The Energy Politics of the European Union and the Possibility to Implement it in Post-soviet States

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ABSTRACT

The purpose of the work is to study the evolution of the energy politics of the European Union (the EU), and the possibility to apply such experience in the post-Soviet states. The goals stated in the European energy strategy probably cannot be fully achieved by 2020. The problem is the insufficient infrastructure development and the incomplete safety of energy innovations for the environment. However, the problem can be solved in the short-term run due to the social and environmental responsibility of corporations and by promoting “clean technology entrepreneurship.” It is impossible to use the EU energy politics provisions in the post-Soviet states. This will require large investments, and the population is not ready to move to the principles of energy conservation and energy efficiency. Post-Soviet countries need to reform the state energy and socio-economic policies rather than the energy sector.

Keywords: Energy Politics, European Union, Russian Federation, Energy Intensity, Energy Efficiency, Energy Conservation

JEL Classifications: Q40, Q43, Q48

1. INTRODUCTION

The EU as a new socio-political and economic integration is generally thought to begin its formation after the Second World War, but in fact there were prerequisites for this unification at the end of the 19th century. Despite the fact that the EU has officially existed since 1993, the economic and political interests in the integration of European states became vivid in the 1950s. This was substantiated, firstly, by the political need in stability, and, secondly, by the economic need in energy resources and metallurgical products. In the post-war Europe such needs were constantly growing, but the political rivalry of some states prevented the normalization of the economic exchange.

After more than half a century, it is possible to say that the European Coal and Steel Community has achieved its goal because nowadays the EU is the most developed political and economic integration whose energy politics are continuously improving, which is largely associated with a change of the global energy paradigm that occurred at the junction of the previous and the present century. The fuel energy dominating until the beginning of the 21st century started losing its relevance in terms of meeting the energy and social needs of the economy.

The scientific and technological progress made it possible to obtain new technologies for energy production from renewable nonfuel sources, and, in addition, centralized energy markets began to break up into fragmented or small distribution systems. Under these conditions, the energy politics of the EU underwent a series of transformational stages – from consolidation and centralization in terms of meeting the energy needs of the economic and social sectors to self-organization and decentralization of energy supply,
which, of course, was facilitated by the transition to the paradigm of renewable energy based, among other things, on processing secondary waste into energy resources.

The main objectives of the EU energy politics are supply security, competitiveness, and sustainability. The supply security is interpreted as a reliable supply of energy resources, competitiveness – as the availability of these resources at a competitive price, and constancy – as the minimum possible negative impact of the energy sector (both production and consumption) on the environment. Achieving an appropriate balance between these three goals is crucial for the economic competitiveness of the EU, its political autonomy, and intensification of the fight against the climate change.

In this article the authors are going to consider changes in the EU energy structure in terms of the political regulation and reforms, as well as the possibility of applying the best practices in obtaining, distribution, and use of energy resources in other world regions, for example, in Russia and post-Soviet states.

2. MATERIALS AND METHODS

The article is based on the interdisciplinary approach and the integration of methods of socio-economic, statistical and institutional analysis. The platform for studies was the EU Energy Strategy known as the “20/20/20” (Europe 2020 strategy), i.e., suggesting to achieve the following goals by 2020 (European Commission, 2019):

1. To reduce greenhouse gas emissions by 20%,
2. To increase the energy efficiency in the economy and social sector by 20%, and
3. To obtain 20% of energy from renewable sources.

This strategy is focused on ensuring the energy security in the domestic European market, i.e., it determines the areas and guidelines for pursuing the EU energy politics. In its turn, in order to ground the efficiency of the EU energy politics, the comparative approach will be used. It is based on the econometric fuzzy logic algorithm. The object of comparison is the EU and Russian energy politics, and the subject of comparison is the efficiency of the politics under consideration based on fuzzy set variables:

1. The stability of energy supplies to end consumers,
2. Economic satisfaction of customers,
3. The competitiveness of the domestic energy market, and
4. Diversification of the domestic market by sources of energy resources.

