THE ENERGY REGULATION AND MARKETS REVIEW

SEVENTH EDITION

Editor
David L Schwartz

THE LAWREVIEWS

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PREFACE

In our seventh year of writing and publishing *The Energy Regulation and Markets Review*, we have seen dramatic changes in global energy policies. Europe has experienced a strong economic rebound, which has allowed many countries to dedicate increased resources to the infrastructure needs of the energy sector, including for renewables. While the United States commenced efforts to withdraw from the Paris Agreement, the signatories to the Paris Agreement countries have continued to make efforts to reduce greenhouse gases (GHGs). There is still a significant need to invest in infrastructure, and we have seen significant investment throughout the supply chains in the oil, gas and power sectors globally. The 2011 Fukushima nuclear incident continues to impact energy policy in many countries, and we continue to see extensive liberalisation of the energy sector. Oil prices have started to rebound somewhat, which presents some hope to those countries that remain dependent upon oil prices for national revenue.

I CLIMATE CHANGE DEVELOPMENTS

With respect to climate change efforts, the Paris Agreement was placed into effect on 4 November 2016, but President Trump announced last year that the United States would be withdrawing from the Paris Agreement. Nonetheless, we continue to see significant carbon reduction efforts, such as increased development of renewable resources, as well as energy efficiency and demand reduction measures, globally, including in the United States.

Following the Brexit vote, the United Kingdom closed its 'renewable obligation' programme to new generation, and limited new contracts for differences, which has significantly reduced new renewable construction this year. France has announced a plan to close all coal-fired power plants within five years, double the capacity of wind and solar renewable generation and prohibit shale gas production and all new searches for hydrocarbons. Denmark continues to seek to have renewable energy meet all of its electricity demands by 2050, and over the past year has initiated an effort to improve the output of solar and wind resources through technology improvements. The Netherlands has a goal of reducing GHGs by at least 25 per cent by 2020, and has announced its intent to close all coal plants by 2030. While Germany will likely miss its 2020 renewable energy goals, it has an ambitious goal to achieve 65 per cent renewable generation capacity by 2030. Belgium has continued its effort to develop offshore renewable wind resources (including the development of an offshore grid), but has reduced historical green certificate subsidies. Italy is seeking to reduce carbonisation by having a goal of relying on renewable resources for 28 per cent of its energy needs by 2030. Switzerland has continued to promote the development of renewables and is supporting the development of large-scale hydroelectric resources through state subsidies.

Spain is seeking to reach 20 per cent renewables by 2020, and has initiated new auctions for 6,000MW of new renewable installed capacity. Turkey seeks to have 30 per cent renewables by 2023.

China released a plan to have 15 per cent of its energy supplied by non-fossil fuels, 20 per cent from natural gas and no more than 58 per cent from coal by 2020. Korea's goal is to cut GHGs by 37 per cent by 2030, and it is seeking to have 95 per cent of all new installed capacity come from clean energy sources and to shut down coal power plants that are more than 30 years old. India's announced goal to have at least 40 per cent of its installed electric capacity powered by non-fossil fuels may be overshadowed by the fact that it is developing and constructing 50,000MW of new coal-fired generation capacity. Japan is looking at offshore wind and a variety of other new renewable energy sources to assist with the reduction of capacity following the shutdown of most of its nuclear generation capacity. Malaysia has been working hard to reduce its overdependence on coal and natural gas, and to encourage the production and use of renewable energy in an effort to meet its target of 50 per cent renewable resources by 2050. As of last year, 33 per cent of the installed capacity in the Philippines was from renewable resources, and 35 per cent was from coal generation. The United Arab Emirates continues its efforts to reduce its carbon footprint, announcing a goal of having 25 per cent of its capacity from renewables by 2030, and 75 per cent by 2050. South Africa relies upon coal generation for 85 per cent of its generation capacity but has taken steps to increase the development of renewable resources. Australia is adding significant new renewable resources to meet its 2020 renewable energy targets.

While the Trump Administration is seeking to reverse the Obama administration's Clean Power Plan, we are seeing continued significant investment in renewable energy development in the United States. Individual states are moving forward to achieve reduced reliance on fossil fuels and greater reliance on renewable energy, including California and New York, which are seeking a 50 per cent renewable portfolio standard goal by 2030, and Hawaii, which is seeking 100 per cent reliance on renewables by 2045.

II INFRASTRUCTURE DEVELOPMENT

For many countries, reliable energy supply is the primary concern, regardless of fuel source. Rural electrification and system reliability remain priorities in India, Indonesia, Myanmar, Mozambique, Angola, parts of Nigeria and Central and West Africa and we are seeing significant efforts to pursue electric generation and transmission projects in those regions. Turkey seeks to increase energy industry infrastructure in the power sector and the oil and gas sectors, in light of an estimated 6 per cent demand growth per year through 2023. Denmark has a new North Sea Agreement to secure future exploration and production of hydrocarbons from the North Sea. Panama continues to seek to attract foreign investment to assist with badly needed transmission and generation infrastructure needs. The 8 May 2018 announcement by President Trump that he intends to withdraw from the Iran nuclear deal and institute significant new sanctions is expected to present a significant roadblock to further foreign investment in the Iranian energy sector.

III NUCLEAR POWER GENERATION

Seven years after the Fukushima disaster, Japan has stopped operations for 43 out of its 48 nuclear power stations, and 14 nuclear power stations are in the process of complying

with new safety standards for possible restart. Germany continues to phase out all nuclear generation by 2022. Belgium is seeking to dismantle all nuclear plants by 2025. France is seeking a reduction of nuclear power generation to 50 per cent of total electricity production within five years. Switzerland and Korea are planning to limit the life of their nuclear generation units, with Korea abandoning the construction of six new nuclear power plants and cancelling the extension of others.

On the other hand, Turkey is continuing with development of the Akkuyu nuclear power plant (first unit estimated to be operational in 2023), and the United Arab Emirates is almost finished with the construction of the Barakah nuclear power plant, both of which are expected to be operational in 2020. South Africa is facing substantial resistance to its efforts to develop 9,600MW of new nuclear generation capacity. India's goal of 40 per cent non-fossil fuel generation is expected to require a substantial ramp-up of nuclear generation capacity.

In the United States, the early retirement of certain nuclear plants has been driven by cost and power market considerations, rather than safety concerns. Some nuclear owners in the United States have sought state subsidies in New York, Illinois, Ohio and Pennsylvania, among others, in order to avert premature retirements. Illinois and New York have implemented legislative and regulatory payment programmes for nuclear facilities in those states, but they are currently being challenged on constitutional grounds and remain pending before US federal circuit courts of appeal.

IV LIBERALISATION OF THE ENERGY SECTOR

We have seen significant energy sector regulatory reforms in many countries. Italy is seeking to reduce the gap between price and cost of energy, compared to the rest of Europe. Portugal continues to work on liberalising its electricity and gas markets. Japan has now fully liberalised the retail electricity sector. And we are seeing continued efforts to encourage further privatisation of the electricity sector in the United Arab Emirates and in certain countries in Central and West Africa. Turkey is seeking to privatise its generation assets. Brazil has seen significant privatisation, including the auction of four hydroelectric plants. Given Switzerland's interest in promoting the use of renewable resources, it has suspended a planned 49 per cent divestiture of its state-owned hydroelectric fleet. China has made moves to deregulate energy pricing. In a move away from privatisation, Colombia ordered the liquidation of Electricaribe (owned primarily by Gas Natural Fenosa), which is now in arbitration.

I would like to thank all the authors for their thoughtful consideration of the myriad of interesting, yet challenging, issues that they have identified in their chapters in this seventh edition of *The Energy Regulation and Markets Review*.

