

The Future of Europe's Energy Policy: the Legislative Framework and the Soft Law Instruments

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Abstract— Energy is essential for Europe to function. The goal of the EU policy is to ensure the security of supply; additionally, Europe deals with the challenges of climate change and the need to establish a coherent external energy policy. The aim of the energy policy is to complete the internal energy market, to ensure supply security and solidarity between EU countries, to achieve a more sustainable, efficient and diverse energy mix, to tackle climate change, to enhance research and innovation at the service of Europe's energy policy, and to aim towards a coherent external energy policy

Keywords— EU energy policy, internal market, security of supply, sustainability.

I. INTRODUCTION

ENERGY is central to our lives. We rely on it for transport, for heating and cooling homes, and running business and companies - factories, machines, farms and offices. However, there are finite resources of fossil fuel on the earth, and as addition fossil fuels we are using are a major cause of global warming, that is threatening to humans.

Because of limitation of resources we will not be able simply use energy of fossil fuels forever. Additionally to this also problem of global warming appears, so limitation of use is also due to environmental reasons. Energy from fossil fuels is not there as granted, that is why we must use it effectively and with respect to the nature. Thus, the politics is mostly working on (energy) policies, which objectives are sustainable economy and usage of sustainable and renewable energy resources. Also European Union is trying to have such directives.

Also European Union prepared some documents / directives, where it has wrote the main objectives and goals, as well as also paths and actions which should enable to reach them. European Union is very ambitious in settings goals and objectives. Thus the main goal of European Union nowadays is to create an integrated energy and environment policy based on clear targets and timetables for moving [1] to a low-carbon economy and saving energy.

II. GREEN PAPER [2, 3]

Already in march 2006 European Union (EU) proposed a document, where it elaborated possible principles of Energy Policy for Europe (whole European Union). The document was issued in March 2006 as the European Commission's green paper, with significant title "A European Strategy for Sustainable, Competitive and Secure Energy". This title actually disclosures what are the objectives set in the paper and what should be main strategic orientation for EU energy market. To develop real common EU strategy, this paper has lead to the decision to develop a common energy policy of EU. As result, already in January 2007, very first proposal for European policy, "Energy for a Changing World" was published by the European Commission. Of course as in every new directive proposed by politics, the consultation process followed.

Proposed new energy policy was a first resolute step of EU towards becoming a low-energy economy, whilst making the energy that we use more secure, competitive and sustainable. So the policy has three main objectives, which are discussed latter in this work. As we will see, the side-effects are also important. Why decision to have common EU policy? As we will see later, a common policy is the most effective way to tackle today's energy challenges. Those challenges are shared by all Member States. The very first proposal puts energy at the heart of EU action. The aims and objectives of the policy are supported by:

- market-based tools (mainly taxes, subsidies and the CO2 emissions trading scheme)
- by developing energy technologies (especially technologies for energy efficiency and renewable or low-carbon energy) and
- by Community financial instruments.

The assertion of the document is that all support and reaching the goals will lead to a 'post-industrial revolution' or a low-carbon economy in the European Union. It should also increase competition in the energy markets. Higher competition should result in improved security of energy

supply and improved employment prospects. Although the proposals have been adopted by the European Commission, they were also debated and approved at a meeting of the European Council in March 2007.

Three clear objectives in EU green paper could be viewed also as one strategic objective of balancing sustainable development, competitiveness and security of energy supply. Such a way, there will still be freedom of choice between different energy sources by any member state. This freedom is of course still limited with the energy mix of EU as a whole, which is anyway subject to three core energy objectives.

European Commission's green paper has set out new energy reality, which is faced by EU. It also outlined some questions for debate and suggested possible actions at the European level. Additionally green paper sets out that is necessary to have common and integrated European energy policy.

By the green paper three main objectives European energy policy should have (balancing sustainable development, competitiveness and security of supply) are listed:

- Sustainability [4]:
 - to develop competitive renewable energy sources and other low carbon energy sources and carriers, particularly alternative transport fuels,
 - to control and to curb energy demand within Europe,
 - to lead global efforts to stop climate changes (global warming) and improve local air quality.
- Competitiveness:
 - to ensure that energy market opening brings benefits to consumers and to the economy as a whole, while stimulating investment in clean energy production and energy efficiency,
 - to mitigate the impact of higher international energy prices on the EU economy and its citizens,
 - to keep Europe at the cutting edge of energy technologies.
- Security of supply:
 - to tackle the EU's rising dependence on imported energy through an integrated approach – reducing demand, diversifying the EU's energy mix with greater use of competitive indigenous and renewable energy, and diversifying sources and routes of supply of imported energy,
 - to create the framework which will stimulate adequate investments to meet growing energy demand,
 - to better equip the EU to cope with emergencies,
 - to improve the conditions for European companies seeking access to global resources,
 - to make sure that all citizens and business have access to energy.

