

## TURKMENISTAN COUNTRY PROFILE<sup>95</sup>

### Overview

The Republic of Turkmenistan (RT) has a population of approximately 4.96 million, with a GDP of USD 18,269 million.<sup>lxxii</sup> The total primary energy supply in 2007 was 18.07 Mtoe (million tons of oil equivalent), of which 73.7% is natural gas and 26.3% is oil. Turkmenistan's net exports of energy resources reached 48.01Mtoe. CO<sub>2</sub> emissions are 45.31 Mt of CO<sub>2</sub>.<sup>lxxiii</sup>

### 1. Institutional structure

The Ministry of Finance, engaged in handling tariff methodology matters and, in particular, setting basic tariffs for transmission, shapes a tariff policy in the national economy.

The Ministry of Energy and Industry (the Ministry) is the state authority responsible for management of the country's electricity sector. The Ministry includes Turkmenenergo State Electric Energy Corporation, a vertically-integrated entity managing all state assets in the sector.

To manage the country's oil and gas sector, a new governmental authority – the State Agency for the Management and Use of Hydrocarbon Resources under the President of Turkmenistan (the Agency) was established in March 2007 by a Presidential Resolution.

The Agency assumed all the powers of the Ministry of Oil and Gas Industry and Mineral Resources concerning the issuance of licences for exploration survey, development of deposits, oil and gas production and transportation. The Agency also concludes agreements with contractors and sets uniform rules for all the companies operating in the country. The Agency operates under the President of Turkmenistan, whose remit includes all political decisions in the country, including the oil and gas sector as strategic for Turkmenistan. The Agency is responsible for all matters relating to the use of hydrocarbon resources, including those relevant to political decisions (gas export, construction of new export gas pipelines, and others). The Agency is headed by a Director appointed and dismissed by the President of Turkmenistan. Nominations for Agency unit heads are agreed upon with the President of Turkmenistan.

On 20 August 2008, the Law on Hydrocarbon Resources was signed, legislatively enshrining the powers of the State Agency for the Management and Use of Hydrocarbon Resources. The Agency, *inter alia*, exercises control over performance of works, and manages assets and financial resources. A tariff for gas transportation through a main gas pipeline is set and charged subject to agreement with the Agency.

According to the Law of Hydrocarbon Resources, the Agency's income sources consist of royalties, bonuses, income on the production sharing agreements (PSAs), income on other contracts, and other income including assets and financial means. The Agency deducts 10% of all such income to the state budget of Turkmenistan. A procedure of calculation and payment of the said deductions to the state budget is set forth by the Ministry of Finance, the Chief State Tax Service, and the Agency.

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<sup>95</sup> The information provided below was drawn mainly from the sources listed at the end of this document.

The share of the Agency's income left payment of the above-mentioned sums to the budget remains at the Agency's disposal. The Agency has its own budget, whose expenditures are controlled by the Government represented by the Chairperson of the Government (i.e. the President of Turkmenistan).

Decisions made by the regulator (the Agency) may be cancelled only by the President of Turkmenistan. Other state bodies may only submit to the President of Turkmenistan their opinions and proposals on some or other matter related to the Agency.

The Ministry of Oil and Gas Industry and Mineral Resources secures implementation of a uniform policy in the matters related to the use of mineral raw resources, analytical work and preparation of long-term plans and nationwide programmes of the mineral raw base development.

Turkmengas State Concern develops, produces, reprocesses, transports and sells gas, gas condensate and liquefied gas.

The Law establishes that any dispute:

- between the Agency and a Licensee related to suspension and/or cancellation of a License shall be settled, as far as possible, through negotiations
- between the Agency and a Contractor related to performance of a Contract shall be settled, as far as possible, through negotiations including the involvement of independent international experts, or according to the dispute settlement procedures previously agreed upon in the Contract

If a dispute cannot be settled within three months upon a written request of one of the disputing parties, another party may apply to international arbitration bodies according to the Contract, by notifying the adverse party in due time in written. All other disputes, including disputes between the contractor and the Agency and other persons of Turkmenistan, shall be settled by kazyet and arachi kazyet (judicial instances) of Turkmenistan.

The management of Turkmengas SC may appeal to the Agency in due course specified by the state mechanism.

