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Energy Policy in Latvia

1. Executive Summary

Energy sector is one of the key components of the business environment; therefore FICIL closely monitors energy policy developments and supports recent Government initiative on the development of two new power generation units. In addition FICIL sees this as an attractive initiative since foreign investors are in particular interested in large scale investment projects and energy sector provides such opportunities. In order to get competitive bids from potential investors and further ensure stable and sustainable energy prices for foreign investors and other consumers FICIL suggests to consider several additional aspects when moving forward process on the implementation of new power generation units.

2. Recommendations/Suggestions

1. We suggest that the Government of Latvia should take proactive position to attract interconnection with Swedish grid to Latvia and make this interconnection available for electricity market participants. We suggest Government to move forward with the practical steps leading to new generating capacity projects preparation as soon as possible.
2. We consider that the Government of Latvia should promote establishment of the regional Baltic transmission operator (RTO) by requesting and developing more detailed provisions as regards establishment and operation of such RTO. This might eventually lead to also certain derogations from the EU ownership unbundling requirements in case such RTO is established in the Baltics.
3. Latvia might devise ways to reward organised consumer groups, power companies as well as households, manufacturers and traders for lowering capacity requirements and electric consumption rather than increasing it.
4. We recommend that Latvia does not discriminate Solar energy against other renewable sources. FICIL further suggests that government should evaluate, consider and implement incentives for Solar energy (as well as other clean renewable sources such as Wind) installations at least at the same level as they are available in other European countries in order to foster the investment into this type of energy. For adoption of solar PV panels it is utmost important that the current administrative procedures for grid connection are streamlined and significantly simplified.

3. Rationale

Promoting interconnection with Swedish power grid

On February 19th, 2008 Ministry of Economy came up with a comprehensive report on the New Power generation capacity implementation scenarios. Based on the analysis and additional information provided by the Latvian Transmission System Operator (TSO) Government of Latvia

decided to support further steps on the development of two new power generating units - 400 Mw fossil fuel unit in Kurzeme (Liepaja or Ventspils) and 400 Mw natural gas fired unit in Riga. More recently Mr. Gerhards informed investor community about government plans to attract foreign investors to support reliable power supply needs of the Latvian economy.

Energy sector is one of the key components of the business environment, therefore FICIL closely monitors energy policy developments and supports recent Government initiative on the development of two new power generation units. In addition FICIL sees this as attractive initiative since foreign investors are interested in large scale investment projects and energy sector provides such opportunities. In order to get competitive bids from potential investors and further ensure stable and sustainable energy prices FICIL suggests to consider one more important aspect when moving forward process on the implementation of new power generation units.

Economic feasibility of new fossil fuel power generation unit, might be potentially improved if project is viewed in combination with the adjacent power interconnection between Latvian and Swedish power grids. In the context of the low energy prices in the Baltics, such interconnection would allow potential investor to consider long term power purchase agreement (PPA) with not only local consumers, but also with larger industrial consumers in Scandinavian countries. It is our believe, that bids for the new fossil fuel power unit will be more competitive and better for Latvian economy if existence of such PPA becomes as an option for investor. Recent discussions and developments on the new nuclear power generator in Ignalina (Lithuania) de facto demonstrated that availability of interconnection capacity to Polish and Swedish grids are at utmost importance for overall project success. As of today Polish interconnector is already an integral part of Ignalina nuclear plant project. One should note - it is unlikely for more than one interconnection project to be developed between Baltics and Swedish grids. Therefore we suggest that Latvian government should take proactive position to attract this interconnection to Latvia.

Greenfield project development experience in Latvia clearly shows that large scale investment projects might be significantly delayed due to deficiencies in administrative processes and, in some instances, public hearing results. New power generation projects will most likely not be an exception, they will attract considerable public interest and require complex planning process. In accordance with the Ministry of Economy report shortage of power generation capacity will become reality in not such distant future, therefore FICIL suggests Government to move forward with the practical steps leading to project preparation as soon as possible.

Adoption of the third Energy market liberalization package

The European Commission has adopted a third package of legislative proposals with an overall aim for further liberalization of the EU internal energy market. Among other this package includes following legislative proposals:

- A Regulation establishing the EU Agency for the cooperation of National Energy Regulators;
- An Electricity Directive amending and completing the existing Electricity Directive 2003/54;
- A Gas Directive amending and completing the existing Gas Directive 2003/55;
- An Electricity Regulation amending and completing the existing Electricity Regulation 1228/03;
- A Gas Regulation amending and completing the existing Gas Regulation 1775/05.

An Electricity Directive amending and completing the existing Electricity Directive 2003/54 provides for radical steps to ensure further liberalization of energy markets. Some of the mostly

discussed measures are separation of energy production and supply from transmission networks providing that network ownership and operation should be fully "unbundled". This refers in particular to the separation between the network operation of electricity from supply and generation activities. The proposals make it clear that the Commission's preferred option in this respect is ownership unbundling - in other words that a single company can no longer own both transmission and be involved in energy production or supply activities. In addition, the Commission proposes a second option, the "independent system operator" which makes it possible for existing vertically integrated companies to retain network ownership, but provided that the assets are actually operated by a company or body completely independent from it.

