UKRAINE COUNTRY PROFILE

Overview

Ukraine has a population of approximately 46.38 million, with a GDP around USD 180,355 million. The total primary energy supply in 2007 was 137.34 Mtoe (million tonnes of oil equivalent), of which 0.6% is hydro power, 29.4% is coal/peat, 0.6% is combustible renewable and waste (including biomass, biogas and waste), 40.6% is natural gas, 11.2% is oil and 17.5% is nuclear. Net imports are around 59.61 Mtoe. CO2 emissions are 313.96 (measured as Mt of CO2). Ukraine’s energy sector is characterised by dependence on imported gas: Ukraine has in recent years consumed 68-78 bcm/y of natural gas, producing 18-20 bcm/y and importing the balance from Central Asia and Russia. Ukraine is at the final stage of negotiation for obtaining a full-scale membership in the EcT.

1. Institutional structure

The Ministry of Fuel and Energy (MFE) has primary responsibility over the energy sector, whereas regulatory implementation is the responsibility of the Ukrainian National Electricity Regulator Commission (NERC). NERC was originally set up on 8 December 1994 by Presidential Decree No. 738/94, as a special independent state body reporting to the President of Ukraine. After the Constitutional Reform of 2004, NERC changed its legal status, becoming a central executive authority, separated from the ministerial structure but subordinated to the Government. Despite its name, the NERC is responsible for regulation in electricity, oil and district heating sectors.

NERC is headed by a Chairman, supported by four Board Members and has a staff of 412 people, including central and regional offices. NERC is financed from the national budget, where it has a separate chapter that in 2009 amounted to 28.8 million Ukrainian Hryvnias (approximately equal to EUR 2,400,000, as of October 2009). Salaries of NERC’s chairman, members and working staff are approved by the Chairman of the Commission after obtaining prior authorisation from the Ministry of Finance. The only source for financing NERC’s activities, including salaries for its staff, is the funds allocated from the state budget.

NERC’s Chairman and Members of the Board are civil servants and are subject to the provisions of the national legislation on state service. In particular, the Law against Corruption prohibits civil servants from performing any other business or activity, except research, educational, artistic and medical practice.

The Chairman and the Members of the Board of NERC are appointed and dismissed by the Government upon nomination of candidates by the Prime Minister. According to the law, their service term is of six years and they can be re-appointed for a second term. They may be dismissed before natural expiration of their term due to: voluntary resignation; criminal sentence; gross violation of position requirements; certified grave health impediment; or retirement.

NERC sets tariff methodologies and approves tariff levels, even though some components used in calculation of regulated tariffs have to be previously authorised by MFE. NERC is also responsible for issuing licences and service quality.

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80 Information herein is drawn primarily from Ukrainian legislation, NERC’s official documents and information made available on its website.
The Government can overrule NERC’s decisions that contradict Governmental policy in the energy sector. This possibility is given due to the legal status of NERC which as an executive body subordinated to the Government.

NERC’s decisions may be appealed to the administrative Court.

NERC has full powers to perform regular or out-of-schedule inspections of licence holders’ activities for compliance with legislation/rules and licensing conditions. Based on the results of such inspections, if breaches are identified, NERC can impose monetary penalties and suspend or annul licences. Energy companies regularly report to NERC and are obliged to submit any additional information requested and reasonably required for fulfilment of its regulatory functions.

According to the Laws “On Electricity Sector” and “On Natural Monopolies”, NERC regulates the activities of natural monopolies in the electricity and gas sectors. The Antimonopoly Committee of Ukraine performs the functions of the antitrust/competition authority. In case NERC detects that a licence holder does not comply with antitrust/competition legislation, NERC is obliged to inform the Antimonopoly Committee for them to further investigation.

The Antimonopoly Committee has the power to issue recommendations for NERC to cancel or amend its regulatory acts that not comply with competition legislation. All regulatory decisions issued by the NERC that may influence economic competition are taken in coordination with the Antimonopoly Committee.

