LITHUANIA COUNTRY PROFILE[37]

Overview

Lithuania has a GDP of USD 47.341 million[xv] and a population of approximately 3.38 million.[xvi] In 2007, its total production of energy was 9.25 Mtoe (million tons of oil equivalent), of which 0.4% was hydro power, 2.8% was coal/peat, 8.2% was combustible renewable and waste, 2.4% was geothermal/solar/wind, 30.9% was natural gas, 27.6% was oil and 27.8% was nuclear. Net imports were 5.73 Mtoe. CO_2 emissions were 14.44 (measured as Mt). A member of the European Union (EU), Lithuania is bound to adhere to the EU energy *acquis*, which includes the improvement of sector competitiveness, security of energy supplies and protection of the environment.[xvii]

1. Institutional structure

The Ministry of Energy is the major policy making governmental body, and the entity responsible for regulatory implementation is the National Control Commission for Prices and Energy (NCCPE). NCCPE is a legal autonomous regulatory body that covers electricity, natural gas, heating and water supply. There are five members, including the Chair, with fixed five-year terms. Members are appointed and dismissed by Parliament on the recommendation of the President. They can be dismissed before expiration of their terms only due to election or appointment to another position, criminal conviction, incapacity, loss of nationality, an ethical violation, or commission of "a grave breach of the requirements of the position held." NCCPE has a total of 54 employees.

Members and staff salaries are based on salaries for public officials and judges, and civil servants, respectively. NCCPE's most recent budget of 4.675.000 Lt[38] comes from the central budget and was less than requested, reflecting the limits in NCCPE's financial independence from government.

Conflict of interest rules bar NCCPE members from holding management positions in entities regulated by the NCCPE; similar conflict rules apply to staff and family.

The Government cannot overrule NCCPE decisions; instead, its decisions are appealed to the court or to the Chief Administrative Disputes Commission. Decisions are not stayed pending appeal unless by order of the court. NCCPE may directly impose fines (on natural persons only, not on industry) and can reduce tariff revenues for failing to meet performance standards.

NCCPE sets tariff methodologies and rate caps; issues licences (for electricity market operator, electricity transmission, electricity distribution and supply (public and independent), and for natural gas transmission, distribution, storage, liquefaction and supply); supervises service quality pursuant to standards set by the Ministry; hears consumer complaints; supervises congestion management (although there appears to be none at present); approves investment plans in conjunction with Ministry policy; and, with the Competition Authority, oversees market competition. As of the 2007 amendments to the Law on Natural Gas, NCCPE was charged with launching tenders for gasification of new territories, drafting a new methodology for calculating new

[37] Information herein is drawn primarily from the regulator, from answers to questionnaires provided by this project, and from the 2008 Annual Report on Electricity and Gas Markets in Lithuania prepared for the European Commission.

[38] This is the equivalent of approximately EUR 1,352,505 (using an October 2009 exchange rate).

customer connection fees, establishing household customer connection fees, and drafting other secondary legislation.

As noted, Lithuania has a competition authority, the Competition Council, with authority to address market abuses and mergers, and with which NCCPE cooperates.

2. Electricity sector

a. Market framework

Since January 2007, all customers have been eligible to choose their suppliers. The market participants are the generators, the Transmission System Operator (TSO), the market operator, distributors, Distribution System Operators (DSOs), traders and retail suppliers (both public and independent) and customers. The Ministry and the market operator, a division within the TSO, are responsible for facilitating and organising electricity trade.

A wholesale pool market has existed since 2002, along with bilateral contracting. Only 14% of electricity consumption (six large industrial consumers) has switched from public suppliers to market prices from other suppliers, due to the low public supplier price. This lower price, in turn, is influenced by lower priced generation from the state-owned Ignalina nuclear plant, scheduled to close in 2010. (Plans are underway to build a new plant, but it will not be in operation until 2018-2020.) Ignalina produces approximately 70% of the power generated in Lithuania.