For the implementation of a common external energy policy, of course having in mind specialities of any single internal market, six concrete proposals were adopted, which should help Europe to ensure a supply of energy which is secure, competitive and sustainable for decades to come (simply to say: enable to reach three goals). Those proposals are:

A. Energy for growth and jobs: completing the internal energy market

The EU needs to complete the internal electricity markets and gas markets. Action should include the following:

- The development of a European Grid to enable market development and to ensure common rules and standards on issues that affect cross-border trade. This could be achieved via European grid code, which will encourage harmonised, or at least equivalent, grid access conditions. A European regulator and a European Centre for Energy Networks should also be considered, because those issues should have the form of common rules on regulatory issues that affect cross-border trade.
- Improved interconnections - there is need to have additional physical capacity overall EU, which is particularly important for countries, which remain an "energy island", largely cut off from the rest of the EU.
- To create framework to stimulate new investment. EU should replace ageing electricity generation capacity to meet demand. This includes capacity to deal with peaks, so also necessary reserve must exist in order to prevent disruptions at times of high demand.
- More effective unbundling of transmission and distribution of energy.
- Boosting competitiveness, including through better coordination between regulators, competition authorities and the Commission. Internal energy market should promote the competitiveness of EU industry and contribute to growth of it and to additional jobs. Such industrial competitiveness requires a well-designed, stable and predictable regulatory framework, respectful of market mechanisms.

These are priorities – European Commission would like to ensure genuinely competitive, European-wide electricity and gas markets.

This point reflects the fact, that sustainable, competitive and secure energy will be most easily achieved via open and competitive energy markets. This means, that competition should be overlooked European-wide, which will result in competitions between companies, which are looking to become European-wide energy supplier, rather than dominant national players. Open markets and not protectionism is the one, which can strengthen European energy market and allow it to tackle its problems. A truly competitive single European electricity and gas market would bring down prices, improve security of supply and bring competition to higher level [5]. It would also help the environment, as companies react to competition by closing energy inefficient plant.

B. Supply security and solidarity between EU countries

The EU needs to ensure that its internal energy market guarantees security of supply and solidarity between Member States, which concretely results in following actions:

- A review of the existing Community legislation on oil and gas stocks, to focus them on nowadays challenges.
- A European energy supply observatory, which will enhance transparency on security of energy supply issues within the

EU. The establishment of a European energy supply observatory will enable monitoring of demand and supply patterns on EU energy markets, and to identify most likely shortfalls in infrastructure and supply already at early stage.

- Improved network security through increased cooperation between network operators and possibly a formal European grouping of network operators in form of some International Energy Agency.
- Higher physical security of infrastructure, which will be most likely achieved with common standards.
- Improved transparency on energy stocks at the European level.

Liberalized and competitive markets will help to secure supply by sending the right investment signals to industry participants. Market needs to be transparent and quiet predictable to have effective competition.

C. Towards a more sustainable, efficient and diverse energy mix

The European Union needs a real debate, EU-wide, on the different energy sources, including costs and contributions to climate change. This will enable such energy mix of EU, that it will help to achieve the three objectives: sustainable development, security of supply and competitiveness on market.

Although each EU Member State and each energy company chooses its own energy mix, choices made by one Member State have an impact on the energy security of its neighbours and of the EU as a whole, as well as on competitiveness and the environment. So there are some limitation and some minimum level of the overall EU energy mix originating from secure and low-carbon energy sources. Such approach reflects the potential risks of import dependency and emphasizes the need for long term development of low carbon energy sources. It is a combination of the freedom of particular Member to choose between different energy sources and the need for the EU as a whole to have an energy mix that, overall, meets its core energy objectives.

D. EU at the forefront of tackling climate change

Europe needs to deal with the challenges of climate change in a manner compatible with its Lisbon objectives. That is why commission proposed to prioritise energy efficiency, with a goal of saving 20% of the energy that the EU would otherwise use by 2020, and to adopt a long-term road-map for renewable energy sources.