## **2. Electricity sector**

### **a. Market framework**

The electricity market in Turkmenistan is represented by a vertically integrated monopoly, namely Turkmenenergo State Corporation.

Turkmenenergo was established on 1 July 2005, by renaming Kuvvat State Energy and Technology Corporation, founded in 1993, pursuant to the Resolution by the President of 28 June 2005. At present, the Turkmenenergo system includes:

- 8 state central heating plants
- 6 territorial vertically integrated companies – electricity producers (energy companies)
- 1 electric networks enterprise

- a company responsible for electric lighting of the city of Ashgabat (the country's capital)
- a state body for electricity sector control
- some auxiliary companies

Since 1 January 1993, electric power is supplied to the population, within the set amounts, free of charge.

It should be noted that, upon independence, Turkmenistan's leaders renounced the idea of privatisation of electric power facilities, considering them as strategic for the country's vital activities and sustainable economic development. Therefore, the country's electricity sector is represented by a single vertically integrated corporation, and this situation in the sector will most likely not change in the foreseeable future.

#### **b. Network access and tariffs**

No information is currently publicly available on network infrastructure access, tariff policy and electricity tariffs in Turkmenistan.

#### **c. Operational environment**

Pursuant to the Law on Foreign Investments (2008):

- foreign investors and enterprises with foreign investments are granted a national legal regime
- foreign investors are free to choose the size, composition and structure of capital of the enterprise they found, unless otherwise specified by Turkmenistan's laws
- activities and/or territories in relation to which investment activities are restricted or prohibited, as well as other restrictions for foreign investors, may be set forth by Turkmenistan's laws only to the extent necessary for the protection of the foundations of the constitutional order, defence capability and security
- customs duty reliefs and other preferences are granted

Foreign capital, particularly from Iran and Turkey, takes active part in Turkmenistan's energy sector, meaning to increase electricity exports to these countries. A number of projects are currently underway for the construction of new, and the reconstruction of existing power-generating capacities using General Electric (U.S.) steam-and-gas technologies and equipment. A long-term agreement on increasing electricity production volumes in Turkmenistan is active between the Ministry of Energy and Industry of Turkmenistan General Electric.

### **3. Gas sector**

#### **a. Market framework**

A state monopoly – Turkmengas State Concern – operates in Turkmenistan’s gas sector.

Within established quotas, gas is supplied to the population of Turkmenistan free of charge.

There was no privatisation or liberalisation in Turkmenistan’s gas sector. However, the Law on Hydrocarbon Resources (e.g. Article 37 “Title to pipeline transport”) allows that, within the framework of oil works, a contractor is deemed the owner of an infield pipeline built thereby, though title to a main pipeline shall belong to Turkmenistan unless the Government makes a specific exception.

The 2008 Law on Foreign Investments made possible: share interests of foreign investors in enterprises jointly with legal and natural persons of Turkmenistan; establishment of enterprises fully owned by foreign investors, establishment of branches of foreign legal persons, or purchase of existing enterprises; purchase of movable and immovable properties, except for those restricted in civil circulation by Turkmenistan’s legislation and purchase of property and non-property rights established by the legislation of Turkmenistan

#### **b. Network access and tariffs**

Third-party access to gas transportation systems is accomplished on the contractual basis with Turkmengas SC, coordinating its actions with higher authorities, especially if a contract is concluded with “important” customers, or for large volumes of gas pumping.

A gas transportation tariff is set by Turkmentransgas Association, agreed upon with Turkmengas SC, and approved by the Agency. A procedure of appealing against the body’s decision concerning gas-transport network access conflicts is implemented through appeals to higher and controlling bodies of the country, as well as in judicial proceedings.

#### **c. Operational environment**

The Agency is responsible for new investments, the Ministry of Oil and Gas Industry and Mineral Resources is responsible for sector development planning, and Turkmengas State Concern is responsible for gas sale.

Turkmenistan officially proclaimed an “open-door” policy and formation of a favourable investment climate. The prospects of collaboration in developing Turkmenistan’s gas industry for foreign business were the key agenda item of the Exploration, Prospecting and Development of Gas Fields Conference, organised in Ashgabat by the Turkmengaz State Concern in March 2008. At the same time, a new wording of the Law on Foreign Investments was passed. Negotiations are underway concerning new investment projects in Turkmenistan with well-known oil and gas companies from Russia, the United States, China, United Kingdom, France, Germany, Japan, and some other countries. Presence of foreign capital in Turkmenistan’s economy is expanding each year.

