

RURAL DEPOPULATION, ALTERNATIVE GREEN ENERGY SOURCES AND THE MEDIA

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Abstract. The paper focuses on the following three aspects of the problem. 1) The demographic and social crisis in the rural areas of Bulgaria. There are 186 villages in Bulgaria in which there are no longer any inhabitants, which is a very serious economic and social problem. The depopulation of the countryside has led to massive financial losses in the absorption of the EU funds. That is why the state should intervene and devise policies for the development of villages. 2) There are possibilities for combating this problem in the application of alternative environmental energy sources – solar panels for electricity and for heating water using wind and thermo generators, biomass heating, etc. Bulgaria is one of the fastest growing markets for wind energy worldwide. There are already several wind farms in Dobrudzha and sea- experience that would be of particular interest to Latvia, where the wind is a “convertible” commodity all the year round. There are unique inventions patented by Bulgarian scientists, for example, the thermo-photovoltaic CHP of the researcher Georgi Tonchev. The European Wind Energy Association states that by 2020 Bulgaria will be ready to expand its energy production from wind up to 3,000 megawatts, covering more than 13 % of the total electricity consumption in the country. The European Union will provide grants to 58 municipalities for energy efficient projects. 3) The paper focuses also on energy policies and interests, the protests against shale gas production in 12 Bulgarian towns, on the passiveness of the institutions and the media, underestimating the chances of reviving the Bulgarian village and the opportunities to attract foreign investment and to reduce household bills. The methodology used in the paper is based on the case studies approach, content analysis of the Bulgarian media materials and the study of demographic statistics. Conclusions: It needs a more active and effective public and media policy that would lead to the development of the country, particularly of its declining rural areas.

Keywords: rural depopulation, solar, wind and thermo generators, media passivity.

Introduction

The Bulgarian village is disappearing, according to the latest data published by the Bulgarian Academy of Sciences. In my country there are about 200 villages without a single inhabitant in them. There are another 500 villages in which there live about 20-to-30 inhabitants. According to the study, every year about 19-to-15 villages are depopulated, that is, remain without inhabitants. The process of migration from the villages into the towns started about the middle of the previous century, but has gained particular impetus during the last 10 years. In real terms, the village population has diminished by 60 percent as compared to the situation in the middle of the twentieth century. In the North-Western part of the country the village population is diminishing at a rate that is the fastest in comparison to similar processes in almost all the rest of Europe.

The problem of the de-population of whole territories in Bulgaria is extremely serious. The researchers at the Institute for Demographic and Human Resources Studies at the Bulgarian Academy of Sciences are of the opinion that, if there are no changes in the rates of migration from the villages into the towns, particularly in the present high mortality rate in the villages and low number of births there, plus the actual annihilation of the small settlements typical of the last decade, in fifty years there will be no village population in Bulgaria at all.

The depopulation of the rural areas is a serious social and economic problem. Therefore, the state should intervene by working out policies that would ensure their development. The thesis that I will try to defend here is that there are possibilities for the resuscitation of the depopulated villages by developing alternative energy resources such as solar panels for the generation of electric energy and the heating of water, wind and thermo generators, heating from biomass, etc., that is, technologies that can be used not only in everyday life, but also in the setting up of glass houses for the production of vegetables and the rearing of animals, in other words, for the development of various branches of farming and stock-breeding. Bulgaria has some experience in this respect, since it is one of the fastest growing markets of wind energy on the world scale. There are already several wind farms in the district of Dobrudzha and along the sea coast, which might be of some interest for a number of countries, Latvia included in the view, where there is plenty of wind, that is, it is an easily convertible type of commodity.

Apart from that, there are unique inventions, patented by Bulgarian scholars, such as, for example, the thermo-photo-voltaic co-generator of the researcher Georgi Tonchev. He has a PhD in the field of the technical sciences and has created so far quite a number of projects and equipment for wind, photovoltaic electric power stations and hydro-kinetic hydro-electric power stations in our country, as well as abroad. In 2009 another scholar – Associate professor Gencho Stainov, patented an installation for obtaining electric power from sea waves.

There is, however, almost nothing in the media about the chances that renewable energy sources may provide for the development of rural areas, about the fact that the development of this type of energy sources may contribute to the resuscitation of the depopulated areas.