David L Schwartz
Latham & Watkins LLP
Washington, DC
May 2018

Chapter 32

TURKEY

Okan Demirkan, Melis Öget Koç, Gökçe İldiri and Cihan Mercan[1]

I OVERVIEW

Following the elections held in Turkey in November 2015, Mr Berat Albayrak was appointed as the Energy and Natural Resources Minister. Minister Albayrak has since adapted the same policy as that of his predecessor, and declared that in the long term Turkey aims to (1) increase its general energy storage capacity; (2) increase storage obligation rates for imports; (3) use different energy storage options; and (4) support investments in the energy sector, with a particular focus on renewable energy. In the past decade, Turkey increased its installed capacity from 39,800MW to 80,546MW (as of July 2017) and Turkey's energy consumption increased from 160 billion kWh to 293 billion kWh. The minister further announced that Turkey is planning to make an investment of 18 billion Turkish liras to strengthen the infrastructure of its electricity supply system network in the coming five years.[2] As it did in 2015 and 2016, Turkey continues to take concrete steps to meet energy demands and to keep increasing the figures until 2023. In addition to relevant targets for electricity and natural gas, Turkey is also planning to enact a separate coal law, considering the specific needs of operating coal mines and the use of coal to meet energy demands. This shows that, while focusing on renewable energy investments, Turkey will continue to use coal as an energy resource in its energy strategies. All in all Turkey, aims to stop being an energy importer and start exporting energy in the coming years.

Turkey's strategy and targets for 2023 are:[3]

a increasing total installed power to 120,000MW;
b increasing the share of renewable energy sources to 30 per cent;
c maximising the use of hydropower;
d increasing wind-power installed capacity to 20,000MW;
e installing power plants with 1,000MW of geothermal and 5,000MW of solar energy;
f extending the length of electricity transmission lines to 60,717km;
g reaching a power distribution unit capacity of 158,460MVA;
h extending the use of smart grids;
i raising the natural gas storage capacity to 11 billion m3;

1 Okan Demirkan is a partner and Melis Öget Koç, Gökçe İldiri and Cihan Mercan are associates at Kolcuoğlu Demirkan Koçaklı Attorneys at Law.

2 Ministry of Energy and Natural Resources' (MENR) website: www.enerji.gov.tr/tr-TR/Bakanlik-Haberleri/Bakan-Albayrak-Hem-Ulkemizin-Gelismesine-Katkida-Bulunacagiz-Hem-Dogal-Kaynaklarimizi-Sonuna-Kadar-Kullanacagiz-Hem-de-Cevreyle-Barisik-Bir-Turkiyeye-Yatirim-Yapacagiz.

3 Invest in Turkey, Energy: www.invest.gov.tr/en-US/sectors/Pages/Energy.aspx.

j establishing an energy stock exchange with a diversified product range, which has been achieved;
k commissioning nuclear power plants; and
l increasing coal-fired installed capacity to 30,000MW.[4]

Establishment of an energy stock exchange with a diversified product range was among these targets. In line with this approach, the new Electricity Market Law[5] (EML) enacted in 2013[6] provided that this energy stock exchange market would be administered through a company called EPİAŞ.[7] EPİAŞ was established on 12 March 2015 in line with the EML, to support market liberalisation, ensure transparency and help maintain a healthy balance between national energy supply and demand.

Turkey has become one of the fastest growing energy markets in the world, paralleling its economic growth over the past 15 years. Energy demand in Turkey is estimated to increase by approximately 6 per cent per annum until 2023.[8] In any case, because of insufficient petroleum and natural gas sources, Turkey is still dependent on imports. According to EMRA's petroleum and natural gas market reports prepared for 2016, Turkey imports petroleum mainly from Iraq (23.09 per cent), the Russian Federation (19.38 per cent), Iran (17.32 per cent), India (9.95 per cent), and natural gas from the Russian Federation (55.48 per cent), Azerbaijan (14.65 per cent) and Iran (17.42 per cent), in addition to its long-term liquefied natural gas (LNG) imports from Nigeria (2.76 per cent) and Algeria (9.69 per cent).[9]

With the enactment of the Natural Gas Market Law[10] (NGML) in 2001, the Petroleum Pipeline Corporation (BOTAŞ)[11] lost its monopoly in natural gas importation, distribution and sales. However, BOTAŞ maintains its key market position, as it owns and operates the natural gas transmission network and still imports approximately 81.02 per cent of the natural gas consumed in Turkey,[12] and 100 per cent of natural gas export from Turkey is still made by BOTAŞ.[13] In accordance with the NGML, on 30 November 2005, BOTAŞ transferred an existing agreement for the import of 4bcm per year of natural gas from Russia

4 The current coal-fired installed capacity is 17,300MW.
5 Entered into force on 30 March 2013.
6 In addition to the EML, many long-awaited regulations entered into force in 2013 in line with EML, such as the Electricity Market Licence Regulation, the Electricity Market Distribution Regulation and the Electricity Market Connection and Use of the System Regulation.
7 Enerji Piyasaları İşletme Anonim Şirketi.
8 Invest in Turkey, Energy: www.invest.gov.tr/enUS/infocenter/publications/Documents/ENERGY.INDUSTRY.pdf.
9 These percentages only relate to natural gas imports under long-term purchase agreements, but Turkey also imports spot LNG. EMRA has granted spot LNG import licences to 41 natural gas import companies other than BOTAŞ. These companies may import spot LNG to Turkey. However, since 2009, there have been only two natural gas import companies importing spot LNG to Turkey. One is BOTAŞ and the other is Ege Gaz AŞ. In 2016, the latter imported 0.252bcm spot LNG, a negligible volume given Turkey's total imported spot LNG volume of 2.123bcm in 2016.
10 Entered into force on 2 May 2001.
11 The Petroleum Pipeline Corporation, BOTAŞ is a state-owned company.
12 EMRA's Natural Gas Market Report prepared for 2016: www.epdk.org.tr/TR/Dokumanlar/Dogalgaz/YayinlarRaporlar/Yillik.
13 EMRA's Natural Gas Market Report prepared for 2016: www.epdk.org.tr/TR/Dokumanlar/Dogalgaz/YayinlarRaporlar/Yillik. In 2015, only BOTAŞ, among eight export licensed companies, operated and exported 674.68 million Sm3 natural gas to Greece.

to four other natural gas import companies with a tender process.[14] These four natural gas import companies were Shell Enerji AŞ, Bosphorus Gaz Corporation AŞ, Enerco Enerji Sanayi ve Ticaret AŞ and Avrasya Gaz AŞ.[15] In addition, after the expiry of the natural gas purchase agreement with Gazprom Export LLC (Gazprom) on 31 December 2011, BOTAŞ did not renew this agreement owing to the restrictions imposed by Provisional Article 2 of the NGML limiting BOTAŞ's monopoly. Hence, following the expiry of BOTAŞ's natural gas purchase agreement with Gazprom, EMRA was permitted to grant import licences to market players for the same volume of natural gas (from the same country). In this case, four natural gas import companies gained the right to import 6bcm per year to Turkey through the Russia–Turkey Natural Gas Pipeline. These companies were Akfel Gaz Sanayi ve Ticaret AŞ, Bosphorus Gaz Corporation AŞ, Batı Hattı Doğalgaz Ticaret AŞ and Kibar Enerji Dağıtım Sanayi AŞ.[16] These developments are a step forward in terms of liberalising Turkey's natural gas market.

