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David L Schwartz

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For further information please email
nick.barette@lbresearch.com

PUBLISHER
Gideon Roberton

SENIOR BUSINESS DEVELOPMENT MANAGER
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BUSINESS DEVELOPMENT MANAGER
Thomas Lee

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EDITOR'S PREFACE

Our fifth year of writing and publishing *The Energy Regulation and Markets Review* has been marked by significant efforts to reduce greenhouse gases (GHGs), important infrastructure development needs and continued low oil and gas prices. We have also seen divergent positions on existing and future nuclear power generation, and further liberalisation of the energy sector.

I CLIMATE CHANGE DEVELOPMENTS

With respect to climate change efforts, 177 countries signed the Paris Agreement and 17 countries have ratified the Paris Agreement, which will enter into force after at least 55 countries representing at least 55 per cent of the global greenhouse gas emissions ratify the Agreement. Even prior to the effectiveness of the Paris Agreement, we are seeing significant carbon reduction efforts, such as increased development of renewable resources, as well as energy efficiency and demand reduction measures.

In Europe, the European Union adopted 'A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy', and it is expected that there will be a large amount of European secondary legislation to increase the amount of renewable resources. The United Kingdom announced its energy goals, which includes increasing reliance on renewables and imposing strict 'carbon budget' requirements. France adopted new energy legislation that seeks reductions of fossil energy consumption by 30 per cent, reductions of GHGs by 40 per cent by 2030 (and by 75 per cent by 2050), reduction of energy consumption by 50 per cent by 2050, and increased reliance on renewables to eventually reach 40 per cent of electricity production. Denmark established a goal of having renewable energy meet all electricity demands by 2050. The Netherlands has made significant efforts to reduce GHGs, including the shutdown of some older coal-fired power plants. Italy enacted new legislation encouraging energy efficiency, biomass, biogas and bioliquids. Germany undertook significant steps to increase reliance on renewable energy resources.

In the United States, the Environmental Protection Agency's Clean Power Plan, which is currently stayed pending further judicial proceedings, would require 32 per cent

reductions in CO2 emissions from 2005 levels by 2030. Last year, China set out a goal to peak CO2 emissions by 2030 and to increase reliance on non-fossil fuels to 20 per cent by 2030. Japan, Korea, and Australia are working to improve energy efficiency and conservation and to increase reliance on renewable energy supply. The United Arab Emirates continues its efforts to reduce its carbon footprint, increase energy efficiency, reduce existing energy subsidies and to develop greater renewable energy infrastructure. Dubai has established a Dubai Green Fund to assist in the development of renewable energy and energy efficiency. South Africa is looking to procure significant new renewable resources. India has set a target of 175GW of renewable energy to be installed by 2022. India's Renewable Energy Certificate programme has largely failed because of non-enforcement of Renewable Purchase Obligation goals.

II INFRASTRUCTURE DEVELOPMENT

For many countries, reliable energy supply is the key concern, regardless of fuel source. Coal still plays a dominant role in meeting energy supply for Poland, India, Turkey and China. Indonesia's primary challenge remains to reach its goal of 90 per cent electrification by 2020. The primary concern for India's energy sector remains the challenge of providing reliable, uninterruptible electricity to its population and India has begun to employ a variety of creative measures (including a transitional state financing programme) to allow distribution companies to expend greater resources on investment in procurement and infrastructure over the next five years. To meet electrification needs in Central and West Africa, the Regional Initiative for Sustainable Energy identifies over 100 generation power sector projects in countries that are members of the West Africa Economic and Monetary Union that are targeted for development prior to 2030. Mozambique similarly continues to face significant infrastructure needs to meet electricity and natural gas demand. As a result of its civil war, Angola desperately needs to rebuild infrastructure (generation, transmission and distribution). Ukraine's main focus is building infrastructure and reducing gas dependence on Russia following Russia's annexation of Crimea.

III IMPACTS OF LOW OIL AND GAS PRICES

Low oil and gas prices continue to have adverse impacts for the United Arab Emirates, Mexico, Angola and Nigeria. Exploration and production activity has slowed in the United States because of current oil and gas prices, and low gas prices have led to increases in coal plant retirements. Since the relaxation of certain US and international sanctions against Iran, Iran is now looking to attract US$200 billion in investment in its oil and gas industries over the next five years, which may be challenging with today's low oil and gas prices. China is also looking for assistance with shale exploration in the Sichuan Basin, with mixed levels of interest from potential investors. Mexico has also sought to eliminate some of its regulatory uncertainty as a way to attract new investors.

