No. 65/2015 of 12 June 2015);
- Decision on Adoption of the Intervention Plan on the Protection of Gas Supply Security of the Republic of Croatia (Official Gazette No. 78/2014 of 27 June 2014);
- Criteria for Issuing Approval for the Construction and Operation of a Direct Gas Pipeline (Official Gazette No. 78/2017, 18/2018 of 23 February 2018);
- Rules of operation of liquefied natural gas (Official Gazette No. 60/18 of 6 July 2018).

The Gas Market Act regulates: (i) rules and measures for secure and reliable undertaking of gas market energy activities; (ii) protection of buyers; (iii) third party access; and (iv) open market access, cross-border gas transport, etc.

### 5.3 Regulated natural gas market activities

The Energy Act defines public service as *service available to end consumers and energy subjects at any time for regulated price and/or conditions of access and usage of energy services, which must be available, sufficient and sustainable in terms of security, regularity and quality of service, and environment protection, energy efficiency usage and climate protection, conducted according to the principles of transparency and impartiality, which is undertaken under the supervision of competent authorities.*

Some of the previously mentioned gas market activities are within the Gas Market Act defined as regulated activities, i.e., activities undertaken as public services. These are as follows: (i) natural gas production; (ii) transport of gas; (iii) gas storage; (iv) management of LNG terminal; (v) distribution of gas; (vi) organisation of gas market; (vii) gas trade; (viii) supply of gas as public service and guaranteed gas supply<sup>93</sup> and (ix) management of LNG/CNG location.

However, storage of gas can be undertaken as market activity if an approval for undertaking gas storage as market activity has been obtained from HERA. Criteria for the issuance of such approval are determined pursuant to the level of market competition related to energy activity of gas storage in the RoC.

Energy operators which undertake regulated gas market activities are (among other things) obligated to secure the application of determined amount of tariff items for transport, distribution and storage of gas, and management of LNG terminal, all in accordance with the regulated conditions. Also, HERA for the purpose of determination of the tariff items (for e.g., storage, distribution) adopts methodologies for their calculation.

### 5.4 Material provisions of the natural gas market law and licensing regulations

Statute on Licences regulates requirements which any energy operator undertaking energy activity is obligated to meet. These requirements are specific to the type of energy activity. According to the Energy Act, all energy entities must meet the following requirements:

- be registered for undertaking the respective energy activity with the court registry of the respective commercial court;
- have sufficient technical qualifications for undertaking the subject activity;<sup>94</sup>
- prove employment of sufficient number of employees professionally qualified for undertaking of the subject activity;
- hold sufficient financial means necessary for undertaking of the subject activity or a proof of its capability to obtain one;<sup>95</sup>
- not to have any energy licence for undertaking of the subject energy activity revoked from the entity in five years preceding the submission of the request;
- provide a statement that the members of the management board or other responsible persons within the entity have not been convicted of a crime in an economic sector in the last five years.

The entity is also obligated to pay a fee for the issuance of the energy licence determined by the Decision on the Amount of the Fees for Undertaking Works of Regulation of Energy Activities. The fees are as follows: HRK 20,000 (EUR 2,631.57) for delivery and production of own natural gas, storage of natural gas, transmission of natural gas and management of LNG terminal, HRK 15,000 (EUR 1,973.68) for distribution of natural gas; HRK 10,000 (EUR 1,315.78) for gas trade and supply. Energy operators are also obligated to pay a fee to HERA for its work related to the regulation of energy market. The fee equals to the amount of 0,05 per cent of the total annual profit made out of sale of goods and services while undertaking respective registered energy activity in the preceding year.

<sup>93</sup> These types of gas supply are discussed in Section 5.7 below.

<sup>94</sup> Specific technical qualifications are set forth for each type of energy activity with the Statute on licences for undertaking of energy activities and registry for the provided and revoked licences. This applies to the human resources and financial obligations requirements also.

<sup>95</sup> An energy licence holder needs to have sufficient financial means as determined by law, or at least a proof that it is able to obtain them: HRK 50,000 (EUR 6,578.94) for production, storage, distribution of gas, managing of an LNG terminal, and gas market organisation, HRK 100,000 (EUR 13,157.89) for production of natural gas and gas transportation, HRK 30,000 (EUR 3,947.36) for supply, HRK 20,000 (EUR 2,631.57) for trade of gas..

The issued energy licence determines the period of its validity which can be extended if an application is made three months prior to its expiry. HERA is entitled to revoke the energy licence on a temporary basis if the energy operator no longer fulfils the conditions of technical qualifications and competencies, financial or any other conditions pursuant to which the licence to perform energy activities had been issued.

Transfer of energy licence is regulated under the Statute on licences for undertaking energy activities and registry of issued and revoked licences. The subject statute stipulates the possibility of the transfer of the energy licence only in cases of spin-off of an energy licence holder, or its merger to or with another legal entity. In the event of spin-off and merger, the transfer of energy licence is possible only to one legal entity which is the universal successor of the energy licence holder in question, subject to the filing of the request for such transfer to CERA within the timelines specified in the subject statute.

## 5.5 Exploration and production

According to the 2016 Annual Energy Report prepared by Energy Institute Hrvoje Požar, natural gas is produced from three onshore and 17 offshore gas fields meeting 63.1 per cent of total domestic demand. The production of gas from Pannon is somewhat larger than the production from the Adriatic Sea. Most of the Pannonian gas comes from the Molve, Kalinovac and Gola reservoirs. Units for processing and preparation of gas for transportation are situated near Molve gas field.

With respect to the rules and recent developments in the sector of exploration and exploitation of gas, please refer to Section 6.4 below. Nevertheless, please find herein some further details referring to natural gas only.

According to the Gas Market Act, the producer of natural gas is entitled to: (i) connect to the transmission and distribution network in line with the Rules for the Gas Market Organisation, Grid Rules of the Transport System and the respective methodology; (ii) contract the sale of natural gas with a supplier of gas in public service, with a guaranteed gas supplier, with a market gas supplier and gas trader; and (iii) access the gas storage according to the conditions set out in the Gas Market Act as well as (iv) to stop or to limit the gas supply if human health, life or assets are directly endangered and for removal of such danger and (v) to decline the production pipeline network access due to the

reasons set by the Gas Market Act. The producer of natural gas is (among other things) obligated to secure that the total produced quantity of natural gas is offered to the supplier on the wholesale market and the guaranteed supplier on the territory of RoC first.

## 5.6 Transmission and access to the system

The transmission of gas takes place within the gas transmission and distribution systems. The usage, technical requirements, managing, development, and connection with other parts of gas system are regulated in the Grid Rules for the Transport System and in the Grid Rules for the Distribution System. The transmission system operator provides to the user of the transmission system the delivery and takeover of gas within the limits of the reserved capacity defined for each particular entrance into and exit from the transmission system.

According to HERA's 2016 Annual Energy Report, total length of the gas transmission system in RoC amounted up to 2,694.00 km at the end of 2016. Currently, the only transmission system operator in RoC is Plinacro, a company which manages the system of regional and major gas pipelines used for transport of domestic and imported gas across the interconnections with Slovenia and Hungary, and its delivery to the distribution system or to the end (industrial) consumers if directly connected to the transmission system. According to the data provided by Plinacro, total transported quantities of natural gas in the RoC amounted up to 32,300,000,000 kWh in 2017, which was 0.86 per cent more than in 2016.

Unlike the 2007 Gas Market Act which in fact appointed Plinacro as the sole transmission system operator for the period of 30 years, the 2013 Gas Market Act revoked that provision and, in fact, secured the full opening of the gas transmission activity. The same provision stayed in the Gas Market Act. Any company which fulfils the conditions set out in the Gas Market Act and the respective by-laws, including without limitation, obtaining of the certificate from HERA, may be granted an energy licence for transportation of natural gas. The certification procedure is to result in the issuance of the certificate provided that the transmission system operator meets the unbundling requirements set out in the Gas Market Act which recognizes three models of unbundling, namely: ownership, ITO and ISO model. Transmission and distribution of gas implies meeting the requirements for obtaining an energy licence. However, the activity of gas distribution, in addition to the energy licence, requires obtaining the concession for (i) distribution

of gas and/or (ii) construction of distribution system. The concession is awarded following a public tender procedure in which the provider of the best offer signs the concession agreement for a period of no less than 20 and no more than 50 years. The Croatian Government determines the concession fee under the Ordinance on Fee and Manner of Payment for Concession for Distribution of Gas and Construction of Gas Distribution System. Special terms and conditions for termination of the concession agreement are stipulated under the Gas Market Act.

Gas Market Act stipulates that the gas producer, transmission and distribution system operator, gas storage system operator, and LNG terminal operator are obligated to secure efficient and non-discriminated access to the network of production gas pipelines, transmission and distribution system, gas storage system, LNG terminal and location for the supply of LNG and/or CNG. Third party access to all of the mentioned systems (except for the system of production pipelines) is subject to regulation by methodologies for calculation of tariff items which must be applied objectively and equally for all participants on the gas market. Naturally, there are reasons to deny third party access to the natural gas network. For example, new infrastructure objects such as interstate connection gas pipelines or gas storage system can (under certain conditions), upon a request of the legal of natural persons, be exempted from the application of the third-party access right and the application of the stipulated methodologies and tariff items.

## 5.7 Trading and supply

The Gas Market Act recognises four types of players within the gas supply sector, i.e., (i) Supplier on Wholesale Gas Market (*opskrbljivač na veleprodajnom tržištu*) (the “**Wholesale Supplier**”) (activity previously undertaken by the shipper of gas – dobavljač plina); (ii) Supplier in Public Service (*opskrbljivač u obvezi javne usluge*) (the “**Public Service Supplier**”); (iii) Guaranteed gas supplier (*zajamčeni opskrbljivač*); and (iv) Supplier of gas to end consumers (different from the supplier in public services and from the guaranteed supplier). The last one undertakes market and not regulated activity.

The Wholesale Supplier, under regulated conditions, buys gas from the natural gas producer on the territory of RoC, and sells it, under

regulated conditions, to the Public Services Supplier for the supply of households. It is obliged to secure reliable and safe supply, as well as import of gas. The Government of the RoC appoints the Wholesale Supplier for a maximum period of three years. The current Wholesale Supplier is Hrvatska elektroprivreda d.d., i.e., HEP d.d. which was appointed by HERA on 8 February 2019 for the period until 31 March 2020. HERA determines both the price of gas sold by natural gas producer on the territory of the RoC to the Wholesale Supplier, and the price of gas sold by the Wholesale Supplier to the Public Service Suppliers. HERA has also determined priority for the Wholesale Supplier in the procedure of awarding gas storage capacities.

The Public Service Supplier for specific county unit which has already been determined as such on the day when the Gas Market Act entered into force, will stay the Public Service Supplier until the end of the “gas day” 31 March 2021<sup>96</sup>. The Public Supplier after the aforementioned date will be determined by the decision of HERA. HERA has adopted Methodology for Determination of the Amounts of Tariff Items for the Public Service of Supply of Gas and Guaranteed Supply<sup>97</sup>.

The Guaranteed Supplier provides, according to the regulated conditions, public service of gas supply to an end consumer which has under certain conditions remained without a supplier. The Guaranteed Supplier is determined by the decision of HERA. Such supplier is appointed for a period of three “gas years”.

Any end consumer has the right to choose its own supplier and to change its supplier according to the procedure set out in the General Conditions on Gas Supply. Such change of gas supplier is free of charge and is undertaken by the operator of the transmission or distribution system to which such end consumer is connected.

With respect to the wholesale gas trading, HROTE has based on the Gas Market Act and HERA's Decision on approval from 29 May 2018 adopted Rules on Organisation of Gas Market. The rules regulate the following: (i) procedures and standards for organisation and functioning of gas market in line with balancing groups model; (ii) rules on organising balancing groups, their responsibility and keeping the registry of balancing groups' leaders

<sup>96</sup> The end of the gas day (*kraj plinskog dana*).

<sup>97</sup> Official Gazette No. 34/2018.



and members; (iii) rules related to the trading at the virtual trading point; (iv) trades on the trading platform; (v) contractual relations of the HROTE with the leader of balancing group; (vi) calculation of the daily deviations for every balancing group; (vii) calculation of the balancing doings, respectively trades on the trading platform and activated balancing energy for balancing services and (viii) other rules necessary for organisation and functioning of the gas market.

According to the Gas Market Act, traders (or suppliers) of gas coming from an EU/Energy Community Member State are obligated to obtain energy licence for undertaking gas trade (or gas supply) energy activity on the Croatian territory. HERA, however, can exceptionally issue the licence to such gas trader (or gas supplier) without it fulfilling the requirements set out in the respective energy laws (as discussed above), if such gas trader (or supplier):

- (a) is registered for undertaking those energy activities in an EU/Energy Community Member State;
- (b) has delivered to HERA a satisfactory financial security document and a statement issued by the responsible person within such energy operator on the acceptance of complying with all obligations set forth in the Gas Market Act and all by-laws adopted pursuant to it.

Before the issuance of such energy licence, HERA is obligated to request from the regulatory body of the respective EU/Energy Community Member State (in which such trader (or supplier) has registered seat) delivery of information on its technical, financial and professional qualifications<sup>98</sup>.

## 5.8 Liquefied natural gas

On 2 July 2009, the Croatian Government approved the Decision on Determination of Interest of the Republic of Croatia for the Construction of LNG Terminal – Krk, for the purpose of planning and construction of the LNG terminal on the Croatian Island of Krk. The Gas Market Act regulates that the operator of the LNG terminal will be private or legal entity holding a licence for undertaking an energy activity of operating with the LNG terminal. In order to be granted the licence, such private or legal entity has to fulfil all conditions listed in Section 5.4 above.

In Official Gazette No. 60/18 of 27 July 2018, the Terminal for Liquefied Natural Gas Act was launched and caused great discussions and disputes in (para) political public. The Act determines the interest of RoC in the terminal, regulates the subsidiary application of regulations, the infrastructure of the LNG, which is of strategic interest to RoC, concession granting procedure on the maritime domain for the realization of terminals and supporting infrastructure, verified real estate, rules and measures necessary in order to preserve the steadiness of natural gas supply and the confidentiality of the data. The Act also determines the investor, that is, the project manager of the project on the island of Krk – LNG Croatia Ltd. Pursuant to the Gas Market Act, the Ordinance on Liquefied Natural Gas<sup>99</sup> was issued. The device describes the termination for liquefied natural gas, its development, construction, maintenance and management, contractual relations and terms of use, reservation and use of the terminal, measurement and distribution rules, data disclosure and exchange of information regarding terminal in an open procedure. The expected start of Terminal operation for 2020/2021 was also defined.

According to the most recent available data (April 2018), the Krk Island terminal will include three main elements: LNG storage tanks and vaporisation units on a permanently moored floating storage regasification unit, the jetting consisting of a berth and mooring facilities, gas connecting pipelines and other gas infrastructure.

According to the available information, the planned capacity of the terminal for the first phase of the project is 2,6 billion m<sup>3</sup>. The maximum annual natural gas supply will depend on the future development of the gas pipeline. The planned capacity of the gas to be delivered in the gas pipeline system of Croatia is estimated at six billion m<sup>3</sup> of natural gas annually. LNG allows gas to be procured from different sources and transported through different routes as well as to increase security of supply. As mentioned previously, the Government of the RoC decided to proclaim the LNG terminal to be a strategic project, a decision which was further expanded in 2018<sup>100</sup>. The aforementioned Government's decision identifies two phases of construction – floating terminal and land terminal. However, there is still no information on capacity timelines or the scope of the activities (budget).

<sup>98</sup> Please note that the Gas Market Act does not define which technical, financial and professional qualifications would be satisfactory for HERA. We can only assume that the level of the subject qualifications should be greater, or at least the same as the respective level stipulated for the Croatian energy operators wishing to undertake the respective energy activity. In addition, it is not clear what a satisfactory financial security document implies.

<sup>99</sup> Official Gazette 60/18 of 6 July 2018.

<sup>100</sup> Strategic Investment Project Act, Official Gazette no. 29/2018, 114/2018 of 19 December 2018.

The project does not have the support of the local community, which was clear during the public consultation on the environmental Impact Study and demonstrations held in March 2018.

## 5.9 Forthcoming developments

Forthcoming developments in gas sector are primarily reflected in the following projects:

- (a) development and construction of gas pipelines to secure gasification of central and southern part of Croatia;
- (b) construction of the gas pipelines interconnections with Hungary, Bosnia and Herzegovina and Serbia;
- (c) gas interconnection Croatia-Slovenia which has been listed since 2013; since 2015 this project has been part of Croatia-Slovenia-Austria cluster and will secure additional supply route, increase interconnection in single EU market and increase the security of supply;
- (d) development of Ionian Adriatic Gas Pipeline and Trans Adriatic Pipeline;
- (e) construction, development and maintenance of an LNG Terminal on the island of Krk;
- (f) construction of new gas storages;
- (g) first gas society signed a ten-year on gas supply whereby Russian Gazprom will supply one billion;
- (h) Construction of the new main gas pipeline Zlobin-Omišalj will ensure the transport of natural gas from the planned Krk LNG Terminal to the transport system of Croatia. The pipelines dynamic closely follows the realisation of the pipeline Krk LNG Terminal project.

## 6. UPSTREAM OIL MARKET

### 6.1 Market overview

Oil mining and construction of oil mining facilities are activities of interest to the RoC. The activities of exploration and production (exploitation) of oil in Croatia are undertaken by INA d.d., the only company which holds a licence for oil production in the RoC and is owned by the Hungarian company MOL (49.1 per cent), the RoC (44.8 per cent), while the other 6.1 per cent is owned by other private or institutional stockholders.

According to the Ministry's 2016 Report "Energy in Croatia", crude oil is produced in 34 oil fields. HERA's 2016 Report states that the total demand for crude oil in 2016 was 3.214 million tonnes, while crude oil import volume amounted to 2.53 million tonnes, which represents a relative increase of 14.4 per cent as compared to 2015. Furthermore, national crude oil production in 2016 amounted to 684,000 tonnes and oil derivative production amounted to 3.4 million tonnes.

The company in charge of oil transportation by oil pipelines is JADRANSKI NAFTOVOD d.d., a joint-stock company with mixed ownership and predominantly state capital ("JANAF").<sup>101</sup> JANAF pipeline was constructed in 1979 as an international transportation system. Pursuant to the Oil and Oil Derivatives Market Act<sup>102</sup>, JANAF is obligated to provide legal and natural persons with access to the transport system in an impartial manner. Its designed capacity amounts to 34 million tons of oil per year, while the installed capacity amounts to 20 million tons per year.

As of 1 April 2019,<sup>103</sup> the following market participants were registered as holders of licences for undertaking specific energy activities in the RoC:

- (a) for production of oil derivatives – INA – INDUSTRIJA NAFTE d.d.;
- (b) for oil transportation by oil pipelines – JANAF;
- (c) for oil derivatives transportation by-product pipelines – 0;
- (d) for wholesale of oil derivatives – 48;
- (e) for warehousing oil and oil derivatives – 22;
- (f) for warehousing liquified oil gas – 5;
- (g) for wholesale of liquified oil gas – 14;
- (h) for transportation of oil by oil pipelines and other unspecified ways of transportation – HŽ CARGO d.o.o.;
- (i) for transportation of oil derivatives by-product pipelines and other unspecified ways of transportation – HŽ CARGO d.o.o.

### 6.2 Regulatory overview

The main acts and by-laws regulating oil activities in the RoC are:

- Oil and Oil Derivatives Market Act;
- Mining Act<sup>104</sup>;
- Act on Exploration and Exploitation of Hydrocarbons;
- Regulation on Fee for Exploration and Exploitation of Hydrocarbons<sup>105</sup>;

<sup>101</sup> As of August 2018, JANAF d.d. is listed as a company of strategic interest to RoC.

<sup>102</sup> Official Gazette No. 19/14, 73/17.

<sup>103</sup> Information is available on the HERA's website – <https://www.hera.hr/hr/html/dozvole.html>.

<sup>104</sup> Official Gazette No. 56/13, 14/14.

<sup>105</sup> Official Gazette No. 37/14, 72/14, 52/18.

<sup>106</sup> Official Gazette No. 14/2014, 73/17.

<sup>107</sup> Official Gazette No. 142/13, 52/18.

- Act on Establishment of Agency for Hydrocarbons<sup>106</sup> ;
- Regulation on Content and Manner of Preparation of Mining-Geology Studies<sup>107</sup> ;
- Regulation on Construction of Oil-Mining Objects and Facilities<sup>108</sup> ;
- Regulation on Data that Energy Entities are Obligated to Submit to the Ministry<sup>109</sup> ;
- Regulation on the Calculation of Average Daily Net Import, Entry, Average Daily Consumption and Quantity of Oil and Oil Derivates Stocks<sup>110</sup> ;
- Intervention Plan in the Event of an Extraordinary Imbalance in Market Supply of Oil and Oil Derivates<sup>111</sup> ;
- Insurance Plan, Dynamics of Formation and Settlement of Compulsory Stocks of Oil and Oil Derivates, Storage Organisation and Regional Distribution<sup>112</sup> ;
- Act on Basics of Transport Safety for Oil Pipelines and Gas Pipelines<sup>113</sup>.

Exploration and exploitation of hydrocarbons are primarily regulated by the Act on Exploration and Exploitation of Hydrocarbons. Its provisions refer to exploration and exploitation of the hydrocarbons located in the ground or subsoil of internal waters of the territorial sea of the RoC or under the ground of the continental shelf of the Adriatic Sea coast, all the way to the demarcation line with the neighbouring countries, to which, pursuant to international law, the RoC exercises jurisdiction and sovereign rights. It governs the management, exploration and exploitation of hydrocarbons, issue of a licence for the exploration and conclusion of an agreement on the exploitation, the fee, inspection, misdemeanour provisions and other issues.

Issues pertaining to specification of hydrocarbon reserves, specification of exploitation fields, the registry of exploration areas and/or exploitation fields, preparation and verification of mining projects, construction and utilization of mining facilities and plants, preparation of mining plans and performance of mining surveys, site rehabilitation, damage compensation, safety and protection measures, qualifications and skills needed for conducting particular mining works and other issues which have not been regulated by the Hydrocarbons Act and regulations to be adopted based on this Hydrocarbons Act, shall be appropriately subject to the provisions

of the Mining Act and regulations that have been adopted based on the Mining Act.

The Hydrocarbons Act contains provisions which have been harmonised with the following documents of the European Union:

- Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons, (OJ L 164, 30.6.1994);
- Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC (OJ L 178, 28.6.2013); and
- Directive 2009/31/EC of the European Parliament and of the Council on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and of the Council Directives 2006/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006 (OJ L 140, 5.6.2009).

Furthermore, Oil and Oil Derivatives Market Act regulates the rules and measures for safe and reliable production of oil derivatives, transport of oil and oil derivatives, wholesale and retail of oil derivatives, storage of oil and oil derivatives as well as the market access, intervention plan in the event of an extraordinary disturbance in the supply of oil and oil derivatives markets, as well as operational and compulsory stocks of oil and oil products. It implemented the Council Directive 2009/119/EC of 14 September 2009 imposing an obligation on Member States to maintain minimum stocks of crude oil and/or petroleum products (OJ L 265, 9.10.2009).

### 6.3 Institutional overview

The main state bodies which are each within their competency involved or planning to be involved in undertaking of hydrocarbons exploration and exploitation activities are the Government of the RoC, competent ministries, particularly the Ministry, and the Hydrocarbon Agency.

The Ministry is in charge of (i) preparation and organisation of presentations aimed at introduction of potential investors with

<sup>108</sup> Official Gazette No. 95/18.

<sup>109</sup> Official Gazette No. 132/14, 16/15.

<sup>110</sup> Official Gazette No. 43/16.

<sup>111</sup> Official Gazette No. 111/12, 19/14.

<sup>112</sup> Official Gazette No. 149/09.

<sup>113</sup> Official Gazette No. 53/91.

the hydrocarbon potentials of certain regions of the RoC; (ii) implementation of the unique procedure for licence issue and agreement conclusion; and (iii) preparation of regulations with respect to the exploration and exploitation of hydrocarbons.

The Hydrocarbon Agency has been established by way of the adoption of the Act on Establishment of Agency for Hydrocarbons. Among other duties and obligations, CHA is in charge of operative support to the competent bodies, especially by (i) participation in the preparation and organisation of presentations and updating, leading and organising the geological and geophysical data room, and data rooms on drillholes, aimed at introduction of potential investors with the hydrocarbon and geothermal potentials of certain regions of the RoC; (ii) making proposals to the Ministry for rendering a decision on implementation of a public tender procedure for exploration and exploitation of hydrocarbons for the selection of the best bidder for the licence issue and agreement conclusion and participation in the implementation of such public tendering; (iii) specification of the costs of the hydrocarbon exploration and exploitation and obtaining technical documentation for the exploration and exploitation field; (iv) providing conditions for efficient exercise of the rights and liabilities of the investor pursuant to issued licences and concluded agreements; (v) following international trends in hydrocarbon exploration and exploitation; (vi) monitoring and controlling the investor in the performance of all the obligations assumed according to the licence and the agreement and informing the competent authorities about observed irregularities; (vii) operational monitoring of the payment of the agreed fees and costs for the purpose of recovering costs, which is one of the input parameters when calculating part of the compensation when it comes to hydrocarbon division; (viii) preparation of reports on the fulfilment of the investor's commitments pursuant to issued licences and concluded agreements; (ix) providing assistance to the investor and coordination between the investor and competent state bodies in relation to fulfilment of the commitments under the issued licences and concluded agreements; and (x) providing assistance to the investor for obtaining all the necessary documents and/or documents required for the exploration and exploitation of hydrocarbons, and in accordance with the special regulations and the concluded agreement; (xi) providing assistance to the investor for the purpose of resolving the property-legal relations for landfills within the exploration area and/or the exploitation field; (xii) submits reports to the European Commission on all the general difficulties

encountered by investors when accessing or conducting activities of hydrocarbon exploration and/or exploitation activities in third countries to which they are subject to compliance with the business secrets; (xiii) participation in the submission of all reports and notifications to the European Union bodies in accordance with the applicable regulations and the *acquis communautaire*; (xiv) keeping a register of agreements containing basic information on all contracts concluded for which CHA has public authority; (xv) controlling the reports that investors are required to submit when disposing of gases in geological structures, taking corrective measures, approving temporary plan of handling after the closure of the underground warehouse, and is responsible for monitoring, reporting and corrective measures after the closure of the underground warehouse; and (xvi) providing administrative and professional support to the Ministry when developing and implementing hydrocarbon exploration and exploitation projects.

The CHA shall cooperate with competent state bodies within the framework of their competences in the implementation of the supervision over the performance of mining works and exploitation, construction and usage of exploitation objects and facilities, all in compliance with the issued licence, concluded agreement, provisions of the Acts and provisions of other special regulations. It shall also be entitled to, at any time as long the licence and agreement are effective and valid, request any data and/or information from the investor with respect to the fulfilment of their commitments in accordance with the conditions stated in the issued licence and provisions of the concluded agreement, provisions of the Acts and other special regulations, and the investor shall submit these data to the CHA.

#### **6.4 Material provisions of the upstream oil market law and licensing regulations**

The Hydrocarbons Act stipulates a unified procedure for the issuance of the Licence for the Exploration and Production of Hydrocarbons and the conclusion of an Agreement for Commercial Use of Hydrocarbons. The issuance of the licence is executed by way of the public tender procedure which begins by the Government's decision based on the proposal by the CHA. The award of the Licence for the Exploration and Production of Hydrocarbons can be carried out within one unified tender procedure or within a separate procedure if the areas in question were already subject to previous tender procedures or in case of relinquished areas.

Regarding the investors suitable to be awarded the Licence for the Exploration and Production of Hydrocarbons, they must comply with statutory requirements as set out in the Hydrocarbons Act. Namely, the investor must be registered for the activities of exploration and exploitation of hydrocarbons and must not be criminally convicted of certain crimes (such as: being a part of a criminal organisation, corruption, fraud, terrorism, money laundering, human trafficking), must pay all due public duties and taxes, cannot be in the process of liquidation or have had ceased their business activities. The Hydrocarbons Act further regulates which requirements are to be taken into consideration in assessing the potential holder's technical and financial capabilities.

Upon being awarded the Licence for the Exploration and Production of Hydrocarbons, the investor will enter into an agreement with the Government of Croatia which will regulate all rights and obligations of the contractual parties.<sup>114</sup> Based on the Licence for the Exploration and Production of Hydrocarbons, the holder is also automatically awarded the Licence for Production of Hydrocarbons, which will form an inseparable part of the Licence and the Agreement if, after the conclusion of the exploration period: (i) the stocks of hydrocarbons are confirmed, (ii) the exploitation field is determined, (iii) the project is drafted, and (iv) the holder fulfils all the other conditions stipulated by the relevant legislation.

The licence is issued for a maximum period of 30 years and comprises the exploration and exploitation period. The exploration period lasts five years at the most, however, due to justified reasons and following a proposal of the investor, it can be prolonged no more than two times during the exploration period in a way that each of the extensions may last six months at the most.

The Hydrocarbons Act prescribes the possibility that the tender specification imposes an obligation that the national oil company must participate with the chosen investor in the project in a percentage between 10 and 30 per cent. In such cases, the national oil company and the chosen investor conclude an agreement on joint investment within three months from the day of the issuance of the Licence for the Exploration and Production of Hydrocarbons, and before the execution of the Agreement on exploration and exploitation.

Hydrocarbons Act recognises two types of the agreements:

- (i) Agreement on exploration and sharing of exploited hydrocarbons (i.e. according to the information provided by the Ministry, this is a production sharing agreement);
- (ii) Agreement on exploration and exploitation of hydrocarbons (i.e. this is a standard concession agreement).

The production sharing agreement is executed by the Government and the investor, while the standard concession agreement is executed by the Government and the investor after the obtainment of the abovementioned Licence, or by the Ministry and the investor if the investor is already in possession of the valid Licence.

According to the "Definitions" part of the Hydrocarbons Act, the fee payable by the investor in line with the Hydrocarbons Act and the subject agreement is the fee payable for usage of extracted hydrocarbons and determined by the Government of RoC by way of a regulation. The Government of RoC has adopted on 19 March 2014 the Regulation on Fee for Exploration and Exploitation of Hydrocarbons, according to which the fee consists of the total monetary fee and the sharing of extracted hydrocarbons between the RoC and the investor. The total monetary fee comprises of six individual fees, while the sharing of the extracted hydrocarbons is determined as a percentage of the quantity of gained hydrocarbons belonging to the RoC.

The Oil and Oil Derivatives Market Act lists the following energy activities related to the oil and oil derivatives market: (i) production of oil derivatives; (ii) transportation of oil (via oil pipelines) and oil derivatives (via oil derivatives pipeline); (iii) transport of oil, oil derivatives and biofuel via road, railway and waterway; (iv) wholesale and retail of oil derivatives; and (v) storage of oil and oil derivatives. The entities undertaking such activities must obtain approvals by HERA, with an exception for the activities listed under (iii) and retail sale of oil derivatives.

As regulated in detail in the Regulation on licences for undertaking of energy activities and registry for the provided and revoked licences for undertaking of energy activities<sup>115</sup>, the issuance is subject to providing evidence of the following:

- (a) to be registered for undertaking the respective energy activity with the court registry of the respective commercial court;

<sup>114</sup> The draft agreement is a part of the necessary tender documentation.

<sup>115</sup> Official Gazette No. 88/15, 114/15, 66/18.

- (b) to have sufficient technical qualifications for undertaking the subject activity;<sup>116</sup>
- (c) to prove employment of sufficient number of employees professionally qualified for undertaking of the subject activity;
- (d) to hold sufficient financial means necessary for undertaking of the subject activity or a proof of its capability to obtain one<sup>117</sup>;
- (e) that no energy licence for undertaking of the subject energy activity has been taken away from the entity in the last five years prior to the submission of the request;
- (f) to provide a statement that the members of the management board or other responsible persons within the entity have not been convicted of a crime in an economic sector in the last five years.

Energy operator must pay the fee at the submission of the request for the issuance of the energy licence but also another fee in the variable amount depending on the profit made in the preceding year.

The issued energy licence determines the period of its validity which can be extended if an application is made three months prior to its expiry. HERA is entitled to revoke the energy licence on a temporary basis if the energy operator no longer fulfils the conditions of technical qualifications and competencies, financial or any other conditions pursuant to which the licence to perform energy activities had been issued.

There is a possibility of the transfer of the energy licence in cases of a spin-off of an energy licence holder or its merger to or with another legal entity. In the event of the spin-off and merger, the transfer of energy licence is possible to only one legal entity, which is the universal successor of the energy licence holder in question, subject to the filing of the request for such transfer to HERA within the prescribed timelines.

## 6.5 Forthcoming developments

According to CHA, only 20 per cent of the currently needed supplies of oil are being produced in the RoC.

The five-month long 2D seismic screening activity undertaken by the Norwegian Spectrum has shown potentials for exploration and exploitation of hydrocarbons in the Croatian Adriatic. A public tender for awarding exploration approvals regarding exploration and exploitation of the Adriatic seabed was announced in April 2014. A total of 29 blocks were identified having the surface areas in the range between 1,000 and 1,600 km<sup>2</sup>. In January 2015, the Croatian Government has adopted 10 decisions by which it has awarded exploration approvals in relation to ten blocks – one in northern Adriatic, five in central Adriatic and four in southern Adriatic. One block has been awarded to ENI and MEDOILGAS S.P.A., two blocks have been awarded to INA d.d., and seven to MARATHON OIL and OMV. However, due to MARATHON OIL and OMV's decision not to enter into the Agreement, the Government revoked their licences, while the other companies never signed the agreement. In the meantime, the Government decided to implement a moratorium on the current project for the exploration and exploitation of hydrocarbons in the area of the Adriatic Sea.

In 2018, the construction of three storage tanks for oil storage with a total capacity of 240,000 m<sup>3</sup> and a storage tank for oil derivatives with a capacity of 20,000 at Omišalj Terminal (the largest in RoC) were completed, therefore, the total capacity of JANAF for storage of oil is now 1.94 mil m<sup>3</sup>, while for oil derivatives, it is 222,000 m<sup>3</sup>.<sup>118</sup>

In regard to the continental part of RoC, it consists of two large oil exploration areas: the Pannonian Basin and the Dinaric Alps. The first tender procedure included a part of the Pannonian Basin and six exploratory areas of total size of 14.603 km<sup>3</sup>. According to the 2015 Ministry's Report, 16 exploratory areas in RoC were defined at the time. On 30 January 2019, the Government of RoC decided to commence the tender procedure for licences for exploration and exploitation in the geographical area of the Dinaric Alps for four exploratory areas.

<sup>116</sup> Specific technical qualifications are set forth for each type of energy activity with the Regulation on licences for undertaking of energy activities and registry for the provided and revoked licences. This applies to the human resources and financial obligations requirements also.

<sup>117</sup> An energy licence holder, which is a legal person, needs to have sufficient financial means as determined by law, or at least the proof that it can secure them: HRK 100,000 (approx. EUR 13,500) for the production of oil products; HRK 100,000 (approx. EUR 13,500) for transportation of oil; HRK 70,000 (approx. EUR 9,420) for the transportation of oil products; HRK 40,000 (approx. 5,380) for wholesale of oil derivatives; HRK 50,000 (approx. EUR 6,730) for storage of oil and oil derivatives.

<sup>118</sup> Annual report for 2018 available at [www.janaf.hr](http://www.janaf.hr).







KYRIAKIDES GEORGOPOULOS  
Law Firm

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# GREECE

## 1. INTRODUCTION TO THE ENERGY MARKET

Greece's strategic geo-economic location, between energy producers in the Middle East, North Africa, and the Caspian Sea region, as well as on the vital transport routes of the Aegean Sea and the Eastern Mediterranean, characterises it as the expanding hub between East and West. Greece has initiated crucial, major ventures in oil, gas, and alternative sources that put the country at the heart of the Southeast European energy axis.

Greece's comprehensive energy policy, which seeks to establish sustainable, competitive, and secure sources of energy, has put forth an encompassing regulatory and market framework for the energy sector. This, in combination with Greece's wide-ranging investment regulatory framework, provides for exceptional opportunities for investment.

Greece has a liberalised energy market that has evolved in the last decade into an energy hub and represents an important sector of the country's economy. Electricity and gas agreements with major European, American and Asian companies have positioned Greece as a point of reference in the region, and a number of energy projects linked to wider geopolitical moves and to the largest global economic players are expected to be implemented in Greece. Despite the current economic crisis and its impact on the Greek economy, a number of recent developments and significant reforms across all sectors of the economy are expected to put Greece on a new course.

## 2. ELECTRICITY

### 2.1 Market overview

Greece embarked on the liberalisation of the electricity market in

1999 and subsequently revised the legal framework in order to comply with European Union legislation and to incentivise private investment and competition. Under current economic conditions and as per the financial assistance agreement Greece entered into with the International Monetary Fund and the EU, the complete market liberalisation has been prioritised and remains a key pillar of Greece's current economic model.

The Greek government passed in 2011 an energy law that, amongst others, implemented the EU's Third Energy Directive and paved the way for increased competition in the country's energy markets by advancing the unbundling of the incumbent public companies as well as by giving the country's regulator much stronger powers. Greece is currently in the process of a complete restructuring of its electricity market in order to conform with the rules for market integration, based on the European Target Model for electricity.

In 2018, Greece's total net installed capacity is 17.4 GW and consumed 50.9 TWh of electricity. According to figures published by the Electricity Market Operator, Greece in 2018 generated a total of 44.9 TWh of electricity.

### 2.2 Regulatory overview

The Greek electricity market has been shaped by a series of key legislative acts over the past 20 years. Such legal framework, along with the Grid Codes and a series of secondary legislation in the form of Regulations, Ministerial Decisions and other Administrative Acts, establish the organisational and operational rules for the electricity market, as well as the fundamentals and the restrictions of the market organisation and of the lately introduced energy exchange market.

The regulatory authorities which oversee and regulate the Electricity market are:

<sup>1</sup> These laws are: Law 2773/1999 on the liberalisation of the Electricity Market; Law 3175/2003 which amended Law 2773/1999 (the "Electricity Law"); the Grid Control and Power Exchange Code for Electricity of May 2005 ("Grid Code"); Law 3426/2005 on the Acceleration of Electricity Market Liberalisation; Law 3468/2006 on the Production of Electrical Energy from Renewable Energy Sources; Law 3851/2010 on the Acceleration of the development of RES and the Climate Change ("New RES Law"); Law 4001/2011 on the Operation of the Electricity and Natural Gas Energy Markets and for the Research, Production and Transmission Networks for Hydrocarbons and other provisions ("Energy Law"); Law 4389/2016 regarding the NOME auctions and implementation of Ownership Unbundling; Law 4414/2016 on the New RES and Combined Heat and Power ("CHP") Support Scheme; Law 4425/2016 regarding the new operational model of the wholesale electricity market in Greece; and Law 4512/2018 ("Target Model Law").

- (a) The Regulatory Authority for Energy ("RAE"), an independent authority that supervises and monitors the operation of all sectors of the energy market, and advises the competent authorities on compliance with competition rules and consumer protection;
- (b) The Ministry of Environment and Energy ("MEE"), which is principally responsible for the formulation and implementation of Greece's energy policy in relation to its international and EU Community ("Community") obligations, i.e. the transposition of relevant EU Directives and the alignment of the national policies with the EU Regulations and strategies; and
- (c) The Ministry of Economy and Development, which can indirectly affect energy matters through its monitoring of petroleum product prices and, more significantly, through its responsibility for administering EU Cohesion Funds.

The key market players of the Greek Electricity market:

- (i) The Public Power Corporation ("PPC" or "DEI" as per its Greek initials) is the dominant electricity producer and supplier in Greece. PPC also owns the distribution network. PPC is owned by the Greek State (51.12 per cent) and several insurance funds (3.93 per cent), with the remaining percentage (44.95 per cent) held by private investors.
- (ii) The Hellenic Distribution Network Operator ("HDNO" or "DEDDIE" as per its Greek initials), a wholly-owned subsidiary of the PPC resulting from the separation of its distribution segment under the Energy Law. The Distribution System Operator is independent in its operation and management, retaining all the independence requirements that are provisioned in the Energy Law. It is responsible for all activities relating to the maintenance and development of the electricity distribution network, as well as for the assurance of a transparent and impartial access of consumers and of all the network users in general.
- (iii) The Independent Transmission Operator ("ITO" or "ADMIE" as per its Greek initials), and transmission system operator ("TSO"), which up to July 2017 was a subsidiary of PPC, is the owner and operator of the High-Voltage Transmission System ("System") and accordingly is responsible for its operation, exploitation, development and maintenance as well as for the operation of the balancing market. Following full ownership unbundling ("FOU"), PPC has fully divested its interest in the TSO and the present shareholders are the State Grid Europe Limited (a 100 per cent subsidiary of State Grid

International Development Ltd), controlling 24 per cent of the TSO; the Public Holding Company ADMIE (IPTO) SA, owned 100 per cent by the Greek State, controlling 25 per cent of the TSO, and ADMIE (IPTO) HOLDING SA, listed in the ATHEX (51 per cent is owned by the Public Holding Company ADMIE (IPTO SA), controlling 51 per cent of the TSO.

- (iv) The Operator of renewable energy sources ("RES") and Guarantees of Origin SA ("Operator of RES" – previously, the Electricity Market Operator ("LAGIE" as per its Greek initials)), is the RES operator, which is exclusively controlled by the Greek State. The RES operator is responsible for the operation of RES and guarantees of origin ("GOs") and its activities are carried out in accordance with the Code of RES Operator and Guarantees of Origin.
- (v) The Hellenic Energy Exchange SA ("HEnEx") was established in the context of the reform of the Greek energy market, i.e. towards its harmonisation with the requirements of the Target Model. The Target Model introduced the general framework of the new operating model of the wholesale electricity market ("Target Model"). The registered shareholders of HEnEx are Operator of RES (22 per cent), Athens Exchange Group (21 per cent), ADMIE (20 per cent), EBRD (20 per cent), Hellenic Gas Transmission System Operator SA ("DESFA") (7 per cent) and Cyprus Stock Exchange (10 per cent). Under the new framework, LAGIE assigned/contributed all of the activities that were relevant to the operation and the management of the Day-ahead Scheduling ("DAS"), including the organisation and implementation of the auctions for the sale of electricity forward contracts ("NOME" auctions), for the purposes of establishing the Hellenic Energy Exchange SA (by way of spin-off). HEnEx is responsible for the administration and the operation of the day-ahead market, the intraday market, and the energy financial instruments/products market. HEnEx needs a licence from RAE to perform the above activities and a licence from the Hellenic Capital Market Commission for the energy financial instruments/products market.

