



Region of Western Macedonia

Energy Efficiency: Skills & SME programmes

A Policy Learning Platform peer review

Final Report

26 – 27 October 2020

Motivation of the host

Reaching climate neutrality by 2050, as is set out by the EC's Green Deal, requires timely decarbonization of the energy sector, including a phase-out of coal. The transition towards a low-carbon economy poses significant technological, economic and social challenges, in particular for coal-intensive regions, as is the case with the Western Macedonia Region (RWM). In its revised National Energy and Climate Plan (NECP), the Greek Government has committed itself to the full closure of all lignite-fired power plants by 2028.

The case of Western Macedonia is a unique example of such an intensive economic transition, at a time when the region is already facing explosive problems of unemployment, aging, migration and low entrepreneurship. Unemployment in 2016 was already over 31%, per capita GDP fell from 86% to 59% of the EU average between 2009 and 2017, while the population has declined by 5.8% from 2011 to 2018. These figures alone can be a strong sign that the ongoing adverse effects of this transition are hard to be handled, and now the bet is to build on resilient socioeconomic characteristics.

Consequently, RWM is forced to become the front runner and rapidly adapt to the phasing-out of coal. This presents a huge challenge in terms of transforming the RWM economy from its almost complete lignite dependency into other, diversified economic activities, while safeguarding the social cohesion and future prospects for local communities. This situation is similar with what is already happening or what is planned to happen in other European Regions with similar economic activity. The Regional Authority in cooperation with the responsible Ministries as well as other public or private bodies and organizations is trying to deal with this transition as effectively and painlessly as possible for the local society. The endeavors target to a new economic model that supports green and sustainable investments of high labor intensity, environmentally friendly production procedures and circular economy-oriented initiatives.

The Region in the coming period will have to implement a Regional Roadmap for the Just Transition to the post-lignite era. The Local Transition Plans are a prerequisite also for the European Just Transition Fund and will have to be in agreement with the NECP. Through the peer review the Western Macedonia Transition Plan could be influenced.

Specification of the policy challenge encountered



The Regional Authority is seeking input from other regions that have faced similar challenges in the past and found already working solutions, or from regions that are currently in the same situation and can contribute to shape better policies for similar challenges together. Time is of the essence, and learning from other regions can help shorten the time to formulate good measures and to start implementing them.

This peer review will endow the Regional Authority with valuable knowledge regarding the following issues:

- Ways of strategically lowering the region's environmental footprint by reducing energy consumption. Energy efficiency measures both in the building sector and in the entrepreneurship will enhance Low-Carbon Economy. Building sector's energy demand (public and private), streamlining the resource consumption of the primary sector and setting high environmental standards for the existing and new infrastructure projects could be some of the actions triggered.
- Promotion of new sustainable production techniques that can reinforce the operation of existing firms and businesses and make them viable and profitable in the long term. Use from businesses of novel clean energy technologies like renewables, hydrogen etc.
- Examples of good practices implemented so far in other regions with similar geographic and demographic characteristics.

The main concern of the Region's Authorities is to develop resilient characteristics against the forthcoming economic changes. The establishment of a robust regional strategic plan for the gradual transformation of the Region into a green, sustainable and smart geographical area of the European Union is of major importance. This should be done without losing the Region's energy identity and in line with the objectives of a Smarter and a Greener, carbon free Europe of the New Framework of the Cohesion Policy beyond 2020.

Taken under consideration the ambitious targets set both by the European Directives on energy efficiency (2012/27/EU and the amending one 2018/2002) and the National Plan for Energy and Climate, the following narrowed-down priorities can be part of the provided techno-economic guidance:

1. Energy investments via Energy Community schemes of non-profit profile (upgrade of street-lighting infrastructure, installment of net-metering systems etc.).
2. Re- and up-skilling of workers in the field of energy efficiency upgrade measures in buildings; both private and public ones.
3. Professional training for business owners and energy-related engineers in the premises of the University of Western Macedonia through European Educational Programs, focusing on innovative passive and active buildings' energy upgrade measures.
4. Funding opportunities for streamlining processes in the production chain of local businesses (mainly agricultural and processing activities).
5. Prospects of job creation in the field of energy efficiency projects, both in private and public sector.
6. Energy efficiency and demonstration projects in SMEs and relative support measures.

Based on this background paper, the Policy Learning Platform has recruited peer experts for this peer review capable of addressing several or all of the following questions:

Energy efficiency skills and advice:

- How to develop the skill base for energy saving in buildings and companies at all levels (workers in the construction business, installers, engineers, students, consultants, auditors, company owners)?
- Which region has the best energy saving training programs and how to set these up?
- How to offer energy efficiency advice to home and company owners, including on technology and financing options?



- What measures can be introduced and supported by the Region of Western Macedonia?

Energy / resource efficiency in SMEs:

- How can companies typically save energy (or other resources), and what demonstration projects would be useful to showcase this?
- Which region has achieved good impact for energy / resource efficiency at SME level and how?
- Which support measures could be offered by the Region of Western Macedonia to foster such projects?

Participating Peers

For the main part of the activity, where specific guidelines and good practices from other European Regions were thoroughly presented, a group of highly-qualified and energy-efficiency oriented Peers was employed by the organizing team after the acquiescence of the Host Region Representatives. Table 1 presents, in the aggregate, the who-is-who of all Peers that shared their valuable scientific and professional experience.

