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## Analysis of the Lithuanian renewable energy resources legal framework

### Abstract

Effective development of the legal framework promotes the production of energy from renewable energy sources (RES) that provide an alternative to fossil fuel energy and environmental protection. According to these provisions, the article performs content analysis of the Lithuanian RES legal framework and discloses regulatory grounds and barriers to RES development.

**Keywords:** renewable energy resources, legislation, directives, strategic documents, public administration, development.

**JEL Classification:** H790.

### Introduction

Republic of Lithuania is still experiencing difficulties in ensuring the use of renewable energy sources (RES) development. It is caused by non-implementation of one the most important challenges of effective legal regulation and legal framework. The legislation enacted by public must be improved and must become straightforward functions of public management functions that aim to equal care for all members of the public welfare. Therefore, it is necessary for the legislator to improve the regulatory area in order to achieve a better understanding of the problems and to create an efficient RES regulatory framework.

In order to strengthen RES opportunities in Lithuania and ensure the development of practical implementation, current legislative gaps must be removed and overall legal framework must be consolidated. Since country's integration into European Union (EU) energy systems is an integral part of the functions of EU coordinating institutions, the legislation of RES development must be harmonized with EU legislation and the standards of the United Nations and implemented in accordance with the requirements of EU directives and other legal instruments. International agreements, EU directives, and national legal framework set the minimum standards of energy security, promotion of local and renewable energy resources, and liberalization of energy market. Implementation of European Parliament and Council directives stipulated a unique opportunity for the development of RES in Lithuania and established flexible interaction between public administration and the public and private sectors. EU environmental legislation is also aimed at ensuring the development of RES and the partnerships between public and private sectors (Directive 2000/60/EC of the European Parliament and of the Council; Ioris, 2015).

The European Renewable Energy Council (EREC) assumes that, by 2040, up to 50 percent of the world's energy will be produced from renewable energy sources (Renewable Energy Scenario to 2040). The human population cannot base their activities on limited energy resources consumption for the indefinite period of time. Therefore, RES will eventually dominate in the global energy system. RES helps to reduce dependence on energy imports and ensures sustainable development of the energy sector.

In 2016, RES accounted for about 16 per cent globally. By 2040, RES is anticipated to rise up to 50 percent of the total energy consumption. Objectives of renewable sources of EU member states are set out in Directive 2009/28/EC. Swedish, German and Danish authorities have established additional objectives that are set above the EU targets. Sweden takes the active steps and leads in the use of renewable energy not only in Europe, but also in the world. Currently, RES consumption in Sweden constitutes over 52 percent of the total energy consumption. Bloomberg (2016) predicts that, on the basis of the international environmental organization WWF International by 2050, the necessary global energy demand could be substantially increased from RES. Due to currently advancing RES technologies, RES production is increasing and production costs are reduced. These objectives could be achieved in spite of human population growth, industrial growth, passenger and freight transport market growth, etc. Wind, solar, geothermal and hydropower must become the main sources of electricity generation. According to this scenario, fossil fuels, nuclear energy and biomass will gradually become unfeasible and eventually, around 2050, will completely disappear from the energy sector, therefore, causing 0 percent CO<sub>2</sub> emissions.

The above listed objectives must be strictly regulated by law, the legal base and mechanism should be founded and improved. Legislation is a complex and highly responsible process that requires competence of legislator, ability to understand various areas of social development perspectives, ability to foresee the social consequences of newly adopted laws. Hence, the need

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to regulate governmental mandate rises and it is significant to strictly define the competence of officials and state institutions in order to prevent the arbitrary expansion of the rights of officials and state institutions that may pose a threat to the legitimate interests of citizens (Vaišvila, 2000, p. 157). The capability to take advantage of legal gaps and, in particular, of those, where there is no control mechanisms established, creates conditions for delinquent behavior (Babachinaitė et al., 2008). These interactions must be defined as RES legal framework for the management process involving both public and private actors who solve societal problems or create new public opportunities and distinguish that context of management interaction is determined by institutions forming regulatory framework (Smajly, 2010). In this case, the new public governance must be seen as an alternative to the traditional regulatory model of public administration and new public management. New public governance summarizes principles and assumptions of what should the public administration be and how should public administration function together with other RES stakeholders.

The initiation of RES legal system may be linked to the first National Energy Strategy which was approved by the Government of the Republic of Lithuania on April 19, 1994 by Resolution No. 288 (Official Gazette, 1994, No. 30-545). It recognized the need of wider use of local, renewable and waste energy resources. The Law on Electrical Energy of the Republic of Lithuania (Official Gazette, 2000, No. 66-1984) further emphasized the need to promote the use of RES. The Law on Energy of the Republic of Lithuania (Official Gazette, 2002, No. 56-2224) also stressed that one of the goals of energy regulation is promotion of RES usage and stated that the Government or its authorized institution establishes legal framework of RES production, supply and usage. The legal framework of other individual energy sectors is established by other laws that shall be valid to the extent that their provisions are compatible with the Law on Nuclear Power Plant of the Republic of Lithuania (Official Gazette, 2007, No. 76-3004).

Important RES energy efficiency targets and decisions were set on 5 October, 1999 in the second National Energy Strategy enacted by Resolution No. VIII-1348 of the Parliament of Lithuania. (Official Gazette, 1999, No. 86-2568) and updated National Energy Strategy enacted on 5 July, 2002 by Resolution No. IXP-1773 (Official Gazette, 2002-10-16, No. 99-4397). Other main energy strategic goals were formed in other development strategies highlighting the most important energy policy and action goals to ensure energy independence, strengthen Lithuania's energy

security and competitiveness. The strategies were drafted taking into account the European agreement (also known as the Association agreement), the Energy Charter Treaty, other essential provisions of international agreements and EU energy directives.

In 2009, the European Parliament and the Council adopted Directive 2009/28/EC on the promotion of the use of energy from renewable sources which strengthened the Lithuanian renewable energy legislative framework. The following key national legislative acts were adopted: National Renewable Energy Resources Development Strategy adopted by the Government of the Republic of Lithuania on June 21, 2010 by Resolution No. 789, and National Energy Independence Strategy adopted by the Parliament of the Republic of Lithuania on June 26, 2012 by Resolution No. XI-2133. After analyzing the Directive and relevant legislation of European Commission (EC) it was decided that the most effective way of implementation of Directive 2009/28/EC was the adoption of the law containing the provisions of the Directive and reviewing of the existing national legislation regulating individual areas of RES. On May 12, 2011, the Parliament of the Republic of Lithuania adopted the Law on Energy from Renewable Sources (LERS)(Official Gazette, 2011, No. 62-2936 ), which transposed the EU directive 2009/28/EC into national legislation. This law turned into the basic act used to draft other legislation necessary to promote RES. However, on May 22, 2012, amendments to the Law on Energy from Renewable Sources were urgently adopted. Significant amendments to the law were passed on January 17, 2013 and since then the wording of the law is in force in the territory of Lithuania.

Consequently, the question arises why renewable energy resource policies are constantly changing and why the implementing bylaws of the Law on Energy from Renewable Sources have not yet been adopted and complete legal framework not sufficiently formed.

Lithuania must continue to increase the use of RES for electricity and heat generation and RES share in the transport sector. In order to achieve the objective, clear economic and technical conditions should be prepared and legal decisions prioritizing power generation from RES adopted. In case of failure to implement the planned projects, all three major Lithuanian energy policy principles would be at implementation risk: energy supply security of Lithuania, country's competitiveness and sustainable development.

To achieve the principle commitments, Lithuanian institutions have to create an appropriate legal and functional RES production, supply, and consumption regulation environment. Lithuanian laws and implementing legislation are expected to contain provisions that meet national and regional RES

obligations. Therefore, RES policy must be consistent, fluent, and stable and must fully meet the contemporary needs and principles of modern public governance. Current circumstances require finding specific measures to address the problems of RES legal framework and to disclose the forms of their solution. According to the mentioned laws and other legal instruments, the article analyses the Lithuanian RES legal framework.

