Latvian energy long term strategy 2030 - *Competitive energy for society*

Energy is one of the sectors directly affecting the economic growth and forming a significant part of overall expenses in several industry branches, especially in manufacturing. The development of the energy sector requires significant investments which can only be attracted in a stable and predictable investment environment. Therefore energy sector is being planned in a long term both globally and at the European Union (EU) level. EU energy policy in terms of emission reduction is currently outlined until 2050 – effective participation of the EU Member States in defining possible directions of the EU energy policy requires clarity for each Member State of its own national energy policy plans and targets.

The main targets of energy policy development in Latvia are included in our single long term policy planning document - Sustainable Development Strategy of Latvia until 2030. However this document does not outline energy policy targets precisely enough to create stable and predictable energy policy framework necessary to attract the needed investments for energy sector development as well as to ensure security of supply by flexibly adopting to different possible energy market development scenarios in the region, in the EU and worldwide. More detailed Latvian energy policy is planned in a medium term document - Guidelines for Energy Sector Development for 2007-2016, but forecasts for future energy sector development in this document are based on energy consumption projections of 2006 which today have significantly changed. These guidelines also lack flexibility – they do not include several energy projects in the region which have been or are currently developed at national and regional level but could not be predictable in 2006. Considering the fact that energy sector investments are mainly planned in long term (up to several decades) and that several currently applied state support mechanisms have a long term financial impact on consumers, the energy sector policy planning should cover corresponding time period. Therefore many countries including Denmark and Lithuania already have a long term national energy policy planning strategies.

Latvia is currently in need for a long term vision of its energy sector development in order to successfully ensure the ability of the Latvian energy system to effectively and flexibly integrate in the regional and EU energy market. This is why the Ministry of Economics of the Republic of Latvia has developed guidelines for energy sector development for the time period up to 2030, which are based on its main

objective – energy sector's positive impact on overall Latvian economy, as well as two subordinate targets – increase of energy security and promotion of sustainable energy. This guideline document is called "Latvian energy long term strategy 2030 – competitive energy for society" (hereinafter – Strategy 2030), since the document foresees development of energy policy having a positive impact on the overall Latvian economy, energy companies and energy consumers. Strategy 2030 supplements and expands energy targets of the Sustainable Development Strategy of Latvia until 2030 so that these two documents do not conflict in any way.

Strategy 2030 offers a completely new approach to energy policy planning, considering not only the development of energy sector, but also the context of climate policy – EU emission target for 2050 foreseeing reduction of greenhouse gas emissions between 93-99% by 2050 in the energy sector. Analysing the "base scenario" forecasts or, in other words, forecasts of energy sector development on condition that it continues its previous development and nothing is done to make the energy policy more efficient, it is foreseen that the use of renewable energy will decrease by 2030 comparing to current numbers and accordingly the use of fossil energy resources will increase. Therefore it is very important to acknowledge that without crucially amending energy policy planning, Latvian energy sector will conflict with pursuing climate policy goal, particularly the emission reduction target. Accordingly the new Strategy 2030, having a broader view on energy policy and it taking into account targets in other related sectors, offers most economically viable solutions for a balanced development of sustainable energy and climate policy and effective reaching of both Latvian national and EU targets.

Particular attention should be devoted to the unique regional approach to the planning of energy sector development Strategy 2030 provides. With regard to rather small national energy markets in the Baltic countries, well planned regional energy infrastructure and historically developed tight cooperation between the three countries, projects of regional scope are most economically viable solutions for regional energy market regional scope. Currently regional cooperation between the three Baltic countries on energy issues has crossed regional borders and has earned a priority status at the EU level, particularly due to its isolation from the EU energy market. Lately several cooperation frameworks have been established with the high involvement of the European Commission to the end that the Baltic States are able to jointly solve energy issues, for instance the Baltic energy market interconnection plan (BEMIP) and all available EU financial funds and instruments for

regional projects requiring effective cooperation, particularly as regards cost allocation of regional cross border projects. The Connecting Europe Facility foresees financial support only to prior cross border energy projects and will therefore be another challenge for the regional cooperation members to agree on priority projects and their financing – cost allocation. The regional approach makes the Strategy 2030 very flexible and adjustable to regional scale energy policy changes. Although most of priority energy projects in the Baltic region are included in the BEMIP and other medium and long term policy planning documents, there are Baltic countries have not reached agreement on several very important regional energy projects. Therefore it is of crucial importance to acknowledge that the region lacks clarity on development of several large energy projects that will significantly impact the region's and accordingly the Latvian national energy market in both cases – whether they are developed smoothly or for some reason being delayed or even cancelled.