#### **4. Renewable energy sources/energy efficiency**

Turkmenistan possesses a huge potential for wind and solar electric energy, but rich gas and oil deposits have not encouraged development of this sector. Besides, the population does not pay for electricity consumption due to state subsidies. All these conditions do not promote successful development of renewable energy projects in this market.

Nevertheless, the President Gurbanguly Berdymukhamedov defined the use of renewable energy, primarily the use of solar and wind energy, as a priority area in the development of the country's energy sector.

Research on alternative energy in Turkmenistan is conducted by Gyun (Sun) Research, and Production Association. Gyun has developed a few installations and complexes that use solar and wind energy for industrial purposes. These include:

- general-purpose solar drying unit
- solar desalinating module for desalination of saline water having any mineralization degree
- UV unit for drinking water decontamination
- solar heating module for hot water production

Two experimental autonomous sheep-breeding solar complexes have been built for farms engaged in distant-pasture cattle breeding to maintain a 1000-head herd of sheep and support vital activities of a sheep herder team. Each of them includes a wind diesel unit, a hydraulic system for saline water lifting, a solar desalinating stock for water collection and desalination, and a residential house blocked with a solar greenhouse that allows using solar energy for heating.

In June 2009, the Islamic Development Bank provided funding to Turkmenistan for the implementation of a new project called "Studying a possibility of silicon production for solar photoelectric converters".

Turkmenistan ratified the Kyoto Protocol to the United Nations Framework Convention on Climate Change in 1998. Turkmenistan has no quantitative obligations on the Kyoto Protocol and may engage in GHG emissions trading through the implementation of projects within the Clean Development Mechanism (CDM).

To secure fulfilment of Turkmenistan's obligations ensuing from the UN environmental conventions and programmes, a State Commission has been established. The President signed a Resolution on 14 May 2009, prescribing the creation of an inter-agency commission on CDM to secure active engagement of advanced technologies and foreign investments to the national economy through the implementation of environmentally safe and energy-saving technologies within the Kyoto Protocol CDM framework.

## 5. Conclusion

Turkmenistan performs poorly with respect to its grouping (Group C), largely below average for both electricity and gas. Within its Group, Turkmenistan has an electricity sector score of 0.120 relative to a Group C average score of 0.461. Turkmenistan has a gas sector score of 0.110 relative to a Group C average of 0.399.

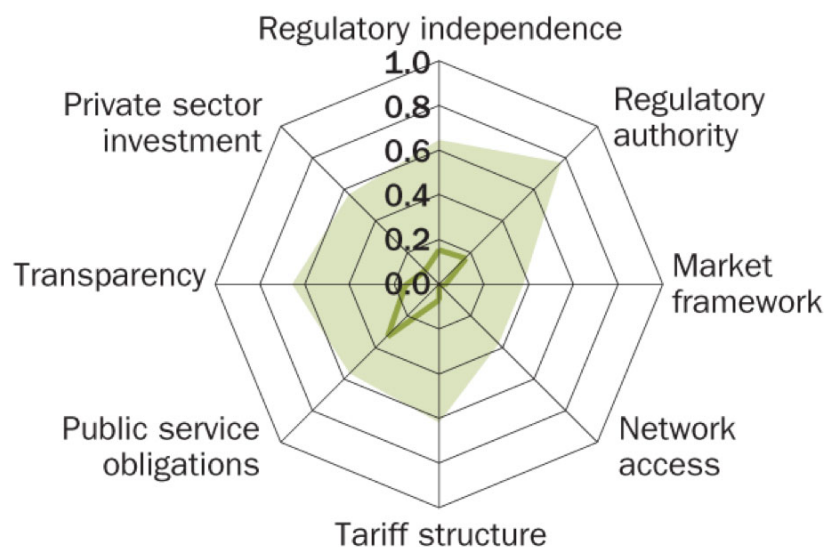
The absence of an independent regulatory authority contributes largely to reducing the score for institutional infrastructure and regulatory framework. Similarly, the state concerns which characterise the electricity and gas sectors, as well as the absence of any market opening time frame and the *de facto* absence of a retail market (because electricity and gas are supplied free of charge to residential consumers), penalise the score given to market structure.