As of May 2008, the TSO (Lietvos Energija, AB) and two DSOs are contained within LEO LT, AB, which is owned 62% by the State and 38% by NDX Energy. The DSOs act as the primary public suppliers. Unbundling comports in most part with the EU Directives, in that activities are fully unbundled except the smaller distribution companies (serving 100,000 customers or less, of which there are five) need only functionally, not legally, unbundle. The transmission and distribution companies are legally unbundled, with the exceptions of the market operator's department and two hydro power plants (Kaunas HPP and Kruonis PSP), which operate as balancing components of the electricity transmission system, and public supplier units, which are individual distribution company departments.

Efforts are underway to create a Baltic Electricity Market following the Nord Pool model, which, due to its small size, would be linked with the Scandinavian market. Given the looming decommissioning and dismantling of Unit 1 of the Ignalina power plant (a nuclear plant deemed unsafe as it, like Chernobyl, lacks the reactor containment found in Western nuclear facilities), one of the primary objectives of the transmission company is the integration of the Lithuanian energy system into the Western European electricity market as well as the development of regional co-operation. Expansion of the transmission grid is planned in the near future by interconnection with the Polish electricity networks.

b. Network access and tariffs

Aside from network prices, prices are unregulated, except as to generation and supply serving more than 25% of the market. NCCPE uses a 50/50 revenue/price cap approach for network services, with a binary tariff at all voltage levels introduced in 2007 to disaggregate network tariffs from supply to harmonise the network prices for eligible and public supply customers. The caps are set for a

three-year period with annual adjustments based on consumer price index fluctuation, an efficiency factor, allowed unpredicted changes, the impact of electricity volume and corrections based on the revenue requirements of the regulated entity if justified by that entity. Tariffs are not uniform throughout the country, but divided into two regions. Household prices are lower than the EU average, but rose in 2008 due to rising gas prices.

Access rules and charges are applied *ex-ante* and details are published. Non-discriminatory Third Party Access (TPA) to the network is required in accordance with EU directives and implemented through a grid code. NCCPE approves connection charges and may exempt new investment from allowing TPA, which exemption is a means to encourage investment, and is permissible under EU rules and best practices as long as appropriately constrained to encourage needed investment. The Lithuanian electricity system as well as the Baltic energy system does not experience any congestion because of sufficient transmission capacity of electricity networks. Intersystem electricity flows, interconnection capacities, generation, consumption, export/import, the influence of transmission network outages on transmission capacities between neighbouring countries can be followed on-line on the website of the Lithuanian transmission system operator (www.le.lt).

The regulator licenses sector participants. It does not, however, issue production permits or authorisations for new generating capacity, which are handled and issued entirely by the Ministry. In 2007, bankruptcy proceedings were initiated against one local distribution network operator (Ekranas AB). The right to manage the electricity distribution grids of Ekranas AB was then granted under an agreement to Prekybos Namai Giro UAB, thereby ensuring the continuity of the licensed activity and electricity. The Law on Electricity provides for two types of electricity supply licence: a public electricity supplier and an independent electricity supplier. The number of licensed traders or suppliers has not increased appreciably recently, with a total of 18 independent supply licences and six public supply licences issued in 2007, and eight undertakings actually engaged in independent supply.

c. Operational environment

With respect to security of supply and public service obligations, as noted, the two DSOs perform public supply, and few customers have chosen to leave public supply because of its relatively low pricing. With the looming closure of the Ignalina facility, security of supply is a concern, resulting in promotion of greater physical connections to the west and north, and pursuit of domestic production from renewable energy and, potentially, a new nuclear plant.

NCCPE monitors quality of service pursuant to a 2005 order approved by the Ministry, and the benchmarked baseline conditions are now used to adjust price caps for transmission and distribution services. Since 2004, NCCPE annually inspects major electricity companies, and analyses and evaluates how they register data on reliability of electricity supply and service quality. If violations are discovered during inspections, the companies must eliminate them within the NCCPE-specified time; failure to perform can be reflected in the price cap formula. The number and length of interruptions on the transmission grid is comparatively low when compared with other European countries and is similar to other European countries on the distribution level.