IV NUCLEAR POWER GENERATION

We have seen divergent positions with respect to nuclear power. Following the Fukushima disaster, Japan has shut down all 48 of its nuclear power stations pending new detailed safety reviews. Germany has targeted 2022 as the date for phasing out all nuclear generation.

France is seeking a reduction of nuclear power generation by 30 per cent by 2030. On the other hand, Turkey is continuing with development of a nuclear power plant (expected to be operational in 2023), and the United Arab Emirates is still proceeding with construction of the Barakah nuclear power plant, which is expected to be operational next year. The United Kingdom has stated that nuclear energy will remain an important part of the country's energy future. In the United States, the early retirement of certain nuclear plants has been driven by cost considerations, rather than safety concerns.

V LIBERALISATION OF THE ENERGY SECTOR

We have seen significant energy sector regulatory reforms in many countries. Italy has opened up distribution systems to retail competition and trading, and has seen the widespread introduction of smart meters. Portugal will complete its transition to competition in the energy markets by the end of 2017. South Africa is liberalising its generation sector through a massive procurement programme from independent power producers. Australia is in the midst of restructuring its electricity sector through retail competition. Japan is seeking full retail competition this year, as well as the unbundling of the transmission sector from the generation sector, and is seeking to achieve similar reforms (retail competition and unbundling) in the gas sector. Korea announced a new energy plan to deregulate energy markets and mitigate the monopoly power of the majority state-owned utility company by, among other things, encouraging customer-side generation projects. Brazil saw an increase in retail competition as a result of higher prices, which was an indirect result of the reduced availability of inexpensive hydroelectric power due to the drought from last year. Turkey is focused on privatising state-owned generation companies. There are proposals in Norway to separate transmission grid companies from supply.

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 fifth edition of *The Energy Regulation and Markets Review*.

David L Schwartz
Latham & Watkins LLP
Washington, DC
June 2015

Chapter 32

TURKEY

Okan Demirkan, Melis Öget Koc and Zeynep Buharalı[1]

I OVERVIEW

Following the elections held in Turkey in November 2015, Mr Berat Albayrak was appointed as the new Energy and Natural Resources Minister. The new minister recently declared that in the long term Turkey aims to (1) increase its general energy storage capacity; (2) increase storage obligation rates for imports from 10 per cent to 20 per cent; (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 74,000MW and Turkey's energy consumption increased from 160 billion kWh to 264 billion kWh. Furthermore, as announced by the minister, Turkey is planning to make an investment of 15 quadrillion Turkish liras to strengthen the infrastructure of its electricity supply system network in the coming five years. As it did in 2015, so Turkey continues to take concrete steps to meet energy demands and to keep doubling 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:[2]

a increasing total installed power to 120,000MW;
b increasing the share of renewable energy sources from 25 to 30 per cent;
c maximising the use of hydropower;
d increasing wind-power installed capacity to 20,000MW;
e installing power plants with 600MW of geothermal and 3,000MW of solar energy;

1 Okan Demirkan is a partner and Melis Öget Koc and Zeynep Buharalı are associates at Kolcuoğlu Demirkan Koçaklı Attorneys at Law.

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

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 5 billion m3;
j establishing an energy exchange;
k commissioning at least two nuclear power plants;
l building a coal-fired power plant with a capacity of 18,500MW; and
m eliminating its petroleum and gas import costs, currently as high as US$56 billion.

Among these targets, establishment of an energy exchange will not only support market liberalisation but also ensure transparency and help maintain a healthy balance between supply and demand. Turkey enacted a new Electricity Market Law[3] (EML) in 2013.[4] The EML stipulates the creation of an electricity exchange market, which will be administered through a newly incorporated company, EPİAŞ.[5] As detailed in Section VI, *infra*, EPİAŞ was established on 18 March 2015.