These variables are selected as key ones for the “energy politics efficiency” fuzzy set based on the fact that:

- Firstly, the data for calculating variables can be obtained from public sources,
- Secondly, the interpretation of these variables is always invariant – the higher the value of the variable, the greater its contribution to ensuring the energy security of a state (a group of states).

Table 1 shows the methodology for calculating the above variables included in the above fuzzy set.

For this fuzzy set, several hierarchical subsets are singled out. A variable can be assigned to these sets in accordance with its membership function. Table 2 shows the hierarchy of subsets and membership functions of variables in the “energy politics efficiency” fuzzy set.

Based on distributing the variables in subsets, the value of the intermediate coefficient \( \sigma \) is calculated. It will make up the basis for defining the “energy politics efficiency” indicator (i.e., the value of the fuzzy set FS). For these two operations, formulas (1) and (2) are used [suggested by the authors]:

\[
\sigma = \frac{\sum_{i=1}^{n} SS}{n} \quad (1)
\]

\[
FS = \sum_{i=1}^{n} \sigma_i * g_i \quad (2)
\]

Where: \( n \) is the number of variables in a fuzzy set; \( g_i \) is the weight of the intermediate coefficient.

It is important not only to calculate the value of the fuzzy set that can vary in the range \([0; 1]\), but also to estimate the certainty that the fuzzy set relevantly determines the efficiency of the energy politics, and, therefore, the energy security. It is offered to use Table 3 for this.

Table 4 contains the initial data that show the values of the variables included in the “energy politics efficiency” fuzzy set.

The data in Table 4 were obtained from public sources (Eurostat, International Energy Agency, International Renewable Energy Agency, Statistical Yearbook of World Energy).

3. RESULTS

The global consumption of energy synthesized from primary fossil energy resources has grown more than 10 times over...
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Table 2: Subsets and membership functions of variables in the “energy politics efficiency” fuzzy set [compiled by the authors]

| Variable ($x_i$) | Subset ($SS_i$) | Membership function ($f_i$) |
|------------------|-----------------|----------------------------|
| $x_i = 0.05 \pm 0.05$ | Subset of low-level variables | $f(SS_i) = 1$ |
| $0.05 < x_i < 0.15$ | $f(SS_i) = (0.15 - x_i) * 10$ |
| $x_i = 0.15 \pm 0.05$ | $f(SS_i) = 1 - f(SS_i)$ |
| $0.2 < x_i < 0.3$ | $f(SS_i) = 1$ |
| $x_i = 0.3 \pm 0.05$ | Subset of pre-medium variables | $f(SS_i) = (0.3 - x_i) * 10$ |
| $0.35 < x_i < 0.45$ | $f(SS_i) = 1 - f(SS_i)$ |
| $x_i = 0.45 \pm 0.05$ | $f(SS_i) = 1 - f(SS_i)$ |
| $0.5 > x_i < 0.6$ | Subset of medium variables | $f(SS_i) = 1 - f(SS_i)$ |
| $x_i = 0.6 \pm 0.05$ | Subset of upper-medium variables | $f(SS_i) = (0.6 - x_i) * 10$ |
| $0.7 > x_i < 0.75$ | $f(SS_i) = 1 - f(SS_i)$ |
| $x_i = 0.75 \pm 0.05$ | Subset of high-level variables | $f(SS_i) = 1 - f(SS_i)$ |
| $0.8 > x_i < 0.9$ | $f(SS_i) = (0.9 - x_i) * 10$ |
| $x_i = 0.9 \pm 0.05$ | $f(SS_i) = 1 - f(SS_i)$ |
| $x_i = 1$ | $f(SS_i) = 1$ |

the recent 100 years (Figure 1). Nowadays, the main world reserves of fossil (fuel) energy resources are concentrated in Russia, the Middle East, the USA, and Canada. The European continent has small reserves of primary or fossil (traditional) energy resources.

