

# PHASING OUT THE CARBON AND URANIUM POLICY IN THE SMALL EASTERN AND CENTRAL EUROPE COUNTRIES

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### **1. Overview**

The construction of Nuclear Power Plants (NPPs) in a small country is limited by the available financial resources. Therefore attempts are made to solve this problem by cooperating (for instance, in the Baltic countries; unfortunately, with little success). However, it is apparent that during the next 20 years it will not be implemented. There are no fossil energy resources in Latvia, which produce hothouse gas emissions. Consequently, the energy self-provision in this country is ensured by the renewable energy sources (RES). On the average, approximately 30% of the energy resources are imported every year. In Latvia the RES are mainly based on the wood biomass and agricultural biomass because the water power resources are practically completely exhausted, and the resources of the solar and wind energy, due to the weather conditions, are not great. The new technologies are being investigated for the use of the wood and agricultural biomass in order to achieve economically balanced costs. The present state support (subsidies) does not produce the necessary effect of development, and work is going on at an improved support system. Cheaper measures how to raise energy efficiency (EE) and to use the RES are being looked for in order to reduce the expenses connected with the state support, which have already started hindering the development of national economy.

### **2. Methods**

A General Policy Assessment Methodology (GPAM) is being adapted and modified in order to solve the problems of a national (State), regional and municipal level in the sustainable RES and EE spheres. There are original investigations in the productivity of forests, particularly agricultural lands, in all the five planning regions of Latvia, which differs more than three times. This allows arrangement of the sustainable RES projects with smaller investments and payback times.

On a municipal level, the method “Sustainable Energy Community” from the international programme “Going Local” was modified and adapted to the investigations carried out under the conditions of Latvia.

### **3. Results**

The Latvian long-term sustainable energy Action plan (AP) till 2020 has been developed on the basis of the development strategy of the country till 2030. At the present time a successive short-time AP is being worked out for the next 3 – 4 years. When producing the following short-time AP, it is important to analyse and evaluate the results of the previous AP. The conducted analysis revealed that in the previous short-term AP the state-supported biomass cogeneration plants with a 5 – 20 MW capacity had one of the lowest implementation results (67%). This can be explained by shortcomings in the state support system, which is being revised. Long-term (till 2020) and short-time sustainable

energy APs (for the next 3 – 4 years) have been produced also for all the five planning regions of the country and several municipalities.

Investigations showed that the horizontal dimensions should be more supported in the future (according to the GPAM methodology). The regional planning institutions should be evolved providing them with qualified specialists. Communication should be expanded with the population, improving their instruction and awareness about the role of the RES and EE in the reduction of the carbon emissions and substitution of the NPPs.

#### **4. Conclusions**

Investigations in phasing out carbon and uranium policy in various small Eastern and Central countries reveal a great difference and peculiarities. Latvia can gain the highest economy of energy in the nearest future by evolving small capacity (5 – 20 MW) cogeneration plants operation on bio fuel or natural gas (giving of about 40% economy of energy). An equivalent economy can be achieved also by thermal insulation of buildings and using the wind generators. Unfortunately, all these measures are connected with great investments and also with the required state financial support during their operation. A necessity is being debated to lower the development rate of the “green energy” in Latvia due to the limited financial possibilities of the state.

#### **References**

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