Meanwhile the Ministry of Economics is of the opinion that current medium term energy policy planning should be continued by revising energy policy guidelines (planning period up to 7 years) and updating the document once every few years in order to reach energy sector long term targets for 2030 more gradually and successfully.

Sustainable energy policy within the Strategy 2030 document is planned basing on most recent state economy development forecasts, including demography, GDP and industry development trends for the period until 2030, as well as taking into account the Latvian commitments within the EU energy policy, particularly in the context of renewable energy, energy efficiency and emission reduction.

1) Targets and quantitative factors of the Strategy 2030

In order to ensure balanced energy policy that corresponds to economic and social interests, the main objective of the Strategy 2030 is to **promote competitive economy** by developing energy policy that is well-balanced, effective, as well as economically, socially, and ecologically reasonable and based on market principles. Energy policy should promote further development of the Latvian economy, its competitiveness both in the region and worldwide, and welfare of our society. The development of regional energy source market will both promote appropriate energy prices for companies and other consumers

and also favour future price signals which will serve as ground for energy sustainability and will contribute to safe and continuous energy supply.

While initially heading towards a competitive economy, the Strategy 2030 also sets two sub-targets. One of them is the orientation towards **sustainable energy** thus ensuring its sustainability from economic, social and environmental perspective. This will be achieved by promoting energy efficiency measures and heading towards achievement of the EU sustainability targets. In the meantime it is of crucial importance to acknowledge that market signals can only be corrected by proportional and reasonable policy without restricting or preventing the economic growth. Also the achievement of this target will strongly rely on appropriate infrastructure that could flexibly merge changes in resource and consumption structure.

The other Strategy 2030 sub-target foresees increase of **security of energy supply,** thus ensuring stable energy supply to energy consumers, reducing geopolitical risks, diversifying supply routes, developing energy infrastructure, establishing reserves and engaging in improvement of international regulation. In order to reduce costs for ensuring security of energy supply, there is a need for regional cooperation on planning and financing of security of supply projects.

Successful implementation of the Strategy 2030 would ensure positive impact of energy sector to the overall Latvian economy. Therefore in order to achieve the main objective of the Strategy 2030 – promotion of economy competitiveness, we have set a task to **increase the share of manufacturing industry in the overall economy up to 20%.** Considering the high energy intensity of the manufacturing industry, the achievement of this target will be considerably affected by medium and long term energy policy.

Wider use of renewable energy sources (hereinafter – RES) will be one of the main indicators of increased security of energy supply as well as energy sustainability. Therefore the Strategy 2030 sets **a target of a 50% share of energy from renewable sources in gross final energy consumption in 2030**, the achievement of which will be ensured by increasing the share of renewable energy in heating, electricity and transport sectors. The security of energy supply and energy sustainability will also be ensured by well diversified energy and energy source import and at the same time developing regional energy production. Therefore Strategy 2030 sets the goal till 2030 **to reduce by 50% the import of energy and energy resources from current third country suppliers,** which will be achieved by the entry of new supply ways and and energy

resources to the market and, correspondingly, the development of new and sustainable energy infrastructure.

In the meantime the achievement of all the three Strategy 2030 targets will highly depend on energy efficiency and its measures in all energy sub-sectors. For instance, Strategy 2030 foresees activities promoting the energy efficiency in the housing sector thus ensuring that the **average annual heat consumption will decrease down to 100kWh/m2.**

2) Challenges and policy tools for the achievement of goals

The targets of the Strategy 2030 are planned to be achieved by firstly correcting and further avoiding **political drawbacks** as well as preventing **market failures**. It is also planned to develop and use **political tools** in order to develop effective and competitive energy market.