2. Electricity sector

a. Market framework

Currently, the wholesale market is organised according to a single buyer model. Reforms, aimed at establishing a liquid market, based on bilateral contracts and balancing services, are currently ongoing. According to the market reform Action Plan approved by Government on 28 November 2007, the transition process will be completed by 2015. NERC is responsible for coordinating reform of the wholesale market.

Currently, non-household consumers are eligible and can choose their supplier. Retail consumers are served by the distribution company which operates in their region and are supplied at regulated prices. For this group of end-users there is currently no market opening timeframe.

Non-household customers, provided that they have financial requirements (eligibility), can obtain a licence from NERC for non-regulated supply and purchase electricity, for their own needs, from the wholesale supplier (single buyer). When the aforementioned wholesale market reform is completed, generators and eligible customers will be able to conclude direct bilateral contracts.

Under the current framework, the major generators (one nuclear, five thermal, one hydro and several smaller power generating companies) sell electricity to the single buyer, the state–owned company SE Energomarket, which, in turn, sells it to two categories of suppliers, regulated (unbundled distribution companies) and non-regulated ones.

Some electricity generators – combined heat and power (CHP), and small generators – can sell electricity either to SE Energomarket, to regulated electricity supply companies or to final customers located in the region of generators’ location. SE Energomarket is obliged by the law to purchase
electricity from renewable energy and co-generation plants, but de facto purchases all electricity supplied by non-competitive generators (all except big thermal power companies and several CHPs).

Transmission is performed by a state-owned company UkrEnergo, which is the sole Transmission System Operator (TSO) nationwide. As for distribution, neither the law nor the licence conditions require the setting up of separate legal entities. In fact, regional power distribution companies combine electricity distribution and electricity supply at regulated tariffs, with some also operating electricity generation plants.

Regulated power distribution companies (owners of power distribution networks) are in different ownership (they are mainly joint stock companies with different level of state control: from zero to a controlling stake). Non-regulated suppliers are all private. The TSO and the wholesale electricity supplier are state enterprises.

State assets in the electricity sector (state enterprises and state-owned stakes in joint stock companies), excluding nuclear power plants and TSO, are controlled by the state holding company Energy Company of Ukraine. In 2008, the share of power generating plants controlled by the holding company Energy Company of Ukraine in the total national electricity generation was 37.7%, as reported by the company; the share of state-owned nuclear power utility was 47%.

Regulated electricity suppliers provide roughly 80% of total electricity supplies (including electricity export). Non-regulated suppliers are mainly big industrial plants buying electricity for their own needs.

Ukraine is currently one of the main regional electricity exporters supplying electricity to Hungary, Moldova, Russia, Poland and Slovakia. The Integrated Energy System of Ukraine in 2002 was partly integrated into the Union for the Coordination of Transmission of Electricity (UCTE), after the connection of the “Burshtynskiy Energoostrov” line. The export potential is estimated in 6-7 TWh a year. However, export capabilities are limited by the lack of investments in modernisation of the power networks and, therefore, low quality of electricity.

b. Network access and tariffs

According to the Law of Ukraine “On Electricity Sector”, all electricity generators and suppliers have equal rights of access to the wholesale electricity market and electricity networks upon obtaining their respective licences. According to licence conditions, TSO and Distribution System Operators (DSOs) must not discriminate between applicants seeking connection. However, the current single buyer model imposes limitations to the right to access transmission and distribution electricity networks, since power generators do not enter into contract relation with the TSO and DSOs. After the market reform, the issues of connection and the use of the electricity transmission and distribution systems will be regulated by the Grid and Distribution Codes which are now in the process of drafting.

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81 The UCTE operates the European synchronous grid and is an association of electricity distribution network operators in Continental Europe. Its interconnected network is a single phase-locked 50 Hz mains frequency electricity grid that supplies over 400 million customers in 22 countries, including most European Union members.
NERC approves *ex ante* tariffs for electricity transmission and distribution.

