

ENERGY SECURITY OF THE REPUBLIC OF SERBIA

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Abstract: *The critical points of the energy security of Serbia are energy dependence, low rate of energy efficiency, high-energy intensity and insufficiently exploited potential of renewable energy sources. On the territory of Serbia, there are not enough conventional energy sources. The quality of available fossil fuels is very limited. Serbia is forced to the high import dependence. Serbia spends three to four times more energy per unit of output than in Europe. Irrational electricity consumption per capita is the result of intensive use by the public due to depressed prices of electricity compared to other energy sources and due to the stagnation of economic activity. The low cost of energy may calm nation and lead to a false sense of security even when the energy intensity of its economy remains large. The social price of energy that the political elite use to lead social policy except that discourages capital investment in measures to reduce energy intensity, consequently diminish the responsibility for the rational and efficient use of energy. Energy security is therefore a derivative concept that cannot be separated from political interests. Great potential for saving energy and reducing the use of fossil fuels in Serbia is a fund that in the structure of final energy consumption is the most involved. Most of the existing buildings in Serbia has been built based on a system of fast construction at the time of the socialist reconstruction of the country when it no one care about the energy efficiency. Reducing energy dependence of Serbia is possible thru the exploitation of the potential of renewable energy sources, which according to estimates of experts has a value of half the annual energy needs of the country. The liberalization of the electricity market, increase energy efficiency and greater utilization of renewable energy sources are key measures to increase the energy security of the Republic of Serbia.*

Keywords: *energy security, energy efficiency, renewable energy, financial instruments*

1. INTRODUCTION

Increasing unsustainable demand for energy resources could be realized with the projection of progressive growth of the world population to 10 billion people in 2050. It is expected that the urban population will almost double over the next 40 years: it will increase to 6.4 billion in 2050.¹ According to projections, 75 percent of the population of Europe will live in cities by 2020.² The threat of urban overpopulation looms over the entire world and in this regard, there is a threat of unsustainable demand for energy. Urban buildings have a significant impact on energy consumption, which in turn produces huge and un-

¹ United Nations, *World Urbanization Prospects: The 2007 Revision* (New York: Department of Economic and Social Affairs, 2008),1

² Tai-Chee Wong and Belinda Yuen, *Eco-city Planning: Policies, Practice and Design* (New York: Springer, 2011), 240.

necessary amount of losses and waste. According to an analysis of the “Architecture 2030”, today’s buildings are the largest global consumers of energy as they consume about 40 percent of the energy and are responsible for 40 percent of emissions of harmful gases, which is more than any other sector, including transportation and industry³. Excessive and inefficient use of energy in urban areas can impoverish domestic natural resources and exponentially increase energy depending on foreign resources. Decline in the quality and quantity of resources and population growth are factors besides endangering energy security and pose a threat to the vital functioning and survival of future generations.

Implementation of energy efficiency measures in the building technique and renovation residential sector (houses, residential and commercial buildings) and greater utilization of renewable energy potential may act causally on the energy security of a country, economic growth and the prevention of losses of natural resources. The current Department of Energy, Development and Environmental Protection of the Republic of Serbia with its nominal expression reveal that the “energy security, economic development and the efficiency of the environmental baseline are interrelated objectives for which no national economy can say is energy safe.”⁴ Endangering of natural resources as negative external effects of production and the consequences of energy inefficiency is possible to limit only with the strengthening of “green” measures through state regulation, economic policy instruments (regulation of subsidies, changes in the structure of the tax system), incentives for innovation, “green” technology and the introduction of new rules on financial market. Energy security of the Republic of Serbia and the measures that have the potential to transform current unsustainable energy paradigm are the subject of this paper. We start from the basic assumption that in Serbia there is not enough conventional sources of energy, which constitutes a high energy dependence on imports, as well as the fact that potential of energy efficiency and renewable energy are poorly utilized in Serbia, which has overall implications for energy security of the Republic of Serbia.

2. CONCEPTUALIZATION OF ENERGY SECURITY

Arnold Wolfers defined security as “the absence of threats to the adopted values.”⁵ In accordance with this definition, security is a necessity of human existence that in addition to existence requires freedom from all kinds of threats and space to make choices about lifestyle. Economic well-being, individual security and stability of the political system may be viewed as the “adopted” values of each society. Energy insecurity could pose a threat or risk to these values as any threat to the stable flow of energy production damage the economic, political stability and personal welfare of citizens⁶. Energy security is therefore, to paraphrase Ken Booth, the instrumental value that allows people the opportunity to choose how to live⁷. Energy for this reason should be securitized and treated as security issue.