Political drawbacks

The role of the State in the energy policy is to define a long term playground, thus creating a favourable environment for the sector's development and investments, however ensuring that it does not distort the market. Until now the State intervention in the energy market has resulted in several mistakes that have negatively impacted the energy sector and the economy without reaching the expected result. The Strategy 2030 explores these mistakes in order to prevent and avoid them effectively in the future. Following **former political drawbacks and methods to eliminate them** were identified:

- Current energy policy lacks neutrality, for instance, regarding the previous renewable energy support which excessively intervened in the choice of technical solutions. Therefore it is further planned to avoid any political decisions on specific technologies to be used in energy production or consumption, except particular cases where a specific technology is widely recognized to be the most economically justified solution and where the specific technological support is limited in time and has clear assessment terms;

- The economic incentives at the state level have been promoted inadequately and improperly in the light of ensuring balanced development of renewable energy (environment, security of supply, fulfilment of international commitments), economically justified and appropriate to its expenses. Hereafter economic incentives for energy

market participants will be promoted using indirect signals (for instance promotion of consumption instead of production subsidies);

- Currently energy consumers have liabilities to cover high expenses for those producers being previously conferred with rights to sell electricity at price that is above the market price level. Such inefficient commitments will be gradually reduced in the future, thus promoting fairer and transparent price setting mechanism.

Market failures

Intervention in the energy market processes just like in any sector is justified only in cases where market failures have been identified or in other words in situation where the market alone does not ensure socially optimal result. Following factors leading to disadvantageous decisions in the Latvian energy market were identified:

- Currently the greenhouse gas emission expenses are only partially included in the price of consumed energy. Therefore it is necessary to revise the excise taxes for energy sources in the context of other taxes having impact on the competitiveness (labour tax for instance). The use of this instrument will however require strong monitoring in order to ensure that the energy market is not distorted – for instance if the excise tax is applied to import gas but not to import electricity that is produced using the same taxable gas;

- The activities of energy consumers, particularly household consumers are often economically unreasonable when choosing the heat production method, without using the financially feasible housing renovation efficiency projects as well as choosing inadequately large and inefficient vehicles in situations where it is not necessary. These choices are certainly up to society itself to make and are not arguable or deniable. However each such choice significantly impacts the whole society benefit both from expense and environmental pollution perspective. All these actions could be changed by ensuring access to information, fiscal instruments and the leading role and respective pilot projects of state and municipalities. It must however been taken into account that changing the society's opinion and lifestyle is a long term process.

While preventing political drawbacks and market failures, it is necessary to plan and develop **efficient political tools** promoting the sector's development:

- The energy tax policy must be adjusted in compliance with the carbon intensity and power-intensity of each energy source thus including greenhouse gas emission and power-intensity expenses;
- The reassessment of the existing state support and political instruments promoting the use of renewable energy should be based on four main principles – **flexibility of energy volume, reasonable costs, reaction to market signals and technological neutrality.** The beneficiaries of the former support for renewable energy and their projects must be carefully evaluated in the context of the Latvian energy sector long term targets. With the renewable energy technologies becoming widely used and competitive, it is planned to abandon the state defined renewable energy purchase price (feed-in tariff) as it has until now proved itself not to be a sufficiently effective incentive moreover promoting the use of renewable energy only in short term;

- the state will perform several measures in the energy sector, in order to promote the development of the sector:
    - the state and municipalities will ensure the role model in the development of energy efficiency projects and promotion of the use of RES;
    - the state will ensure the initiative for the development of a large-scale energy infrastructure, corresponding to the future energy market, inter alia, for district and city scale heating measures, time limited state support for sector projects, which provides benefit to the wider public, but where the private sector is not sufficiently motivated to contribute, as well as large-scale national energy infrastructure projects;
    - the state will promote the development of such technologies, especially in the field of RES, which are now non-commercial, but nevertheless have large potential and forecasts for wide commercial use;
    - the state will implement information campaigns promoting social awareness and understanding of energy policy and opportunities to gain economic benefit by performing individual energy projects.