Lithuanian national policy-makers face a challenge to prepare new energy and climate change plans and submit them to the European Commission in 2018. It is important to note that the plans must be synchronized with the neighboring countries (Poland, Latvia, and Estonia). It is a regional co-operation challenge that has not been experienced previously.

## 1. Research problem

Currently, Law on Energy from Renewable Sources (LERS) contains regulatory weaknesses that negatively affect the development of solar energy, insufficient legal framework regulating the design, construction and operation of biogas power plants. Wind energy development is hindered by existing power grid structures. Environmental constraints in Lithuania prevent the development of hydropower and other related water industries. Existing Lithuanian RES legal framework does not adequately encourage RES development and creates barriers to sustainable resource development.

**Research objective:** to accomplish Lithuanian renewable energy sources legal framework content analysis.

### Research tasks:

- ◆ to analyze the main laws and regulations governing RES;
- ◆ to accomplish a problem analysis of Law on Energy from Renewable Sources;
- ◆ to disclose the public administration influence on RES legal framework.

**Research methods:** analysis of document content and legislation, analysis and synthesis of scientific literature, comparative analysis.

## 2. The main legislation regulating RES

After 1990 when Lithuania regained its independence the state has integrated into the transatlantic space, but remained in the Baltic States operating electricity system controlled by the East and the Russian Federation (RF). Due to energy infrastructure connections, regulatory principles of the energy system, as well as the closure of the Ignalina Nuclear Power Plant, Lithuania was entirely dependent on a single supplier. Nearly 90 percent of Lithuania's primary energy was imported from Russian natural gas

and oil fields and nuclear fuel plants. This situation posed a threat to Lithuanian energy and national security. Therefore, Lithuania's integration into the EU energy systems started to be supported by implementation of the strategic energy projects. The energy initiatives established in the strategies enable Lithuania to achieve energy independence.

The Government of the Republic of Lithuania (GRL) approved the first National Energy Strategy by Resolution No. 288 on April 19, 1994. The strategy established the general provisions for reorganizing and developing the energy sector for the period leading up to 2015, carried out the energy assessment of the state, and identified the problems. It also provided for the increased use of RES, the potential of which had previously gone untapped. Lithuania inherited a system of very irrational energy consumption and its modernization required significant investment. Ignalina Nuclear Power Plant (NPP) and related set of problems had a special position in Lithuanian energy policy. Serious economic and technical problems arose while shutting down Ignalina NPP. The period of the Ignalina NPP operation has led to big quantities of radioactive waste and used nuclear fuel, but the necessary funds for waste utilization were not collected. Very little investment was dedicated to infrastructure modernization over the past decade – a large part of the power grid, substations and pipelines have been physically and mentally worn out, also energy sector privatization process was delayed. Residential houses and other buildings built before 1990 were equipped with central heating systems that were completely unsuitable for the rational use of energy and their modernization required very big investment. Since for a long period of time the main energy system development direction was energy production concentration, high-power energy companies were constructed in Lithuania. However, the inherited energy sector adjusted to large energy and oil exports in its essential features significantly lagged behind the time requirements. Later, the 1994 strategy was revised based on accumulated experience and approved by the Seimas of the Republic of Lithuania as the revised and updated second National Energy Strategy on 5 October 1999 by Resolution No. VIII-1348, which laid out the main provisions for encouraging the Government to restructure the energy sector by the year 2020.

The objectives of RES development were also pursued in the Law on Energy of the Republic of Lithuania (Official Gazette, 2000, No. 66-1984), which stated that, in order to ensure the public interest, the Government encourages the use of RES for electricity production and consumption of electricity produced from RES. The legal framework and conditions for RES promotion of the consumption of RES are set by

the Government in a transparent manner and taking into account the cost of electricity to end-users (Art. 14.1, 14.2). In accordance with the legal framework, governing the provisions of the laws and the development principles the Government intended to encourage consumers to buy electricity produced from RES (Art. 4.6). However, this law has applied a faulty electricity price calculation principle. The author believes that the legal validity of the regulation is raised to discussion for several reasons. The price to be paid by every electricity consumer partially depended on the monopolist. It means that supplier's assets were taken into consideration while setting the upper limit of electricity supply service price. The supplier could manipulate by increasing the value of property or purchasing unnecessary assets in that way influencing the upper limit of the price of electricity. As a result, the higher were the assets of the supplier, the higher became the price for electricity consumers, and the supplier company received bigger profits. On the basis of that above-mentioned law, electricity suppliers were able to receive large and economically unjustified profits. Although price adjustment is normally based on the need to protect consumers from natural monopolies and high prices, a 2-cent increase for electricity suppliers guaranteed monopoly based excess profit.

Legal restrictions (permits, licenses, regulations) are very important while analyzing RES legal framework. Law on Energy of the Republic of Lithuania (Official Gazette, 2002, No. 56-2224) establishes licenses, permits and certificates for energy activities. Licensed activities are also defined in other laws. The list of activities subject to licensing is approved by the Government (Law on Energy, 2002, Art. 16). Government is competent to determine that activities listed in the Law on Electrical Energy are subject to licensing. It allows at any time for the Government by adopting by-laws to expand the list of licensed activities. The author finds that such market entry restrictions and regulation of prices not only often affects quality, but also reduces the incentives for the new market players.

In the case when general authorization and licensing framework is absent in the Law on Energy (Official Gazette, 2002, No. 56-2224), licensed activities are often unreasonably extended in by laws. Such regulation limits the entry of new actors to the energy market and restricts competition. In addition, the competence of the Government to determine the list of activities subject to licensing allows the Government at any time to add to the list new authorizations that are not exhaustively set in the law.

Such regulation does not comply with the objectives set in the Law on Energy. Therefore, it is advisable to

determine in the law that licensing and authorization cannot be used as a tool to limit the number of market participants. License or permit should be issued to every entity asking for it and meeting the requirements proclaimed in advance.

Even though the Law on Energy of the Republic of Lithuania has established that the National Energy Strategy should be revised and updated every five years, the Government, in view of Lithuania's campaign to become a member of the EU in 2004, prepared a third twenty-year period National Energy Strategy in 2002, which was approved on 5 July 2002 by Resolution No. IXP-1773. The strategy proposed solutions for terms and conditions of Ignalina Nuclear Power Plant decommissioning taking into account new environmental requirements and also presented revised and corrected energy development directions that were formulated in 1999.

However, not all the objectives set in the 2002 National Energy Strategy were managed to implement. Lithuanian electricity networks were not connected to the networks of Poland, although it has already been planned in 1999 Strategy. The works began in 2014 and the connected networks will be able transmit 500 MW of power (PAP, 2014). The new Lithuanian and Polish electricity transmission connection LitPol Link was launched in trial mode on December 9, 2016. It provided an opportunity for Lithuania and the other Baltic countries to connect to electricity transmission network infrastructure of the Western European. The next step until 2025 is to synchronize Lithuanian electricity market with the entire European electricity market.

Little is done in increasing the reliability natural gas supply. Modernization of household heating took a slow pace, especially in consumer-owned facilities. Therefore, too much power was consumed for heating of buildings. Heat supply pipelines are still in critical condition in many places and high probability of major accidents remain unsolved. The decision to close the Ignalina Nuclear Power Plant in 2009 has intensified the problem of energy security in Lithuania. Serious energy security concerns arose in 2009 and Lithuania alone was not able to solve them. In particular, to build a new nuclear power plant and integrate electricity transmission network to EU networks. These strategic objectives can be facilitated only by close cooperation with the other Baltic countries – Estonia, Latvia and Poland.

