

Slovenian Experience in Sustainable Energy Solutions

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I would like to thank to the organisers for their invitation to this important meeting. Before I start with my presentation, please let me express Slovenia's full support for the EU Opening Statement at the 2nd Preparatory Meeting of the 21st OSCE Economic and Environmental Forum.

1. Introduction

Like many other countries Slovenia has been long aware of the dangerous consequences of non-renewable energy sources and inefficient use of energy. These constrain the availability of public goods such as healthy environment. Furthermore, they produce high costs related to the volatility of prices of non-renewable energy sources, adding to the negative impact on economic growth and welfare.

In March 2007, the EU Member States adopted a binding target of 20 % renewable energy from final energy consumption by 2020. The national target for Slovenia was set to 25%. In 2010 Slovenia already reached 19.9 %, which was above the interim target for our country.

Slovenia has many advantages and great opportunities on which we can base a strategy of green growth and adaptation to the climate change effects. The examples of good practices have shown that a number of individuals, businesses, local communities, NGOs, government institutions and other organizations and communities have already successfully adopted the goals of climate change mitigation and adaptation, taking into account the principles of sustainable development, while at the same time contributing to the economic competitiveness and employment.

In this presentation I will present the Slovenian experience in encouraging protection of the environment by providing loans and guarantees for environmental investments and other forms of assistance. I will also talk about selected environmental policy measures, their effect on green investments in buildings and on the environment, as well as on social and economic targets. I will focus my presentation on the Eco Fund, as one of our good practices, and its effect on the development of Slovenian green construction industry.

2. "Eco Fund" Case Study

In Slovenia, buildings account for approximately one third of total greenhouse gas emissions, caused either by direct emissions from on-site combustion of fuels used mainly for space and water heating, or by emissions from the consumption of electricity used for heating, cooling etc.. The existent building technologies and materials enable us to improve the energy efficiency of buildings and their use of renewable energy sources and offset public costs in a cost-efficient manner. Thus, measures targeting energy efficiency and the use of renewable energy sources in buildings are a vital part of the national environmental and economic policies.

Among such measures in Slovenia are non-repayable subsidies (grants) for investments in energy efficiency and renewable energy sources in buildings. These grants are allocated by Eco Fund. The policy is based on the assumption that the grants encourage eligible subjects (recipients) to invest relatively more in products and services providing reduction in energy use and emissions. Once the prices of efficient technologies fall as the number of investments rises, they become more available. What is more, the measure helps to achieve other public targets such as improved energy self-sufficiency and security, quality of life, economic competitiveness, as well as economic and social development.

2.1 The relation between grants and green investments

Based on Eco Fund's survey, the majority of grant recipients thought the subsidy to be an important incentive in the decision for investments which are above the legally binding energy efficiency requirements. 30 % of those who received grants for low-energy or passive houses claimed they would not perform the same investment if grants were not available. Regardless of the relatively lower grants as compared to other investments, the response of Slovenian citizens and municipalities to the grants for low-energy and passive houses has been unexpectedly good.

To improve the ratio of passive versus low-energy houses, Eco Fund tightened the requirements for grants in 2010. However, the interest of investors to apply for grants has not decreased. Particularly interesting is also the shift to low-energy and passive houses, which we have been witnessing for the last few years. The number of decisions for prefabricated building has risen from 40 % in 2010 to 63 % in 2011.

2.2 Effect on jobs

Investments in buildings for which Eco Fund's grants were paid out until the end of 2011 had a positive influence on many private enterprises in the building industry. Based on the survey among the performers of investments, it has been found that over 1,000 workers have been employed implementing the investments for which the above grants were paid out. This number, however, does not include the number of

jobs of manufacturing of the materials, equipment and devices needed to perform the investments.

2.3 Effect on the development of building sector and the use of strategic materials

Eco Fund's grants support investments in buildings which exceed the legally binding energy efficiency requirements and include certified products with a high value added that enable significant energy savings. Consequently, the providers of relevant services in the building, architecture and engineering business have adapted to this new business environment. The quality of the building design, construction and performance has been improving. The production and the use of strategic sustainable materials has also been strengthening.

Eco Fund first prescribed the requirements and levels of grants for low-energy and passive houses in 2008 when there were hardly any such houses in Slovenia. What is more, the investors and industry had second thoughts about the possibility of achieving the passive standard as well as about the use of certain products, which was mainly due to lack of experience. Therefore, the criteria in the first public call were rather loose in order to enable a softer shift to building according to low-energy and passive standards.

Since the beginning, Eco Fund has been providing professional advice free of charge to the investors and the industry, which consequently built up their confidence and experience with the low-energy and passive standard. The quality of their work and the process of grant allocation have both improved through time. The response of the investors to the first public call has been exceptional and the industry quickly responded by offering holistic and quality services to the customers, which increased their interest of the latter even further.

Eco Fund's grants for low-energy and passive buildings to citizens (and municipalities) have been progressive to stimulate not only a better energy efficiency class of the building, but also the use of natural materials. This is due to the environmental print of natural versus other artificial building materials and due to the national strategy for the development of wood industry. In Slovenia, wood is underexploited and it is considered that the development of the home wood industry could provide an important impetus for the Slovenian economy. In an attempt to contribute to such a development, besides designing the levels of grants for low-energy and passive buildings as described above, since 2011, Eco Fund has also been allocating grants for the replacement of old windows in residential buildings only if they are replaced by energy efficient wooden windows.

Last but not least, Eco Fund's grants have spurred many great innovations and new designs in ecological building. Many Slovenian companies developed strong expertise in this field and became very competitive on the international level. Some of these companies are Riko, Trimo, Jelovica and Adar.

3 Other industries

The Slovenian government has, of course, not been targeting only the construction industry but other industries as well. This enabled Slovenia to develop an innovative green-tech sector, driven by cutting-edge technologies with some truly innovative and creative companies that are at the vanguard of R&D in alternative energy. For example, Slovenian-produced solar panels are among the most efficient in the world. We have great innovators in LED technologies, as well as small innovative start-ups in engineering, automotive industry and other sectors.

Examples of some successful Slovenian companies in the field of green innovation are:

- Pipistrel from Ajdovščina, which is the world leader in design and manufacturing of light airplanes and gliders. Pipistrel's airplanes have won two NASA Centennial Challenges in 2007 and 2008 and CAFE/NASA/Google Green Flight Challenge for energy-efficient aircraft in 2011;
- Robotina, a successful manufacturer of Automation & Management Systems;
- Kolektor Group, renowned for its Sustainable Engineering,
- INEA, leader in Energy & Automation.

There are many others but it is impossible to list them all in this short time.

4 Conclusion

Long-term targets for emission reductions can only be achieved with the introduction of new technologies, non-technological change and innovation in social entrepreneurship (such as institutional, infrastructural and innovation lifestyle). Strategy to combat climate change requires an accelerated process of innovation and introduction of new technologies and approaches also in practice.

The case study of Eco Fund shows that the public policy of grants for investments in energy efficiency and use of renewable energy sources in buildings stimulates investors to make environment-friendly decisions. By improving energy efficiency and the use of renewable energy sources, we can reverse the negative impact of buildings on the environment. In addition, such state policy contributes to the welfare by increasing tax revenues and the share of green jobs and by supporting the development of architectural, engineering and building sectors. Thus, the policy of subsidies such as green grants can be considered an example of good practice which should be further developed. The key challenge for the future, however, will be to improve the effectiveness of these grants as well as of their allocation.

Sources: Ministry of Agriculture and Environment, Ministry of Infrastructure and Spatial Planning, Eco Fund.