3) Basic conditions for the development of the energy sector

Considering the wider integration of Latvia into the European and global energy markets, we can count on new regional projects that would only increase Latvia's energy supply security and market liquidity, however at the same time we should take into account the increased

number of factors influencing Latvia in the wider market. Therefore, the Strategy 2030 provides for a flexible national and regional energy sector policy, promoting its interaction and supporting flexibility, so that if any of the regional scale projects, which is not quite confident at the moment, is, or on the contrary is not implemented, the Strategy 2030 would not lose its meaning and would still be able to efficiently determine the direction of the development of the energy sector.

Considering the comparatively small scale of the energy market of Latvia and the entire region, not only the efficient EU financial support acquisition is to be planned, but also the formation of a national scale energy financial mechanism, providing within the scope thereof support for the development of RES, especially for research and development (R&D) projects, energy efficiency projects (e.g. the refurbishment of multi-apartment buildings), as well as support for the most essential national scale energy infrastructure projects. When defining national scale support mechanisms, for example, in the field of RES and energy efficiency, it should be taken into account that in the future adjustments and harmonisation of national support mechanisms of member states would be performed.at the EU level

When resolving **energy supply security issues**, security aspects should be carefully evaluated at both the national and regional scale. On the national scale, one should take into account speedy microgeneration development, requiring more attention for network supervision and planning of the operation to be able to integrate in the network energy produced by microgeneration efficiently. Consequently on the regional scale it is essential to consider regional challenges, EU goals, and the energy policy of neighbouring states. The Strategy 2030 sets several prerequisites and commitments for the directions of actions and measures to ensure access to efficient markets of energy resources, stable and substantiated energy prices, as well as secure national and regional energy infrastructure in the long run:

1) *to ensure flexible and secure energy supply network on the national scale,* considering the ever-wider expansion of microgeneration and as a result the changes in Latvia's energy portfolio . Energy generated in the decentralised process can be efficiently integrated in the network only under the condition that the energy supply networks are carefully supervised, their operation and development are analysed, and planned, and the efficient balancing of capacities in the network is ensured;

2) *within the scope of the national scale energy financial mechanism* to provide support to the most essential national scale energy infrastructure projects;
3) *to develop the evaluation capacity of the energy policy's impact,* by fully covering the direct and indirect costs of energy policy to consumers and benefits for the economy, including alternative costs and local pollution;
4) *to ensure social support in the energy sector at the national scale,* inter alia, implementing social support measures for consumers of a certain status to prevent energy poverty and ensure the availability of energy for a corresponding, available price for any resident of Latvia;
5) *to ensure the liberalisation of the energy market by facilitating the entry of new participants to the market* , by promoting the diversification of energy supply sources and ways on the regional scale, and promoting the awareness of society regarding its benefits and obligations in the open and efficient energy market;
6) *to continue close cooperation with regional partners within the framework of the Baltic Energy Market Interconnection Plan (BEMIP) and Connecting Europe facility (CEF),* based on solidarity and mutual financial support principles, balancing national and regional interests for commonly beneficial solutions (e.g. the development of national gas supply and storage infrastructure);
7) *to continue integration of the Scandinavian and the Baltic States electricity market within the framework of NordPool Spot*, by forming a unified price region area and developing regional interconnections, so that the joint Baltic region interconnection capacity with the Scandinavian countries and Poland would reach the average load level of the region, reducing rapid electricity price fluctuations, increasing market liquidity, and giving signals to the development of new capacities, including RES;
8) *to form an efficient and open regional natural gas market,* by transposing the EU third energy package, inter alia, fully unbundling the transmission system operator, and to support diversification solutions of the Baltic region natural gas supplies**,** inter alia, the development of the regional liquefied natural gas terminal, natural gas interconnections between Poland and Lithuania and between Finland and Estonia, as well as by increasing the capacities of the regional natural gas storage;
9) *to abstain the direct state support for new base capacity projects*, by developing market prerequisites for only economically substantiated regional low carbon baseload capacity projects (potentially Visagina nuclear power plant);

10) to improve fuel supply security, *by improving the operation of the Central stockholding entity (CSE)* with more efficient crisis situation reaction mechanisms ;
11) *to facilitate the extraction potential of the fossil non-conventional energy resources,* including the further research of shale gas, as well as *to adopt corresponding regulation for the strengthening of the investment environment of research and extraction of hydrocarbons and other conventional energy resources*.