The Turkish electricity market is one of the fastest growing electricity markets in the world, with an approximately 9 per cent annual increase on average. Natural gas consumption in Turkey is increasing as well. According to the MENR,[6] natural gas demand is expected to increase by 2.9 per cent per year until 2020. Because of insufficient petroleum and natural gas sources, Turkey is dependent on imports. Turkey imports petroleum mainly from Iran, Russia, Iraq, Saudi Arabia and Kazakhstan, and natural gas from Russia, Turkmenistan, Azerbaijan and Iran, in addition to its long-term liquefied natural gas (LNG) imports from Nigeria and Algeria.[7]

With the enactment of the Natural Gas Market Law[8] (NGML) in 2001, BOTAŞ[9] 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 80 per cent of the natural gas consumed in Turkey. After BOTAŞ's natural gas agreement with Russia expired in 2011, four privately owned companies – Enerco, BosphorusGaz, Avrasya Gaz and Shell Gaz – signed agreements with Gazprom and obtained import licences for importation of natural gas from Russia.

Turkey enacted a new Turkish Petroleum Law[10] (TPL) in 2013, abolishing the former Petroleum Law. Then, the Turkish Petroleum Law Implementation Regulation[11] entered into force in early 2014. An amendment law proposing substantive changes to the Natural

3 Entered into force on 30 March 2013.
4 In addition to the EML, many long-awaited regulations entered into force in the last quarter of 2013 and in early 2014, such as the Electricity Market Licence Regulation, the Electricity Market Distribution Regulation and the Electricity Market Connection and Use of the System Regulation.
5 Enerji Piyasaları İşletme Anonim Şirketi.
6 The Ministry of Energy and Natural Resources.
7 Turkey also imports spot LNG.
8 Entered into force on 2 May 2001.
9 The Petroleum Pipeline Corporation, BOTAŞ is a state-owned company.
10 Entered into force on 11 June 2013.
11 Entered into force on 22 January 2014.

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. However, at the time of writing, these amendments still have not been enacted.

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;[12] the Regulation on Documentation and Support of Renewable Energy;[13] the Regulation on Technical Evaluation of Solar Energy Based Licence Applications;[14] the Communiqué on Wind and Solar Measurements for Preliminary Licence Applications;[15] the Contest Regulation on Pre-Licence Applications Regarding Generation Facility Based on Solar and Wind Energy;[16] and the Regulation on Renewable Energy Resources for Electricity Generation.[17]

II REGULATION

i The regulators

The MENR is responsible for preparing and implementing energy policies, plans and programmes in coordination with its affiliated institutions. The Energy Market Regulatory Authority (EMRA), is responsible for regulating and supervising the operation of the electricity, downstream petroleum and downstream natural gas markets.[18] It exercises its powers through EMRA's board.[19] With its competence to regulate and supervise the energy markets, EMRA has the following duties:[20]

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 ensuring the development and implementation of an infrastructure.

The primary legislation for the electricity market is the EML and the Electricity Market Licence Regulation.[21] While the Petroleum Market Law,[22] the Liquefied Petroleum Gas Market Law[23] and the Petroleum Market Licence Regulation[24] govern downstream petroleum

12 Entered into force on 2 October 2013.
13 Entered into force on 1 October 2013.
14 Entered into force on 1 June 2013.
15 Entered into force on 17 June 2013.
16 Entered into force on 6 December 2013.
17 Entered into force on 27 November 2013.
18 The General Directorate of Petroleum Affairs is the regulatory authority responsible for upstream market.
19 The Energy Market Regulatory Board.
20 Invest in Turkey, The Energy Sector: A Quick Tour for the Investor: www.invest.gov.tr/en-US/infocenter/publications/Documents/ENERGY.INDUSTRY.PDF.
21 Entered into force on 2 November 2013.
22 Entered into force on 20 December 2003.
23 Entered into force on 13 March 2005.
24 Entered into force on 17 June 2004.

activities, the NGML and the Natural Gas Market Licence Regulation[25] govern downstream natural gas activities. As for the upstream market, the TPL governs upstream oil and gas activities,[26] and the Law on Transit Passage through Petroleum Pipelines[27] (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:

a generation;
b transmission;
c distribution;
d wholesale;
e retail;
f market operation;
g import; and
h export.

The EML abolished the 'auto-production licence' system, and the existing auto-producer licences have been automatically converted to generation licences. However, individuals or legal entities (1) generating electricity for their own needs, and (2) having facilities or equipment that are not operating 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.