The Greek wholesale electricity market continues to be under complete restructuring due to the implementation of the Target Model, to ensure conformity with the requirements of the EU Target Model and enable its connection with the European markets. Auctions in accordance with the NOME model have been taking place since October 2016. The auctions enhance



competition between power suppliers by providing all power suppliers access to the less expensive lignite electricity production of the dominant power producer (i.e. PPC).

Despite the fact that the Greek State enacted Law 4425 in 2016 in order to reorganise the electricity market in accordance with EU rules, for the completion of the single European market, the initial version of the law adopted a very conservative approach in introducing the principles of the Target Model, which proved to be inadequate. Law 4425/2016 was criticised for not having achieved the introduction of the required regulations. It was more of a law primarily acknowledging the Target Model instead of introducing a completely open environment for its implementation.

The enactment of Law 4512/2018 introduced an evolution in the energy legislative sector; Law 4512/2018 adopted decisive steps among which was the establishment of HEnEx followed by the structural reformulation of the particular and individual sectors of the energy market. The electricity transactions are currently designed to be carried out in four different markets (see below, Section 2.3).

HEnEx provides access to new liquid energy markets and products that will, among other things, support greater the domestic competition, reduce barriers to entry for new energy market participants and allow the effective participation of renewable energy producers in the electricity markets. HEnEx will also support regional integration by facilitating market coupling with Greece's neighbours (i.e. Italy and Bulgaria).

Furthermore, HEnEx offers a comprehensive set of new energy trading products well above the minimum requirements for compliance with the EU Target Model, including new spot plus new physical and cash-settled energy derivative products. Through the introduction of physical and cash-settled energy derivative products, HEnEx is the platform that accommodates domestic and regional market participants with the opportunity to hedge their electricity market risk in different time frames, as well as to improve price discovery across the curve.

## 2.3 Electricity market structure

### (a) Before the target model

The operation of the electricity market is a licensed activity, currently based on a mandatory wholesale daily market ("Pool") for power exchanges between market participants and is mainly

comprised of DAS and the real-time dispatch of generation units. By registering with the participant register kept by HEnEx, participants enter into a DAS contract and a TSO contract, governed by the provisions of the Power Exchange Code for Electricity, and the Grid Code respectively. DAS and TSO contracts are not subject to any other formalities. Other forms of contracts or industry-standard instruments are not in use under this restrictive framework. Registered market participants are invited to submit to HEnEx their load nominations and injection offers for any hour (i.e. dispatch hour) of a calendar day (i.e. dispatch day) until 12:30 of the previous day. Within the framework of DAS, all power exchanges between suppliers and generators are settled at a uniform system marginal price ("SMP") per dispatch period (SMP in €/MWh).

Following the dispatch day, the TSO activates the imbalances settlement procedure, which results in a uniform price at which the TSO settles the relevant charges and credits to the participants concerned and encourages the availability of generation units. The TSO Code includes terms concerning the provision of Ancillary Services, Supplementary System Energy and emergency reserves by the market participants that enter into the respective contracts with the TSO. With respect to the remuneration for the capacity availability of the power plants, a transitory mechanism is introduced by Law 4559/2018, which will be applicable until the end of 2019 and provides for the remuneration by TSO of flexible plants (i.e. plants that are capable of increasing or decreasing electricity generation at a rapid rate). The PPC lignite-fired power plants do not meet the technical criteria to participate in this mechanism.

This mandatory pool operating model, consisting of DAS and the supplementary mechanisms, is scheduled to be changed within 2019, due to the recent introduction of the Target Model which, on its full implementation, will enable Greece's participation in the EU Market Coupling and will enable bilateral agreements between market participants. This restructuring process, which is part of the complete liberalisation of the electricity market, is ongoing.

### (b) The energy market after the enactment of the Target Model Law

The Target Model Law introduced the general framework of the new operating model of the wholesale electricity market (i.e. the Target Model) to be gradually implemented within 2019, as a result of several years of harmonisation efforts with the EU legislative regime.

The Target Model Law introduces the following wholesale markets:

- day-ahead market (operated by HEnEx);
- intraday market (operated by HEnEx);
- imbalances market (operated by ADMIE); and
- energy financial (financial instruments/products) market (operated by HEnEx).

The newly created market structure is primarily based on the day-ahead market. In this market, the electricity transactions are carried out on a 'physical delivery' mode. Therefore, the market involves cash-settled transactions of immediate delivery and does not involve transactions of forward energy products. The day-ahead market is coupled with an intraday market and a balancing market. The Target Model Law provides for the operation of the intraday market. In the intraday market, physical delivery transactions are carried out according to orders submitted after the end of the submission period in the context of the day-ahead market. The day-ahead market and the intraday market contribute in advance to the balancing between offer and demand as such a function relies on the estimations of the day-ahead demands. There lies the importance of the balancing market, which is the mechanism for the account of imbalances between offers and demand of electricity, given that if there is an imbalance in the performance of the contracts for the delivery of electricity products on an hourly basis, such imbalances are settled by the balancing market.

The Target Model Law provides for alternative options with respect to the clearing and settlement of the transactions of the day-ahead market and of the intra-day market which may be carried out by HEnEx or a clearing house or a central counterparty ("CCP") of the European Market Infrastructure Regulation ("EMIR"). The second option is currently adopted, which provided that the clearing and settlement of the transactions of the day-ahead and the intraday market will be carried out by a clearing house established by HEnEx. The clearing house was created in November 2018 under the distinctive title "EnExClear SA", which will become operational following the issue of respective operation licence and the approval of its Regulation by RAE and on the same day as the operation commencement date of the new day-ahead market and of the intraday market, as this date is set by RAE.

The Target Model Law provides that the clearing of the balancing market transactions will be carried out by ADMIE, which is entitled to assign certain clearing functions to a clearing house or a CCP

on RAE's approval. In relation to the clearing and settlement of the energy financial market transactions, see Section 2.3(d).

- (c) The HEnEx market and the introduction of the financial instruments/products

The Target Model Law establishes a significant expansion of the available electricity trading mechanisms by introducing the energy financial instruments/products. In such a market, these financial means are negotiable instruments and are meant to be, provided that they are related to energy goods, the ones defined as financial instruments and provisioned in the cases 5-11 of Annex 1 of the MiFID II.

Depending on the maturing and the widening of the Greek electricity market, it is now institutionally possible for such contracts to appear in the Greek energy reality. It also remains to be seen in the future whether said agreements shall be formulated so as to be cleared-settled only through the physical delivery of electricity power or through cash (economic) settlements. In particular, transactions over energy financial products can be concluded outside the HEnEx market through bilateral contracts directly between the contractual parties.

The Target Model Law provides that, in relation to the operation of the Energy Financial market, HEnEx receives a licence from the Hellenic Capital Market Commission. Additionally, HEnEx must enter into the necessary agreements with the Athens Stock Exchange SA ("ATHEX SA") and its subsidiary company (i.e. the Clearing House of the Athens Stock Exchange Company SA ("ATHEXClear SA")) in order for ATHEXClear or another company linked to ATHEX to undertake the clearing of the transactions.

By way of exception to the above provisions, HEnEx is entitled to operate an organised trading facility ("OTF") on derivatives physically settled, and to carry out the clearing process of the OTF on RAE's approval.

- (d) The transformation of the regulatory landscape: from codes to regulations

The Target Model introduces, from a systemic perspective, the requirement to issue specific regulations for each market section, as the markets are now regulated. Before the introduction of the Target Model Law, the regulatory framework was organised,



technically, with the adoption of codes, whereas under the Target Model, the form of regulations has been introduced as the instrument to regulate the related market specifics.

Given this approach, the adoption of the Regulation of the Energy Exchange Market ("**EEM Regulation**") was effected at the end of 2018 on the recommendation of the Board of Directors of HEnEx following the approval by RAE. The EEM Regulation sets out the terms and conditions for the operation of the day-ahead market, as well as the intraday market on the basis of objective and transparent rules in the absence of any discrimination with regard to the access of the participants in those specific markets. The commencement of the operation of the day-ahead market and the intraday market is provisioned, by virtue of RAE's approval, for 6 June 2019. However, further delays in the implementation of the framework move the actual commencement of operation close to late 2019.

In addition, as also required by the Target Model Law, as of the end of 2018, the Regulation of the Balancing Market ("**BM Regulation**") was effected following RAE's approval of ADMIE's recommendation. The BM Regulation sets out the terms and conditions for the operation of the balancing market on the basis of objective and transparent rules in the absence of any discrimination relating to the access of the participants in the markets in question. Furthermore, the rules and procedures for carrying out the transactions in those markets, as well as the connection thereof with the settlement mechanism and the consequences of a breach of its rules are addressed in BM Regulation.

The introduction of the Regulation on the Clearing of Transactions ("**CT Regulation**") constitutes an innovation of the Target Model Law. The CT Regulation seeks to establish under new grounds the concept of clearing and settlement according to the type of transactions settled, and the intermediary who will undertake the relevant role that is crucial for the operation of the market. Article 18§3 of Law 4425/2016 sets out the material contents of the CT Regulation, which include the rules for access to the clearing functions, the obligations of the clearing members, the rules governing risk management along with the provisions relating to the securities for safeguarding the claims incurred from the transactions settled.

If a CCP of the EMIR, which has been licensed in Greece under

Article 100 of Law 4209/2013, undertakes the clearing of transactions of the day-ahead and the intraday markets, the clearing process is conducted according to the CCP's Regulation, which is drawn up in accordance with EMIR and the CCP Technical Standards Regulation. Within the above rules and their scope of application, the potential clearing of the balancing market by such CCP is also applicable *expressis verbis*.

The structural amendments effected by the Target Model Law resulted in the adoption of the Code of RES Operator and Guarantees of Origin.

## 2.4 Regulated electricity market activities

According to Laws 2773/1999 and 4001/2011, as amended and in force, the main activities which fall under the general term "Electricity market" are the sale and purchase of electricity and all related commercial activities (such as generation, transmission, distribution, supply, import and export, etc.). In order for these activities to be lawfully performed, interested parties must obtain the relevant licensing.

## 2.5 Material licences for electricity generation

Law 4001/2011 on the Operation of the Electricity and Natural Gas Energy Markets and for the Research, Production and Transmission Networks for Hydrocarbons and other provisions together with Law 2773/1999 on the Liberalisation of the Electricity Market as amended and in force today, transposed the relevant EU Legislation into domestic law and set out the framework for the licensing of power generation facilities in Greece.

Under Greek electricity legislation, the development, construction, commissioning and operation of a power plant is extensively regulated by a number of legislative acts (including voluminous secondary legislation). The licensing process can be divided into three basic licences:

- (a) The Electricity Generation Licence, issued by RAE upon review of the criteria stipulated in the Energy Law, which can only be granted to legal entities based within the EU and/or EU citizens.
- (b) The Installation Licence, in conjunction with the environmental licensing of the respective facilities, which is a prerequisite for every developer wishing to proceed with construction works, enter into agreements with the relevant operators for the connection of the power plant with the grid

and the sale of the electricity produced. It is also a prerequisite for gas-operated power plants that enter into an agreement for the connection of the power plant with the natural gas transmission system.

- (c) The Operation Licence, issued following the connection of the power plant with the grid, the completion of the works and the successful trial operation.

The above licences are without prejudice to any other ancillary requirements which may be prescribed by the general legislation, e.g. building permits, health and safety legislation, etc., which may run in parallel or as a prerequisite to reaching the next milestone.

## 2.6 Trading and supply of electricity

The issuance of an Electricity Trading and/or Supply Licence is regulated by the Energy Law and the provisions of the Electricity Licensing Regulation. Both the Energy Law and the Electricity Licensing Regulation differentiate the criteria for the issuance of these licences on the basis of the type of the licence requested, and the legal form of the applicant entity, among other things, while concurrently setting additional relating requirements. Under Article 2 of the Electricity Licensing Regulation, an Electricity Supply Licence is provided for the sale of Electricity to End Customers while the Electricity Trading Licence is granted for the conduct of transactions in the electricity market, exclusively through international connections of the country's electrical systems with the electrical systems of neighbouring countries.

Legal entities based within the EU, Member States of the European Economic Area, members of the Energy Community, and/or states that have executed bilateral treaties either with the EU or with Greece are eligible for the issuance of an Electricity Trading and or Supply Licence. Alternatively, an interested legal entity can establish a branch in Greece. The Energy Law also sets out that the exercise of Electricity Supply or Trading activities in another EU Member State under the legislation of that Member State grants special provision rights with respect to the issuance of the respective licences for the performance of same activities in Greece.

## 2.7 Transmission and grid access

The Electricity market is divided into two different systems: (i) the mainland interconnected grid (including the interconnected islands) and, (ii) as they are referred to, the "non-interconnected islands".

However, several islands, mainly of the Aegean Sea (most notably Crete with two planned interconnections), are included in the ten-year development plan of ADMIE for gradual interconnection with the mainland grid system through submarine cables. The distinction between the two systems is of importance because different rules on licensing procedures and compensation schemes are applicable for each system.

According to the provisions of the Electricity Transmission System Operation Code, all power producers are entitled to gain access to the System or the Network under specific financial and technical terms concerning the connection of the power plant to the electricity grid, as such, are determined by the relevant Operator in the Connection Terms Offer.

At a later stage, power producers enter into a Connection Works Agreement with the relevant Operator of the System or the Network, which describes in detail the connection works required for the connection of the generation facilities to the grid, along with the financial and technical terms of the connection.

# 3. RENEWABLE ENERGY

## 3.1 Market overview

Renewable energy plays a significant part in the Greek energy production, and was initially based primarily on large scale hydropower stations operated by the PPC.

To establish security and diversification of its energy supply, as well as to promote environmental protection and sustainable development, Greece has established key priorities and binding policies related to the production of electricity from RES, and promotes the establishment of RES plants.

RES plays an increasingly important role in Greece's energy production profile. Greece has reached 32 per cent energy production from RES (including hydropower plants) in 2018 and the current total respective installed capacity reached 8,800 MW. The increase has mainly been led by photovoltaics ("PVs"), wind parks and hydropower stations, while the other RES technologies have not shown significant progress, mainly due to the economic crisis and difficulties in securing the necessary financing.

Based on the EU mandate (Directive 2009/28/EC) and Law 3851/2010 on RES Development, the national target for RES states that the energy produced by RES will contribute 20 per cent of the gross final energy consumption, whereas the electric power produced by RES will contribute at least 40 per cent of the gross electric consumption, by 2020. The aforementioned targets were attempted to be achieved through a mix of measures related to the implementation of policies in the field of energy efficiency and the large penetration of RES technologies, both in electricity production and heat supply.

The recent global economic crisis generally, and Greece's debt crisis specifically, affect the country's growth rate. However, Greece follows a long-term plan to reform and modernise its energy sector and it has taken several steps along this direction by revealing a number of competitive advantages, such as:

- (i) a comprehensive regulatory framework for energy investment;
- (ii) excellent potential of every renewable energy resource;
- (iii) attractive investment incentives;
- (iv) renewable energy project development at competitive costs; and
- (v) continued expansion of the energy market for spin-off markets in manufacturing energy technologies.

In addition to simplifying the licensing process for RES projects, the Greek State also has a fast-track process for large-scale energy, tourism, industry, advanced technologies and innovation projects that fall under the scope of the investment law. It is currently being used as a tool aimed at accelerating large-scale investments in Greece, with most of those investments being in RES projects. Within the framework of the fast-track process, the company Invest in Greece SA operates as a one-stop-shop for investors and undertakes all of the required procedures and licensing obligations on behalf of the investor.

### 3.2 Support schemes

Another way to promote electricity generation through RES in Greece is by having an attractive compensation mechanism for RES producers. For many years, this mechanism had the form of a guaranteed feed-in tariff ("FiT") that provided electricity producers from RES a guaranteed sale price for their produced electricity, along with a guaranteed buyer for their production. However, in order to achieve greater cost-effectiveness and to incentivise better integration into the

market of the electricity produced by RES in a cost-effective way through market based instruments, the Greek State replaced the currently applicable FiT scheme with a sliding Feed-in Premium ("FiP") scheme also in compliance with the recent European directives and principles relating to state aid in the energy sector for the period 2014 to 2020 ("EEAG"). The FiP scheme is considered to be an appropriate temporary approach to gradually bring RES as close as possible to real market conditions and balancing responsibilities, preventing the risk of both over- and under- compensating RES producers.

The main difference between the two support schemes, however, is related to the obligation of RES producers to participate actively in the wholesale electricity market, once the relevant market codes are implemented, which will lead to the gradual integration of RES technologies in wholesale market conditions. In addition, for PVs and wind parks (and other categories, subject to certain capacity thresholds for the respective categories), the reference tariff that was previously determined by an administrative decision, is subject to the successful participation in competitive bidding processes the ("RES Tenders") the implementation of which commenced in 2018.

Another financial instrument for the promotion of some RES technologies is the National Development Law, which covers almost all private investments in Greece across all sectors of the economy. The National Development Law governs the terms and conditions of direct investment in Greece and provides for incentives, available to both domestic and foreign investors, depending on the sector and the location of the investment.

## 4. NATURAL GAS

### 4.1 Market overview

The Greek natural gas market is making significant steps towards its further development. Gas demand was projected to increase in the long term, as it progressively gained a larger market share in power generation, as well as in the industrial, residential and commercial sectors; however, it has slowed down due to the financial recession in the year 2017. Natural gas accounted for 7 per cent of the total fuel consumption in Greece for 2016.

Piped natural gas sales from Russia began in 1996 and from Turkey in 2007, while liquefied natural gas ("LNG") sales from Algeria began in 1999, all on the basis of long-term supply contracts. Prior to this, the establishment of the high-pressure National Natural Gas System ("NNGS"), including its interconnections with Turkey and Bulgaria, and the LNG terminal located in Revythoussa island, resulted from a decision by the Greek State in 1992 to modernise its energy industries and diversify the country's energy sources through the introduction of natural gas.

Interest in entering the market is high as Greece offers a unique advantage for those involved in the business of natural gas due to increasing consumption needs, its geographic position in the region and its potential as an access point for the needs of the southeast and mainland Europe.

In particular, Greece is seeking to diversify its natural gas imports by sourcing natural gas from countries such as Iran and Azerbaijan, and is cooperating with several nations that are constructing pipelines. Azeri gas is scheduled to be transported via Turkey through the Trans Adriatic Pipeline ("TAP"), following its commissioning, which will feed with gas from the Shah Deniz gas field. This pipeline is designed to connect with the main line of the NNGS and provide for the transportation of natural gas from Greece to Italy through Albania and its operation is expected to start in early 2020.

There has also been an agreement on the implementation of the IGB pipeline (connecting Greece and Bulgaria), which can potentially be utilized as a starting pipeline for exporting Arabian LNG from Egypt, Algeria and the Persian Gulf to the Balkans and Central Europe.

Other notable contemplated interconnection projects involving Greece include the ITGI pipeline (connecting Turkey, Greece and Italy) and the IGF pipeline (connecting Greece with North Macedonia). Finally, recent developments bring the East Med pipeline to the spotlight, a prospective and strategic interconnection of Israel, Cyprus and mainland Greece via 1,200km of subsea pipelines.

Moreover, Greece has one LNG import terminal, located west of Athens on the island of Revythoussa, with a total useful capacity of 225,000m<sup>3</sup>, following the recently concluded expansion works, allowing for great natural gas export capability.

## 4.2 Regulatory overview

The primary legislation is the Energy Law, under which gas supply companies (i.e. the Natural Gas-Hellenic Energy Company SA, the Gas Supply Company of Thessaloniki-Thessalia SA, and DEPA) no longer enjoy exclusivity in supplying gas to low and medium pressure customers within the previously licensed (regional) jurisdictions as all customers have become eligible as of January 2018. Such activities are now open to any interested party resulting to the liberalisation of the market and its opening to new participants, while suppliers are no longer limited within a specific geographical area.

The exercise of other natural gas activities within the territory of the Greek State, however, under the Energy Law, constitutes a public service and is performed under the supervision and regulation of MEE. Generally, Greek policy regarding gas related issues focuses on:

- ensuring security and continuity of supply;
- protecting consumers;
- ensuring the promotion of free competition and environmental protection; and
- promoting the implementation of energy-efficient and economical, effective practices by the licensees.

The approval of a series of secondary legislation such as the Gas System Code, the Users' Registry, standard contracts and tariffs regulations brings further uniformity and stability in the natural gas market.

The regulatory authorities which oversee and regulate the Natural Gas market are:

- (a) RAE (see above, Section 2.2); and
- (b) MEE (see above, Section 2.2).

The key market players of the Natural Gas market:

- (i) The Public Gas Company SA ("DEPA"), a state-controlled natural gas company vested with the non-exclusive rights to import, export and supply (including trading) natural gas. DEPA is the main natural gas (including LNG) importer in Greece having signed long-term gas supply contracts with Gazprom, BOTAS and SONATRACH. The Hellenic Republic Asset Development Fund SA ("HRADF") holds 65 per cent of its shares and the remaining 35 per cent is held by Hellenic Petroleum SA ("HELPE").
- (ii) The Natural Gas-Hellenic Energy Company SA (i.e. the

former Natural Gas Supply Company of Attica-EPA Attica) is a natural gas supplier eligible to supply gas throughout Greece, a wholly-owned subsidiary of DEPA, which acquired Shell Gas BV's participation in the company at the end of 2018.

- (iii) The Gas Supply Company of Thessaloniki-Thessalia SA (formerly EPA Thessaloniki-Thessalia), with the distinctive title "Zenith SA"; since July 2018 Zenith's sole shareholder is ENI Gas e Luce as it acquired the remaining 51 per cent from DEPA.
- (iv) The Public Enterprise of Gas Distribution Networks SA ("DEDA") is a wholly-owned subsidiary of DEPA, which was established in early 2017. DEDA is the Operator of the Gas Distribution Networks throughout Greece, except for the regions of Attica, Thessaly and Thessaloniki.
- (v) The Gas Distribution Company of Attica SA ("EDA Attica"), since January 2017, is the Operator of the Gas Distribution Network of Attica. It is wholly-owned by DEPA following the acquisition by Shell Gas BV's participation at the end of 2018.
- (vi) The Gas Distribution Company of Thessaloniki-Thessalia SA (EDA Thessaloniki-Thessalia) was established in 2017 and is the Gas Distribution Network Operator within the geographical areas of the prefecture of Thessaloniki and the region of Thessaly. It is owned by DEPA (51 per cent) and by ENI Gas e Luce SPA (49 per cent) with management rights.
- (vii) The ITO ("DESFA"), the privatisation of which was concluded in December 2018. DESFA, being a certified EU Transmission System Operator and LNG system operator, must, among other things, under Third Gas Directive (Directive 2009/73/EC):
  - operate, maintain and develop secure, reliable and efficient transmission and LNG facilities, ensuring adequate means to meet service obligations;
  - grant third party access to its gas import infrastructures without discriminating among system users;
  - build sufficient cross-border capacity and adopt objective, transparent and non-discriminatory rules for balancing the transmission system, including rules for charging;
  - charge tariffs for the transmission service subject to the approval by the RAE, which is also in charge of monitoring DESFA's investment plans; and
  - avoid any flow of competitively sensitive information.

In order to fulfil these obligations, DESFA develops the NNGS in accordance with the annual Ten-Year Development Plan, as

approved and monitored by RAE, outlining the development of the NNGS infrastructures including major capacity expansion works and interconnection projects (e.g. interconnection with the TAP, LNG regasification facilities).

#### 4.3 Regulated natural gas market activities

Subject to licensing restrictions, liberalisation has lifted the barriers for entry into the gas market. Specifically, the Natural Gas Licences Regulation provides for the below licences granted by RAE and corresponding to the respective activities:

- Independent Natural Gas Transmission System licence;
- Independent Natural Gas Transmission System Operation licence;
- Natural Gas Distribution licence;
- Natural Gas Distribution Network Operation licence; and
- Natural Gas Supply licence.

The initial term of these licences depends on the licensed activity and ranges from 20 to 50 years. Upon request of the licence holder, the licences may be renewed for the same time period.

Any other sale, purchase, import and export activities of natural gas activities are conducted freely.

#### 4.4 Exploration and production

Natural gas still represents a small percentage of Greece's primary energy consumption, but demand is increasing as natural gas gains a larger market share in power generation and the industrial, residential and commercial sectors.

The research, exploration and exploitation activities for hydrocarbons are regulated by Law 2289/1995, which was significantly revised by the Energy Law, introduced in August 2011.

In accordance with the United Nations Convention on the Law of the Sea, as ratified by Law 2321/1995, the right to research, explore and produce hydrocarbons existing in onshore areas, sub lakes and submarine areas, where the Greek State has either sovereignty or sovereign rights, belongs exclusively to the Greek State. Their exercise shall be for the benefit of the public. Following enactment of the Energy Law and by virtue of Presidential Decree 14/2012 the state company Hellenic Hydrocarbons Resource Management ("HHRM" or "EDEY" as per its Greek initials) was established to deal with certain matters relating to the management of the

process of research, exploration and production of hydrocarbons as well as the announcement of tenders and tax motives to attract investors.

Foreign and Greek companies may submit their requests for research activities directly to HHRM, since HHRM will announce the relative tenders in short notice on companies' requests. The law is referred also to the "open door" tender procedure. Last but not least, the Energy Law includes flexible motives to attract investors.

Greek domestic upstream thus far has been limited to the depleted Kavala gas field which produced 900 million m<sup>3</sup> of natural gas.

For more information on the exploration and production of natural gas, please see the description of the relevant legislative framework applicable to all types of hydrocarbons below (Section 5, Upstream Oil Market).

#### 4.5 Transmission and access to the system

The national natural gas transportation system (high-pressure pipelines) has already been commissioned and the distribution systems (medium and low-pressure pipelines) are in a stage of further development.

##### (a) Transmission

The NNGS includes the main high-pressure natural gas transmission pipeline from the Greek-Bulgarian borders to the region of Attica, the high pressure branches linking various areas of the country with the main pipeline, including the branch connecting the main pipeline with the Greek-Turkish borders, the LNG facility at the island of Revythoussa, as well as additional facilities and infrastructure that service the entire NNGS.

Natural gas is injected to the NNGS through the following three entry points:

1. Sidirokastro, located at the Greek-Bulgarian border;
2. Kipi Evros, located at the Greek-Turkish borders;
3. Agia Triada, on the coast opposite of the island of Revythoussa.

The Energy Law requires DESFA to provide system users with access to the NNGS in the most economic, transparent and direct way, for as long as they wish. DESFA must conclude contracts with

system users for transportation and the use of storage and LNG facilities. Such contracts are based on model contracts, the provisions of which are determined by means of Ministerial Decisions following the approval of the tariffs by the Minister and RAE.

Access to the System may be refused in cases of:

- (i) lack of capacity pursuant to the special provisions of the system's operating code;
- (ii) prevention of DESFA from fulfilling its public service obligations; and
- (iii) serious economic and financing difficulties pertaining to contracts containing "take or pay" clauses.

DESFA must specifically substantiate such a refusal and must communicate its decision and reasons to the authority and the user. DESFA is responsible for balancing the system load - these duties are specified in the system's operating code. In addition, the operator may conclude load-balancing contracts with suppliers following a tender, according to non-discriminatory and transparent procedures and with due respect for market rules. DESFA will also carry out congestion management at the entry and exit points of the system based on market mechanisms and in accordance with transparent criteria, as defined in the operating code, in order to promote non-discriminatory competition between users.

With regard to independent natural gas transportation systems and storage facilities, the operator must conclude contracts for the use of such systems with users, pursuant to a model contract prepared and published by the operator following the approval of the authority and in accordance with the provisions of the respective system's operation code. Access to such systems may be refused only for reasons of capacity or where such access might prevent the operator from fulfilling its public service obligations (unless it is exempt by law from offering such third-party access).

##### (b) Distribution

The Greek residential and commercial market for natural gas is relatively new when compared to most EU countries. With the support of funding from EU programmes, DEPA has already undertaken and completed the construction of substantial medium and low-pressure pipeline infrastructures in the country's three most densely populated regions (Attica, Thessaloniki and



Thessaly) while significant distribution networks are contemplated for the rest of mainland Greece (mainly the north and central parts). The operation of the respective networks has been assigned to regional gas distribution companies (please see above, “key market players”, Section 4.2).

The construction and operation of distribution networks in the rest of Greece require a distribution licence, issued following an application under the Energy Law. RAE may grant a distribution network licence upon the application of the interested party, unless state aid or other applications for the same area are involved, in which case the law provides for a tender process, rather than a simple evaluation of the respective application.

All distribution and supply companies are required to provide suppliers with access to their distribution networks for the supply of eligible customers, provided that such access does not violate the legislation in force or the respective distribution licences and does not endanger the safe operation of the network.

#### 4.6 Trading and supply

Natural gas supply companies are entitled to supply customers with natural gas in their respective areas of jurisdiction pursuant to the terms and conditions of their respective supply licences.

Other activities, including wholesale trading and the import and export of natural gas, are not subject to licensing requirements. The Minister's oversight and the RAE's opinions and market monitoring in relation to each licensee's compliance with the terms of its licence constitute the official supervisory framework.

Physical trades in natural gas are determined on the basis of specific provisions in the NNGS operation code prepared by the operator of the relevant transportation system (i.e. the national transportation system or an independent system). Further conditions are determined by the model transportation contracts which give to a gas undertaking access to the national system in order to supply an eligible customer. Given the relatively undeveloped state of the domestic gas market, the completion of financial trades in gas follows the principles that apply to physical trades under natural gas supply contracts. Thus, the physical delivery of a quantity of natural gas (as certified by the system operator) determines the basis upon which the related financial trades are completed.

System users (e.g. importers or suppliers) are able to procure transmission services from the respective system operators irrespective of the natural gas, while customers will pay an access charge for the use of distribution and transportation networks bundled with the commodity. Respectively, tariffs for the basic activity of distribution are determined by the relevant local gas distribution companies following approval by RAE in accordance with the relevant provisions of the tariff regulation.

#### *Cross-border sales and deliveries*

DEPA no longer enjoys the exclusive right to purchase, import and export natural gas. Such activities are open to any party interested in the principal natural gas activities that can be undertaken without a licence.

#### 4.7 LNG and storage capacity

LNG terminals constitute energy infrastructures of strategic importance for Greece, as they allow the further diversification of supply sources, provide further supply security and strengthen Greece's impact on the energy environment of the wider region.

Greece currently has one LNG import terminal. The terminal is located on the island of Revythoussa, 45km west of Athens. Historically, LNG supplies were imported solely by DEPA under a contract with Algeria's SONATRACH; however, in the spring of 2010, the first two privately owned LNG shipments entered the system. The LNG is stored in three tanks with a total capacity of 225,000m<sup>3</sup> and following regasification in special installations, it supplies the NNGS.

The Revythoussa LNG facility is an additional entry point of the NNGS and contributes significantly to the security of supply through its storage capacity, as well as through the possibility it offers to the Greek market to diversify its supply sources. Following the recent expansion works, the facilities' guaranteed capacity shall reach 7bcm and considering that the current Greek market consumes 2bcm, this allows for great export prospects.

HRADF is tasked with examining proposals to convert the depleted South Kavala Gas Field into an underground gas storage facility utilising the existing infrastructure which, according to studies, can store quantities of gas of approximately 1bcm sufficient to secure the uninterrupted gas supply in Greece for a period of 90 days.

Additionally, RAE has also approved a floating LNG ("FSRU") terminal in the northern Aegean Sea outside the city of Alexandroupolis, comprising an offshore delivery and regasification station, which will inject the natural gas into the NNGS through an underwater pipeline contributing to the security of supply in the region. These projects will ensure that sufficient natural gas quantities reach the Greek market, contributing to the enhancement of the NNGS, all the while promoting the region as an access point for Southeast Europe.

## 5. UPSTREAM OIL MARKET

### 5.1 Market overview

Greece oil production in 2016 amounted to 0,16 Mt (active offshore oil fields in Prinos, Kavala), an insignificant number when compared to the national consumption of oil products which reached 11 Mt in 2015. Even though Greece has adopted Law 2289/1995, relevant to research, exploration and exploitation of hydrocarbons for many years (the "Hydrocarbons Law"), it only recently started reinitiated procedures in an effort to improve its productivity in this area.

The rights to research, explore and exploit hydrocarbons located in the national soil, lakes or sea reside solely with the State's public sector, and the use of such must always benefit the State. The Greek State has the power to assign research rights to third parties; exploration and exploitation rights however, are granted through a tender process. Hydrocarbons research may be conducted through any possible means, including drilling. Exploitation of hydrocarbons refers to their mining and treatment and does not include refinement procedures.

### 5.2 Regulatory overview

Further to the Hydrocarbons Law, in accordance with the United Nations Convention on the Law of the Sea ("UNCLOS"), as ratified by Law 2321/1995, the right to research, explore and produce hydrocarbons existing in onshore areas, sub lakes and submarine areas, where the Greek State has either sovereignty or sovereign rights, belongs exclusively to the Greek State. The exercise of these rights must be for the benefit of the public.

Following the enactment of the Energy Law and by virtue of Presidential Decree 14/2012, the state company Hellenic

Hydrocarbons Resource Management ("HHRM" or "EDEY" as per its Greek initials) was established to undertake the responsibility of particular matters relating to the management of the process of research, exploration and production of hydrocarbons. HHRM is the competent body to grant research licences to third parties following an open tender procedure, after the approval of MEE, for a period of up to 18 months. The area to be researched cannot exceed 4,000km<sup>2</sup> with respect to onshore areas and 20,000km<sup>2</sup> with respect to offshore areas. The granting of research licences to several applicants for the same area is permitted. The granting of such a licence is only for the purposes specified and does not confer any other right to the licensee as to its activities.

The holder of a research licence is obliged, immediately after its granting, to submit to HHRM a research programme divided into phases and, following completion of each phase, must submit copies of all technical and scientific data and conclusions that resulted from the research carried out in that phase. Within three months of the expiration of the licence, the licensee must submit to HHRM a detailed report, accompanied by official information and data, in which the results of the research have been analysed. Breach of the foregoing obligations by the licensee, as well as any breach of the terms of the invitation or the licence, may result in the revocation of the licence and in forfeiture of the letter of guarantee in favour of the state.

The State's rights of exploration and production of hydrocarbons are granted to third parties either:

- by the conclusion of a lease agreement; or
- by the conclusion of a production sharing agreement, and in either case both the stages of exploration and production will be provided for. Each agreement will concern one or more adjacent onshore or seabed which will comprise the initial exploration area for the discovery of hydrocarbon deposits ("Contract Area"). The Contract Area will eventually be restricted to the area where commercially exploitable hydrocarbon deposits have been discovered ("Production Area").

Under both agreements, the contractor assumes the obligation to plan and perform the exploration and production of hydrocarbons and their by-products and has the exclusive right to do so. The contractor provides, at its own expense, the necessary technical equipment, materials, personnel and funds required for the performance of the activities and bears the entire financial risk in

all events, particularly if no commercially exploitable deposit is discovered or if the profit yield from a deposit is insufficient. The contractor manages the project, which will be carried out in accordance with the international models for the exploration and production of hydrocarbons and under the work programme and budget approved by the employer or the lessor, as the case may be, and bears the risk throughout the entire term of the agreement.

Under the production sharing agreement, in the event of discovery and production of hydrocarbons, the contractor will retain part of each calendar year's total production of hydrocarbons and by-products of each Production Area in order to cover the relevant expenses specified in the Hydrocarbons Law. The remainder of the production from the Production Area in question together is shared between the employer and the contractor on the basis of a fixed and agreed upon percentage (i.e. production sharing).

Under the lease agreement, in the event of discovery of a commercially exploitable deposit, the contractor, by notification to the lessor, becomes the lessee of the right of production of the deposit. As a result, it is obliged and entitled to produce hydrocarbons and their by-products and to market the same for its own benefit, either in their crude state or following processing, excluding refining, by paying to the lessor the rent and the relevant tax. The rent is due to the lessor in all circumstances, irrespective of whether the contractor makes a profit or not. It is agreed that the rent may be paid in kind or in cash, at the lessor's discretion. In the first case, rent will be determined as a percentage of the quantity of hydrocarbons produced and in the second case, as a percentage of their value, as provided under the agreement.

Presidential decrees, which are issued following a proposal of MEE, specify in detail the terms and conditions of the agreements such as the contents and the timetable for the submission for approval of the exploration and production programmes and the expenditure budgets.

HHRM will grant, on behalf of the State, the right to explore and produce hydrocarbons in accordance with the procedures specifically stipulated by the Hydrocarbons Law and more particularly either:

- on an invitation to tender;
- on an application by the interested party for an area not included in the invitation to tender; or
- with an open-door invitation for the expression of interest.

Under the agreements concluded, contractors may be natural persons and/or legal entities, acting individually or in a joint venture, provided they have the nationality of, in the case of a natural person, or are registered in, in the case of a legal entity, an EU Member State or a third party country with reciprocity. Following a recommendation by MEE, the Council of Ministers may resolve to prohibit a person who is substantially controlled by a third country (non-EU) or by the citizens of a third country (non-EU) or, a joint venture in which such a person participates, from participating in the procedures and from being granted a research licence or from concluding lease agreements or production sharing agreements and from transferring rights granted under such agreements for reasons of national security. Following the conclusion of an agreement, the contractor may not be placed under the direct or indirect control of a foreign state that is not an EU Member State, or under the direct or indirect control of a citizen of such a state without the prior approval of the Council of Ministers. The Council of Ministers will resolve whether or not to give such approval after receiving the opinion of MEE. Breach of this provision will result in the contractor forfeiting all of his rights under the agreement, following a resolution of the Council of Ministers to this effect.

The duration of the exploration stage will be determined in the agreement, but may not exceed seven years for onshore areas and eight years for offshore areas, and may be extended by up to one half of the initial period under specific circumstances. If the contractor finds that the discovered deposit of hydrocarbons is commercially exploitable, he must notify the lessor in writing, within the time limit set out in the agreement, of the commercial exploitability of the deposit and the anticipated amount of its recoverable reserves. The decision as to whether the deposit is commercially exploitable rests with the contractor who must justify his decision in the notice. The duration of the production stage of each area is 25 years and may be extended for up to two five-year periods, on a proposal by the HHRM, when it can be proven that the original duration is not sufficient for the completion of the activities in question. The extension, if given, will include a renegotiation of the terms of the agreement and the signing of a new agreement. The contract must apply for an extension of the production stage before its expiration.

The contractor has the right to transfer, in whole or in part its contractual rights and corresponding obligations to an independent third party only on the written consent of the lessor

or employer and the approval of MEE. The contractor has the right, on the written consent of the lessor or employer and the approval of MEE, to transfer in whole or in part his contractual rights and corresponding obligations to an affiliate enterprise. This is conditional on the contractor remaining wholly, jointly liable with the receiving affiliate enterprise, with respect to the lessor or employer for the performance of his contractual obligations. This consent and approval may be refused for reasons of national security or technical reasons. If the contractor is a joint venture of natural persons or legal entities, each member is entitled to transfer his contractual rights and obligations to another member of the joint venture on the written consent of the lessor or employer and the approval of MEE.

The contractor will be subject to a special income tax of 20 per cent, as well as to a regional tax of 5 per cent, without any other ordinary or extraordinary contribution, fee or other expenditure of any kind for the benefit of the state or of any third party. On expiration of the production stage of each exploration area, the same reverts, free and clear, to the State.

## 6. FORTHCOMING DEVELOPMENTS IN THE GREEK ENERGY SECTOR

Greece has a liberalised energy market which has evolved over the past years into an energy hub and represents an important sector of the country's economy. Electricity and gas agreements with major European, American and Asian companies have positioned Greece as a point of reference in the region, and a number of energy projects linked to wider geopolitical moves and to the largest global economic players are expected to be implemented in Greece. Despite the economic crisis and its impact on the Greek economy, a number of recent developments and significant reforms across all sectors of the economy have put Greece on a new course. The restructuring and modernisation of the Greek State has caused the markets to start to respond favourably. Concurrently, the Greek government is reforming the Greek economy by providing a wider range of innovative investment tools to investors who want to explore new investment opportunities across several economic sectors.

### 6.1 The electricity market reform

Within the framework of the Third Energy Package and under the

guidance of the European Commission and the International Monetary Fund to promote measures to reform pathogenic structures of the domestic wholesale electricity market, the Target Model Law introduced the general framework of the Target Model, which, upon its implementation, will consist of a day-ahead market, an intraday market, the imbalances market, and the energy derivatives (financial instruments-products) market (please refer to Section 2.3).

The Greek State, in order to achieve greater cost-effectiveness and to incentivise better integration into the market of the electricity produced by RES in a cost-effective way through market-based instruments, replaced the applicable FiT Operating Aid regime with a sliding FiP regime. This was done in part to be in compliance with the Guidelines on State Aid for EEAG. The FiP regime is considered to be an appropriate approach to gradually bring RES as close as possible to real market conditions and balancing responsibilities, preventing the risk of both over- and under-compensating RES producers. The main difference between the two support regimes is related to the obligation of RES producers to actively participate in the wholesale electricity market, once the relevant market codes are in place, which will lead to the gradual integration of RES technologies to wholesale market conditions. The new support scheme for RES and combined heat and power ("CHP") projects was introduced in Greece in alignment with the EEAG. On 4 January 2018, the European Commission ("Commission") approved the proposal and, on this basis, Greece commenced the organisation of the RES Tenders. Under the RES Tenders, as of 1 January 2017, eligible RES projects can only secure a reference tariff for the compensation of the produced electricity through their successful participation in the respective tenders. The first round of RES Tenders was held by the RAE on 2 July 2018. The range of the tariffs secured by the eligible projects in the respective categories were: (i) EUR 75.87 to EUR 80/MWh for PVs with installed capacity of up to 1 MW, (ii) EUR 62.97 to EUR 71/MWh for PVs with installed capacity of 1 MW and up to 20 MW and (iii) EUR 68.18 to EUR 71.93/MWh for W/Ps with installed capacity of 3 MW and up to 50 MW. On the second round of RES Tenders held on 10 December 2018, the tariffs were lowered for the first (EUR 63 to EUR 68.99/MWh) and the third category (EUR 55 to EUR 64.42/MWh). A joint tender for projects with an installed capacity greater than 50MW held in April 2019, resulted to tariffs of EUR 53 to EUR 64.72/MWh.

