

ZEROCO2 — Newsletter #3

What is ZEROCO2?

Project Background

The European Directive on energy efficiency (Directive 2012/27/EU) and on energy performance of buildings (Directive 2010/31/EU) create a breakthrough in European (sustainability and climate) policies. The objectives as well as tools of intervention and verification oblige Member States to immediately adopt a clear strategy for the improvement of performance of buildings.

The EU Directive stipulates that after 2020 all new buildings must be nearly zero energy buildings. This project goes beyond the EU Directive by aiming at making buildings even nearly zero CO2 emission (NZCO2EB) due to energy use. It was initiated in April 2016, when partners presented their regional policy report with respect to NZCO2EB) and carried out a cost benefit analysis based on applied examples in each of the partners' regions.

Issues addressed

In executing the cost benefit analysis, exchange activities will create the process of presenting different options for energy sources and different technologies that can be used locally, regionally and nationally, which will contribute to decreasing CO2 emissions, while supporting regional development. The methodology uses an interregional approach that will engage and target policy makers from different European regions to reduce CO2 emissions, while simultaneously accelerating the transition towards sustainable development at local, regional, national and European levels. Through interregional cooperation, regions will identify, share and transfer innovative methodologies, technologies, processes and good practices in developing and implementing NZCO2EB policies, targeting new constructions and retrofitting of existing buildings.

The vision of ZEROCO2

The project partners will define near zero CO2 emission buildings due to energy use (NZCO2EB) and present the various benefits resulting from this innovation. The main subjects addressed in the ZEROCO2 project are regional policies concerning environment and energy that will support the EU targets.

ZEROCO2 places special emphasis on



greening the building sector through enhancement of various ecofriendly energy sources and technologies, consequently serving as an incubator for new markets in the field of energy, technologies, services and business models. ZEROCO2 will represent and implement NZCO2EB in policies addressed in a similar fashion to that which was done for nearly zero energy buildings, which means that buildings do not produce CO2 emissions due to their use. The ZEROCO2 partnership will meet the flagship initiative: "Resource Efficient Europe", to help decouple economic growth from the use of resources, supporting the transition towards a low carbon economy. All in all, ZEROCO2 will support the growth in the use of renewable energy sources and promotion of energy efficiency through improved regional policies.

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Dates & Events

Local Stakeholders Seminar- Malta

25th August, 2017 at the University Residence, Lija, Malta.

07-08 September 2017 - 4th
Partner Meeting, Crete,
Greece



European Union
European Regional
Development Fund



The ZEROCO2 partnership & Local Stakeholder Groups

ZEROCO2 is led by the Local Energy Agency Spodnje Podravje, Slovenia, and is joined by partners from Greece, Italy, Lithuania, Malta, Germany, Finland and France.



The focus of **Local Energy Agency Spodnje Podravje (LEA)**, Slovenia lies in enhancing the Spodnje Podravje Region, specifically on energy consumption, EE and use of RES.

The **Mediterranean Agro-nomic Institute of Chania (MAICH)**, Greece is a constituent of the International Centre of Advanced Mediterranean Agronomic Studies.

Molise Region is a regional public body, that approved in 2016 the latest guidelines for authorization

to build and manage renewable energy power plants.

Municipality of Kaunas District is a local authority implementing public administration functions, responsible for delivering a range of public services to local community.



University of Malta, Malta is a higher educational institution that aims to assist in the development of national energy plans through studies in the use of new and renewable energy sources and methods of energy conservation.

The European Institute for Innovation (EiI), Germany (**Comm. Manager**) is a nonprofit pan European umbrella organisation supporting the adaptations of regions to respond to fast pace of development, in a variety of sectors.



Thermopolis LTD., Finland is recognized as an expert on sustainable development and energy which serve companies, public organisations and consumers with versatile development and consulting services.



Agency for Sustainable Mediterranean Cities and Territories (AVITEM), France

aims at training & cooperation mechanisms to promote integrated approaches of urban development in Mediterranean cities & territories.

LEA

The 2nd LSG meeting was held at the Ministry of Infrastructure on the 7th December 2016 in Ljubljana. The LSG represented the Ministry of Infrastructure, Eco Fund and LEA. After the presentation of the state of the art of ZEROCO2, the LSG discussed how to include NZCO2EB in the Slovenian Energy Act. Thus, the main aim will be the implementation of the project outcomes in Slovenian legislation.



In March 2017, LEA organised a workshop for Stakeholders, to present the state of policies in the field of RES and EE in Slovenia and technologies that are currently in use in the field of RES. Representatives from Eco Fund presented funding opportunities for public and private entities and showed opportunities for municipalities to step into direct contact with providers of different technologies and to elaborate co-financing. Hence accelerating an improving EE position.