It is also important to plan **increased energy efficiency**, which is a national priority in the period of the Strategy 2030. Low energy efficiency level triggers energy security, sustainability and competiveness risks; however the increase of this level is the fastest and most cost-efficient way of decreasing the risks, concurrently creating additional work places, and facilitating growth. There is an essential market failure in ensuring energy efficiency, especially in the building and transport sectors. To prevent this and to promote energy efficiency in all sectors, there are the following prerequisites:

12) *to establish at short notice considerably higher cost-efficient classes of mandatory construction standards for the thermal stability of new and renovated buildings, as well as voluntary classes, including zero consumption buildings;*
13) *to promote the intensive support programme for the increased energy efficiency of the current housing fund and public buildings with the help of the energy financial mechanisms of the national scale provided by newly founded Development financial institution ,* specifically in the multi-apartment sector, where a broaderoutcome of such support mechanisms is expected;
14) *to promote the introduction of smart meters,* by increasing consumer understanding of their energy consumption and creating the possibility to regulate and decrease the quantity of consumed energy resources;
15) *to define more rigid requirements for district heat supply systems in respect of the reduction of energy loss in networks* thereby bringing the benchmark of loss in 2030 to 10%;bearing in mind that the largest end consumption of energy resources is the production of heat energy, including district heating energy;

16) *to stimulate the connection of new consumers to efficient district heating supply systems,* including by restricting the installation of

low expedience fossil autonomous heating plants where district heat supply is available;

17) to state the obligation of providers of thermal energy to allocate *1.5% of their annual turnover to the provision of energy maintenance services* with the purpose to promote energy efficiency measures and their availability for energy users,*;*

18) to promote the improvement of energy efficiency of small and medium companies, *to introduce the energy audit and the energy management system.* For the promotion of energy efficiency it is essential to activate the role of the industry associations by triggering a discussion regarding the determination of energy consumption benchmarks in the industry. Similarly in order to promote the introduction of measures for increased energy efficiency in companies*, it is planned to implement state support for energy audits in the industry in the mid-term*;

19) for popularising energy efficiency measures in society and the provision of larger energy savings in the public sector, *to stimulate the wider introduction of the "green procurement" principle*, which will allow for saving energy resources by performing an analysis of the lifecycle of goods and services and reducing environmental impact;

20) *to present public sector as a rolemodel in the performance of energy efficiency measures in transport, building and thermal supply sectors*, by facilitating pilot projects, public sharing of information thereon, inter alia, regarding opportunities to attract public and private financing for projects.

In order to reduce amount of imported energy resources (e.g. fossil fuel, natural gas) and to promote the development of local energy generation, large attention in the Strategy 2030 is also devoted to **the facilitation of RES usage** in the generation of electricity and thermal energy and the transport sector. Latvia's goal is to reach the amount of the share of **40%** of energy generated from renewable energy resources in the gross final energy consumption by 2020.

By implementing technologically neutral support based on market principles and securing the corresponding tax and emissions trading policy, the **50%** RES target can be achieved in gross final energy consumption by 2030. To achieve this goal the Strategy 2030 sets the following prerequisites:

21) considering the national and EU scale RES goals and the fact that Latvia is currently widely using fossil energy resources for the generation of heat energy, to apply state aid exception for the achievement of the particular goal in the mid-term (till 2020) and *to secure direct high intensity support in the district heat supply systems* for transfer to RES;

22) *to provide support for the development of RES within the scope of the national scale energy financial mechanism*, especially in research and development (R&D) projects;

23) *to introduce requirements and support mechanisms for the promotion of the use of RES technologies in new and renovated buildings* in order to facilitate the integration of new RES systems in the district heat supply systems;

24) *to develop efficient and transparent regulation for the development of onshore and offshore wind energy*, setting particular conditions for the research, construction and operation of windmills. Such regulation will ease the supervision of wind energy on the state level, and ensure a clearly defined investment environment for potential developers of this energy;

25) to promote the *wider use of RES in the public transport,* inter alia, by implementing the further electrification of railway transport and performing modifications of public transport to use biofuels;