The implementation of the electricity market reforms is expected to bring the desired results along with certainty and stability to this market, which has been absent recently.

### 6.2 Privatisation of Energy Companies

One of the main tenets of IMF/EU economic assistance to Greece is the complete liberalisation of the energy market, both in terms of regulation and ownership. As such, the Greek government is in the process of privatising its stake in a number of energy companies, including the PPC, DEPA and the HELPE, through the assignment of its interest in the abovementioned companies to HRADF. Conclude privatisations include the respective operators of the electricity and natural gas networks i.e. ADMIE (please refer to Section 2.2) and DESFA (please refer to Section 4.2).

As natural gas gains a larger market share, DEPA is expected to be well positioned to play an important role in the region, and it is therefore expected that the second privatisation attempt consisting of the supply business of the company (and excluding its participation in infrastructure) will be successful.

PPC is also set currently in the second privatisation attempt, due for May 2019, through the tender of two separate SPVs established by PPC through the contribution to each of the lignite power plants (Megalopoli and Meliti) of a total nominal installed capacity of 1,4 GW.

As regards to HELPE, HRADF has entered into a Memorandum of Understanding ("MoU"), with the other major shareholder of HELPE (Paneuropean Oil) for the joint sale of a shareholding stake of at least 50.1 per cent in HELPE (20 per cent of HRADF and 30.1 per cent of Paneuropean Oil) allowing a strategic investor to exercise, with the aforementioned percentage, majority management rights.

Finally, HRADF is assigned to proceed to the tender process for the long-term concession of the underground gas storage area in South Kavala.

### 6.3 Hydrocarbons Research

The first decisive step towards the commercial exploitation of possible new oil reserves in Greece was made in July 2013 when the MEE announced Energean Oil & Gas as the winner of the tenders for the research and exploitation of hydrocarbons in the onshore blocks situated in the areas of Ioannina and Aitolokarnania and HELPE along with Edison in the Gulf of Patra in the western part of Greece. Subsequently, in 2014 and 2016, a new licence for the research and exploitation of hydrocarbons in the area of Katakolo was granted to Energean Oil and Gas; Hellenic Petroleum (i.e. HELPE) was granted similar licences in the areas of Preveza and north-western Peloponnese.

Repsol Exploracion SA became the first international oil and gas company to enter the Greek upstream market sector in 2017. Energean Oil & Gas and Repsol negotiated the farm-out of a 60 per cent stake of the onshore blocks in Ioannina and Aitolokarnania with the assignment of the operatorship of both blocks to Repsol.

Additionally, the Greek State, acting through the MEE, announced in 2015 the second licensing round for hydrocarbons, and invited all interested natural persons or legal entities to apply for the licences necessary for the exploration and exploitation of hydrocarbons in respect of certain offshore acreage in western Greece and south of Crete (as the area is part of the Hellenic Republic continental shelf). The initial agreements for the exploration and exploitation of hydrocarbons with respect to the two offshore acreages, south and southwest of Crete, as well as for the offshore block in the Kyparissia Gulf, were signed in September 2018 by the MEE, the Hellenic Hydrocarbons Resources Management and the selected companies. The consortium for the acreages in Crete consists of Total SA (40 per cent), ExxonMobil (40 per cent) and HELPE (20 per cent); HELPE was the only selected applicant in the Kyparissia block (100 per cent). Finally, Block 2 in the Ionian Sea was leased to Total (50 per cent), Edison and HELPE (25 per cent each).

The drilling for oil and natural gas reserves in Greece may increase the country's revenues and potentially decrease its dependence on oil and gas imports, on which it spends billions of euros each year.

## 7. CONCLUSION

Despite the current financial crisis, and unlike other sectors of the economy, the energy sector continues to experience increasing growth with the full support of the Government and both domestic and foreign private investors. Initiatives taken by the Government to ease the regulatory framework and to comply with European directives on the complete liberalisation of the market, along with the positive reaction of investors to large-scale investment opportunities in energy, currently define the energy market in Greece.

These developments are the focal point of a comprehensive energy policy that seeks to promote existing clean energy projects, modernise and expand energy-related infrastructure, diversify sources of energy by exploring new energy possibilities through hydrocarbons research, and create new job opportunities and technological innovations.



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# MONTENEGRO

## 1. INTRODUCTION TO THE ENERGY MARKET

The energy market in Montenegro in its current state is mostly synonymous with the electricity market. Lack of appropriate infrastructure hampered development of oil and gas market. However, commencement of exploration of offshore hydrocarbons as well as prospective development of Ionian-Adriatic Pipeline as a branch of Trans-Adriatic Pipeline might change the picture.

In line with its obligation to implement the Third Energy Package within its legislation, the new Energy Law<sup>1</sup> was adopted on 29 December 2015 and entered into force on 28 January 2016 ("Energy Law"), followed by amendments in 2017. The changes encompassed in the Energy Law largely deal with the area of the law governing electricity and renewable energy. The new elements are aimed at full implementation of the EU's third energy package.

## 2. ELECTRICITY

### 2.1 Market overview

The majority state-owned Elektroprivreda Crne Gore AD Nikšić ("EPCG") is the national power utility and its core activity is electricity generation and supply. In July 2017, former strategic partner to the Government of Montenegro, Italian company A2A, initiated the withdrawal procedure from EPCG by exercising the put option after its management contract expired on 1 July 2017. Accordingly, in April 2018, the government made the first payment in the amount of EUR 68.9 million increasing its stake in EPCG to 70.16 per cent.

Montenegro has the potential to develop hydropower plants, given the abundance of rivers, as well as the potential for some new types of production such as solar and wind energy. Montenegro only uses around 20 per cent of its hydro potential and consumes more energy than it produces. There are ample opportunities to develop new energy sources. To fully develop this sector, Montenegro will need a developed/upgraded transmission and distribution network.

The most important development project in the transmission system is the completion of the first phase of the underwater energy cable between Italy and Montenegro which is currently undergoing a commissioning phase.

Plans for construction of large hydropower plants have been put on hold given the lack of interested investors and the inability of the state to participate in financing such investments. The EPCG's plan for construction of a 240 MW second block of the thermal power plant in Pljevlja has been shelved again following the withdrawal of potential financiers.

The Montenegrin energy market is, at least on paper, liberalised. All consumers are entitled to choose their supplier. However, EPCG is still practically the only retail supplier.

### 2.2 Regulatory overview

The most important piece of legislation in the electricity sector is the Energy Law. As mentioned above, the new Energy Law has been only recently enacted. It regulates all the relevant aspects of energy sectors, i.e. the sectors of electricity, district heating, oil and gas. With respect to the electricity sector the Energy Law specifically covers and regulates the following topics: (i) issuance of authorisations for the performance of energy activities; (ii) issuance

<sup>1</sup> Zakon o energetici, Official Gazette of Montenegro, No. 5/2016 and 51/2017.

of licences for the construction of energy facilities (energy licence – *energetska dozvola*); (iii) regulated prices, tariffs, fees; (iv) renewable energy; (v) specific rules for various activities in the electricity sector; (vi) access to the electricity system, i.e. transmission and distribution systems; division of the distribution system operator, as required by the "third energy package"; (vii) supply of energy; and (viii) safeguard measures in the event of market disruption.

The Government, the Ministry of Economy, the Energy Regulatory Agency and other stakeholders have adopted a number of implementing regulations aimed at creating the electric energy market, most important of them being: the Transmission Grid Code<sup>2</sup>, the Distribution Grid Code<sup>3</sup>, the General Terms and Conditions for Supply of Electric Energy<sup>4</sup>, Market Rules<sup>5</sup>, Rules on Third Party Access<sup>6</sup> Decree on the Compensation for Incentivising Production of Electricity from Renewable Energy Sources and High Efficiency Cogeneration<sup>7</sup>, Decree on the Manner of Realisation and the Level of Incentive Prices of Electricity from Renewable Energy Sources and High Efficiency Cogeneration<sup>8</sup>.

The key stakeholders in the Montenegrin electricity market are:

- (a) Ministry of Economy ("**Ministry**") - which is in charge, *inter alia*, of preparing the energy strategy and its implementation, preparation and the assessment of prospective investment projects, industrial production, energy policy, energy efficiency, determining the direction and dynamics of energy development, preparation of the energy balance of Montenegro, sales of petroleum products, concessions, competition, encouraging foreign investment and others;
- (b) Regulatory Energy Agency of Montenegro ("**REA**") - an independent, non-profit organisation, functionally independent of the state authorities and energy companies, exercising public authority in the field of energy, established pursuant to the Energy Law. Its primary tasks are the development and enhancement of the electricity and gas market based on the principles of non-discrimination and effective competition by creating a stable regulatory framework;

- (c) Crnogorski Elektroprenosni Sistem a.d. Podgorica ("**CGES**") – Transmission system operator – a majority state-owned company in charge of the development, safe and reliable functioning of the transmission system, enforcement of non-discriminatory and economical access to the transmission system;
- (d) Crnogorski Operator tržišta električne energije ("**Market Operator**") - Montenegrin electricity market operator – an entity in charge of the management of the electricity market established in August 2011;
- (e) EPCG – national majority state-owned energy company predominantly engaged in the production, distribution and supply of electricity on the Montenegrin energy market. Its main power generation capacity comes from HPP "Perućica", HPP "Piva" and TPP "Pljevlja";
- (f) Crnogorski Elektrodistributivni Sistem ("**CEDIS** – licensed entity in charge of distribution of electricity in Montenegro.

## 2.3 Regulated electricity market activities

The Energy Law prescribes the following energy activities in the electricity sector:

- (a) electricity production;
- (b) electricity transmission;
- (c) electricity distribution;
- (d) electricity supply;
- (e) electricity market operation;
- (f) energy market trading, brokerage and representation.

Energy-related activities may be performed only when the relevant licence has been obtained. The licence is issued at the request of the energy entity separately for each energy activity. The licence is issued for a period of up to 10 years and may be extended or shortened under certain conditions. The following energy activities may be performed without a licence:

- (i) production of electricity for individual consumption;
- (ii) production of electricity in facilities with installed capacity up to 1 MW;
- (iii) management of the closed distribution system;
- (iv) electricity trading for the purpose of further sale, excluding

<sup>2</sup> Pravila za funkcionisanje prenosnog sistema električne energije, Official Gazette of Montenegro, No. 80/2017 and 90/2017.

<sup>3</sup> Pravila za funkcionisanje distributivnog sistema električne energije, Official Gazette of Montenegro, No. 15/2017.

<sup>4</sup> Opšti uslovi za snabdjevanje električnom energijom, Official Gazette of Montenegro, No. 70/2016.

<sup>5</sup> Tržišna pravila, Official Gazette of Montenegro, No. 44/2017.

<sup>6</sup> Pravila o pristupu treće strane prenosnoj i distributivnoj mreži, Official Gazette of Montenegro, No. 13/2007.

<sup>7</sup> Uredba o naknadi za podsticanje proizvodnje električne energije iz obnovljivih izvora i visokoefikasne kogeneracije, Official Gazette of Montenegro Nos. 33/2016, 3/2007 and 3/2019.

<sup>8</sup> Uredba o načinu ostvarivanja i visini podsticajnih cijena za električnu energiju proizvedenu iz obnovljivih izvora i visokoefikasne kogeneracije, Official Gazette of Montenegro No. 3/2019.

the sale to the final consumer who is not responsible for balancing, agency and representation on the energy market.

The Energy Law allows for the issuance of a licence to foreign suppliers with a registered seat in the European Union, or in the member state of Energy Community, pursuant to an issued approval by the competent authority of the country where the supplier's seat is registered.

Energy activities of public interest in the electricity sector are:

- (a) the production of electricity;
- (b) the transmission of electricity;
- (c) the distribution of electricity;
- (d) the organisation of the electricity market;
- (e) trading with electricity for supply of electricity as a public service;
- (f) any supply of electricity that represents a public service.

Activities under (e) may be performed only by the public electricity supplier. EPCG has been designated by the Government of Montenegro as the public supplier.

The following activities in the electricity sector are carried out as public services obligation in order to ensure a regular, safe, reliable and quality energy supply at reasonable prices:

- (i) electricity transmission;
- (ii) electricity distribution;
- (iii) the supply of electricity, in certain cases (supplier of last resort and vulnerable consumers);
- (iv) electricity market operation.

The provision of public services in the electricity sector must be on a non-discriminatory basis, transparent and under controlled prices. Energy activities which are not performed as public services are carried out in accordance with market principles.

## 2.4 Generation

Development of generation capacities is subject to obtaining *inter alia*, an energy permit (*energetska dozvola*). The energy permit is issued at the very outset of the development process even before the acquisition of the requisite land on which the development will take place and prior to obtaining the act on urban technical conditions. The new Energy Law introduced a provision which restricts the obligation to obtain an energy permit only to those

production facilities with up to 1 MW of installed capacity. Larger production facilities do not need an energy permit. An energy permit is also not required in the event that the production facility is being constructed in connection with a public tender.

Following the issuance of the energy permit, the investor may engage in procuring other permits and approvals prescribed by other sectoral laws. The request may be submitted by a domestic or foreign entity and the permit is issued by the Ministry. The energy permit is not required in the event of granting of a concession for the development of a production facility.

An energy permit may be issued for a production facility pursuant to the annual plan prepared by the Government, based on the energy strategy, action plan for the implementation of the energy strategy and action plan for the use of energy from renewable sources. The following criteria are taken into account when deciding on the issuance of the energy permit: safe and unobstructed functioning of the energy system, conditions regarding the location and the usage of land, environmental conditions, health and safety of people and property, energy efficiency, usage of primary energy sources, conditions related to economic and financial capability of the applicant to realise the development of the energy facility as well as reduction of CO<sub>2</sub> emission. The energy permit is issued with a validity of up to two years and may be extended for one additional year. The energy permit is non-transferable.

## 2.5 Trading and supply of electricity

As previously mentioned above, electricity trading for the purpose of further sale, with the exception of sale to final customers, agency and representation on the energy market does not require an energy licence. According to the Energy Law, all consumers are entitled to choose their supplier. REA is authorised to determine the regulated tariffs applied by the supplier of last resort for supply of electricity. In 2016, EPCG spun-off the distribution activity into a separate entity - CEDIS.

According to the Energy Law, the right to participate in the electricity market is granted to producers, suppliers, supplier of last resort and vulnerable consumers, traders, transmission system operator, distribution system operator and self-supplying purchasers. The electricity market is operated by the market operator - *Crnogorski operator tržišta električne energije d.o.o. Podgorica*, incorporated in July 2011. The participants in the electricity market have balance responsibility and are further

obliged to participate in the settlement process and make payments determined on the basis of the settlement calculations. The functioning of the electricity market and the balancing mechanism is further regulated by the Market Rules.

Montenegrin TSO manages the transmission system as well as interconnection with other neighbouring transmission systems. Montenegrin TSO is part of the regional platform for the allocation of cross-border transmission capacities and congestion management – SEE CAO (in addition to Montenegro, the TSO's of the following countries form part of the platform: Croatia, Greece, Albania, Bosnia and Herzegovina, Kosovo\* and Turkey). The headquarters of SEE CAO is in Podgorica. The platform performs yearly, monthly and daily auctions for capacities at the Montenegrin border with Albania and Bosnia and Herzegovina.

Since Serbia is not a member of SEE CAO, cross-border capacities with Serbia are allocated directly by the Montenegrin TSO and Serbian TSO each for a portion of the available cross-border capacity. According to this regulation, the available cross-border transmission capacities are awarded at annual, monthly and daily auctions.

## 2.6 Transmission and grid access

Access to the transmission/distribution system may be granted only to a participant licenced for performing electrical energy activity in the Montenegrin electricity market. Pursuant to Article 133 of Energy Law, TSO is obliged to enable third party access to the transmission system on a non-discriminatory basis, within its transmission capacities and in accordance with technical rules. The access may be denied or restricted only on technical grounds in the event of lack of capacity or danger to public services in the electricity sector. The dissatisfied party has the right to appeal to REA.

Pursuant to the previous Energy Law, REA has adopted the Rules on Third Party Access to the Transmission and Distribution Network<sup>9</sup> ("Rules on Third Party Access"), which further elaborate the principles and procedure for third party access. The Rules on Third Party Access remain applicable only to the extent they are aligned with the new Energy Law. The interested party first submits a request for access to the transmission system. TSO and the interested party are required to enter into an agreement on access to the transmission system which details special conditions related

to calculation of access fees, the point of access, approved power, place and manner of measuring the electricity, termination grounds, etc.

In order to connect to the transmission or distribution system the owner/beneficiary of the facility is obliged to acquire a connection approval issued by the transmission/distribution system operator upon request. The renewable energy production facilities have priority in connection to the system. The deadline for the issuance of the connection approval is 15 days and, in case of more complicated connections the deadline is 4 months. The dissatisfied party may appeal to REA within 15 days. The decision of REA is final, however may be challenged before the Administrative Court.

The connection approval determines, *inter alia*, the conditions for connection, costs of connection, connection point, the manner, technical conditions and deadline for connection, place and manner of measurement of delivered electricity. Based on connection approval the TSO and the interested party enter into a connection agreement. The costs of connection and preparation of the connection elaborate are borne by the interested party; TSO bears the costs of internal analysis of the transmission system.

## 3. RENEWABLE ENERGY

### 3.1 Market overview

At the end of 2014, Montenegro has adopted the National Renewable Energy Action Plan and has set the goal for gross final energy consumption from renewable sources by 2020 at 33 per cent, in accordance with the decision of the 10th Ministerial Council of the Energy Community. The competent Ministry monitors the implementation of the action plan for the use of energy from renewable sources. Every two years it submits a report to the Government on its progress. The Energy Law prescribes what constitutes a renewable energy source. According to the current definition, renewable energy sources include non-fossil energy sources such as: water streams, biomass, biogas, wind, solar power, landfill gas, geothermal sources, waves, tidal power, solid waste from wastewater treatment and solid communal waste. In comparison to the non-exclusive list from the previous law, the new Energy Law has omitted biofuel while further expanding the

<sup>9</sup> Pravila o pristupu treće strane prenosnoj i distributivnoj mreži, Official Gazette of Montenegro, No. 13/2007.

definition to encompass waste and landfill gas. In the hydropower sector, ERA has so far granted the status of privileged producer to seven SHPPs with total installed power of around 10 MW. In the large hydro sector, two promising projects: four HPPs on Morača with envisaged installed power of 230 MW and HPP Komarnica with installed power of 168 MW have been identified. Extensive geotechnical and hydrological investigations have already been performed for both projects. In the wind sector, "Krnovo" wind farm, the first wind farm in Montenegro, with an installed capacity of 72 MW is in operation, while the construction of the "Možura" wind farm with a capacity of 42 MW is under construction. In 2018, the Government of Montenegro has awarded the tender for the lease of state-owned land for development of 200 MW solar power plant with offtake under market terms to a consortium created between EPCG and Finnish Fortum. The project will soon enter a financing stage.

### 3.2 Support schemes

#### (a) General

The Energy Law generally facilitates the exploitation of the renewables and high efficiency cogeneration with the promotional and incentive measures. The Energy Law prescribes a list of the incentive measures for renewable energy production of electricity which includes:

1. mandatory purchase of electricity via long-term power purchase agreement (PPA);
2. feed-in tariff;
3. incentive period (period of validity for mandatory purchase);
4. exemption from payment of balancing costs;
5. priority dispatching.

The incentive measures are awarded in a competitive bidding process on the basis of clear, transparent and non-discriminatory criteria, except for the facilities with up to 1 MW of installed capacity. The incentives are only available to the entities which have the valid status of a privileged producer.

In December 2018, the Government of Montenegro adopted the Decree on the Manner of Realisation and the Level of Incentive Prices of Electricity from Renewable Energy Sources and High Efficiency Cogeneration with the effect to start gradually reducing feed-in tariffs for renewable energy sources as of 1 January 2020. The Government announced it will continue to promote the

construction of wind farms, solar power plants, and large hydropower plants without guaranteed incentive prices.

A privileged producer is defined as an energy entity which produces electricity from renewable sources or high efficiency cogeneration and is entitled to incentives in accordance with the Energy Law. The status of privileged producer is acquired by a decision of REA subject to the fulfilment of the following requirements: the production facility (i) is connected to the transmission or distribution system; (ii) is producing energy from renewable energy sources or high efficiency cogeneration; (iii) has its own measuring point; (iv) does not endanger the stability of the system; and (v) is not older than three years or has been renovated so to achieve additional output of at least 10 per cent in comparison to the average annual production for the previous five years. The status of a privileged producer is acquired for a period of 12 years. During that period, the privileged producer is entitled to freeze the feed-in tariff PPA and sell the electricity directly on the market for periods not shorter than 12 months. Those periods are, however, accounted within the total 12 years of the privileged status.

Starting from the 2016, the Energy Law allows for the energy entity to acquire status of provisional privileged producer, if: (i) it has acquired a valid construction permit; and (ii) technical documentation indicates that planned energy facility is eligible for acquiring the status of privileged producer. The status of provisional privileged power producer lasts up to two years with an option to extend for an additional one year, if the deadline for construction has not been provided.

Pursuant to the Energy Law, the Government has adopted the Decree on Acquiring the Status and Exercise of Privileged Producer's Rights<sup>10</sup> which prescribes the conditions and the procedure for acquiring the status of privileged producer and provisional privileged producer. A privileged producer is entitled to incentive measures applicable at the time of submission of the application for acquiring provisional privileged producer status, or at the time of applying for the status of privileged producer of electricity, if the producer has not previously applied for the provisional status.

Privileged producers are part of one balancing group which is not charged by the Market Operator for deviations; however, if the producer sells the electricity on the market it is not exempt from

<sup>10</sup> Uredba o načinu sticanja statusa i ostvarivanja prava povlašćenog proizvođača električne energije, Official Gazette of Montenegro, No. 059/2016.

bearing the balancing services. Privileged producers have priority in dispatching generated electricity subject to the technical conditions of the system. Each supplier of electricity is obliged to purchase renewable electricity in the percentage equal to the percentage in which the renewable electricity participates in the total amount of electricity produced in Montenegro.

#### (b) Feed-in tariff

Pursuant to the Decree on the Manner of Realisation and the Level of Incentive Prices for Electricity from Renewable Energy Sources and High Efficiency Cogeneration ("**Methodology**"), a feed-in tariff regime has been instituted for small HPPs, wind generators, solid biomass power plants, on-roof solar plants, solid landfill waste incineration plants, landfill gas plants and biogas plants.

The right to receive feed-in tariff may be realized if the following conditions are fulfilled: (i) the power plant uses renewable energy source thereby contributing to the fulfilment of the national renewable energy target in accordance with the national renewable energy action plan; (ii) the high efficiency cogeneration facility is within the capacity envisaged by the programme for the development and usage of high efficiency cogeneration; and (iii) the power plant has acquired the status of privileged producer from the REA.

The power plant for which the status of privileged producer is being acquired may not be older than three years, except in case of refurbishment of an old plant. The status of privileged producer is acquired at the very end of the development process, i.e. after completion of construction and obtaining the operational permit for the power plant.

The guaranteed tariffs applicable to renewable energy produced by privileged producers are as follows:

- 6.48 to 10.44 cEUR/kWh for small HPPs, depending on the installed capacity;
- 12.00 cEUR/kWh for biomass plants;
- 15.00 cEUR/kWh for biogas plants;
- 9.60 cEUR/kWh for wind farms;
- 8.00 cEUR/kWh for landfill gas power plants;
- 8.00 to 10.00 cEUR for high efficiency cogeneration power plants;
- 9.00 cEUR/kWh for landfill waste power plants;
- 12.00 cEUR/kWh for on-roof solar energy power plants.

The mutual rights and obligations of the privileged power producer and the operator of the electricity market are regulated in the power purchase agreement. The incentive prices for electricity produced at the power plant using renewable energy sources and high efficiency cogeneration power plant is adjusted annually for the rate of inflation recorded in the previous year. The incentive price is paid to the privileged producer on a monthly basis.

#### (c) Certificates of origin

The Energy Law also stipulates the issuance of certificates of origin by REA at the request of the electricity producer from renewable energy sources. A certificate of origin is an electronic document which has the sole purpose for a supplier of proving to the end customer that a certain share or quantity of energy was produced from renewable sources.

The request for issuing a certificate of origin may be filed within six months from the last day of the production period for which the issuance of a certificate of origin is requested, and at the latest by 15th of March of the current year for the production from the previous year. The request should contain information on the producer, production facility, type of primary energy being produced, data on the support schemes applicable to the facility and, in case of high efficiency generation, additional data on the minimum calorific value of the fuel, its consumption and savings of primary energy.

The first request is accompanied by a connection agreement, main design of the energy facility and a schematic overview of the measuring points. Certificates of origin are generally transferable. The certificate of origin can be transferred independently of the produced electricity to which it relates. In order to ensure that it is displayed to the customer only once, it is not allowed to compute and display the electricity produced from renewable sources multiple times.

## 4. NATURAL GAS

### 4.1 Market overview

The natural gas market in Montenegro has a marginal influence on the overall energy market. Montenegro does not have any natural gas infrastructure and thus there is no access to any international gas transportation system. On the other hand, there is no domestic



natural gas generation. Certain exploration projects reveal indications of natural gas reserves in the coastal area. However, certain steps are expected to be taken, as Montenegro has formed partnerships with Croatia, Albania and Bosnia and Herzegovina on a project to develop a 400 km (of which 100 km will be through Montenegro) Ionic-Adriatic pipeline, which is intended to be a separate arm of a larger Trans-Adriatic gas pipeline.

The value of the gas infrastructure to be developed in Montenegro as part of the project is estimated at EUR 60 million. Montenegro would then have a constant supply of natural gas and would be able to utilise more adequately its own underwater natural gas capacities.

## 4.2 Regulatory overview

Besides the Energy Law, the following laws also govern the natural gas sector in Montenegro:

- (a) Law on Mining<sup>11</sup>;
- (b) Law on Hydrocarbon Exploration and Exploitation<sup>12</sup> ("Hydrocarbons Law");
- (c) Law on Spatial Planning and Construction of Buildings<sup>13</sup>.

## 4.3 Regulated natural gas market activities

The Energy Law regulates the following licenced activities: (i) storage of gas; (ii) transportation; (iii) distribution; (iv) supply; (v) organisation and management of the gas market; (vi) transportation and storage of liquid natural gas ("LNG"); and (vii) managing the liquid petroleum gas ("LPG") facilities. Any entity wishing to perform any of the natural gas activities has to be a local entity registered with the Montenegrin Commercial Register and has to apply for a licence to be issued by REA as the main regulatory body in the gas sector. As the case is with the electricity sector, the Energy Law prescribes that a supplier with a registered seat in the member state of the EU or the member state of the Energy Community may acquire a licence for supply of gas in Montenegro, pursuant to the corresponding approval of the competent authority in the home country. The licences are issued for a period of up to 10 years with the possibility of renewal. Additionally, the provisions of the Energy Law allow for the carrying out of retail trade of LNG in barrels up to 12 kg, as well as trade in gas for resale (excluding sale to the end-costumer who has no balancing responsibility), agency, and representation on the energy market, without a licence.

The Energy Law provides for the possibility of suspending a licence, upon request of the interested entity. REA is also entitled to cancel the licence: (i) upon the request of an energy entity; (ii) in the event of cessation of carrying out the energy activity; (iii) failure to correct irregularities in time determined by the REA; or (iv) non-compliance with orders from the energy inspectorate. REA may also temporarily cancel a licence if the energy entity does not fulfil specific conditions for a particular gas activity, does not maintain gas facilities properly, and does not determine prices in accordance with relevant methodologies adopted by REA, etc. REA will leave an additional remedy period, no longer than two months, for compliance and shall cancel the licence permanently should the energy undertaking fail to remedy the breach.

## 4.4 Exploration and production

The exploration and production of natural gas and other hydrocarbons in Montenegro is regulated by the Law on Hydrocarbon Exploration and Exploitation. According to that piece of legislation, natural gas may be explored and produced only on the basis of concessions awarded by the Government through concluding a concession agreement on gas exploration or a concession agreement on gas exploitation and exploration. This law lays down the conditions, manner and procedure for research and production of hydrocarbons and regulates a number of other related issues. The Hydrocarbons Law excludes the application of other laws potentially applicable to exploration and production of carbons, such as the general Concessions Law, the Law on Mining and the Law on Geological Exploration. The activities of research and production of hydrocarbons may be performed only with a concession awarded by the Government of Montenegro (for research) or the Parliament (for production) in accordance with the Hydrocarbons Law. The Ministry is in charge of all legal, administrative and technical issues related to the application of the Hydrocarbons Law. The Hydrocarbons Law foresees two types of concession: for exploration and for production of hydrocarbons. However, the concession for production may also cover an exploration phase.

The procedure for the award of concession is almost identical for both concession types. The public invitation by which the procedure is initiated contains, *inter alia*, the following elements:

- (a) subject-matter of the concession;
- (b) existing technical information;

<sup>11</sup> Zakon o rudarstvu, Official Gazette of Montenegro, No. 65/2008, 74/2010 and 40/2011.

<sup>12</sup> Zakon o istraživanju i proizvodnji ugljovodnika, Official Gazette of Montenegro, No. 41/10, 40/2011 and 62/2013.

<sup>13</sup> Zakon o planiranju prostora i izgradnju objekata, Official Gazette of Montenegro, No. 64/2017, 44/2018, 63/2018 and 11/2018.

- (c) conditions to be fulfilled by the prospective concessionaire and the operator (technical, financial, organisational, etc.);
- (d) bidding criteria;
- (e) deadlines for submission and withdrawal of bids;
- (f) bid bond details.

Interested bidders are provided with tender documents comprising the instructions for the preparation of bids, including on the content of bids and the manner of bid submission as well as other information of relevance for the award of concession. The Hydrocarbons Law specifies that one of the mandatory elements of the bid is a proposal of a working programme.

The Tender commission, formed by the Ministry, prepares the ranking list which is delivered to the Ministry and then published on the Ministry's website. The bidders are allowed to review the documents in the period of eight days and submit an appeal within an additional eight days deadline. The Ministry is required to reach a decision on the appeal within eight days as of submission of the appeal. The Ministry then submits to the Government a detailed report, the ranking list and the proposal of the concession contract (*predlog ugovora o koncesiji*).

The decision on the award of concession for exploration is issued by the Government, whereas in the event of a concession for production - the decision is issued by the Parliament upon the Government's proposal. A concession for exploration assumes the right of the concessionaire to perform geological, geophysical or other detailed analysis, in order to determine tectonic and structural features of the land or seabed and evaluate existence of hydrocarbons.

The exploration concession is awarded by the Government of Montenegro for a period of up to two years. Within six months following the end of the research works, envisaged by the working programme, the concessionaire is obliged to deliver a report containing research results. The mandatory content of this report is supposed to be prescribed by the Ministry.

A production concession allows the concessionaire to produce hydrocarbons in accordance with the law. A production concession consists of the following phases:

- (i) Exploration phase and verification of reserves - the

maximum duration is six years and can be extended for up to two additional years upon a decision of the Government;

- (ii) Development phase - based on the development and production plan submitted by the concessionaire to the grantor in accordance with the concession contract;
- (iii) Production phase - starts on the day of first extraction of the hydrocarbons from the well, and may last up to 20 years with the possibility of extension for half of the initial period of the concession.

The main features of the concession arrangement:

- (a) The surface area of the production field is determined by the concession contract and the maximum surface area is 150km<sup>2</sup>; exceptionally, it may be increased to 300km<sup>2</sup>. Any surplus surface area should be returned to the grantor once the production phase starts.
- (b) The Law prescribes two types of fees: (i) area fee, payable on the annual level based on the surface area covered by the concession and amounts to EUR 300 per 1km<sup>2</sup> (increased tenfold in the case of extension of the exploration phase) and (ii) royalty fee, determined as a percentage of the quantity of gas produced by the concessionaire and amounting to two per cent of the produced quantity of gas at the point of extraction. The amounts, manner of calculation and payment of these fees is further regulated by the Decree on the Manner of Calculation and Payment of the Fee for Production of Oil and Gas<sup>14</sup>.
- (c) A special corporate income tax is payable by the concession company. In 2014, the Law on Hydrocarbons Tax<sup>15</sup> was adopted. This law applies to the upstream activities carried out within the country. The tax base is considered as the difference between the revenues and the costs recognized by Law on Hydrocarbons Tax. The tax rate is equal to 54 per cent of the tax base. The tax is paid quarterly in advance.
- (d) The concessionaire is obliged to incorporate a Montenegrin company to pursue the concession project.
- (e) The concessionaire is obliged to allow third party access to the facilities and the upstream network for joint use provided that it does not interfere with the regular operations of the concessionaire and other entities who already acquired the access right. The manner and

<sup>14</sup> Uredba o načinu obračuna i plaćanja naknade za proizvodnju nafte i gasa, Official Gazette of Montenegro, No. 13/14.

<sup>15</sup> Zakon o porezu na ugljovodnike Official Gazette of Montenegro, Nos. 31/14 and 52/2016.

conditions of access are supposed to be regulated in detail by implementing bylaws to be adopted by the Ministry.

- (f) If a well is located on territory belonging to two concessionaires, the grantor may request the concessionaires to propose a programme of joint development and production.
- (g) The Hydrocarbons Law prescribes detailed obligations of the concessionaire regarding the protection of the environment, safety of production, revitalization of the affected environment and the plan for conservation of the well and removal of the equipment following the completion of production phase.
- (h) The concessionaire is obliged to procure insurance for the duration of the concession contract in accordance with the best international practice in this industry and provide evidence thereof to the grantor. The Hydrocarbons Law prescribes for the obligation of the concessionaire to indemnify the grantor and third parties for all the damages incurred as a result of concessionaire's actions during the concession agreement. The concessionaire is specifically obliged to compensate all environmental damages caused in the course of execution of the concession contract for production.
- (i) Engagement of the contractor and subcontractors is subject to the Ministry's approval.
- (j) The Hydrocarbons Law specifically prescribes the grantor's right to impose the mandatory purchase of part or all of the oil and gas produced, at a price equal to the international market price for that quantity and quality.
- (k) If the concessionaire is a consortium, each member is jointly and severally liable for all the obligations arising from or in connection with the concession agreement.
- (l) A pledge or mortgage over the assets obtained under the concession contract or over production facilities is possible only with the grantor's approval.
- (m) Disposal of stakes or other ownership interest in the project company as well as disposal of ownership or other rights of the concessionaire may be performed only with the grantor's approval.

#### 4.5 Transmission and access to the system

##### (a) General

Since gas infrastructure is rather undeveloped, there is no gas

transportation system in Montenegro for the time being. Nevertheless, the Energy Law sets out rules for the potential future gas transmission systems.

##### (b) Access to the gas transmission system

A gas transmission system operator ("GTSO") is obliged to provide access to the gas transmission system ("GTS") to all customers based on non-discriminatory principles. The Government appointed state-owned "Montenegro Bonus" to act as the operator of the gas transmission system. GTSO is entitled to reject access to the system in the event of: (i) a lack of transportation capacity; (ii) if access would endanger performance of public services; or (iii) severe economic and financial problems caused due to the take or pay obligations (upon the request of the supplier that has entered into the take or pay gas supply agreement).

Major new gas infrastructure such as interconnectors between the states, LPG facilities and storage facilities, may, upon request of the investor, be exempted, from the obligation to provide access or to apply regulated tariffs, requirements and deadline for connection.

#### 4.6 Storage

Since Montenegro still does not have any significant gas storage facilities, the storage sector appears under-regulated. Owner of the gas storage facility acts as a system operator for the gas storage subject to a licence issued by the REA. The rules applicable to the GTSO access apply *mutatis mutandis* to gas storage and access to gas storage.

## 4. UPSTREAM OIL MARKET

### 5.1 Market overview

Currently, there are no oil exploitation capacities in Montenegro. However, years of undersea exploration have indicated that there are significant reserves of oil and gas on the seabed near the Montenegrin coast. The Government of Montenegro has launched a tender for the award of concession for further exploration and exploitation of hydrocarbons (oil and gas).

## 5.2 Regulatory overview

Similarly to the natural gas sector, the oil sector is governed by the Energy Law as well as the Law on Mining, the Law on Hydrocarbon Exploration and Exploitation, the Law on Hydrocarbons Tax and the Law on Spatial Planning and the Construction of Buildings.

## 5.3 Regulated oil market activities

The Energy Law regulates the following licenced activities: (i) oil transportation; (ii) transport of petroleum products; (iii) wholesale trading; (iv) retail trading; and (v) storage of oil and petroleum products. Any entity wishing to perform any of the oil activities must be a local entity registered with the Montenegrin Commercial Register and must apply for a licence to be issued by REA as the main regulatory body in the oil sector. The licences are issued for a period of up to 10 years with a possibility of renewal.

The Energy Law provides for the possibility of suspending a licence, upon request of the interested entity. The REA is also entitled to cancel the licence: (i) upon the request of an energy undertaking; (ii) in the event of cessation of carrying out the energy activity; (iii) failure to correct irregularities in time determined by REA; or (iv) non-compliance with orders from the energy inspectorate. The REA may also temporarily cancel a licence if the energy undertaking does not fulfil specific conditions for a particular oil activity, does not maintain gas facilities properly and does not determine prices in accordance with methodologies adopted by REA, etc. The REA will leave an additional remedy period, not longer than two months, for compliance and is to cancel the licence permanently should the energy undertaking fail to remedy the breach.

## 5.4 Exploration and production

The Hydrocarbons Law governs the exploration and exploitation of oil and all the abovementioned with regards to the exploration and exploitation of natural gas also applies to the exploration and exploitation of oil. However, the royalty fee is determined and paid on the basis of the quantity of oil/gas extracted and the prevailing market price and the percentage rate is progressive: five per cent for amounts up to 10,000 Barrels per day, seven per cent for amounts above 10,000 and less than 20,000 Barrels per day, 10 per cent for amounts above 20,000 and less than 30,000 Barrels per day and 12 per cent for amounts above 30,000 Barrels per day.







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# REPUBLIC OF NORTH MACEDONIA

## 1. INTRODUCTION TO THE ENERGY MARKET

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The adoption of the new Energy Law<sup>1</sup> in May 2018 is a big turning point in the transposition of the Third Energy Package. The law entered into force on 4 June 2018. North Macedonia is a signatory to the Energy Charter Treaty and Energy Community Treaty, which further harmonises its energy legislation with the EU *acquis communautaire* with regards to the energy sector, environment, competitiveness, renewable sources of energy, energy efficiency and oil reserves. North Macedonia has also signed and ratified the UN Framework Convention on Climate Change and the Kyoto Protocol, as a non-Annex I country. With this status, it may use the Clean Development Mechanism for attracting foreign investments in projects for the reduction of greenhouse gas emissions.

Still, as a candidate country for EU membership, North Macedonia needs to further develop its legislation, especially by adopting secondary legislation and provide that the implementation process is completed. The most pressing issues concern the unbundling of the transmission system operators, market opening, price regulation and balancing. The liberalisation of the electricity and natural gas energy markets started on 1 April 2014. According to the new Law on Energy, the electricity market is completely liberalised, thus all consumers of electricity have acquired the right to choose a supplier of electricity on the free market, whereas the natural gas market is liberalised since 1 January 2015.

### 1.1 Regulatory overview: Energy Regulatory and Water Services Commission

For the purpose of securing efficient, competitive and uninterrupted operation of energy markets, the Energy Regulatory Commission and Water Services of North Macedonia

(“ERC”) was set up as an independent legal entity, authorised to regulate matters pertaining to energy activities performance stipulated under the Energy Law. It is composed of seven members, elected by the Parliament of the North Macedonia, after nominations by the Government. It has specific duties and obligations, as well as rights and authorities on the energy market related to the energy market participants regarding the implementation of legally stipulated obligations of the entities, which perform regulated energy activities, in the aims of guaranteeing the reliability of electricity, natural gas, renewable energy and heating energy supply.

The ERC passes bylaws (regulations, decisions, resolutions), approves documents (plans, programs) of the market participants, monitors the functioning of the energy markets, resolves disputes among performers of the regulated energy activities and consumers, adopts methodologies and tariffs for the services of the regulated energy activities and tariff systems for energy sale and passes decisions on the tariffs and the prices. The ERC issues all licences for the performance of energy activities.

The Energy Law regulates the manner of financing of the ERC by determining that, in addition to the payment for the issued licences, a certain annual amount of the profit made by the licence holders shall be paid to the ERC but no more than 0.1 per cent of the total revenue. By means of tariff-setting regulations and methodologies for services provided as regulated energy activities, the ERC stipulates the manner of calculation, approval and control of revenue generation from the performance of regulated energy activities. Electricity and natural gas price-setting regulations for consumers supplied by the supplier of last resort and the means by which the ERC sets out the manner of determination, approval and control of electricity and natural gas end prices to be paid by consumers. These shall include electricity or natural gas generation

<sup>1</sup> Published in the Official Gazette No. 96/2018.

or purchase price, relevant tariff on use of energy systems and markets, balancing costs, supply charge, as well as financial and other forms of reimbursements awarded for the purpose of implementing the obligations on public service provision. Price setting regulation and methodology for oil derivatives and fuels for transport are the means by which the ERC stipulates the manner of setting, approval and control of refinery and retail prices for petrol, diesel fuels, light fuel oil and heavy oil (mazut), as well as retail prices for blends of fossil fuels and biofuels for transport.