MAICH

On Friday 20th January 2017, the 2nd Stakeholder's meeting took place at the Conference Centre of MAICH, Crete, Greece for the project ZEROCO2. The meeting was very well attended with 38 stakeholders from different authorities across the region of Crete.

Professor John Vourdoubas indicated that regarding the objective of promoting buildings with low carbon dioxide emissions due to the energy use made in them, it was not being promoted as it should be in Greece. He said "The Greek legislation has been harmonized with the European legislation, and by 2019 all new public buildings, and from 2021 all new privately constructed buildings will have almost zero energy consumption and low carbon dioxide emissions". In addition the LSG discussed the best practices related to the experiences. These proved to be informative, with this information being further discussed at the next ZEROCO2 partnership meeting.



Molise Region

On the 13th March 2017 the LSG discussed the issue of European territorial cooperation in the programming period 2014-2020. The LSG started



with the institutional greetings, by lawyer Mario Ialenti, Head of Office of European Territorial Cooperation, who opened the proceedings by presenting the ZEROCO2 project, followed by case studies on the following:

1. Interventions to improve EE of office buildings, 2. BP: the school gym of Ripalimosani (province of Campobasso). Afterwards, technical questions about EE systems were asked by the LSG. Towards the end of the meeting, a fruitful discussion on the findings emerging from the interventions of the day took place and the LSG meeting was summarised. Finally, the LSG recommended that the two identified BPs will be shared at the next ZEROCO2 partner meeting.

KAUNAS

The 2nd semester Local Stakeholders Group (LSG) reviewed the Strategic Development Plan (SDP) 2013-2020, which is set as one of the result indicators in relation to the project policy instruments. The LSG discussed the present state of play in promotion of EE and RES. The LSG positively assessed the following EE measures already incl. in the SDP:

1. Renovation of multi-apartment buildings, 2. modernization of boiler stations and adaptation to the use of renewable energy resources 3. promotion and set up of modern methods for energy production from alternative and RESs, use of cleaner green energy, public awareness raising, 4. reduction of energy consumption, saving of energy resources and use of local energy resources (peat, etc.) for heating.

The renovation of multi-apartment buildings and modernisation of boiler stations within schools and adaptation to use of biofuel were discussed in detail.



Thermopolis

In the 2nd semester, the LSG had two meetings (21.11.2016 & 20.02.2017) and participated in the evaluation workshop of the Regional Strategy and in the Regional Programme



2018-2021 planning kick-off meeting. Three GPs identified from open discussion & examples emerging from the local level were: 1. Helen Oy (*Helsinki energy company*) rents solar panels which are located on large industrial hall roofs. To rent one 285 W panel costs 4,40 €/month. Thereby, the energy production and equally its consumption cuts down the electricity bill.

University of Malta

The LSG meeting on the 8th March 2017 started by sharing the outcome of the questionnaires on policy measures that can be improved, according to the stakeholders themselves. These questionnaires were distributed in the previous stakeholders meeting in November 2016. Possible improvements from a Maltese perspective included provision of bundled incentives for PV & thermal systems and/or incentives that combine RE/EE rather than specific single measures.



Furthermore, an easy to use guide based on the Maltese climate context was presented. It was found that the main drivers for retrofitting a public building to ZNEB included energy cost savings & financial incentives with the promotional aspect of advertising a building as environmentally friendly, also scoring a high importance rating.

In addition, a flagship presentation was given during the Interregional Cooperation Forum "Europe, let's cooperate!" in March 2017, Malta.

2. Two zero energy apartment buildings - Finland (<http://www.nollaenergia.fi/index.php>). The voluntary *Energy Efficiency Agreements* covering the following sectors: industries, oil, property, transport sector, farms & municipalities in the region have joined the agreements & set targets for EE.

www.energiategohokkuussopimukset.fi/

AVITEM

AVITEM has set up pre-LSGs from December 2016 to February 2017 with several stakeholders, in order to understand their activities, objectives, recommendations and analogies with the ZEROCO2 project. Stakeholders were then invited to take part in the LSG held on March 2nd 2017. AVITEM gathered again to discuss EE in buildings and roll-out of renewable energies in order to

Elfi

As the advisory partner, Elfi used its pan-European presence to highlight ZEROCO2 at the European Sustainable Energy Week held in Brussels 20th – 21st June 2017. The Elfi & LEA



attended this year's EUSEW mainly in a networking, exchanging & learning capacity. The learning obtained from the event is of real value & will be shared with partners in due course. The policy conference is the most important in the EU dedicated to sustainable energy policy issues. Sessions were organised by the EU Commission. This permitted debates on new policy developments, BPs & sustainable energy ideas, some of which are directly connected with ZEROCO2. A number of policy seminars were attended, such as: Energy Audit Obligations: a Roadmap to 2019 Building on National Feedback & BPs, Data Centres — nearly zero energy consumption, digitalisation in energy to name but a few. EUSEW allowed ZEROCO2 to engage and disseminate with many policy makers.

carry on the integration of the project at the local level and define concrete and operational actions. A series of BPs have been identified from the LSG and will be shared at the 4th ZEROCO2 partnership meeting in Crete, Greece, this coming September 2017. The next steps for AVITEM are as follows: 1. Sharing recommendations according to the stakeholders' feedback, 2. Common study on the public policies at the transnational scale, 3. Study on the technological options followed by a dedicated thematic seminar, 4. Roadmap elaboration to define the WP 5. Preparation of a BP guide.