With respect to transmission, NERC approves a unified “postage stamp” tariff for the entire territory of Ukraine, based on the cost-plus principle. With respect to distribution, NERC approves tariffs that, being based on the cost-plus principle, are peculiar to each distribution company and differentiated by two voltage classes: 0.4-35 kV and 35-110 kV.

c. **Operational environment**

According to the Law “On Electricity Sector”, regulated electricity suppliers are obliged to accept the request of supply from any customer located on their service territory; on the other hand, household customers cannot switch suppliers.

As for long-term supply and demand balance, and additional generation capacity, MFE and the TSO, which is a state company subordinated to MFE, are the entities responsible.

NERC plays a key role in guaranteeing the quality and maintenance of the networks, as it approves investment plans submitted by the TSO and DSOs, after a first authorisation by MFE.

Concerning quality of service, framework legislation on distribution and retail supply is currently in preparation; NERC will be responsible for setting up quality standards and controlling their implementation.

Each year, NERC presents a report to Parliament, posted on its web site: http://www.nerc.gov.ua. Its decisions are also posted in Ukrainian and Russian. By law, the NERC must hold evidentiary hearings and public consultations for its decisions, which are announced in the press and on its website. Any interested party can attend public hearings and speak at them. The parties attending the public hearings have a right to look through the documents prepared for the public hearings. Public consultations of draft regulatory acts, lasting from one to three months, must precede the official approval of respective regulatory acts according to the Law “On Regulatory Activity”.

Foreign capital investments are permitted, but a perceived less-than-favourable investment climate and imperfect regulation of business activities have likely limited private investment in the sector thus far. There is no one aggregated standard procedure for granting authorisation for new power plant construction. Separate permissions, such as feasibility study approvals, land allocations, and construction permissions are granted by different authorised state bodies via separate specific authorisation procedures. However, Ukraine has undertaken the process for approving a unified procedure, harmonised with European Union (EU) legislation, for granting authorisation for new generation capacity.

3. **Gas sector**

a. **Market framework**

The gas sector of Ukraine is dominated by the vertically integrated state-owned JSC Naftogaz Ukrainy. Through its subsidiaries, Naftogaz controls the entire gas chain: production, storage, transmission and transit, distribution and supply; it is also the exclusive supplier of all the gas imported to Ukraine from Russia and Central Asian Countries (roughly 75% of total supply), according to the terms of the contract concluded between Naftogaz and Russia’s Gazprom for the 2009–
2019 periods. Ukraine has Europe’s second largest underground storage after Russia; much of it is located close to the country’s western borders. Gazprom’s subsidiary, Gazprom-sbyt, is an important supplier of large industrial customers.

The Ukrainian gas transport network is one of the world’s largest: it has an annual nominal input capacity of 280 bcm and output capacity of 175 bcm. The network (comprising 37,000 km of pipelines) is the main route for transit of Russian gas exports to Europe. The network is owned by the Ukrainian state and is managed by the Naftogaz’s subsidiary Utkrantransgaz, which performs gas transmission. According to the licence conditions, Utkrantransgaz is not permitted to carry out gas distribution or regulated supply. Another small Naftogaz’s subsidiary, Chernomorneftegaz, manages a small part of the network in Crimea. The gas storage system comprises 12 underground facilities operated by Utkrantransgaz and a small one operated by Chernomorneftegaz.

The need for large-scale investment into the transport network becomes more current as the pipelines age. As discussions with Gazprom regarding to the modernisation and future of the network have reached a deadlock, Gazprom has decisively sought diversification of transit away from Ukraine. According to the EU-Ukraine Joint Declaration on the modernisation of Ukraine’s gas transit system (March 2009), Ukraine has committed to ensure the autonomy of Utkrantransgaz as a legal separate entity and in terms of organisation and decision-making, in line with EU Directive 2003/55/EC.

Gas distribution pipelines are state property, but they are operated by regional gas distribution companies (Gascos), which also supply retail consumers at regulated tariffs. Gascos are joint stock companies. Both distribution and retail supply are licensed activities, for which accounting separation is required.