Concrete actions for prioritizing of energy efficiency are:

- efficiency campaigns (especially on buildings),
- prepare financial instruments and mechanisms to stimulate investment,
- Europe-wide “white certificates” trading system,
- information on the energy performance of some appliances, vehicles, and industrial equipment and set-up minimum performance standards

Long-term road-map for renewable energy sources includes:

- renewed effort to meet existing targets,
- which targets or objectives beyond 2010 are necessary,
- new Directive on heating and cooling

- detailed plan to stabilise and gradually reduce the EU’s dependence on imported oil
- initiatives to bring clean and renewable energy sources closer to markets.

Need to increase efficiency is set as triple goal of the '20-20-20' initiative for 2020, which means a saving of 20% of the Union's primary energy consumption and greenhouse gas emissions, as well as the inclusion of 20% of renewable energies in energy consumption [6].

Effective action to address climate change is urgent overall the world and the EU must continue to lead by example. Of course this is also action that promotes the EU’s Lisbon objectives. Action on energy from renewable sources and energy efficiency, besides tackling climate change, will contribute to security of energy supply and help limit the EU’s growing dependence on imported energy.

EU is promoting also increasing use of renewable energy sources and use of carbon capture and geological storage. Already since 1990, the EU has set the objective to become world leader in renewable energy. So many countries in EU has installed wind energy capacity and also solar energy capacity is on track. EU’s renewable energy market has an annual turnover of 25 million EUR (approx. half the world market), employs around ½ million of people, and is a major exporter. Renewable energy is starting to compete on price with fossil fuels. As objective EU has to have more than 20% of its electricity from renewable energy sources, and also around 6% off all petrol and diesel should be bio-fuels. Policy framework is supportive and stimulates competitiveness of such energy sources. But there are still some low-carbon energy sources, which needs stimulation to be realised – these are for example off-shore wind, wave and tidal energy.

Carbon capture and geological storage, in combination with clean fossil fuel technologies provides a third opportunity of near zero emission technology. This technology still needs stimulation and R&D. Its costs should be reduced in order to justify economics of such technology.

E. Research and innovation at the service of Europe's energy policy

A strategic energy technology plan, making best use of Europe’s resources, building on European technology platforms and with the option of joint technology initiatives or joint undertakings to develop leading markets for energy innovation. This should be presented as soon as possible to the European Council and Parliament for endorsement.

The development and deployment of new energy technologies is essential to deliver security of supply, sustainability and industrial competitiveness. Energy efficiency and energy diversity through renewable energy sources can be reached via energy related research. So EU decided to strengthen the research effort. Not only because EU should meet energy efficiency and diversity, but also because there are a lot of the challenges ahead, that requires increased research efforts. This should enable EU to meet energy efficiency and diversity goals as well as prevent overlaps in national technology and research programmes. Of course research will also put the focus on three objectives of EU energy policy. The reason for focus on research on energy technologies is also, that it can bring a lot

of commercial opportunities. Energy efficient and low carbon technologies namely constitute a rapidly growing international market that will be worth millions of Euros in the coming years. EU needs to ensure that its industries are world leaders in these new generations of technologies and processes. Industry-led European technology platforms on bio fuels, hydrogen and fuel cells, photovoltaic, clean coal, carbon capture and storage and electricity networks help to develop commonly agreed research agendas and deployment strategies. The EU is changing financing of energy research in a more strategic approach, with steps towards integrated and coordinated EU and national research and innovation programmes and budgets. Experience and output of European technology platforms should be used to develop an EU vision for the transformation of the energy system and to maximise the efficiency of the overall research effort.

Actions to accelerate technology development and drive down the costs of new energy technologies are taken to achieve market penetration of new technologies, which ensures three major objectives of EU. When competing against existing technologies (largely based on fossil fuels and centralised generation) new technologies are facing high entry barriers and EU is supporting their financial viability. This is done via EU Emissions Trading Scheme, green certificates, feed-in tariffs and others, which can ensure that the implementation of environmentally friendly energy production, conversion and use is financially viable. Such actions are also providing powerful policy signals to the market and create a stable climate in which industries can take the long-term investment decisions required. The Intelligent Energy-Europe Programme is also providing some tools and mechanisms to overcome non technical barriers to the take up of new and effective energy technologies.