The EML introduced the new 'supply licence', which combines wholesale and retail sale licences. The EML also introduced the 'preliminary licence' mechanism for generation licence applications. A preliminary licence is issued for a specified term, to those having applied (to EMRA) to conduct electricity generation activities.

Under 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. An amendment to the Regulation on Generating Electricity without a Licence came into force on 23 March 2016. Pursuant to this amendment, 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.

Among other significant changes, the new amendments introduced share transfer restrictions. Accordingly, shareholders of companies that applied for grid connection for

25 Entered into force on 7 September 2002.

26 Under the TPL, the definition of 'petroleum' includes both crude oil and natural gas.

27 Entered into force on 29 June 2000.

unlicensed electricity generation projects 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.

Downstream petroleum and natural gas

The following downstream petroleum market activities require a licence:

a refining;
b processing;
c lubricant oil production;
d storage;
e transmission;
f eligible consumer;
g bunker delivery;
h distribution;
i transportation; and
j dealership.

Under the NGML, the following activities require a licence:

a import;
b export;
c transmission;
d storage;
e wholesale;
f distribution; and
g 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. 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 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 (TSO)) on the technical suitability of the proposed importation through BOTAŞ's transmission network.

The Draft Amendment Law abolishes the prohibition on import companies for concluding new natural gas purchase agreements with countries that currently have existing natural gas purchase agreements with BOTAŞ. This is a clear sign of the government's intention to further liberalise the Turkish natural gas market.

The NGML imposes storage-related obligations on applicants for import and wholesale licences. Import licence applicants must obtain commitments and guarantees from storage licence holders, regarding their capacity to store 10 per cent of annual gas imports in Turkey within five years. 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.

Under the NGML, the MENR's opinion is not required for natural gas market licences. However, if the Draft Amendment Law is passed as is, then the NGML will have a provision whereby EMRA will have to obtain the MENR's opinion for granting import and export licences.

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. The Draft Amendment Law will not change these market share restrictions.

iv Transfers of control and assignments

In the electricity market, licence holders must obtain EMRA's approval for any of the following transactions:

a transferring of 10 per cent or more shares (5 per cent or more in publicly held companies) in licence holding companies;
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 right on licensed facilities;
d share pledges; and
e merger, in accordance with Article 59 of the Electricity Market Licence Regulation.

In the natural gas market, licence holders must obtain EMRA's approval for any of the following transactions:

a transferring of 10 per cent or more shares (5 per cent or more in publicly held companies);
b transferring of shares, resulting in any shareholder's shares exceeding 10 per cent or decreasing below 10 per cent;
c any transaction resulting in acquisition of the right to vote in the licence holder company;
d share pledges;
e creating or lifting privilege over shares or issuing a dividend right certificate; and
f 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[28] 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[29] 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, as of 1 January 2016, distribution utilities will not be able to purchase administrative and support services from companies under the parent company's control.

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 stipulated that BOTAŞ was to be unbundled, beginning in 2009, BOTAŞ has not yet been divided into separate legal entities. The Draft Amendment Law also includes provisions concerning BOTAŞ's restructuring. The plan is to divide BOTAŞ into three separate companies: the first for conducting transmission activities; the second for operating LNG facilities and conducting storage activities; and the third to perform other natural gas market 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.[30]

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, provided that these demands meet certain conditions.

28 The state transmission entity.

29 The state distribution entity.

30 (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.

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 based on certain specific grounds. 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

Turkey currently has 535 million m3 of LNG and 4.11bcm of natural gas storage capacity, and aims to increase its total storage capacity. There are only four storage facilities in Turkey. The number of storage facilities explains the insufficiency of storage capacity.

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 six storage licences in force.[31] As the current storage capacity is insufficient, third-party access is practically impossible.[32]

iii Tariffs

Electricity

EMRA is responsible for regulating connection and use, including transmission and distribution tariffs, in the electricity sector. Licence holders must prepare and submit their tariff proposals to EMRA by the end of October every year. EMRA must complete the examination and evaluation of these proposals before 31 December of the relevant year. The tariffs will be effective for the tariff period between 1 January and 31 December of the following year.

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.