In 2007, NCCPE considered about 300 various types of residential complaints and requests, most of which were rejected. There have been no complaints about access to the network.

NCCPE files an annual report, available on its website (www.regula.lt). Decisions are published and also available on the website, and NCCPE must present a report annually to Parliament.

Foreign capital investment in energy companies is permitted and changes of ownership are regulated through licence conditions. Incentives for new generating investments are primarily directed at encouraging renewable energy development.

3. Gas sector

a. Market framework

Market participants are primarily the transmission company and distributor-suppliers. The market has been fully open since 1 July 2007, but there is no wholesale natural gas market as a practical matter because natural gas comes largely from Russian Gazprom AAB, pursuant to long-term purchase agreements. In 2008, there were five retail gas suppliers, but Lithuanian customers were supplied by two main companies: Lietuvos Dujos AB and Dujotekana UAB, with Lietuvos Dujos AB being the main natural gas supplier to household customers. Switching is hampered by quota limitations imposed by Gazprom. A large chemical manufacturer (Achema AB) and a combined heat and power plant (Kauno Termofikacijos Elektrin UAB) buy directly off the transmission line for their own needs.

Lietuvos Dujos AB, which has undergone accounting separation but not yet legal unbundling, engages in natural gas import, transmission, distribution and supply to gas consumers of Lithuania and owns the majority of the natural gas supply infrastructure in Lithuania. It is owned 38.9% by EON Ruhrgas International AG, 37.1% by OAO Gazprom, 17.7% by the State property fund and 6.3% by small shareholders.

b. Network access and tariffs

There is only one supplier, Gazprom AAB, and as of 1 January 2008, Lithuanian customers began paying prices equivalent to other western countries. In the spring of 2007, the Law on Natural Gas was amended to have NCCPE regulate natural gas supply prices for all customers, including eligible customers. According to that Law, transmission, distribution, storage, supply and liquefaction prices are all regulated, although as a practical matter there is no storage or liquefaction.

Tariffs are published and calculated in accordance with published price cap methodologies with separate tariffs established for storage and trade in 2007. A five-year regulatory period is used, with annual price adjustments based on inflation, operational efficiency coefficients, changes in gas consumption volumes and other factors external to the provider. Both household and commercial tariffs are low as compared to other EU countries.

There is no grid code. The key requirements for the natural gas transmission system balancing are set forth in published rules set by the transmission or distribution system operators, upon agreement with NCCPE which, per the 2002 Law on Natural Gas and the Rules for Natural Gas Transmission, Distribution, Storage and Supply, must be objective, transparent and non-discriminatory. These balancing rules are mandatory for customers and system users, except for

household customers. Lithuania applies a daily (24-hour) transmission system balancing interval.

c. Operational environment

With respect to public service obligations, the Government or its delegate may impose such obligations pursuant to the Law on Energy. Article 16.3 of the Law on Natural Gas provides that supply of last resort may be provided to household customers and users with an energy generation capacity of less than 5 MW and having no fuel reserve stocks. Under Article 10 of the Law, the Government of Lithuania approved Licensing Rules on Natural Gas Transmission, Distribution, Storage, Liquefying and Supply, in which the scope of supply of last resort is narrower than in the Law, providing only for household customers. These Licensing Rules prescribe that NCCPE shall require a company with a supply licence to act as the supplier of last resort; Lietuvos Dujos AB is that supplier.

Gas reserves are being increased to ensure security of supply, although dependence on Russia in the gas sector is enlarged further by the fact that Lithuania does not have depots for natural gas, and cannot import gas by sea, as it does not have liquefied natural gas (LNG) terminals, and demand for natural gas will increase in 2010. Lietuvos Dujos AB is charged with implementing measures to address gas shortage problems due to the fault of an external supplier.

There are as of yet no quality of service standards, although the Ministry is in the process of drafting them, and Lietuvos Dujos AB provides NCCPE with annual data regarding interruptions and other quality factors.