Materials and methods

The analysis of the empirical material, consisting of 1240 publications in 13 Bulgarian dailies and three news bulletins, covering the five year period 2007 – 2012 brings to the fore the problem of the contradictory institutional and media discussion about the alternative energy resources. A topic which appears only now, and then in the public space. It is probably avoided because of the fact that it involves a number of not only economic, but of political interests as well: it is a public secret that energy production is an important sphere of interests and dependencies involving other states as well. Bulgaria, unfortunately, does not do everything to defend its positions and interests – consistently and on the basis of solid principles. It is a public fact that the Bulgarian power generation industry is in the hands of companies and personalities who work entirely in favour of Russian interests. There are states which do not want Bulgaria to export electric power to our Balkan neighbours, which is the practice now. Bulgaria seems to be unable to protect not only its power generation and overall economic interests: it does not seem to be in the position to defend its social interests as well, such as the revival of the Bulgarian village, the revival of the depopulated areas by introducing renewable energy resources. This is a problem of national significance, more important than our concern whether we might, eventually, violate some foreign interests. There are no adequate institutional and media policies in this respect, in spite of the fact that in 2007, that is five years ago, the Bulgarian National Assembly passed a special bill concerning renewable and alternative energy sources and bio-fuels. Throughout this period there have been printed only 105 materials discussing the topic of alternative energy sources, and the discussion in them is mostly on the economic aspect of the problem, and nothing about its social significance.

The empirical study is based on 1020 materials. The following three thematic issues have been studied: 1. How do they write about the alternative energy sources? 2. What do they write about power generation in general? 3. What do they write about the protests against the production of shale gas in January in twelve towns in Bulgaria, a protest which was supported by the Bulgarian immigrants living in Copenhagen and London? The Bulgarian National Assembly imposed a moratorium on the shale gas production project by imposing a prohibition on the use of the hydraulic shock method in prospecting for it on the whole territory of the country, as well as in Bulgaria aquatic region of the Black Sea.

The content analysis, executed on the basis of 6 quantitative and 6 qualitative indices comes to prove a total institutional and media passivity and underestimation of the chances the use of alternative energy sources may have on the revival of the Bulgarian village and the chances for attracting foreign investors. The problem lies in the uncertain way of discussing the question on the part of the institutions and the media inertia. At the beginning of this year our Prime Minister made a public statement to the effect that they are stopping the projects on expensive alternative energy sources. In his view, it is not correct to have the poorest citizens in Europe (that is, the Bulgarians) to be squeezed financially even further, because they cannot afford more expensive energy sources.

This is a statement that can be justified in a way, but such an approach does not mean that there should not be a public debate on the issue in order to attain better solutions about the type of policy that will bring better results for Bulgarian citizens. The media did not even make an attempt to provoke such a debate. In the meantime the Bulgarian Wind-energy Association came with a special announcement, according to which the Renewable Sources Energy Act will be changed without any dialogue with the business circles, without any public discussion. The media, however, turned a deaf ear to this protest.

The energy scandals are not anything new for our country. But the problem here is associated with the institutional extremist measures, on the one hand, and the media apathy, on the other, because the alternative energy resources are a specific type of engineering method for the development of the rural regions.

Geothermal energy provides a realistic opportunity for the development of Bulgarian economy because there are more than 700 suitable thermal water springs, as well as whole areas that have a promising potential for designing and financing geothermal installations. For the time being a great part of the geo-thermal waters are not made use of at all.

In Bulgaria there are also several geographic zones which are suitable for building medium size wind turbines. The first energy-producing wind turbine linked to the public electric-energy distributing network is in operation in the town of Acheloy. It is part of the project for providing energy for a stock-breeding farm, which was created with the support of the government of the Kingdom of the Netherlands. In Bulgaria at the moment there are some projects (still in the process of development) about the building of wind electric power stations with a total capacity of 1 000 mega watts.

There are more than 100 sun panels, mainly along roads, and about 40 wind farms. Specialists in this field suggest that the price of the wind farm energy is stable, while that of the sun panels decreases by 10-to-20 per cent annually. Comparatively small is the use of bio-mass (obtained from waste from stock breeding farms and cereal plants) as an alternative source of energy since from them one can obtain methane. Forest material is not sufficiently well used either, since – particularly during the period of felling trees, almost one third of the wood mass is not used, while, as the electric energy engineers say, it is a valuable source of energy. But nobody – neither the institutions nor the media – try to support their thesis. Public analysis and discussion of the chances for investments are also avoided.