As per the High Planning Council's decision on 16 December 2016, Turkey aims to reach a 5bcm working gas capacity in the long run within the scope of the Tuz Gölü (Salt Lake) Natural Gas Underground Storage Project, which was initiated on 10 February 2017.[17] The current capacity of the Tuz Gölü (Salt Lake) Natural Gas Underground Storage Facility is 1bcm. In addition, recently, the Silivri Natural Gas Storage Facility, with a working capacity of 2.84bcm, was taken over by BOTAŞ to ensure seasonal supply-demand balance and supply security.

Turkey enacted a new Turkish Petroleum Law[18] (TPL) in 2013, abolishing the former Petroleum Law. Then, the Turkish Petroleum Law Implementation Regulation[19] entered into force in early 2014. An amendment law proposing substantive changes to the Natural Gas Market Law (the Draft Amendment Law) was prepared in 2012 and submitted to the Turkish Grand National Assembly (the Turkish Parliament) on 4 August 2014, within the 24th legislative session (2011–2014). However, the draft amendment law has not been enacted within the said legislative session, so it became void at the end of that legislative session. Accordingly, at the time of writing, these amendments still have not been enacted. On the other hand, another amendment to the NGML came into effect on 17 June 2016, which will be explained in detail in Section II, *infra*.

In line with Turkey's substantial demand potential and its renewable energy targets, Turkey has also introduced the Regulation on Generating Electricity Without a Licence;[20] the Regulation on Documentation and Support of Renewable Energy;[21] the Regulation on Renewable Energy Resource Areas;[22] the Regulation on Technical Evaluation of Solar Energy

14 Boru Hatları ile Petrol Taşıma AŞ (BOTAŞ), '2015 Sector Report' (Ankara: BOTAŞ, 2016).

15 EMRA's Natural Gas Market Report 2016, p. 18: www.epdk.org.tr/TR/Dokumanlar/Dogalgaz/YayinlarRaporlar/Yillik.

16 Ibid.

17 Ministry of Energy and Natural Resources' (MENR) website: www.enerji.gov.tr/en-US/Pages/Natural-Gas.

18 Entered into force on 11 June 2013.

19 Entered into force on 22 January 2014.

20 Entered into force on 2 October 2013.

21 Entered into force on 1 October 2013.

22 Entered into force on 9 October 2016.

Based Licence Applications;[23] the Communique on Wind and Solar Measurements for Preliminary Licence Applications;[24] and the Contest Regulation on Pre-Licence Applications Regarding Generation Facility Based on Solar and Wind Energy.[25]

II REGULATION

i The regulators

The MENR is responsible for preparing and implementing energy policies, plans and programmes in coordination with its affiliated institutions. EMRA is responsible for regulating and supervising the operation of the electricity, downstream petroleum and downstream natural gas markets.[26] It exercises its powers through EMRA's board.[27] With its competence to regulate and supervise the energy markets, EMRA has the following duties:[28]

a issuing licences;
b drafting, amending, enforcing and auditing performance standards, as well as distribution and customer services;
c setting out the pricing principles indicated in the law; and
d maintaining the development and performance of infrastructure for implementation of new power trading and sales methods.

The primary legislation for the electricity market is the EML and the Electricity Market Licence Regulation.[29] While the Petroleum Market Law,[30] the Liquefied Petroleum Gas Market Law[31] and the Petroleum Market Licence Regulation[32] govern downstream petroleum activities, the NGML and the Natural Gas Market Licence Regulation[33] govern downstream natural gas activities. As for the upstream market, the TPL governs upstream oil and gas activities,[34] and the Law on Transit Passage through Petroleum Pipelines[35] (the Transit Law) governs the transit passage of oil and gas.

ii Regulated activities

Electricity

To conduct any one of the following market activities, companies must obtain a licence from EMRA: generation, transmission, distribution, wholesale, retail, market operation, import, and export.

23 Entered into force on 30 June 2017.
24 Entered into force on 17 June 2014.
25 Entered into force on 13 May 2017.
26 The General Directorate of Petroleum Affairs is the regulatory authority responsible for upstream market.
27 The Energy Market Regulatory Board.
28 Invest in Turkey, The Energy Sector: A Quick Tour for the Investor: www.invest.gov.tr/en-US/infocenter/publications/Documents/ENERGY.INDUSTRY.PDF.
29 Entered into force on 2 November 2013.
30 Entered into force on 20 December 2003.
31 Entered into force on 13 March 2005.
32 Entered into force on 17 June 2004.
33 Entered into force on 7 September 2002.
34 Under the TPL, the definition of 'petroleum' includes both crude oil and natural gas.
35 Entered into force on 29 June 2000.

In order to conduct electricity generation activities, companies must obtain a generation licence from EMRA. Only limited liability partnerships and joint stock corporations established in Turkey can obtain electricity generation licences. There are no restrictions in terms of foreign shareholding in electricity market companies in Turkey.

Obtaining a preliminary licence is a prerequisite for obtaining a generation licence for applicants. A preliminary licence is issued for a specific term, to those having submitted an application to EMRA to conduct electricity generation activities. The preliminary licence's purpose is to enable the applicant to obtain the necessary permits, approvals and licences, as well as to acquire ownership or usufruct rights to the land where the generation facility is to be located, during the application's evaluation. The Electricity Market Licence Regulation determines the detailed requirements of the regulatory approval process to obtain a preliminary licence and generation licence. The term of a preliminary licence will be determined by EMRA, depending on source type and installed capacity. The term can vary between 24 months and 36 months.

The new Regulation on the Amendment to the Electricity Market Licence Regulation[36] separates preliminary licence applications for renewable energy resource areas (RERAs) from those made by other entities generating electricity. Under the Electricity Market Licence Regulation, generation licences are granted for a term of 10 to 49 years. However, the term of generation licences granted for a RERA cannot exceed 30 years. The Regulation on the Amendment to the Electricity Market Regulation also sets forth procedures to be followed for obtaining a preliminary licence for a RERA. In addition, individuals or legal entities generating electricity for their own needs, and having facilities or equipment that does not operate in parallel to the transmission and distribution network, are not required to obtain a licence, as long as they remain disconnected from the transmission and distribution networks and do not engage in wholesale or retail activities.

In this respect, the EML defines the market activities that may be conducted without a licence. Under the EML and the Regulation on Generating Electricity without a Licence, generation facilities with an installed capacity of up to 1MW of renewable energy resources are exempt from this 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 generated, within the scope of the Renewable Energy Resources (RER) Support Mechanism. The Council of Ministers is authorised to increase the maximum installed capacity for a renewable energy plant to operate without a licence, up to 5MW. Certain amendments to the Regulation on Generating Electricity without a Licence came into force on 23 March 2016, 22 October 2016, 15 May 2017 and 17 January 2017. Pursuant to these amendments, a maximum capacity of 1MW 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 1MW limit, both the individual or legal entity or entities in which such persons have direct or indirect control are considered as the same person. These amendments introduced a minimum self-consumption ratio, which places a maximum limit for the excess energy that can be sold to distribution companies. Accordingly, the installed capacity of unlicensed wind and solar generation facilities cannot exceed 30 times the capacity of the consumption unit associated with the generation unit.

36 Entered into force on 24 February 2017.

Among other significant changes, the new amendments introduced certain share transfer restrictions. Accordingly, shareholders of companies that applied for grid connection for unlicensed electricity generation projects (based on solar and wind energy) are prohibited from transferring any of their shares in these companies. The prohibition period applies from the date of application until the temporary acceptance date. The Regulation on the Amendment to the Electricity Market Licence Regulation[37] provides certain exceptions to the above limitation: this limitation will not apply to: (1) changes in the shareholding structure of publicly listed legal entities with regard to their publicly listed shares, and changes in the shareholding structure of legal entities with publicly listed shareholders, with regard to the publicly listed shares of these shareholders; (2) direct or indirect changes in the shareholding structure of the relevant legal entity, due to exercise of pre-emption rights by the entity's shareholders; (3) indirect changes in the shareholding structures of the relevant entities, resulting from changes in their foreign shareholders' shareholding structures; and (4) direct or indirect changes in the shareholding structure of the relevant entity, caused by a public offering of the entity's shares or the shares of its direct or indirect shareholders.