4. Renewable energy sources/energy efficiency

In 2007, Parliament approved a revised National Energy Strategy (NES), which is the main strategic document of the energy sector. The NES sets out key energy policy planning provisions and foresees that in 2010 more than 7% of the electric power consumed will be generated using renewable energy resources. The principal source of generation from renewable sources is hydro power.

Pursuant to an Order of the Minister of Economy, the following are covered by public service obligations: generation from renewable energy; Combined Heat and Power plants supplying heat to urban district heating systems and plants supplying reserves; nuclear operational security; waste storage; and disposal and connection of electricity generating facilities using wind, biomass, solar or hydro-power to transmission or distribution electricity networks. Fulfilment of these obligations is regulated by the Rules for Imposing Public Service Obligations approved by the Ministry of Economy.

As part of its overall tariff authority, NCCPE has approved feed-in tariffs, consistent with national law and the Energy Strategy; there is no separate renewable energy legislation (though biofuel is addressed in separate legislation). In 2008, NCCPE approved new purchase prices for green electricity, applicable from 1 January 2009 and guaranteed until the end of 2020. Lietuvos Energija AB as TSO is responsible for the issuance of guarantees of origin of electricity generated from renewable energy and for the administration of the database. The TSO and DSOs must buy all produced green energy, with acquisition costs folded into the end-user prices. When the auction price is higher than the feed-in tariff, “green” energy producers are not entitled to the higher price.

Electricity producers are granted a number of tradable pollution permits. When their emissions exceed the level of permits, they must buy additional permits on the market. If the producer is a regulated entity, the cost of additional permits is included in the tariff. The price of electricity produced in Ignalina includes only the cost for short term storage of nuclear waste. Decommissioning and long term waste storage is not included in the electricity price, but will be covered by the Ignalina International Decommissioning Support Fund and from EU allocations.

Lithuania has taken some important steps with regard to international and regional environmental agreements for the energy sector. Parliament ratified the United Nations Framework Convention on Climate Change (UNFCCC) on 23 February 1995 and the Kyoto Protocol to the United Nations Framework Convention on Climate Change on 19 November 2002. The EU and Lithuania have undertaken to mitigate greenhouse gas (GHG) emissions in the period 2008-2012 to, on average, 8% below the level in the base year, which is 1990 for CO_2, methane and nitrous oxide, and 1990 or 1995 for industrial GHG. The national strategy for implementation of UNFCCC up to 2012 was adopted on 23 January 2008 under Decision No. 94 of the Government of Republic of Lithuania. In a positive step toward addressing climate change, the Law on Financial Instruments for Climate Change Management was passed on 7 July 2009, which addresses, among other things, trading in allowances and Kyoto units as well as implementation of the Joint Implementation Projects and the Clean Development Mechanism under the Kyoto Protocol.

In order to ensure the effective implementation of GHG mitigation targets and measures defined in the UNFCCC, the Kyoto Protocol and in related EU legal acts, and considering the changes in the structure of ministries and other organisations, the composition of the National Climate Change Committee was updated by the Order No. D1-221 of the Minister of Environment of 27 April 2009 and the meeting of this Committee was organised on 23 June 2009. Measures for implementation of UNFCCC and Kyoto protocol commitments are set forth in the Law on environmental protection (1992, amended in 2005); the Law on ambient air protection (1999); the Law on environmental monitoring (1997, amended in 2006); the Law on environmental pollution taxes (1999, amended in 2008); the Law on waste management (1998, amended in 2005); the Law on energy (2002, amended in 2007); the Law on electricity (2000, amended in 2004); the Law on district heating; the Law on biogases, biofuels and bio-oils (2000, amended in 2004); the Law on transport activities background (1991, amended in 2006); the Law on agriculture and rural development (2002); the Law on forests (1994, amended 2007); and the Law on drinking water supply and waste water disposal (2006).