³ Jerry Yudelson, *The Green Building Revolution* (Washington: Island Press, 2008), 1.

⁴ Zorana Z. Mihajlović Milovanović, “Energetska bezbednost zemalja Jugoistočne Evrope u svetlu ruske energetske politike”, pristupljeno Juna 23, 2013

⁵ Arnold Wolfers, “National Security as an Ambiguous Symbol”, *Political Science Quarterly*, Vol. LXVIII, No.4 (1952):485

⁶ Florian Baumann, “Energy Security as multidimensional concept” (Policy Analysis No.1, Center for Applied Policy Research, March 2008), 4.

⁷ Ken Booth, *Critical Security Studies and World Politics* (Boulder London: Lynne Rienner Publishers, 2005), 23.

Different actors are also giving a different meaning to the concept of energy security. The traditional definition of energy security involves elements of availability, reliability and accessibility⁸. Energy security is defined as the ability of a nation and its economy to guarantee the supply of energy resources in a timely manner and at reasonable prices that will not adversely affect the economic performance of the economy.⁹ Economic understanding of energy security as well as security of energy supply analytically is not helpful.

Energy security is primarily situational condition and contextually dependent concept. No question and the safety aspect cannot be separated from political interests.¹⁰ Safety is a derivative concept that contributes to the production and reproduction of reality in the interests of politics and inherently associated with Laswell's *who gets what, when and how*.¹¹ Energy security should therefore be analyzed as a result of the political process in which inter-subjective structures and individual political preferences play an important role. Thus, for example, low energy prices may be calming nation into a false sense of security even when the energy intensity¹² of its economy remains significantly increased¹³. The social price of energy is a phenomenon that is often used by political elites to led social policy over the energy sector and in return gaining a broader base of political support. However, the social price of energy except that discourages capital investment in measures to reduce energy intensity, it creates awareness, understanding, ways of behavior, desires and expectations among consumers that energy is constantly available with secured supply, which consequently reduces the responsibility for rational and efficient use of energy. Energy security is thus embedded in the factors that constitute the social environment, including everything from politics, education, media, cultural values and access to resources. With respect to a given role of political interests and demographic factors in deepening energy security, establishing the objective standpoint whether energy state of government is uncertainty, insecurity or vulnerability, mainly depends on the combination of the following variables: dependence of the economy and society of individual energy resources, location of foreign sources energy supply, security of energy supply routes in the state's ability to quickly restore power supply¹⁴. Therefore, threats and risks to energy security are the depletion of natural resources, reliance on foreign sources of energy and volatile energy prices. Providing cost-effective, reliable and environmentally sustainable energy supply is one of the main priorities of contemporary international and national policies, and energy efficiency is a key component of a comprehensive energy strategy.

⁸ Jonathan Elkind, "Energy Security: Call for a Broader Agenda", in *Energy Security: Economics, Politics, Strategies, And Implications*, eds. Carlos Pascual and Jonathan Elkind (Washington: Brookings Institution Press, 2010), 121.

⁹ Christian Winzer, "Conceptualizing Energy Security" (EPRG Working Paper, Cambridge Working Paper in Economics, July 2011), 6.

¹⁰ R.B.J. Walker, "The Subject of Security", in *Critical Security Studies: Concepts and Cases*, eds. Keith Krause and Michael Williams (Minneapolis: University of Minnesota Press, 1997), 63.

¹¹ Detaljnjije u Ken Booth, *Theory of World Security* (Cambridge: Cambridge University Press, 2007).

¹² The ratio of energy consumption and unit of newly created value - the gross domestic product. Increased energy intensity indicates that energy is used in a inefficiently and irrationally way.

¹³ Jonathan Elkind, "Energy Security: Call for a Broader Agenda", 120.