Having assessed the history of Latvian energy sector and size of Latvian energy market as well as the size of the overall Baltic market, small interconnection capacity with the networks of the rest of Europe, we consider that besides the above options preferred by the Commission other options should also be assessed. We consider that the Government of Latvia should promote establishment of the regional Baltic transmission operator (RTO) by requesting and developing more detailed provisions as regards establishment and operation of such RTO. This might eventually lead to also certain derogations from the above ownership unbundling in case such RTO is established in the Baltics.

Megawatts and Negawatts

In most jurisdictions power companies are regulated with an aim and rules that determine how much profit they make. Generally, the more electricity they sell, the more money they make. At a time when globally it is vital to lower greenhouse emissions, many power companies around the world are motivated to do the opposite.

It would be possible to develop such initiative also in Latvia by calculating how much cheaper it could be to save megawatts than to create new generating capacity. E.g. what might be the effect if every household in Latvia replaced incandescent light bulbs (average 100 watts) with fluorescent light bulbs (average 27 watts)?

The public utility commission of California invented the term "negawatts" (negative watts) to refer to electricity saved. In California such an initiative was referred as to the negawatt revolution.

As a step to start the process in Latvia might be to support initiative in the regulatory or supervisory process by devising ways to reward organised consumer groups, power companies as well as households, manufacturers and traders for lowering capacity requirements and electric consumption rather than increasing it.

Solar as one of alternative energy resources in Latvia

On February 19th, 2008 Ministry of Economy came up with a comprehensive report on the New Power generation capacity implementation scenarios Wind and water as renewable energy resources are mentioned and considered in the report, but there is no reference to Solar energy. We would like to invite the government of Latvia to consider and include Solar energy within its Energy Strategy.

Developed countries are putting a lot of research and investment into solar energy. Solar energy is clearly the most environmentally friendly resource of energy and rapidly is becoming more and more economically competitive with fossil fuels. As the rest of the world has embraced solar energy as one of the clean alternatives in the long-term, it is imperative that Latvia adopts a modern and open position in respect to solar energy both for its internal interest as well as a

member of the European Union and a citizen of the World.

Solar energy is being extensively used in countries with the similar Sun conditions as in Latvia (Denmark, Northern Germany). Also countries with less Sun (Sweden, Finland) have very robust Solar Energy Programs.

Commercial photovoltaic solar technology consists of two distinct types. The dominate type is based on the use of crystalline silicon wafers (the same wafers used to make computer chips). This type works best in latitudes with high percentage of direct sunlight year around such as Spain and Southern Europe. The second type of PV system utilizes very thin films of amorphous or microcrystalline silicon or alternatively materials such as copper / indium / gallium and selenium. Thin film solar cells perform much better in the diffuse light conditions prevalent in Northern latitudes as experienced in Latvia. Equally important already fully commercially implemented thin film technology is rapidly approaching the key cost target of US\$1 per watt of generating capacity (compared to US\$2 – 4 for traditional wafer type PV modules). PV systems provide a known fixed cost for energy for very long periods of time. No other form of renewable or non-renewable energy can provide a know cost for such a long period into the future.

The table below describes Solar energy related incentives available in some EU countries with same or worse light conditions as Latvia:

Belgium	Established Green Certificates with guaranteed price minimum: 0.15 €/kWh; Flanders from 1 January 2006: 0.45 €/kWh for 20 years. The support schemes are used in investment subsidies, eco premiums, tax reductions and interest reduced mortgages.
Denmark	Provides a green electricity incentive of 0.08 €/kWh for 10 years.
Finland	Provides investment subsidies up to 40% and tax/production subsidies for electricity from renewable energy resources.
Germany:	Feed-in tariff for PV modules for 20 years with built-in annual decrease of 5% from 2005. In-feed tariffs for new installations in 2007: Free standing systems: 0.3796 €/kWh For systems on buildings and sound barriers, the tariff is higher by 0.10 €/kWh.
Sweden	Provides 70% tax deductions on investment and installation cost for systems on public buildings in addition to energy tax exemption.

FICIL's general recommendation is to make renewable and environmentally clean (no CO2 emissions) energies a particular priority in its policy. Besides stimulating industrial energy generation capacity, we at FICIL believe that although Solar may not become a significant portion of the country's energy supply, it is also important to affect the citizens' mentality to become more aware of their "carbon footprint." The more citizens think about these issues, the more aware they will be in everyday actions to be respectful to the environment and regarding the environmental consequences of using one or another form of energy. It is therefore important to balance both the incentives for industrial energy generators and individual consumers. We therefore recommend:

1. FICIL recommends that Latvia does not discriminate against Solar energy as opposed to Wind and other renewables. Government should develop economically and administratively feasible terms to connect individual and commercial Solar producers to the grid and compensate them for the energy they supply to the grid.
2. FICIL further suggests that government should evaluate, consider and implement

incentives for Solar energy (as well as other clean renewable sources such as Wind) installations at least at the same level as they are available in other European countries in order to foster the investment into this type of energy. FICIL notes that the incentives for both Wind and Solar should be higher than the current level in order to promote individuals to invest in such installations.

3. For adoption of solar PV panels it is utmost important that the current administrative procedures for grid connection are streamlined and significantly simplified. This is very important for the PV sector because it does not make sense to use the same level of administrative procedure for a typical 3kW PV system as would be used for a conventional 300MW power station.