## 1.2 Energy Agency

The Energy Agency has been established to support the implementation of the energy policy in North Macedonia. It has the capacity of a legal entity and it is independent in its work. The support in the implementation of the energy policy shall be realised by the Energy Agency through engagement in relation to: the preparation of medium and long term strategies and development plans; the preparation of long and short term programs for energy efficiency and use of renewable energy resources, the preparation and coordination of activities for the implementation of investment projects, regional cooperation and coordination of regional projects, drafting bills, by-laws and technical regulations proposals, in the field of energy, and performing other activities in the field of energy, as determined by the Energy Law. The Energy Law stipulates a few additional competences of the Energy Agency in the area of renewables.

## 2. ELECTRICITY

### 2.1 Market overview

The main functions of the electricity system of North Macedonia are the generation, supply, transmission and distribution of electric energy.

Participants in the electricity markets are the electricity generators, electricity transmission system operator, electricity distribution system operator, electricity market operator, suppliers and traders with electricity and the consumers. Each has certain rights and obligations, as well as stipulated conditions on undertaking activities and use of the electricity system.

The process of restructuring the Electric Power Company of Macedonia commenced in 2004 and was completed in September

2005. As part of the Government's programme to liberalise the electricity market, the restructuring resulted in the unbundling of the vertically integrated ESM into four legally separate enterprises. The Electricity (Transmission) System Operator ("MEPSO") is a state-owned joint-stock company, controlled by the Government and responsible for transmitting electricity and managing the high voltage transmission network, operating the electricity central dispatching system and implementing market operations. Electricity generation is performed by JSC Electric Power Plants of North Macedonia ("ESM"), a state-owned joint-stock company, and JSC TPP Negotino – a thermal power plant also owned by the Government. EVN AD Makedonija, a joint-stock company, performs distribution and retail supply for tariff consumers and was privatised in 2006 through a sale of 90 per cent of its shares to the Austrian company EVN AG. Distribution is also performed by AD ESM Skopje – Branch Office Energetics.

The new Energy Law imposes further requirements on the legal unbundling of the electricity transmission system operator and the electricity distribution system operator. The aim is to secure independence in the electricity transmission and distribution activity performance, as well as for the purpose of implementing the obligation of public service provision in a non-discriminatory, objective and transparent manner. These legal entities cannot hold licences for electricity generation, transmission or distribution as applicable, trade, supply or supply of last resort activities. Each of these operators must adopt a compliance programme to prevent discriminatory behaviour, as well as guaranteeing independence in the decision making on the assets required for the system operation, maintenance and development, which must be independent of the interests of the vertically integrated company to which the operator belongs or the interests of the related company. This programme must be submitted for approval to the ERC.

The electricity market operator is responsible for the electricity market organisation, efficient operation and development, pursuant to the principles of publicity, transparency, non-discrimination and competitiveness. It is also obliged to provide the services falling under its competences, pursuant to the Energy Law and the terms and conditions stipulated in the licence. It keeps records of physical transactions of electricity, based on information of electricity purchase/sale and transit transactions submitted by electricity market users. It further calculates the electricity consumed, transited or delivered

between electricity market participants, as well as the imbalances occurring with regard to announced and realised transactions and submits these calculations to the electricity transmission system operator.

As stated above, the electricity market is now completely liberalised. The market for electricity consists of two segments, a regulated and an unregulated electricity market. In 2018 in the regulated electricity market, the purchase and sale of electricity was conducted at prices and conditions approved by the ERC.

On the unregulated electricity market, the sale of the electricity is performed at prices and conditions that are freely agreed between the buyer and the seller, at their own choice, risk and expense.

The percentage of the actual liberalisation of the electricity market in 2018 was 47.26 per cent. The percentage of liberalisation compared to 2017 (39.75 per cent) has been increased due to the increase in consumption made by consumers connected to the transmission network, as well as reducing the consumption of tariff consumers as a result of the exit of a significant group of small consumers in the electricity free market.

## 2.2 Regulatory overview

In accordance with the Energy Law, the following energy activities in the electricity market are regarded as regulated energy activities:

- (a) electricity transmission;
- (b) electricity market organisation and operation;
- (c) electricity distribution;
- (d) electricity supply of last resort; and
- (e) electricity generation for the needs of the electricity supplier of last resort.

The performers of the energy activities cannot start performing the activity without obtaining licence from the ERC. The licence is valid for a period of no less than three years and no more than 35 years. The same validity period of a licence applies to all types of licensed activities in the energy sector. Entities that perform regulated energy activities are required to comply with the obligations of the provision of public service. The Government of North Macedonia, upon previously obtained opinion from the ERC and opinion or decision of the Commission for Protection of Competition, may issue a decision by which a company that performs an energy activity, which is not a regulated energy activity, has an obligation to provide public service in a specified

time period. The ERC shall specify the conditions and manner for fulfilling the public service obligation in the licence that it issues to the performer of the energy activity. The obligations imposed by the ERC must be clearly stipulated, easily verifiable and non-discriminatory. A branch office of a foreign entity organised in North Macedonia whose founder has been issued a licence for performing trade or supply of electricity or natural gas in a state that is a contracting party or participant in the Energy Community Treaty may, by applying the principle of reciprocity, perform these activities in North Macedonia once a decision is made for entry in the register of foreign traders and suppliers of electricity and natural gas, run by the ERC.

The services provided by entities performing regulated energy activities should secure reliable, high-quality and uninterrupted energy and energy fuel delivery to consumers, under equal terms and conditions, prices and tariffs, taking into due consideration the need for energy efficiency improvements and environmental protection and promotion.

## 2.3 Generation

The electricity generator may sell the generated electricity and/or system services on the electricity market in North Macedonia and abroad. The electricity generator has the following obligations:

- (a) offers system services to the electricity transmission system operator for balancing the system;
- (b) ensures the availability of agreed quantities of electricity and/or system services to the point of receipt in the electricity transmission or distribution system;
- (c) has to be equipped with all necessary technical resources;
- (d) submits reports, data and information to the operator of the electricity transmission system or the operator of the electrical distribution system; and
- (e) submits to the electricity transmission system operator and the electricity market operator data and information from the contracts for the purchase and sale of electricity, the availability of the production capacity and/or the system services, except business financial data.

In order to ensure the security of electricity supply, the Government may adopt a decision by which it imposes an obligation on the electricity generator to provide a public service. The generator needs, at any time, to have operational reserves of primary fuel in an amount that is required for at least 15 days of work with maximum capacity.

The electricity producer with the largest installed capacity in North Macedonia is obliged to offer to the universal supplier, in the procurement procedures for electricity, in accordance with the rules for electricity supply for the universal supplier, for the sale of electricity:

- (i) in 2019 - at least 80 per cent of the total annual needs of the supplier;
- (ii) in 2020 - at least 75 per cent of the total annual needs of the supplier;
- (iii) in 2021 - at least 70 per cent of the total annual needs of the supplier;
- (iv) in 2022 - at least 60 per cent of the total annual needs of the supplier;
- (v) in 2023 - at least 50 per cent of the total annual needs of the supplier;
- (vi) in 2024 - at least 40 per cent of the total annual needs of the supplier;
- (vii) in 2025 - at least 30 per cent of the total annual needs of the supplier.

In North Macedonia, electricity is produced from several types of power plants:

- thermal power plants;
- combined plants;
- hydroelectric power plants;
- small Hydroelectric Power Plants;
- photovoltaic power plants;
- wind power plants; and
- thermal power plants for biogas.

The total installed capacity of the power plants that generate electricity in 2018 was 2076,25 MW, increased by 5,71 MW compared to 2017. This is due to the start of operation of several power plants from renewable sources of energy.

The construction of new facilities or expansion of existing facilities for electricity generation, combined production of electricity and heat or facilities for the production of heat energy is based on obtaining authorisation from the competent authorities. Such authorisation is not required if:

1. the new generation energy facility has a total installed electric and/or thermal power of less than or equal to 10 MW;
2. with the expansion of the production energy facility, the total installed electrical and/or thermal power of the object is less than or equal to 10 MW, or

3. the energy produced in the energy facility will be used exclusively for its own needs.

The procedure can be initiated by interested domestic and foreign investors, by submitting a request for issuing an authorisation to the Government, i.e. the local municipality. The Government, upon a proposal of the Minister, i.e., the council of the local self-government unit, upon a proposal of the mayor, decides within 60 days from the day of receiving the completed request. The authorisation is valid three years from the day of its entry into force, and it will cease to be valid if the authorisation holder has not been able to provide a building permit for the facility within this deadline.

## 2.4 Trading and supply of electricity

The electricity trader may purchase electricity in the country and from abroad, for the purpose of selling it to other traders, suppliers, the electricity transmission system operator and electricity distribution system operators, as well as for the purpose of selling it to consumers abroad. The electricity trader in the role of supplier can sell electricity to consumers which meet the requirements for independent participation on the electricity market. They must also submit information to the electricity market operator and electricity transmission system operator regarding the electricity quantities and relevant time schedules relating to all electricity purchase/sale contracts, as well as related to contracts on cross-border transactions through the transmission grid. An electricity trader when performing cross-border electricity transactions must provide sufficient interconnection transmission capacity and/or distribution capacity and regulated services, pursuant to the relevant bylaws (Electricity Market Code, Transmission and/or Distribution Grid Code, Rules on Awarding Cross-Border Transmission Capacity) for the electricity it has undertaken to deliver to its consumers.

The electricity supplier purchases electricity in the country and from abroad, for the purpose of selling it to consumers, traders, other suppliers, the electricity transmission system operator or the electricity distribution system operators, as well as to consumers abroad. For the electricity it has committed to deliver to its consumers, the electricity supplier must secure the necessary transmission and/or distribution capacity from the relevant operators, pursuant to the applicable tariffs, Electricity Market Code, Transmission and Distribution Grid Codes.

The electricity supplier shall invoice the consumers for the electricity delivered under the agreed price and the electricity market use charge. When the supplier has signed a contract with the electricity distribution system operator on charging the distribution costs, the electricity supplier shall also invoice the consumers for the transmission and/or distribution system charges. The invoices shall be issued on the basis of active and/or reactive electricity consumed and engaged power, as metered by the relevant system operator.

The electricity supplier of last resort purchases electricity to address the demands of consumers who have not been supplied with electricity. If the consumer is a household or a small consumer, their supply is carried out by the universal supplier. The purchase prices and relevant contracts with the generator are approved by the ERC.

In order to address the demands of its consumers, the electricity supplier of last resort shall guarantee the necessary transmission and/or distribution capacity, as well as the services of the electricity market operator. The electricity supplier of last resort shall invoice its consumers for the electricity delivered and services provided pursuant to the Tariff System on electricity sale to households and small consumers. As an exemption, it may purchase electricity at market and below market prices provided that (i) market terms and conditions and market prices are more favourable compared to terms and conditions and prices set for the generator; or (ii) at given periods, the electricity generated by the generator is insufficient to meet the electricity demand of households and small consumers. As an exception, electricity consumers which meet the requirements for independent participation on the electricity market as set out in the Market Code can purchase electricity directly from electricity traders.

The relevant system operator shall discontinue electricity supply to consumers without signed electricity supply contracts, unless the consumers in questions come into the categories of households and small consumers which are to be supplied by the electricity supplier of last resort.

For the purpose of the transparent, efficient and competitive trade in electricity and ancillary services, electricity market participants can conduct trade in electricity or ancillary services on the electricity exchange in North Macedonia established pursuant to the law or on the regional electricity exchange.

## 2.5 Transmission

The electricity transmission system operator shall maintain, upgrade and expand the transmission grid, operate the electricity transmission system of North Macedonia and secure connection of the transmission system to the transmission systems in the neighbouring countries. The operator of the electricity transmission system is a company that:

- (a) as a legal successor of the ESM, is the owner of the electricity transmission network consisting of substations, line infrastructure objects - transmission lines, plants, facilities and assets that are in function of performing the energy activity transmission of electricity and management of the electrical energy transmission system;
- (b) is not part of a vertically integrated company;
- (c) is a holder of a licence for performing the energy activity electricity transmission;
- (d) does not perform and is independent of performance of other activities in the power sector determined by this Law; and
- (e) is certified and appointed for the electricity transmission system operator by the ERC.

In order to ensure the independence of the electricity transmission system operator, the same person or persons are not entitled at the same time:

- (i) to participate, directly or indirectly, in the management of a company that carries out some of the electricity generation and/or supply activities and at the same time directly or indirectly manage or exercise another right in the electricity transmission system operator;
- (ii) directly or indirectly participate in the management of the electricity transmission system operator and at the same time directly or indirectly manage or exercise another right in a company that carries out any of the electricity generation or supply activities; and
- (iii) to appoint members of the supervisory body, managing authority of the electricity transmission system operator and at the same time directly or indirectly to manage or exercise another right in a company that carries out some of the activities of generation and/or supply of electricity.

The charge for the use of the electricity transmission system is regulated, pursuant to the published tariff. The electricity transmission system operator shall invoice the system use charge to:

- consumers directly connected to the electricity transmission system who act independently on the electricity market;
- electricity producers directly connected to the electricity transmission system, for the electricity generated from the electricity transmission network for their own needs;
- suppliers for the consumers directly connected to the electricity transmission system, who do not act independently on the electricity market;
- electricity distribution system operators or electricity suppliers for the consumers connected to the electricity distribution systems.

The electricity transmission system operator shall invoice the electricity market participants for the deviations from announced physical transactions, in accordance with prices calculated pursuant to the price-setting methodology for balancing services.

The electricity transmission system operator is obliged, *inter alia*, to connect generators, consumers and distribution system operators to the transmission grid, as well as to allow third party access for electricity transmission system use, pursuant to the present law and the Transmission Grid Code. Based on the principles of objectivity, transparency and non-discrimination, new interconnection capacities with neighbouring countries are required to be constructed, taking due consideration of the efficient use of existing interconnection capacities and the balance between investment costs and benefits for the consumers, to provide cross-border electricity flow through the transmission grid of North Macedonia within the available transmission capacity, as well as to develop, upgrade and maintain the transmission system, for the purpose of safe and efficient system operation.

In order to cover losses in the electricity transmission system, electricity is purchased under market terms and conditions and in a transparent, non-discriminatory and competitive manner. Also, ancillary services and the relevant operational reserve are purchased under market terms and conditions and in a transparent, non-discriminatory and competitive manner, pursuant to the Electricity Market Code. The electricity transmission system operator is required to adopt and publish the Rules on Interconnection Transmission Capacity Awarding, as well as the Electricity Transmission Code. The ENTSO-E

network rules are applied directly by the operator of the electricity transmission system.

The power transmission system, operated by MEPSO, connects the larger generation capacities of North Macedonia and the two electro-distributive facility systems.

The transmission network mainly consists of 400 kV transmission lines. They form a 400-kV ring that connects the northern part of the state where the largest number of consumers is located. The electricity transmission system of North Macedonia is connected with all transmission systems of the neighbouring countries, except with Albania. However, the Energy Community adopted a project for construction of 400 kV transmission line Bitola – Elbasan, connecting North Macedonia with Albania, as well as with the other countries from corridor eight. This project is expected to be completed by 2023.

## 2.6 Distribution

The electricity distribution system operator is responsible for the maintenance, upgrading, expansion and operation of the distribution system used to perform its activity, and shall be obliged to secure its connection to the electricity transmission system.

The operator of the electricity distribution system or vertically integrated company that is the founder of the electricity distribution system operator on the territory of North Macedonia is the owner of the electricity distribution network consisting of substations, line infrastructure facilities - transmission lines, objects and assets in the function of performing the energy activity distribution of electricity. A company that holds a licence for performing an electricity distribution activity cannot have a licence and cannot participate in the performance of the activities of production, transmission, organisation and management of the electricity market, trade and/or supply of electricity.

The distribution system usage charge shall be payable by electricity consumers connected to the distribution grid. The electricity distribution system operator shall invoice the electricity distribution system use charge to consumers connected to the electricity distribution system, as well as the electricity transmission system use charge, pursuant to the published tariffs. As an exception, the electricity distribution system operator can sign contracts with electricity suppliers or traders by means of which it shall authorise them to collect these charges from the consumers.



In North Macedonia there are two electrical distribution systems, one of which is owned by Elektrodistribucija DOOEL Skopje, while the other system is owned by AD ESM Skopje – Branch Office Energetics.

## 2.7 Access and connection to grids

The Energy Law sets out the obligation for the transmission and/or distribution system operators, on the basis of the published tariffs, to allow access to the relevant system to all customers, in a transparent and objective manner that prevents discrimination of system users.

The transmission and/or distribution system operators shall be obliged to allow connection to the relevant system, pursuant to the relevant Grid Code:

- (a) to all electricity consumers and users of the electricity transmission system and the distribution systems on the territory of North Macedonia;
- (b) to all natural gas or heating energy consumers and users of the natural gas or heating energy transmission and distribution systems on the territory where the service is provided.

The electricity transmission or distribution system operators shall provide priority access to electricity systems for the electricity generated from renewable sources, taking into due consideration the limits stemming from the possibilities in the electricity system. The relevant energy or natural gas transmission or distribution system operator shall be obliged to allow existing and new grid users access to the relevant energy transmission or distribution grid, pursuant to the relevant Grid Code and Supply Rules:

- (i) in an objective, transparent and non-discriminatory manner;
- (ii) based on the principles of regulated third party access; and
- (iii) in accordance with prices and tariffs previously approved and published by the ERC.

The relevant energy transmission or distribution system operator can deny access to the relevant grid only in cases of electricity or natural gas transmission or distribution capacity shortage; the provision of access for a given user can jeopardise the security of energy supply in North Macedonia or; the provision of access to the appropriate system would prevent the appropriate system operator from performing its public service obligation. It shall be obliged to inform the access applicant in writing, with a detailed and unambiguous explanation of the reasons for the denial of access.

The operator of a new direct current interconnection line may request from the ERC a waiver for a certain period of time from the obligation to provide third party access to the new interconnection line if the following conditions are met:

- the investment increases competition and reliability in the supply of electricity;
- the risk associated with the investment is such that an investment cannot be realised if the exemption from the obligation to provide access to a third party is not allowed;
- the interconnection line for which an exemption from the third party's access obligation is required must be owned by the person who is independent, at least in its legal form, from the operator of the electricity transmission system of North Macedonia and from the operator of the power system in whose system the interconnection line will be built;
- the users of the interconnection line are charged for its use;
- as of 1 July 2007, no part of the investments or operating costs for the interconnection line can be recovered through fees for the use of transmission or distribution system of electricity connected to the interconnection line; and
- the exemption from the obligation to provide third party access does not affect the competition and the efficiency of the electricity market in the region, as well as the efficient operation of the regulated transmission system to which the interconnection line is connected.

The relevant energy transmission or distribution system operator, as part of the relevant Grid Code, shall be obliged to set out the connection rules for the relevant grid and the connection charge setting methodology. The connection rules shall take into due consideration the consequences caused by the connection and which affect other grid users, the connection points at plants, facilities and devices and type of installation required for grid connection.

## 2.8 Forthcoming developments

The market is expected to grow in parallel with the growth of the economy. An increase in the generation of energy is one of the main targets, along with the liberalisation of the market. There are several planned investment projects in high-voltage power lines and investments in generation plants. According to the Investment Plan of Elektrodistribucija DOOEL Skopje for the period from 2019 to 2023, a number of investments in the power distribution system are planned.

### 3. RENEWABLE ENERGY

#### 3.1 Market overview

The legal framework in North Macedonia is aimed at stimulating investments in renewable energy and the greater involvement of renewable energy resources in total energy consumption and increasing energy efficiency. There are favourable conditions for the use of hydro energy, geothermal energy, solar and wind energy, as well as energy derived from biomass. With the new Energy Law of 2018 premiums were introduced as a new measure for support to electricity generators using renewable energy sources, in addition to the already existing preferential tariffs. The premium represents an additional amount of the price that the preferential producer has earned with the sale of the produced electricity. The preferential producer who uses premium is selected through a tender procedure with an auction, conducted by the Ministry of Economy.

The Energy Agency maintains a register of issued, transferred and revoked guarantees of origin of electricity produced from renewable energy sources, which is published on its website. The origin of the guarantee is of a standard size of 1 MWh and only one guarantee of origin is issued for each produced unit of energy. The electricity market operator is obliged to purchase the electricity produced by preferential electricity generators using a privileged tariff. The price at which the electricity market operator sells the electricity to the suppliers and traders is calculated at the end of the month as the average price at which the electricity market operator purchased the electricity from the preferential producers of electricity using a preferential tariff.

The electricity market operator then sells the purchased electricity produced by the preferential producers to electricity suppliers and traders who sell electricity to the final consumers. Suppliers and retailers buy the quantity of electricity produced by the preferential producers from the Electricity Market Operator every day, according to the participation of the announcements for the electricity needs of their consumers in the total envisaged needs of the electricity consumers in North Macedonia. Different types of power plants are represented in the total production of electricity from preferential generators in 2018, in the following manner:

- small hydropower plants as preferential producers are represented by 53.82 per cent;

- wind power plants participate with 25.81 per cent;
- thermal power plants on biogas with 14.33 per cent;
- photovoltaic power plants with 6.04 per cent.

In the first half of 2018, more than 62 per cent of the total produced electricity came from renewable energy sources. The reason for this is the increased production of electricity from small hydropower plants.

Of all the renewable sources of energy in North Macedonia, hydropower is used for the production of electric power, biomass is most frequently used in the form of firewood for households, and geothermal energy is mostly used for heating greenhouses. Solar thermal energy is used for heating domestic hot water.

As of 31 December 2018, the total installed capacity of 185 preferential producers using feed-in tariffs amounts to 133 MW.

#### 3.2 Support schemes

The Government of North Macedonia adopted a decision on national mandatory objectives for the energy participation produced from renewable sources in the gross financial energy consumption and the energy participation produced from renewable sources in the final energy consumption in transport. This decision regulates that the national objectives which should be fulfilled until 2020, are stipulated as follows: 23 per cent of participation of renewable energy in the final gross energy consumption and 10 per cent participation in the transport.

The Strategy on Renewable Energy Sources sets out the policy on the use of renewable energy sources which set the targets on the use of renewable energy sources and the manners for attaining these targets.

The Government of North Macedonia also adopted an action plan on renewable energy sources in North Macedonia until 2025 with a vision until 2030 which further elaborates the specific actions and measures to be taken, in order for the goals of the Strategy on Renewable Energy Sources to be achieved.

These incentives include in particular: investment support, tax credits, obligation of the electricity suppliers to purchase electricity generated from renewable sources and obligation on mandatory placing on the market of blends of fossil fuels with biofuels, issuing guarantees of electricity origin, feed-in tariffs for generated

electricity purchase, and increased prices for the consumers, as regards the use of energy from renewable sources.

In the aims of stimulating the construction of new power plants using renewable energy sources or high-efficiency cogeneration plants, the said generation facilities can obtain the status of a preferential generator and thereby the right to sell electricity under feed-in tariffs.

The Energy Law has simplified the procedures for acquiring the status of preferential electricity generator by authorising the ERC to issue a decision on granting the status and maintaining the relevant registry while the Government is authorised to determine the feed-in tariff and duration. In order to stimulate investments in renewable sources, temporarily status of preferential electricity generator may be awarded if the investor has obtained the construction authorisation for the energy facility in question, or has obtained a construction permit for the energy facility, when the construction thereof does not require a construction authorisation or has signed a concession contract for the use of natural resources or has acquired the right to construction of the energy facility in an open call procedure, pursuant to the Energy law.

Preferential generators are entitled to apply the feed-in tariff under the terms and conditions in effect on the day when the temporary decision was issued. The ERC shall delete the entry of the power plant from the Registry of Preferential Generators if the power plant in question has not come into operation within the deadline stipulated in the temporary decision and thus shall terminate its status of preferential generator. The electricity market operator purchases the generated electricity from the preferential electricity generators and incorporates the costs arising from the difference between the regulated price of electricity and the feed-in tariff in the transmission tariff paid by all consumers. Thus, any increase in the cost of electrical power system required to bring these generators on-line is socialised to all consumers of electricity. The Government of the North Macedonia passed an Act on Electricity Feed-In Tariffs, which stipulates, for each type of preferential generator separately, the following:

- (i) the specific terms and conditions to be met by the power plant in order to obtain the status of preferential generator;
  - (ii) the upper threshold for the power plant installed capacity required for obtaining the status of preferential generator;
- and

- (iii) electricity feed-in tariffs and the period for their application.

The Energy Agency issues, transfers and revokes guarantees of electricity origin from renewable sources. The guarantee of origin is a document issued by the Agency for the purpose of securing evidence for consumers that a particular energy quantity has been generated from renewable sources. The guarantees of electricity origin issued by foreign states can also be recognised if they fulfil certain conditions prescribed by law. This also represents one of the incentives applied for the purpose of promoting renewable energy sources. The guarantees of electricity origin from renewable sources issued by foreign countries shall be recognised under the terms and conditions and in a manner stipulated pursuant to the present law.

## 4. DISTRICT HEATING

### 4.1 Market overview

The market participants are defined by the Energy Law as generators, operator of the distribution system and district heating suppliers, following the market model for the electricity market with the necessary differences arising from the energy type in question. The municipalities, as units of the local self-government, are obliged to enable the performance of the following energy activities for the purpose of reliable, safe, uninterrupted and quality heating energy supply to the consumers on their territories:

- (a) heating energy generation;
- (b) heating energy distribution; and
- (c) heating energy supply.

The Energy Law provides that, for installed power systems of consumers over 80 MW, one entity cannot hold licences for production, distribution and supply of heat.

The heating energy supplier is required to provide consumers with whom it has signed contracts, with reliable, uninterrupted and quality heating energy supply, pursuant to the Heating Energy Supply Rules, the signed supply contracts and the licence issued. For all heating energy systems where it supplies consumers, the heating energy supplier is required to sign annual contracts with the heating energy distribution system operator for heating energy purchase intended to address the consumers' demand, under prices and tariffs previously approved and published by the ERC.



These contracts are subject to approval by the ERC, and stipulate in detail the mutual rights and obligations of suppliers and distribution system operators, based on the Distribution Grid Code and Heating Energy Supply Rules.

The supply of thermal energy is fully liberalised. Heating energy consumers connected to the distribution system in places where a heating energy system is already established are entitled to choose their supplier at own preference. The heating energy supplier, based on data from reading metering devices and local allocation devices, presents invoices and collects the heating energy delivered to consumers under the price calculated, which comprises the average price for heating energy for the regulatory period, the tariff on distribution system use and the heating energy supply charge. The threshold of the supply charge is determined by the ERC by means of a decision adopted prior to the beginning of any calendar year.

Active heating systems in North Macedonia energy exist only in the territory of the City of Skopje where three systems are operating. The largest system is the one managed by BALKAN ENERGY GROUP AD Skopje on which during 2018 51,357 consumers were connected.

#### 4.2 Regulatory overview

Under the Energy Law, the distribution of thermal energy and the regulated generation of thermal energy are regarded as regulated energy activities. The performer of the regulated energy activity - production of thermal energy, is obliged to provide a public service for the needs of the consumers and for covering the losses in the system, system reserve and system services for maintaining the necessary operating parameters within the heating system to which it is connected. A licence for the regulated heating energy generation activity is granted on the basis of an open-call procedure by the ERC. In the case of distribution systems with only one generator of thermal energy, it shall by exemption be granted a licence for regulated generation of the thermal energy.

At the request of the regulated generator, the ERC shall set the charge to be paid to the regulated generator for the services provided in the heating energy system. When setting the charge, due consideration shall be taken of the fixed and variable costs of the regulated generator, as well as the reasonable return of capital. The charge shall comprise of two portions - charge for the provision of ancillary services and system reserve and regulated price for the heating energy generated.

The ERC adopted the Price-Setting Rulebook for Heating Energy and System Services, which regulates the manner, procedure and price-setting methodology for system services and system reserve charges, the regulatory price for the heating energy generated, as well as the manner of calculating and the regulatory period for which the average price for heating energy is calculated. The licence holder for regulated heating energy generation cannot hold a licence on heating energy distribution, supply activities, heating energy generation and supply activities. The regulatory regime on the thermal energy supplier is explained in Section 4.1 (Market overview).

#### 4.3 Generation

Independent generators generate thermal energy as secondary products in the combined thermal electricity and regulated generators of thermal energy which, in addition to the requirement to provide public service, are obliged to provide energy to cover losses in the system, system reserve and system services. The charge of the regulated generator for the ancillary services is stipulated by the ERC. The regulated heating energy generator shall be obliged to provide the public service of heating energy generation in order to meet the consumers' demand and provide energy to cover system losses, ancillary reserves and services for the purpose of maintaining the required operational parameters (temperature and pressure) within the heating energy system to which it is connected.

The heating energy generator shall own and operate the heating energy generation plant pursuant to the law, other regulations, grid code and the terms and conditions and criteria stipulated in the licence and shall sell the heating energy to the heating energy distribution system operator to which it is connected, under the terms and conditions stipulated in the Energy Law. The heating energy generator can also sell the heating energy to consumers which are not connected to the heating energy distribution system but are directly connected to its generation plant.

#### 4.4 Distribution

The distribution of heating energy is carried out by legal entities who are the owners of systems for the distribution of heating energy or on the basis of an agreement for PPP for the construction of a new system or an agreement for the establishment of a PPP for a public service, management, use, maintenance and expansion/upgrading of an existing system for distribution of thermal energy or by public enterprises established by the local

self-government units. The construction of new systems for the distribution of thermal energy in the area of a local self-government unit shall be carried out on the basis of a PPP agreement awarded by the council of the local self-government unit. This agreement also includes the right to carry out the regulated energy activity of distribution of thermal energy. The period for which the PPP agreement is granted can be no longer than 35 years. The heating distributor shall not have the right to transfer the PPP agreement to a third party without the prior written consent from the public partner.

The procedure for awarding a PPP for the management, use, maintenance and expansion/upgrading of an existing system for the distribution of thermal energy by the local self-government units. The period for the PPP agreement can be no longer than 35 years. The private partner shall not have the right to transfer the PPP agreement to a third party without the prior written consent from the public partner.

The distributor is obliged, *inter alia*, to maintain, upgrade and expand the heating energy distribution grid in the system.

The heating energy distribution system operator shall purchase the heating energy generated by the generators connected to the distribution system and shall be obliged, upon previously obtained approval from the ERC, to sign a contract with the regulated heating energy generator for a period no shorter than one year.

It is obliged to purchase the heating energy produced by the (heating energy) generators to the distribution system, on the condition that the heating energy price offered by the generator is lower than the regulated price for the heating energy generated by the regulated generator. The heating energy distribution system operator shall be obliged, upon previously obtained approval from the ERC, to sign contracts with heating energy suppliers on heating energy sale intended to address the consumers demand.

#### 4.5 Forthcoming developments

New electricity and heating energy generation facilities and electricity and heating energy co-generation facilities can be constructed on the basis of construction authorisation for new electricity and/or heating energy generation facilities issued:

- (a) by the Government on the decision on authorisation of the construction of new or expansion of existing electricity generation and electricity and heating energy cogeneration facilities; and

- (b) by the Municipal Council of the local government unit on the decision to authorise construction of new or expansion of existing heating energy generation facilities.

In this regard, a number of entities in the thermal energy sector are establishing investment plans for the following period.

The thermal energy generator Balkan Energy plans to invest about EUR 3,000,000 in the next five-year period in the modernisation and automation of the production process, reconstruction, modernisation and automation of pumping stations, reconstruction and modernisation of the electro-installations and equipment. The distributor of thermal energy, BALKAN ENERGY DOOEL, plans to develop in the next five years the distribution system through integration of the distribution network in order to meet the criteria for efficient central heating according to the European energy efficiency directive, increasing the capacity of the existing network and building new lines. Supplier of thermal energy BE DOOEL Skopje AD ESM Skopje, Branch Office Energetika, plans to invest in the basic means for production, distribution and supply of heat energy in order to ensure a safe and continuous supply of heat.

## 5. NATURAL GAS

### 5.1 Market overview

The usage of natural gas in North Macedonia commenced in 1997. In the absence of its own natural gas deposits, North Macedonia's needs for natural gas are met by the connection of a single gas pipeline from Russia through International corridor No. 8. The magistral gas pipeline enters North Macedonia near the border crossing Deve Bair and extends to Skopje, with a length of 98 km. GA-MA AD Skopje is the sole natural gas transmission network operator in North Macedonia. The total capacity of the natural gas transmission system is 800 million nm<sup>3</sup> / year. In 2018, the total quantities of natural gas transmitted to qualified consumers and tariff consumers amounted to 253,628,089 million nm<sup>3</sup>.

After a long political turmoil, North Macedonia has made a considerable step towards transposition of the Energy Community *acquis*. The new Energy Law makes way for full ownership unbundling and certification of the transmission system operator. Since 1 January 2015, North Macedonia has a fully deregulated wholesale and retail market.

The distribution and transmission systems of the natural gas have the same obligations of the electricity transmission and distribution operators. The other subjects (suppliers, supplier of last resort and traders) have the same rights and obligations as in the electricity market.

In order to ensure the independence of the natural gas transmission system operator, the same person or persons are not entitled at the same time:

- (a) to participate directly or indirectly in the management and supervision of a company that carries out some of the natural gas production and/or supply activities, and directly or indirectly manage or exercise another right with the operator of the natural gas transmission system;
- (b) directly or indirectly participate in the management of the natural gas transmission system operator, and directly or indirectly manage or exercise another right in a company carrying out some of the natural gas production and/or supply activities; and
- (c) to appoint members of the supervisory body and the managing body of the natural gas transmission system operator, and directly or indirectly manage or exercise another right in a company performing some of the natural gas production and/or supply activities.

A company that has a licence for performing distribution of natural gas cannot have a licence and cannot participate in the activities of natural gas transmission, organisation and management of the natural gas market, natural gas trading and/or supply of natural gas.

Taking into consideration the possibility of building smaller regional systems for the transmission and distribution of natural gas in the Republic, the law allows for the institutionalising of a combined operator of transmission and distribution systems.

Where a natural gas distribution system operator is part of a vertically integrated natural gas undertaking, it must be independent in relation to its legal personality, organisation, and decision-making, and to act independently of other activities that are not related to the distribution of natural gas. The independence of the natural gas distribution system operator does not include the obligation to separate ownership of the distribution system assets from the vertically integrated natural gas company.

A natural gas supplier in the last resort is obliged to supply consumers who have not been provided with a natural gas supplier in the event that:

- (i) the previous supplier has terminated the fulfilment of its supply obligations under the existing supply contracts;
- (ii) a bankruptcy procedure has been initiated by the previous supplier with personal management, or at the request of a creditor, as well as liquidation;
- (iii) the licence of the previous supplier has been suspended, permanently revoked or has ceased to exist; and
- (iv) consumers have not concluded a new contract for the supply of natural gas after the termination or expiration of the existing supply contract.

In this section of the energy market, special market rules are not allowed but they shall be a constituent part of the grid regulation for the transmission of natural gas. As in the section for electricity, the activities of transmission of natural gas and operating the natural gas system are merged, and a single licence is issued. In the event that the operators of the transmission systems do not fulfil the obligations from the development plans, the ERC may intervene as appropriate.

## 5.2 Regulatory overview

The ERC is the main regulatory body in the segment of natural gas energy market. It approves the Natural Gas Market Code, regulates the natural gas market organisation, the terms and conditions to be met by natural gas market participants, the manner and terms and conditions for grouping of natural gas customers and/or sellers into balancing groups for the purpose of reducing balancing costs, establishes the organisation and control of natural gas and ancillary services trading, including cross-border trading. It also regulates the methodology for setting the balancing charge and manner of charge collection, as well as financial guarantees for the liabilities of natural gas market participants related to the settlement of balancing services.

By means of price-setting regulations for natural gas for consumers supplied by the supplier of last resort, the ERC regulates the manner of setting, approving and control of electricity and natural gas end prices to be paid by consumers. This includes the electricity or natural gas generation or purchase price, relevant tariff on use of energy systems and markets, balancing costs, supply charge, as well as financial and other forms of reimbursements awarded for the purpose of implementing the obligations on public service provision.



The regulated energy activities on the natural gas market are:

- (a) natural gas transmission;
- (b) natural gas transmission system operation;
- (c) natural gas distribution;
- (d) natural gas supply of last resort.

### 5.3 Exploration and production

According to the Strategy for Energy Development in North Macedonia by 2030, North Macedonia does not have its own natural gas deposits. Hence, the Energy Law contains no provisions regulating the production and exploration of deposits of natural gas in North Macedonia.

### 5.4 Transmission and access to the system

The natural gas transmission system operator is a public enterprise or company owned by North Macedonia. The natural gas transmission system operator is obliged to adopt and publish a Transmission Grid Code for the system which it operates.

The fees charged by the operator of the natural gas transmission system for access to the natural gas transmission system are determined on the basis of the tariffs approved by the ERC. The natural gas transmission system operator shall invoice the natural gas market participants for any deviations from the announced physical transactions, under prices calculated pursuant to the price-setting methodology for balancing services, which is an integral part of the Natural Gas Market Code. The operator of the natural gas transmission system (i) is a company that owns a natural gas transmission system; (ii) is not part of a vertically integrated company; (iii) is the holder of a licence for performing the energy activity natural gas transmission; (iv) does not perform and is independent of the performance of other energy activities; (v) is certified and appointed as an operator of the natural gas transmission system by the ERC. Obligations to allow third parties access to the grid are set out in the same manner as those for the operator of the electricity transmission system. These are described in Section 2.7, *Access and connection to grids*.

The ENTSO-G network codes are directly applicable by the natural gas transmission system operator.

### 5.5 Trading and supply

The natural gas supplier shall sell natural gas to consumers, traders, other suppliers, electricity and/or heating energy generators, natural gas transmission or distribution system

operators, as well as to consumers abroad. With regards to the natural gas which it has committed to deliver to its consumers, the natural gas supplier shall secure the relevant transmission and/or distribution capacity and regulated services pursuant to the applicable tariffs, Natural Gas Transmission Grid Code and Distribution Grid Code.

The natural gas supplier of last resort shall supply consumers in North Macedonia who are connected to the natural gas transmission or distribution system and who have not signed contracts with any natural gas supplier or whose previous supplier has discontinued the implementation of obligations from the supply contracts. In order to meet the demand of its consumers, the natural gas supplier of last resort shall secure the necessary transmission and/or distribution capacity and other services from the transmission and distribution system operators, under prices and tariffs approved and previously published by the ERC.

The natural gas trader shall purchase natural gas for the purpose of selling it to other traders, suppliers, electricity and/or heating energy generators, natural gas transmission and distribution system operators, as well as consumers abroad.

By exception, the trader in the capacity of natural gas supplier can sell natural gas to consumers which fulfil the requirements for independent participation in the natural gas market, as stipulated under the Natural Gas Market Code. The mutual rights and obligations between the trader and consumer, as well as the obligations regarding the transmission system operator and/or distribution system operators shall be stipulated by means of a contract.

All natural gas customers shall be deemed eligible natural gas customers. They can sign natural gas supply contracts with natural gas suppliers pursuant to the terms and conditions stipulated in the Supply Rules. As an exemption, consumers which meet the requirements for independent participation in the natural gas market, as stipulated under the Natural Gas Market Code, as well as electricity and/or heating energy generators can purchase natural gas from traders and from abroad. For the purpose of meeting their own demand, the natural gas consumers shall secure relevant transmission and/or distribution capacity or shall transfer this obligation to their suppliers.

## 5.6 Storage

Wholesale traders in fuels must own or have the right to use storage premises for crude oil, oil derivatives, biofuels and/or fuels for transport. Storage facilities or reservoirs for crude oil, oil derivatives, biofuels or fuels for transport must be constructed and used pursuant to the stipulated requirements related to their construction, maintenance and safe operation. Owners or leasers of storage facilities for crude oil, oil derivatives or fuels for transport which are not used for own needs or are not an integral part of petrol stations, must obtain a licence for the storage of crude oil, oil derivatives, biofuels and/or fuels for transport activity.

## 5.7 Liquefied natural gas

The Energy Law contains no provisions regulating the production and exploration of deposits of liquefied natural gas in North Macedonia.

## 5.8 Forthcoming developments

The construction of new distribution systems, new natural gas transmission networks and new crude oil and oil derivatives transport facilities must be performed by legal entities on the basis of an issued authorisation. Upon proposal by the Energy Minister, the Government of North Macedonia shall adopt a decision regarding construction authorisation for new systems, networks or facilities.

The construction of new natural gas distribution systems for a service area within the territory of the North Macedonia shall be performed by legal entities and on the basis of a PPP agreement awarded by the Government of North Macedonia and a concession contract for a public service assigned by the Government, by which the concessionaire undertakes to build and use and operate a new natural gas distribution system. The period for which the concession is awarded can be no longer than 35 years. The concession holder is entitled to transfer the agreement to another entity only on the basis of the prior consent of the Government of North Macedonia. New facilities planned for the expansion of the existing energy system, including the construction of new and upgraded existing connections owned by the natural gas system or network operator and anticipated by the Energy Law shall be constructed and owned by the relevant system or network operator.

North Macedonia also has a 98 km gas pipeline system extending to the capital, Skopje, with a total capacity of 800 million m<sup>3</sup> per

year. North Macedonia aims to utilise the excess gas supply capacity from the combined heat and power plants in Skopje, for the gasification of urban areas along the gas transportation corridor. This is also expected to be extended to the southern and western parts of North Macedonia.

Additionally, there are initiatives for construction of two interconnected pipelines with which North Macedonia will connect with Greece (the section "Stip-Hamzali-Stojakovo") and Bulgaria. Interconnection pipelines with Serbia (Memorandum of cooperation is in a drafting stage), Kosovo (Memorandum of cooperation is in a drafting stage) and Albania (Memorandum of cooperation has already been signed) are ongoing as well.

## 6. UPSTREAM OIL MARKET

### 6.1 Market overview

North Macedonia does not have any oil and gas deposits. North Macedonia imports all of its needs for oil and oil products. The total imported quantities of oil derivatives in North Macedonia in 2018 are 987,662 tons. Most oil products are used as final energy sources, mostly in the traffic sector.

