**Green Angel Syndicate**

**Market Needs Review with respect to**

**Energy Efficiency in Public Buildings**

*on behalf of*

**Slovenian Energy Agency, Spodnje Podravje**

*in support of*

**Interreg Europe project ZEROCO2**

**3rd October 2017**

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**Market Needs Review with respect to Energy Efficiency in Public Buildings**

**Introduction**

The following review has been produced as an outcome of a desk research exercise followed by a seminar in Ptuj designed to explore the current status and quality of energy efficiency projects in public buildings in the Ptuj region, and, in particular, the funding measures available to support them both from the public and private sectors. The grounds for this review are therefore based on the visible data available on the internet dealing with funding options for energy efficiency projects in public buildings, whose target is zero CO2 emissions; and the seminar in Ptuj itself. Within the limitations of these review formats, this report is offered as a bridge towards understanding market needs in Slovenia with respect to energy efficiency in public buildings, and how best these can be addressed with improvements to public policy and funding measures. The review has been concluded with the seminar, and so we introduce the report with an account of the seminar itself.

**Seminar**

**Place:** Ptuj, Slovenia **Date:** 20th September 2017

**In attendance:**

Tea Potocnik, LEA Spodnje Podravje

Janez Petek, LEA Spodnje Podravje

Štefan Čelan, PhD, Director of ZRS Bistra Ptuj - Scientific research centre Bistra Ptuj

Jasmina, LEA Pomurje

Petra, ENERGAP (Energy agency for Podravje)

Franc, Komunalno podjetje Ptuj

Andrej, ZRS Bistra Ptuj

Roman, LEA Spodnje Podravje

Irena, LEA Spodnje Podravje

Jan (student),

Nick Lyth, Green Angel Syndicate

Steve Taylor, Green Angel Syndicate

**Purpose of the Seminar**

The purpose of the seminar was to discuss the impact of financial instruments available in Slovenia for energy efficiency measures within public buildings. It contributes to the ZEROCO2 project, in which Ptuj is a partner, designed to improve the policy measures in such a way as to promote zero carbon emissions from energy use in public buildings.

This requires practical improvements in the infrastructure and systems for public buildings’ energy consumption, using technologies both existing and new. But these depend on a policy framework supported by investment.

The purpose of the seminar was to discuss how policy is supported by investments, the sources of that investment, whether public or private, and the effectiveness in achieving a result as a consequence.

**Current Funding Opportunities**

The main funding opportunities were identified as the Cohesion Funds and the Slovenia Eco Fund. However there are some other funding opportunities as identified in the appendix which have been less frequently used in this region.

The EEA and Norway grants, which have been available in recent years, have now closed. It is not known whether they will reopen

The Investment Plan for Europe (the Juncker Plan) targets SMEs and is unlikely to support projects addressing public buildings.

The Energy provider, Borzen will finance renewable energy installations through provision of Feed In Tariffs (FITs). This is a renewal of a programme which was delivered up until September 2017. They will finance small scale projects promoting new renewable energy installations. The FIT’s are negotiated on an individual tender basis. They are not stable, not fixed, and not known in advance. They are likely to reflect the price of technology decreasing.

The Cohesion Funds had previously offered grants covering 85% of costs, leaving the project promoter to just find 15% of costs. In order to make the fund more widely available a new intervention rate has been introduced where the fund provides smaller direct grants. For new renovation projects, the financing is achieved through a PPP model, intended to be funded through 40% Cohesion Fund, 9% public, and 51% private entity. The problems are that the municipalities don’t want to have private capital in the management of buildings; the bigger energy consumers have already innovated; the private period is too long, and there are only two ESCO’s in Slovenia – the market is too small. This may lead to difficulties in how to spend the cohesion fund money. And because buildings tend to be small, critical mass is difficult to achieve. This has led to linking of projects or creating larger scale projects through targeting several buildings at once.