All countries that have reserves of various types of primary energy resources will definitely strive not only to rationalize their use (to reduce the energy intensity and to improve the energy efficiency), but also to improve the efficiency and performance of their extraction from the depths of Earth and to decrease losses when mining. At the same time, countries that do not have enough fossil fuels and energy will strive to improve their energy efficiency and to diversify their national energy sectors. Thus, it is likely that in the long-term run the spatial and geographical picture of world energy will be transformed, including the change in the specifics of the civilizational development.

It is necessary to understand that the EU depends on supplies of fuel and energy resources, and since 1990s this dependence has been constantly increasing (Table 5). According to the Eurostat (2019), the main supplier of mineral oil and natural gas to European markets is Russia. This is about 35% of the oil import to the EU. As for the import of natural gas to Europe, Russia provides more than 39%, Norway – 29.5%, and Algeria – 12.8%. Almost half of the EU countries (19) import more than 50% of the natural gas from Russia, and some of them are still completely dependent on the Russian gas (European Commission, 2019; Eurostat, 2019).

Table 6 shows the actual and forecast investments of the EU in its energy sector.

Since 1990s the EU management politics, in particular the energy sector, have been constantly updated. This is when there was a transition to a new political paradigm called the open method of coordination (OMC).

Some scientists and researchers (Scott and Trubek, 2001) favorably estimate the new political paradigm and believe that this new management architecture provides both decentralization of EU states management and coordination of efforts made by state authorities to achieve pan-European development goals, and greater participation of the civil society in discussing and taking decisions that are commonly important for the EU.

However, there are critical scientific opinions about the OMC efficiency. Thus, for example, Idema and Kelemen (2006), Kelemen (2004) believe that the new political paradigm of the pan-European government is a failure of the plan in practice. Referring to the report of the European Parliament (Dated, 2006), the authors show that the introduction of informal institutions in a strictly formalized structure of state (executive, legislative and judicial) power in the EU member states creates the preconditions

Table 3: Calculation of the confidence function of the “energy politics efficiency” fuzzy set [compiled by the authors]

| Fuzzy set ($FS_i$) | Estimation of the energy politics and the energy security | Confidence function ($f_l$) |
|-------------------|--------------------------------------------------------|---------------------------|
| $FS_i \leq 0.1$   | Extremely inefficient energy politics, an extremely low level of the energy security | $f_l = 1$ |
| $0.1 > FS_i < 0.25$ | Inefficient energy politics, a low level of the energy security | $f_l = (0.25 - FS_i) * 10$ |
| $FS_i = 0.25 \pm 0.05$ | Efficient energy politics, an extremely low level of the energy security | $f_l = 1 - f_l$ |
| $FS_i > 0.3$ | and the energy security is pre-medium | $f_l = (0.5 - FS_i) * 10$ |
| $FS_i = 0.45 \pm 0.05$ | Medium efficiency of the energy politics and the medium level of the energy security | $f_l = 1 - f_l$ |
| $0.6 > FS_i < 0.75$ | Upper-medium efficiency of the energy politics and the energy security | $f_l = (0.75 - FS_i) * 10$ |
| $FS_i = 0.75 \pm 0.05$ | High-level efficiency of the energy policy and the energy security | $f_l = 1 - f_l$ |
| $FS_i \geq 0.8$ | $f_l = 1$ |

Table 4: Initial values of the variables in the “energy politics efficiency” fuzzy set (Yearbook Enerdata, 2019; International Energy Agency, 2019; International Renewable Energy Agency, 2019; Eurostat, 2019)

| Variable | 2000 | 2018 |
|----------|------|------|
| European union | Stability of energy supplies ($x_i$) | 0.724 | 0.709 |
| Economic satisfaction of consumers ($x_i$) | 0.731 | 0.801 |
| Competitiveness of the domestic energy market ($x_i$) | 0.409 | 0.496 |
| Diversification of the domestic market ($x_i$) | 0.236 | 0.322 |
| Russian federation | Stability of energy supplies ($x_i$) | 0.692 | 0.713 |
| Economic satisfaction of consumers ($x_i$) | 0.882 | 0.737 |
| Competitiveness of the domestic energy market ($x_i$) | 0.357 | 0.124 |
| Diversification of the domestic market ($x_i$) | 0.110 | 0.136 |
for abuse (both by the state and by public and corporate sectors). Abuses may concern any aspect of the European community’s life, and the energy sector is not an exception (Idema and Kelemen, 2006; Kelemen, 2004).

