

# The State in the Energy Sector of the Republic of Macedonia

The production of the electrical energy in the Republic of Macedonia is mainly based on coal (lignite) with a relatively low quality. Around 80% of the electrical energy locally generated comes from the coal-fired thermal power plants: Mining and Energy Combine (REK) Bitola and Mining and Energy Combine (REK) Oslomej, whereas the remaining 20% are mainly generated through hydropower potentials. Insignificant part of the electric energy is generated through the so-called new renewable energy resources such as solar, wind, geothermal and biomass waste energy. With regards to the fact that the European Union (EU) plans 80-95% of the economy in 2050 to be fossil-fuel-free, the 20% usage of generated energy from renewable energy resources is insufficient for the Macedonian energy sector to comply with the European energy practices.

## Energy Development Strategy in the Republic of Macedonia

The National Energy Development Strategy (hereinafter the text referred to as: Strategy), currently being revised, does not envisage measures for essential change in the energy sector by which Macedonia would comply with the EU directions for the so-called decarbonisation. Contrary to this, it has been envisaged the energy sector to remain coal-based at least until 2035 (the Strategy covers the period between 2015-2035), despite the fact it means coal to be imported once the domestic resources (relatively small) are exploited. In no case, the coal import contributes to energy independence and it disapproves the thesis that the Macedonian long-term energy safety is based on domestic lignite. Moreover, new coal-fired thermal power plant is envisaged to be built, even though there won't be sufficient domestic coal for the period of its working life (25-60 years) which shall significantly contribute to extended fossil-fuel dependence in conditions when such tendency in the developed countries is being avoided.

In the strategy the energy efficiency is planned to reach unambitious 9% increase until 2018, in compliance with the EU requirements. However, it has not been regarded that with such energy efficiency increased rate the aligning to 20% rate until 2020 - an EU long-term goal is impossible to reach. It is inevitable that the low energy efficiency situation will be one of the problems the Republic of Macedonia will face during the negotiations for EU membership.

With regards to the energy efficiency, one of the problems is not having a Energy Efficiency Fund, which despite the fact that it was envisaged in the prior version of the Strategy; it still has not been implemented. Such fund is necessary to offer the opportunity for energy-efficiency home improvements, because the so-called "green" credits currently offered by the banks are rather inconvenient and do not stimulate the citizens to improve the energy performances of their homes. According to the "Calculator 2050"<sup>1</sup> model data the average renovation rate is required to increase to 2.5% annually in the period between 2020 and 2050 thus the adequate decrease of 80% in the greenhouse gas emission (GHG) until 2050 will be achieved.

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<sup>1</sup> Drawn up for the region in 2015 by a group of organizations within the project "South East European Sustainable Energy Policy", financed by the EU.

Unfortunately, the Strategy takes into consideration the climate changes and the GHG emissions to a very small degree and only declaratively. The same does not envisage measures for climate change adaptation and mitigation, despite the fact that the energy sector is the major contributor to the GHG quantities in the Republic of Macedonia<sup>2</sup>.

Apart from the GHG emission, in the past period it is rather observable the high air pollution with tiny particles smaller than 10 micrometers (PM<sub>10</sub>) for which the greatest contributor is the energy sector. However, the MARKAL energy model used for presumption modeling in the Strategy, in its calculations does not take into consideration the emissions and their impacts on the citizens' health nor in the economy sectors, for instance in the agriculture.

It is also noticeable that in the Strategy there is an absence of innovative solutions, such as passive house stimulation; solution for waste biomass collection for energy production; decentralized, local electrical energy production and the like. In addition, there is an absence of technological development and innovation stimulation for energy need fulfillment.

### **The problem with the Strategy adoption process**

With regards to the Strategy adoption process, a tendency in avoiding the public participation in the drawing up, adoption and revision of the Energy Strategy is present. The information about the public discussion is posted on the internet page of the Ministry of Economy in low visual places, and in newspapers with low reading rate. Despite the low information availability, the practice of scheduling public discussions during holiday seasons and vacation is present. For instance, the discussion for strategic evaluation of the Energy Development Strategy was held on Jan, 2, 2013 whereas the discussion for strategic evaluation of the revised strategy was held on Jul, 21 2015, on which the interested parties which had previously requested to be notified in writing were not invited.

In the practice of Energy Strategy adoption it is rather problematic that the Parliament of the Republic of Macedonia is not consulted, despite the fact that the strategy is one of the most crucial strategic documents in the country that has a multiple impact on all spheres – economic, social and environmental, due to which a wide consultation with all key parties responsible for reaching decisions is necessary.

Outside the strategy framework, a tendency in non compliance with the Energy Community Agreement, whose signed party is the Republic of Macedonia, is present, especially with regards to the violation of the given dead lines. At the moment, the Energy Community has 4 open cases for the Republic of Macedonia about violation of the Energy Community Agreement: the problem with postponing of the liberalization of the energy market, failure to adopt a National action plan for renewable energy resources, failure to comply with the Directive for sulphur content of liquid fuel and for not taking part in the “8<sup>th</sup> Region” initiative for providing continuous and with little resistance electrical energy flow in the region of South East Europe<sup>3</sup>.

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<sup>2</sup> <http://www.unfccc.org.mk/Default.aspx?LCID=244>

<sup>3</sup> [http://www.energy-community.org/portal/page/portal/ENC\\_HOME/AREAS\\_OF\\_WORK/Instruments/electricity/8th\\_Region](http://www.energy-community.org/portal/page/portal/ENC_HOME/AREAS_OF_WORK/Instruments/electricity/8th_Region)

## Recommendations

The recommendations of the civil sector regarding the aforementioned issues have been consulted among wider civil organizations on various occasions and are as follows:

- Providing legal framework for compulsory participation of the Parliament of the Republic of Macedonia in adoption of the Energy Development Strategy of the Republic of Macedonia;
- Participation of the civil sector and the public in all of the drawing up, adoption and monitoring of the Strategy phases;
- Making sure that the Strategy has a clear vision with fuel defining alternatives and electric energy distribution;
- Applying “Calculator 2050” as an additional model in drawing up of the Strategy;
- Decrease of coal presence in the energy mix;
- Envisagement of measures for increase of solar and wind energy exploitation, with or without using feed in tariffs;
- Envisagement of measures for increase of solar collector exploitation for hot water;
- Envisagement of stimulation means for finding out innovative solutions and new technologies for energy production and saving;
- Envisagement of concrete measures for adaptation to the climate changes, outside the Clean Development Mechanism and European Union Emission Trading Scheme, which so far have proven to be unsustainable;
- Adoption and compliance with the “forbidden zones” for designing of energy infrastructural facilities, especially in the protected areas (national parks, natural parks and the like);
- Adoption of special mechanisms and means for financing of the measures for management with the increased air pollution by the energy sector.