There is one crude oil refinery in Skopje, owned by OKTA AD Skopje, which is connected to the port in Thessaloniki via the 213 km Thessalonica-Skopje pipeline. The refinery has a total capacity of 2.5 million tons annually but is currently in shut down.

The Energy Law stipulates that energy activities related to the oil market are non-regulated activities, i.e. none of the energy activities involving the transmission, storage and/or trade with crude oil and oil derivatives is regarded as an energy activity by means of which the public service is provided. Entities performing energy activities related to:

- (a) crude oil processing and oil derivatives production;
- (b) biofuels production;
- (c) production of fuels for transport by blending fossil fuels and biofuels;
- (d) transport of crude oil or oil derivatives through oil pipelines or product pipelines;
- (e) storage of crude oil, oil derivatives, biofuels and fuels for transport;
- (f) trading in crude oil, oil derivatives, fuels for transport and

biofuels are obliged to use and maintain the facilities, devices and plants intended for performance of energy activities, pursuant to the technical regulations and standards and other regulations on reliable and safe operation and environmental protection;

Under the Energy Law any entity performing crude oil and/or oil derivatives transport through the oil pipeline and/or product pipeline activity must adopt rules governing the operation of the oil pipeline or product pipeline and publish them on its website.

A wholesale trader in fuels shall purchase crude oil, oil derivatives, biofuels and/or fuels for transport from the generators, trade with other wholesale traders in fuels and supply the retail traders in fuels and consumers. A wholesale trader in fuels should own or have the right to use the storage premises for crude oil, oil derivatives, biofuels and/or fuels for transport. It is further obliged to hold operational reserves in oil derivatives and fuels for transport at all times in a quantity sufficient to cover at least a five-day average volume of trade, calculated on the basis of actual trade in each oil derivative separately for the previous year.

A wholesale trader in crude oil, oil derivatives and fuels for transport can fill and distribute pressure vessels with LPG for single or multiple use provided it has already constructed or obtained the right to use the LPG filling facilities which fulfil the stipulated requirements and standards related to construction, maintenance and safe operation.

Consumers can also purchase oil derivatives and fuels for transport from abroad, provided that the oil derivatives or fuels for transport are used for own consumption and this activity shall not require a licence on wholesale trade in crude oil, oil derivatives, biofuels or fuels for transport.

With the provisions regulating the crude oil market, oil derivatives and transport fuels conditions for the activity transport of crude oil and oil derivatives, provided that the entity performing this activity should adopt certain rules, as well as storage places.

## 6.2 Regulatory overview

The Government shall set the annual percentage share of biofuels to be achieved in the total fuels for transport quantities in North Macedonia with the EU Directive on renewable sources.

The Rulebook on Liquid Fuels Quality regulates in particular:

- (i) the type of liquid fuels that can be marketed, as well as their characteristics;
- (ii) the manner of determining the liquid fuel quality and their conformity with applicable standards and technical requirements;
- (iii) the manner and procedure on monitoring the liquid fuel quality;
- (iv) the rights and obligations of the crude oil, oil derivatives and fuels for transport market participants;
- (v) the rights and obligations of market participants and state authorities in the transitional period required for the replacement of reserves of blends of fossil fuels and biofuels for transport.

By means of price-setting regulation and methodology for oil derivatives and transport fuels, the ERC regulates the manner of setting, approving and control or refinery and retail prices for petrol, diesel fuels, light fuel oil and heavy oil (mazut), as well as the retail prices for blends of fossil fuels and biofuels for transport, under which the maximum refinery and retail prices for oil derivatives and the maximum retail prices for blends of fossil fuels and biofuels are set.

A decision on the maximum refinery and retail prices for oil derivatives shall be adopted by the ERC, upon a request for setting the maximum refinery prices for oil derivatives submitted by the company for crude oil processing and oil derivatives production.



# NNDKP

Legal & Tax



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# ROMANIA

## 1. INTRODUCTION TO THE ENERGY MARKET

The Romanian energy market has developed significantly in the past two decades, going through several key stages.

Massive privatisation processes in the electricity sector and oil, as well as major acquisitions in the private sector in refining capacities, marked the first decade of 2000. Following such, Western utility groups built strong operations in Romania and invested in developing infrastructure and end-consumers services.

Further, around 2010 significant investments have been made in renewable energy, first in wind capacities and afterwards, solar.

Romania's electricity mix is a balanced one, with coal, hydropower, natural gas, nuclear energy and wind power having comparable shares of capacity and power generation, however most of the generation capacities (with the exception of renewable sources-based units) are fairly old and the new projects announced a while ago by the state have not materialised.

In the same period, based on public information, the oil production dropped, as well as gas output. However, discoveries of new gas resources made in the Black Sea, may swift the figures.

In the past decade, Romania has fully liberalised the prices on the electricity market and on the gas market for consumers. The intention was that until 2021, gas prices for households also to be fully liberalised. However, legislative changes at the end of 2018 have significantly affected the energy market (including the liberalisation process), with consequences yet to come. At

the same time, the electricity and gas distribution/ transmission markets have been affected by the change of tariff regulatory periods which brought rather significant changes with potential impact on future investments.

## 2. ELECTRICITY

### 2.1 Market overview

In the last 15 years, the Romanian electricity market has been constantly developing and expanding. The currently applicable primary law was passed in 2012, in view of securing the implementation of the Third Energy Legislative Package adopted at the European level and has since gone through mild changes.

The electricity market is still divided into a competitive market and a regulated market. The initial calendar for liberalisation provided that the liberalisation of prices process should have been completed by 31 December 2017 (including for household clients). However, following recent legislative amendments in the sector at the end of 2018, for household clients, the supply with electricity may still be performed in a regulated manner between 1 March 2019 and 28 February 2022 and moreover, during the same period certain producers shall be obliged to sell electricity at regulated prices towards last resort suppliers. Thus, only for a short period of time (i.e., between 1 January 2018 and 28 February 2019), no regulated tariffs have been in place for electricity supply/trading.

The regulated market includes regulated activities such as transmission, distribution or system services, as well as the regulated supply as mentioned above. The contractual relationships on the regulated market are based on regulated framework agreements and, respectively, regulated prices and tariffs determined and approved based on specific procedures issued by the National Regulatory Authority for Energy ("ANRE").

As regards electricity trading, it is worth noting that Romania was one of the first European markets to develop an independent platform for energy transactions which currently supports the bilateral contracts market, the day-ahead market, the green certificates (“GCs”) market, the emissions certificates market, the intra-day market, the centralised market with continuous double negotiation of bilateral energy contracts (OTC market), the centralised market for the universal service, the electricity market for the final large customers.

The main participants in the electricity market are: electricity generators, electricity suppliers and traders, electricity distributors/distribution networks operators, electricity transporter/transportation network operator, and final clients.

## 2.2 Regulatory overview

The principles of the electricity market are currently regulated by the Electricity and Gas Law No. 123/2012,<sup>1</sup> (“**Energy Law**”) and detailed in secondary legislation including government decisions, decisions and orders issued by the relevant regulatory authority - ANRE. Relevant legislation in the field of electricity also includes: ANRE Order No. 12/2015 on the Approval of the Regulation for Granting Licences and Authorisations in the Electricity Sector<sup>2</sup> (“**Electricity Licensing Regulation**”), ANRE Order No. 59/2013 on the Approval of the Regulation for the Connection of Users to Public Electricity Networks<sup>3</sup> (“**Interconnection Regulation**”), and Law No. 220/2008 regarding the System for Promoting Production of Energy from Renewable Energy Sources<sup>5</sup> (“**Renewables Law**”), methodologies for determination of regulated prices and tariffs.

The Energy Law establishes the general framework for electricity regulated activities, electricity licences and authorisations and the main rights arising therefrom, electricity market principles and the main competencies of the involved authorities (i.e., the relevant ministry – currently, the Ministry of Energy, the ANRE). According to the Energy Law, carrying out electricity related activities is usually subject to obtaining specific licences or authorisations from ANRE. The Electricity Licensing Regulation details the conditions and procedure to be followed for the granting of the main authorisations and licences.

The Government determines the national energy strategy, which defines the objectives of the energy sector and the best ways of achieving such objectives in the medium or long-term.

The Ministry of Energy following the directions set out in the energy strategies and based on the Government programme, determines the energy policy consisting of measures for stimulating investment and research and development activities. The Ministry of Energy also initiates legislative projects in the field, supervises the application of and compliance with the measures regarding environmental protection.

ANRE is the Romanian regulatory authority for energy, acting as an independent body responsible for regulating and ensuring a competitive electricity and gas market environment. ANRE must accomplish various objectives including ensuring the diversification of the energy resources, establishing and functioning of a competitive energy market, granting non-discriminatory and regulated access to the energy market and to the public electricity networks to all participants, ensuring transparency with respect to the determination of any tariffs, taxes and prices in the energy sector, etc.

In its capacity as regulatory authority in the electricity sector ANRE has attributions related to: (i) regulatory aspects; (ii) authorisation, supervision and control functions; (iii) reporting and information; and (iv) mediation and jurisdiction function. Thus, it elaborates, determines and supervises the implementation of the national mandatory regulations necessary for the efficient functioning of the internal market in the energy sector, on the basis of transparency, effective competition and consumers’ protection principles. ANRE acts in close cooperation with the Competition Council, the National Authority for Consumers’ Protection, ministries and other relevant public administration organisations, consumer and professional associations, employers’ associations and syndicates.

## 2.3 Regulated electricity market activities

Pursuant to the Energy Law, the implementation of new energy capacities as well as the refurbishment of existing ones is based on establishment authorisations. Furthermore, generation,

<sup>1</sup> Published in the Official Gazette No. 485 of 16 July 2012.

<sup>2</sup> Published in the Official Gazette No. 180 of 17 March 2015 and entered into force on 17 March 2015.

<sup>3</sup> Published in the Official Gazette No. 517 bis of 19 August 2013 and entered into force on 18 December 2013.

<sup>4</sup> Published in the Official Gazette No. 577 of 13 August 2010, as subsequently republished, amended and completed.



transportation, providing of system services, distribution and supply, trading of electricity as well as the management activities of the centralised electricity markets are carried out on the basis of licences granted in accordance with the law and in the case of public assets and public services also based on specific concessions granted by the relevant authorities. The performance of any activities without holding proper authorisations/ licences is subject to specific sanctions.

ANRE grants the following types of authorisations and licences for electricity related activities:

- (a) Establishment authorisations – must be obtained for erecting new electricity generation capacities, including co-generation capacities, or for the refurbishment thereof, if the installed electricity power of the capacities in question exceeds 1 MW or will exceed 1 MW;
- (b) Licences for: (i) the commercial exploitation of electricity generation capacities and of thermal energy capacities in co-generation; (ii) the electricity transportation service; (iii) the system service; (iv) the electricity distribution service; (v) the management of centralised markets; (vi) the electricity supply activity and (vii) the electricity trading activity.

The electricity supply and trading activities can be performed in Romania by an entity with headquarters in an EU member state (without a specific licence issued by ANRE), if it possesses a similar licence/regulatory document issued by the competent authority from its home jurisdiction and if it provides a statement that it will observe the Romanian technical and commercial regulations.

The applicable regulations set out the activities performed based on specific licenses and authorisations, as well as the documentation to be prepared and criteria to be met by each applicant/ project for each category of licences and authorisations. The criteria taken into account by the regulatory authority upon the analysis of the file are determined by the activities to be performed and are mainly related to the available technical and organisational, financial and human resources capabilities. Moreover, foreign entities from countries outside the EU are required to have a secondary office in Romania throughout the performance of the licensed/ authorised activity.

In general, changes which might occur with respect to the authorisation/licence holders (e.g., changes of the legal form, spin-

off, merger, transformation, change of name, change of headquarter) must be notified to ANRE within 30 days as of their occurrence (merger and de-merger which must be notified with 60 days prior to their effective date). ANRE will decide either to annul the existing authorisation/ licence and issue a new authorisation/ licence or to amend the existing license/conditions joining the authorisation/ licence.

Additionally, the titleholders of the mentioned licences must notify ANRE of any share transfer operation between the existing shareholders or between the existing shareholders and third parties. In some instances, the prior consent of ANRE is required for implementing some changes compared to the initial status of the license/authorization holder.

The titleholders of supply, distribution and transportation licences must notify ANRE of any intention of their shareholders to perform operations, which may result in the disposal of the fixed assets necessary for the relevant activity or which may result in a 25 per cent decrease of the value of the existing share capital of the titleholder.

The procedure for requesting ANRE consent or notifying it is described in more detail in the case of each specific licence in the conditions attached to the licences issued to each applicant.

When receiving a notification as mentioned above, ANRE will have to analyse whether following the notified change the titleholder will still be able to perform its obligations under the licence and will communicate to the titleholder its decision.

The possibility to transfer the rights granted under a licence is provided in the case of most of the electricity licences (transportation, distribution, generation, supply). The transfer must be made by means of a contract stipulating the rights and obligations of the parties and is subject to the prior approval of ANRE, under the sanction of annulment.

Any operations on the market is to be performed in compliance with the unbundling principles, implemented in the Romanian legal framework in accordance with the EU directives.

In addition to the regulatory rules briefly mentioned above, merger control and corporate governance rules shall accordingly apply.

## 2.4 Main licences for electricity generation

Pursuant to the Romanian regulatory framework governing the electricity sector, the development, construction, commissioning and operation of a power plant is extensively regulated by a number of legislative acts (including extensive secondary legislation).

To this end, please note that for successfully performing the electricity generation activity, the following phases are required:

- (a) Construction phase (either for new generation capacities or upgrading existing ones): characterised by obtaining an establishment authorisation from ANRE;
- (b) Operating phase: the generator must hold a licence for the commercial exploitation of electricity generation capacities issued by ANRE, as well as an environmental authorisation; on the basis thereof, the holder can operate the power plant.

In addition, in each phase, other specific authorisations/permits issued by competent authorities/ entities will also be required. An assessment thereon must be made on a case by case basis.

The licensed generator can also perform electricity-trading activities solely based on the commercial exploitation of electricity generation capacities license. For the period between 1 March 2019 and 28 February 2022, generators are under the obligation to deliver to last resort suppliers the electricity necessary for ensuring the consumption of household clients benefitting from regulated tariffs, pursuant to ANRE specific regulations. The remaining quantity of generated electricity must be publicly and non-discriminatory made available on the competitive market.

## 2.5 Trading and supply of electricity

Transactions between operators take place on the electricity market, which is divided into the wholesale market and the retail market. According to the provisions of the Energy Law, on the wholesale market, all transactions with electricity must be carried out on the centralised platforms managed by the Romanian Gas and Electricity Market Operator ("OPCOM") in a non-discriminatory and transparent manner. Amongst the platforms managed by OPCOM we mention the centralised market for bilateral contracts, the centralised market with continuous negotiation (forward), the day-ahead market, the OTC platform, intra-day market, the platform for the large final customers, the platform for the universal service, the balancing market.

On the competitive segment of the electricity market, the prices are the result of the interplay between the demand and the offer. A market participant cannot enter into negotiated wholesale electricity bilateral agreements outside the organised specific markets with the exception of the OTC market that allows the participants to execute in advance EFET based contracts. Furthermore, market participants wishing to conduct cross-border trading activities may also participate in public auctions for the allocation of available cross-transfer capacity.

From perspective of electricity trading and supply the specific obligations of licenses holders in relation to ensuring the reliability of the transmission grid are also relevant. For this purpose the license holders (i.e., generation, transmission and distribution, supply operators, trading operators) have to register on the balancing market, to notify the daily transmissions of electricity, and additionally trade the electricity available after notifying of the daily transmissions transactions. They must also provide financial guarantees to the transmission and system operator for all the imbalances which may occur between the programmed and effectively generated electricity, between projected and actual transactions, etc. The licence holders may choose to delegate the balancing responsibility to another entity.

Apart from the abovementioned markets, during the period of the support scheme for electricity generated in cogeneration units (i.e., 2010 - 2023), operators of cogeneration units (i.e., combined heat and power units) may sell any electricity unsold on the centralised electricity market through regulated agreements at regulated prices. The regulated prices for electricity produced by cogeneration are set by ANRE every year at the level of 90 per cent of the average transaction price of electricity registered for the last 12 months on the day-ahead market and the intra-day market, based on the principles previously mentioned.

In respect of the electricity supply prices and tariffs, the market continues to include regulated segments. Following recent legislative amendments, for the period between 1 March 2019 and 28 February 2022, household clients can benefit from regulated prices for the supply of electricity although this segment of customers should have migrated to negotiated prices starting 1 January 2018. In fact, the household clients who became eligible customers received the right to request to return to the regulated segment and hence benefit of the regulated tariffs.

Final clients who have not exercised their eligibility right at the entry into force of the Energy Law, household clients and the non-household clients with an average number "on paper" of employees lower than 50 and an annual turnover or a total value of the assets from the accounting balance sheet (according to the annual financial reports) below EUR 10 million can be the beneficiaries of an universal electricity supply service having the right to be supplied with electricity at reasonable, transparent, easy comparable and non-discriminatory prices.

The Energy Law regulates the concept of *supplier of last resort*. This type of supplier is in charge of:

- (a) providing electricity to household clients at regulated tariffs for the period between 1 March 2019 and 28 February 2022, pursuant to the secondary legislation enacted by ANRE in this respect; and
- (b) providing the universal electricity supply service to the clients mentioned above at specific prices approved by ANRE. Even after the removal of the regulated prices, ANRE will have the right to endorse the prices at which the supplier of last resort intends to sell electricity to the abovementioned clients.

The regulated prices or tariffs must: (i) be non-discriminatory, objective and transparent, based on methodologies approved by ANRE; (ii) cover economically justifiable costs; (iii) allow the clients who do not exercise their eligibility right to choose the price or tariff they deem most favourable, out of those offered by the supplier, while complying with the conditions set out by ANRE; and (iv) ensure a reasonable rate of invested capital-earning capacity, in accordance with ANRE methodologies.

ANRE issues specific methodologies determining the regulated electricity tariffs applied by the last resort suppliers for household clients, as well as the prices charged by the former when providing the universal electricity supply service to the clients who can be the beneficiaries of such service.

## 2.6 Transmission and grid access

Network related services are regulated activities performed at regulated tariffs based on specific licenses and concessions as mentioned above. Moreover, the Energy Law considers the performance of the transmission and distribution service as being a natural monopoly, where each service is provided by only one operator for a predetermined area. The network and system operation tariffs continue to be regulated through ANRE methodologies.

For the electricity transmission services ANRE determines the regulated revenue based on price cap methodology (*de tip plafon*), which sets out the value of the revenue required for the performance of the transmission services. When determining the regulated revenue, ANRE takes into account: (a) the performance standard imposed on the transmission system; (b) the evolution of the quantity of transported electricity; (c) the investment and development plan relating to the grid; (d) the regulated rate of rentability; and (e) the justified costs of the transmission operator (e.g., operation and maintenance costs; costs for the acquisition of the energy for the technological consumption, etc.). The tariffs are differentiated based on geographical areas, depending on the impact of the injection or extraction of electricity in/from the nodes of the electricity transmission system.

A new methodology for determining the distribution service has been recently enacted, since the fourth regulatory period started as of 1 January 2019. For determining the regulated distribution tariffs, the main principles set out in this methodology are as follows: (i) ANRE determines the regulated revenue for the distribution service based on a tariffs basket cap methodology (*cos de tarife plafon*); (ii) any justified cost associated with distribution activity is only considered once; (iii) the distribution tariffs are yearly approved for each distribution operator and are applicable for the entire network; and (iv) the justified costs of the distribution activity, the expenses related to optimal development of the network, as well as financial viability of the distribution operator are taken into account. For specific costs of the distribution operator, ANRE uses benchmarking techniques applied at the level of the distribution operators holding a concession licence for the distribution service.

As regards grid access, the applicable general principle is non-discriminatory access for all electricity market participants to the public transmission/distribution networks, regulated third party access being the right to connect to and use, in accordance with the conditions provided by law, the transmission or distribution networks. The Energy Law sets out the obligation of the transmission/ distribution operators to grant access to the relevant networks. However, applicants are required to cover the specific costs of interconnection and also part of the costs required for the enhancement of the network. Access can be denied only for just cause if the connection affects the safety of the National Power System, through the non-observance of the technical norms and the performance standards or in case the transmission/distribution network operator does not have the required capacities.

Pursuant to the Interconnection Regulation, interconnection to the electricity networks is based on an interconnection permit issued by the transmission/ distribution operator, the payment of the interconnection tariff by the applicant and an interconnection agreement between the applicant and the transmission/ distribution operator. The interconnection permit is a standard one and the interconnection agreement is to be executed based on a standard form issued by ANRE.

The tariffs for interconnection to the public electricity networks are determined based on a methodology approved by ANRE, and they generally have three components: (i) a component relating to the costs of the interconnection installation; (ii) a component relating to the placing under tension of the use installation; and (iii) a component relating to the reinforcement of the grid upstream from the interconnection point.

### 3. RENEWABLE ENERGY

#### 3.1 Market overview

Romania benefits from significant potential in various renewable energy sources: wind, solar, hydro, biomass, etc. A wide variety of renewable energy-based projects ("E-RES") have been developed in recent years, with solar and wind power-based projects being the most frequent ones. In promoting its resources, Romania was quick to adopt supporting mechanisms for all renewable energy sources consisting mainly of a system of mandatory quotas combined with GC trading. However, the existing support scheme is no longer available for new generation units, while the trading and issuance of GCs will be possible up to 2032 for the generation units already benefitting of the GCs support scheme.

#### 3.2 Support schemes

The main support schemes for renewable energy in Romania are:

- (a) promoting a system of GCs consisting of a system of mandatory quotas combined with GCs trading;
- (b) support for joint implementation projects through Emission Reduction Units ("ERUs");
- (c) state aid scheme for supporting the development of new cogeneration units using biomass or residual gases;
- (d) state aid scheme for supporting the development of new electric/thermal production units using biomass, biogas or geothermal water.

#### *GC promoting system*

In Romania the main system for promoting electricity generation from E-RES functions as a state aid scheme (and for generation units exceeding a certain level as individual state aid which needs the approval of the European Commission) and consists of a system of mandatory quotas combined with GCs trading. Based on such a system, every year each electricity supplier must purchase a number of GCs equal to the mandatory quota provided by the relevant regulations multiplied with the quantity of electricity yearly supplied to end clients.

This support scheme is still applicable for production capacities certified as production units using E-RES prior to 2017. Currently, only the generators operating such units are taking part in this scheme, being issued GCs and having the possibility to trade them up to 2032. Although each issued GCs has a validity period of 12 months, pursuant to recent amendments, all the GCs issued after 1 April 2017 and all the postponed GCs can be traded up to 2032.

The transport system operator issues GCs to the relevant generators in consideration of the quantity of E-RES generated and delivered into the network. Under such a system the GCs certify the generation from renewable energy sources of a certain quantity of electricity which may be traded distinctively from the associated electricity (in a distinct regulated market) and which represents a benefit for the E-RES generators in exchange for delivering "clean" electricity into the network. GCs are traded on the centralised GCs market managed by OPCOM.

In order to address a surplus of GCs on the market, the support scheme has been changed by suspending for a few years the issuance of a certain number of GCs/MWh determined, depending on the renewable energy source in the case of projects functioning at 31 December 2013, and by reducing the number of issued GC/MWh depending on the renewable energy source for the future projects, as follows:

- (i) suspension of the granting of a certain number of GCs in case of each 1 MWh of energy generated from specific renewable energy sources during the period:
  - 1 July 2013 - 31 March 2017, as follows: (i) one GC is suspended for new hydropower plants with an installed power of no more than 10 MW - thus, only two GCs will be granted during the mentioned period; (ii) one GC is suspended for wind power plants - thus, only one GC will be granted during the mentioned period; and (iii) two GCs

are suspended for solar power plants - thus, only four GCs will be granted during the mentioned period.

The GCs suspended for hydropower plants and for wind power plants began to be issued starting with 1 January 2018 and up to 31 December 2015.

- 1 January 2017 – 31 December 2020, two GCs are suspended for solar power plants for each MWh delivered to the network – thus, only four GCs will be granted during the mentioned period.

The GCs suspended in this period for solar power plants, will be recovered from 1 January 2021 and up to 31 December 2030.

(ii) decrease in the number of GCs granted for each MWh generated/injected into the network starting with 1 January 2014 (for the capacities accredited after 1 January 2014) resulting in the granting of: (i) 1.5 GC/MWh until 2017 and 0.75 GC/MWh from 2018 for wind based capacities; (ii) 3 GC/MWh for solar based capacities; and (iii) 2.3 GC for each 1 MWh for small new hydropower plants of maximum 10 MW.

In addition, the Romanian State has created a state aid scheme for the industrial consumers which under specific conditions may be exempted from the obligation of purchasing GCs.

Recent amendments to the Renewables Law also impacted how the GCs are traded. To this end, we note the following main aspects:

- (1) A GC can be the object of only one transaction between the generator, as seller and the supplier, as purchaser. By exception, the generator, part of a bilateral agreement with a supplier, which is in the situation of not observing the number of GCs contracted, may acquire the difference from the GC centralised markets, only to cover said difference.
- (2) Starting with 1 September 2017, the transaction of GCs is allowed only to generators and suppliers, in a transparent, centralised and non-discriminatory manner, on the anonymous centralised markets and/or on the centralised market for E-RES which benefit from the GCs managed by OPCOM. By exception, all suppliers can trade as purchasers on the centralised market for E-RES which benefit from the GCs.

- (3) Bilateral sale-purchase agreements for GCs concluded prior to 1 April 2017 are still valid until their expiry, without the possibility to extend them. Starting with 1 April 2017, the execution of addenda to the bilateral agreements is forbidden, in what concerns the increase of the GCs number traded through them.
- (4) Generators and public authorities owning production capacities using E-RES with maximum 3 MWh per generator, benefitting from the GCs support scheme/benefit from the GCs support scheme and still having GCs, can enter into directly negotiated bilateral sale-purchase agreements for GCs only with the suppliers of end-clients for the sale of electricity and/or GCs.

## 4. NATURAL GAS

### 4.1 Market overview

The natural gas market is still divided into a competitive market and a regulated market. On the former, the prices for supply of gas are formed freely, irrespective whether the transactions are wholesale or retail. The regulated market includes activities such as transmission, distribution or storage as well as regulated supply to household customers and thermal energy producers for the quantities destined for the heating of household customers, which, due to the liberalisation process, was limited, until recently, to household consumers. The contractual relationships on the regulated market are based on regulated framework agreements and prices and tariffs determined and approved based on specific procedures approved by ANRE or set by other normative acts.

Until late 2018, the liberalisation of the Romanian natural gas market was on track and the full liberalisation of the natural gas market was set for 2021.

However, the Romanian gas market has undergone a significant transformation in recent months due to the adoption of Government Emergency Ordinance No. 114/2018 regarding the Establishment of Several Measures in the Public Investment Domain and of some Budgetary – Fiscal measures, amending and supplementing certain normative acts and extending certain terms ("GEO 114/2018"), as amended and supplemented.

GEO 114/2018 has severely affected the regulatory framework and has reversed the liberalisation of the natural gas market by imposing, for the period from 1 May 2019 to 28 February 2022, a price cap on gas from the domestic production destined for the consumption of household customers and for the district heating of household customers. Moreover, in the abovementioned period, natural gas producers have the obligation to sell with priority to suppliers or thermal energy producers in order to ensure the entire consumption of household customers and thermal energy producers for the heating of household customers.

The participants in the natural gas market are: (i) natural gas producers (entities holding an oil agreement and supply licence); (ii) natural gas suppliers (entities holding a supply licence for natural gas); (iii) traders (entities holding a trading licence for natural gas); (iv) national transmission system operator (the national company Transgaz – entity holding a transmission licence for natural gas, as well as the concession for natural gas transmission and related public property items); (v) natural gas distributors (entities holding a licence for natural gas distribution, as well as the concession for natural gas distribution); (vi) natural gas underground storage operators (entities holding a storage licence, as well as a concession agreement for natural gas storage and related assets); (vii) clients (wholesale, final, or any other entity purchasing natural gas).

## 4.2 Regulatory overview

The Energy Law is also the main piece of legislation governing the natural gas sector. In the case of upstream activities, the provisions of the Energy Law are complemented by those of the Petroleum Law No. 238/2004, as amended and completed (**"Petroleum Law"**). Further regulations are included in secondary legislation, such as: ANRE Order No. 34/2013 approving the Regulation for Granting of Set-up Authorisations and Licences in the Natural Gas Sector<sup>6</sup> (**"Natural Gas Licensing Regulation"**), ANRE Order No. 64/2018 approving the Framework Conditions for the Validity of the Natural Gas Supply Licence<sup>7</sup>, ANRE Order No. 84/2014 approving the Framework Conditions for the Validity of the Natural Gas Distribution Licence<sup>8</sup>, ANRE Order No. 172/2018 approving the Framework Conditions for the Validity of Licence for the Operation of the Natural Gas Transmission System<sup>9</sup>, ANRE Decision No. 824/2004 approving the Regulation relating to the

Regulated Access to the Underground Storage of Natural Gas<sup>10</sup> (**"Storage Regulation"**), ANRE Order No. 97/2018 for the approval of the Regulation for Access to Natural Gas Distribution System<sup>11</sup> (**"Distribution System Access Regulation"**), ANRE Order No. 82/2017 for the approval of the Regulation for the Connection to the Natural Gas Transmission System<sup>12</sup> (**"Transmission System Connection Regulation"**). ANRE Order No. 16/2013 approving the Network Code for the Natural Gas National Transmission System<sup>13</sup> (**"Network Code"**).

The Energy Law sets out the general framework for carrying out activities specific to the natural gas sector in competitive and transparent conditions. To this end, the Energy Law sets forth the main principles regarding:

- (a) competences of the relevant authorities for the natural gas sector;
- (b) concession of transmission, storage and distribution services;
- (c) authorisations and licenses required for regulated activities;
- (d) production, transmission, distribution, underground storage and supply of gas as well as the operating of centralised markets;
- (e) access and connection to the network;
- (f) Liquefied Natural Gas (**"LNG"**);
- (g) ensuring the quality of equipments, installations, machines, products and procedures used in the natural gas sector;
- (h) new infrastructure;
- (i) public service obligation;
- (j) natural gas market; and
- (k) prices and tariffs.

The Government, the Ministry of Energy and other specialised institutions of the central public administration take measures to achieve the objectives included in the energy strategies and monitor the level of compliance. The Ministry of Energy develops the national energy policy in the natural gas field and ensures its compliance with it.

At present, the regulatory authority in the field of natural gas is ANRE which functions as an autonomous public institution, under parliamentary control. ANRE develops, applies and monitors compliance with the mandatory regulations at national level necessary for the functioning of the natural gas sector and market

<sup>6</sup> Published in the Official Gazette No. 427/2013.

<sup>7</sup> Published in the Official Gazette No. 334/2018.

<sup>8</sup> Published in the Official Gazette No. 699/2014.

<sup>9</sup> Published in the Official Gazette No. 856/2018.

<sup>10</sup> Published in the Official Gazette No. 562/2004.

<sup>11</sup> Published in the Official Gazette No. 447/2018.

<sup>12</sup> Published in the Official Gazette No. 739/2017.

<sup>13</sup> Published in the Official Gazette No. 171/2013.



in an efficient, safe, competitive, transparent, non-discriminatory manner, protecting the consumers and the environment.

According to the Energy Law, the natural gas related activities are usually performed based on specific licences or authorisations issued by ANRE and in the case of public assets and public services also based on specific concessions granted by relevant authorities. The Natural Gas Licensing Regulation further details the conditions and procedure for granting the main authorisations and licences

### 4.3 Regulated natural gas market activities

In order to set up, operate and/or make changes to production, transmission, storage, and distribution capacities of natural gas, and to carry out the supply, transmission, storage, and distribution activities in the natural gas sector, Romanian or foreign entities must possess authorisations and/or licences issued by ANRE based on specific regulations.

Concessions must be awarded by public tender by the relevant authorities in relation to the use of public property assets required for the transmission of natural gas and storage (facilities and systems), and the public services of transmission, storage and distribution of natural gas.

ANRE issues the main types of permits for the natural gas sector:

- (a) set-up authorisations for new upstream pipelines, transmission, storage, distribution systems; and
- (b) licences for performing activities such as supply of natural gas, trade of natural gas, operation of transmission, distribution or storage systems, operation of upstream pipelines and managing centralised markets.

### 4.4 Material provisions of the natural gas market law and licensing regulations

Similar to the electricity market, the applicable regulations require that certain documentation is prepared and criteria met by each applicant/project for each category of licences and authorisations. In principle, the applicant for a natural gas authorization/ licence must be a legal person with its registered office in Romania.

Legal persons headquartered in an EU member state, holders of natural gas supply or trading licences or other similar documents issued by a competent authority of an EU member state, can perform natural gas supply or trading activities based on a confirmation decision issued by the President of ANRE and without a licence issued by ANRE.

In case the applicant is a non-EU foreign legal person without a stable office in Romania, the Natural Gas Licensing Regulation requires the establishment of a secondary office in Romania.

ANRE shall analyse the submitted documents in order to assess their conformity with the legal requirements and will notify the applicant, within 30 calendar days from the submission of the request, in case there are any shortcomings. The authority takes a decision with respect to the specific authorization/license within 30 days from the date of the submission by the applicant of the complete documentation.

The reasons for refusal to grant an authorization/license must be objective and non-discriminatory, the refusal is issued through a decision of the ANRE President and the applicant may challenge the decision in the administrative disputes court, pursuant to the law.

### 4.5 Exploration and production

The exploration and production of natural gas are governed by petroleum laws and corresponding regulations, as detailed below.

### 4.6 Transmission and access to the system

Network related services are regulated activities performed at regulated tariffs based on specific licenses and concessions as mentioned above.

The access to the transmission system is made pursuant to non-discriminatory procedures and the reasons for a refusal to grant access are strictly provided in the Energy Law. Access may be refused only in certain cases, namely if: (i) the capacity of the objective/ system is insufficient (i.e., the capacity of the national transmission system is insufficient); (ii) the access to the system impedes on the fulfilment of the public service obligations and the safety in exploitation; (iii) the access to the system may lead to serious economic and/or financial difficulties related to the "take-or-pay" contracts for the license/ authorization holder to whom access is requested from; (iv) the quality of natural gas which is to be introduced in the systems and/or in the gas storage facilities does not comply with the requirements imposed by the regulations in force and also (v) in case there are no objectives/ pipes as components of the systems to which the connection is envisaged to be made or in case of failure by the applicant to pay the connection tariff.

The transmission system operator cannot refuse access to the system and has the obligation to finance the necessary works, in

conditions of economic efficiency and in accordance with ANRE regulations.

The applicant may contribute partially or fully to the initial financing of the relevant objectives/pipelines and the transmission system operator has to reimburse the applicant for its contribution.

The Network Code and the Transmission System Connection Regulation further detail the procedure and the related steps to be pursued. Besides connecting to the transmission system, in order to benefit of transmission services, an interested entity must also reserve capacity in the entry and exit points of the transmission system. The relevant capacity reservation is done based on the principle “first-come, first-served” with some limited exceptions being applicable.

A request for capacity reservation may be refused: (i) the grounds for refusal of access to the transmission system provided by the Energy Law, as mentioned above; (ii) the user does not meet the financial and technical criteria required for the signing of the transmission agreement; or (iii) the user has outstanding debts from previous transmission agreements.

#### 4.7 Trading and supply

The natural gas market continues to be formed of two segments: a competitive segment and a regulated segment. The competitive segment of the market is related to the trading of natural gas between suppliers, traders, and eligible customers. In the competitive segment, prices are formed freely, based on demand and supply and competition mechanisms.

In relation to the competitive sector, centralised markets, on which gas is traded, have been established and the authorities have designed mechanisms to constrain market participants to trade on these centralised markets in view of increased liquidity and competition in the gas market. To this aim, market participants have an obligation to buy/sell certain minimum amounts of gas on the centralised market.

The regulated segment of the market consists of natural gas supply to household customers and thermal energy producers for the quantities used for the heating of household customers, natural gas transmission, underground storage and distribution at regulated prices. For this segment of the regulated market, the

tariffs and price systems are set by ANRE based on specific methodologies or by other normative acts.

For the period 1 May 2019 – 28 February 2022, GEO 114/2018 introduced the obligation of producers to sell with a price of RON 68/MWh the gas quantities resulted from the current domestic production to suppliers of household customers and suppliers of thermal energy producers (in this case only in what concerns the quantities used for the heating of household customers).

Moreover, natural gas producers have the obligation to sell with priority to suppliers or thermal energy producers in order to ensure the entire consumption of household customers and of thermal energy producers (in this case only in what concerns the quantities used for the heating of household customers).

The sale of natural gas to suppliers of household customers and to suppliers of thermal energy producers for the quantities of gas destined for heating for household customers shall be performed using the framework agreements approved by ANRE.

#### 4.8 LNG and storage capacity

There are no LNG terminals or any large-capacity storage facilities for LNG commissioned or under development in Romania. The total gas storage capacity spread between six storage facilities is of 3.1 billion m<sup>3</sup> of natural gas per each storage cycle. The storage operators are Depogaz with five storage facilities and Depomures with one storage facility.

#### 4.9 Forthcoming developments

The recent amendments to the Energy Law have caused a lot of uncertainty and have severely affected the natural gas sector. Furthermore, secondary legislation will have to be issued by ANRE in order to implement the recent amendments to the Energy Law. While the TSO has made progress towards ensuring physical capabilities for export of gas to other countries and in this respect, there are several cross-border interconnection projects in various stages of development, the amendments introduced by GEO 114/2018 will certainly impact the development of these interconnection projects. Also, it remains to be seen how the producers will be able to comply with the centralised market obligation recently imposed.

## 5. UPSTREAM OIL MARKET

### 5.1 Market overview

Oil-related activities can be carried out by Romanian or foreign legal entities, in compliance with the conditions provided by the regulatory framework.

The oil market is open to all interested participants which are able to prove their financial and technical capabilities for carrying out oil-related activities. The market numbers certain major players, either at global level or regional one, such as ExxonMobil and OMV Petrom S.A. The interest in Romania's gas production capabilities has raised recently with the discovery of certain important reserves in the Black Sea.

### 5.2 Regulatory overview

Unlike the natural gas sector, the Romanian oil market is regulated only to a certain extent. Oil-related upstream activities (e.g., exploration, development, and production) are mainly regulated by the Petroleum Law and the subsequent Methodological Norms for its implementation, approved in Government Decision No. 2075/2004<sup>14</sup> ("**Methodological Norms**"). In addition, as a novelty, the Romanian Parliament has decided to enact a special piece of legislation applicable for the offshore oil and gas sector, namely the Offshore Law No. 256/2018 regarding Certain Measure for the Implementation of Operations by Titleholders of Oil Agreements related to Offshore Blocks (the "**Offshore Law**").

The Petroleum Law contains the main principles applicable for carrying out oil activities; the principles of the regime of classified information; the main types of oil activities and concessions related thereto (petroleum agreements) and the main rights and obligations arising from the oil concessions together with the situations in which such may be suspended or revoked. The Methodological Norms describe in more detail the public procedure for granting of oil concessions and the regime of the various types of oil concessions as well as the rights and obligations of the titleholders.

The Offshore Law regulates a special regulatory regime applicable to offshore oil operations covering aspects such as:

- (i) permitting of petroleum works carried out in the Black Sea;

- (ii) land access rights;
- (iii) fiscal provisions;
- (iv) local content obligations;
- (v) obligation to trade on the Romanian centralised gas market.

The National Agency for Mineral Resources ("**NAMR**") is the specialised authority for the oil sector. It is a body of the central public administration and is legally authorised and functions under the authority of the Government. The main duties of NAMR are: (i) the management of the state oil resources; (ii) negotiation of the terms and conditions of oil agreements and conclusion of such agreements on behalf of the state; (iii) secondary regulations; (iv) receipt, verification and registration of data and information regarding oil resources and reserves, ensuring the storage, systematisation and valorification; (v) monitoring and verification of oil production for the purposes of calculating royalties; (vi) monitoring the application of measures relating to surface and underground protection during the oil operations; (vii) monitoring compliance by the titleholder of the petroleum agreements, the applicable laws and regulations and ordering measures for compliance with such; and (viii) approving the abandonment plan and termination of concession.

NAMR is responsible for maintaining the Petroleum Book, a registration document comprising all data about the legal regime of the areas: the development and exploitation perimeter; ownership; topographical situation of the works related to the oil activities; the oil and production resources/ reserves; and data regarding the demarcation of oil perimeters and operations in the prospecting and exploration stages. To our knowledge, this instrument has not yet been created by NAMR.

### 5.3 Regulated oil market activities

NAMR is responsible for granting concessions for petroleum activities (such as exploration, development, exploitation, storage, transmission, etc.) and public assets related thereto (if the case). The concession is awarded by public tender for a term of 30 years with the possibility of extension for another 15 years. NAMR may also grant prospecting permits which allow the titleholder to undertake exploration activities in a specific concession block for a maximum period of three years.

The term of a prospecting permit cannot exceed three years.

<sup>14</sup> Published in the Official Gazette No. 1170/2004.

The concession takes the form of a petroleum agreement concluded between NAMR and the Romanian or foreign legal entity having won the public tender process. The concession enters into force subject to specific governmental approval. The titleholder of the concession pays an oil royalty for the entire duration of the concession. The percentage of the royalty payable by the titleholder of the petroleum agreement is determined in consideration of the type of activity undertaken by the titleholder (i.e., production, transmission, underground storage of natural gas). The current oil royalty payable for the performance of crude oil production activities varies between 3.5 per cent and up to 13.5 per cent, percentage applied considering the size of the reservoir.

The main types of petroleum agreements are:

- (a) Exploration-development-exploitation petroleum agreement;
- (b) Development-exploitation petroleum agreement;
- (c) Exploitation petroleum agreement;
- (d) Development petroleum agreement;
- (e) Underground storage of natural gas petroleum agreement – please note that the performance of the natural gas storage activity requires both an ANRE licence and a NAMR petroleum agreement;
- (f) Petroleum agreement for the concession of the national oil pipeline system; and
- (g) Petroleum agreement for the concession of the oil terminals.

