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Chapter 33

TURKEY

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I OVERVIEW

In 2015, Turkey has been persistently moving forward and taking concrete steps to meet energy demands and reach its goals for 2023. The Energy Minister declared that approximately US\$128 billion of investment (more than double the total amount invested in the past decade) will be needed to meet energy demands by 2023.

Turkey's strategy and targets for 2023 are:²

- a* increasing 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;
- 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 costs for importing petroleum and gas, currently as high as US\$56 billion.

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

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 the new Electricity Market Law³ (EML) in 2013.⁴ The EML stipulates the creation of an electricity exchange market, which will be administered through a newly incorporated company, EPIAŞ.⁵ As detailed in Section VI, EPIAŞ was established on 18 March 2015.

The Turkish electricity market is one of the fastest growing 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 with a growth rate of 2.9 per cent until 2020. Due to insufficient petroleum and natural gas sources, Turkey is dependent on imports. It imports petroleum mainly from Iran, Russia, Iraq, Saudi Arabia and Kazakhstan and natural gas from Russia, Turkmenistan, Azerbaijan and Iran, in addition to long-term LNG imports from Nigeria and Algeria.⁷

With the enactment of the Natural Gas Market Law⁸ (NGML) in 2001, BOTAŞ⁹ lost its monopoly rights on natural gas imports, distribution and sales. However, BOTAŞ remains a key player in the market, as it owns and operates the 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.

Turkey enacted the new Turkish Petroleum Law¹⁰ (TPL) in 2013. Then, the Turkish Petroleum Law Implementation Regulation¹¹ entered into force in early 2014. An amendment law proposing substantive amendments 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. However, at the time of writing, these amendments have not been enacted.

In line with Turkey's substantial potential and its renewable energy targets, Turkey also introduced the Regulation on Generating Electricity without a Licence;¹² the Regulation on Documentation and Support of Renewable Energy;¹³ the Regulation

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.

12 Entered into force on 2 October 2013.

13 Entered into force on 1 October 2013.

on Technical Evaluation of Solar Energy Based Licence Applications;¹⁴ the Communiqué on Wind and Solar Measurements for Preliminary License 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 ultimately responsible for preparing and implementing energy policies, plans and programmes in coordination with its affiliated institutions. The national regulatory authority, EMRA,¹⁸ is responsible for the regulation and supervision of the operation of the electricity, downstream petroleum and downstream natural gas markets.¹⁹ It exercises its powers through the EMRA Board.²⁰ With its capacity to regulate and supervise the energy markets, EMRA has the following duties:²¹

- 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.²² While the Petroleum Market Law,²³ the Liquefied Petroleum Gas Market Law²⁴ and the Petroleum Market Licence Regulation²⁵ govern downstream petroleum activities, the NGML and the Natural Gas Market Licence Regulation²⁶ govern downstream natural gas activities. As for the upstream market, the TPL governs

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 Energy Market Regulatory Authority.

19 The General Directorate of Petroleum Affairs is the regulatory authority responsible for upstream market.

20 The Energy Market Regulatory Board.

21 Invest in Turkey, The Energy Sector: A Quick Tour for the Investor: www.invest.gov.tr/en-US/infocenter/publications/Documents/ENERGY.INDUSTRY.PDF.

22 Entered into force on 2 November 2013.

23 Entered into force on 20 December 2003.

24 Entered into force on 13 March 2005.

25 Entered into force on 17 June 2004.

26 Entered into force on 7 September 2002.

upstream oil and gas activities,²⁷ and the Law on Transit Passage through Petroleum Pipelines²⁸ (the Transit Law) governs the transit passage of oil and gas.

ii Regulated activities

Electricity

In order 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. Existing auto-producer licences are going to be *ex officio* 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 introduces a new type of licence, called the ‘supply licence’, which combines wholesale and retail sale licences. The EML also introduces the ‘preliminary licence’ mechanism for generation licence applications. A preliminary licence is issued for a specified term, to those having submitted an application 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 based on renewable energy resources are exempt from the requirement to obtain a licence.