Downstream petroleum and natural gas

The following downstream petroleum market activities require a licence: refining, processing, lubricant oil production, storage, transmission, eligible consumer, bunker delivery, distribution, transportation, and dealership.

Under the NGML, the following activities require a licence: import; export; transmission; storage; wholesale; distribution; and sale, distribution and transmission of compressed natural gas.

iii Market restrictions

Petroleum

In the downstream petroleum market, a distributor's market share cannot exceed 45 per cent of the total domestic petroleum market and a distributor's sales via its own dealers (i.e., dealers owned by the distributor) cannot exceed 15 per cent of that distributor's total domestic market share.

Another restriction regarding distributors and dealers derives from the Competition Board interventions. According to Article 5 of the Competition Authority's Block Exemption Communique on Vertical Agreements, non-compete undertakings for indefinite terms 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. According to the Competition Board's latest decisions, all personal or real rights related to dealership agreements (such as loan contracts, equipment contracts and long-term lease contracts and long-term usufructs) must be limited to five years.

Natural gas

Under the NGML, import companies cannot conclude new natural gas purchase agreements (except for LNG) with countries that currently have existing natural gas sale and purchase agreements with BOTAŞ. The barrier to market entry is actually even higher, because under EMRA's Board Decree No. 725 (Decree No. 725), EMRA must obtain BOTAŞ's opinion

37 Entered into force on 22 October 2016.

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). In addition, Decree No. 725 requires consultation with BOTAŞ (in its capacity as a transmission system operator) on the technical suitability of the proposed importation through BOTAŞ's transmission network.

The Draft Amendment Law proposing important changes to the NGML, which became void at the end of the 24th legislative session, was going to abolish the prohibition on import companies from concluding new natural gas purchase agreements with countries that currently have existing natural gas purchase agreements with BOTAŞ. Although it did not enter into force, we believe that the said draft law is still a useful tool for understanding the government's intentions for the future. In any case, another amendment to the NGML came into effect on 17 June 2016. Prior to this amendment, the NGML and the Natural Gas Market Licence Regulation required import licence holder applicants to (1) conclude lease contracts with storage licence holders to ensure storage of 10 per cent of their annual gas import or (2) to obtain a commitment from storage licence holders confirming that they will have such storage capacity within the following five years. However, the current total capacity of the storage facilities in Turkey was below 10 per cent of the nation's annual gas import amount. With the above amendment to the NGML, EMRA became authorised to change the commitment amount, and set the applicable storage commitment percentage at 6 per cent. A similar obligation is imposed on wholesale licence applicants. Accordingly, wholesale licence holders must take the required storage-related measures within five years of the issuance of the licence, which may be extended if the total capacity of the storage facilities in Turkey is not sufficient after five years of the issuance of the licence.

Under the NGML, no company can sell natural gas corresponding to more than 20 per cent of the estimated national consumption levels determined by EMRA. Moreover, importers cannot import more than 20 per cent of estimated national consumption.

iv Transfers of control and assignments

In the electricity market, in general, licence transfer is not permitted under the Electricity Market Licence Regulation. However, with EMRA's approval, legal entities holding an electricity generation licence are permitted to transfer rights and obligations related to their licences (1) to another legal entity by way of merger or spin-off; and (2) to another legal entity established under the same shareholding structure. Furthermore, legal entities holding an electricity generation licence may transfer the generation facility to another legal entity seeking to conduct electricity generation activities, by way of sale, transfer or lease, subject to EMRA's approval. Correspondingly, the legal entity acquiring the generation facility must obtain a new generation licence from EMRA, before such transfer.

In addition to the above-mentioned transactions, the Electricity Market Licence Regulation provides the possibility of granting step-in rights to banks and financial institutions that provide loans to licence holders, allowing them to request licence transfers from EMRA. The transferee will undertake all obligations of the former licence holder under the loan agreement.

These types of transactions are not considered as 'licence transfer'. The transaction mentioned in item (2), above, and the transactions relating to project financing allow the transferee to obtain a generation licence that maintains the terms and conditions applicable to the former licence.

The Electricity Market Licence Regulation also sets forth certain share transfer restrictions as stated in the Electricity section (Section II.ii). Under Article 6 of the EML and Article 19 of the Electricity Market Licence Regulation, direct or indirect changes in shareholding structure or share transfers (aside from certain exceptions set forth under the Electricity Market Licence Regulation) are forbidden within the preliminary licence period. EMRA may cancel a preliminary licence if such a transaction occurs.

After obtaining a generation licence, the following share transfers are subject to EMRA's prior approval:

a direct or indirect acquisition of shares representing at least 10 per cent of the licence holder company's share capital (5 per cent if the company is publicly traded);

b share transfers resulting in a change of the company's control, regardless of the change in the shareholding percentage of the shares; and

c share pledge for legal entities holding a generation licence, the tariffs of which are regulated.

Similar to the restrictions in the electricity market, licence transfer is not permitted in the natural gas market under the Natural Gas Market Licence Regulation. However, with EMRA's approval, legal entities holding a licence are permitted to transfer rights and obligations related to their licences to another legal entity by way of merger. This transaction is not considered to be a 'licence transfer'.

In addition, the Natural Gas Market Licence Regulation provides the possibility of granting step-in rights to banks and financial institutions that provide loans to licence holders, allowing them to request licence transfers from EMRA. The transferee will undertake all obligations of the former licence holder under the loan agreement. Furthermore, the Natural Gas Market Licence Regulation also sets forth certain share transfer restrictions. In the natural gas market, licence holders must obtain EMRA's approval for any of the following transactions:

a direct or indirect acquisition of 10 per cent or more shares (5 per cent or more in publicly held companies) in licence holding companies by an individual or a legal entity;

b any transaction in relation to shares, resulting in any shareholder's shares exceeding 10 per cent or decreasing below 10 per cent in licence holding companies;

c any transaction in relation to 10 per cent or more shares (5 per cent or more in publicly held companies) in natural gas storage licence holding companies, regardless of whether a shareholder's shares exceed 10 per cent or decrease below 10 per cent;

d any transaction resulting in acquisition of the right to vote in the licence holder company;

e share pledges;

f creating or lifting privilege over shares; and

g merger, in accordance with Article 43 of the Natural Gas Market Licence Regulation.

III TRANSMISSION/TRANSPORTATION AND DISTRIBUTION SERVICES

i Vertical integration and unbundling

Electricity

TEİAŞ[38] conducts all of Turkey's electricity transmission activities. The distribution network is divided into 21 regions, with a different distribution company in each region. All of these companies have recently been privatised. TEDAŞ[39] no longer operates any distribution companies, but continues to own the distribution assets.

The shareholders of distribution utilities can own the newly established retail sales utilities' shares. However, distribution utilities cannot purchase administrative and support services from companies under the parent company's control. Additionally, retail sales companies and distribution utilities must use different physical premises and information system infrastructures.

Natural gas

Under the NGML, market participants active in more than (1) one market activity or (2) a single market activity in more than one facility, must keep separate accounts for each activity or facility. Cross-subsidisation between accounts is prohibited. In addition to this account separation, companies holding distribution licences must also maintain separate accounts for their natural gas sale and transportation activities.