The granting of oil petroleum agreements is based on transparent and non-discriminatory criteria.

The transportation of crude oil is performed through the main pipelines on a contractual basis governed by a standard agreement approved by NAMR. The transportation agreements may not include unjustifiably restrictive conditions, or conditions endangering the security of supply and the quality of services. The transport of crude oil through the national transport system is a public national interest service for which CONPET S.A. possesses the concession. CONPET S.A. has the status of a transport operator under the Petroleum Law and is thus obliged to ensure non-discriminatory treatment for all its clients and perform oil transport based on tariffs regulated by NAMR.

The national oil transportation system is public property of the state and the concession for its use is the subject of a public tender procedure. Nevertheless, within the duration of the concession agreement, any investments made from the concessionaire's own resources and which relate to the operation of the national oil transportation system (such as modernisation and developments of the transportation system) shall be deemed to be assets in the public property of the state.

#### 5.4 Material provisions of the oil market law and licensing regulations

A titleholder of a petroleum agreement may transfer to another legal entity, in full or in part, the rights and obligations acquired on the basis of the petroleum agreement only with the prior approval of NAMR, under the sanction of nullity of the transfer. The approval of the transfer shall be made provided that the transferee can prove that it has the technical and financial capacity necessary for the performance of the oil activities in compliance with the conditions provided in the petroleum agreement. For the approval of the transfer the following cumulative conditions must be met:

- (a) The petroleum agreement must be in force;
- (b) The Romanian legal entity to which the petroleum agreement shall be transferred (i.e., a Romanian based company or a Romanian based secondary office of a foreign company) has no outstanding debts towards the state budget, social security state budget or other related state budgets;
- (c) The obligations undertaken by the titleholder on the basis of the petroleum agreement have been fulfilled or the transferee undertakes to fulfil also the non-fulfilled obligations;
- (d) The transferee has the legal and technical capacity required for undertaking the obligations under the petroleum agreement;
- (e) The transfer does not affect the conditions of the concession, as established in the petroleum agreement; and
- (f) The transferee is specialised for carrying out oil activities or has appointed an authorised firm in the role of operator which possesses the appropriate technical capacity in relation to the oil operations provided in the transferred agreement.

### 5.5 Forthcoming developments

The natural gas resources discovered in the Black Sea are estimated to be in excess of 100 billion m<sup>3</sup>. Nevertheless, due to the unpredictable regulatory framework, until now, only one of the offshore titleholders, but not the titleholders of the blocks where the largest reserves were discovered, has taken the final investment decision.





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# SERBIA

## 1. INTRODUCTION TO THE ENERGY MARKET

The Serbian Parliament has adopted the current Law on Energy<sup>1</sup> at the end of 2014. The main driver behind the overhaul of the regulatory framework is alignment with the Third Energy Package and the removal of barriers for development of renewable energy projects.

The energy markets are still dominated by the incumbent utilities: Elektroprivreda Srbije, the state-owned electricity utility runs the electricity market as the dominant producer, public supplier and distributor ("EPS"); Srbijagas, the state-owned gas utility, holds the grip on the gas sector as the transmission system operator ("TSO"), producer and supplier; the oil sector is dominated by NIS, a former state-owned oil utility, now in majority ownership of Gazprom. While NIS has already undergone internal restructuring, the reorganisation of Elektroprivreda Srbije and Srbijagas is pending.

## 2. ELECTRICITY

### 2.1 Market overview

The state-owned utility EPS with its wholly owned subsidiaries is still virtually the only producer, distributor and supplier on the electricity market. Restructuring of EPS has started with the aim of having a holding company and three separate companies, one for each of production, distribution and supply. Currently, there are seven subsidiaries involved in production, one subsidiary acting as a power distribution company and one is acting as power supplier. Power transmission is separated from EPS and is handled by Elektromreže Srbije, another state-owned entity.

There is a high degree of dependence on lignite which accounts for more than 60 per cent of the total installed electricity generation capacity in Serbia. Development of significant new generation facilities, although planned, is still years away.

### 2.2 Regulatory overview

The Law on Energy covers all relevant energy sectors, i.e. electricity, district heating, oil and gas and deals with:

- (a) the rights and obligations of the relevant stakeholders in the energy sector;
- (b) the issuance of authorisations for performance of energy activities;
- (c) the issuance of permits for the construction of energy facilities (energy permit – "energetska dozvola");
- (d) regulated prices;
- (e) renewable energy;
- (f) specific rules for the electricity, gas, oil and district heating sectors;
- (g) access to the energy system, i.e. transmission and distribution systems; and
- (h) supply of energy.

The key stakeholders in the Serbian electricity market are:

- (i) The Ministry of Mining and Energy ("Ministry") – responsible for preparing the most important strategic and action documents for adoption by the Government of Serbia, enacting various implementing regulations and technical standards and overseeing the overall implementation of the Law;
- (ii) The Agency for Energy of the Republic of Serbia ("AERS") – an independent, regulatory body established pursuant to the Law on Energy. Its primary tasks are to develop and enhance the electricity and gas market based on the principles of non-

<sup>1</sup> Zakon o energetici, Official Gazette of Republic of Serbia, No. 145/2014 and 95/2018.

discrimination and effective competition by creating a stable regulatory framework;

- (iii) TSO – Elektromreže Srbije (“EMS”) – a state-owned public company in charge of the development, safe and reliable functioning of the transmission system, enforcement of non-discriminatory and economical access to the transmission system;
- (iv) Distribution system operator – EPS Distribucija (“EPSD”) – a company 100 per cent owned by EPS in charge of the development, operation and functioning of the distribution system. The distribution system operator, being part of a vertically integrated electricity utility, is supposed to be independent in terms of its legal form, organisation, and decision making process from other activities which are not connected to the distribution of electricity.
- (v) EPS - Elektroprivreda Srbije – a state-owned vertically-integrated electricity utility, engaged in power generation and supply, and 100 per cent owner by the distribution system operator.

### 2.3 Regulated electricity market activities

The Law on Energy prescribes the following energy activities in the electricity sector:

- (a) the production of electricity;
- (b) the combined production of electricity and heating energy;
- (c) the transmission of electricity and management of the transmission system;
- (d) the distribution of electricity and management of the distribution system;
- (e) the distribution of electricity and management of the closed distribution system;
- (f) the supply of electric energy (i.e. including sale to the end consumers);
- (g) bulk supply of electric energy (i.e. excluding sale to the end consumers); and
- (h) electricity market operation.

The performance of each of these activities is subject to the granting of a licence by the AERS. Furthermore, activities under (c) and (d) are considered activities of general interest and, therefore, may be performed either by public, state-owned companies or by privately owned companies expressly authorised by the

Government of Serbia to perform a specific activity of general interest pursuant to the Law on Public Companies<sup>2</sup> or the Law on Public Private Partnerships and Concessions<sup>3</sup>.

### 2.4 Generation

The development of generation capacities is reliant on the granting of numerous permits by various state authorities. A licence for the production of electricity is granted only at the end of the entire development process and follows after the issuance of the operational permit for the power plant. The following section describes only the most important steps which are part of the development of electricity generation capacity.

First of all, the construction of any electricity generation facility with the installed power of more than 1 MW or small hydropower plants has to be first approved by the Ministry by the issuance of an energy permit (*energetska dozvola*). The energy permit is not transferable. The energy permit is not required in the case of a public-private partnership or concession awarded for the development of a generation facility. Secondly, the construction of any larger power plant requires the preparation of adequate planning documents which set out conditions for the construction of such a power plant. Furthermore, the design of the power plant is subject to an assessment of the environmental impact pursuant to the Law on Assessment of the Environmental Impact<sup>4</sup>. Hydropower plants with an installed capacity of up to 2 MW and wind farms with an installed capacity of up to 10 MW are exempt from this obligation.

Moreover, power plants with a capacity of less than 50 MW must prepare an environmental impact assessment only if the municipal authority responsible for environmental protection decides that this is necessary. Thirdly, when the production of electricity in a power plant is based on natural resources (e.g. coal) or public goods (e.g. water), the prospective producer of electricity must acquire the right to use such a natural resource or public good, either by obtaining a concession in a competitive tender procedure pursuant to the Law on Public Private Partnerships and Concessions or through obtaining sector-specific permits pursuant to the Law on Mining and Geological Explorations<sup>5</sup> or the Law on Waters<sup>6</sup>.

<sup>2</sup> Zakon o javnim preduzećima, Official Gazette of Republic of Serbia, No. 15/2016.

<sup>3</sup> Zakon o javno-privatnom partnerstvu i koncesijama, Official Gazette of Republic of Serbia, No. 88/2011, 15/2016 and 104/2016.

<sup>4</sup> Zakon o proceni uticaja na životnu sredinu, Official Gazette of Republic of Serbia, No. 135/2004 and 36/2009.

<sup>5</sup> Zakon o rudarstvu i geološkim istraživanjima, Official Gazette of Republic of Serbia, No. 101/2015 and 95/2018.

<sup>6</sup> Zakon o vodama, Official Gazette of Republic of Serbia, No. 30/2010, 93/2012, 101/2016 and 95/2018.

Finally, the Law on Planning and Construction<sup>7</sup> provides for various permits, approvals and other documents to be issued before and during the course of the construction of a power plant. The most important of these are the construction permit and the operational permit. The operational permit is issued only upon a successful technical inspection and a trial operation of the power plant.

## 2.5 Trading and supply of electricity

The Law on Energy distinguishes between the regular market activity of supply and the activity of bulk supply of electricity. The differentiating factor is that the bulk supply excludes supply of the end consumers.

The Serbian energy market is now fully open. The Law on Energy prescribes that all electricity consumers have the right to freely choose their supplier. The Rules on Changing the Supplier specify the procedure for changing the supplier of electricity, deadlines and conditions. However, EPS is practically still the only reliable supplier on the Serbian market having around 98 per cent of the market share.

The new Law on Energy introduces the concept of guaranteed supplier, in charge of guaranteed supply of households and small consumers. The guaranteed supplier is to be selected by the Government pursuant to a public tender, for a period of up to five years. However, this process will be launched only after AERS determines that there is no need for further control of the price of electricity for households and small consumers. Until then, EPS performs the duties of the guaranteed supplier.

The Law on Energy also introduces the concept of the supplier of last resort. The supplier of last resort should also be selected by the Government on the public tender. Until then, EPS performs the duties of the supplier of last resort.

AERS, as an independent regulator, is in charge of approving the price of access to the transmission and distribution systems as well as the price of electricity for guaranteed supply of electricity. The Law on Energy divides the electricity market into a bilateral electricity market; a balance electricity market; and an organised electricity market.

A bilateral electricity market is based on bilateral power purchase agreements. A balance electricity market enables the TSO to secure proper operation of the transmission system by selling and purchasing the required quantities of electricity. It is managed by the TSO. An organised electricity market comprises day-ahead and intra-day trading and is supposed to be managed by the market operator. EMS holds licences for both the TSO and market operator. The Market Rules prepared by EMS and approved by AERS are in force as of 2012 and amended in 2014 and 2016. The Market Rules govern the balance electricity market and there are yet no specific rules to govern the organised electricity market (i.e. power exchange).

The first Serbian power exchange SEEPEX became operational in 2016. The power exchange is a licensed market operator for organised electricity market/power exchange. SEEPEX is organised as a joint-stock company and its only two shareholders are EMS and French EPEX SPOT. The power exchange currently trades in day-ahead and intra-day delivery products. Licensed electricity producers, electricity traders, electricity suppliers as well as end-consumers (for their own needs) may participate in the power exchange.

## 2.6 Transmission and grid access

Pursuant to Article 117 of the Law on Energy, EMS must allow third party access to the transmission system on a non-discriminatory basis, under regulated prices and through transparent procedure. Access may not be denied on grounds of possible future congestion in the transmission capacities or on ground of additional costs arising from necessity of increase in capacities in the vicinity of the connection point.

The process for connection of the power producers and large consumers to the transmission system starts with the preparation of a connection study to be developed by EMS at the cost of the party interested in connecting to the transmission system. Connection study determines the possibilities for connection to the transmission system and is a prerequisite for preparing further planning and technical documents and the necessary planning documents, and permitting process.

<sup>7</sup> *Zakon o planiranju i izgradnji, Official Gazette of Republic of Serbia, No. 72/2009, 81/2009, 64/2010, 24/2011, 121/2012, 42/2013, 50/2013, 98/2013, 132/2014, 145/2014 and 83/2018.*

Following the preparation of the connection study, the party interested in connecting to the transmission system and EMS enter into an agreement on the preparation of the necessary planning and technical documentation and acquiring the permits necessary for construction of the connection infrastructure. A precondition for connection of the producer and/or consumer of electricity to the transmission system is obtaining a connection approval from EMS. The request for issuing the connection approval may be submitted upon issuance of the construction permit for the facility being connected to the transmission system. The deadline for the granting of a connection approval is 60 days for electricity producers and 30 days for consumers. AERS is responsible for deciding on any appeal submitted against a decision issued by EMS. The decision of AERS is final in administrative proceedings but may be challenged before the Administrative Court of Serbia in administrative accountancy proceedings.

EMS will grant the connection approval if the planned equipment and installations of the power plant/facility are determined to be in accordance with the opinion issued by EMS and the relevant technical rules and regulations. The connection approval granted by EMS specifically determines the connection point, technical conditions for connection, place and manner of measuring electricity, deadline for establishing connection and the cost of connection.

Upon issuance of the connection approval EMS will be obliged to connect the constructed facility to the transmission system if:

- (i) the conditions from the connection approval are fulfilled;
- (ii) operational permit or trial permit has been obtained for the facility and for the connection line;
- (iii) supply agreement is in place;
- (iv) balancing responsibility and access to the system have been determined for the delivery point.

The costs of connection are borne by the applicant and are determined by EMS in accordance with the methodology developed by AERS. Temporary structures, construction sites and structures in trial operation may also be connected to the grid temporarily during the validity of the temporary permit, construction period or trial period, as the case may be.

### 3 RENEWABLE ENERGY

#### 3.1 Market overview

Serbian power generation is dominated by the large hydropower plants with a total installed power of 2,832 MW which amounts to approximately 34 per cent of the total installed power generation capacity in Serbia. In the last couple of years, a total of 111 small hydropower plants ("HPP") have been developed and obtained the status of a privileged power producer and 35 small HPP have obtained a provisional privileged power producer status and are under development. Thus, the number of small HPPs is steadily increasing.

Wind energy is considered the renewable energy source with the highest potential. Until now, four wind power plants have obtained the status of a privileged power producer, with a total installed capacity of 25 MW. Another four wind power plants with a total of 300 MW of installed capacity have been completed and are in the commissioning process, whereas the remaining two wind power plants with a total of 170 MW of installed capacity are in the financing stage.

The use of biomass, geothermal and solar energy is negligible at the moment. The mandatory renewable energy target by 2020 amounts to 27 per cent and Serbia will probably fail to reach it, partly because of the unexpected increase in energy consumption and partly due to slower development of the new renewable energy-based production facilities.

#### 3.2 Support schemes

Support for renewable energy generation has been one of the key focus points of the Ministry in the last couple of years. The incentives prescribed by the Law on Energy are: mandatory purchase of renewable energy by the public supplier, feed-in tariff, balancing responsibility of the public supplier as well as priority dispatching.

The Law on Energy distinguishes between the temporary privileged producer, privileged producer, and the renewable energy producer.

The status of temporary privileged producer may be obtained by the decision of the Ministry, upon the issuance of a construction permit for a relevant renewables project and posting a deposit or a bank guarantee in the amount of two per cent of the investment.

The temporary status lasts up to three years (one year for solar plants) with the possibility of a one-year extension in case the power plant has already been constructed. The temporary privileged producer has the right to enter into power purchase agreement with the guaranteed supplier whereby the condition precedent for coming into force of such power purchase agreement is acquiring the status of privileged producer. The temporary privileged producer is entitled to the set of incentives existing at the moment of acquiring such status.

The status of privileged producer is obtained by the decision of the Ministry for a relevant renewables project subject to fulfilment of the following pre-conditions: operational permit has been issued, a separate measurement point has been procured, the installed production capacity of the wind/solar power plant is within the quotas prescribed by the Government decree, the production facility is newly constructed or reconstructed with unused equipment installed and the licence for production of electricity is issued by AERS.

Back in 2016, the Government has adopted set decrees governing the renewable energy industry (i.e. decrees on the status of privileged producers, the set of incentives as well as the standard power purchase agreement). The set of incentive decrees was supposed to expire at the end of 2018 but it was extended for one more year, i.e. until the end of 2019.

The Law on Energy also introduced the system of certificates of origin to be set up and managed by the Serbian TSO. In early 2014, the Government adopted the Decree on Guarantees of Origin<sup>8</sup> further regulating the procedure of issuance of certificates of origin.

## 4 NATURAL GAS

### 4.1 Market overview

The Serbian natural gas market significantly depends on imported

natural gas, i.e. approximately 82 per cent of consumption is imported. Serbia imports gas from Gazprom Neft, i.e. it is entirely dependent on gas supplies from Russia. Currently, there are two companies engaged in gas transportation, 31 companies engaged in the distribution of natural gas, and 62 companies are registered for gas supply. The gas storage facility Banatski Dvor, a joint venture between Srbijagas and Gazprom Germania GmbH (Srbijagas holds 49 per cent share in the joint venture), with a capacity of around 450 million m<sup>3</sup> has been operational since 2011 and has significantly improved the security of supply on the Serbian gas market.

## 4.2 Regulatory overview

### Legal framework

The gas sector in Serbia is governed by the Law on Energy and bylaws elaborating it as main pieces of gas legislation. The following important laws (and supporting bylaws) are also applied to the gas sector:

- (a) Law on Pipeline Transportation of Gas and Liquid Hydrocarbons and Distribution of Gas Hydrocarbons<sup>9</sup>;
- (b) Law on Public Enterprises<sup>10</sup>;
- (c) Law on Public Private Partnerships and Concessions<sup>11</sup>;
- (d) Law on Planning and Construction<sup>12</sup>;
- (e) Law on Mining and Geological Explorations<sup>13</sup>.

The new Law on Energy opened the natural gas market so that now all end customers have the right to choose their gas supplier freely. Similarly to the electricity sector, the Rules on Changing the Supplier specify the procedure for changing the supplier of electricity, deadlines and conditions; in 2012, Srbijagas accounted for 69 per cent of total natural gas sales.

The circle of customers entitled to purchase gas from the public supplier under regulated prices is gradually shrinking: under the new Law on Energy, regulated prices apply only to households and small consumers (i.e. whose consumption is up to 100,000m<sup>3</sup> and connection to the distribution system).

<sup>8</sup> Uredba o garanciji porekla, Official Gazette of Republic of Serbia, No. 82/2017.

<sup>9</sup> Zakon o cevovodnom transportu gasovitih i tečnih ugljovodonika i distribuciji gasovitih ugljovodonika, Official Gazette of Republic of Serbia, No. 104/09.

<sup>10</sup> Zakon o javnim preduzećima, Official Gazette of Republic of Serbia, No. 15/2016.

<sup>11</sup> Zakon o javno-privatnom partnerstvu i koncesijama, Official Gazette of Republic of Serbia, No. 88/2011, 15/2016 and 104/2016.

<sup>12</sup> Zakon o planiranju i izgradnji, Official Gazette of Republic of Serbia, No. 72/2009, 81/2009, 64/2010, 24/2011, 121/2012, 42/2013, 50/2013, 98/2013, 132/2014, 145/2014 and 83/2018.

<sup>13</sup> Zakon o rudarstvu i geološkim istraživanjima, Official Gazette of Republic of Serbia, No. 101/2015 and 95/2018.

The restructuring of Srbijagas, the state-owned vertically integrated gas system operator and supplier is underway. The restructuring plan, adopted by the Government and agreed to by the Secretariat of the Energy Community, envisages that transport and supply will be divided into legally and functionally separate and independent entities owned by a holding company. In August 2015, Srbijagas incorporated two subsidiaries Transportgas Srbija, in charge of gas transport, and Distribucijagas Srbija, in charge of gas distribution, but failed to take any further steps in the actual transfer of the gas transportation and gas distribution business onto these newly formed subsidiaries.

### 4.3 Regulated natural gas market activities

The Law on Energy provides for the following natural gas related activities:

- (a) gas transportation and operation of the gas transport system;
- (b) gas storage and operation of the gas storage facilities;
- (c) gas distribution and operation of the gas distribution system;
- (d) gas supply; and
- (e) public supply of gas.

The performance of any of these activities is subject to the issuance of an energy licence by AERS as a principle regulatory body in the gas sector. Licences are issued within 30 days of the proper application, provided that all conditions are met. The validity period of the licences for the activities in the gas sector is 10 years and they are renewable upon the request of the energy undertaking, provided that the request is filed no later than 30 days prior to the expiry date.

Licences are not transferable. AERS is entitled to suspend the licence temporarily, should the energy undertaking fail to:

- (i) comply with the requirements of the Law on Energy;
- (ii) maintain energy facilities in accordance with the regulations;
- (iii) comply with the obligations imposed by the licence;
- (iv) keep separate accounting for each energy activity; and
- (v) determine the prices according to the methodologies rendered by AERS.

If the energy undertaking does not remedy the breach within a given deadline, which is not shorter than 30 days and not longer than 90 days, the licence may be permanently revoked. An appeal to the decision of AERS may be filed with the Ministry. It should

be noted that apart from the activity of supply, all other gas activities are declared as activities of general interest and may be performed either by public, state-owned companies or by privately owned companies which are specifically authorised by the Government of Serbia to perform a specific activity of general interest pursuant to the Law on Public Companies or the Law on Public Private Partnerships and Concessions.

### 4.4 Exploration and production

#### (a) Exploration

Exploration for natural gas in Serbia is regulated by the Law on Mining and Geological Explorations<sup>14</sup>, while the principle regulatory body in this domain is the Ministry. The law distinguishes between fundamental and specific explorations. Fundamental explorations are performed by the Geological Survey Institute, now a part of the Ministry, whereas specific explorations may be performed by companies registered in the respective commercial registry for the activity of geological explorations and employing an adequate number of geological professionals. Prior to commencement of geological explorations, the appropriate geological project and exploration elaborates must be prepared, both of which are, generally, subject to mandatory technical review, and Exploration Approval must be obtained from the Ministry. The Exploration Approval determines, *inter alia*, the minimum amount of exploration works, validity period, deadline for commencement with the exploration works, reporting obligation, termination grounds.

#### (b) Production

The production of natural gas is also within the regulatory scope of the Ministry. Natural gas production (i.e. exploitation) is performed by the companies registered with the competent commercial registry for mining activities. Gas production is based on permits issued by the Ministry.

Namely, the following permits are required:

- Exploitation Approval (for the purpose of natural gas exploitation and its refinement);
- Approval for Exploitation Field (for the purpose of natural gas exploitation);
- Approval for Performance of Mining Works (for the purpose of drilling gas wells and gas wells operation);
- Approval for Construction of Mining Facilities (for the

<sup>14</sup> Zakon o rudarstvu i geološkim istraživanjima, Official Gazette of Republic of Serbia, No. 101/2015 and 95/2018.



- purpose of development of the necessary infrastructure); and
- Approval for Operation of the Mining Facilities (for the purpose of development of the gas wells).

An exploitation fee of the natural gas, in the amount of seven per cent of the income earned from exploitation of the natural gas, is paid to the Republic of Serbia. All gas fields in Serbia are located in Vojvodina and are exploited by the dominant market player NIS a.d. Novi Sad (majority owned by Gazprom Neft) with more than 60 gas wells in Banat, Elemir, Kikinda and Plandište.

#### 4.5 Transmission and access to the system

##### (a) General

The Serbian Gas Transmission System ("GTS") is comprised of gas pipelines with a total length of 2,230.00 km and a pressure from 16 up to 50 bars. Serbia has two Gas Transmission System Operators: the public company Srbijagas and Yugorosgaz - Transport (the "GTSO"). GTS Rules have been adopted by Srbijagas and Yugorosgaz-Transport and approved by AERS in 2013 and 2015, respectively.

In addition to GTS operations, the GTSO is also, among other duties, responsible for the organisation and management of the gas market, system balancing, purchasing of gas for balancing and adoption of the decision on access prices.

##### (b) Access to the GTS

According to the Law on Energy, access to the GTS is granted by the GTSO via connection approval. The connection approval especially contains the connection point, technical conditions for connection, approved capacity, place and manner of measurement, connection deadline and connection costs. The connection approval is issued as part of the procedure for issuance of construction permit for the facility. The GTSO and the interested party enter in an access agreement which regulates the rights and obligations of the parties with respect to access to the GTS. The GTSO is obliged to connect the facility to the GTS within eight days upon fulfilment of the conditions from the connection approval provided that the construction permit for the facility has been obtained and the balancing responsibility regulated. Connection of the producer to the GTSO under the same conditions except that instead of the construction permit the production facility must have the operational permit issued.

The access to the GTS is granted to all customers under regulated prices based on the principles of transparency and non-discrimination (obligation to provide access).

The right to utilise the transport capacities of the GTS is regulated by the gas transportation agreement entered into between the GTSO and the customer. This agreement may be a long-term (over one year) or short-term agreement (less than one year) and the agreed capacity may be a cut-off or constant capacity.

Access prices are regulated prices determined by the GTSO and approved by AERS. The methodologies for determining access prices are prescribed and adopted by AERS. GTSO is entitled to reject access to the system for the following technical reasons: (i) transportation under-capacity; (ii) if access would endanger the stability of gas supply; or (iii) severe economic and financial difficulties caused due to the take or pay obligations (upon the request of the supplier that has entered into the take or pay gas supply agreement).

##### (c) Exemption from the obligation to provide access

Major new gas infrastructure, interconnectors and storage facilities, may, upon request, be exempted, from the obligation to provide access under the following conditions:

- The investment must enhance competition in gas supply and enhance security of supply.
- The level of risk attached to the investment must be such that the investment would not take place unless an exemption was granted.
- The infrastructure must be owned by a natural or legal person, independent of the system operators in whose systems that infrastructure will be built.
- Charges must be levied on users of that infrastructure; and
- The exemption must not be detrimental to competition or the effective functioning of the internal market in natural gas, or the efficient functioning of the regulated system to which the infrastructure is connected.

Exemption is granted by a resolution of AERS upon obtaining opinion of the Ministry. Additionally, the supplier of natural gas is also entitled to request from the Ministry to exempt the GTSO from the obligation to grant access to the system in the event that it envisages severe financial and economic difficulties due to undertaken take or pay obligations.

#### 4.6 Trading and supply

The trading and supply of natural gas is performed on the free gas market. As mentioned above, as of 1 January 2015 only the households and small gas consumers are entitled to public supply under regulated prices.

Gas is supplied and traded on the market based on gas purchase agreements. The amount of natural gas contracted under the gas purchase agreement may be pre-agreed for a specific period or determined based on consumer consumption, in the event of gas purchase agreements with full supply. The new Law on Energy also prescribes for "take or pay" gas purchase agreements.

According to the Law on Energy, participants to the free natural gas market may be: (i) natural gas producer; (ii) supplier; (iii) public supplier (i.e. Srbijagas); (iv) end consumers; and (v) GTSO, storage operator and gas distribution system operator (but only for the purpose of its own consumption and balancing due until the unbundling principle is introduced). All participants are obliged to regulate their balance responsibility by entering into balancing services agreements with the GTSO.

#### 4.7 Storage

Natural gas storage and operation of storage facilities may be performed by an entity holding a licence for gas storage and operation of storage facilities issued by AERS. So far, only one licence has been issued for this activity to Underground Gas Storage Banatski Dvor doo, the operator of the Banatski Dvor underground gas storage facility. This storage facility has been operational since 2012 and in that year it accounted for six per cent of the total gas consumption in Serbia. However, the operator has not yet adopted the gas storage access rules.

### 5. UPSTREAM OIL MARKET

#### 5.1 Market overview

One of the sectors which make up the energy economy of Serbia is the oil sector. There is exploitation of domestic oil reserves, as well as the import, transport and processing of crude oil and oil derivatives, and distribution and sales/ export of oil derivatives.

#### 5.2 Regulatory overview

Oil-related activities in Serbia are governed by the Law on Energy and the Law on Mining and Geological Explorations. The principle regulatory body in this domain is the Ministry and the AERS which issues licences for carrying out the energy activities in the sector. In addition, AERS keeps a register of issued and revoked licences.

#### 5.3 Exploration and production

##### (a) Exploration

Exploration of oil may be performed by companies registered in the respective commercial registry for the activity of geological explorations and which employ a sufficient number of geological professionals. Prior to commencement of geological explorations, the main geological design and exploration elaborates must be prepared. These documents are subject to mandatory technical review, whereupon Exploration Approval must be obtained from the Ministry Mining and Energy. The Exploration Approval determines the validity period and the deadline for commencement with the exploration works. The licensee is obliged to regularly update the Ministry on the exploration findings.

##### (b) Production

The production of oil is also within the regulatory scope of the Ministry. Oil production is based on a licence issued by the Ministry in the course of regular administrative procedure. The fee for exploitation of oil paid to the Republic of Serbia amounts to seven per cent of the income earned from the exploitation of oil. Note that a significant increase in the exploitation fee (until 2011 the fee was three per cent) did not bring an expected increase in revenues for the state since all significant oil fields in Serbia are exploited by the dominant market player NIS a.d. Novi Sad, majority owned by Gazprom Neft and protected from increases in the exploitation fees by the Russia Serbia Intergovernmental Treaty on Cooperation in Gas and Oil Industry<sup>15</sup>.

#### 5.4 Other oil-related activities

For the performance of other oil-related activities a licence issued by AERS is a prerequisite. The procedure for the issuance

<sup>15</sup> Zakon o potvrđivanju sporazuma između vlade Republike Srbije i vlade Ruske Federacije o saradnji u oblasti naftne i gasne privrede, Official Gazette of Republic of Serbia – International Treaties, No. 83/2008.

of these licences is identical to the procedure for the issuance of licences in the electricity sector. Energy companies (legal entity or entrepreneur registered to perform one or more energy activities) can apply for a licence to perform the following activities:

- (a) the production of oil derivatives;
- (b) oil transport by oil pipelines;
- (c) the transportation of oil derivatives;
- (d) the storage of oil and oil derivatives;
- (e) trade with oil and oil derivatives; and
- (f) retail of oil derivatives (fuel supply stations for motor vehicles).





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# SLOVENIA

## 1. INTRODUCTION TO THE ENERGY MARKET

In recent years, Slovenian energy sector has been continuously developing and adjusting to changes and challenges of international energy trends. Positioned on important European energy crossroads, it is essential for Slovenian energy markets and their actors to be responsive and reliable. This is reflected in increased use of renewable energy, which is gradually replacing conventional fossil fuels, higher energy efficiency and increasingly demanding end-customers, which have themselves also been becoming producers, some even self-sufficient. Transition from conventional fossil fuels to renewable energy requires development and implementation of smart grids which ensure the necessary flexibility of the market and enable active participation to all actors on the market – producers, traders and end-customers. In 2017, there were 16 smart grids and other new technologies projects included in a special incentive scheme in Slovenia, two of which were the result of domestic partnerships and 14 were international projects.

Based on its development and quick responsiveness to new challenges, Slovenia's energy sector was ranked sixth (out of 125 included countries) in the 2018 Energy Trilemma ranking of the World Energy Council. Being ranked only behind Denmark, Switzerland, Sweden, Netherlands and the United Kingdom proves that Slovenia's approach towards energy security, energy equity and environmental sustainability is exemplary.

The umbrella act regulating the energy sector in Slovenia is the Energy Act<sup>1</sup> (the "Energy Act") which transposed into Slovenian legislation the EU's Third Energy Package. The Energy Act entered into force on 22 March 2014 and significantly amended the legal regulation of the energy sector. It follows the principles

of protection of the customers, competitiveness, transparency, non-discrimination and independence of the regulator and has introduced the regulation of the energy sector in a more systematic and transparent way. A significant number of new implementing acts (rules, regulations and similar) have also been (and some of them are still envisaged to be) adopted on the basis of the Energy Act.

The Energy Act was amended in November 2015 due to the implementation of the Out-of-Court Resolution of Consumer Disputes Act which was adopted on the basis of the transposition of Directive 2013/11/EU into Slovenian legislation. In addition, two important amendments to the Energy Act are envisaged to be adopted in the near future. In addition to the Energy Act and implementing regulations, the Slovenian energy sector is governed also by the Environment Protection Act<sup>2</sup>, Construction Act<sup>3</sup> and Spatial Planning Act<sup>4</sup>.

The Energy Concept of Slovenia is the basic development document, representing the national energy program. It has been recently prepared by the government and presented to the National Assembly which shall presumably adopt it by the end of 2019.

## 2. ELECTRICITY

### 2.1 Market overview

Slovenia has opted for the complete liberalisation of the electricity market. Hence, the activities of electricity production and supply are carried out freely, meaning that the market players may freely negotiate prices and quantity of supplied electricity, the end consumers may freely choose and change their electricity suppliers

<sup>1</sup> Official Gazette of the Republic of Slovenia No. 17/2014, as amended.

<sup>2</sup> Official Gazette of the Republic of Slovenia No. 41/2004, as amended.

<sup>3</sup> Official Gazette of the Republic of Slovenia No. 61/2017, as amended.

<sup>4</sup> Official Gazette of the Republic of Slovenia No. 61/17.



and the producers may freely choose and change the supplier, supplying the electricity they had generated, to the end consumers. The organisation of the market, as well as the activities of the transmission system operator and the activities of the distribution system operator, are carried out as mandatory national public service.

The key market players in Slovenia are Elektro – Slovenija, d.o.o. ("ELES, d.o.o.") – transmission system operator, SODO, d.o.o. – distribution system operator, Borzen, d.o.o. – electricity market organiser, several distribution network operators (such as Elektro Ljubljana d.d., Elektro Primorska d.d., Elektro Maribor d.d. and Elektro Gorenjska d.d.) and several electricity suppliers (such as Elektro Energija d.o.o., ECE d.o.o., Elektro Maribor Energija Plus d.o.o., E3 d.o.o., GEN-I d.o.o., Petrol d.d., RWE Ljubljana d.o.o.). With the exception of electricity sale where private entities (such as RWE) have been entering the Slovenian market, most of the key market players are still directly or indirectly state-controlled.

The first pillar of the Slovenian wholesale electricity market comprises the holding company Holding Slovenske elektrarne, d.o.o. ("HSE") which operates the Drava Hydroelectric Power Plant, the Soča Hydroelectric Power Plant, the Šoštanj Thermoelectric Power Plant, the Trbovlje Thermoelectric Power Plant and (together with GEN Energija, d.o.o.) the Lower Sava- and the Middle Sava Hydroelectric Power Plants. The second energy pillar is the group GEN energija, d.o.o. ("GEN energija"), operating the Brestanica Thermoelectric Power Plant and the Krško Nuclear Power plant, as well as the Sava Hydroelectric Power Plants and (together with HSE) the Lower Sava Hydroelectric Power Plants. Moreover, GEN energija operates also several Renewable energy sources throughout Slovenia.

The competition on the market is promoted, among others, by the Competition Protection Agency which has already announced some ground-breaking decisions in relation to the energy sector, and the Slovenian Consumers Association which is regularly promoting higher mobility of end customers through a project called "Change and save". It should also be noted that Slovenia is a net importer of electricity, with extremely volatile import dependency, for example; 17.1 per cent in 2017 and 1.5 per cent in 2014.

## 2.2 Regulatory overview

The Energy Act systematically regulates the electricity sector by determining the electricity-related activities falling within the

scope of regulation, i.e. electricity production, electricity supply, activities of the system operator, activities of distribution operator and activities of the electricity market operator. Contrary to the past legislation, according to the Energy Act, it is no longer necessary to obtain a licence for carrying out electricity-related activities.

The electricity sector is (in addition to natural gas and, to a certain extent, district heating) regulated and supervised by the Energy Agency of the Republic of Slovenia ("Energy Agency").

On the other hand, the Directorate for Energy, operating within the competent ministry (currently the Ministry of Infrastructure), *inter alia*, supervises the operations of the public utilities services in the field of electricity (as well as natural gas and district heating) and plans the extent of issued concessions and energy permits (applicable to the construction and operation of energy facilities) by way of maintaining the corresponding register. Its Division for a Low-Carbon Society carries out several tasks (such as preparing the national legislation and the calls for tenders for co-financing of investment projects) relating to renewable sources of energy and to a sustainable use of energy sources.

## 2.3 Generation

Pursuant to the Energy Act, an energy permit is required for the construction of energy generation facilities, provided that the effective rated electricity capacity exceeds 1 MW and that it is connected to the public network. The energy permit is issued by the ministry competent for energy. The energy permit must be also obtained for each reconstruction of the facility.

If the scope of the electricity generation capacities does not ensure the secure electricity supply, and if the secure electricity supply cannot be ensured by way of energy efficiency measures, the ministry competent for energy (or the electricity market operator on its behalf) may organise a call for tenders for new generation facilities or for the implementation of the energy efficiency measures. The call for tenders shall be published in the Official Gazette of the Republic of Slovenia and in the Official Journal of the European Union, whereby the deadline for the submission of bids may not be less than six months. The bidder may – instead of new production capacity – also offer to supply the electricity from existing production capacities, if the long-term outcome, identical security of the supply and the environmental suitability of the electricity generation are ensured.



The predominant share of generation in Slovenia is carried out in conventional power plants, such as thermoelectric power plants, hydroelectric power plants and the nuclear power plant which presented approximately 97 per cent of the generation in 2017.

The following companies operating in large facilities with a capacity of over 10 MW are active in the electricity-production market: Drava Hydroelectric Power Plants, Sava Hydroelectric Power Plants, Lower Sava Hydroelectric Power Plants, Soča Hydroelectric Power Plants, Krško Nuclear Power Plant, Šoštanj Thermoelectric Power Plant, Trbovlje Thermoelectric Power Plant, Brestanica Thermoelectric Power Plant and Ljubljana Combined Heat-and-Power Plant.

Hydroelectric power plants and power plants using other renewable sources generated around 30 per cent of all electricity generation in 2017. In particular, Slovenia relies heavily (around 27 per cent of all electricity generation) on hydroelectric power plants. Thus, the share of electricity generated by hydroelectric power plants can fluctuate significantly due to its dependence on hydrological and weather conditions. Power plants operating with fossil fuels contributed around 30 per cent and the nuclear power plant around 40 per cent of all electricity generation.

Recently, the electricity generation sector has seen a lot of activity and was marked by the restart of Trbovlje Thermoelectric Power Plant which had previously been in a process of liquidation since 2014. Currently, it provides the services of storage of petroleum products as a part of strategic reserves and systemic services in the electrical energy system. According to HSE Group, the plan is to dismantle and decommission the technological sets of the equipment of the defunct 125 MW generator and to preserve the production units powered by liquid fuel. Moreover, Brestanica Thermoelectric Power Plant has obtained consent for gas block PB 7 at the end of 2018 and plans to finish the construction of the new facilities in the second half of 2020. Similarly, construction of the last of the six envisaged hydroelectric power plants on lower Sava, HE Mokrice, shall begin once the final environmental permit will have been obtained, presumably in the second half of 2019. Lastly, there is a long-lasting discussion about a potential new block of Krško Nuclear Power Plant and closure of Šoštanj Thermoelectric Power Plant, whereby the experts agree that stability provided by the nuclear power plant is necessary for Slovenia's electricity stability.

Apart from the production in large power plants, the Slovenian electricity system also includes some distributed production, mainly in small hydroelectric power plants, solar power plants, biogas power plants and industrial facilities for the cogeneration of heat and electricity. Distributed power plants in Slovenia are either connected to the national distribution system or closed distribution systems. Distributed systems contributed approximately 10 per cent of all electricity generated in 2017, which is 8.4 per cent less than in 2016.

The new Regulation on Self-supply with Electricity from Renewable Energy Sources<sup>5</sup>, which was adopted on 21 March 2019 and enters into force in the beginning of May 2019, replaces the previously valid Regulation, regulating electricity self-supply, and further promotes the use of electricity from renewables for the total or partial coverage of own electricity consumption. The Regulation defines the conditions for self-supply of electricity from renewables, the accounting method, the annual limitation of power for power plants, the reporting requirements and the manner for calculating produced electricity. It introduces three different types of self-supply with electricity from renewable energy sources, namely (i) individual self-supply; (ii) self-supply of multi-apartment buildings; and (iii) self-supply of communities of consumers. Compared to the previously valid Regulation, which only allowed self-supply of individual one-dwelling residential houses and business buildings, the new one enables self-supply to a broader variety of subjects and thus further encourages the generation of electricity from renewable energy sources.

## 2.4 Trading and supply of electricity

The Slovenian electricity market is completely liberalised, fully opened and divided into a wholesale market and a retail market. The activity of the electricity market operator is carried out as a national public service obligation; in 2001 Borzen d.o.o. assumed the role of the electricity market operator and still operates the Slovenian electricity market.

Pursuant to the Energy Act, the electricity market is hierarchically regulated into a balance scheme, in which the relationships between the balance scheme members are uniformly determined by the agreements on balance sheet membership. Transactions among the balance sheet members may either be based on the quantity of supplied electricity in a relevant time frame, determined for each accounting interval (closed contracts) or

<sup>5</sup> Official Gazette of the Republic of Slovenia No. 17/19.

determine the balancing affiliation of delivery points (open contracts). Closed contracts may be entered into only between two balance scheme members, save as closed contracts with the use of cross-border transfer capacity, in case of which one of the parties is the balance scheme member and the other party is a foreign market participant. Open contracts may be entered into only between a balance scheme member and a legal entity or natural person, entitled to enter into an open contract for a delivery point in Slovenia, which is the object of the contract. In case of open contracts and closed contracts with the use of cross-border transfer capacity, the same legal entity or natural person may act on both sides. New Rules on the Electricity Market Operation entered into force on 1 January 2019 and regulate, *inter alia*, the process of balance group and subgroup establishment, as well as recording of contracts and imbalance settlement. The main changes introduced by the new Rules are among others: (i) shorter accounting period - from the current length of one hour, the accounting period is reduced to 15 minutes, whereby this change shall enter into force only in 2020; (ii) obligation of balancing service providers to become members of the balance scheme; (iii) different dispute resolution approach in case two market actors disagree on the quantity of the electricity of a notified closed contract; if the market actors do not find an agreement, the market operator does not accept the application of the contract or the application is ignored and a quantity equal to zero is taken into account, etc. Furthermore, Rules Amending the Rules on the Balancing of the Electricity Market entered into force on 17 June 2017.