Naftogaz holds stakes of shares in most of them, either as a major or minor shareholder.

b. Network access and tariffs

Only large and medium industrial consumers can choose their supplier, de facto limited to the duopoly of Naftogaz and Gazprom-sbyt. The retail sector (households, district heating, public organisations and small industries) is supplied under monopoly conditions by regional gas companies and, as of today, no timeframe for gas market opening has been formally established. However, gas sector reform, including market opening and other measures to provide harmonisation with the requirements of EU Directive 2003/55/EC, is on the political agenda.

The licence conditions for gas transmission and distribution include provisions imposing equal and non-discriminatory access to pipelines for each business entity seeking such access.

Sales, transportation and supply are undertaken in three different ways:

- some large industrial users have their own pipelines, connected directly to Utkrantransgaz’s high-pressure system; they pay for transport on those pipelines only; traders (predominantly Naftogaz and Gazprom-sbyt) are the sellers and suppliers
- other medium and large industrial users receive gas via low-pressure pipelines owned or leased by regional gas companies; they pay a transport
tariff covering transport on both high pressure lines and distribution lines; the gas is sold by traders in the same way

- small industries, households and public sector organisations receive gas via low-pressure pipelines; they pay a transport tariff covering both high and low pressure pipelines; the seller is trader (almost always Naftogaz’s subsidiary Gaz Ukrainy); the regional gas company acts both as transporter and supplier of the gas

NERC, in accordance with government guidelines, sets a ceiling for industrial prices and regulates more tightly residential and public sector prices; in particular, it determines: the maximum retail gas price for four categories of customers (residential, public organisation, district heating companies and industrial consumers); tariffs for gas transmission and storage (for Ukrainian companies only, and not for transit through Ukraine to other destinations); distribution tariffs; retail supply tariffs.

With respect to transmission, a unified “postage stamp” tariff for the entire territory of Ukraine, based on cost-plus principle, is set for the main pipelines operated by Ukrtransgaz, the only exception being large industrial consumers connected directly to main gas pipelines. Distribution tariffs are approved individually for each gas distribution company.

The full service tariff for non-households customers is made up of several components: wholesale gas price (differentiated per customer group), transmission tariff, distribution tariff (differentiated per gas distribution company), supply tariff, Naftogaz’s wholesale supply charge (if the gas is supplied by Naftogaz’s subsidiaries). Full service tariff rate is subject to VAT.

Gas tariffs for households, which are subsidised being on average less than half of industrial prices, are differentiated per consumption volume and approved by NERC in form of fixed rates.

NERC regulates also gas extraction, performed by Naftogaz’s subsidiaries or private companies in joint venture with state-owned entities, and gas storage.

c. **Operational environment**

All the regional gas distribution companies, which are subject to regulation, de facto have the obligation to guarantee universal service in their territory of competence.

With respect to security of supply, the subjects that have direct responsibility are Naftogaz, MFE and the Government. Naftogaz drafts yearly gas balances and monitors their implementation, which are prepared under the coordination of MFE and, in turn, approved by the Government.

According to the “Energy Strategy of Ukraine Till 2030”, formally approved by the Government, and its related Action Plan, MFE, Naftogaz and its subsidiaries are required to develop national plans on gas production, transmission and distribution pipelines, underground storages and supply sources diversification. Naftogaz is also responsible for the maintenance of gas networks and other essential infrastructures.

Foreign investment is not formally restricted; however the privatisation of gas transmission and distribution networks is not permitted by law.
4. Renewable energy sources/energy efficiency


These laws are complemented by a variety of policy documents (strategies and programmes) approved in recent years, such as the “Energy Strategy of Ukraine for the period till 2030” issued by the Cabinet of Ministers of Ukraine on March 2006; and the “Memorandum of Understanding on Co-operation in the Energy Sector” between EU and Ukraine, signed in December 2005. The fuel diversification prospects for Ukraine are set out in the Energy Strategy, which aims to promote a five-time increase of the energy output from nuclear and renewables by 2030.

The “National Agency for Effective Use of Energy Sources”, established in 2005 to replace the State Committee on Energy Saving, is the main policy body responsible for energy efficiency and energy saving policy and renewable energy promotion.