F. Towards a coherent external energy policy

A common single external energy policy of EU in order to react to challenges of high and volatile energy prices, increasing import dependency and strongly growing global energy demand and global warming. Such coherent external policy will enable EU to play important and effective international role in tackling common problems with energy partners worldwide. A coherent external policy is essential also to deliver sustainable, competitive and secure energy. In contrast to the past this will lead to coherent solution of each member state of EU. This way, common external policy is forcing members of EU to commit to common solutions to shared problems.

The effectiveness and coherence of the EU's external energy policy is dependent upon the progress with internal policies of each member state and, in particular, the creation of the internal market for energy. Establishing such common vision of all EU members is helping to constitute action plan, to monitor progress and to identify new challenges and responses. Regular formal political level discussions at Community level involve all member states and the EU Commission in to develop such external policy. Such discussions will not only use as effective exchange of information, but also real coordination for all actors on EU energy market, regardless of if it is on national level or on

level of EU. Such approach means, that EU leads the coherent external policy, as if we would say, EU countries in effect talks with the same voice.

Common EU external policy consists of: EU priorities for the construction of new / renewed infrastructure, which is necessary for the security of EU energy supply, pan-european energy community treaty, energy partnership with Russia, new mechanisms that enable rapid and well co-ordinated reaction to emergency external energy supply situations that have impact on EU supply, deeper relations with major producers and consumers and international agreement on energy efficiency.

With the common energy policy number of key goals and instruments are covered:

- Clear policy on secure and diversified energy supply, which is necessary not only for the EU as a whole, but also for specific member states or regions. Especially is such paper appropriate for gas. Policy should propose clearly identified priorities for new infrastructure for secure energy supply, especially new gas and oil pipelines and liquefied natural gas terminals as well as the application of transit and 3rd party access to existing infrastructure.
- Energy partnership with major energy producers or their communities (for example OPEC), transit countries and other international actors, where EU and its energy partners are interdependent actors. Such partnership would give benefit to both sides – producers and EU – because it will offer security and predictability. These facts are reflected at bilateral and regional level in the number of specific EU energy dialogues with number of producers and transit countries. Energy issues are additionally important in the EU's political dialogues with countries, which are major energy consumers (India, China), including multilateral talks (for example G8) and are important part of the common EU energy vision.
- Development of pan-european energy community will enable effectively to create “common regulatory space” around Europe. This implies progressively developed common trade, transit and environmental rules, market harmonisation and integration and creation of predictable and transparent market to stimulate investment and growth, as well as security of supply.
- Effective reaction to external energy crisis – in a fully coordinated manner.
- Common European external energy policy will permit a better integration of energy objectives into broader relations with third countries and the policies which support them. EU aims to integrate energy into other policies, which have external dimension. That means increasing the focus in relations with global partners facing similar energy and environmental challenges (US, Canada, China, Japan, India) on issues such as climate change, energy efficiency and renewable sources, research and development of new technologies, global market access and investment trends. EU is so able significantly step up bilateral and multi-lateral cooperation with these countries with the objective of encouraging the rational use of energy worldwide, of reducing pollution and encouraging

industrial and technological cooperation on the development, demonstration and deployment of energy efficient technologies, renewable energy sources and clean fossil fuel technologies with carbon capture and geological storage and to wide geographic scope of the EU Emissions Trading Scheme and promote an international agreement on energy efficiency. In addition, more focus will be given to technological cooperation, in particular with other energy consuming countries.

- Promote development in developing countries, where access to energy is a key priority. EU wants to promote development of renewable energy in developing countries and micro-generation projects, which could help many countries to reduce reliance on imported energy sources and improve life. The implementation of the Kyoto Protocol clean development mechanism stimulates investment in such energy projects in developing countries.

III. SUSTAINABLE ENERGY ACTION PLAN [7]

As already discussed in presenting the green paper, EU wants to take a lead in the global fight against climate change, and has made it its top priority. So EU committed itself to reduce until 2020 its overall greenhouse gas emissions to at least 20 % below 1990 levels. In the achievement of the EU's energy and climate objectives local authorities is playing key role. European initiative, called The Covenant of Mayors, is the one by which towns, cities and regions voluntarily commit to reducing their CO₂ emissions beyond this 20 % target. It is formal commitment, which will be achieved via implementation of Sustainable Energy Action Plans (SEAPs), which is helping citizens and preparing local authorities and leaders so that they are able to reach the commitments they have taken over by signing the initiative. So SEAP represents a key document that shows how the Covenant signatory will reach its commitment by 2020. It uses identification of the fields of action and opportunities for reaching the local authority's CO₂ reduction target, where also defines concrete reduction measures, time frames and assigned responsibilities, which brings this long-term strategy into action.