Because strategies age very quickly due to rapid global change, which continually brings about new challenges and trends, the fourth National Energy Strategy of 2007, approved by the Parliament of the Republic of Lithuania on January 18, 2007 by Resolution No. X-1046 was drafted by taking into

account crucial changes occurring in the economy and the energy sector both on a national and regional scale, as well as by incorporating accumulated knowledge and up-to-date information. Also, other Baltic energy development plans and global trends were taken into account. The strategy proposed various methods and measures for ensuring the strategic reliability of energy by reducing or neutralizing the negative influence of the country's dependency on a dominant supplier of primary energy. However, some of the goals were not achieved in the 2007 National Energy Strategy. After the shutdown of Ignalina Nuclear Power Plant, Lithuania did not reduce dependence on a single power supplier, but has become more dependent on electricity and fossil fuel imports. Gas sector also faced a high dependency problem: gas supply has not been diversified, alternatives for primary necessity gas demand were not ensured, Lithuania could not participate in international gas markets. The installation of the necessary competitive electricity generation sources was not implemented on time and energy supply network reliability measures with Poland and Sweden were not achieved. Lithuania continued to operate the relatively old electricity transmission network with no connections to continental Europe and the Nordic networks. Such situation has created additional threats to energy consumers and national security.

On April 23, 2009, the European Parliament and the Council adopted Directive 2009/28/EC on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (OJ 2009 L 140, p. 16). M. Maigre (2010) pointed out that the EU's energy policy-making should be interpreted by analyzing both the EU functioning methods and coordinated actions of the Member States. Although in the Lisbon Treaty the Member States retain their right to form their national energy policies, but common EU coordinated action is needed for EU's internal energy market and ensuring the functioning of the priority infrastructure projects. Therefore, Member States and institutions are bound to work together at European level in order to find a consensus on the objectives of energy policy and, then, to implement these objectives. Directive 2009/28/EC for Lithuania sets a legally binding target – by 2020, the use of renewable energy sources must account for at least 23 percent of the total energy consumption (overall EU objective – 20 percent), while the share of RES must comprise at least 10 percent of final energy consumption in the transport sector.

This Directive, unlike the previous, emphasizes on energy efficiency, sets the requirements to simplify administrative procedures, ensures RES equipment access to networks, stresses the need to use RES in

new and refurbished buildings, sets sustainability criteria for biofuels and other bioliquids. Unlike previous directives, Directive 2009/28/EC requires each member state to draw up an action plan identifying individual RES targets for electricity, heat production, transport sector and indicate the measure for achieving the objectives. In order to create favorable conditions for further electricity production from RES, Directive 2009/28/EC sets a new obligation for member states to form a network infrastructure including connections between the Member States. Directive 2009/28/EC and Directive 2001/77/EC stressed the importance of support mechanisms application and their effectiveness in achieving the objectives of the Directives (Matulionytė-Jarašiūnė, 2011). After the analysis and evaluation of Directive 2009/28/EC and other related legislation of the European Commission, the Law on Energy from Renewable Resources of the Republic of Lithuania was adopted on May 12, 2011 (Official Gazette, 2011, No. 62-2936). The law contains the latest general provisions of the Directive and coordinates the existing national legislation regulating individual RES areas.

In order to improve coordination between various institutions, the National Renewable Energy Resources Development Strategy Action Plan 2010-2015 was adopted. It was intended in the Plan to prepare and regularly update a good practice guide for RES users involved in administrative procedures. Also, by implementing EU legislative requirements, Lithuania has committed to increase the share of RES in country's electricity, heat energy and transport sectors. These commitments are laid down in the National Renewable Energy Development Strategy approved by the Government of the Republic of Lithuania on June 21, 2010 by Resolution No. 789 (Official Gazette, 2010-06-23, No. 73-3725). After analyzing the development of RES in Lithuania, the following problems were identified:

- ◆ the implementation of the National RES Development Strategy faced barriers and defects of caused by administrative procedures governing construction of RES power stations;
- ◆ planning procedures are complex, the granting of authorization for energy production is time-consuming, lengthy spatial planning procedures (up to 2 years);
- ◆ project documentation process is slowed down by preparation of detailed plans, coordination with the public, and environmental impact assessment;
- ◆ RES development is regulated by many institutions, lack of coordination and cooperation between different institutions during authorization process;

- ◆ local and regional authorities lack of knowledge about the benefits of RES;
- ◆ municipal authorities are not interested in the development of RES projects, they have no special RES development institutions;
- ◆ offshore wind power construction is not legally defined;
- ◆ lack of support for modernization of heating systems of public buildings located in rural areas, and adapting them to burn local straw, reed, grass biofuels (pellets);
- ◆ RES heat and power generation equipment production is not promoted;
- ◆ municipalities are not directly involved in RES promotion policy implementation;
- ◆ insufficient legal framework for biogas power plant design and operation and supply of biogas into natural gas networks.

Under such circumstances, a more favorable institutional approach to the use of RES development, industry, business and the public interest in the implementation of RES projects could create preconditions for more suitable circumstances for RES growth and implementation of new incentives. By implementation of new incentives for small businesses it is appropriate to apply a one stop shop principle, which is defined by the Law on Public Administration (Official Gazette, 2006, No. 77-2975). There is a need for a mechanism that simplifies administrative procedures, encourages standard households, does not require special skills to complete complex documentation or to receive numerous certificates from different institutions. One stop shop principle should be implemented quickly in order to simplify the process of construction permits granting and connecting small power plants to electricity networks. One stop shop principle in issuing of permits for construction and connecting electricity networks to small power plants (up to 10 kW) would promote sustainable use of RES plants development (Stasiukynas, 2011).

Conflicts and miscommunication in society arise due to lack of information for citizens and interested groups on matters of public administration. The most common reason for the lack of information are outdated bureaucratic management traditions. Therefore, one stop shop approach encourages openness and credible interaction of citizens and public institutions. However, the one stop shop approach is not in operation when dealing with RES development problems for small businesses. Therefore, in order for this measure to take effect, it is necessary to legally regulate one stop shop approach in detail

for every public institution and control them at higher level undermining the roots of corruption.

According to these provisions, it is recommended to improve the legal framework, to facilitate administrative control and access to infrastructure, regulate separate fields of RES and, thus, encourage consumers and producers to choose renewable energy. It is necessary to create conditions for energy from RES producers to participate in the market.

The main goal proposed by the 2012 National Energy Independence Strategy approved on 26 June 2012 by the SRL by resolution No. XI-2133 was to evaluate the altered situation of the Lithuanian energy sector after the decommissioning of the Ignalina Nuclear Power Plant, taking into account Lithuania's drastically increased dependency on the energy supply of the Russian Federation. The strategy establishes the main strategic goals for the Lithuanian energy sector and the directions these goals should be implemented in up to the year 2020, as well as guidelines for stimulating development in the energy sector for 2030-2050. The three main strategic principles for the energy sector remain the same: energy independence, competitiveness and the promotion of sustainable development. Lithuania continues the effort to increase the use of RES in the production of electrical power, heat energy, and in the transport sector.

After the decommissioning of Ignalina Nuclear Power Plant, Lithuania from electricity exporting country has become importer of electricity. Alternative sources of supply and competition have not increased and the closure of Ignalina Nuclear Power Plant has even worsened energy security situation. Power supply has decreased in the Lithuanian domestic market and more than half of the electricity consumption was imported from neighboring countries, mainly from the Russian Federation. Currently, most of the electricity and heat produced in the country are from imported gas. Lithuania is also highly dependent on fossil fuel imports. The situation is complicated by the fact that Lithuania, unlike most of the EU Member States, is isolated from the EU energy systems – there are no electricity and gas interconnections with continental Western Europe and, therefore, Lithuania is dependent on a single external energy supplier. Such situation creates additional threats to energy consumers and national security. Compared with countries with diversified supply of energy and self-sufficient energy resources, the interests of Lithuanian consumers are much more vulnerable due to disruptions in imports of gas and electricity supply or high volatility of fossil fuel prices.