Downstream petroleum and natural gas

The following downstream petroleum market activities require a licence:

- a* refining;
- b* processing;
- c* lube oil production;
- d* storage;
- e* transmission;
- f* eligible consumer;
- g* bunker delivery;

27 Under the TPL, the definition of ‘petroleum’ includes both crude oil and natural gas.

28 Entered into force on 29 June 2000.

- 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 CNG.

iii Market restrictions

Petroleum

In the downstream petroleum market, a distributor's market share cannot exceed 45 per cent of the total domestic market and a distributor's sales through dealers under their ownership cannot exceed 15 per cent of the distributor's total domestic market share.

Another restriction regarding distributors and dealers derives from the Competition Board's interventions. Non-compete undertakings for indefinite terms or terms 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 such as loan contracts, equipment contracts and long-term lease contracts and long-term usufructs, which relate to dealership agreements, 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 Board Decree No. 725 (Decree No. 725), EMRA must obtain BOTAŞ's opinion on whether such import activity will affect the performance of BOTAŞ's obligations arising out of its existing contracts (in BOTAŞ's 'gas importer' capacity). In addition, Decree No. 725 requires consultation with BOTAŞ (in its transmission system operator (TSO) capacity) on the technical suitability of such import.

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 the yearly imported natural gas 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 licence's issuance.

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 determined by EMRA. Moreover, import companies cannot import natural gas corresponding to 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* transfer of 10 per cent or more (5 per cent or more in publicly held companies) shares 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 pledge; and
- e* merger, in accordance with Article 59 of the the Electricity Market Licence Regulation.

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

- a* transfer of 10 per cent or more (5 per cent or more in publicly held companies) shares;
- b* transfer of shares, resulting in any shareholder's shares exceeding 10 per cent or decreasing below 10 per cent;
- c* any transaction resulting in obtaining the right to vote in the licence holder company;
- d* share pledge;
- 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

TEİAŞ²⁹ conducts all of Turkey's electricity transmission activities. The distribution network is divided into 21 regions, with a different distribution company in each region.

29 The state transmission entity.

All of these companies have recently been privatised. TEDAŞ³⁰ 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 one market activity or one market activity in more than one facility, must keep separate accounts for each activity or facility. Cross-subsidising between accounts is prohibited. In addition to this account separation, companies holding distribution licences must maintain separate accounts for their sale and transportation activities.

Although the NGML stipulated that BOTAŞ was to be unbundled starting from 2009, BOTAŞ has not been divided into separate companies. The Draft Amendment Law includes provisions concerning BOTAŞ's restructuring. The plan is to separate BOTAŞ into three legal entities: the first for conducting transmission activities; the second for operating LNG facilities and 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 the demands of individuals and companies for connection to the transmission. In cases where system connection and use of the system by generation companies are possible, the licence holder and TEİAŞ and/or the distribution licence holder must conclude connection and system usage agreements.³¹

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 which have spare capacity in their facilities must meet the transmission and storage demands, provided that these demands meet certain conditions.

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.

30 The state distribution entity.

31 (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.

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 4.11 bcm 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.³² As the current storage capacity is insufficient, third-party access is practically impossible.³³

iii Tariffs

Electricity

EMRA is responsible for regulating the connection and use of system tariffs 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 tariff proposals before 31 December of the relevant year. The tariffs approved 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.

32 Two new storage licences were issued in February 2014.

33 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 players even if the obligations are not met.

iv Security and technology restrictions

There is various legislation in Turkey dealing with the security of energy infrastructure facilities.³⁴ Turkey is also a party to international agreements and forums regarding the security of critical infrastructure facilities.³⁵

IV ENERGY MARKETS

i Development of energy markets

In Turkey, supply licence holders can conduct electricity trading activities.³⁶ Electricity traders must either conclude a bilateral electricity purchase agreement with another licence holder or contribute to the organised markets themselves, in order to participate in the electricity market. The MFRC³⁷ 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;³⁸
- 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, regulations on electricity trading are set forth under the Regulation on Electricity Market Balancing and Settlement.³⁹ 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.

34 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.

35 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.

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

37 The Market Financial Reconciliation Center.

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

39 Entered into force on 15 April 2009.

iii Contracts for sale of energy

Electricity is traded mostly through bilateral negotiated 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 in order 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 a regional energy hub within the next few years.