¹⁴ Michael Wesley, *Power Plays: Energy and Australia's Security* (Barton: Australian Strategic Policy Institute, 2007), 21

Under the concept of energy efficiency, we mean a wide range of activities, which is the ultimate goal of reducing the energy consumption of all types with the same or better conditions.¹⁵ Improving energy efficiency is often the fastest way to meet energy needs. Energy efficiency reduces the need for energy from the system, which automatically reduce production costs and energy (prevents the shock of the price), and provide energy security for the individual, the nation and the global community. Rational use of fossil fuels and the implementation of effective measures to reduce energy losses open the door for new investments in the production of renewable energy and energy efficiency measures, which lays the foundation for building a sustainable economy without the necessary growth in energy consumption and energy dependence. Problems with the current energy systems are not limited to the use of non-renewable energy sources, a significant problem is that the entire energy system is inefficient. Large, centralized power supply system systematically leads to unnecessary and large distribution losses only if you consider these basic facts: more than two-thirds of the fuel energy used to produce electricity is lost before it reaches the household, over 90 percent of the energy of the pit coal is lost before utilization, while ordinary bulbs lose 90 percent of their energy as heat, using only 10 percent for the production of light.¹⁶ Therefore, the need for energy should be evaluated to a great extent and in manner in which the buildings and transport systems are efficient.

3. ENERGY SECURITY OF THE REPUBLIC OF SERBIA

National Security Strategy of the Republic of Serbia is the most important strategic document that represents a synthesis of chosen and binding positions on the issue of security of the state and the basis for the development of strategic documents in all areas of social life. Strategy only means inevitable trend exhaustion of non-renewable sources of energy resources as the real basis of endangering energy security and the challenge of stability and security of the Republic of Serbia¹⁷. Energy Development Strategy of the Republic of Serbia by 2015, as a basic instrument for the implementation of the energy politics of Serbia sets the following priorities: economic utilization of high-quality energy products, energy efficiency and use of renewable energy sources. In this paper, the critical points of the energy security of Serbia are presented as energy dependence, high energy intensity, low rate of energy efficiency and insufficiently exploited potential of renewable energy sources.

Serbia slowly enters the absolute energy dependence. The import dependence was about 33.6 percent in 2010, while import dependency projected for 2008 stood at 42 percent. The reserves of high-quality fuels, such as oil and gas are very small, amounting to less than 1 percent of the total energy reserves of Serbia.¹⁸ The largest reserves are of low-quality lignite, with about 92 percent of the total balance reserves. In the structure of the production of primary energy, coal accounts for 69 percent, while as an energy input in the system transformation is presented with 64 percent. Lignite with a total exploitation reserves of

¹⁵ Michael Hoexter, "Achieving More with Less: The State of Energy Conservation and Energy Efficiency", in *Sustainable Communities Design Handbook: Green Engineering, Architecture, and Technology*, ed. Clark Woodrow (Butterworth-Heinemann, 2010),45

¹⁶ Surte Bry Sarte, *Sustainable Infrastructure: The Guide to Green Engineering and Design* (New York: John Wiley & Sons, 2010),167.

¹⁷ "Strategija nacionalne bezbednosti Republike Srbije", Beograd, aprila 2009.godine,10.

¹⁸ „Simplified National Action Plan for Renewable Energy of the Republic of Serbia” (Belgrade: Ministry of Energy, Development and Environmental Protection, December 2012), 4

about 13,350 Mt represents the most important domestic energy resource, which will be sufficient for the period between fifty and seventy years.

The total amount of primary energy needed for consumption in 2013 was 16.739 million tons of oil equivalent (Mtoe). It is 5 percent more than the estimated total amount of primary energy consumption in the 2012, which amounts to 15,992 Mtoe. The required amount of primary energy will provide 67 percent of domestic production and 33 percent of net imports. Domestic production of primary energy includes exploitation/utilization of domestic resources of coal, crude oil, natural gas and renewable energy sources (hydropower and firewood) per annum. Planned production of primary energy in 2013 amounted to 11.259 Mtoe, an increase of 4 percent of the estimated produce it in the 2012, which amounts to 10.852 Mtoe.