Failure to implement the initiatives and projects set in the 2012 Strategy could lead to negative effects on Lithuanian energy security, country's competitiveness

and sustainable development. Also, dependency on a single external energy source and foreign energy monopolies would remain, and energy prices for consumers would depend on external suppliers and decisions of foreign companies. Without owning a nuclear power plant, the demand of energy shortage would be imported from the nuclear power plants in third countries that apply questionable safety standards. Consequently, Lithuania being controlled by the Russian Federation power system would stay in Eastern geopolitical zone of influence. If RES potential would not be exploited, electricity imports and, hence, energy dependency would increase. However, this threat is over.

In order to exploit the potential of RES and use it in all of the sectors of national economy (energy, industry, transport, agriculture, etc.) and increase RES share in the primary energy balance, the Parliament of the Republic of Lithuania on November 6, 2012 by Resolution No. XI-2375 (Official Gazette, 2012, No. 133-6762) approved the National Climate Change Management Policy Strategy. The Strategy stipulates to develop and implement the Lithuanian climate change management policy and sets short-term (up to 2020), indicative medium-term (up to 2030 and 2040), and long-term (2050) objectives and challenges of climate change mitigation issues. National Climate Change Policy Implementation Action Plan for 2013-2020 was approved by the Government on April 23, 2013 by Resolution No. 366. The Action Plan introduced measures for promotion of RES technologies, reduction of vulnerability of natural ecosystems, as well as fiscal appropriations for implementation of these measures. The measures set in the Action Plan are anticipated to support the implementation of climate change mitigation, adaptation to climate change and achieve that the participating sectors in the EU emissions trading system would decrease greenhouse gas emissions every year.

Communication from the European Commission on an EU strategy on adaptation to climate change of April 16, 2013 integrated the issues of adaptation to climate change into priority policy areas such as energy and transport. National Transport Development Program for the Period of 2014 – 2022 encouraged the development and consumption of alternative fuels and technologies. In order to develop cost-effective transport system, it is necessary to combine the development of all modes of transport and to give priority to more environmentally friendly transport, increase energy efficiency in the transport sector, use more alternative and less polluting fuel.

Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment

of alternative fuels infrastructure has established a common alternative fuel infrastructure deployment of the EU framework to reduce transport's dependence on oil and its impact on the environment. This Directive establishes minimum requirements for alternative fuels infrastructure.

Communication from the European Commission on 2030 Climate and Energy Policy Strategy of January 22, 2014 proposes to continue to proceed to a low-carbon economy and a competitive and secure energy system. The Strategy proposed a target to reduce local greenhouse gas emissions by 40 percent by 2030 comparing with 1990 level. The sectors covered by the EU emissions trading system should reduce emissions by 43 percent by 2030, while the sectors not covered – 30 percent compared with 2005. The strategy proposed the EU-wide rate of RES – 27 percent. Member States are granted flexibility to set national targets.

Communication from the European Commission “Energy Roadmap 2050” (COM 0885) predicted that most of the energy supply technologies will be related to RES in 2050. Renewable energy will rise substantially in all scenarios set in the Communication: by 2050, energy from RES will have at least 55 percent of total final consumption of energy, i.e., 45 percent more than the current rate. Therefore, another key required for more sustainable and secure energy system is a condition to use an increased amount of RES after 2020. According to all decarbonisation scenarios, in 2030, the effective share of RES will increase to 30 percent of the total consumption of energy.

Promoting the efficient use of renewable technologies in the Communication from the European (COM 2015 572 final) Member States are induced until 2018 to submit energy and climate change plans. These plans must be consistent with their neighbors and funding for research.

United Nations Climate Change Conference COP21 in Paris (2015) adopted the agreement document by 2050 to achieve zero CO<sub>2</sub> emission limits from the energy sector. This agreement will take effect on the condition of not less than 55 countries which are responsible for 55 percent of global emissions have ratified an agreement (Dolasia, 2015). The agreement reached is a large achievement of European energy union and caused a lot of debate around the world. Some were happy, but others have criticized the document for its incompleteness. For example, many participants expressed concerns that objectives of the Paris Agreement were not set for aviation and shipping industries that generate significant CO<sub>2</sub> emissions. So, today it is important to assume what obligations every state will assume and how much states will invest into a more secure future. Therefore, in order to achieve the

enthusiastic goal of COP21, it is essential to promote the development of RES and to produce new management models for each domain of RES.

In order to increase the efficient use of RES in the EU, strategy “Europe 2020” aims to invest in the improvement of the research results. The President of the Republic of Lithuania Ms. Dalia Grybauskaitė (2016) noted that “... it is necessary to double or even triple the investment in research in order to encourage energy efficiency and renewable energy development” (BNS, 2016).

After assessment of implemented strategic goals it is visible that many of the initiatives and projects in Lithuania have been gradually implemented. The biggest problem of the Lithuanian energy policy is the inability of the new Government to achieve the declared priorities, as it often seems that the work of the previous Government was started insufficiently. Therefore, the achieved work is frequently suspended and reviewed. It is difficult to solve the problems of political cycles, especially when it comes to influential interests of local or foreign groups. The influence of interest groups is hardly noticeable and its impact on the processes balances on the margins of legislation or is illegal and corrupt. Information and propaganda campaigns may be used in order to discourage potential investors into main energy projects of Lithuania. Also, disturbance of Lithuania’s cooperation with other countries of the region is possible in order to affect the projects that may be disadvantageous to entrenched energy suppliers or their owners. It is possible to find a number of links between the interest groups in energy sector and funding of political parties. Nevertheless, these facts are often difficult to prove and often evident arguments turn out to political and financial manipulation. However, the result is usually quite clear – waste of resources (time and money) and lost trust of the people in the state (Vilpišauskas, 2010; Anskaitienė, 2013; Eigirdas, 2015).

Under these circumstances, when the Lithuanian energy policy is particularly exposed to various Lithuanian and foreign interests, the main way to address the promotion of RES consistency issues is adoption of a new model of public administration in the energy sector, as well formation of conditions for fair competition and diversity of supply sources.

### **3. Problems of the Law on Energy from Renewable Sources (LERS)**

In order to improve energy efficiency, RES global demand needs to grow in the coming decades. Though RES distinguish by clean technologies and are convenient energy carriers, the production of RES is

primarily associated with environmental problems (Sanden, 2014). It requires continuous development of effective regulation and, in the case of Lithuania, fundamental reorganization of legal framework.

The Law on Energy from Renewable Sources (LERS), passed on May 12, 2011, establishes the legal basis for the organization of activity in the renewable energy sector, as well as state regulation and supervision of the operations of RE producers and their relations with controlling authorities. This law has become a fundamental piece of legislation and the vessel through which Directive 2009/28/EC of the European Parliament and Council was transposed into national legislation. The Government, the Ministry of Energy and the National Commission for Energy Control and Prices are currently passing the legislation necessary for the implementation of the law.

The main task of the Law on Energy from Renewable Sources (LERS) is to ensure that the share of renewable energy in country’s total final energy consumption will comprise not less than 23 percent in 2020 and the share will be increased by utilizing the latest and most effective RES technologies and promoting RES efficiency. The Law on LERS sets the following tasks in different energy segments: the share of renewable energy in all modes of transport will be increased to at least 10 percent in 2020; the share of electricity produced from RES in the country’s total final energy consumption will be increased to at least 20 percent; the share of centralized heating energy produced from RES in heat energy balance will be increased to at least 60 percent, the share household heating produced from RES will be increased to at least 80 percent (The Law on LERS, 2011, 1, Art. 1.1, 1.4, 1.5). The authors argument that the Law on LERS is not detailed and was amended subsequently. The Law on LERS should be continued to improve to directions set out below.