IV. NEW ENERGY INFRASTRUCTURE PLAN

Europe's energy networks are old and needs refurbishment and modernization, as already claimed in green paper. EU has inherited bad west-east and north-south connections and until green paper the focus has been on national markets rather than balancing supply and trade across borders in a single internal EU market. For having true European system energy from renewable sources should be absorbed into networks and that supplies are secure all over the EU. So European Commission tabled a new initiative to bring in life also such demands. So they have begun to develop an integrated European energy network, which will be fit for today and tomorrow challenges.

- to make our electricity grid fit for 2020
- to diversify gas supplies
- to ensure the security of oil supply
- to roll out smart grid technologies

V. EUROPIAN STRATEGIC ENERGY TECHNOLOGY PLAN (SET-PLAN) [8]

Because we are facing worldwide climate change, we have to prepare more effective and more efficient policies, as claimed in green paper. EU faces this challenge with effective low-carbon policy, which aim is nothing less than the transformation of the entire energy system. The most changes or implications are on how we source and produce our energy (efficient energy technologies), how we transport and trade it, and how we use it.

In short, we must make low-carbon technologies affordable and competitive. This is the idea behind the European Strategic Energy Technology Plan [9] (SET-Plan). EU focuses itself on the European Industrial Initiatives (EII). Industry-led, the EII aims to increase industrial participation in energy research and demonstration, boost innovation and accelerate deployment of low-carbon energy technologies. EII is targeting sectors in which working at EU level adds most value, and those technologies for which the barriers, the scale of the investment and the risk involved can be better tackled collectively. The SET-Plan includes:

- European industrial bio-energy Initiative, which addresses technical and economic barriers to the further development and accelerated commercial deployment of selected state-of-the-art bio-energy technologies.
- European CO₂ Capture, Transport and Storage Initiative (CCS) is a technology with great potential to minimize the impact on our planet of the continued use of fossil fuels. It can contribute approximately 20 % of the global CO₂ emissions reductions achievable by 2050, significantly helping to avert climate change.
- The European Electricity Grid Initiative looks to develop, demonstrate and validate, at scale, the technologies, system integration and processes to: enable the transmission and distribution of up to 35 % of electricity from dispersed and concentrated renewable sources by 2020 and make electricity production completely decarbonized until 2050; further integrate national networks into a truly pan-European, market based network; optimize the investments and operational costs involved in upgrading the European electricity networks to respond to the new challenges; guarantee a high quality of electricity supply to all customers and engage them as active participants in energy efficiency; anticipate new developments such as the electrification of transport.
- The Fuel Cells and Hydrogen (FCH) Joint Technology Initiative to speed up the development of hydrogen-supply and fuel-cell technologies.
- The Sustainable Nuclear Initiative to design and construct demonstration reactors of a new generation of nuclear technology based on fast neutron reactors and closed fuel cycles.
- Energy Efficiency – The Smart Cities Initiative aims to improve energy efficiency and step up the deployment of renewable energy in large cities
- The Solar Europe Initiative focuses on photovoltaic's (PV) and concentrating solar power (CSP) technologies, to make these technologies more competitive and to facilitate their

large-scale penetration in urban areas and green-field locations as well as their integration into the electricity grid.

- The European Wind Initiative aims to make wind energy more competitive, to harness the potential of offshore resources and deep waters, and to facilitate grid integration of wind power.

VI. ENERGY SECURITY AND SOLIDARITY ACTION PLAN

The European Union would like to achieve 20 % efficient energy use by 2020. This is part of the so called '20-20-20 objectives', which proposes the following initiatives in order to achieve these objectives:

- a revision of the Energy Performance of Buildings Directive;
- a revision of the Energy Labelling Directive;
- an intensification of the implementation of the Ecodesign Directive;
- promotion of cogeneration;
- promotion of good practices;
- an increase in Cohesion Policy Funds;
- creation of a 'Green Tax'.