26) to refuse direct state support for the 1^{st} generation biofuel, , retaining the requirement *to increase the mandatory biofuel addition to fossil fuel* in the mid-term, as well as;

27) to develop *the state support mechanism for facilitating the generation of the* 2^{nd} *generation of biofuel*;

28) to ensure *the compliance* of the use of RES (including biomass and biofuel) *with the sustainability criteria and the positive impact caused by RES on the associated industries*, stating clear regulation and compliance control principles;

29) *to promote transport energy efficiency* by revising the tax system and introducing tax rates based on the quantity of CO_2 emissions;

30) *to form the infrastructure of private electric road transport*, ensuring the introduction of a unified charging network standard;

31) *to assess possibilities for electricity sellers to determine the minimum RES market share in the regular portfolio,* which till 2030 should gradually reach 75% of the total volume of sold electricity;

32) *to assess the need to determine gradual allowances for the energy capacious companies of export industries (till 2020) from the requirements of RES market, and participation in the mandatory procurement component*;

33) *to state the long-term principle for net metering of low-power electricity generation plants in distribution networks* with a 12 month settlement period;
34) *to promote the use of waste for energy generation*, which would allow the increased use of local energy resources and concurrently solve the problem of the utilisation of waste in the country.

4) Steps to be taken in the nearest future

To achieve the long-term goals of Latvia's energy policy defined by the Strategy 2030, the Ministry of Economics plans:

- to transpose the goals and principles set by the Strategy 2030 into subsequent laws, regulations and planning documents of energy policy, inter alia, by amending most essential laws.
- to pass for approval new energy policy guidelines for the period 2013 - 2020;

- to present annual reports to the Cabinet of Ministers and the Saeima (the Parliament) about the implementation of the goals and courses of action defined by the Strategy 2030.

5) Future perspective

It is essential to recognise that the basic scenario, based on the forecasts under the circumstances of continuing the previously implemented state energy policy and not performing any material improvements in the planning of its development, is quite threatening, especially if seen within the context of the development of local production and the achievement of climate objectives. Without improving current energy policy, the use of RES would not be efficiently stimulated, as a result the high costs would force the public to choose cheaper energy produced from fossil energy resources. Such scenario would not only materially restrict the ability of Latvia to facilitate the potential of production of local energy and the use of local energy resources, but also would considerably increase greenhouse gas (GHG) emissions, in the long term creating risks of cost increases .

By implementing the measures for the development of energy policy set by the Strategy 2030, the forecasts are indicative of the gradual growth in the use of cost efficient and environmentally friendly local energy, facilitating not only the achievement of the GHG climate goals,

but also the growth of Latvia's economy. At the same time, the Strategy 2030 is directed towards the efficient integration of the Latvian energy market in the Baltic energy markets and, correspondingly, the successful integration of the entire region in the energy markets of the Nordic States and the EU.

In order to secure the goals defined by the Strategy 2030, it provides a flexible approach to the development of all subsectors of energy and energy projects. In the long-term perspective it is practically impossible neither to forecast accurately and in detail the pace of development of energy projects and technologies, nor to define cost scenarios under a sufficient level of credibility sufficiently. Therewith Strategy 2030 strives to outline the key steps and prerequisites that may promote the implementation of the defined goals. Failure to fulfil or delayed fulfilment of separate policy initiatives or energy projects would still safeguard the constantly material role of the Strategy 2030 in the planning of energy policy, because the comprehensive approach of the Strategy 2030 to the solution of issues provides the ability to absorb any possible policy drawbacks or market flaws in the future. This flexible approach is unique in the previous history of Latvia’s energy policy planning, and provides an innovative vision regarding the desirable development of the energy markets of Latvia as a national state, regional partner, and as the EU member state.

It should also be recognised that for the successful planning of the energy sector it is necessary to expand the vision far beyond its potential development. Therewith, in order to successfully and reasonably protect Latvia’s interests in discussions regarding EU-scale energy policy initiatives, it is necessary to immediately start working on the introduction of the objectives and basic principles of the Strategy 2030 into Latvia’s position regarding the EU ‘Energy Roadmap 2050’ on the emission reduction in energy sector.