According to the Law on LERS, the Government approves National RES development program and state energy policies for ten years (The Law on LERS, 2011, Art. 40.1, 40.3). The goal of the program is to determine the national targets of RES consumption for electricity, heat energy and transport sectors, and to deliver the measures for achievement of these targets by the year 2020. The program does not provide a continuity of fundamental reorganization and factual steps toward energy independence and does not take account of the current problems, such as the need to reduce energy imports and to take care of the country’s energy security. The program is declarative, affords only the minimum development based on the bottom of EU requirements and sets the implementation only for the ongoing projects under the objectives set in the Law on LERS.



Renewable energy is not and cannot be viewed only as a mandatory implementation measure of the EU requirements. Today, such a formal document preparation is totally irresponsible and unacceptable when the use of biomass and incineration plants reduces heating costs for Lithuanian urban residents, when wind power plants produce a significant part of the total power from RES and when the solar cells produce electricity with no additional burden for consumers by applying of double record principles. Production support through public service scheme is not assessed in the Program. Neither is potential public capital participation nor non-participation in the development of renewable energy evaluated in the Program (Nagevičius, 2014).

The development of RES policies should be aimed at eliminating barriers to the expansion of small hydropower plants and creating conditions for offshore wind energy development. The implementation of these proposals would lead to bigger electricity and heat energy production from renewable resources. Such goals and objectives must be raised in the National RES Development Program.

According to the Law on LERS, the Government or its authorized institution is responsible for the supervision of the renewable sector regulation, control of the Law and its implementing legislation. Key decisions are taken by the National Commission for Energy Control and Prices. The Commission adopts regulatory legislation, implements them, and controls their execution. For example, it determines methodology for the tariff of electricity produced from RES, fixes the maximum levels of tariff, organizes the auctions for promotion quota, decides on the winners of auctions and controls their obligations. According to the authors, fixing the rules of operation, their implementation and control cannot be concentrated in the hands of one institution. Therefore, regulatory enforcement, control and execution must be carried out by other institutions and it is necessary to change the public administration of the sector.

Failures of legal regulation in the Law on LERS are also visible in the area of solar energy potential. Solar energy is the most powerful of renewable energy resources and the price of solar energy is falling (Hirth, 2013; D'Orsi, 2014). The use of solar energy in Lithuania is promoted encourages in the Law on LERS, National Energy Strategy, National Energy Efficiency Program, the Law on Energy, the Law on Electrical Energy. The potential of solar energy in medium-term economic perspective includes hot water production (0.5 TWh), drying of agricultural products (0.8 TWh) and passive heating (1.25 TWh). In the long-term perspective, solar heating can be used for central heating during the summer months and photovoltaic systems can gain important role in

electricity generation. But today, solar energy is much more expensive than traded on the power exchange markets. Solar energy purchase prices in Lithuania are one of the highest in Europe. Small power plants (up to 30 kW) are allowed unlimitedly to supply electricity into networks and the state has guaranteed to purchase energy for 12 years. This led to the sharp growth of small solar power station construction. Since renewable electricity prices were included in the electricity tariff, they have become a burden for consumers. This is the reason why current solar energy development has been suspended on the grounds of consumer interests. The Ministry of Energy grounded consumer interest stating that implementing 16,000 solar power projects for which permits have been issued with the incentive tariff remaining 0.417 Euro/kWh would lead to the increase in price of 1.45 cents for final consumers.

The government has designated 58 million Euro for solar power plant developers to cover the costs of uncompleted constructions. One solar power plant developer may be compensated for a maximum amount of 29 000 Euro. According to the approved procedures, compensation for solar projects will be paid from budget. However, lawyers believe that compensation payment from the Public Service budget may be contrary to the existing legal regulation. The Law on LERS states that production of electricity from renewable energy sources may be considered as a public service, but not refusal to develop solar power plants. This contradicts to the provisions of the Law on LERS, since the costs will be included in the electricity tariff for services that were not provided. These circumstances highlight series of management problems.

In June 2013, the Ministry of Energy proposed amendments of Articles 13 and 42 of the Law on LERS. The essence of amendments is the transition from incentive tariff for biofuel electricity cogeneration power projects to promotion of investment opportunities using national renewable resource development funding program funds and including EU funds. This was a new state aid and promotion model under which the cost of RES development is not transferred directly to consumers. However, the launched projects will no longer be subject to incentive rate neither will be able to advantage of investment support.

National Commission for Energy Control and Prices by Resolution of May, 2014 amended electricity from RES tariff calculation methodology. These amendments led to lower electricity feed-in tariffs for biomass power plants that produce electricity in reconstructed power generating facilities. It is difficult to decide what motives led to such decision, but tariff

differentiation principle for other renewable energy producers was not established. Distinguishing biomass power from hydroenergy, biogas and wind energy plants presupposes about the influence of individual groups of interests in the field of RES.

Currently, there are more companies willing to build wind farms than power networks are capable to receive in the West of Lithuania. Besides, the Law on LERS indicates that RES power plants must be connected to power network even if they have to be optimized for this purpose. It should also be noted that an electricity producer, in such a case, shall pay no more than 10 percent optimization costs to the network operator (the Law on LERS, 2011, Art. 21.8).

Subsequently, it will primarily depend on energy policy of the state of and regulatory measures if users will feel the benefits of RES in the future. Although wind power generation will be approximately 0.72 cents per kW/h (after paying off the cost of plant installation), it is unrealistic that energy producers would offer electricity at this price. According to the author, the price can decline only if RES production technology falls in price and efficiency increases. Therefore, currently the most expensive solar power will catch up with the cost of energy produced in the gas-fired power plants over the next decade. Over this period, it is necessary to evaluate macro-economic indicators, to complete a comprehensive renewable energy cost-benefit analysis, and to ensure that the producer's share of the benefit part would encourage him to invest. LEKA – Lithuanian Energy Consultants Association (2012) carried out the calculations with results showing that the Lithuanian economy would have benefits over 1.45 billion Euros if all the existing measures of the Law on LERS were implemented. However, it is clear that the benefits to the economy would be greater, if, in parallel, renewable energy technology development was carried out. Currently, wind power plant construction in Lithuania is based on the German “Siemens” and “Enercon”, and the Danish “Vestas” corporations. The only exception is biofuel boilers that are widely produced in Lithuania.

In general terms, despite strong influence of interest group to the adoption of the Law on LERS, the Law has influenced RES development intensely. However, experts identify a number of problems. General situation in Europe is changing, new objectives, requirements and management models rise. The targets up to 2022 set in the Law on LERS are already achieved. It is time to develop a new model for the promotion period from 2022 to 2030, taking into account the latest trends of the sector and European requirements.

#### **4. Public Governance influence on the legal framework of RES**

Public administration is a public service activity directly related to the formulation of public policy and management of public programs and projects. Employees of public sector performing administrative functions must be functionally useful and efficiently improve mechanism of public governance. At present, the new public management raises international wave of reforms and promotes innovative and efficient methods of management in the public sector. New public management has emerged as a consequence of globalization and started strengthening the traditional public administration. New public management distinguishes several types of management, carrying out the function of state will execution. The first type of management is legal management which is based on the application of the law. The second type of management is implementation of state decisions, control and administrative management. New public management is a public administration paradigm where the focus is made to implementation of public interest, cooperation of private and public sectors that is perceived as a public service to citizens and based on the effectiveness of policies at all levels of government (Smalskys et al., 2015; Hajnal, 2015; Ormond et al., 2015; Colon, Schneider, 2015; Pollitt, 2016).