However, it is necessary to note that in terms of the energy politics, in 2005 the EU developed a common strategic platform (in 2007 the platform was finalized, and from 2009 to the present it has been regularly supplemented and updated) based on three key principles today: energy sustainability, security of supply, competitiveness and competitive power in the energy sector (European Commission, 2019; Eurostat, 2019). Therefore, in 2013, the EU energy politics included the following main components (Figure 2).

Among a rather long list of political initiatives already implemented in energetics (within the EU), the most important ones for Russia and the post-Soviet states (except for the Baltic countries that have already become the EU members) include the following:

1. Political decisions on the renewable energy (innovations, competition among manufacturers, consumer education, economic/financial/fiscal and information support for manufacturers and consumers),
2. Provisions to ensure the energy efficiency in the economic and social sector,
3. Taxation of the production, distribution and consumption of traditional energy, and
4. Provisions related to the environmental protection and climate change.

The EU was one of the first to actualize the problem of fuel (hydrocarbon) energy and the way to solve it by transiting to the renewable energy. The possibility of the widespread use of renewable energy resources was mentioned for the 1st time in 1986, and the adopted directives (2001, 2003, 2007 and all subsequent ones) aimed at achieving a 20% share of renewable energy resources in the final consumption of energy resources in the EU. It is necessary to note that this goal has already been achieved in Sweden, Finland, Denmark, and Estonia. At the end of 2018, the share of energy resources obtained from renewable resources ranged from 18% to 19% in the final consumption in all EU countries (Yearbook Enerdata, 2019). At the same time, Europe produces almost 37% of the world’s renewable energy, and the CIS countries produce twice less, while possessing an incomparably larger base of resources for obtaining energy resources from renewable sources.

### Table 5: EU dependence on import of organic energy carriers (European Commission, 2019; International Energy Agency, 2019; Eurostat, 2019)

| Year | Solid fuel | Oil and oil products | Natural gas | On average |
|------|------------|----------------------|-------------|------------|
| 1990 | 19.9       | 80                   | 45.5        | 44.2       |
| 2000 | 30.6       | 75.7                 | 48.8        | 46.7       |
| 2010 | 39.5       | 84.5                 | 62.2        | 52.6       |
| 2012 | 42.2       | 86.5                 | 65.8        | 53.3       |
| 2013 | 44.1       | 87.4                 | 65.2        | 53.1       |
| 2014 | 45.6       | 87.4                 | 67.2        | 53.4       |
| 2018 | 42         | 88.6                 | 66          | 53         |

### Table 6: Actual and forecast EU investments in energy (European Commission, 2019; Yearbook Enerdata, 2019; International Energy Agency, 2019; Eurostat, 2019)

| Indicator                                      | Annual average investments (2015-2018) | New energy politics (2019-2035) | Scenario that assumes the maximum decrease in CO₂ emissions (2019-2035) |
|------------------------------------------------|----------------------------------------|---------------------------------|-------------------------------------------------|
| Investments in energy supply, bln USD          | 152                                    | 3,214                           | 3,528                                           |
| Investments in energy supply                   | 152                                    | 3,214                           | 3,528                                           |
| Oil                                            | 20                                     | 394                             | 358                                             |
| Natural gas                                    | 30                                     | 351                             | 453                                             |
| Coal                                           | 3                                      | 19                              | 16                                              |
| Power industry                                 | 96                                     | 2,227                           | 2,566                                           |
| Biofuel                                        | 2                                      | 44                              | 136                                             |
| Investments in energy efficiency, bln USD      | ---                                    | 2,170                           | 2,998                                           |
| Totally in energy efficiency                   | ---                                    | 82                              | 154                                             |
| Manufacturing industry                         | ---                                    | 1,187                           | 1,560                                           |
| Transport                                      | ---                                    | 900                             | 1,285                                           |
| Construction                                   | ---                                    | 5,384                           | 6,526                                           |
| Investments in energy supply and energy efficiency, bln USD in total | --- | 5,384 | 6,526 |