Although the NGML provided that BOTAŞ was to be unbundled, beginning in 2009, BOTAŞ has not yet been divided into separate legal entities. However, under the NGML, BOTAŞ must keep separate accounts for its transmission, storage and import activities.

ii Transmission/transportation, distribution and storage access

Electricity transmission and distribution

TEİAŞ is required to meet individual and company demands for connection to the transmission network. In cases where system connection and use of the system by generation companies are possible, the licence holder and TEİAŞ or the distribution licence holder must conclude connection and system usage agreements.[40]

Petroleum transmission and storage

Companies holding distribution or storage licences cannot discriminate among third parties of equal status for access to transmission and storage networks. Transmission and storage licence holders that have spare capacity in their facilities must meet the transmission and storage demands of third parties if these demands conform to, *inter alia*:

a the tariff of the licence holder;

b the capacity of the relevant facility; and

38 The state transmission entity.

39 The state distribution entity.

40 (1) The Electricity Market Grid Regulation; (2) the Electricity Market Tariff Regulation; (3) the Electricity Market Distribution Regulation; and (4) the Electricity Market Connection and Use of the System Regulation regulate the terms and conditions regarding the applicable tariffs for connection to and use of the system. The Regulation on Connection to and Use of the System regulates the principles regarding connection to and use of the system, while the Grid Regulation and the Tariff Regulation regulate the terms and conditions regarding the applicable tariffs for connection to and use of the system.

c the minimum amount in the tariff of the licence holder.

Natural gas transmission and distribution

Companies holding distribution or transmission licences cannot discriminate among third parties of equal status for access to transmission and distribution networks. Licence holders may only decline third-party access requests if:

a their capacity is not sufficient;

b they cannot perform their existing obligations otherwise; or

c they may be ordered to pay significant financial compensations owing to their existing contractual obligations.

If an applicant undertakes to cover the expenses to overcome the lack of capacity or connection situations, access cannot be denied.

Distribution companies must connect all consumers within their region. A connection agreement must be concluded between the distribution company and consumers, and the technical connection and service lines must be established.

LNG and natural gas storage

In Turkey, there are two underground natural gas storage facilities: the Silivri Underground Natural Gas Storage Facility and the 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. The second phase of the project is still under construction and, according to the MENR's official website, this phase will be completed in 2020. In addition, there are two LNG terminals: the BOTAŞ Marmara Ereğlisi LNG Terminal in Tekirdağ and the Ege Gaz Aliağa LNG Terminal. Recently, EMRA also categorised floating liquefied natural gas (FLNG) activities as 'storage'. In addition, EMRA issued the first FLNG licence to Etki Liman İşletmeleri AŞ for a floating storage and regasification unit in Aliağa, İzmir and issued the second FLNG licence to BOTAŞ for a floating storage and regasification unit in Dörtyol, Hatay. These natural gas storage facilities are operational. That said, the natural gas storage capacity is still not sufficient, considering the annual national consumption. In addition to the above, on 30 September 2016, a consortium consisting of three companies, Tekfen, Tesisat and HMB, signed two agreements with licence holders Toren Doğalgaz Depolama ve Madencilik Anonim Şirketi and Gaz Depo ve Madencilik Anonim Şirketi to supply, construct and operate an underground natural gas storage facility in Mersin as part of the Tarsus Underground Storage Project.[41]

Companies holding storage licences must provide storage services to users in an objective and fair manner. In principle, except for the exclusive grounds mentioned above for distribution and transmission networks, companies must accept storage requests. On the other hand, in practice, there are only nine storage licences in force.[42] As the current storage capacity is insufficient, third-party access is practically impossible.[43]

41 www.bloomberght.com/haberler/haber/1924507-tekfen-723-milyon-euroluk-sozlesme-imzaladi.

42 The last natural gas storage licence was issued on 9 November 2017, in relation to BOTAŞ' floating storage regasification unit in Dörtyol, Hatay.

43 EMRA is fully aware of the existing storage conditions in Turkey. Considering the current circumstances, EMRA does not strictly monitor the performance of storage-related obligations and, in practice, does not impose penalties on market participants even if the obligations are not met.

iii Tariffs

Electricity

EMRA is responsible for regulating connection and use, including transmission and distribution tariffs, in the electricity sector. Licence holders, the tariffs of which are regulated, must prepare and submit their tariff proposals to EMRA annually. EMRA must complete the examination and evaluation of these proposals before the effective date of the relevant tariff.

Natural gas

As it does in the electricity market, EMRA regulates connection tariffs, storage tariffs and tariffs pertaining to the control of transmission and dispatch in the natural gas market. Companies using the gas transmission system are subject to connection tariffs. Fees can be determined freely between the parties, provided that EMRA's connection tariff principles are reflected in the relevant connection agreements.

iv Security and technology restrictions

There are various pieces of legislation in Turkey dealing with the security of energy infrastructure facilities.[44] Turkey is also a party to international agreements and forums regarding the security of critical infrastructure facilities.[45]

IV ENERGY MARKETS

i Development of energy markets

In Turkey, supply licence holders can conduct electricity trading activities.[46] Electricity traders must either conclude a bilateral electricity purchase agreement with another licence holder or contribute to the organised markets themselves, to participate in the electricity market.

As for natural gas, since there is no energy exchange in Turkey yet, gas trading is physical and regulated in each separate licence and the Network Operation Manual of BOTAŞ. However, the newly introduced Regulation on the Natural Gas Organised Wholesale Exchange Market14 provides that a natural gas organised wholesale exchange market will be established on 1 April 2018. At the time of preparation of this review, the system for this new exchange market is in testing stage.

In Turkey, gas trading is conducted by four types of licence holders: production lease,[47] import licence, export licence and wholesale licence.

Under the NGML, a company holding an import licence does not need a separate wholesale licence to perform natural gas wholesale activities.

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44 e.g., the Transit Law; the General Directorate of BOTAŞ, Technical Security and Environment Regulation on Construction and Operation of Crude Oil and Natural Gas Facilities; the Turkish Criminal Code; the Petroleum Market Law; the NGML; and the BOTAŞ Transmission Network Operation Principles.

45 e.g., NATO and Critical Infrastructure Facilities; the Convention on Nuclear Safety; the Energy Charter Treaty; the INOGATE Project (Interstate Oil and Gas Transport to Europe); the Convention on Cybercrime; the OSCE Strategy Document For the Economic and Environmental Dimension; and the Decision on Protecting Critical Energy Infrastructure from Terrorist Attacks.

46 i.e., wholesale, export, import and retail sales.

47 The licence holder can conduct petroleum trade. However, it cannot conduct natural gas trade without a wholesale licence.

ii Energy market rules and regulation

In addition to the EML and the Electricity Market Licence Regulation, electricity trading is particularly regulated by the Regulation on Electricity Market Balancing and Settlement.[48] The Regulation on Electricity Market Balancing and Settlement sets forth the principles and procedures regarding the day-ahead market and real-time balancing of the active electricity demand and supply, as well as settlement of trade in these markets. On the other hand, natural gas trading is regulated under the provisions set forth in each separate licence and the Network Operation Manual of BOTAŞ.

iii Contracts for sale of energy

Electricity is traded mostly through bilateral agreements on an over-the-counter basis. Agreements are not subject to 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.

As for natural gas, suppliers and consumers must conclude private law contracts to participate in natural gas trading. A natural gas sale agreement is the primary agreement executed within the framework of natural gas sale and purchase activities.

In addition to a natural gas sale agreement, the following agreements must be concluded by the parties: operation agreements, system connection agreements and lease agreements.

iv Market developments

Turkey aims to create a liberal and competitive energy market and increase investment opportunities by establishing an energy exchange market. Aside from this, Turkey's involvement in international oil and gas pipelines significantly supports its aim to become, in the short term, a regional energy hub.