In the modern context of public governance, public services play very important role. R. Brazienė and G. Merkys (2015) point out the relevance of public services not only to scientists of public policy, public administration, and sociology, but also to politicians, and employees of municipalities. Therefore, proper management of public service processes and consumer observance increase operational effectiveness of public authorities. This ambition is a major incentive to move to the new public management that is based on business sector expertise and market conditions. The new public management modernizes the administrative structure, control methods and administrative culture. Pursuant to a statutory public service concept public services and the rules are determined, public bodies are established or public services to private individuals are authorized. Public services are provided in order to meet public interest and to give citizens better values. The management of public service process in Lithuania is regulated by the following legislation: the Constitution of the Republic of Lithuania; Laws on Public Administration, Local Government, Public Procurement, Public Sector Accountability, and Concession. Special laws regulate specific public services, such as education or social services.

During the change of public administration paradigms, V. Domarkas (2011) expresses opinion that the new public administration and new public management currently are replaced by the new public governance or the good and synergistic governance. Based on authoritative scientific publications of the last decade, it can be concluded that, in current public administration paradigm change stage, the key factors influencing the development of public administration are globalization, development of information technology application and training of new generation leaders.

According to J. Buškevičiūtė and A. Raipa (2011), modern public governance phase requires rapid changes in modernizing the infrastructure public governance process. While new public management is evolving, new standards of good public governance are developing. They have direct implications to governance decisions. According to the latest scientific research, it may be emphasized that the structure of decision efficiency, pluralistic participation of various social groups in decision-making for creative use traditional governance values the in structure of modern public governance are key factors that influence changes in the decision management efficiency. In order to ensure a clearer perception of qualitative governance decisions characteristics integration of intellectual, organizational and material factors is necessary, and direct mixed management, non-governmental, and business structures interaction are needed (Buškevičiūtė, Raipa, 2011).

According to S. Pivoras and E. Visockytė (2011), the applicability of the new public governance conceptions in investigating reforms of civil service is relevant in a way that public governance perspective reveals contemporary provisions of public administration, particularly in legislative sense. Good administration and good governance must be primarily understood as a professional and ethically impeccable work of civil servants, which is an object of public or administrative law and reveals an important aspect of public governance. Various international organizations developed interpretations of good governance. It is accountability, the rule of law, access of information on actions of the government and transparency of the information that became foundation of good governance in many international organizations and cause cooperation between society and state. Public governance concepts are possible to apply after assessing their compatibility with the reforms of civil service or its development trends. Developing open civil service model best matches good governance.

L.B. Ngouo (2016) analyzed the World Bank's approach to public sector governance and proposed to apply a methodological framework, based on reforms

of public governance of the real world. The researcher notes that success of reforms depends fundamentally on the professionalism and mechanisms that comply with the principles of good governance. If citizens' trust in public institutions is high public authorities carry out their democratic mission. If the citizens' trust is low or declining, it is hard to evaluate the governance of public service processes as successful.

Ch. Pollitt (2016) analyzed the reforms of public sector governance in Europe and concluded that the recent attempts of the European Commission predict the trends of external public sector have not been successful. For example, there were many studies on climate change carried out, but the European Commission did not provide specific answers on how to manage the studies. But consumers who are seeking to ensure public interests of society started creating pressure on the European Commission and political decisions become more favorable to the potential of RES development.

According to these provisions, the author finds that the private sector depends on public policy and the policy is constantly changing. Therefore, the created barriers in the area of RES development are directly dependent on political decisions. However, if the policy-making processes are well organized, it accomplishes the public interest and provides tools for implementation of advanced RES solutions. D. Stone (2004) points out that the policy-making process is a strategic portrayal of the world, an art of metaphors and categories in order to convince the public fairness of one or another political line. According to Ch. Pollitt (2016), the main policy tool is public administration where administrators must be implemented political processes consistent with the public interest of society, laws and regulations. Thus, all of the authors agree that public policy must ensure public interests of society.

Constitutional Court jurisprudence (2007) has stated that the implementation of public interest is among the most important conditions of the societal existence and development. In this context, it is mentioned that entrenchment, assurance, defense and protection of public interest are constitutionally reasoned, because every public interest reflects and expresses the fundamental values of society that are consolidated and protected by the Constitution. "Protection of public interest is an obligation of the State" (Constitutional Jurisprudence, 2007).

The Law on Energy from Renewable Sources (LERS), the Law on Electrical Energy, the Law on Spatial Planning establish that the state ensuring obligations to provide public service promotes the use and to gives priority to RES. Therefore, it is necessary to create favorable conditions for the use of RES and to ensure access to every potential investor to participate in RES

related activities in accordance with transparent, non-discriminatory and corruption-resistant public selection procedures.

In order to ensure the transparency of information and RES projects carried out by the Member States and to facilitate cooperation between Member States, the European Commission by implementing Art. 24 of Directive 2009/28/EC has created a platform of public transparency where information on Member States' national renewable action plans, statistical transfers between Member States, Member States' national reports are published. This platform ranks as one of the most transparent form of Member States' control and education. In order to achieve RES development and strengthening of state public governance, especially resistance to corruption, it is necessary to ensure that all administrative procedures for RES projects are transparent, proportionate and simple, as well as publicly available. Corruption is a threat to public governance and discredits it. It undermines trust in public administration, judicial system, hampers the development of RES. Corruption prevention and control should be recognized as priority directions. In addition, transparency and public participation in the decision to contest illegal actions reduce corruption and probability of biased decisions. The society must be assured that authorities properly implement the public interest.

However, the lack of harmonization on national legislation, gaps in legal regulations and legislative misperception, other legislative restrictions and contradictory case law allows for corruption in the area of public interest and does not defend public interest, e.g., to implement constitutional rights of citizens (Constitutional Jurisprudence, 2007). Due to these circumstances, it is necessary to improve legislation regulating the state institutions engaged in the fight against corruption. It is important to prepare ethics rules for civil servants and officials that would precisely regulate the behavior of civil servants in view of public and private interests.

Public interest must be defined by law and its implementation must be ensured by public administration. Several groups of stakeholders who are involved and interested in RES public policy development can be distinguished. They are political parties, interest groups and public authorities that are responsible for formulation and implementation of public policy. Namely, these groups have to frame RES policy governance model and identify the problems that impede the development of RES. Public interest of society must be implemented, because it contains the quality of life that is based on the regulations and other statutory requirements. In order to implement national energy and environmental policy strategic objectives in RES

sector and to ensure the implementation of legitimate public interest, the authorities have to assign RES to services of public interest.

The author points out that the laws empower society to participate in public debates. However, in RES development issues, the role of society is poor and the interest groups direct goals in their favor. Disagreements in public hearings are hampering the development of RES targets. For example, the demolitions of dams or building fish ladders require substantial public investment. It could be avoided by attracting private capital and allowing for installation of small hydropower plants (HPP) and together promoting rural tourism, water sports and diversification of rural business. From public interest point of view, it would be advantageous, therefore, it is proposed to the municipal and local levels to implement the spatial plans decisions involving public-private partnerships and attracting private funds. It is proposed to determine decision publication procedures in order for society to carry out the control of decisions. RES planning work program must contain an open competition for the best ideas, because such or similar practical possibilities have not yet been concluded.

While achieving these goals, the lack of public sector efficiency is started to be criticized more efficient performance of functions of civil servants is required. In order to promote the development of RES it is attempted to ease the burden of red tape, to achieve greater cost-effectiveness and efficiency, to focus on customers of public services, and to reform social policy. New public management in Lithuania has not yet become the phenomenon of an advanced harmonization of RES legal framework. It poorly encourages public organizations to apply the management methods of the private sector. Lithuanian policy currently does not take account of the fact that RES would be developed on the basis of new public management and the principles of sustainable development and, therefore, public governance mechanism and its disability to adapt to new flexible requirements are open to criticism. Today, every legislator is facing position of opponents and public interests. The aim is to ensure the public interests of the society. Therefore, legislators cannot adopt vague and ambiguous laws and the accuracy of laws must prevent illegal interests. For this purpose, according to A. Vaišvila (2000), the legislator must:

- ◆ recognize the public interest, prevailing customs, traditions, economic, intellectual, psychological capabilities;
- ◆ use scientific and technical achievements for lawmaking;

- ◆ compare the drafted law with similar regulatory means applied in the past or with the currently valid laws of other countries.