**Table 5** shows the EU dependence on import of organic energy carriers, while **Table 6** provides information on the actual and forecast EU investments in energy.
Russia has got environmental protection institutes, and regulates
• Secondly, makes the corporate sector, mainly manufacturing
• Firstly, stimulates research, development and implementation
number of quotas is reduced, which
Every year the
Of the Government of the Russian Federation, 13.09.2016).
Moreover, since 2010 there has been federal law “On energy
conservation.” (Federal Law, 23.11.2009), but at the middle of
2019 the law on quotas for greenhouse emissions was still under
development. At the same time, Russia, along with Kazakhstan,
is still in the top ten countries in terms of energy intensity of the
economy (Yearbook Enerdata, 2019). A high level of energy
intensity under the low level of economic productivity in the CIS
countries (including the EEU countries) is an evidence of energy
wastefulness that is almost not regulated with political decisions.

On the contrary, since 2003 the EU energy politics have been
consistently reforming the energy sector in terms of improving
the energy efficiency, although it is obvious that the EU will not
be able to achieve its stated growth goal (increase in the energy
efficiency by 20% by 2020).

In 2019, the total increase in the energy efficiency in the EU
countries is about 13-15% (International Energy Agency, 2019;
Eurostat, 2019). However, on the other hand, the priorities set by
the EU informal energy council in 2012 (Non-paper of the services
of the European Commission on Energy Efficiency Directive, 2012)
aim at ensuring that the national energy efficiency action plans of
each European state include the following obligatory provisions:
1. The use of cogeneration technologies in the economy and the
social sector (cogeneration is the joint production of electric
and fuel energy), which reduces greenhouse gas emissions,
2. The principle of energy efficiency in state procurement
from buying environmentally friendly energy resources to
purchasing the energy efficient equipment (including the one
designed for the needs of the energy sector),
3. The principle of energy efficiency in the construction of
buildings and structures based on a special methodology for
estimating the energy characteristics of the facilities that have
already been commissioned and are still under construction,
which is confirmed by a special certificate with the validity of
10 years,
4. Introduction of voluntary environmental management and
environmental audit schemes in the corporate, business and
nonprofit sector,
5. The transition to eco-design in goods and products that have
direct or indirect but very considerable impact on the energy
consumption (office equipment, household appliances, etc.),
6. Optimization of taxation at all stages of the energy cycle
(from production and procurement of energy resources to their
use, including distribution and final disposal of the resulting
wastes) and the introduction of fiscal incentives (subsidies,
discounts on energy efficient equipment and taxes) aimed
at creating the rational motivation for energy conservation
among citizens and economic actors,
7. Implementation of awareness programs (including general
education and special) in the area of energy conservation,
energy efficiency, and energy ecology,
8. Mandatory monitoring and estimation of implementing
directives on energy efficiency and energy conservation.
However, at the same time there is no strict and unified
methodology of monitoring for all countries, but there are
general rules on how, for example, the National Energy
Efficiency Action Plans will be estimated by pan-European coordinating and advisory bodies, and

9. Implementation of various forms of international partnership in the area of energy efficiency, which implies cooperation in this matter not only within the EU, but also far beyond its borders.

Thus, on the one hand, the European energy politics are focused on reducing the share of fuel energy and increasing the share of renewable energy while meeting the relevant needs of the economic and social sectors. However, on the other hand, as Sencar et al. (2014) are absolutely right to note, the superior goals on improving the energy efficiency and environmental friendliness of energy consumption set by the EU can decrease the security, sustainability, and competition in the all-European energy market due to the underdeveloped infrastructure of the renewable energy sector and due to insufficient evidence of the actual environmental safety of some new renewable energy technologies. The authors of more modern studies also agree with this.