International oil and gas pipelines

The transit passage of oil and gas through Turkey is governed by the Transit Law. However, for the Transit Law to apply as the legal regime of a transit pipeline, there must be an international agreement regarding that pipeline. The Transit Law, the international agreement (generally an intergovernmental agreement (IGA)) and the project agreements apply as the legal regime to the transit pipeline.

In addition to 'transit' pipelines through Turkey (e.g., the BTC Pipeline and the contemplated TANAP[49]), there are pipelines that transport oil or gas to or from Turkey. These are non-transit pipelines, such as the Kirkuk–Yumurtalık Crude Oil Pipeline. The legal regime applicable to these pipelines is either in the form of a Council of Ministers' Decree (pursuant to the former Petroleum Law[50] (PL)) or an IGA signed specifically for that pipeline.

There are currently two international crude oil pipelines in Turkey:

a the Baku–Tbilisi–Ceyhan (BTC) Crude Oil Pipeline, transporting crude oil from Azerbaijan to Ceyhan, Adana (transit); and

b the Kirkuk–Yumurtalık Crude Oil Pipeline, transporting crude oil from Iraq to Adana (import).

48 Entered into force on 14 April 2009.

49 The Trans-Anatolian Natural Gas Pipeline.

50 Entered into force on 16 March 1954.

Currently, the following pipelines exist for the import or export of natural gas:

a the Baku–Tbilisi–Erzurum Pipeline, transporting natural gas from Azerbaijan's Shah Deniz gas field (Stage I) to Turkey (import);

b the Blue Stream Natural Gas Pipeline, transporting natural gas from Russia to Turkey through the Black Sea (import);

c the Interconnector Turkey–Greece, transporting natural gas between Turkey and Greece (export);[51]

d Russia–Turkey Western Route Natural Gas Pipeline crossing Ukraine, Romania and Bulgaria to Turkey; (import); and

e Iran–Turkey Natural Gas Pipeline, transporting natural gas from Iran to Turkey (import).

The following contemplated projects will make Turkey a true oil and gas transport hub:

a TANAP, to transport natural gas from Azerbaijan's Shah Deniz gas field (Stage II) to Europe, through Turkey. This pipeline is currently under construction;

b the Trans Adriatic Natural Gas Pipeline Project, to transport natural gas from Turkey to Southern Italy and further to Europe through Greece and Albania;

c the Trans Caspian Natural Gas Pipeline Project, to transport natural gas from Turkmenistan to Erzurum, Turkey and possibly to Europe;

d the Mashreq–EU Natural Gas Pipeline Project, to transport natural gas from the Mashreq countries to Turkey, Iraq and the EU;

e Turkey–Bulgaria Natural Gas Pipeline Project, to transport natural gas from Turkey to Bulgaria;

f the Northern Region of Iraq–Turkey Natural Gas Pipeline Project, to transport natural gas from the Northern Region of Iraq to Turkey; and

h the Turkish Stream Natural Gas Pipeline, which will replace the South Stream Project and transport gas from Russia across an offshore 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 currently under construction.

V RENEWABLE ENERGY AND CONSERVATION

i Development of renewable energy

In recent years, investments in electricity generation from renewable energy sources have increased greatly. One of Turkey's targets is to increase the share of electricity generated from renewable energy sources to 30 per cent by 2023. This is expected to entail the increase of wind-power installed capacity to 20,000MW, as well as the installation of new power plants, with 1,000MW of geothermal and 5,000MW of solar energy.

Incentive regime

The principles and procedures to be applied on the utilisation of renewable energy resources for the purpose of generating electrical energy are mainly governed by the Law on the

51 Under the IGA signed for the Interconnector Turkey–Greece, it is possible to use this pipeline for import as well. However, it is currently used only for export.

Utilisation of Renewable Energy Resources for the Purpose of Generating Electrical Energy[52] (the RER Law). The renewable energy resources covered by the RER Law are wind, solar, geothermal, biomass, biogas (including landfill gas), wave, stream, tidal, river and arc-type hydroelectric generation facilities with a reservoir area of less than 15 kilometers. In January 2011, the RER Law underwent a significant set of amendments, upon which the feed-in tariffs and other incentives were introduced. With the amendments in January 2011, the RER Law established a renewable energy support mechanism (RERSM). This mechanism includes price, terms, procedures and principles regarding the payments to be made to individuals generating energy using renewable energy resources within the scope of the RER Law.

In order to achieve Turkey's 2023 target of increasing the share of renewable energy sources to 30 per cent, the EML and the RER Law were amended on 4 June 2016. In addition to these amendments, the Regulation on Certification and Supporting of Renewable Energy Resources (the RERSM Regulation) was also amended on 29 April 2016 (to become effective as of 1 May 2016). Before the amendments, power plants within the scope of the RERSM Regulation were subject to a system in which the generated energy was sold to the market operator without a generation limitation or a risk regarding the price or amount of energy generated. In addition, power plants were free of obligation regarding the balance mechanism. Therefore, they did not have to pay any imbalance expenses. The RER Law guaranteed the prices in terms of US cents, and access to loans were relatively easy due to predictable cash flows. Power plants operating under the RERSM portfolio system could sell all of their products to a market operator, and did not have to engage in any market activity. With the amendments in the RERSM Regulation, power plants within this regulation's scope may now sell the generated energy directly to the free market. In return for sales income, they will pay the RERSM income to the market operator, EPİAŞ.

The RER Law provides that the prices in Schedule I (see below) will apply for 10 years for those generation facilities subject to the RERSM and commissioned until 31 December 2020.[53]

Type of facility	Prices applicable (US$ cent/kWh)
Hydroelectric	7.3
Wind	7.3
Geothermal	10.5
Biomass (including landfill gas)	13.3
Solar power	13.3

The RER Law further provides that renewable energy facilities can, subject to a Council of Ministers' Decree, benefit from certain tax incentives, such as customs duty and VAT. Additional incentives are provided if domestic equipment is used in facilities commissioned before 31 December 2020.

52 Entered into force on 18 May 2005.

53 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.

ii Energy efficiency and conservation

Under the Energy Efficiency Law,[54] the EECC[55] regulates energy efficiency activities. This law sets forth several mandatory obligations.[56] It also includes provisions regarding energy efficiency education and awareness.

The Energy Efficiency Law requires industrial entities to appoint an energy efficiency controller. These entities must inform the GDRE[57] of their annual energy consumption. Furthermore, industrial businesses may (1) voluntarily submit projects that increase efficiency or (2) conclude agreements with the GDRE, undertaking to reduce their consumption levels by at least 10 per cent, in return for certain incentives.

iii Technological developments

Renewable energy is a developing sector in Turkey. Although Turkey has remarkable potential in terms of renewable energy resources, there is currently insufficient legislation encouraging technological developments in the renewable energy sector.

VI THE YEAR IN REVIEW[58]

i Privatisations

Following the completion of the privatisation of all state-owned electricity distribution companies in 2013, Turkey has been focusing on the privatisation of generation assets. In recent years, Turkey privatised several electricity generation assets owned by EÜAŞ.[59] Below is a summary of privatisations that have been completed by 1 April 2018:

Power plant	Privatisation year	Approximate bid value (millions of Turkish liras)
Orhaneli and Tunçbilek TPP	2015	521
Soma B TPP	2015	685
Manavgat HPP	2016	370
Fethiye HPP	2016	128
Karacaören 1 and Karacaören 2 HPP	2016	515
Kadıncık 1 and Kadıncık 2 HPP	2016	864
Doğankent, Kürtün ve Torul HPP	2016	1,225
Şanlıurfa HPP	2017	247
Adıgüzel ve Kemer HPP	2017	341
Almus – Köklüce HPP	2017	750
Yenice HPP	2017	130
Suçatı, Değirmendere, Karaçay and Kuzuculu HPP	2017	30
Anamur, Bozyazı, Mutderinçay, Silifke and Zeyne HPP	2018	9
Menzelet-Kılavuzlu HPP	2018	1.276

54 Entered into force on 2 May 2007.

55 The Energy Efficiency Coordination Committee.

56 e.g., the use of labelled equipment in industrial companies and buildings.