VII. ENERGY LEGISLATION IN THE REPUBLIC OF SLOVENIJA

To understand the energy market in the Republic of Slovenia, it is important to be familiar with the Slovenian Energy Act, which was first adopted in 1999; since then, it has undergone several amendments.

Adopting the Energy Act was one of the obligations taken up by the Republic of Slovenia, as it had to adjust its legislation and liberalize its energy market in line with EU Guidelines on the Internal Market [10].

The Act lays down the principles of energy policy, energy market operation rules, the manner and form of providing public services in the energy sector, the principle of secure supply and efficient use of energy, conditions for the operation of energy plants, conditions for the performance of energy sector activities as well as it regulates the licence and energy permit issue and the bodies performing administrative tasks under the Act.

The Act transposes the following EC Directives into the law of the Republic of Slovenia:

- Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC (OJ L 176, of 15 July 2003);
- Directive 2003/55/EC of the European Parliament of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC (OJ L 176 of 15 July 2003);
- Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply (OJ L 127, of 29 April 2004);
- Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of

electricity produced from renewable energy sources in the internal electricity market (OJ L 283, of 27 October 2001);

- Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market
- and amending Directive 92/42/EEC (OJ L 52, of 21 April 2004);
- Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings (OJ L 1, 4 January 2003). Transposition of Directive
- 2002/91/EC regarding the methodology for calculation and requirements for the energy performance of buildings is governed by the Act regulating the buildings construction while the regular inspections of boilers are governed by the Act, regulating environmental protection;
- Directive 2005/89/EC of the European Parliament and of the Council concerning measures to safeguard security of electricity supply and infrastructure investment (OJ L 33, of 4 February 2006, p. 22);
- Directive 2005/32/EC of the European Parliament and of the Council of 6 July 2005 establishing a framework for the setting of ecodesign requirements for energy-using products and amending Council Directive 92/42/EEC and Directives 96/57/EC and 2000/55/EC of the European Parliament and of the Council (OJ L 191, of 22 July 2005, p. 29);
- Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC
- (OJ L 114, of 27 April 2006, p. 64).

The purpose of the Energy Act is to ensure conditions for safe and secure supply of energy services to users, in compliance with the market and sustainable development principles, taking into consideration the efficient use of energy, economical use of renewable energy sources and conditions of environmental protection. [11] The purpose of the Act is also to ensure competition on the energy market under the principles of transparency and non-discrimination, respecting the customer protection and implementation of efficient supervision of energy supply. [11]

The provisions of the Energy Act apply to legal and natural person carrying out activities in the following areas of the energy sector:

- production of electricity and heat for district heating;
- processing of oil and petroleum products;
- transmission of energy and fuels through networks;
- activity of the system operator;
- storing of gaseous, liquid and solid fuels;
- supply of electricity, gas or heat;
- operation of electricity and/or natural gas market;
- trading, representation and intermediation in electricity and natural gas markets;
- production, trading in and distribution of liquid fuels.

In accordance with the Energy Act, the general energy policy shall provide:

- security and quality of energy supply;
- balanced long term development of energy economy considering the trends in energy consumption;
- planned diversification of various primary energy sources;
- promotion of renewable energy sources use;
- ensuring the priority to the efficient energy use and exploitation of renewable energy sources over the supply from the non-renewable energy sources;
- ecologically acceptable generation, production, transmission and consumption of all types of energy;
- promotion of competitiveness in the energy market;
- customer protection and stimulation of flexible energy users.

According to Slovenia's National Renewable Energy Action Plan 2010-2020, in the area of developing renewable energy sources, Slovenia must achieve ambitious targets that will contribute to increasing the reliability of energy supply, reducing impacts on the environment, economic growth and the development of jobs and employment.

In 2005 the share of RES in final overall energy consumption in Slovenia was 16.2 percent. Slovenia must achieve at least a 25-percent share in the balance of final energy by 2020. The most important renewable source of energy in the country is wood biomass, followed by hydro energy, while in recent years development has been most dynamic in exploiting solar energy and biogas. The potentials of these energy sources, plus the potentials of wind and geothermal energy, will contribute to increased consumption of renewable energy sources. Promoting renewable energy sources and prioritizing efficient use and renewable energy sources are components of the Energy Act defined as energy policy goals.