This range of values is constructed by a group of people (policy analysts, legislators), they are applied by the other group (the executive bureaucrats) and received by the third group (individuals, businesses, organizations, lower-level officials). These rules often have the statutory power to impact people's lives in terms of strength; they can strengthen or weaken the impact of formal rules. Therefore, legislators have to assess the compliance of public interest to services, to eliminate conflicts between EU laws, include, integrate and reformulate this spectrum into a clear and obviously understood rule.

### Conclusions

1. Analysis of the Lithuanian Renewable Energy Resources (LERS) legal framework disclosed that Lithuania completes the restructuring of the entire energy sector in order to adapt it to the requirements of EU directives. Adopted major energy related legislation creates preconditions for a competitive environment and increase of energy efficiency systems. However, it is concluded that, before adoption of the Law on Energy from Renewable Sources (LERS) in 2011, RES development has been slow and limited to the declarations in strategies, with an exception in wind power sector. The key breakthrough occurred after the entry into force of the Law on Energy from Renewable Sources and currently developing. New promotional trends are notable that will finally be highlighted by 2018 when Lithuania will develop energy and climate change plans according to the latest RES Directive.

2. The main RES regulation principles, terms and methods are formulated in the Law on Energy from Renewable Sources (LERS). This law provides more clarity and consistency to the sector, but is left to old and yet to be solved problems are left behind. The successful application of the law is hampered, because not all laws are harmonized, resulting in rising barriers to sustainable development of RES.

3. The Lithuanian policy of today does not take into account that RES should be developed on the basis of new public management and the principles of sustainable development and, therefore, public management mechanism and its adaptation to new requirements are open to criticism. In the field of public interest, citizens are generally not allowed to defend the public interest, i.e., to implement their

constitutional rights. All this influenced the drafting process of the Law on Energy from Renewable Sources (LERS), and in the later implementation period – its amendments.

### Recommendations

1. The Government of Lithuania and responsible authorities are recommended to intensify efforts in the implementation of the Directive of the European Parliament and of the Council (2013), facilitating faster development of RES in Lithuania. In order to achieve consistent and sustainable RES development, it is necessary to improve the legal framework by simplifying the legal regulation. In order to eliminate legislative gaps and strengthen RES regulatory framework, it is recommended to implement the following provisions:

- ◆ develop and improve the legal framework, remove legal regulatory gaps and conflicts, create necessary conditions for the implementation of the laws in force;
- ◆ improve the legal drafting system;
- ◆ assess the effectiveness of the RES legislation, ensure its control, and build interaction of institutional governance;
- ◆ drafted and enacted legislation which regulates RES development issues should contain provisions that clearly define the functions of responsible authorities, their powers and responsibilities and ensure effective cooperation between these institutions;
- ◆ it is necessary to achieve that renewable energy producers' share of the benefits would encourage him to invest and ensure the rational use of return on investment.

2. The Law on Energy from Renewable Sources (LERS) was adopted in haste, it was later amended, and it is in needed to be improved to ensure protection of public interest, to avoid increases of electricity price and to balance RES development. It is necessary to adopt all the secondary legislation needed to implement the Law on Energy from Renewable Sources (LERS).

3. Public governance in Lithuania has not become an advanced phenomenon of harmonization of RES legal framework. Under such circumstances, the legislator has to assess the matching of public interest to services, to eliminate conflict between EU legislation, include, integrate and reformulate this spectrum in a clear, unequivocal rule of law, promptly and effectively adapt the laws to the rapidly changing trends in the energy sector, it is recommended to apply the new public governance principles in the regulation of RES sector.

## References

1. Anskaitienė, J. (2013). Energetikos problemos, iššūkiai ir sprendimai, *EURONEST PA committee 18/09/2013 seminar in the Seimas*.
2. Babachinaitė, G., Jurgelaitienė, G., Justickis, V., Pečkaitis, J.S., Petkus, A., Piesliakas, V., Uscila, R., Čepas A., Gavelis, V., Justickaja, S., Mačernytė-Panomariovienė, I., Malinauskaitė, J., Mališauskaitė-Simanaitienė S., Kalpokas, V., Ūselė, L., Valatkevičius, D. (2008). Nusikalstamumas Lietuvoje ir jo prognozė iki 2015 m. *Mykolas Romeris University*, 360 p.
3. Bloomberg. (2016). *Office for National Statistics*. Available at: <http://topics.bloomberg.com/office-for-national-statistics/>. Accessed on 21/09/2016.
4. BNS. (2016). D. Grybauskaitė: atsinaujinančios energetikos plėtrą paskatintų didesnės investicijos tyrimams. BNS, 18/01/2016. Available at: <http://www.delfi.lt/verslas/energetika/d-grybauskaite-atsinaujinancios-energetikos-pletra-paskatintu-didesnes-investicijos-tyrimams.d?id=70145638>. Accessed on 23/01/2016.
5. Brazienė, R., Merkys, G. (2015). Viešųjų paslaugų vartotojų pasitenkinimo indekso metodikos taikymas Lietuvoje, *Viešoji politika ir administravimas, KTU, MRU, Kaunas, Technologija*, 14 (1), pp. 103-114.
6. Buškevičiūtė, J., Raipa, A. (2011). Sprendimai šiuolaikinio viešojo valdymo evoliucijoje, *Viešoji politika ir administravimas, KTU, MRU, Kaunas, Technologija*, 10 (1), pp. 17-26.
7. Colon, M., Schneider, L.G. (2015). The reform of New Public Management and the creation of public values: compatible processes? An empirical analysis of public water utilities, *International Review of Administrative Sciences*, 81 (2), pp. 264-281. DOI: 10.1177/0020852314568837
8. Čingienė, V., Laskienė, S., Raipa, A. (2015). Gero viešojo valdymo principų įgyvendinimas: Lietuvos strateginių sporto šakų federacijų atvejis, *Viešoji politika ir administravimas, KTU, MRU, Kaunas, Technologija*, 14 (4), pp. 501-514.
9. Dolasia, M. (2015). Paris Climate Conference Results In Landmark Agreement To Curb Greenhouse Gas Emissions, *Dogonews*, December 15, 2015.
10. Domarkas, V. (2011). Viešojo administravimo paradigmos kaitos atspindžiai dešimtmečio pabaigos publikacijose, *Viešoji politika ir administravimas, KTU, MRU, Kaunas, Technologija*, 10 (1), pp. 9-16.
11. D'Orsi, M. (2014). Heated Skirmishes in the Solar Sector: Do Solar-PV Feed-in Tariffs Constitute Trade-Related Investment Measures and Subsidies Prohibited Under the WTO Regime? *Academic Journal: American University International Law Review*, 29 (3), pp. 673-716.
12. Eigirdas, E.V. (2015). Putinas Lietuvoje sėkmingai įgyvendina planą B, *Magazine "Valstybė", Verslas, Energetika*.
13. Europe 2020. (2014). Communication from the Commission – A strategy for smart, sustainable and inclusive growth. *Overview of results*. Brussels, 2014 03 05 com (2014) 130 final.
14. Communication from the Commission. (2013). An EU Strategy on adaptation to climate change. (COM (2013) 216 216 final).
15. Communication from the Commission – Energy Roadmap 2050. (2011). (COM (2011) 0885 final).
16. Communication from the Commission. (2014). A policy framework for climate and energy in the period from 2020 to 2030, 5644/14. (COM (2014) 0015).
17. Communication from the Commission COM. (2015). 572 final – State of the Energy Union 2015. SWD (2015) 208; SWD (2015) 209; SWD (2015) 217 243. Brussels, 18/11/2015.
18. Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000. Official Journal L 327/1, Vol. 15/5, 24/08/2013: 275-346.
19. Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC. Official Journal L 140, (2009): 16.
20. Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure. Official Journal L 307, 1, 28.10.2014.
21. Hajnal, G. (2015). Public administration education in Europe: Continuity or reorientation? *Teaching Public Administration*, 33 (2), pp. 95-114.
22. Hirth, L. (2013). The market value of variable renewables: The effect of solar wind power variability on their relative price, *Academic Journal Energy Economics*, 38, pp. 218-236.
23. Ioris, A.A.R. (2015). The prospects for the water management framework in the Douro, *Portugal, European Urban and Regional Studies*, 22 (3), pp. 316-328. DOI: 10.1177/0969776412474588.
24. United Nations Climate Change Conference COP21 in Paris. (2015). Historic opportunity to avoid dangerous climate change. European Commission – Press release, Brussels, 2015.
25. Constitutional Jurisprudence. Lithuanian Constitutional Court Bulletin No. 2 (6), 2007. p. 347 ISSN 1822–4520.
26. Law on Energy from Renewable Resources of the Republic of Lithuania, 12 April 2011, No. XI-1375. Official Gazette No. 62-2936., No. XI-1375, 10/07/2014, No. XII-847, 24/04/2014, published on 02/05/2014, TAR, i. k. 2014-05001.
27. Law on Nuclear Power Plant of the Republic of Lithuania. Official Gazette, 2007, No. 76-3004. As last amended on 28/06/2012, No. X–1231.
28. Law on Electrical Energy of the Republic of Lithuania. Official Gazette, 2000, No. 66-1984.