Based on the data from Table 4 and the fuzzy logic algorithm, the authors made the econometric estimation of the efficiency of the EU and Russian energy politics (Table 7).

The data obtained indicate that the estimation of the efficiency of the Russian and EU energy politics remains almost unchanged. However, at the same time, it is necessary to pay attention to the fact that the efficiency of the EU energy politics is stably higher than the medium, and the confidence in it is more than 90%. Therefore, the domestic pan-European energy security is also much higher than the medium one. On the contrary, the efficiency of the Russian

Table 7: Results of estimating the efficiency of the EU and Russian energy politics and energy security [calculated by the authors]

| Variable                      | EU, 2000                  | EU, 2018                  | Russian Federation, 2000 | Russian Federation, 2018 |
|-------------------------------|---------------------------|---------------------------|--------------------------|--------------------------|
| Stability of supplies         | 0.00                      | 0.00                      | 0.08                     | 0.08                     |
| Economic satisfaction of consumers | 0.00                      | 0.00                      | 0.82                     | 0.82                     |
| Competitiveness of the domestic energy market | 0.00                      | 0.00                      | 0.08                     | 0.08                     |
| Diversification of the domestic market | 0.00                      | 0.00                      | 0.82                     | 0.82                     |
| Medium coefficient            | 0.00                      | 0.150                     | 0.233                    | 0.233                    |

Analysis and estimation results

Fuzzy set variable = the efficiency of the energy politics is medium, and the level of the energy security is medium

Confidence in the fuzzy set membership to the estimate “the efficiency of the energy politics is medium, and the level of the energy security is medium” 0.656

Confidence in the fuzzy set membership estimated as “the efficiency of the energy politics is upper-medium, the energy security is upper-medium” 93.8%
energy politics is stably at the medium level, but the confidence in this is no more than 57%, i.e., the level of the Russian energy security is volatile and varies from the pre-medium to medium. Under such conditions, it is obvious that the domestic Russian energy vulnerability has remained very high for the recent 18-20 years.

4. DISCUSSION

Not only Russian, but also many European, American, and Asian scientists agree that in terms of energy the future world is an “electric and gas world,” i.e., the “energy future” will be ensured by electric energy and gas. However, over the past decade the gas has been creating the risks of lowering the energy security for the EU because up to 80% of the gas is imported, primarily from Russia (Abrhám et al., 2018). In addition, the above problems (underdeveloped infrastructure and insufficiently proven environmental safety of the renewable energy) potentiate the growth of risks and energy dependence of the EU on external supplies of energy resources. Obviously, it is necessary to solve these two problems, as well as the problem of the EU dependence on hydrocarbon fuels by developing the intellectual component of energy supply (including production, distribution and consumption) of economic actors and citizens of European states (Abrhám et al., 2018; Matsumoto et al., 2018; Khattak et al., 2018).

The smart energy supply platform is based primarily on the decentralization of large energy (national or regional) systems, which makes researchers update the issue on the sufficient development of the infrastructure of the renewable energy sector. However, here researchers do not take into account the fact that the pan-European energy market, and above all the renewable energy sector, is truly competitive, unlike, for example, the Russian one. This is one of the conditions for capitalist interests to be realized (satisfied) through socio-ecological corrections or socio-ecological decisions (McCarthy, 2015; Ekers and Prudham, 2018; Behrsin, 2019) aimed at correcting the situation in the environmental and energy sphere of the EU.

The neoliberal concept of political ecology, together with the environmental and economic capitalism as a provider of political decisions has emerged relatively recently. Apparently, it is a reasonable answer to scientific concerns about the underdevelopment of infrastructure and renewable energy technologies. In other words, the works of McCarthy (2015), Ekers and Prudham (2018) and Behrsin (2019) indicate that the renewable energy is a new industry to be used in the economic and entrepreneurial activity. The latter is sure to progress in terms of the infrastructure and technology related to the development and dissemination of the renewable energy, similar to the one observed in the European education, medicine and other socially important areas. However, the liberal approach to regulating the EU energy market recognizes problems (both infrastructural and technological) in the renewable energy sector, but it prefers to solve them not at the expense of the state support and massive government investment in energy (like in Russia), but by stimulating the innovation and implementation activity in the corporate, business, scientific, and social sectors.