There is a view that the switch from 85% to 40% has not been successful. Although in principle, it makes the money go further, success is limited because the expected ESCO money has not developed, payback periods tend to be long and the public sector appears to be uncomfortable with private money. The consequence is that the projects cannot find the 51% private funding, the public sector cannot afford to fund the projects at a grant rate of 40%, so the available funding is not being used. This funding is not competitive, it is distributed on a first-come, first-served basis. But without the demand, the money is not being drawn down. This demonstrates a policy failure, the unintended consequence of the change in intervention grant funding structure.

The Eco Fund is helpful but also has difficulties. The administration processes for an application are long, time consuming and difficult. The Eco fund however, is a key source source for individual buildings, but many people don’t apply because the process is so hard. This suggests that Eco Fund is probably under spent. It is principally designed for the private residential sector. It only provides loans for the public sector and with an intervention rate of only 20% - a lot of paperwork is required to get a mere 20%. However, the fund could do with more promotion to help increase interest.

**Policy Background**

On the basis of national as well as the EU legislation, the Government of the Republic of Slovenia adopted the Long-Term Strategy for Mobilising Investments in the Energy Renovation of Buildings on 29th October 2015.

The expected result in the public sector is the renovation of 1.8 million m2 of floor area in public buildings (including the mandatory annual renovation of 3% of public buildings owned by the admin sector), the renovation of 1.3 million m2 of floor area in public buildings in the wider public sector in the period 2014–2023.

For the purposes of the renovation, the strategy also includes an overview of the national building stock and the system of measures and criteria for the promotion and implementation of acceptable ways to approach the renovation of different building types.

Due to the provisions of the EU acquis which oblige Member States to the annual renovation of a certain percentage of public buildings, a particular emphasis has been given to the buildings owned by the admin and wider public sectors.

The public building energy renovation project will be implemented on the basis of an energy performance contracting model. Energy performance contracting allows the investment of energy service company's private funds in the renovation. For the energy renovation of public buildings, €115 million in grants and €50 million in repayable cohesion funds will be provided in the period 2016–2023. The cohesion funds will be combined with financial investments from dedicated funds and programmes of international financial institutions in grants and repayable funds.

**Current Local Investment projects**

The following projects, of interest to the local Stakeholders Group, are currently underway.

The Local Energy Agency Spodnje Podravje has a Project list including:

* High School (Gymnasium) buildings and hostel together (€4 million);
* A cluster of 10 primary schools and kindergartens around the city
* An existing large scale project renovating 5 schools, one kindergarten and one sports hall in the region, has applied to the Cohesion Fund for 7 buildings, and will be finished in September 2018 (€1.2 million at 40%).

Energy renovation means replacing windows, insulating the facade, insulating cellar and ceilings, replacing old oil or gas boilers with wood biomass or heat pumps, replacing the lighting. Unlike some previous grants which focused on the building envelope, the newer grants cover more comprehensive works

A local hospital was renovated through a previous €4m Cohesion Fund project.

In the Pomurje Region (population approximately 200,000) the Darlinga Project is underway. Funded through Interreg this Danube Project, aims to improve energy security and efficiency in the region which through promoting the sustainable use of existing resources for heat generation which are not sufficiently exploited. The main focus will be on geothermal sources which are currently underexploited. The project is just starting, and developing a database of stakeholders, with Ptuj in the stakeholder forum in Budapest. The results will aim to stimulate funding for geothermal, to prepare communication materials for promoting geothermal energy, and to prepare the stakeholder base for geothermal energy; prepare training material; best practice tours; soft project results preparing the region for exploiting geothermal in general. The challenge for the project is to make a link into the commercial sector to make it happen.

They are also involved in another project called Intense, relating to energy and funded through Horizon 2020. They have also recently made an application for public funding towards an energy efficiency cohesion fund project.

The Local Energy Agency is also applying for ERDF towards the preparation of Energy Action Plans. This will involve studies of the current energy efficiency for certain buildings.

The Local Energy Agency Spodnje Podravje has used the Eco Fund for renovation of public buildings.