The Ministry of Environment is responsible for the transposition to the national legislation and for the implementation of the requirements of EU Directive 2003/87/EB, specifying the EU emission trading scheme, and other EU legislation concerning the climate change. The Law on Financial Instruments for Climate Change Management addresses obligations of Kyoto and the EU greenhouse gas emission allowance trading scheme. The regional environment protection departments under the Ministry of Environment and the State Environment Protection Inspectorate control the implementation of the requirements set forth in the Procedures for the Issuance and Trading in EU GHG allowances. The Climate Change Division (established in January 2008) of the Environment Quality Department of the Ministry of Environment prepares and provides to the Commission reports on the implementation of EU Directive 2003/87/EB annually. The Ministry of Environment in cooperation with the Ministry of Economy approves the National allocation plan. The Public Entity Lithuanian Environmental Investment Fund (LEIF) performs the function of the GHG register administrator, with the Ministry of Environment as supervising institution of the GHG registry. LEIF is also involved in the process of the endorsement of the Joint Implementation (JI) projects under Article 6 of Kyoto Protocol. The National Accreditation Bureau

under the Ministry of Environment is assigned to give the accreditations to the GHG quantity verification entities. To date there are 16 JI projects being implemented in Lithuania. Information about JI projects is provided on the website of LEIF (http://www.laaif.lt/index.php?404893940).

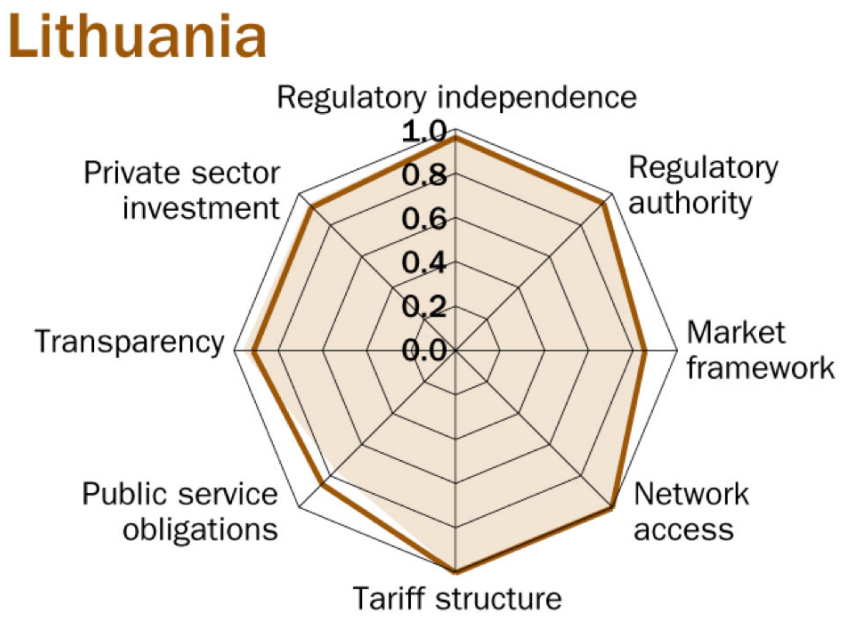
5. Conclusion

Lithuania performs reasonably well overall and slightly above the average within its grouping for electricity and below average within its grouping for gas (Group A). Moreover, within its Group, Lithuania has an electricity sector score of 0.933 relative to a Group average score of 0.93 (with 1.0 reflecting full adoption and implementation of best practices as identified in the benchmarks and indicators of this Assessment). Lithuania has a natural gas sector score of 0.849 relative to a Group average of 0.864.

Within the electricity sector, Lithuania's regulatory framework is relatively advanced; as a practical matter development of competition has been constrained by the availability of low priced power from the state-owned nuclear plant, Ignalina, and will now be dominated by the shutdown of that plant and the need to find alternative resources, providing further impetus to expand network connections to other countries, to facilitate imports, near-term development of new combined-cycle plants using imported natural gas and, in the longer term, potential construction of new nuclear generation.