31 Two new storage licences were issued in February 2014.

32 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.

iv Security and technology restrictions

There are various pieces of legislation in Turkey dealing with the security of energy infrastructure facilities.[33] Turkey is also a party to international agreements and forums regarding the security of critical infrastructure facilities.[34]

IV ENERGY MARKETS

i Development of energy markets

In Turkey, supply licence holders can conduct electricity trading activities.[35] 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. The MFRC[36] operates the day-ahead market, as well as the balancing market.

As for natural gas, since there is no energy exchange in Turkey yet, gas trading is physical. In Turkey, gas trading is conducted by four types of licence holders:

a production lease;[37]
b import licence;
c export licence; and
d wholesale licence.

ii Energy market rules and regulation

In addition to the EML and the Electricity Market Licence Regulation, electricity trading is regulated by the Regulation on Electricity Market Balancing and Settlement.[38] 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.

33 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.

34 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.

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

36 The Market Financial Reconciliation Center.

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

38 Entered into force on 15 April 2009.

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:

a operation agreements;
b system connection agreements; and
c 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),[39] 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[40] (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 the Caspian Sea to Ceyhan, Adana (transit); and
b the Kirkuk–Yumurtalık Crude Oil Pipeline, transporting crude oil from Iraq to Adana (import).

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);

39 The Trans-Anatolian Natural Gas Pipeline.

40 Entered into force on 16 March 1954.

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

c the Interconnector Turkey–Greece, transporting natural gas between Turkey and Greece (export).[41]

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;

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 Crude Oil Pipeline Project, to transport crude oil from the Northern Region of Iraq to Turkey; and

g the Iran–Germany Natural Gas Pipeline Project, to transport natural gas from Iran to Germany through Turkey.

Although in late 2014 and in the first half of 2015 there was considerable progress in the negotiations for the 'Turkish Stream' pipeline project, following the recent tension between Turkey and Russia, this project has been virtually put on hold.

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 600MW of geothermal and 3,000MW of solar energy.

Incentive regime

The Law on the Utilisation of Renewable Energy Resources for the Purpose of Generating Electrical Energy[42] (the RER Law) established a renewable energy support mechanism. 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

41 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.

42 Entered into force on 18 May 2005.

of the RER Law. The RER Law provides that the prices in Schedule I (see below) will apply for 10 years for those generation facilities subject to the RER Support Mechanism and commissioned until 31 December 2020.[43]

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.

ii Energy efficiency and conservation

Under the Energy Efficiency Law,[44] the EECC[45] regulates energy efficiency activities. This law sets forth several mandatory obligations.[46] 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[47] 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.

43 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.

44 Entered into force on 2 May 2007.

45 The Energy Efficiency Coordination Committee.

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

47 The General Directorate of Renewable Energy.

VI THE YEAR IN REVIEW[48]

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 2015, Turkey privatised several electricity generation assets owned by EÜAŞ.[49] Below is a summary of privatisations that have been completed as of 1 May 2016:

Power plant	*Approximate bid value (millions of Turkish liras)*
Orhaneli and Tunçbilek TPP	1,360
Soma B TPP	1,789

Below is a summary of privatisations that were approved but are still waiting for parties' signatures as of 1 May 2016:

Power plant
Manavgat HPP
Fethiye HPP
Karacaören 1 and Karacaören 2 HPP
Kadıncık 1 and Kadıncık 2 HPP

In addition to the privatisation of electricity generation assets, the tender for privatisation of İGDAŞ[50] is expected to be announced after the enactment of the Draft Amendment Law.

ii EPİAŞ

The EML introduced the 'market operation activity', to be conducted by a newly incorporated company, namely EPİAŞ. EPİAŞ was finally incorporated in March 2015. TEİAŞ and Borsa Istanbul (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 BI hold Class A and Class B shares, whereas private energy companies hold Class C shares.

iii Pending projects

The Akkuyu Nuclear Power Plant, in Mersin, will be the first nuclear power plant in Turkey. This plant is expected to generate approximately 35GW per year. The EIAR[51] was approved

48 This article only includes certain significant developments until 11 April 2016.

49 The state generation entity.

50 Istanbul's natural gas distribution company.

51 Environmental impact assessment report.

by the MEU[52] on 1 December 2014. The next phase is obtaining a construction licence from the TAEA[53] and concluding an electricity sale agreement with TETAŞ.[54] It is expected that its first unit will be operational in 2020.