**Policy / Funding Compatibility**

There are clear linkages between funding guidance and current policies and targets. The Interreg Europe programme is considered to be relatively easy to write a proposal and win funding. Horizon 2020 is not easy, and the competition is much higher. They are considered difficult to write, requiring lengthy preparation time. Horizon 2020 also lacks the precise direction of an Interreg Europe application, with guidance being more open.

For the cohesion fund, there are various conditions to be fulfilled, which tend to be time consuming and detailed, but relatively easy. The awards appear to be distributed on a first come, first served basis with little competition. However, applicants have to demonstrate their eligibility and compliance with the Operational Programme.

The Slovenian Energy Act, incorporates the aspirations of the Energy Efficiency Directive. This has helped generate Action Plans for energy efficiency, RES, CO2 Emissions. They do not all have clear targets, as they may be based on different regulation; for example there is a need to reduce CO2 emissions by 20% by 2020. Applicants for funds have to comply with all the requirements in these documents to get funding.

ZEROCO2 aspires to improving the Energy Act but first has to improve the strategies to increase investments in energy in buildings. The aim is to change strategies to avoid the need to go through Parliament.

One current barrier is that applicants have to consider all the requirements from the legislation and regulations on energy, and are subject to rules about renovation of buildings. This has encouraged the recent move to a more comprehensive approach to building renovation where all issues that impact on energy efficiency are considered. It is not enough to say, just improve windows or roof insulation.

Applications to the Cohesion Fund have to get a certain amount of private investment to get some funding. At least €500,000 to get Cohesion Fund. This can be difficult. It is not possible to say, choose just one school. The Municipality has provided €500,000 towards a multiple school project.

For a PPP, the private investment must be at least €750,000.

**Market Needs – Considerations**

1. Should new funds be created? A new fund within an existing fund would be a help.
2. Should tax incentives be created to stimulate investment in building efficiency measures for public buildings?
3. Energy market is very sensitive, near zero CO2 buildings is not zero energy. The system for this is net metering which puts energy back onto the smart grid. A plus energy building is a building that produces more energy than it consumes.
4. It’s not easy to influence policy, as its difficult to know all the facts that influence the policy makers.
5. If the new European Directive for energy efficiency in buildings includes targets, it will make it a lot easier. There is already an available baseline.
6. Energy companies are not very happy with zero CO2, they want to maintain consumption. How significant are their tax generating revenues? How is it possible to incentivise them into PPP projects? All the energy companies are public companies.
7. Slovenian legislation means that the LEAs are not public or private but are owned by the public. Not state-owned, but according to EU legislation, they are public.

**Market Needs – Conclusions**

The conclusions regarding market needs in Slovenia and the Ptuj region regarding energy efficiency in public buildings are that it is happening, but not fast enough. The market needs more dynamic and better aligned public funding policies and measures, that incentivize and help to gain access to private sector funding. There is a natural tendency to rely on the private sector energy companies as the source for funding, since this relates to the provision of their product and service. However, equally naturally, there is a reluctance of the energy supply companies to support measures that will lead to reductions in usage of their product, and hence a reduction of income as a consequence of an added cost in terms of investment.

But this may be a short-sighted view. In the long term, these measures are required by EU regulation, and these targets are not going to change. Failure to meet them will result in punitive charges, which will impact adversely on the energy companies. They are well advised to cooperate in these measures.

In addition, it should be shown that investment in these measures will generate income from the new technologies. The energy companies could replace one source of income – energy consumption – with another – energy savings.

Over and above the energy companies, however, there should be measures which incentivize the technology investment and infrastructure investment sectors to involve themselves with these activities. This requires evidence that the new developments in energy efficiency in public buildings are revenue and profit generating. This, perhaps, is the single most significant market need: commercially viable, revenue generating, self-sustaining projects which will yield a return for the investors.

Policy development and funding measures are required to encourage the initiatives that meet this market need. Further work is required to understand exactly what these policies and measures might be, and how best to stimulate the necessary initiatives. The conclusion of this phase of work is that the market needs for energy efficiency in public buildings are not currently being met adequately, and hence the improvements required are not happening at a rate which is capable of meeting the target required by public policy at a national and EU level.