The market players trade on the electricity market as follows: (i) the producer: sells in its own name on the basis of an open contract; (ii) the end user: buys in its own name on the basis of an open contract; (iii) the supplier to the system users: sells to end users or buys from the producers on the basis of an open contract; and (iv) the trader: sells and buys electricity on the basis of a closed contract. An individual natural person or a legal entity may simultaneously trade with electricity in the different above-described roles.

The market operator may prohibit or limit inclusion into the balance scheme due to the reciprocity. It may decide that the right to be included in the balance scheme shall not be granted to a legal entity residing in a state where all customers do not have the right to free choice of the supplier.

A part of the electricity market is the mandatory balancing market, the aim of which is settling electricity system imbalances in a transparent and economically efficient manner. The producers and the consumers are obliged to participate in the balancing market with respect to the technical parameters of their facilities and other relevant characteristics and circumstances. The balancing market is embedded in the Intraday Continuous Market (see below for more details) in which the Transmission System Operator (ELES d.o.o.) buys and sells electricity for the settlement of imbalances in the electricity system. For trading on the Balancing market, the same rules as for the Intraday market apply.

BSP Energy Exchange (BSP Energetska Borza d.o.o.) offers a trading platform for Day-ahead and Intraday trading. The Intraday market is further separated into Intraday Continuous Market and Intraday Auction Market, which was introduced on 21 June 2016 and allows members to trade remaining cross zonal capacities from Day-ahead auction. Intraday trading is performed 24 hours per day by placing anonymous bids for standardised and other products through an online application. The Day-ahead market is through the borders with Italy, Croatia and Austria included in the Multi-Regional Coupling. Trading is performed through an auction for standardised hourly products in several phases: (i) trading phase; (ii) stagnation phase; (iii) after-trading phase; and (iv) inactive phase. In addition, BSP Energy Exchange established itself also as a regional long-term auction centre.

Cross-border trading with electricity includes exports from Slovenia, imports to Slovenia, and transit through the territory of the Republic of Slovenia. A network user wishing to be involved in cross-border trading with electricity has to obtain the appropriate access to cross-border transmission paths. EU legislation applies for the cross-border trading.

The market operator monitors the events of restrictive practices, which may prevent or restrict the large business customers simultaneously entering into agreements with more than one supplier, and informs about its findings the Energy Agency and the Competition Protection Agency.

In addition to the conventional electricity markets, the Slovenian company SunContract introduced an alternative option for smaller producers and end-consumers. Since 2018, the company offers a global peer-to-peer trading platform which enables individual participants to directly trade electricity with each other.

The platform based on blockchain technology is still small and insignificant compared to conventional markets; however, it might indicate the future development of electricity trading and supply.

## 2.5 Transmission and grid access

The activity of the transmission system operator is a national public utility service obligation, which is carried out by a legal entity or natural person on the basis of concession, granted by the State. The concession is granted for the entire territory of the Republic of Slovenia for a maximum period of 50 years and is not payable. The concession operator must fulfil the following conditions: (i) is the owner of a transmission system; (ii) is certified for the system operator (the certificate is issued by the Energy Agency); and (iii) has been appointed for the system operator. Currently, the function of the transmission system operator is carried out by ELES, d.o.o. The activity of the transmission system operator is financed through payments of network tariffs and other incomes for carrying out a national public utility service.

Access to the Slovenian grid is regulated by means of regulated third party access and is legally and in practice available to all network users. Persons wishing to become system users or electricity operators may be connected to the system pursuant to the system operation instructions. The system users pay the expenses of the system on the basis of previously published tariff items. An application for network access has to be submitted to the transmission network operator or to the distribution networks operators, which decide about the application by issuance of consent to connection. The consent to connection is valid for two years, meaning that all conditions have to be met and the connection has to be made within this deadline. The consent to connection determines the scope of right on system use by determining the maximum connecting power or other operating restrictions. Under certain conditions (which are explicitly set out by the Energy Act), the consent to connection is transferable. Prior to the connection to the system, the system user and the network operator have to enter into an agreement on the system use.

The access to the grid to a potential system user may be refused due to lack of capacities or if the requested connection would disable the performance of activities of the transmission system operator or of the distribution system as a public service

obligation. If the request for connection is rejected due to the lack of capacities, the system operator has to extend the system, provided that this would be economical or that the requesting person is willing to pay the costs of extension.

The disputes arising from third-party access to the grid are decided by the Energy Agency in an administrative procedure.

In addition to other payments, the system users are periodically paying network fees for individual connection, i.e. transmission network fee, distribution network fee, connection power fee and the acquired excessive reactive energy fee. The network fees are set by the Energy Agency in the form of tariffs.

In the recent years, the main focus has been on new technologies and development and implementation of smart grids, which are necessary – with the increasing number of electricity producers, end-users and those market participants who act both as producers and end-users – to ensure cost-effective, sustainable, reliable and frictionless communication and exchange between the market actors. For this purpose, the Energy Agency initiated in 2013 and even more so in 2016 an incentive scheme for two types of projects:

- (a) Pilot projects are projects aimed at testing of already established technologies that are not yet present in Slovenia. Regulatory incentives for this type of projects are limited in content and time and are intended primarily to eliminate regulatory barriers for the implementation of such projects.
- (b) Investment projects include projects for the introduction of new technologies into operation of the electro-energy system with the aim of effectively resolving certain network operation issues, such as neutralisation of the negative effects of integrating renewable sources of electricity, lowering peak loads, promoting energy efficiency, etc. Investment projects are incentivised with direct financial incentives for funds that are activated under these projects.

In 2017, 16 such projects were active, two of which were result of national and 14 international partnerships, with the most important being project SINCRO.GRID (please see <https://www.sincrogrid.eu/>) worth EUR 88 million and project NEDO (please see <https://www.eles.si/projekt-nedo>) worth EUR 35 million.

### 3. RENEWABLE ENERGY

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#### 3.1 Market overview

The share of energy from renewable sources in gross final energy consumption is slowly increasing and in 2017 amounted to approximately 22 per cent. To attain the long-term targets by 2020, i.e. 25 per cent of gross final energy generation from renewables, set out under the Renewable Energy Directive, in 2017 the government prepared an amended Action plan for renewable sources of energy 2010-2020, introduced several new measures and renewed the already existing incentives. The major renewable energy source is wood biomass, in particular with respect to heating, followed by hydropower. In recent years, the dynamic in electricity generation is also the development of solar energy and wind power energy. Further, with respect to geothermal energy, there is – due to high costs of the exploration and uncertainty of its outcome and thus lack of potential investors in this area – still a lot of room for improvements.

Several tasks in relation to renewables (such as preparing the national legislation and the calls for tenders for co-financing of investment projects) are carried out by the Directorate for Energy, Division for a Low-Carbon Society, organised within the Ministry of Infrastructure.

#### 3.2 Support schemes

The support scheme for production of electricity from renewable energy sources and in co-generation installations (the support scheme OVE and SPTE) is intended to incentivise investments in environmentally friendly technologies for generation of electricity and has in recent years been considered as one of the most important measures of Slovenian climate-energy policy. Due to coordination of the rules and conditions of the support scheme with the European Commission, the new support scheme entered into force at the end of 2016. After the notification, the procedure was successfully completed by the European Commission in October 2016 and the scheme was declared compatible with the internal market.

The operation, the organisational structure of the support scheme and the responsibilities and tasks of the institutions responsible for the operation of the scheme, which are the

Energy Agency and the Centre for Supports, operating within the electricity market organiser - Borzen d.o.o., are regulated by the Decree on Support for Electricity Generated from Renewable Energy Sources and from High-efficiency Cogeneration<sup>6</sup>.

According to the Energy Act, the support schemes are intended for generating facilities on renewable energy sources, not exceeding 10 MW of nominal electric power (50 MW in case of facilities, using wind energy) and for production facilities with high efficiency cogeneration not exceeding 20 MW of nominal electric power, that have been chosen on the basis of a public call of the Energy Agency. The supports may be exercised as (i) guaranteed purchase of generated electricity, supplied in the public electricity energy network at a price determined by the Government (provided that the nominal electric power of the generating facility is below 0.5 MW); or (ii) as financial aid for current business (for all other producers). An individual support may be provided: (i) for new high-efficiency cogeneration facilities for 10 years; (ii) for new facilities for renewable energy sources for 15 years; and (iii) for older facilities also for a shorter period of time that represents the difference between actual age of the facility and the above stated maximum period of support. The support may be granted only for the generated energy for which a valid origin certificate has been submitted.

The origin certificate is an electronic document, issued by the Energy Agency, which enables the producers and the suppliers to prove that the electricity has been generated in high-efficiency cogeneration or from renewable sources as the case may be. The origin certificate may only be obtained for the electricity, generated in an electricity generating facility, holding a valid declaration (issued by the Energy Agency for a definite period of time).

In order to receive support, an owner or leaseholder producing or intending to produce electricity from renewable energy sources must first obtain from the Energy Agency the confirmation of the project and within maximum three years after the confirmation of the project (five years in case of more complex facilities), the declaration for the electricity generating facility (also issued by the Energy Agency), which represents the basis for issuance of the decision on granting of the support.

<sup>6</sup> Official Gazette of the Republic of Slovenia No. 74/16.

After being granted a final decision for support, a producer shall enter into a contract for the provision of support with the Centre for Support at Borzen d.o.o., the electricity-market operator, to which the implementation of the support scheme has been entrusted. The contract shall regulate all issues regarding the mutual obligations of the contractual parties.

The support for generating facilities is granted by way of a public call for tender. Starting at the end of 2016, the Energy Agency has published four such calls for tenders so far, with the last one ending in February 2019. Each of the four calls for tenders had the available funding of EUR 10 million annually. During the first call for tenders, investors applied 275 projects for generating facilities, of which 243 projects were for new generating facilities and 32 - for reconstruction of existing generating facilities. During the second call for tenders, investors applied 232 projects. Out of all the projects applied during the first two calls for tenders, 171 projects with a planned net power of approximately 160 MW were selected. The wind power generating facilities with a planned net power of 126 MW were prevailing.

The Energy Agency ensures that the system is not misused by multiple sales of a certain amount of electricity as environmental-friendly electricity. The system is designed in such a way that it assigns added value to the electricity produced in an environmental-friendly way. It allows suppliers to acquire environmentally-friendly products in a transparent manner and consequently enables customers to choose electricity with regard to its source or manner of production.

Important support is provided also through Eko Sklad (Eco Fund), a public fund which finances investments by awarding grants and granting loans under more favourable conditions in the area of environmental protection in accordance with the National Environmental Protection Program. Such grants or loans may be granted to legal entities or natural persons. Natural persons may be granted a loan or awarded a grant for, amongst others, financing the use of energy from renewable sources, while legal entities may be financed for the facilities in which the energy from renewable sources shall be produced. In June 2019, Eco Fund published the latest public call for 3.6 million of non-reimbursable financial inducement for renovation and investment into older buildings with three or more individual parts. Compared to previous public calls, this one broadens the range of subjects and buildings that are eligible for the available funds, making them even more accessible.

## 4. NATURAL GAS

### 4.1 Market overview

Slovenia has a negligible degree of natural gas production and entirely depends on the supply of natural gas from abroad. In 2017, approximately 75 per cent of natural gas was supplied from Austria. The original source of this gas is unknown, but it is most likely to be of Russian origin. Approximately 23 per cent of natural gas was supplied from Russia, and some smaller amounts were supplied from Italy, Croatia and other locations.

Natural gas consumption is slowly increasing each year since 2014 and has amounted to 9.677 GWh of energy in 2017. Similarly, the number of natural gas importers also increased to 28 in 2017 (six new compared to 2016). The gas is supplied to end users from 80 Slovenian municipalities in its gaseous state via transmission and distribution networks managed and operated by the system operators. Transmission and distribution companies have their commercial and regulated energy activities separated and thus help facilitate the natural gas market. The commercial activity of the distribution companies is the supply of natural gas, and their regulated activity is the distribution of natural gas over the distribution networks.

The market players on the Slovenian natural gas market include traders and suppliers which deliver natural gas to customers. The key market players are the major supplier of natural gas Geoplin, d.o.o. and its subsidiary Plinovodi d.o.o. – the transmission network operator. The distribution system operators are divided between different parts of Slovenia, some of the major ones are Energetika Ljubljana d.o.o., Plinarna Maribor d.o.o. and Adriaplin d.o.o. (a subsidiary of ENI). The natural gas distribution is carried out as an optional municipal public utility service through a public company established by the municipality, on the basis of a concession agreement or through a public-private partnership.

### 4.2 Regulatory overview

Energy-related activities relating to natural gas are supervised by the Energy Agency.

In addition to the Energy Act, a new Decree on the operation of the natural gas market entered into force at the end of 2016 which in more detail regulates the relationships between the market participants and certain procedures necessary for smooth

operation of the natural gas market, and introduced a new accounting unit (i.e. kWh or MWh) for easier comparison with costs of other energy sources.

According to the Energy Act, no licence is required for the performance of activities in relation to the supply, trading and transport of natural gas.

### 4.3 Transmission and access to the system

Since January 2005, the activities of the transmission system operator have been carried out by Plinovodi d.o.o. The respective operator operates a 1.121 km long transmission network forming a part of the European network. Due to Slovenia's beneficial geographical position, the network is connected with the networks in Italy, Austria and Croatia.

The activity of the transmission system operator is a national public utility service obligation. It is carried out by the transmission system operator on the basis of obtained concession. The concession is granted by the Republic of Slovenia to the transmission system operator as the concessionaire for the entire territory of the Republic of Slovenia for a maximum period of 35 years.

Access to the Slovenian network is regulated by means of regulated third party access and is legally and in practice available to all network users. The transmission system operator grants access to the transmission system by entering into agreements on transmission on the entry and exit points of the transmission system. The transmission system users may enter into a separate transfer agreement for one or several entry points or – as the case may be – into a separate transfer agreement for one or several exit points from the transmission system. The individual agreements entered into for the entry or exit points may be concluded for different transmission capacities and for different time frames. The agreements on transmission on the exit points of the transmission system in the Republic of Slovenia, to which the end users are directly connected, are concluded by the end users or by the natural gas suppliers on behalf of the end users. It is considered that all transactions with natural gas – irrespective of their entry or exit point – are entered into the virtual point, established by the transmission system operator. Transmission agreements for exit points inside the Republic of Slovenia have to be brought in line with the System operating instructions for natural gas transmission which apply to all legal

relationships relating to the transmission system owned by Plinovodi d.o.o. as the transmission system operator. Moreover, the Rules on the procedure for the allocation of the capacity of the transmission system for the entry and exit points within the Republic of Slovenia, the Transmission system congestion management procedure and the capacity trading on the secondary market<sup>8</sup> regulate the system of entry-exit points, the procedures for the allocation of transmission system capacities for the entry and exit points within the Republic of Slovenia, short-term services for the entry and exit points in the Republic of Slovenia offered by the transmission system operator, secondary market capacity trading at the border entry and border exit points, the congestion management procedures in the event of contractual congestion and the publication of information. The capacity allocation procedures at the border entry and exit points of the transmission system on the primary market are regulated by the transmission system operator's general act on terms and conditions, as well as the capacity allocation mechanisms at interconnection points of the transmission system through auction. The secondary market capacities can be traded at the border entry and border exit points.

The system users are obliged to pay the expenses for use of the natural gas system in the form of the network charge. The network charge is – within the regulative frame – determined by the system operator upon previous consent of the Energy Agency. The collected network charges are used for coverage of the expenses incurred by the system operator with respect to maintenance, management and development of the system.

The system operator may deny the grid access to a potential user only in case of insufficient capabilities or if the connection prevented the performance of public utility service obligations or due to serious economic and financial troubles of the companies in the field of gas economy in connection with the contracts "take it or pay it". The reasons for denial must be grounded. If the access to the grid was denied due to insufficient capacities, the system operator is obliged to extend the system, provided that this would be economical or if the denied person is willing to bear the costs of such extension.

In addition, the Regulation (EC) No. 715/2009 of the European Parliament and of the Council applies directly and determines fair rules with respect to access of the transmission networks

<sup>8</sup> Official Gazette of the Republic of Slovenia No. 80/14, as amended.

<sup>9</sup> Official Gazette of the Republic of Slovenia No. 55/2015.



concerning non-discriminatory conditions for access to transmission systems and facilities and storages of liquefied natural gas.

The activity of the distribution system operator is an optional local public utility service. The performance of the public utility service of the distribution system operator may be assured by the local community on its entire territory or on a part thereof, in the manner, set out by the legislation, regulating public utility services and the public-private partnership. The activities of the distribution system operator are financed from the network charges and other incomes for financing of the public utility services.

The local community may grant the right on performance of the optional local public utility service of the distribution system operator as an exclusive right for a period of maximum of 35 years. If such exclusive right is granted, as a rule, only the distribution system operator, to which such exclusive right was granted, is entitled to connect the end users to the distribution system in its area.

Distribution may also be carried out in closed distribution systems. In such case, the distribution is not carried out as a local public utility service. Closed systems are intended for natural gas distribution on geographically rounded industrial or commercial areas and are, as a rule, not intended for the supply of the consumers. The status of closed distribution system is granted by the Energy Agency, if (i) due to particular technical and safety reasons, the operations and production processes of end users of such system are integrated; and (ii) if the network is distributing the natural gas, in particular (at least 80 per cent of the amount of annually consumed natural gas) to the owner of the system or its affiliated companies.

#### 4.4 Trading and supply

According to the Energy Act, it is considered that – irrespective of the actual entry or exit point – all transactions with natural gas are effected in the virtual point and on the level of the calculation interval. In this respect, the “virtual point” is a virtual point between the entry and exit points of the transmission system, in which it is considered that all transactions with the natural gas quantities in the transmission system between the

market participants on the transmission system in the Republic of Slovenia have been entered into. This assumption applies irrespective of provisions of individual natural gas supply agreements. A transaction in a virtual point may also be made in the absence of a transmission agreement if an agreement on transmission on entry point and an agreement on transmission on exit point have been concluded for a quantity that is a subject of the respective transaction, for the calculation period(s) that the transaction relates to.

In accordance with the Energy Act and on its basis adopted System Operating Instructions for the Natural Gas Transmission Network<sup>9</sup>, as of October 2015, the transmission system operator has established a virtual trading point for natural gas on the transmission system. The virtual point enables the transmission system operator to monitor the transactions of the market players (e.g. where the natural gas was purchased and to whom it was sold) as well as to monitor whether all natural gas transmitted to Slovenia was used in Slovenia. At the virtual trading point, the transmission system operator provides the services for performing transactions with natural gas and a bulletin board for natural gas trading. Services in the virtual trading point are provided to members only on the basis of concluded virtual point membership contracts. Operations regarding balancing the transmission system shall also be carried out by the transmission system operator via the virtual trading point. The transmission system operator has also established an electronic trading platform as a special feature of the virtual trading point enabling the transmission system operator and the balancing group leaders to provide balancing of deviations related services.

Since the implementation of the open market and the virtual trading point in October 2015 and the first transactions thereof in January 2016, trading on the open market has been well accepted by the market participants. In the second half of 2017, the trading volume increased significantly, resulting in 1,521 performed transactions and approximately 478.8 GWh of exchanged natural gas throughout the entire year.

Companies of the gas economy and final customers may exercise a transaction with natural gas quantities in the virtual point, provided that they have registered their participation in the

<sup>9</sup> Official Gazette of the Republic of Slovenia No. 55/2015.

virtual point with the transmission system operator and have reported the desired transaction pursuant to the rules on operation of the virtual point determined in the System operating instructions for the natural gas transmission network. The transmission system operator is obliged to verify the compliance of the envisaged transaction(s) of the companies of the gas economy or final customers in accordance with the rules on operation of the virtual point. If the transmission system operator finds out that the chain of transactions of the companies of gas economy or final customers is not completed or could not be reconciled, it rejects all reported transactions in such a chain.

Slovenian natural gas transmission system is an integrated part of the European transmission system and has three connections with the neighbouring transmission systems, whereby the connection with Croatia is only an exit point, the connection with Austria is only an entry point and the connection with Italy is both, an entry and an exit point. The natural gas transmission system operator (Plinovodi d.o.o.) provides auction as a method of allocating annual and multi-annual transmission capacities at entry points into and at exit points from the Republic of Slovenia. Capacities at interconnection points of the transmission system are used to ensure the supply of natural gas in Slovenia, as well as for the purposes of the transmission of natural gas to the neighbouring transmission networks. Pursuant to the Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010, each Member State shall ensure that the necessary measures are taken so that in the event of a disruption of the single largest gas infrastructure, the technical capacity of the remaining infrastructure, determined in accordance with the "N – 1 formula" is able to satisfy the total gas demand of the calculated area during a day of exceptionally high gas demand occurring with a statistical probability of once in 20 years. However, by way of exception, Slovenia – due to its specific situation, i.e. lack of liquefied gas and natural gas storage facilities – is not bound by, but has to endeavour to meet, this obligation. In accordance with the Energy Act, the transmission system operator has adopted the Rules on terms and conditions as well as the capacity allocation mechanisms at interconnection points of the transmission system through an auction, on the

basis of which the operator has started allocating transmission interconnection capacities through auction. The transmission system operator shall ensure network access at interconnection points by concluding transport contracts on auctioned capacities, separately and independently at border entry and at exit points. The transmission system operator offers standard capacity products at auctions, and is for this purpose a part of the online capacity booking platform of major European transmission system operators – PRISMA (European capacity platform, <https://platform.prisma-capacity.eu/#/start>).

Pursuant to the Decree on functioning of the natural gas market, which entered into force at the end of 2016, natural gas is traded on the open and balancing markets while transfer capacity may be traded on the primary or secondary market. On the open market participants may directly conclude agreements on the supply of natural gas and the supplier and customer may freely determine the price and quantity of the supplied natural gas. All transactions are concluded in the virtual point, which is managed and determined by the transmission system operator. The balancing market is intended for trading with quantities of natural gas, necessary for the balance of differences between the committed quantity at one or more takeover points and committed quantity at one or more delivery points. The transfer capacities market is intended for acquiring the highest possible usage of transferred capacities of the natural gas network.

The operation of the market is directed towards balancing the contractual and physical currents in the natural gas network. On the primary market, the transfer system operator sells the rights to transfer capacities to the end users connected to the transmission network and to the operators of the distribution systems. On the secondary market, the participants with the rights of transfer capacities directly trade on the basis of bilateral contracts and the prices are freely determined by the market conditions.

As regards the natural gas trading and the supply agreements, a balance scheme is provided on the market. The transmission system operator shall include in the balance scheme all individuals and legal entities who have concluded a balance agreement with the transmission system operator or have concluded a balancing agreement with the carrier of the balancing group.

<sup>10</sup> Official Gazette of the Republic of Slovenia No. 67/2014, as amended..

The membership in the balance scheme is terminated with termination of the validity of these agreements. The supplier and the system user enter into the agreement on natural gas supply. An open agreement with a system user may be entered into only by a supplier that is a balance scheme member.

A user of the natural gas system may form a balance group and become the balance group carrier by concluding a balance agreement with the transmission system operator. Any balance group carrier shall be the carrier of only one balance group and shall be responsible in particular for the announcement of the takeover and transfer of natural gas for the balance group and payment of the calculated quantitative deviations of the balance group. In addition, the balance group carrier shall keep a list of all members of the balance group and the hierarchical list of balancing agreements. Balance scheme members may either be market participants which conclude an open contract with the balance scheme carrier or a balance subgroup if its carrier concludes a balance agreement with the balance group carrier. Save for the market broker, all system users must be members of the balance groups or subgroups.

The natural gas market is completely liberalised and open, meaning that every end user may freely choose the natural gas supplier, irrelevant of the fact in which EU Member State the supplier is established. However, the supplier has to fulfil the requirements concerning the balancing of discrepancies, as well as all other requirements envisaged by the Energy Act. An end user may freely change the supplier by submitting a request to the current supplier which has to undertake all necessary steps to enable the end user to exercise the supply agreement with the new supplier within 21 days as of its request. The supplier must periodically free of charge notify its users on the consumption of natural gas and thus enable the users to freely balance their own consumption.

Consumers are additionally protected by the provisions of the Energy Act, determining the minimum content of the supply agreement (which must be concluded in writing or electronically). A consumer may terminate the supply agreement without being obliged to pay any contractual penalties, indemnity, compensation or any other payment deriving from termination if the termination becomes valid after one year from the

conclusion of the agreement. In any case, a consumer may terminate the contract without notice period in case of choosing another supplier. An integral part of the supply agreement are also the general terms and conditions which have to be fair, determined in advance, clear, understandable and may not include any non-contractual barriers for the exercise of the consumers' rights (e.g. extensive documentation). The supplier is also prohibited to use unfair and misleading methods of natural gas sale and has to ensure clear information to the consumers. Any changes in the general terms and conditions have to be notified to the consumers at least one month before their application. In this context, the Decree on functioning of the natural gas market also obliges the suppliers to use a new accounting unit (i.e. kWh or MWh) to enable the consumers easier comparison with the costs of other energy sources.

## 5. UPSTREAM OIL MARKET

### 5.1 Market overview

In Slovenia, the exploitation of oil began in 1940 when oil stocks were discovered in the North-East part of the country (Petišovci pri Lendavi). They are the only stocks of oil to have been discovered and they have already been exhausted.

An oil transmission network does not yet exist and Slovenia is therefore completely dependent on the import of oil. The main sources of oil are Algeria and Russia. Oil represents 40 per cent of imported fossil fuels in the total supply of energy in Slovenia.

The key market players in the Slovenian oil market are the suppliers of oil Petrol d.d. and OMV Slovenija d.o.o. The other suppliers of oil with a minor market share are also MOL Slovenija d.o.o. (which recently acquired several petrol stations in Slovenia, previously owned by the ENI Group), INA Slovenija d.o.o. and Shell Adria d.o.o. (which is supplying only diesel fuel for trucks).

### 5.2 Regulatory overview

Oil is considered a mineral resource and is regulated by the Mining Act<sup>11</sup>. In addition, also the Energy Act regulates certain oil-related activities.

<sup>11</sup> Official Gazette of the Republic of Slovenia No. 61/2010, as amended.

The search for mineral resources (including oil) is free. However, exploration may not cause damage to third parties. Prior to the commencement of drilling a borehole depth of 30 m or more, it must be verified that the geological structure does not contain beds of coal or hydrocarbons and that borehole does not exceed 300 m.

Prior to the commencement of exploration in a defined exploration area, an exploration permit must be obtained under the conditions and in accordance with the procedure determined by the Mining Act. Prior to the exploitation of oil, an exploitation concession (which may be granted on the basis of previously obtained mining right for exploitation) must be obtained.

An exploration permit and mining right for exploitation may be granted to a legal entity or a natural person which complies with the following requirements: (i) has its registered seat in (or is a citizen of) a Member State of the EU or EEA, Swiss Confederation or OECD; or (ii) has its registered seat in (or is a citizen of) a third country under the condition of reciprocity. Nonetheless, it is not possible to obtain the permit for the purpose of injection or storage of carbon dioxide.

An exploration permit shall be issued for no more than five years and may not be extended, unless in case of force majeure; in such a case the permit is extended for the duration of the force majeure.

The exploration may begin when the exploration permit becomes final. Prior to exploration, the explorer has to prepare an audited implementation plan for each of the exploration areas. The exploration activities must also be reported to the competent mining inspectorate, the Slovenian Geological Fund and any other body, stipulated by the exploration permit at least 15 days prior to the beginning of the exploration. Any trade with the mineral sources obtained during the exploration is prohibited.

Prior to the conclusion of the concession agreement, the holder of the mining right must present an audited mining implementation plan and, if he is not the owner of the respective land, enter into a legal transaction with the owner of the land with the intention of obtaining the right to enable the holder of the mining right to carry out mining activities. The concession agreement process commences with a proposal submitted to the Ministry of Infrastructure.

If all the requirements are fulfilled, the concession agreement is concluded for the period determined therein. When the concession agreement enters into force, the holder of the mining right must make a concession payment and reserved sanitation payment. The mining concession payment shall be paid in annual amounts not exceeding EUR 500 for each hectare of exploitation area and 30 per cent of the average price for the produced unit of mineral source in the respective year, save as in case higher prices have been reached in the auction procedure. The amount of reserved payment for sanitation is determined by the mining project.

## 6. FORTHCOMING DEVELOPMENTS

In recent years, Slovenia has established a good legal framework and healthy market conditions in the energy sector, which enabled its seamless transition to a completely liberalised energy market. Despite successful development in the past, Slovenia is continuing to keep up with challenges and changes in the always evolving energy sector. On one side, Slovenia is working on two major legislative packages which will amend the Energy Act in the near future and ensure the implementation of the latest EU legislation. On the other side, Slovenia is further developing the required infrastructure. In parallel, market actors themselves are also actively involved in the development of the sector.

### 6.1 Regulatory changes

Notwithstanding that since the implementation of the Energy Act in 2014 no major issues with its implementation have been identified, two important amendments to the Energy Act are envisaged in the near future.

The first amendment is envisaged to be adopted during the present year and will provide (i) complete harmonisation with Directive 2010/31/EU, Directive 2012/27/EU, Regulation (EU) 2017/1938 and Regulation (EU) 2017/1369 by way of extending the obligation to install the energy certificate on a visible spot also to the owners and lessees of buildings in which the public usually stays and by providing a definition of "effective remote heating and cooling"; (ii) implementation of the Slovenian Constitutional Court's decision pertaining to payment of damages for the use of land plots for construction of energy infrastructure before the expropriation decision; (iii) harmonisation with Guidelines on State aid for environmental protection and energy 2014-2020 (2014/C

200/01) regarding the lower threshold for the support to alternative energy sources production facilities in the form of guaranteed purchase of electricity (from 1 MW to 500 kW) and (iv) certain new and innovative solutions, such as (a) introduction of the new market actor in the sector called "aggregator" who uses specific knowledge and software to act in the market as an intermediary, combining multiple customer loads or generated electricity for sale, for purchase or auction in any organised energy market and (b) prohibition of certain unfair and misleading (business) practices as carried out by intermediaries (e.g. door-to-door sales people and commercial agents when acquiring new clients). The amendment shall, among other smaller changes, also enable the state to statistically meet the goals for production of energy from renewable sources by investing in renewable sources in other countries.

The second amendment, which will mainly transpose the "Clean energy" package (i.e. eight EU directives) into Slovenian legislation is envisaged to be adopted after 2020.

Additionally, also the adoption of the new Energy Concept of Slovenia, which will provide strategic guidelines for the future development of the energy sector in Slovenia, is expected in 2019. The proposal of the new Energy Concept contains the projections of secure, sustainable and competitive energy supply for the future and ambitious objectives from various fields of energy policy until 2030 and 2050. The key challenges addressed in the proposal are gradual increase of efficient use of energy, increase in the production of energy from renewable sources and thus reduction of conventional fossil fuel resources, namely, the priority targets are the reduction of greenhouse gases emissions by at least 40 per cent by 2035 and 80 per cent by 2055, in comparison with 1990 levels. In addition to the Energy Concept of Slovenia which shall determine the energy program on the national level, the Energy Act envisages also adoption of local energy concepts, which will have to be in line with the Energy Concept of Slovenia and shall determine the concept of development of the local community (or several communities) on the field of energy use and energy supply.

## 6.2 Infrastructure investments

According to applicable legislation, ELES d.o.o. is obligated to prepare a development plan for the electricity transmission network for the next 10-year period every two years. The plan presents the anticipated state of the electric power system and the necessary expansions and interventions for the transmission network. ELES d.o.o. coordinates two types of projects:

transmission network projects and projects of common interest. The important plans for the transmission networks include: Reconstruction of the 2 x 110 kV Gorica–Divjača (Renče) transmission line, Reconstruction of the 2 x 110 kV Brestanica–Hudo transmission line, Renovation of the 110 kV Divjača–Pivka–Ilirska Bistrica transmission line, RTP Ravne with a connecting 220 kV transmission line and (albeit these activities are temporarily suspended) Transition of the 220 kV Beričevo–Divjača network to 400 kV. The Slovenian projects that appear on the European list of projects of common interest are Cirkovce–Pince transmission line 2 x 400 kV, One-way Slovenia–Italy connection and SINCRO.GRID project.

Similarly, Plinovodi d.o.o. prepared the Ten-Year Gas Transmission Network Development Plan for the 2019 – 2028 Period laying down the most important gas infrastructure projects. Depending on its purpose, the planned infrastructure is broken down into projects for increasing operational security and expansion of the transmission system, projects for connecting new natural gas consumers or changing the operational characteristics of gas infrastructure, and projects for developing interconnection points. The transmission system operator estimates to have a total of 24 projects in preparation and planning in the 2019 – 2021 period and to carry out (construct or begin construction on) 17 of those projects, while seven will remain in planning with envisaged investments in studies, location and investment documentation in the next three years. Moreover, Slovenia is involved in two gas related projects of common interest, namely Bi-directional interconnection of the Hungarian and Slovenian transmission systems as part of the bi-directional gas route Italy – Slovenia – Hungary and Bi-directional gas route Austria – Slovenia – Croatia.

## 6.3 Other improvements

In parallel to the efforts of the state to further improve the operation of the energy sector, enhance its efficiency and establish an excellent infrastructural and legal framework, the industry itself is also well connected through various initiatives and tries to be involved in future decision making. Just recently, in mid-2019, Chamber of Commerce and Industry of Slovenia established Strategic Counsel for Energy Transition, composed of energy producers, distributors, energy-intensive users, transport industry representatives, research institutes, etc. The aim of the counsel is to provide the legislator with insights and experience from within the sector in order to balance the legislator's interests, goals and expectations. Such initiatives further help Slovenia to stay on the right path towards the highest levels of efficiency, reliability and connectivity.

# KOLCUOĞLU DEMİRKAN KOÇAKLI

HUKUK BÜROSU • ATTORNEYS AT LAW



TR



# TURKEY

## 1. INTRODUCTION TO THE ENERGY MARKET

Due to its remarkable economic growth over the past decade, Turkey's demand for energy has considerably increased. In order to meet this growing demand, Turkey's energy policy for the next ten years includes the following targets:

- (i) increasing total installed power to 120,000 MW;
- (ii) increasing the share of renewable energy sources to 30 per cent;
- (iii) establishing an energy stock exchange with a diversified product range;
- (iv) commissioning at least two nuclear power plants;
- (v) minimising its petroleum and gas import costs;
- (vi) maximising the use of hydropower;
- (vii) increasing wind-power installed capacity to 20,000 MW;
- (viii) installing power plants with 1,000 MW of geothermal and 5,000 MW of solar energy;
- (ix) extending the length of electricity transmission lines to 60,717 km;
- (x) reaching a power distribution unit capacity of 158,460 MVA;
- (xi) raising the natural gas storage capacity to 11 billion m<sup>3</sup>; and
- (xii) increasing installed coal-fired capacity to 30,000 MW.

These targets demonstrate that energy demand levels will continue to expand, as will the development of Turkey's energy market. Although in the early 2000s Turkey took remarkable steps in liberalising its energy market<sup>1</sup>, these steps were not sufficient to reduce Turkey's foreign dependency. Due to insufficient domestic energy generation, Turkey's primary objective is to strengthen the security of supply. Turkey is determined to diversify

its energy supply routes and sources, by including nuclear energy in its generation bundle and increasing the share of renewable energy. Considering Turkey's targets for the next 10 years and the substantial increase in energy demand<sup>2</sup> it is clear that significant investment (more than double the total amount invested in the last decade) will be required in order to meet expected national demand levels by 2023. In line with these prospects, several significant developments affecting the Turkish energy market and its players occurred in 2017 and 2018 as outlined in the following sections.

## 2. ELECTRICITY

### 2.1 Market overview

The Turkish electricity market is one of the fastest growing electricity markets in the world, growing annually by an average of about nine per cent. In addition to private companies, there are three state-owned companies<sup>3</sup> active in the local electricity market:

- (i) Elektrik Üretim Anonim Şirketi ("EÜAŞ"), the state generation entity;
- (ii) Türkiye Elektrik İletim Anonim Şirketi ("TEİAŞ"), the state transmission entity; and
- (iii) Türkiye Elektrik Dağıtım Anonim Şirketi ("TEDAŞ"), the state distribution entity.

While the state generation entity, EÜAŞ, still plays an important role in this market, the role of private companies is rapidly increasing through both privatisation and establishment of new facilities.

<sup>1</sup> Turkey had started a significant liberalisation process in the energy sector in 2001, with the electricity sector taking a leading role. With the liberalisation process, the Turkish energy sector became more competitive, attracting more investors in all fields of energy. However, the targeted extent of liberalisation has not been achieved in full. In any case, Turkey's long-term target is to stop being an energy importer and start exporting energy.

<sup>2</sup> Turkey's energy demand is estimated to grow by approximately seven per cent each year until 2023.

<sup>3</sup> Prior to 9 July 2018, there was a fourth state-owned company active in the electricity market, namely Türkiye Elektrik Ticaret ve Taahhüt A.Ş. ("TETAŞ"), which was a state power trading entity. On 9 July 2018, TETAŞ merged with EÜAŞ.

TEİAŞ conducts all of Turkey's transmission activities, effectively operating a monopoly in the local electricity transmission market. Aside from the transmission activities exclusively conducted by TEİAŞ, other market activities are fully accessible to private companies. The distribution network is divided into 21 regions, each with its own distribution company. All of these companies have been privatised since 2013. TEDAŞ no longer operates any distribution companies, but it continues to own the distribution assets. Meanwhile, EÜAŞ still has an important role in the electricity generation market, although the power plants operated by EÜAŞ are being privatised.

The new Electricity Market Law<sup>4</sup> (the "EML") stipulated the creation of an electricity exchange market, which would be administered through a newly incorporated company, Enerji Piyasaları İşletme Anonim Şirketi ("EPIAŞ"). EPIAŞ was incorporated in March 2015 and obtained a market operation licence on 1 September 2015. Following incorporation, TEİAŞ and the Borsa İstanbul (the "BI") each hold 30 per cent of the corporation's total shares, with the remaining 40 per cent held by various private energy companies. Under this shareholding structure, TEİAŞ and the BI hold Class A and Class B shares, whereas private energy companies hold Class C shares. Upon its incorporation, EPIAŞ started conducting the market operation activities of the organised wholesale electricity markets (including day-ahead and real-time market activities) other than those operated by the İstanbul Stock Exchange and TEİAŞ. TEİAŞ continues to conduct balancing activities.

## 2.2 Regulatory overview

The Ministry of Energy and Natural Resources (the "MENR") is ultimately responsible for preparing and implementing energy policies, plans, and programs in coordination with its affiliated institutions. Under the MENR's support, the Energy Market Regulatory Authority ("EMRA") is responsible for regulating and supervising electricity market operations in a competitive environment. EMRA's powers and duties can be summarised as issuing licences; setting, amending, enforcing and supervising regulations on performance standards; setting out pricing principles; and maintaining the development and performance of infrastructure for implementation of new power trading and sales methods. The EMRA exercises its powers through the Energy Market Regulatory Board (the "EMRA Board").

The primary pieces of legislation regulating Turkey's electricity market are the EML and the Electricity Market Licence Regulation<sup>5</sup> (the "Electricity Market Licence Regulation").

### 2.3 Regulated electricity market activities

The following electricity market activities are regulated by the EML and the Electricity Market Licence Regulation:

- (i) generation (coal, hydro, geothermal, wind, solar, hydraulic, biomass, biogas, wave, current and tidal energy sources);
- (ii) transmission;
- (iii) distribution;
- (iv) wholesale;
- (v) retail;
- (vi) trade;
- (vii) energy exchange;
- (viii) import; and
- (ix) export.

In order to conduct electricity market activities, companies must obtain separate licences for each activity. To conduct a single activity in multiple facilities located in different regions, companies must also obtain a separate licence for each facility. This is the general principle, but supply licence holders can conduct electricity trading activities (wholesale, export, import, and retail sales); and the individuals or legal entities that:

- (i) generate electricity for their own needs; and
  - (ii) have facilities or equipment that are not operating parallel to the transmission and distribution network,
- are not required to obtain any licence, as long as they remain disconnected from the transmission and distribution networks, and do not conduct wholesale or retail activities.

In May 2019, EMRA introduced the new Regulation on Generating Electricity without a Licence<sup>6</sup> (the "Unlicensed Generation Regulation" or "Regulation"). Under the EML, generation facilities with an installed capacity of up to 1 MW of renewable energy resources are exempt from the licensing requirement. Moreover, if a company generates more electricity than it consumes, the surplus may be sold in the same distribution region in which it is produced, within the scope of the RER Support Mechanism - the Renewable Energy Law established a renewable energy support mechanism ("RER

<sup>4</sup> Published in the Official Gazette dated 3 March 2001 and numbered 24335.

<sup>5</sup> Published in the Official Gazette dated 2 November 2013 and numbered 28809.

<sup>6</sup> Published in the Official Gazette dated 12 May 2019 and numbered 30772.

Support Mechanism”); or may also be consumed in other facilities owned by the same party in the same distribution region for a period of 10 years.<sup>7</sup> Maximum capacity of 1 MW per transformer centre can be allocated to individuals or legal entities generating solar or wind energy (excluding rooftop installations), regardless of the number of consumption facilities owned by that individual or legal entity. When calculating the 1 MW limit, both the individual or legal entity and/or entities in which such persons have direct or indirect shares are considered the same person. Finally, no capacity fee is charged to the renewable energy facilities whose capacity is below 5 MW.

## 2.4 Significant sector issues

Under the Electricity Market Licence Regulation, licence holders engaged in more than one market activity and/or carrying out the same licensed activity in more than one facility or region, are required to keep separate accounts and records for each activity, facility or region. Retail companies engaged in both electricity sales and retail services must keep separate accounts for sales and retail services and must avoid cross-subsidization between these activities.