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. This plant is expected to become operational in 2023.

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 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.[55]

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,[56] 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.

52 The Ministry of Environment and Urbanisation.

53 Turkish Atomic Energy Agency.

54 The state trading entity.

55 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.

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

iv Shale gas

In September 2014, TPAO[57] officials stated that negotiations between TPAO and ExxonMobil for projects related to shale gas reserves in the Thrace region of Turkey are continuing. TPAO also plans to sign an agreement with Halliburton, for exploration and production of shale gas in the Thrace region. In addition, TPAO has been collaborating with Shell for exploring shale gas reserves in Diyarbakır. However, according to TPAO officers, the first results of studies conducted for shale gas in Turkey will be available in 2016. According to experts, Turkey has 1.8 trillion m3 of shale gas reserves and these reserves could meet Turkey's 40-year gas demand.

v Solar-based energy generation licence applications

Significant developments were also witnessed in renewable energy investment in 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. Below is a summary of the contests 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

57 The Turkish Petroleum Corporation.

vi Turkish Petroleum Law[58]

The TPL[59] introduced a more liberal and investor-friendly regime than the provisions of the PL imposed on upstream participants. With this new law, Turkey is now divided into only two petroleum districts, namely onshore and offshore. Previously there were 18 petroleum districts.[60]

Perhaps the most significant change introduced by the TPL is the abolition of the 'national interest' concept. On the basis of this concept, the TPAO had a statutory right to obtain exploration licences on behalf of the state, and by virtue of this right the TPAO had an advantage in respect of the exploration licence application process. With the abolition of this concept, the TPAO no longer has that privilege.[61]

vii New Electricity Market Law[62]

The EML[63] aims to address various new issues that have long been awaited in the market, such as the introduction of a 'preliminary licence' mechanism for generation licence applications. This law also provides for the establishment of an electricity exchange, which will create a whole new market of its own and become a significant investment opportunity.

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 7 per cent each 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

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

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

60 Another novelty of the TPL is the abolition of the restriction on the number of licences a company can obtain for a single petroleum district. Under the PL, companies were limited to eight licences per district.

61 Among some of the other novelties is that the TPL allows petroleum right holders to market and export natural gas that they have produced to wholesale companies, export companies, distribution companies or to eligible consumers without being subject to any conditions regarding storage capacity.

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

63 The EML entered into force in March 2013.

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

ABOUT THE AUTHORS

OKAN DEMIRKAN

Kolcuoğlu Demirkan Koçaklı Attorneys at Law

Mr 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, 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 pipeline 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 and on related commercial and public international law matters. Mr Demirkan's energy experience also includes advice to an American energy company in its proposed bid in the privatisation of Turkey's electricity distribution entities. He is also a board member of INLA's (International Nuclear Law Association) Turkey chapter.

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 and 2014, Mr Demirkan received the Client Choice Award for his work in energy and natural resources projects. More importantly, KDK won Law Firm of the Year: Turkey for 2015, awarded by globally published magazine *The Lawyer*.

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.

MELIS ÖGET KOC

Kolcuoğlu Demirkan Koçaklı Attorneys at Law

Ms Melis Öget Koç is a senior associate at 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 M&A transactions and has participated in a wide range of M&A deals. She has led several acquisition transactions in a variety of regulated sectors, including the energy sector.

ZEYNEP BUHARALI

Kolcuoğlu Demirkan Koçaklı Attorneys at Law

Ms Buharalı joined Kolcuoğlu Demirkan Koçaklı in 2012. She has experience in mergers and acquisitions, energy law and competition law. Her cross-border energy transaction experience includes a variety of deal types, ranging from joint ventures to M&A transactions in the energy sector.

KOLCUOĞLU DEMIRKAN KOÇAKLI ATTORNEYS AT LAW

Sağlam Fikir Sok. Kelebek Çıkmazı
No. 5
34394 Esentepe-Şişli
Istanbul
Turkey
Tel: +90 212 355 99 00
Fax: +90 212 355 99 99
odemirkan@kolcuoglu.av.tr
mokoc@kolcuoglu.av.tr
zbuharali@kolcuoglu.av.tr
www.kolcuoglu.av.tr