Everything boils down to making the correct analysis and calculations. Up to 2010 Bulgaria had produced nearly one million megawatt hours of electric energy from renewable resources. The European association of wind-farm based production of electric energy suggests that by 2020 Bulgaria may expand its production of energy from wind farms up to over 3000 megawatts and thus cover from 13 to 16 per cent of the total use of electric energy in the country.

In order to help Bulgaria in its efforts to increase its production of electric power from renewable resources, the Japanese Toshiba has offered Bulgaria a large-scale project for “intelligent electric power networks” and electricity driven automobiles. Toshiba will build a 10 megawatts photovoltaic park near the town of Yambol, which will ensure electric power for more than 2000 households.

In November 2011 Bulgaria started the platform Cleantech Bulgaria. This on-line platform will provide for companies sustained development and clean technologies. Cleantech Bulgaria has as its goal the idea to connect all the parties involved in a number of areas: politics, industry, science, the non-industrial sector and contractor’s agencies for innovations and the development of projects in the sphere of the Bulgarian Cleantech community.

It is necessary to create a number of opportunities for stimulating foreign investments in modernizing the electric power network in our country, so that Bulgaria will be in the position to cope with more power capacities coming from renewable energy resources. The Bulgarian wind-energy association is of the opinion that, in order to reach this goal, Bulgaria needs investments of about 3 to 4 billion euros.

A number of energy-saving measures have been undertaken for increasing the energy productiveness. These measures include a credit line for energy efficiency and renewable energy sources for Bulgaria and a program for crediting of the energy efficiency of residential buildings; the two programs offer loans on good conditions.

In December 2011 “Lukoil” - the energy giant completed the construction of a solar power station of 1,25 megawatts near the town of Bourgas and started testing its capacities. The installation occupies an area of 2,5 hectares. In the course of 12 years the energy will be sold at a preferential tariff which at the moment is four times higher than the market price of electric energy for industrial purposes.

At the end of last year the German E.ON company declared that in the next five years it will make investments in the development of electric power stations using renewable resources, the company plan up to 2015 envisages to invest about 7 billion euros in the construction of large wind farms.

At the time of his visit to Germany, however, the Bulgarian Prime Minister Boiko Borrissov warned the German investors that they should not expect new contracts for buying green energy. Our country has fulfilled the requirements for the production of electric power from renewable sources up to 2020. The Prime Minister underlined that the building of new power generating capacities will increase the price of electricity in our country and declared that he is not going to accept it.

Conclusions

A good management of the power-generation industry is a necessary condition for the prosperity of every country, irrespective of the stage of its development or the scope and variety of its economy. The energy sector is of a major importance for the future development of a country. Every fourth contract is signed in the field of power generation, which makes it one of the most important branches spending the money of the tax-payers.

The power generation branch in Bulgaria is now facing a number of challenges related to good management and energy security, topics which in recent years have been given front-page coverage in our media giving information, analysis and commentaries about frauds and political corruption. The appeals to introduce reforms in this branch of our economy and to create conditions conducive to competition in this market are becoming stronger and stronger.

What is necessary for the purpose, however, is to create conditions for a lively public debate on this issue. In this respect there are a few challenges facing the Bulgarian media, namely, that the latter should create an atmosphere in society and help the formation of the opinion that the use of alternative energy resources has another social aspect as well, and it is that they can provide the means to revive the depopulated areas in our country. Which is better for a less prosperous society: to cut down its household bills, or to allow that large areas of its country remain uncultivated, which involves the import of vegetables, fruit and meat products?

Another serious problem that seems to remain unnoticed by the media is the corruption in the public transactions in the energy sector. The national power generation companies spend considerable sums for the equipment of capital projects, purchase of electric energy, fuel for the generating installations and contracts with other agencies.

It is necessary to coordinate the efforts of all strata of society, voluntary initiatives included, and to study the good examples in the management of the economy for attaining sustained development. What is also needed is to change the institutional and media discussion of the problem of using more alternative energy resources as one of the means to revive the depopulated regions in the country, a policy which is more important – from a social and economic point of view – than the price of the production of energy from alternative sources.