Turkmenistan is Central Asia's biggest natural gas producer. Foreign investment in the energy sector is expected to dramatically increase in the next few years, with the Caspian Sea shelf remaining a priority.

Significant effort has been made by the government to attract more foreign investment and improve the country's business climate.

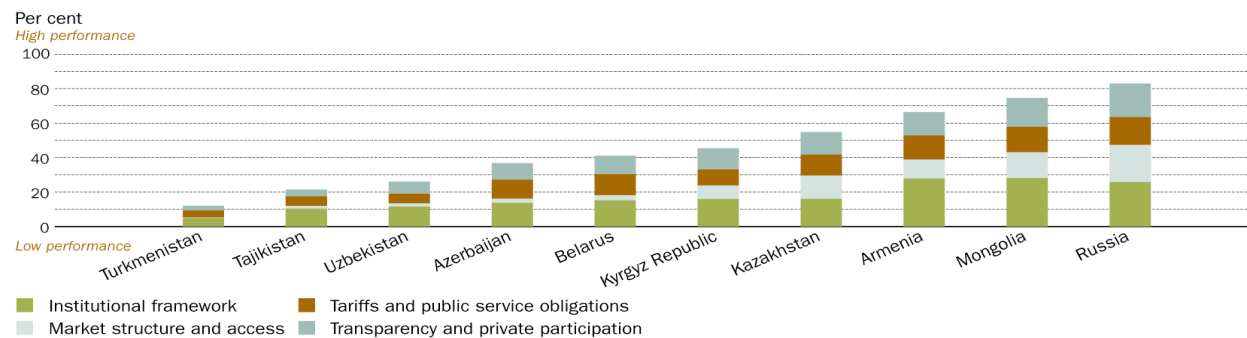
## Electricity spider graph – Turkmenistan

### Turkmenistan



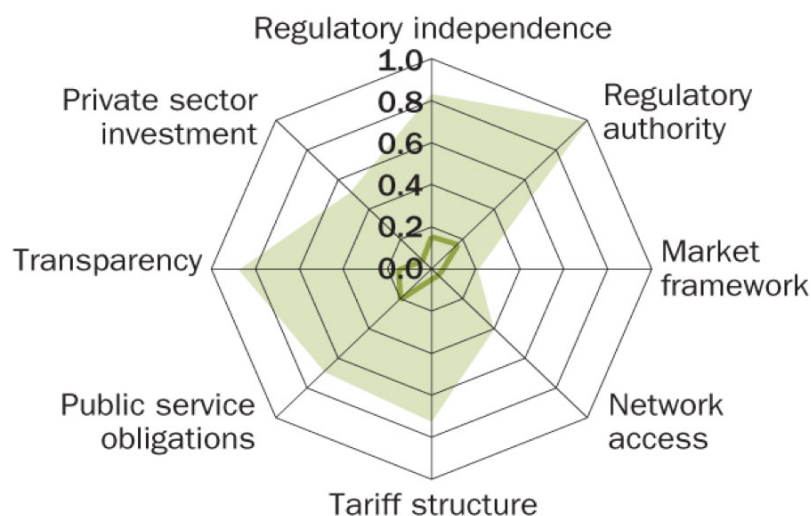
Note: The diagram presents the electricity sector results of Turkmenistan, in accordance with the benchmarks and indicators identified in the assessment model. The extremity of each axis represents an optimum score of 1.0, that is, full compliance with international best practices. The fuller the “web”, the closer the overall electricity regulatory framework approximates international best practices. The results for Turkmenistan are represented by the thick bold line. See next page for comparison purposes, the shaded area presents the electricity sector average of the Group C countries.

## Electricity Sector - Comparative view of Group C countries



## Gas spider graph- Turkmenistan

### Turkmenistan



Note: The diagram presents the gas sector results of Turkmenistan, in accordance with the benchmarks and indicators identified in the assessment model. The extremity of each axis represents an optimum score of 1.0, that is, full compliance with international best practices. The fuller the “web”, the closer the overall gas regulatory framework approximates international best practices. The results for Turkmenistan are represented by the thick bold line. For comparison purposes, the shaded area presents the gas sector average of the Group C countries.

## Gas Sector - Comparative view of Group C countries