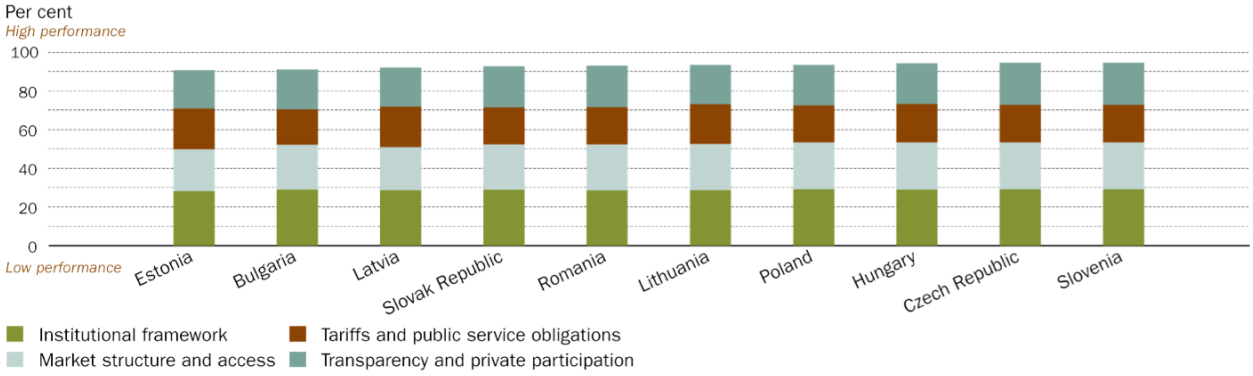
The gas sector is dominated by Gazprom, with the lack of alternative resources and, until 2008, below market pricing, stunting market development. There remains no grid code and dramatic market changes are not envisaged on the near-term horizon.

Electricity spider graph – Lithuania

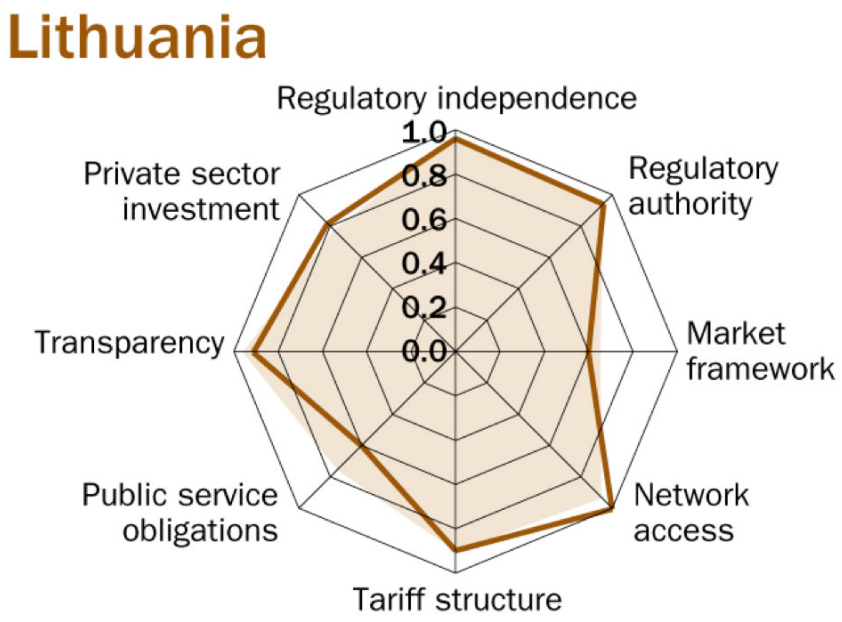


Note: The diagram presents the electricity sector results of Lithuania, in accordance with the benchmarks and indicators identified in the assessment model. The extremity of each axis represents an optimum score of 1.0, that is, full compliance with international best practices. The fuller the "web",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

Electricity Sector - Comparative view of Group A countries



Gas spider graph- Lithuania



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

Gas Sector - Comparative view of Group A countries