The share of renewable energy in national energy production is still negligible (around 3% in primary energy consumption). However, the recent introduction of a green tariff (2009) for electricity generation from renewable energy and combined heat and power production, is expected to significantly impulse the development of renewable energy and create favourable conditions for investment.

NERC is responsible for regulation of renewable energy, including licence issuing. In particular, NERC sets the aforementioned green tariff, which is equivalent to the general retail electricity tariff multiplied by a “green coefficient” defined for each type of renewable energy. The green tariff will be in effect until 1 January 2030. There is still no reliable data on its effectiveness.

In order to boost the use of renewable energy, the Government has recently issued a Resolution, No. 126 of 19 February 2009, aimed at drastically simplifying the procedures for building and operating renewable energy power plants, effectively abolishing the licensing requirement for such facilities. However, for the Resolution’s provisions to be fully implemented and take effect, NERC have still to introduce relevant amendments to the regulatory framework.

Ukraine is a highly energy-inefficient country though implementing energy-efficient measures is seen as one of the ways to address its over-dependence on imported Russian and Central Asian gas. Recent legislative activities show some progress in this respect. Since the beginning of 2009, industrial enterprises engaged in creating new production processes directed at the introduction of energy saving technologies are exempted, until 1 January 2011, from VAT and custom fees when importing to Ukraine equipment for such production process. All secondary legislation is in place and this mechanism is actually operational.

The Law No. 1264-XII “On Environmental Protection” dated 25 June 1991, the Law “On Ecological Expertise” and the Law No. 1560-XII “On Investment” dated 18 September 1991, sets out the primary legislative framework for environment protection, including environmental impact assessment, for the industry, energy and building sectors.

Emissions of dust, SO₂, NO₂ are subject to taxes established by the Government.
Ukraine became a Party to the United Nations Framework Convention on Climate Change in 1997 and ratified the Kyoto Protocol in April 2004, having signed it in 1999. After the ratification, a special interdepartmental commission was created to coordinate the efforts of the state authorities. In August 2005 the Government approved the National Action Plan for the implementation of the Kyoto Protocol and relevant changes were introduced in March 2009.

5. Conclusion

Ukraine performs poorly with respect to its grouping (Group B – EcT including observers) below average for both electricity and gas. Within its Group, Ukraine has an electricity sector score of 0.669 relative to an EcT (including observers) average score of 0.827. Ukraine has a gas sector score of 0.544 relative to an EcT (including observers) average of 0.711.

Taking into account its recent status of observer of the European Commission, the regulatory framework appears to be well designed, mainly in terms of authority of the regulatory body (NERC) and tariff structure, whereas progress has still to be made with respect to independence.

A reform of the electricity sector, which should result in the establishment of a fairly liquid wholesale market by 2015, is ongoing. Along with a certain degree of competition, it is expected to attract the interest of foreign electricity players.

The modernisation of the gas transport network is a central strategic issue not only for the Ukrainian gas sector but also for the Ukrainian economy. Substantial investment in the network is needed. In March 2009, at the Joint EU-Ukraine International Investment Conference on the Modernisation of Ukraine’s Gas Transit System, the Ukrainian government presented a Master Plan, which includes the identification of bankable projects aimed at improving the technical efficiency and introducing state-of-the-art technology. After an initial phase where banks and financial institutions will play a major role, an “industrial phase”, with gas players taking part in the enhancement and extension of the gas network, will eventually follow.
Electricity spider graph – Ukraine

The diagram presents the electricity sector results of Ukraine, 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 Ukraine are represented by the thick bold line. For comparison purposes, the shaded area presents the electricity sector average of the Group B countries.

Electricity Sector - Comparative view of Group B countries (contracting parties and observers)

Notes: (O) stands for observers of the Energy Community Treaty.

The results for Serbia do not include Kosovo.
Gas spider graph - Ukraine

Note: The diagram presents the gas sector results of Ukraine, 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 Ukraine are represented by the thick bold line. For comparison purposes, the shaded area presents the gas sector average of the Group B countries.

Gas Sector - Comparative view of Group B countries (contracting parties and observers)

Notes: (O) stands for observers of the Energy Community Treaty.
The results for Serbia do not include Kosovo.