Serbia is energetically most dependent on natural gas and imported oil. In the case of natural gas, there is a tendency of complete binding for Russian gas. The whole potential of Serbia is in an advanced stage of exploitation and can meet 20 percent of demand. The required quantities of natural gas in 2013 will provide the 17 percent of domestic production and 83 percent from import.¹⁹ Plans for the construction of alternative sources of supply will raise the level of security of gas supply in Serbia, primarily the construction of a gas pipeline called "Juzni tok" whose capacity is about 40 billion cubic meters over Serbia's territory, and gas storages.²⁰ Oil was provided with 43 percent of domestic production and with imported 57 percent of total needs. Import of crude oil in 2013 were planned in quantities of 1,660 million tons, which is 55 percent more than the estimated import in 2012, which amounts to 1.073 million tones.²¹ However, Serbia has no strategic reserves of petroleum and petroleum products, but only supplies from stockpiles, which are used in the emergencies. Strategic reserves in other countries are sufficient for about 90 days and those are imported petroleum products. Lack of strategic reserves reflects the weak state's ability to quickly restore power supply in terms of energy crisis. Energy security of Serbia is vulnerable to geopolitical events in the world, because an increase in the price of crude oil and petroleum products in the Mediterranean region affects the price of energy in Serbia, as the contract with the main supplier is on oil based formula. Serbia due to its geographical location has a developmental problem in the field of energy, because there is no access to the sea and consequently no cost unencumbered access to the world market of conventional energy, bearing in mind the fact that oil, gas and coal trade largely thru marine transportation.

From the above-mentioned data it can be observed, that the continued growth depends on import and a need for more intensive use of fossil fuels grows due to the growth of the needs for primary energy. Threats to energy security of Serbia determines the energy intensity, or the energy consumption per unit of added value, which is up to four times higher in Serbia than in the EU because it produces little new products and spends a lot of energy for them. Irrational electricity consumption per capita is the result of intensive use by the public due to depressed prices of electricity compared to other energy sources and the apparent disagreement in prices of different types of fuel and energy, as well as due to the stagnation of economic activity. The main effort of the energy policy of Serbia must

¹⁹ „Energy balance of the Republic of Serbia for the 2013”, 5

²⁰ November 21, 2011 „Banatski Dvor”, underground gas storage was officially started to work.

Underground storage is one of the largest facilities for the storage of gas in southeastern Europe. The active storage capacity is 450 million cubic meters of gas, while the maximum daily capacity is 5 million cubic meters.

²¹ „Energy balance of the Republic of Serbia for the 2013”, 3

be reducing dependence on imports and the rational use of fossil fuels through systemic measures of liberalization of the electricity market, increasing energy efficiency and the intensification of the usage of the potential renewable energy sources. Increasing energy efficiency and application of renewable energy sources are key measures to increase energy security.

State of the energy efficiency in Serbia is such that places it among the largest consumers and polluters in the Balkans. Energy efficiency in Serbia is even 2.5 times lower than in the EU countries. Inadequate level of energy efficiency in Serbia testifies the fact that losses in transmission and distribution of electricity amounted to 19 percent and are among the highest in Europe.²² Endemic problem of energy efficiency of Serbia, and thus the energy security of Serbia, is the fact that most of the existing buildings were constructed by the system of rapid construction in the period of socialist reconstruction of the country when no one cared about energy efficiency. This has contributed to the average energy consumption in buildings in Serbia is over 150kWh/m² per year, while in the developed European countries is below 50 kWh/m². In the residential sector (households, buildings and public utilities) is the largest energy consumption. The structure of final energy transport accounts for 24 percent, with 30 percent of the industry, and other sectors together (households, agriculture and public and commercial activities) account for 46 percent²³. Total electricity consumption by sector accounted for 56 percent of the households and 65 percent of it is used for space heating in residential area.²⁴ Since the residential buildings were built during the seventies and eighties with inadequate insulation or with no insulation whatsoever, they now represent the biggest problem in terms of energy consumption in Serbia, and at the same time and a great potential for energy savings.²⁵ Serbia per season spends about half a billion Euros for heating, and if the energy efficiency savings is 10%, it would be possible to save some 50 million Euros per season, which would be possible to invest in other development projects. In addition, if you every household in Serbia would be willing to replace one 100W bulb with 20 watts, it would be possible to save more than 17 million Euros per year. Currently available measures and technologies according to BASF statistics can reduce total energy use in buildings up to 80 percent²⁶. The buildings can improve energy efficiency and achieve approximate net - zero fossil fuel consumption through more efficient insulation, utilization of natural energy (solar panels) and better control of climatic conditions in the building using double glazing, natural air conditioning, passive illumination and other energy efficiency measures. The potential of energy efficiency could be crucial especially if you consider the fact that more than 90 percent of the production of thermal energy in district heating systems in Serbia is based on the direct use of fossil fuels, while in the EU fossil fuels are used only in 15 percent in cases of thermal energy production.