International oil and gas pipelines

The transit passage of oil and gas through Turkey is governed by the Transit Law. However, in order 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 IGA) and the project agreements apply as the legal regime to the transit pipeline.

In addition to 'transit' pipelines transiting through Turkey (e.g., the BTC Pipeline and the contemplated TANAP⁴⁰), there are pipelines that transport oil or gas to or from Turkey. These are non-transit pipelines, such as the Kirkuk-Yumurtalık 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 Law⁴¹ (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);

40 The Trans Anatolian Natural Gas Pipeline.

41 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).⁴²

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 Turkish Stream Project, to transport natural gas from Russia to Turkey and then to Europe;⁴³
- d* the Trans Caspian Natural Gas Pipeline Project, to transport natural gas from Turkmenistan to Erzurum, Turkey and possibly to Europe;
- e* the Mashreq-EU Natural Gas Pipeline Project, to transport natural gas from the Mashreq countries to Turkey, Iraq and the EU;
- f* Turkey–Bulgaria Natural Gas Pipeline Project, to transport natural gas from Turkey to Bulgaria;
- g* the Northern Region of Iraq–Turkey Crude Oil Pipeline Project, to transport crude oil from the Northern Region of Iraq to Turkey; and
- h* the Iran–Germany Natural Gas Pipeline Project, to transport natural gas from Iran to Germany through Turkey.

V RENEWABLE ENERGY AND CONSERVATION

i Development of renewable energy

In recent years, investments in electricity generation from renewable energy resources 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 Energy⁴⁴ (the RER Law) established a renewable energy support mechanism. This mechanism includes price, terms, procedures and principles regarding payments, from which individuals generating energy based on renewable energy resources within

42 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.

43 During Russian President Vladimir Putin's visit on 1 December 2014 to Turkey, he stated that the South Stream Natural Gas Pipeline Project was cancelled. Russia and Turkey have started negotiations over a new pipeline project, whose route has not been determined yet.

44 Entered into force on 18 May 2005.

the scope of the RER Law can benefit. The RER Law provides that the prices in Schedule I (see below) will apply for 10 years for generation facilities subject to the RER Support Mechanism that are commissioned until 31 December 2020.⁴⁵

<i>Type of facility</i>	<i>Prices applicable (US\$ cent/kWh)</i>
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 benefit from certain tax incentives upon a Council of Ministers' Decree. 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,⁴⁶ the EECC⁴⁷ regulates energy efficiency activities. This law sets forth several mandatory obligations.⁴⁸ 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 GDRE⁴⁹ 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 REVIEW⁵⁰

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.

45 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.

46 Entered into force on 2 May 2007.

47 The Energy Efficiency Coordination Committee.

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

49 The General Directorate of Renewable Energy.

50 This article only includes certain significant developments until 1 April 2015.

In 2014 and early 2015, Turkey privatised several electricity generation assets owned by EÜAŞ.⁵¹ Below is a summary of privatisations that have been completed as of 1 April 2015:

<i>Power plant</i>	<i>Contract date</i>	<i>Approximate bid value (US\$ million)</i>
Çatalağzı Thermal Power Plant (TPP) ¹	22 December 2014	350
Yatağan TPP	1 December 2014	1,091
Esental, Işıklar (Visera) Hydroelectric Power Plant (HPP) ^{s2}	10 November 2014	1.85
Kayaköy HPP	3 November 2014	10.3
Kemerköy and Yeniköy TPPs ³ . (This privatisation package also includes the Kemerköy Port Area.)	23 December 2014	2,671

Below is a summary of privatisations that was approved but are still waiting for parties' signatures as of 1 April 2015:

<i>Power plant</i>	<i>Approval date</i>	<i>Approximate bid value (US\$ million)</i>
Anamur, Bozyazı, Mut-Derinçay, Silifke and Zeyne HPPs	29 December 2014	8.85
Tunçbilek and Orhaneli TPPs	17 March 2015	521
Soma B TPP	17 March 2015	685.5

In addition to the privatisation of electricity generation assets, the tender for privatisation of İGDAŞ⁵² is expected to be announced after the enactment of the Draft Amendment Law.

ii EPIAŞ

The EML introduced the 'market operation activity', to be conducted by a newly incorporated company, namely EPIAŞ. EPIAŞ was finally incorporated in March 2015. TEİAŞ, ISE⁵³ and private energy companies became EPIAŞ's shareholders with, respectively, 30 per cent, 30 per cent and 40 per cent shares. In this shareholding structure, TEİAŞ and ISE hold Class A and Class B shares, whereas private energy companies hold Class C shares.