In the fundamental work (Allen et al., 2019), several institutional hypotheses were put forward. They logically continue the theme of the neoliberal approach to the political regulation of national energy markets, its traditional (hydrocarbon) and renewable sectors. In particular, based on a large meta-analysis of sources, for example, the hypothesis is shown that states, when investing in nuclear and fuel energy, almost never change the regulatory approach to the renewable energy.

There is an opposite situation – diversification of energy politics means and instruments. The priority of competition in energy markets stimulates faster development of renewable energy, improves the research activity, and activates the conversion of the intellectual activity results into commercially successful renewable energy technologies. Moreover, some studies (Cumming et al., 2017; Cumming and Schwienbacher, 2018) (Dudin et al., 2018; Alola et al., 2019) show that the reputational interests of the energy competencies of the renewable sector make them increase their investments in improving indicators of the environmental safety of renewable energy technologies, which is also an incentive for spreading “clean technology entrepreneurship” in other industries, sectors, and areas of national economies of the EU countries.

5. CONCLUSION

Thus, the data and results obtained during the study, including those based on the econometric and statistical analysis of development trends in the European and post-Soviet energy sectors, make it possible to formulate the challenges that are characteristic of the energy sectors development in the EU and the states of the former Soviet Union, in particular Russia. Based on the deep content research, the main obstacles to achieving the goals of the European energy strategy have been identified, as well as the ways and areas for overcoming them have been determined.

Using the empirical and institutional analysis, the possibility of applying certain provisions of the EU energy politics in the post-Soviet space has been also considered in the work. The obtained conclusions show that institutionally, socially and economically, Russia and other CIS countries are not ready to implement progressive provisions of the EU energy politics. However, it is obvious that over the recent 5 years, the progress in the infrastructure development, improvement of the environmental safety of renewable energy technologies, and enhancement of the sustainability and competitiveness of energy markets in the EU have been very noticeable. Notwithstanding, the problem of energy dependence on the supply of gas and other fuel energy resources from Russia, the neighboring Eastern and African countries, the CIS countries (in particular, Kazakhstan and Azerbaijan) has not yet been completely resolved. Therefore, it is quite natural to expect that in the next decade the energy politics of the EU will be focused on this particular problem, which can bring external economic risks to, for example, Russia, with its resource-dependent economy.

In turn, the national energy politics in Russia are unlikely to become diversified, harmonized and facing the future in the coming years. There are several key reasons for this:

- Firstly, it is not entrepreneurial, but state totalitarianism that dominates in the Russian economy; this neutralizes the value...
of any venture projects, including those related to developing renewable energy, and improving the efficiency of traditional energy,

• Secondly, in Russia the economic and energy politics are not liberal, but conservative, which is aggravated by the foreign economic protectionist politics and internal paternalism in socio-economic and labor relations,

• Thirdly, in the context of the sanctions confrontation between Russia and the West, the mutual scientific and technological exchange is limited, and this affects the research work both in the field of improving traditional energy and in the development of renewable energy,

• Fourthly, Russia has not realized the importance and value of reputation (both economically and in other respects). Therefore, Russian energy companies do not seek to invest in their social and environmental responsibility, but they are actively investing in projects aimed at quick profit and/or its maximization.

Thus, on the one hand, the experience of the systematic evolution of the energy politics of the EU is very valuable. However, on the other hand, it probably cannot be applied to solve the problems of energy security, sustainability, and competitiveness of the national energy market in the Russian Federation. Within this article, the authors have made the institutional analysis of the trends, patterns, and consequences of the European political progress in the energy sector. In their further study of this topic, the authors are going to consider the impact of changes in the energy politics of the EU on the development of “clean technology entrepreneurship.”

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