The shareholders of distribution utilities can own shares in newly established retail sales companies. However, as of 1 January 2016, distribution utilities will not be able to purchase administrative and support services from companies controlled by their parent company (i.e. companies controlled by the parent company of the relevant distribution utility). Furthermore, as of 1 January 2016, retail sales companies and distribution utilities will be required to use different physical premises and information system infrastructures.

The Electricity Market Licence Regulation also sets forth certain share transfer restrictions. Under Article 6 of the EML and Article 19 of the Electricity Market Licence Regulation, direct or indirect changes in shareholding structure and/or share transfers (aside from certain exceptions set forth under the Electricity Market Licence Regulation) are forbidden within the preliminary licence period. EMRA will cancel a preliminary licence if such a transaction occurs.

However, Article 57 of the Electricity Market Licence Regulation provides exceptions to this prohibition with respect to the preliminary licence period. Accordingly, in addition to the

situations relating to inheritance and bankruptcy, this prohibition does not apply to:

- (i) changes in the shareholding structure of publicly listed legal entities, with regard to their publicly listed shares;
- (ii) changes in the shareholding structure of legal entities with publicly listed shareholders, with regard to the publicly listed shares of these shareholders;
- (iii) companies granted a preliminary licence for facilities established in line with international agreements;
- (iv) indirect changes in the shareholding structures of companies holding preliminary licences resulting from changes in their foreign shareholders' shareholding structures;
- (v) direct or indirect changes in the shareholding structure of an entity holding a preliminary licence, caused by a public offering of this entity's shares or the shares of its direct or indirect shareholders;
- (vi) direct or indirect changes in the shareholding structure of a legal entity holding a preliminary licence, caused by the exercise of pre-emption rights by the entity's shareholders;
- (vii) changes resulting in direct partnership of the indirect shareholders of a legal entity holding a preliminary licence, which is stated in the preliminary licence of such entity, without any changes in their shareholding percentages in this legal entity;
- (viii) direct or indirect changes in the shareholding structure of a state-owned entity, resulting from this entity's privatisation;
- (ix) direct or indirect changes in the shareholding structure of an entity holding a preliminary licence, among the existing shareholders, which do not result in a change of the company's control;
- (x) direct or indirect changes in the shareholding structure of an entity holding a preliminary licence (in which majority of shares are directly or indirectly held by state institutions and organisations), caused by a capital increase or a change in shareholders, provided that there is no new shareholder, other than state institutions and organisations;
- (xi) direct or indirect changes in the shareholding structure of an entity holding a preliminary licence, caused by this entity's or its direct or indirect shareholders' acquisition of their own shares, within the scope of the Turkish Commercial Code<sup>8</sup>;

<sup>7</sup> See Section 3 for further information.

- (xii) direct or indirect changes in the shareholding structure of an entity holding a preliminary licence, caused by share transfers among individuals who are direct or indirect shareholders of this entity and who are spouses or first-degree relatives; and
- (xiii) direct or indirect changes in the shareholding structure of an entity holding a preliminary licence, the control of which is seized by the Savings Deposit Insurance Fund of Turkey.

After obtaining a licence under the Electricity Market Licence Regulation, only the following share transfers are subject to EMRA's prior approval:

- (a) direct or indirect acquisition of 10 per cent or more (five per cent or more in publicly-held companies) of the shares in a licence-holding company;
- (b) any transaction resulting in the change of control of a licence-holding company;
- (c) any transaction resulting in the change of ownership or usage rights in a licensed facility;
- (d) share pledge; or
- (e) merger, in accordance with Article 59 of the Electricity Market Licence Regulation.

## 2.5 Trading including import and export

In addition to the EML and the Electricity Market Licence Regulation, electricity trading is regulated by the Regulation on Electricity Market Balancing and Settlement<sup>9</sup> (the "**Balancing and Settlement Regulation**"). The Balancing and Settlement Regulation sets forth the principles and procedures regarding the day-ahead market and real-time balancing of active electricity demand and supply, as well as the settlement of trade in these markets. The Market Financial Reconciliation Center (the "**MFRC**") operates the day-ahead market, as well as the balancing market.

In Turkey, supply licence holders (i.e., wholesale, export, import, and retail sales) can conduct electricity trading activities. In order to participate in the electricity market, electricity traders must either conclude a bilateral electricity purchase agreement with another licence holder or contribute to the organised markets themselves.

Electricity is traded mostly through bilateral agreements on an over-the-counter basis. Agreements are not subject to the EMRA's approval and thus, all commercial terms and conditions are freely negotiable. Electricity can also be traded on a day-ahead and real-time basis.

The EML and the Electricity Market Import and Export Regulation<sup>10</sup> (the "**Import/Export Regulation**") set forth the principles and procedures for electricity import and/or export, and the principles with regards to allocation and use of interconnection capacity for cross-border trade in the electricity market. Under the Import /Export Regulation, subject to the EMRA's approval, the following entities can import or export electricity from or to countries that meet the enumerated international interconnection conditions:

- (i) EÜAŞ and private companies holding supply licences may engage in electricity import and/or export and
- (ii) generation companies may engage in electricity import, provided that the relevant provisions permitting such activities are included in their licences.

On 18 September 2010, a trial run was carried out for the synchronous parallel connection of the Turkish national electricity system (operated by TEİAŞ) to the European Network of Transmission System Operators for Electricity ("ENTSO-E"), for the Continental Synchronous Regional Network of Europe. In April 2015, TEİAŞ became an observer member after Turkey's successful synchronisation with the ENTSO-E Continental Europe Region. TEİAŞ signed a long-term agreement for a permanent connection to the continental European grid, following a trial period that started in September 2010. The observer member status will give TEİAŞ the possibility to attend groups and task forces within the association.

Finally, in 2017, through the international interconnections, Turkey imported electricity (GWh 2,729.06) from Bulgaria (76.02 per cent), Georgia (18.08 per cent), Iran (5.58 per cent) and Greece (0.02 per cent) and exported electricity (GWh 3,300.10) to Greece (96.97 per cent), Bulgaria and Georgia. Data in relation to 2018 has not yet been published.

<sup>8</sup> Published in the Official Gazette dated 14 February 2011 and numbered 27846.

<sup>9</sup> Published in the Official Gazette dated 1-14 April 2009 and numbered 27200.

<sup>10</sup> Published in the Official Gazette dated 17 May 2014 and numbered 29003.

## 2.6 Transmission, distribution and grid access

TEİAŞ conducts all of Turkey's transmission activities. The EML does not envisage TEİAŞ's privatisation. The distribution network, however, is divided into 21 regions, with a different distribution company in each, all of which have been privatised. TEDAŞ no longer operates any distribution companies but continues to own the distribution assets. TEİAŞ conducts all transmission activities in Turkey and the 21 distribution companies conduct the distribution activities in their respective regions. TEİAŞ and the distribution companies are required to meet the demands of individuals and companies for connection to the transmission and distribution systems. The Regulation on the Electricity Market Connection to and Use of the System<sup>11</sup> (the "System Connection and Use Regulation") sets forth certain circumstances for rejection of requests for connection to the transmission system operated by TEİAŞ and the distribution system operated by the respective distribution company.

## 3. RENEWABLE ENERGY

### 3.1 Market overview

In recent years, investments in electricity generation from renewable energy sources have significantly increased. One of Turkey's targets is to increase the share of electricity generated from renewable sources to 30 percent by 2023.

### 3.2 Regulatory overview

The key legislative instruments regarding renewable energy are as follows:

- (i) the Electricity Market Law and the Electricity Market Licence Regulation;
- (ii) the Law on the Utilization of Renewable Energy Sources for the Purpose of Generating Electrical Energy<sup>12</sup> (the "Renewable Energy Law" or "RER Law");
- (iii) the Geothermal Resources and Natural Mineral Waters Law,<sup>13</sup> and

- (iv) the Energy Efficiency Law<sup>14</sup>.

In line with Turkey's substantial demand potential and its renewable energy targets, Turkey has introduced the following secondary legislation since 2013:

- (i) the Regulation on Generating Electricity without a License;
- (ii) the Regulation on Documentation and Support of Renewable Energy<sup>15</sup>;
- (iii) the Regulation on Technical Evaluation of Solar Energy-Based Licence Applications<sup>16</sup>;
- (iv) the Regulation on Technical Evaluation of Wind Energy-Based Licence Applications<sup>17</sup>;
- (v) Communiqué on Wind and Solar Measurements for Preliminary Licence Applications<sup>18</sup>;
- (vi) the Contest Regulation on Pre-Licence Applications Regarding Generation Facilities Based on Solar and Wind Energy<sup>19</sup>;
- (vii) the Regulation on Renewable Energy Resources for Electricity Generation<sup>20</sup>;
- (viii) the Regulation on Certification and Supporting of Renewable Energy Resources (the "RERSM Regulation")<sup>21</sup>;
- (ix) the Regulation on Procedures and Principles Regarding Signing Water Utilisation Agreements to Conduct Generation Activity in the Electricity Market<sup>22</sup>; and
- (x) the Regulation on Renewable Energy Resource Areas<sup>23</sup>.

### 3.3 Additional requirements

Electricity generation based on renewable energy sources is subject to the same requirements as all electricity generation. However, the following additional documents are needed when submitting an application to the EMRA:

- (i) a wind power plant contribution agreement (*Rüzgar Enerjisi Santrali Katkı Payı Anlaşması*) for wind energy projects;
- (ii) land allocation for solar energy projects;
- (iii) a water utilization agreement for hydroelectric power plant projects; and
- (iv) a fuel supply agreement or right to use the energy source for facilities using wave, biomass, biogas (including waste gas) or geothermal power plant projects.

<sup>11</sup> Published in the Official Gazette dated 28 January 2014 and numbered 28896.

<sup>12</sup> Published in the Official Gazette dated 18 May 2005 and numbered 25819.

<sup>13</sup> Published in the Official Gazette dated 13 June 2007 and numbered 26551.

<sup>14</sup> Published in the Official Gazette dated 2 May 2007 and numbered 26510.

<sup>15</sup> Published in the Official Gazette dated 1 October 2013 and numbered 28782.

<sup>16</sup> Published in the Official Gazette dated 1 June 2013 and numbered 28664.

<sup>17</sup> Published in the Official Gazette dated 1 June 2013 and numbered 28664.

<sup>18</sup> Published in the Official Gazette dated 17 June 2014 and numbered 29033.

<sup>19</sup> Published in the Official Gazette dated 6 December 2013 and numbered 28843.

<sup>20</sup> Published in the Official Gazette dated 27 November 2013 and numbered 28834.

<sup>21</sup> Published in the Official Gazette dated 1 October 2003 and numbered 28782.

<sup>22</sup> Published in the Official Gazette dated 21 February 2015 and numbered 29274.

<sup>23</sup> Published in the Official Gazette dated 9 October 2016 and numbered 29852.

### 3.4 Governmental support for renewable energy investments

#### Renewable energy support mechanism

The RER Support Mechanism was formed in order to support renewable energy investments. The support mechanism includes price, terms, procedures, and principles regarding the payments from which individuals generating renewable energy within the scope of the RER Law can benefit. Article 6 of the RER Law provides that the prices in Schedule I (see below) will be applicable for 10 years for those generation licences subject to the RER Support Mechanism and commissioned until 31 December 2020<sup>24</sup>.

#### Schedule I

| Facility Type | Applicable Price (USD cent/kWh) |
|---------------|---------------------------------|
| Hydroelectric | 7.3                             |
| Wind          | 7.3                             |
| Geothermal    | 10.5                            |
| Biomass       | 13.3                            |
| Solar power   | 13.3                            |

Renewable energy facilities must obtain an RER certificate in order to benefit from the RER Support Mechanism. Under the Renewable Energy Law, the EMRA issues RER certificates to generation license-holders, in order to identify and monitor the type of renewable energy resources traded in the domestic and international electricity markets. RER certificates are granted for one year.

#### Incentive regime

The RER Law provides that, subject to a Council of Ministers' decree, renewable energy facilities may benefit from certain tax incentives, such as customs duty and VAT. Additionally, renewable energy facilities, and related roads and transmission lines established in a forested area or on Treasury land, also benefit from 85 percent discounts on land allocation, lease or utilization fees for 10 years, starting from the commencement of construction; however, this discount applies only if generation activity at the relevant facility commences before 31 December 2020. Furthermore, upon approval from the relevant ministry or regional protection committee, renewable energy facilities can be established in national parks, natural parks, natural monument and conservation zones, protected forests, wildlife protection areas and special environmental protection zones.

Under the RER Law, if the mechanical and/or electro-mechanical equipment used in a renewable energy generation facility commissioned before 31 December 2020 is manufactured domestically, the prices in Schedule I will be added to the Schedule II prices (see below) for five years starting from the commissioning of the generation facility. This higher price will apply for electricity generated in such facilities and delivered to the distribution system.

#### Schedule II

| Facility Type      | Domestic Production   | Contribution<br>(USD cent/kWh) |
|--------------------|---|--------------------------------|
| Hydroelectric      | Turbine   | 1.3                            |
|                    | Generator and power electronics   | 1                              |
|                    | Wing  | 0.8                            |
| Wind               | Generator and power electronics   | 1                              |
|                    | Turbine tower   | 0.6                            |
|                    | The mechanical equipment in rotor and nacelle groups  | 1.3                            |
| Photovoltaic solar | PV panel integration and solar structural mechanics production                              | 0.8                            |
|                    | PV modules  | 1.3                            |
|                    | Cells forming the PV module   | 3.5                            |
|                    | Invertor  | 0.6                            |
|                    | Material focusing the solar rays onto the PV module   | 0.5                            |
|                    | Radiation collection tube   | 2.4                            |
|                    | Reflective surface plate  | 0.6                            |
|                    | Sun chasing system  | 0.6                            |
|                    | Mechanical accessories of the heat energy storage system                                    | 1.3                            |
|                    | Mechanical accessories of a steam production system that collects the sun rays on the tower | 2.4                            |
| Intensified solar  | Stirling engine   | 1.3                            |
|                    | Panel integration and solar panel structural mechanics                                      | 0.6                            |
|                    | Fluid bed steam tank  | 0.8                            |
|                    | Liquid or gas fuel steam tank   | 0.4                            |
|                    | Gasification and gas cleaning group   | 0.6                            |
| Biomass            | Steam or gas turbine  | 2.0                            |
|                    | Internal combustion engine or sterling engine   | 0.9                            |
|                    | Generator and power electronics   | 0.5                            |
|                    | Cogeneration system   | 0.4                            |
| Geothermal         | Steam or gas turbine  | 1.3                            |
|                    | Generator and power electronics   | 0.7                            |
|                    | Steam injector or vacuum compressor   | 0.7                            |

<sup>24</sup> Although the initial date set in the RER Law was 31 December 2015, a Council of Ministers' Decree dated 18 November 2013 extended the incentive term until 31 December 2020.



## 4. PETROLEUM

### 4.1 Overview

Due to insufficient petroleum sources, Turkey is dependent on importation. It imports petroleum mainly from Iran, Russia, Iraq, Saudi Arabia and Kazakhstan.

While the MENR is generally responsible for the petroleum sector, the EMRA regulates the downstream petroleum market. The Petroleum Market Law<sup>25</sup> (the "PML") and the Law Liquefied Petroleum Gas Market Law<sup>26</sup> govern downstream petroleum market activities in Turkey, along with the Petroleum Market Licence Regulation.<sup>27</sup> The petroleum markets were liberalised following the introduction of the PML in 2003 and the Liquefied Petroleum Gas Market Law in 2005.

In addition to private companies, the Turkish Petroleum Corporation ("TPAO"), a state-owned oil and natural gas company, is active in the downstream petroleum market. TPAO carries out four fundamental activities:

- (i) exploration, drilling, production and well completion (upstream);
- (ii) natural gas storage (downstream natural gas);
- (iii) participation in oil and gas pipeline projects (upstream); and
- (iv) oil trade, distribution and transportation (downstream petroleum).

### 4.2 Regulated petroleum market activities

Under the PML and the Petroleum Market Licence Regulation, in order to conduct downstream petroleum market activities, companies must obtain the requisite petroleum market licence from the EMRA. A separate licence is required for each activity and each facility. The types of licenses are as follows:

- (i) refining;
- (ii) processing;
- (iii) lubricant production;
- (iv) storage;
- (v) transmission;
- (vi) eligible consumer;
- (vii) bunker delivery;

- (viii) distribution;
- (ix) transportation; and
- (x) dealership.

### 4.3 Significant sector issues

One of the fundamental sector issues in the downstream petroleum market is related to distributor market shares in the Turkish petroleum market. A distributor's total market share cannot exceed 45 per cent of the total domestic petroleum market. However, the market shares of the key distributors in the Petroleum Markets are far below 45 per cent. According to EMRA's sector reports (2017), the largest market shares were 21.18 per cent for Petrol Ofisi A.Ş. and 17.59 per cent for Opet Petrolcülük A.Ş. in the petroleum market. The PML also imposes another market share restriction with respect to distributors and dealers. A distributor's sales via its own dealers (i.e. through the stations operated by the distributor) cannot exceed 15 per cent of that distributor's total domestic market share.

Competition Board interventions are also relevant to distributors and their dealers. Through its communiqués, the Competition Board has restricted the length of non-compete undertakings contained in vertical agreements. Indefinite term non-compete undertakings, or those exceeding five years, can no longer be granted a block exemption from the prohibition of agreements, concerted practices or decisions that restrict competition in a specific market<sup>28</sup>. Because the agreements between petroleum distributors and their dealers are vertical agreements, this restriction also affects the downstream petroleum market. Pursuant to the Competition Board's latest decisions, all personal or real rights related to dealership agreements (such as loan contracts, equipment contracts, long-term lease contracts and long-term usufructs) must be limited to five years. This results in a five-year renewal cycle for stations operated under the Dealer Owned Dealer Operated (DODO) model, which is the typical retail station structure in the Turkish market (95 per cent).

Another significant sector issue concerns access to transmission and storage networks. Companies that have distribution or storage licences cannot discriminate among third parties of equal status for access to transmission and storage networks. Transmission and storage licence holders with spare capacity in their facilities must

<sup>25</sup> Published in the Official Gazette dated 4 December 2003 and numbered 25322.

<sup>26</sup> Published in the Official Gazette dated 13 March 2005 and numbered 25754.

<sup>27</sup> Published in the Official Gazette dated 17 June 2004 and numbered 25495.

<sup>28</sup> Where the non-compete undertaking may be renewed so that the total term indirectly exceeds five years, the non-compete undertaking will be considered "indefinite".

address the transmission and storage demands of third parties if these demands conform to, *inter alia*, (i) the tariff of the licence holder; (ii) the capacity of the relevant facility; and (iii) the minimum amount in the tariff of the licence holder.

## 5. NATURAL GAS

### 5.1 Market overview

Natural gas consumption in Turkey is also increasing in line with electricity consumption. According to the MENR, natural gas demand is expected to increase at a rate of 2.9 per cent per year until 2020. Due to insufficient natural gas sources, Turkey is dependent on gas imports from Russia, Azerbaijan, and Iran, in addition to LNG imports from Nigeria and Algeria under long-term agreements and spot LNG from several countries under agreements of less than one year.

Although the downstream natural gas market is open to private participation, state-owned Petroleum Pipeline Corporation ("BOTAŞ") still holds a significant position in this sector. BOTAŞ was established in 1974 as a subsidiary of TPAO to transport Iraqi crude oil to the Ceyhan Marine Terminal (an upstream activity). However, BOTAŞ eventually began conducting downstream natural gas activities as well, such as natural gas importation and trade and has become a key player in the downstream natural gas market.

With the enactment of the Natural Gas Market Law<sup>29</sup> (the "NGML") in 2011, BOTAŞ lost its monopoly in natural gas imports, distribution and sales. However, BOTAŞ maintains a key market position, as it owns and operates the natural gas transmission network and still imports approximately 80 per cent of the natural gas consumed in Turkey. Finally, most of the state-owned distribution companies active in the downstream natural gas market have been privatised. The latest privatisation occurred in 2013, when Ankara's natural gas distribution company, Başkent Doğalgaz Dağıtım A.Ş., was privatised after two previously failed attempts in 2008 and 2010. The only remaining significant state-owned distribution company is the İstanbul Gaz Dağıtım A.Ş. (İGDAŞ), which is expected to be privatised in the near future.

### 5.2 Regulatory overview

The EMRA is the authority responsible for regulating and supervising the downstream natural gas market. The NGML governs downstream natural gas activities, which are regulated in more detail by the Natural Gas Market Licence Regulation. An amendment law proposing substantive changes to the NGML was prepared in 2012 and submitted to the Turkish Parliament on 4 August 2014 ("Draft Amendment Law"). However, as it was not discussed and was not passed by the Turkish Parliament by the end of 2014, the Draft Amendment Law became void.

As of the date this guide was drafted, Turkey has not yet enacted these amendments.

### 5.3 Regulated natural gas market activities

Under the NGML, in order to conduct natural gas market activities, a licence must be obtained from the EMRA. A separate licence is required for each activity and each facility. The types of licenses are as follows:

- (i) import;
- (ii) transmission;
- (iii) storage;
- (iv) wholesale;
- (v) export;
- (vi) distribution within a city; and
- (vii) sale, distribution, and transmission of compressed natural gas.

### 5.4 Significant sector issues

The NGML provides that market participants active in (a) more than one market activity or (b) a single market activity in more than one facility, must keep separate accounts for each activity or facility. Cross-subsidization between accounts is prohibited. In addition to this account separation, distribution licensees must also maintain separate accounts for their natural gas sale and transportation activities.

The NGML imposes market share restrictions on companies other than natural gas producers, as well as on natural gas importers. Under the NGML, companies cannot sell natural gas corresponding to more than 20 percent of estimated national consumption levels, and importers cannot import more than 20 percent of estimated national consumption. The EMRA determines the relevant natural gas consumption estimates.

<sup>29</sup> Published in the Official Gazette dated 2 May 2001 and numbered 24390.

<sup>30</sup> Published in the Official Gazette dated 7 September 2002 and numbered 24869.

A recent amendment in the NGML introduced another restriction: distributor licence holders can have licences in only two cities in Turkey. The NGML imposes import restrictions on private companies. Under the NGML, importers cannot conclude new natural gas purchase agreements (except for LNG) with countries with which BOTAŞ currently has agreements.

EMRA Board Decree No. 725 ("**Decree No. 725**") sets forth the procedures and principles for import licence applications by companies planning to import natural gas from countries from which BOTAŞ does not already import gas. Under Decree No. 725, BOTAŞ's affirmative opinion is required on these import licence applications. Accordingly, the EMRA must obtain BOTAŞ's opinion on whether or not such import activity will affect the performance of BOTAŞ's obligations arising out of its existing contracts (in BOTAŞ's capacity as a natural gas importer). Moreover, Decree No. 725 requires consultation with BOTAŞ (in its capacity as a transmission system operator (TSO)) on the technical suitability of the proposed importation through BOTAŞ's transmission network. This contradicts the NGML's purpose of liberalising the market and decreasing BOTAŞ's role, and has arguably affected several possible market players in their contemplations to import gas to Turkey.

### 5.5 Transmission, distribution and access to the system

Distribution or transmission licensees cannot discriminate among third parties of equal status for access to storage, transmission and distribution networks. Licensees can only decline third-party access requests based on certain specific grounds. These specific grounds are:

- (i) insufficient capacity;
- (ii) lack of capacity to fulfil existing obligations; and
- (iii) orders to pay significant financial compensations due to existing contractual obligations.

If an applicant undertakes to pay the relevant expenses, access cannot be denied.

Third party access to the transmission network is regulated under the BOTAŞ Transmission Network Operation Principles<sup>31</sup> (the Network Code) and the Natural Gas Market Transmission Network Operation Regulation<sup>32</sup>. In order to access the network, the relevant

company must conclude a connection agreement with BOTAŞ<sup>33</sup>. In addition, a standard transportation agreement must be concluded for gas transport.

Third party access to distribution networks is regulated under the Natural Gas Market Distribution and Customer Relations Regulation<sup>34</sup>. Distribution companies must connect all consumers within their region<sup>35</sup>. A connection agreement must be concluded, and the technical connection and service lines must be established.

### 5.6 LNG and natural gas storage and third-party access

In Turkey, there are two underground natural gas storage facilities: the Silivri Underground Natural Gas Storage Facility and Tuz Gölü Underground Natural Gas Storage Facility owned and operated by BOTAŞ. The first phase of the Tuz Gölü Underground Natural Gas Storage Facility was completed and came into service in February 2017. According to the MENR's official website, the capacity of the Tuz Gölü Underground Natural Gas Storage Facility is planned to be increased to 5.4 bcm by 2023. On 27 June 2018, BOTAŞ and Industrial and Commercial Bank of China (ICBC) signed an MoU for financing this project.

In addition, there are two LNG terminals: the BOTAŞ Marmara Ereğlisi LNG Terminal in Tekirdağ and the Ege Gaz Aliğa LNG Terminal. EMRA also categorised floating liquefied natural gas (FLNG) activities as "storage" and issued the first FLNG licence to Etki Liman İşletmeleri A.Ş. for an FLNG terminal in Aliğa, İzmir and the second FLNG licence to BOTAŞ for an FLNG terminal Dörtöyl, Hatay. These two FLNG terminals came into service in 2017 and in 2018, respectively.

The NGML and the Natural Gas Market Licence Regulation required import licence holder applicants to (i) conclude lease contracts with storage licence holders to ensure storage of 10 per cent of their annual gas import or (ii) to obtain a commitment from storage licence holders confirming that they will have such storage capacity within five years. However, the current total capacity of the three storage facilities in Turkey is below 10 per cent of the nation's annual gas import amount. The NGML was amended in June 2016 and EMRA was granted the authority to

<sup>31</sup> Published in the Official Gazette dated 22 August 2004 and numbered 25561.

<sup>32</sup> Published in the Official Gazette dated 26 October 2002 and numbered 24918.

<sup>33</sup> BOTAŞ is the owner of the existing national transmission network.

<sup>34</sup> Published in the Official Gazette dated 3 November 2002 and numbered 24925.

<sup>35</sup> Distribution companies can sell their entire distribution networks prior to expiration of their distribution licence by obtaining EMRA Board approval.

determine the percentage of the annual gas import amount based on which a commitment will be obtained. On the grounds of this authority, EMRA recently set the applicable percentage as 1 per cent for natural gas import licence holders (including spot LNG import licence holders) and natural gas wholesale licence holders).

## 5.7 Trading

BOTAŞ's Network Operation Manual regulates natural gas trading. In addition, natural gas trading is regulated under the provisions of each separate license. In Turkey, holders of the following four types of licenses conduct gas trading:

- (i) production lease<sup>36</sup>;
- (ii) import license;
- (iii) export license; and
- (iv) wholesale license.

To participate in natural gas trading, private law contracts must be signed by suppliers and consumers. A natural gas sales agreement is the primary agreement executed within the scope of natural gas trading. Aside from a natural gas sales agreement, the parties must also conclude the following agreements:

- (i) operation agreements;
- (ii) system connection agreements; and
- (iii) lease agreements.

## 6. UPSTREAM

### 6.1 Market overview

Thanks to its geopolitical position, Turkey is a critical country for petroleum and natural gas trade between the East and the West. Being the bridge between energy-rich eastern countries and import-dependent western countries, Turkey is a natural transit point for the maritime and pipeline transportation of crude oil and natural gas. TPAO is the most active state-owned company in the upstream market.<sup>37</sup>

### 6.2 Regulatory overview

While the new Turkish Petroleum Law<sup>38</sup> (the "TPL") governs upstream crude oil and natural gas activities<sup>39</sup>, the Law on Transit Passage through Petroleum Pipelines<sup>40</sup> (the "Transit Law") governs the transit passage of oil and gas. Turkey enacted the TPL in 2013 and abolished the former Petroleum Law (the "PL") after nearly 60 years. In early 2014, the Turkish Petroleum Law<sup>41</sup> Implementation Regulation<sup>42</sup> was introduced. The General Directorate of Petroleum Affairs (the "GDPA") and the Transit Petroleum Pipelines Department of the MENR are the competent regulatory bodies responsible for the oil and gas upstream market and transit activities respectively. Unlike in the downstream market, the EMRA does not play a role in this market.

### 6.3 Regulated upstream market activities

The TPL defines a "petroleum right" as any right arising from one of the following permits or licences:

- (i) investigation permit;
- (ii) exploration licence; or
- (iii) production lease.

#### Investigation permit

Under the TPL, "field research" is defined as the investigation of land from the ground or air by topographical, geological, geophysical, geochemical, and similar methods to gather data, in order to explore petroleum; and conducting drilling, other than exploration drilling, in order to gather geological information. An investigation permit must be obtained from the GDPA in order to conduct research within an area with predetermined boundaries. The GDPA concludes investigation permit applications within 60 days. The fact that there is already an investigation permit, exploration licence or production lease for part of the field for which the permit is requested, does not prevent the issuance of another investigation permit. An investigation permit-holder must pay a one-time fixed fee per hectare.

#### Exploration licence

As petroleum-right holders, companies holding exploration

<sup>36</sup> The licence holder can participate in petroleum trade. However, it cannot conduct natural gas trade activities without a wholesale licence.

<sup>37</sup> Upon the enactment of the Turkish Petroleum Law, the Minister of Energy and Natural Resources reiterated the government's intention to privatise TPAO through a public offering of its shares.

<sup>38</sup> Published in the Official Gazette dated 11 June 2013 and numbered 28647.

<sup>39</sup> Under the TPL, the definition of "petroleum" includes both crude oil and natural gas.

<sup>40</sup> Published in the Official Gazette dated 29 June 2000 and numbered 24094.

<sup>41</sup> Published in the Official Gazette dated 16 March 1954 and numbered 8659.

<sup>42</sup> Published in the Official Gazette dated 22 January 2014 and numbered 28890.

licenses can conduct exploration activities within the licensed field, conduct research activities around the licensed field, produce petroleum by developing petroleum fields and apply for discovery rights.

Turkey is divided into two petroleum districts, namely, onshore and offshore districts. In addition, there are general limitations regarding the maximum size of an exploration area. Unlike the former PL, the TPL does not require payment of a fixed fee to the state. However, the legislation retains the 12.5 percent royalty fee requirement.

The term for exploration licences is five years for on-shore licences and eight years for off-shore licences. The terms of these licences may be extended up to nine years for on-shore and 14 years for off-shore exploration. As for exploitation licence, this type of licence is granted for 20 years and it may be extended twice, each time for 10 years. However, if petroleum is discovered at the end of the exploration licence term, an additional term of up to two years can be granted, for the purposes of evaluating the commercial aspects of the petroleum discovery.

#### ***Production lease***

In the event of discovery during exploration, a production lease must be obtained from the GDPA in order to continue exploration and production, and for the sale of any petroleum produced. Under the PML, companies holding a production lease may sell the crude oil they produce, without obtaining a separate licence from the EMRA. On the other hand, under the NGML, in order to sell natural gas produced, a company must first obtain a wholesale licence from the EMRA.

While the PL used to impose restrictions on the number and area of production leases, the TPL has abolished all of these restrictions. Both exploration licence and production leaseholders must pay a 12.5 per cent royalty. The term of a production lease is 20 years and it can be extended for two additional 10-year terms. Consequently, just as under the PL, the total maximum term of a production lease is 40 years.

Exploration licenses, production leases, and related petroleum rights, as well as their conditions and restrictions, are recorded in the Petroleum Registry. The transfer of rights arising from these

licenses is also recorded in the Petroleum Registry, following the GDPA's evaluation and approval. The GDPA must complete transfer applications within 60 days.

#### **6.4 Material changes in the Turkish Petroleum Law**

Turkey is now divided into two petroleum districts in accordance with the TPL, namely onshore and offshore districts. Previously, there were 18 petroleum districts under the (now abolished) PL. As another novelty, the TPL abolished the restriction on the number of licenses a company can obtain for a single petroleum district. Under the PL, the number of licenses a company could obtain for a single petroleum district was eight.

More importantly, the TPL also abolished the "national interest" concept. Based on this concept, TPAO had a statutory right to obtain exploration licenses on the state's behalf, and accordingly, TPAO had an advantage during the exploration licence application process. TPAO no longer has this privilege.

#### **6.5 International crude oil and gas pipelines**

The transit passage of oil and gas through Turkey is generally governed by international agreements between Turkey and the relevant country. If there is an international agreement, then the Transit Law<sup>43</sup> applies. Accordingly, the legal regime governing transit pipelines consists of (i) the Transit Law; (ii) the international agreement (generally an IGA); and (iii) the project agreements.

Aside from "transit" pipelines travelling through Turkey (e.g. the Baku – Tbilisi – Ceyhan (BTC) Pipeline and the contemplated Trans Anatolian Natural Gas Pipeline (TANAP)), there are non-transit pipelines, such as the Kirkuk – Yumurtalik Crude Oil Pipeline, which transport crude oil or natural gas to or from Turkey. Either a Council of Ministers' Decree (pursuant to the TPL) or an intergovernmental agreement ("IGA") signed specifically for that pipeline, will govern a non-transit pipeline.

Turkey currently has one international transit pipeline crossing Turkey: the Baku–Tbilisi–Ceyhan Crude Oil Pipeline owned by BTC Consortium, transporting crude oil from the Caspian region to Ceyhan.

In addition, Turkey has the following international natural gas import and export pipelines:

<sup>43</sup> Published in the Official Gazette dated 29 June 2000 and numbered 24094.

- (i) Russia–Turkey Western Route Natural Gas Pipeline crossing Ukraine, Romania, and Bulgaria to Turkey;
- (ii) Russia–Turkey Blue Stream Natural Gas Pipeline, transporting natural gas from Russia to Turkey through the Black Sea;
- (iii) Iran–Turkey Natural Gas Pipeline, transporting natural gas from Iran to Turkey;
- (iv) Baku–Tbilisi–Erzurum Natural Gas Pipeline, transporting natural gas from Azerbaijan through Georgia to eastern Turkey; and
- (v) Turkey–Greece Natural Gas Pipeline, transporting natural gas from Turkey to Greece.

Finally, upon completion, the following contemplated projects will make Turkey a true oil and gas transport hub:

- (a) Trans–Anatolian Natural Gas Pipeline (“TANAP”) will transport natural gas from Shah Deniz Phase II field in Azerbaijan to Turkey and Europe. The construction of this pipeline started in 2015 and the supply of gas from Azerbaijan to Turkey through TANAP started in June 2018. At the ceremony to mark the start of gas supplies through TANAP, President Erdoğan stated that the gas deliveries to Greece will begin in June 2019 but this target is not likely to be achieved;
- (b) the Trans-Adriatic Natural Gas Pipeline (TAP) Project, to transport natural gas from Turkey to Southern Italy and further into Europe, through Greece and Albania;
- (c) the Turkish Stream Natural Gas Pipeline, which will replace the South Stream Project and transport gas from Russia across an off-shore section under the Black Sea to Turkey and from there onto European markets. On 10 October 2016, Turkey and the Russian Federation signed an IGA for construction of the Turkish Stream pipeline. This pipeline is still under construction;
- (d) the Trans-Caspian Natural Gas Pipeline Project, to transport natural gas from Turkmenistan to Erzurum, Turkey and possibly to Europe; and
- (e) the Northern Region of Iraq – Turkey Crude Oil Pipeline Project, to transport crude oil from the Northern Region of Iraq to Turkey.

## 7. NUCLEAR

In Turkey, the Law on Construction and Operation of Nuclear Power Plants and the Sale of Energy Generated from those Plants (“**Law No. 5710**”) and the Regulation on the Principles and Procedures for Competition and Contracts<sup>44</sup> within the Framework of Law No. 5710 are the main pieces of legislation that govern the principles and procedures of construction and operation of nuclear power plants and the sale of energy generated from those plants, together with the Decree-Law on the Organisation and Nuclear Regulatory Authority<sup>45</sup>. On 2 July 2018, the Council of Ministers adopted the above Decree-Law, under which the Nuclear Regulatory Authority (“**NRA**”) was established and it was assigned as the regulatory control institution for nuclear activities. In addition, the President adopted a resolution, under which the Turkish Atomic Energy Authority (the “**TAEA**”) (which was the former regulatory authority on nuclear energy matters) was re-established and was assigned responsibilities only for the promotion of the development of the nuclear industry and radioactive waste management. This resolution was published in the Official Gazette dated 15 July 2018 and entered into force on the same date.

By reference to Law No. 5710, the TAEA (before its re-establishment) set forth the criteria that must be fulfilled by companies wishing to construct and operate nuclear power plants in Turkey. These criteria mainly make reference to the International Atomic Energy Agency Safety Standards for nuclear safety and to the nuclear power plant exporter’s nuclear safety legislation for licensing. In March and April 2017, the TAEA had issued three new regulations in the field of nuclear energy: the Regulation on the Construction Inspection of Nuclear Power Plants<sup>46</sup> provides for the procedures on the construction of nuclear power plants in accordance with nuclear security principles. The two other regulations govern the management of nuclear power plants and their personnel. These regulations are still in effect.

<sup>44</sup> Published in the Official Gazette dated 19 March 2008 and numbered 26821.

<sup>45</sup> Published in the repeated Official Gazette dated 9 July 2018 and numbered 30473.

<sup>46</sup> Published in the Official Gazette dated 31 March 2017 and numbered 30024.



Alongside these principal pieces of legislation, IGAs and host-government agreements (“HGA”) are concluded in order to establish a special legal regime for contemplated nuclear power plant projects. Currently, there are two nuclear power plant projects in Turkey. The first nuclear power plant project is the Akkuyu Nuclear Power Plant (the “**Akkuyu NPP**”). In 2010, Turkey and the Russian Federation signed an intergovernmental agreement and provided a Build, Own and Operate model for the Akkuyu NPP. EMRA issued the generation licence for the Akkuyu NPP on 15 June 2017, which is valid until 15 June 2066, and the TAEA, which was the then competent regulatory authority, issued the construction licence for the first unit of the Akkuyu NPP on 2 April 2018. On 3 April 2018, the Russian and Turkish presidents launched the construction of the Akkuyu NPP. The first unit of the Akkuyu NPP is expected to be commissioned in 2023.

The second nuclear power plant project is the Sinop Nuclear Power Plant (the “**Sinop NPP**”). The intergovernmental agreement related to the Sinop NPP was signed by Turkey and Japan in 2013; Turkey ratified this intergovernmental agreement in 2015. According to the Minister of Energy and Natural Resources, the feasibility study for the Sinop NPP was completed and submitted to the MENR for its review in July 2018. Moreover, in relation to a possible third nuclear power plant to be constructed in Thrace, the Minister of Energy and Natural Resources stated the MENR is in contact with the Chinese State Nuclear Power Technology Corporation. It is worth noting that, at the 23rd World Energy Congress held in İstanbul, the Turkish President had confirmed that a third nuclear power plant is on the Turkish Government’s agenda.

#### ***Draft Nuclear Liability Law***

Turkey has ratified the Convention on Third Party Liability in the Field of Nuclear Energy of 29 July 1960, as amended by the Protocol of 28 January 1964 and by the Protocol of 16 November 1982 (the “**Convention**”). In line with Article 7(b) of the Convention, the maximum liability of the nuclear installation’s operator in respect of damage caused by a nuclear incident is SDR 15 million. Turkey has signed but not ratified the 2004 Additional Protocol to the Convention, which sets forth EUR 700 million as the operator’s minimum liability.

Turkey does not have any domestic law related to compensation for nuclear damage. However, a MENR official document dated 26 February 2016 stated that the Ministry has prepared a draft law on third party liability in the field of nuclear energy (the “**Draft Nuclear Liability Law**”) and this law will be enacted within 2016. However, it was still not enacted. The Draft Nuclear Liability Law text has not been disclosed to the public. However, the same document further provides that the Draft Nuclear Liability Law was prepared in line with the 2004 Additional Protocol to the Convention, and the prescription period for nuclear damage claims will be extended to 30 years for actions regarding loss of life and personal injury, and in addition the operator of the nuclear power plant will be required to have and maintain insurance to cover its liability as in the 2004 Additional Protocol to the Convention.

<sup>47</sup> <http://www2.tbmm.gov.tr/d26/7/7-1446sgc.pdf>.

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## CONTACTS

**Albania**

Oltjon Dano

[o.dano@kalo-attorneys.com](mailto:o.dano@kalo-attorneys.com)**Bosnia and Herzegovina**

Slaven Dizdar

[slaven.dizdar@mariclaw.com](mailto:slaven.dizdar@mariclaw.com)**Bulgaria**

Alexander Chatalbashev

[a.chatalbashev@boyanov.com](mailto:a.chatalbashev@boyanov.com)**Croatia**

Emir Bahtijarevic

[emir.bahtijarevic@dtb.hr](mailto:emir.bahtijarevic@dtb.hr)**Greece**

Gus J. Papamichalopoulos

[g.papamichalopoulos@kglawfirm.gr](mailto:g.papamichalopoulos@kglawfirm.gr)**Montenegro**

Dragoljub Cibulic

[dragoljub.cibulic@bdkadvokati.com](mailto:dragoljub.cibulic@bdkadvokati.com)**Republic of North Macedonia**

Kristijan Polenak

[kristijan@polenak.com](mailto:kristijan@polenak.com)

Metodija Velkov

[mvelkov@polenak.com](mailto:mvelkov@polenak.com)**Romania**

Gabriela Cacerea (electricity and renewables)

[gabriela.cacerea@nndkp.ro](mailto:gabriela.cacerea@nndkp.ro)

Ruxandra Bologa (oil and gas)

[ruxandra.bologa@nndkp.ro](mailto:ruxandra.bologa@nndkp.ro)**Serbia**

Dragoljub Cibulic

[dragoljub.cibulic@bdkadvokati.com](mailto:dragoljub.cibulic@bdkadvokati.com)**Slovenia**

Helena Butolen

[helena.butolen@selih.si](mailto:helena.butolen@selih.si)**Turkey**

Okan Demirkan

[odemirkan@kolcuoglu.av.tr](mailto:odemirkan@kolcuoglu.av.tr)

## NOTES









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