57 The General Directorate of Renewable Energy.

58 This Article only includes certain significant developments until 1 May 2017.

59 The state generation entity.

In addition to the privatisation of electricity generation assets, the tender for privatisation of İGDAŞ[60] is also expected. Furthermore, on 28 December 2016, the Privatisation Administration approved the privatisation of TP Petrol Dağıtım AŞ, a petroleum distribution company, for 490 million liras.

ii EPİAŞ

The EML introduced the 'market operation activity', to be conducted by a newly incorporated company, namely EPİAŞ. EPİAŞ was incorporated on 12 March 2015 and obtained a market operation licence on 1 September 2015. EPİAŞ's purpose is to lead the development of organised energy exchange markets in Turkey; to supervise and manage these energy exchange markets in an effective, transparent and reliable manner; to create added value to national economy by maximising the trading volume in the energy sector; and to provide a transparent and competitive environment for both domestic and foreign investors. TEİAŞ and Borsa Istanbul (BIST) each hold 30 per cent of the corporation's total shares, with the remaining 40 per cent held by various major market participants, namely, private energy companies. Under this shareholding structure, TEİAŞ and BIST hold Class A and Class B shares, whereas private energy companies hold Class C shares. Upon its incorporation, EPİAŞ started conducting the market operation activities of organised wholesale electricity markets (including day-ahead market activities), other than those operated by the BIST stock exchange and TEİAŞ. TEİAŞ continues to conduct balancing activities.

iii Pending projects

The Akkuyu Nuclear Power Plant, in Mersin, is the first nuclear power plant in Turkey, and is not yet operational. The Akkuyu Nuclear Power Plant is planned to have four power units with capacity of 1,200MW each and a total capacity of 4,800MW.[61] The EIAR[62] of the project was approved by the MEU[63] on 1 December 2014. The generation licence for the project is issued to be effective as of 15 June 2017 and the licence will be valid for 49 years.[64] The Turkish Atomic Energy Authority issued the construction licence on 2 April 2018 and construction was started by a ceremony with the participation of Mr Recep Tayyip Erdoğan and Mr Vladimir Putin. It is expected that its first unit will be operational in 2023.

In May 2013, Turkey signed an IGA with Japan for the construction and operation of a nuclear power plant in Sinop. This US$20+ billion project will be constructed and operated by the consortium formed by Mitsubishi Heavy Industries, Itochu and GDF Suez. The discussions regarding the memorandum of understanding (MoU) between Turkey and Japan regarding the Sinop Nuclear Power Plant Project were concluded and the MoU was delivered to the Japanese Embassy for signature in August 2014. The IGA and the MoU (along with the draft HGA) were published in the Official Gazette on 10 April 2015 and became a part of Turkish legislation. The project participants recently started to conduct the feasibility studies on site for realisation of the Sinop NPP.

Following the success of the Baku–Tbilisi–Ceyhan Crude Oil Pipeline, Turkey became the obvious candidate for hosting pipelines transporting petroleum and natural gas from the

60 Istanbul's natural gas distribution company.

61 http://www.akkunpp.com/akkuyu-nuclear-jsc.

62 Environmental impact assessment report.

63 The Ministry of Environment and Urbanisation.

64 https://www.dunya.com/sektorler/enerji/akkuyuya-uretim-lisansi-verildi-haberi-368035.

Caspian to Europe. In line with this approach, Turkey and Azerbaijan signed an IGA for the construction and operation of the TANAP. Attached to the IGA is a HGA signed between Turkey and the TANAP project company. The Turkish government places great importance on this project, which will be the longest energy pipeline in the region at approximately 2,000km. On 24 July 2014, Turkey approved the EIAR prepared for the TANAP project. In September 2014, the Turkish Parliament approved:

a the memorandum of understanding between the Republic of Turkey and the Republic of Azerbaijan regarding the TANAP system; and

b the text of amendment to the HGA between the Republic of Turkey and the TANAP project company.

The Council of Ministers' Ratification Decrees for these two texts were published in the Official Gazette on 21 October 2014. The construction works started on 17 March 2015 with the ground laying ceremony, which was attended by Turkish, Azerbaijani and Georgian presidents.[65]

In January 2013, Turkey and the UAE signed an IGA for what was going to be the largest foreign direct investment in Turkey to date, with a value of approximately US$12–14 billion. The project entailed the construction and operation of a coal-based power plant,[66] in Turkey's Afşin-Elbistan region. The project was initially planned to start in mid-2013. However, because of other priorities, in August 2013, TAQA decided to defer its investment decision. After TAQA deferred its investment decision, companies from the State of Qatar, Japan, China and South Korea started to compete for this project.

iv Shale gas

In recent years, along with the rising of the importance of shale gas in the world, importance has been given to searching for shale gas in Turkey. For this purpose, Sarıbuğday-1 in 2012, Konacık-1 in 2013, Akçay-1 in 2014 and Çeşmekolu-1 and Çakıcı-1 wells in the Trakya Region in 2015 and 2016 respectively were opened in Southeastern Anatolia. Studies are under way to evaluate data obtained from the wells. Apart from the South-Eastern Anatolian region, it is also believed that there are significant amounts of available shale gas in the Hamitabat and Mezardere areas of the Thracian region, which have yet to be taken into the scope of the operating agreement, but which may be put on the agenda in the coming period.[67]

v Solar and wind-based energy generation licence applications

Significant developments have also been witnessed in renewable energy investment since 2015. EMRA received applications for solar-based energy generation licences between 1 and 7 April 2015. Although the designated total capacity for solar-based generation licences is 600MW, applications were submitted for nearly 8,900MW. Thus, several contests will be organised in different regions to decide who will obtain the generation licence in the relevant region.

65 According to the final version of the shareholders agreement, signed in March 2015, while BOTAŞ holds 30 per cent stakes in the TANAP project company, BP holds 12 per cent. Southern Gas Corridor Closed Joint Stock Company holds the remaining stakes.

66 With a capacity of up to 8,000MW.

67 MENR website: www.enerji.gov.tr/en-US/Pages/Petrol.

Below is a summary of the contests held in 2014 and 2015, and the respective regions:

Packages	Date	Districts
First package	12 May 2014	Elazığ
		Erzurum
Second package	29 January 2015	Siirt–Batman–Mardin
		Şanlıurfa–Diyarbakır
		Antalya
		Muğla–Aydın
		Denizli
		Burdur
Third package	30 January 2015	Konya 1
		Konya 2
Fourth package	28 April 2015	Adana–Osmaniye
		Sivas
		Kayseri
		Niğde–Nevşehir–Aksaray
Fifth package	29 April 2015	Kahramanmaraş–Adıyaman
		Malatya–Adıyaman
		Van–Ağrı
		Bitlis
Sixth package	30 April 2015	Karaman
		Mersin
		Isparta–Afyon

In addition, on 13 May 2017, the new Contest Regulation on Pre-Licence Applications Regarding Generation Facility Based on Solar and Wind Energy[68] entered into force and superseded the old regulations. Under the new regulation, the contests will not be carried out on applicant's contribution rate basis. Instead, the minimum offer over the prices indicated in the RER Law Schedule I will be considered. Under the Contest Regulation on Pre-Licence Applications Regarding Generation Facility Based on Solar and Wind Energy, the date and place of contests will be determined by TEİAŞ, in the event of multiple applications for a specific field.