The programming document for Slovenia's energy policy – the Resolution on the National Energy Programme (hereinafter: ReNEP) – which was implemented in 2004, defines the mechanisms for promoting renewable energy sources and sectoral goals for renewables up to 2010. The new National Energy Programme, which is in the final stage of drafting and should replace the existing ReNEP, will define the goals of energy policy up to 2030 and the mechanisms for implementing these goals, including the targets Slovenia has set itself in the EU climate and energy package up to 2020 and other international obligations. [12]

Providing the conditions for a reliable, competitive and environmentally sustainable supply of energy and energy services to the consumers is among the major development challenges of our time. Already the Slovenian Energy Act defines as an objective of the energy policy to ensure conditions for a reliable supply of energy services to users, according to the market conditions, the principles of sustainable development, taking into account its efficiency, economical use of renewable energy sources and environmental protection conditions. The existing National Energy Program is built on these foundations. Energy policy is

subject to common EU policy, and Slovenian energy policy is consistent with that in its primary objectives: environmental sustainability, security of supply, and competitiveness. The vision of future activities in the energy sector in Slovenia is to establish conditions for the transition to a low carbon society with the following priority areas: energy efficiency, exploitation of renewable energy sources, and the development of active distribution networks of electricity. The draft of the yet to be adopted (new) National Energy Programme provides guidelines for exploiting the economic potential of energy efficiency in all sectors, and sets ambitious targets for renewable energy exploitation; furthermore, it creates the conditions for substantial reduction of dependence on fossil fuels. Due diligence will be required to provide a reliable and competitive supply of electricity in the period until 2030, when all existing thermal power plants (in total 981 MW) which have low efficiency and service life, will be withdrawn from operation, due to inadequate environmental requirements after 2016. During the period until the year of 2050, renewable energy sources will be implemented, the National Energy Programme plans by 2030 over 50-percent share of renewables in gross electricity end use. Further long-term exploitation of nuclear energy in Slovenia is predicted, by extending the life of existing nuclear power plants, and providing for the construction of new units at existing location. The actual realization of a new nuclear power plant will depend on market conditions and business decisions and social acceptability of the project. [13]

The objectives of Slovenia's energy policy for renewable energy sources are:

- ensuring a 25% share of renewable energy sources in final energy consumption and a 10% share of renewables in transport by 2020, which under current predictions will involve a doubling of energy generated from renewable sources relative to the baseline year of 2005;
- halting the growth of final energy consumption;
- implementing efficient energy use and renewable energy sources as economic development priorities;
- in the long term, increasing the share of renewable energy sources in final energy consumption up to 2030 and beyond. [12]

VIII. SUMMARY

As we can see, EU has entered into a new energy era [14]. So there is an urgent and big need for new investments, because it has to meet expected energy demand and to replace old infrastructure. Energy demand is expected to rise and EU has to create more energy sources and to invest into renewable resources, as well as also make usage of energy more efficient. This way EU will be less dependent on import of energy. With new energy policy EU is tackling also global warming challenges and is trying to reduce greenhouse gas emissions, to decrease consequences to economy and ecosystems.

Europe today is facing the challenges of climate change, increasing import dependence and higher energy prices. Energy is essential for Europe to function; moreover, the interdependence of EU Member States is increasing. To deliver a secure and sustainable energy future for Europe

based on a coherent electricity and gas market, a competitive integrated energy market needs to be established. [15]

The main goal of new EU legislation is secure, competitive and sustainable energy market. This will be done in EU with ensuring fully competitive energy market.

As the European Commission has stated in its Strategy for competitive, sustainable and secure energy:

“Energy is the life blood of our society. The well-being of our people, industry and economy depends on safe, secure, sustainable and affordable energy. At the same time, energy related emissions account for almost 80% of the EU's total greenhouse gas emissions. The energy challenge is thus one of the greatest tests which Europe has to face. It will take decades to steer our energy systems onto a more secure and sustainable path. Yet the decisions to set us on the right path are needed urgently as failing to achieve a well-functioning European energy market will only increase the costs for consumers and put Europe's competitiveness at risk.

Over the next ten years, energy investments in the order of € 1 trillion are needed, both to diversify existing resources and replace equipment and to cater for challenging and changing energy requirements. Structural changes in energy supply, partly resulting from changes in indigenous production, oblige European economies to choose among energy products and infrastructures. These choices will be felt over the next 30 years and more. To enable these decisions to be taken urgently calls for an ambitious policy framework. Postponing these decisions will have immeasurable repercussions on society as regards both longer-term costs and security” [16]

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