Table 1. Peers that participated in the Peer Energy Review Process.

1	Name Prof. Luciano Mule'Stagno	Organization Institute for Sustainable Energy, Malta
	Thematic expertise in the field of Energy efficiency skills and advice <ul style="list-style-type: none"> • Director of the main Institute of the University of Malta for RES and EE. • Organiser of courses for RE installers and university level MSc and PhD courses. • Representative of the University of Malta the National Climate Action Board 	
2	Name Savvas Vlachos	Organization Cyprus Energy Agency
	Thematic expertise in the field of Energy efficiency skills and advice <ul style="list-style-type: none"> • Director of Cyprus Energy Agency. • Certified trainer by the Human Resources Development Authority of Cyprus. • Local Manager of the EIT Climate – KIC's Programme Pioneers into Practice. 	
3	Name Suada Mustajbegovic	Organization Croatia's Environmental Protection and Energy Efficiency Fund
	Thematic expertise in the field of Energy efficiency skills and advice <ul style="list-style-type: none"> • Expert in Energy Efficiency and RES. • Head of the Energy Efficiency Sector of the Environmental Protection and Energy Efficiency Fund 	
4	Name Kostas Konstantinou	Organization ANATOLIKI S.A, Region of Central Macedonia, Greece
	Thematic expertise in the field of Energy efficiency skills and advice <ul style="list-style-type: none"> • Expert in energy saving in buildings and companies at all levels, energy efficient technologies & financing methods. 	



•Training programs expert

Policy Recommendations

Following the presentations of the Peers, the elaboration on the two thematic blocs (i.e. energy efficiency skills and advice, and energy/resource efficiency in SMEs) analyzed during the main sessions of the review, and the suggestions by the Host Region's Representatives (stakeholders from the Special Managing Authority, University of Western Macedonia, Biocluster CLuBE etc.) final remarks were presented.

Some of the good practices in the admittedly wide sector of Energy Efficiency (EE) that were presented by the Peers can be summarized in the following points:

- Promotion of a dedicated energy agency, following the example of the “Energy Savings Agency”, which was established by the Region of Upper Austria in 1991.
- Awareness-raising regarding energy-efficiency related issues. This could be achieved by establishing special “Energy Efficiency Awards” or a dedicated “Energy Day”, similarly to the actions in Cyprus, or by directly engaging citizens, as successfully happened via the “GOZO” project in Malta.
- Training and qualification of builders/technicians/electricians/installers operating in the energy-efficiency related construction sector. This could be established by implementing specialized certification projects, like “WE QUALIFY” project in Cyprus.
- Development of special entities providing support to building-owners with regards to energy renovation works, where all stages from assessment, planning, finance up to implementation and monitoring are included in the consultation process. Such a special entity is the One Stop Shop in Bordeaux Metropole “Ma Rénov”.
- SME voucher scheme to trigger demand for EE works and EE skills in the building sector, like the Hessian innovation and investment support programme PIUS that helps SMEs to reduce material use, energy consumption and CO2 emissions.

In addition, the invited stakeholders from the Region of Western Macedonia contributed to the fruitful conversations with remarks and recommendations based on their own experiences and expertise. More specifically, the need for the operation of a dedicated Energy Agency and the development of a dedicated Regional Fund for Energy Efficiency projects was stressed out. Training and enhancing the capabilities of blue- and white-collar workers were also emphasized. In this direction, life-long learning programs offered by the University of Western Macedonia on EE in Buildings and SMES could be of great importance. Last but not least, citizen's awareness raising, which has to do with the development of new district heating systems and the efficient operation of existing ones in the Region was highlighted.

Conclusion and Follow-up actions

Energy efficiency is a top-notch subject in the European Commission's political agenda regarding long-term plans on improving the living standards of European citizens. The whole Peer Review process gave the opportunity to the host region, as well as the invited stakeholders to engage with knowledge and experiences well adopted by other regions in this specific sector.

Since the major concern of the current Regional Authority is to promote sustainability both from an environmental and a socioeconomic point of view, the first follow-up action has been decided to be about the employment of efficiency production techniques amongst SMEs operating in the Region of Western Macedonia.

The match-making process will occur during spring 2021. With the valuable help from the Interreg Europe's Thematic Expert team, the foundations for a program similar to the Hessian innovation and investment support program PIUS will be created. Optimization of processes in the energy cycle and in the cycle of materials used during the operation of SMEs, can lead to significant monetary savings and further innovative investments.



In conclusion, the Regional Authority is aiming at leading Western Macedonia to a greener, more sustainable future. In this direction lie two of the Region's core policy documents, i.e. the Just Transition Development Plan of lignite areas and the forthcoming Regional Operational Program 2021-2027.

In the former document, some of the investments supported are the following: productive investments in SMEs, including start-ups; development of technology and infrastructure for affordable clean energy, reduction of greenhouse gas emissions, energy efficiency and renewable energy; strengthening of the circular economy sector; upgrading and acquiring new skills for the employees.

In the later document, which is currently under public consultation, some of the prevailing strategical targets are the promotion of green and environmentally friendly technologies, the upgrade of necessary infrastructure for supporting all levels of production and business activity, and the strengthening of knowledge, research and innovation.

Therefore, the remaining policy recommendations that were briefly presented in the previous section are in line with some of the main policy goals of the Region and can be also implemented in due time.

Kozani, 10 February 2021