²² Dragan Ugrinov, Snežana Komatina-Petrović i Aleksander Stojanov, "Mogućnosti eksploatacije deponijskog i biogasa kao obnovljivog izvora energije u Srbiji", *Zaštita materijala*, Vol.53, No.4 (2012):380.

²³ „Energy balance of the Republic of Serbia for the 2013”,12

²⁴ „First Action Plan for Energy Efficiency of the Republic of Serbia for the period 2010 - 2012” (Belgrade, June 2010), 13

²⁵ Zoran Živković, *Predlog mera za finansiranje energetske efikasnosti u zgradarstvu u Srbiji* (Beograd: Građevinska knjiga, 2011),37

²⁶ Jerry Yudelson, *Green Building A to Z: Understanding the Language of Green Building* (Gabriola Island: New Society Publishers, 2007),191

At the current level and the manner of exploitation of resources as well as due to limited resources and ways of irrational consumption, in order to rationalize the use of energy resources, the most important role has the renewable energy. In order to realize the energy balance and increase security of energy supply and energy, it is necessary to intensify the activities in order to increase the use of renewable energy sources in Serbia. By ratifying the treaty on establishing the energy community in 2006, Serbia has committed to the implementation of European directives in the field of renewable energy. Directive 2009/28/EC set binding targets to ensure that by 2020 the renewable energy accounts for 20 percent of total energy consumption in the European Union. Based on this, Serbia has made a commitment that by 2020 increases the share of renewable energy in total energy consumption to 27 percent. The structure of the planned domestic production of primary energy for the 2013, renewable energy sources account for 1,835 Mtoe which is 16 percent of the domestic production of primary energy. Renewable energy sources, with estimated technically exploitable potential of about 6 Mtoe per year, which corresponds, according to the estimates of experts almost half of the annual energy²⁷ needs of the country, can contribute to smaller usage of fossil fuels and improve energy security and efficiency of the environment.

The most important renewable energy source in Serbia is biomass whose energy potential is estimated at about 2.7 million tons and which according to some estimates could meet 30 percent of the energy needs of Serbia (1.7 million ten residues in agricultural production and about one million tons in wood biomass). It is estimated that the total potential of biomass from agriculture in Serbia is about 12.5 million tons per year, which in terms of energy is approximately 1.7 million tons of the total quantity of biomass residues from agricultural production intended for thermal purposes (just over 3 million tons), which could provide to save the equivalent amount of light heating oil²⁸. The estimated amount of biomass in Serbia, which can be used as fuel, is about 1.65 million m³ per year, while the energy potential of forest biomass with more than 12 million tons of wood waste production per year is estimated that supports Serbia in the future potential to develop its bio-energy sector for the production of electricity and heat. In addition to these two sources of biomass, of the most significant sources we should mention the waste of livestock production. For the most part, the waste of the livestock production is animal manure that can be used as raw material for the production of biogas. Based on the statistics, Serbia could produce that much biogas to compensate for about 20% of its natural gas imports, only from livestock.²⁹

Prospects for energy independence in the future offer hydropower too. The total hydropower potential in Serbia is estimated at 17,000GWh of which has been used around 10,000GWh. The remaining hydropower potential is estimated to be about 7,000GWh and in the basin of the Morava, Drina and Lim. These areas are suitable for the construction of facilities with power greater than 10MW and an annual production of around 5,200GWh. The potential of small rivers, where they can build small hydropower plants, is approximately 0.4 million complexions, or 3% of the total potential of renewable energy

²⁷ „Simplified National Action Plan for Renewable Energy of the Republic of Serbia” (Belgrade: Ministry of Energy, Development and Environmental Protection, December 2012), 4

²⁸ Branimir Jovanović, Miroslav Parović, “ Stanje i razvoj biomase u Srbiji” (Beograd: Jefferson institute, Novembar 2009),6. <http://www.jeffersoninst.org>

²⁹ Branimir Jovanović, Miroslav Parović, “ Stanje i razvoj biomase u Srbiji”,9

sources in Serbia. Small hydropower plants are power plants with up to 10MW and fall into the category of privileged power producer. If the total energy potential of small hydro power plants could be used, it could be possible to produce 4.7 percent of the total electricity production of Serbia (34,400GWh in the 2006) and about 15 percent of the annual production of electricity from hydro power plants, which amounts to about 10,000GWh.³⁰ Wind energy, solar and geothermal energy account for less than 1% of domestic primary energy production. The total potential of wind energy in Serbia is around 1300MW of installed capacity, which is approximately 15% of the total energy potential in Serbia. These capacities can potentially produce about 2.3TWh of electricity per year³¹. There is also a considerable potential in solar energy, which makes 20-30 percent higher intensity than the European average by insolation. Mean annual global solar radiation on a horizontal plane is as high as about 1,300kWh/m².