Following enactment of the new regulation, the first contests were held for wind-based energy generation licences (for allocation of 710MWe capacity) on 21 and 22 June 2017 and the second contests were held (for allocation of 2.110MWe capacity) on 27 and 28 December 2017 in Istanbul.

68 Entered into force on 13 May 2017.

vi TPL[69]

The TPL (PL)[70] entered into force on 30 May 2013 and replaced the former Petroleum Law dated 1954. The new law divides Turkey into two petroleum districts, namely, onshore and offshore. It requires entities to obtain:

a a survey permit;
b an exploration licence; or
c an exploitation licence, depending on the type of upstream petroleum activity they wish to pursue.

The term of the exploration licence has been set at five years for onshore and eight years for offshore activities. The terms of these licences may be extended up to nine years for onshore and 14 years for offshore exploration licences. As for exploitation licence, this type of licence is granted for 20 years and it may be extended twice, each time for 10 years.

Petroleum right holders are allowed to export 35 per cent for onshore and 45 per cent for offshore of the crude oil or natural gas produced in the fields discovered after 1 January 1980. The remaining volume and the total of the crude oil and natural gas produced in the fields discovered before 1 January 1980 must be reserved for the needs of the state. Furthermore, the TPL states that a state share corresponding to 12.5 per cent of the petroleum produced by exploration or exploitation must be paid to the state.

vii Law on the Construction and Operation of Nuclear Power Plants and Energy Sale (Law No. 5710)[71]

Law No. 5710 and the Regulation on the Principles and Procedures for Competition and Contracts within the Framework of Law No. 5710 are the main pieces of legislation that govern the procedures and principles for the construction and operation of nuclear power plants and the sale of energy generated from those plants.

In March and April 2017, the TAEA issued three new regulations in the field of nuclear energy. The Regulation on the Construction Inspection of Nuclear Power Plants[72] provides for the procedures on construction of nuclear power plants in accordance with nuclear security principles. The two other regulations (i.e., the Regulation on the Management System in Nuclear Power Plants[73] and the Regulation on Business Organisation, Qualification and Education of Personnel and Operating Personnel Licences in Nuclear Power Plants[74]) govern the management of nuclear power plants and their personnel.

VII CONCLUSIONS AND OUTLOOK

Considering economic expansion, rising per capita income, positive demographic trends and the rapid pace of urbanisation that are the main drivers of Turkey's growing energy demand, Turkey's energy demand is estimated to increase by approximately 6 per cent each

69 Although these enactments took place in 2013, we will provide brief information on them in this chapter because of their importance.

70 The long-awaited TPL was enacted in 2013, replacing the PL after nearly 60 years.

71 Entered into force on 21 November 2007.

72 Entered into force on 31 March 2017.

73 Entered into force on 8 April 2017.

74 Entered into force on 5 April 2017.

year until 2023. Because of this increase in energy demand, the Turkish energy market has been experiencing vast changes. These changes include liberalisation, attracting private sector participation and the establishment of a competitive market.

Turkey's long-term energy policies and strategies will keep Turkey's focus on diversifying its energy resources. At present, domestic resources provide approximately 26 per cent of the total energy demand, the remainder being imported. Turkey's costs for importing crude oil and natural gas are currently as high as US$56 billion. This accounts for more than half of the country's foreign trade deficit. Because of insufficient domestic energy generation, Turkey's primary goal is to strengthen its security of supply. Turkey aims to diversify its energy supply routes and sources, such as nuclear energy, and to increase the share of renewable energy.

Turkey's importance in the energy markets is not just increasing as a growing consumer with a huge domestic market, but also as an energy transit hub. Although Turkey has limited energy resources, its position is critical for petroleum and natural gas trade between the East and the West, as it lies between energy-demanding European countries and energy-rich eastern countries. Turkey is a natural transit country for the maritime and pipeline transportation of gas and oil. Accordingly, international crude oil and natural gas pipelines and pipeline projects hold great importance and improve Turkey's role as a reliable transit country.

Appendix 1

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Mr Okan Demirkan currently leads the firm's energy and dispute resolution practices.

Between 2004 and 2010, Mr Demirkan was heavily involved in all legal issues surrounding the Baku–Tbilisi–Ceyhan Crude Oil Pipeline Project (BTC), where he played a key role in real estate, corporate, employment, litigation and regulatory issues. In addition to BTC, Mr Demirkan advised clients in connection with the Nabucco gas pipeline and the Samsun–Ceyhan oil pipeline.

In 2011, Mr Demirkan took an active role in the Shah Deniz Stage 2 natural gas import project, where he led the KDK team advising on the project's legal structure in Turkey, including intergovernmental agreements, Turkey's natural gas market legislation, the Transit Law as well as on related commercial and public international law matters. Mr Demirkan's energy experience includes advice to an American energy company in its proposed bid in the privatisation of Turkey's electricity distribution entities. He currently leads the KDK team in its legal advisory services to a Japanese company, in relation to the Sinop Nuclear Power Plant.

Between January and June 2012, Mr Demirkan led the KDK team in the firm's key role in the Trans-Anatolian Natural Gas Pipeline (TANAP) project. In this multibillion-dollar project, the KDK team drafted the Host Government Agreement and negotiated it with the Turkish government, along with the IGA, which was signed in late June 2012. In 2013, 2014 and 2017, Mr Demirkan received the Client Choice Award for his work in energy and natural resources projects. He is also the founding member and board member of INLA's (International Nuclear Law Association) Turkey chapter.

Mr Demirkan has also been heavily involved in several international arbitration proceedings, concerning disputes arising from major infrastructure projects including build-operate-transfer model investments, share purchase agreements, shareholders' agreements, EPC contracts, asset transfer agreements and licensing contracts.

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Ms Melis Öget Koç is a senior associate in Kolcuoğlu Demirkan Koçaklı. Before joining the firm in 2015, she was a senior associate at another major Istanbul-based law firm for seven years.

Ms Koç has significant experience in energy law and M&A transactions. Her cross-border energy transaction experience includes a variety of deal types, ranging from joint ventures to M&A transactions involving the companies in the energy sector. She advised major companies both on renewable energy and non-renewable energy law matters, including regulatory matters relating to renewable energy generation activities, down-stream and up-stream oil and natural gas matters and licensing procedures. She has also worked in a number of M&A transactions contemplating the transfer of power plants.

She is a member of INLA's Turkey chapter.

GÖKÇE İLDİRİ

Kolcuoğlu Demirkan Koçaklı Attorneys at Law

Ms Gökçe İldiri has been an associate in Kolcuoğlu Demirkan Koçaklı since August 2012.

Ms İldiri is experienced in mergers and acquisitions and energy law. She has represented various energy sector international clients in connection with a wide range of transactions. She is also a member of the project team that provides legal advice to a Japanese company, in relation to the Sinop Nuclear Power Plant. She has worked in a number of M&A transactions entailing the transfer of power plants.

She is also a founding member and board member of INLA's Turkey chapter.

CİHAN MERCAN

Kolcuoğlu Demirkan Koçaklı Attorneys at Law

Cihan Mercan has been an associate at Kolcuoğlu Demirkan Koçaklı since 2016. He is experienced in energy law, with a particular focus on oil and gas, dispute resolution and commercial law and has been heavily involved in the public tender matters. He advises local and international companies in their energy related projects and represents clients in commercial disputes.

He is a member of INLA Turkey.

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