51 The state generation entity.

52 Istanbul's natural gas distribution company.

53 The Istanbul Stock Exchange.

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 EIAR⁵⁴ was approved by the MEU⁵⁵ on 1 December 2014. The next phase is obtaining a construction licence from the TAEA⁵⁶ and concluding an electricity sale agreement with TETAŞ.⁵⁷ 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 MoU⁵⁸ 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 EIAR regarding the Sinop Nuclear Power Plant Project is also expected to be submitted to the MEU in 2015. 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 'MoU 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.⁵⁹

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

54 Environmental impact assessment report.

55 The Ministry of Environment and Urbanisation.

56 Turkish Atomic Energy Agency.

57 The state trading entity.

58 Memorandum of Understanding.

59 According to the final version of the shareholders agreement, signed in March 2015, while BOTAS 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.

US\$12–14 billion. The project entailed the construction and operation of a coal-based power plant,⁶⁰ in Turkey's Afşin-Elbistan region. The project was initially planned to start in mid-2013. However, due to 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 September 2014, TPAO⁶¹ officials stated that negotiations between TPAO and Exxon Mobil 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 2015. According to experts, Turkey has 1.8 trillion m³ shale gas reserves and these reserves could meet Turkey's 40-year gas demand.

v Solar-based energy generation licence applications

2013 and 2014 also witnessed significant developments in renewable energy investment. EMRA received applications for solar-based energy generation licences between 10 and 14 June 2013. 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. The first contests were held on 12 May 2014 for Elazığ and Erzurum provinces. The second (for Siirt-Batman-Mardin, Şanlıurfa-Diyarbakır, Antalya, Muğla-Aydın, Denizli and Burdur districts) and third (for Konya 1 and Konya 2 districts) contests were held respectively on 29 January 2015 and 30 January 2015. TEİAŞ recently announced the fourth, fifth and sixth contest packages, details of which are provided below:

<i>Packages</i>	<i>Date</i>	<i>Districts</i>	<i>Total capacity (MW)</i>
Fourth package	28 April 2015	Adana-Osmaniye	9
		Sivas	9
		Kayseri	25
		Niğde-Nevşehir-Aksaray	26
Fifth package	29 April 2015	Kahramanmaraş-Adıyaman	27
		Malatya-Adıyaman	22
		Van-Ağrı	77
		Bitlis	16

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

61 The Turkish Petroleum Corporation.

<i>Packages</i>	<i>Date</i>	<i>Districts</i>	<i>Total capacity (MW)</i>
Sixth package	30 April 2015	Karaman	38
		Mersin	35
		Isparta-Afyon	18

vi Turkish Petroleum Law⁶²

The TPL⁶³ brought a more liberal and investor-friendly regime than the provisions that the PL imposed on upstream participants. With this new law, Turkey is now divided into two petroleum districts, namely onshore and offshore, whereas previously there were 18 petroleum districts.⁶⁴

Perhaps the most significant change brought by the TPL is the abolition of the ‘national interest’ concept. Based on the ‘national interest’ 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 exploration licence applications. With the abolition of this concept, the TPAO no longer has that privilege.⁶⁵

vii New Electricity Market Law⁶⁶

The EML⁶⁷ 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 which 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. Due to this increase in energy demand, the Turkish energy market

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

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

64 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.

65 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.

66 Although these enactments took place in 2013, we will provide brief information on them in this chapter due to their importance.

67 The EML entered into force in March 2013.

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. Due to 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. According to the Energy Minister, Turkey must receive approximately US\$12 billion of investment each year until 2023, to meet its energy demands.

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. Cancellation of the South Stream Natural Gas Pipeline Project and the emergence of the Turkish Stream Project are the concrete examples showing that Turkey and its geopolitical position play an influential and pivotal role in energy markets.