Low utilization rate of renewable energy potential exists because of unrealistic price parity of energy and energy services since energy is an instrument of social policy in the Republic of Serbia. The low price of electricity is particularly unrealistic, which is about 5.5 euro cents per kilowatt - hour, which is three to four times lower than in the EU. In such circumstances, there is no economic interest in investing in projects to increase energy efficiency and renewable energy. The biggest loss due to the effect of price policy is tactless and non-rationalized energy consumption, which compels states to import resources at high prices, while energy from domestic production (coal) sale and exhausts at very low prices. A key step to begin market development of renewable energy would be to determine feed-in tariffs, or guaranteed purchase prices and incentives for electricity produced from renewable energy sources for 12 years from the start of production. The introduction of these measures in 2009 represented the incentive for investors who subsequently showed more interest for investing in this area. Government of Serbia on January 24, 2013 adopted new regulation on supportive prices for the purchase of electricity from renewable energy sources. In addition to feed-in tariffs in Serbia, other financial instruments for energy savings are present, such as funds, subsidies, grants and loans, and financial mechanisms for energy conservation and raising energy efficiency is still not present in the financial market. Important market services in Serbia for raising energy efficiency and saving energy should be the ESCO mode (Energy Service Company). ESCO act as a third party between customer and financial institution. The mechanism involves the development and financing of projects aimed at improving energy efficiency. Partnership with financial institutions allows ESCO mechanism to invest in improving efficiency and reducing cost of energy using the projected cash flows from future energy savings per investment³². During the period of investment repaying, the customer pays the same amount for the cost of energy as before the implementation of the project, so there is no investment risk. The European Bank for Reconstruction and Development has noted that the ESCO represents a *win-win* situation in terms of energy, economy, and environment.

³⁰ Maja Poznatov, "Obnovljivi izvori energije-energetska budućnost", Juna 22, 2013, <http://www.euractiv.rs/odrzivi-razvoj/2272-obnovljivi-izvori-energije-energetska-budunost.html>

³¹ <http://www.serbia-energy.com>

³² Sudhakara Reddy et al., *Energy Efficiency and Climate Change: Conserving Power for a Sustainable Future* (New Delhi: Sage Publications, 2009),251.

4. CONCLUSION

On the territory of Serbia, there are not enough conventional energy sources. Not only the total volume of conventional sources is small, but also the quality of the available fossil fuels is very limited. Serbia is forced to import fossil fuels, which constitute the need for high import dependence. The largest part of the available energy is spent by population for now, and any potential industrial development of Serbia would imply, however, a dramatic increase in import dependency in the field of energy, which would completely restricted the potential of industrial development of Serbia based on energy-intensive industries. In the future, for the Republic of Serbia of the utmost importance will be to reduce the energy dependence of the country and provide safe, quality, cost-effective, environmentally efficient and reliable energy supply and energy. Great potential for energy savings is that the housing area that in the structure of final energy consumption involved in the biggest percent. Serbia consumes three times more energy in residential, commercial and industrial buildings than in the EU. Energy efficiency measures would improve energy security of Serbia with the automatic reduction of the expenditure of fossil fuels. The buildings are unused natural resource and investment in energy efficiency and renewable energy would coincidence with the period when these changes could encourage new jobs and economic growth at present macroeconomic recession. Reducing the energy dependence of Serbia is realistic thru the exploitation of the potential of renewable energy sources, which according to estimates of experts has a value of half the annual energy needs of the country. The most important measure of rational and efficient energy consumption is its price, which is at the moment, at least when it comes to electricity, a disincentive in terms of motivation, above all, consumers, and manufacturers for implementation of energy efficiency measures and investments in renewable energy. Low price of energy is only an instrument of social policy in Serbia. Political conditions which nation is exposed to consequently forming the perspective of energy security of the Republic of Serbia.

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