29. Law on Electrical Energy of the Republic of Lithuania. Official Gazette, 2002, No. 56-224.
30. National Energy Strategy enacted by Resolution No. VIII-1348 of the Lithuanian Parliament. (Official Gazette, 1999, No. 86-2568).
31. Resolution No. XI-2133 of the Seimas of the Republic of Lithuania of 26 June 2012 On the Approval of the National Energy Independence Strategy.
32. Law on Spatial Planning of the Republic of Lithuania. Official Gazette. 1995, No. 107-2391.
33. Law on Public Administration of the Republic of Lithuania. Official Gazette, 2006, No. 77-2975.
34. Resolution No. 789 of the Government of the Republic of Lithuania of 21 June 2010 On Approval of a National Strategy for the Development of Renewable Energy. (Official Gazette, 23/06/2010, No. 73-3725).
35. Maigre M. Energy security concerns of the Baltic states // International Centre for Defence Studies, Tallinn, March 2010.
36. Matulionytė-Jarašiūnė, E. (2011). Atsinaujinančių energijos išteklių darnus vystymas stiprinant energetinį saugumą. Doctoral thesis. Research area: Management and Administration, O3S.
37. National Energy Strategy of 5 July 2002, No. IXP-1773 (Official Gazette, 16/10/2002, No. 99-4379).
38. National Energy Strategy approved on 19 April 1994 by resolution No. 288 (Official Gazette, 1994, No. 30-545).
39. National Energy Strategy approved on 5 July 2002 by resolution No. IXP-1773 (Official Gazette, 2002, No. 99-4397).
40. National Energy Strategy approved on 18 January 2007 by resolution No. X-1046 (Official Gazette, 2007, No. 11-430).
41. Resolution No. XI-2133 of the Seimas of the Republic of Lithuania of 26 June 2012 On the Approval of the National Energy Independence Strategy.
42. National Climate Change Management Policy Strategy approved the Parliament of the Republic of Lithuania on 6 November, 2012 by Resolution No. XI-2375 (Official Gazette 2012; No. 133-6762).
43. National Transport Development Programme for the Period of 2014 – 2022 (TAR, 2014-12-23, 2014-20606).
44. National Climate Change Policy Implementation Action Plan for 2013-2020, approved by the Government of Lithuania on 23 April, 2013 by Resolution No. 366 (Official Gazette 2013; No. 45-2218).
45. Nagevičius, M. (2014). *Pastabos dėl Nacionalinės atsinaujinančių energijos išteklių plėtros programos Nr. 14-3509*. Vilnius: Lithuanian Confederation of Renewable Energy.
46. Ngouo, L.B. (2016). The World Bank's approach to public sector management for 2011–2020: proposals to push forward the debate, *International Review of Administrative Sciences*, pp. 1-22. DOI: 10.1177/0020852315591645
47. Ormond, D., Kim, P.S, Argyriades, D. (2015). Democratic Governance, Public Administration and Poverty Alleviation. Thematic Discourse and Geographical Cases, *International Review of Administrative Sciences*, 81 (4), 858 p.
48. PAP (autor). (2014). Połączenie energetyczne z Litwą to bezpieczeństwo i zbliżenie rynków. Available at: [http://energetyka.wnp.pl/polaczenie-energetyczne-z-litwa-to-bezpieczenstwo-i-zblizenie-rynkow,222713\\_1\\_0\\_0.html](http://energetyka.wnp.pl/polaczenie-energetyczne-z-litwa-to-bezpieczenstwo-i-zblizenie-rynkow,222713_1_0_0.html). Accessed on 2016.01.15.
49. Pivoras, S., Visockytė, E. (2011). Viešojo valdymo koncepcijos ir jų taikymas tiriant valstybės tarnybos reformas, *Viešoji politika ir administravimas, KTU, MRU, Kaunas, Technologija*, 10 (1), pp. 27-40.
50. Pollitt, Ch. (2016). Be prepared? An outside-in perspective on the future public sector in Europe, *Public Policy and Administration*, 31 (1), pp. 3-28. DOI: 10.1177/0952076715590696
51. Raipa, A. (2011). Viešojo valdymo evoliucija šiuolaikiniame etape, *Viešoji politika ir administravimas, KTU, MRU, Kaunas, Technologija*, 10 (1), pp. 153-155.
52. Renewable Energy Scenario to 2040. (2012). European Renewable Energy Council (EREC), Renewable Energy House, Brussel.
53. Sanden, B. (2014). *Systems Perspectives on Renewable Power*. Sweden, Goteborg: Department of Energy and Environment, Chalmers University of Technology, 182 p.
54. Smalskys, V., Stankevič, B., Stasiukynas, A. (2015). Good Governance (geras valdymas) viešojo administravimo modernizavimo koncepcijų kontekste, *Public administration*, 1/2 (45/46), pp. 40-48.
55. Stasiukynas, A. (2011). Atsinaujinančių energijos išteklių naudojimo skatinimo elektros energetikoje analizė, *Jaunųjų mokslininkų darbai*, 1 (30), pp. 55-62.
56. Stone, D. (2004). *Viešosios politikos paradoksai: sprendimų priėmimo menas politikoje*. Vilnius, Eugrimas: Atviros Lietuvos knyga, vertė Algirdas Degutis, 435 p.
57. Vaišvila, A. (2000). *Teisės teorija. Law University of Lithuania*. Vilnius: Justitia.
58. Viešasis valdymas. Responsible editor V. Smalskys. Vilnius, Mykolo Romerio universiteto leidybos centras, 2010. 388 p.
59. Vilpišauskas, R. (2010). Lietuvos energetika: link nepriklausomybės ES sudėtyje. DELFI. Available at: <http://myep.delfi.lt/opinion/lietuvos-energetika-link-nepriklausomybes-es-sudetyje.d?id=37118113#ixzz3CnVqe9U6>. Accessed on 2016.01.19.