Review of ZEROCO2 partner meetings - Berlin and Campobasso

2nd Project meeting & Exchange event in Berlin, Germany

On the 14th and 15th of September, the 2nd partner meeting took place in Berlin, Germany. In the morning of the first day, each partner presented their studies on transformation of one building to NZCO2EB standard. In the afternoon, the partnership visited "Umweltbundesamt" (German Federal Environmental Agency) and its new zero-energy office building "Haus 2019" at Berlin-Marienfelde, Germany. The pilot project of the ministry aims to follow the architectural idea, the ecological-energetic requirements and their realization in a holistic approach. The building is to be integrated into the construction environment, but at the same time create new spatial qualities. On the roof of the building, 380 PV elements are installed, delivering the annual final energy demand of 48,000 kWh. In order to achieve the standard of a zero-energy house, systematically all possibilities have to be used to reduce the primary energy requirement, in particular the cooling and current requirement to a minimum. After the study visit, the partnership returned to the meeting venue and attended a presentation by Britta Schmigotzki, Expert in European EE in

Buildings projects. The presentation was highlighting the transposition of Building Related EU Energy Efficient Directives into National Building Renovation Policies – A German Example". The second day of the meeting began with a presentation by Nick Lyth, GAS on regional development through external expert service to assist and enhance project objectives for each partner region. Afterwards, the partnership went to a second study visit to the housing cooperative "Charlotte". Charlotte has a vast experience in energy efficient and cost effective renovation and modernisation of residential buildings. The buildings visited by the partners have a scope of modernisation costs of 5,8 MEuro incl. an upgrade of the building to EE 70.

3rd Project Meeting and Exchange Event in Camobasso, Italy

In March 2017, Molise Region hosted the 3rd partner meeting. On the first day, each partner delivered a presentation of their Regional Policy Report. Subsequently the discussion began among partners and stakeholders, in particular addressing the following issues: EE in school buildings; building management systems; readjustment of existing buildings; energy storage sys-

tems; innovation systems. The BP of Molise Region, subject of the partner meeting study visit, showed the EE system carried out in the building, explaining technically the geothermal low enthalpy system. The second day started with two simultaneous meetings. One of the meetings was the project Steering Committee, incl. project & financial management as well as a communication update. Mrs. Tea Potocnik (LEA) explained the state of art of the project and showed the activities that have been carried out. Furthermore, she provided an outlook of the upcoming months. Benjamin Daumiller (Elfi) summarised the communication and dissemination activities about the current situation and the next actions, in particular addressing the uptake of communication and dissemination activities of the project. The parallel meeting involved the stakeholders in a round table discussion, chaired by Chris Ashe (Elfi). The meeting was intended to create engagement and discussions with the Stakeholders, as to what they expected from ZEROCO2. Afterwards, Mr. Steve Taylor from Green Angel Syndicate, described an innovative fund "Scottish Government climate challenge funds" that provided a bottom-up approach involving communities.

Contact:

Benjamin Daumiller
ZEROCO2 Communications Manager
Telefon: 0049 (0)4791 82049-31
E-mail: b.daumiller@efi.eu

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Project Partners' Information

Partner	Country	Contact
Local Energy Agency Spodnje Podravje	Slovenja	Tea Potocnik - tea.potocnik@lea-ptuj.si http://www.lea-ptuj.si
Mediterranean Agronomic Institute of Chania	Greece	Ioannis Vourdoubas - vourdoubas@chania.teicrete.gr http://www.maich.gr/
Molise Region	Italy	Alessia Finori - zeroco2@mail.regione.molise.it http://www3.regione.molise.it
Municipality of Kaunas District	Lithuania	Rima Noreikaite, - rima.noreikaite@krs.lt http://www.krs.lt
University of Malta	Malta	Charles Yousif - charles.yousif@um.edu.mt http://www.um.edu.mt/ise
European Institute for Innovation	Germany	Benjamin Daumiller—b.daumiller@efi.eu http://www.efi.eu
Thermopolis Ltd.	Finland	Lea Hämäläinen - lea.hamalainen@thermopolis.fi http://www.thermopolis.fi/
Agency for Sustainable Mediterranean Cities	France	Léonard Lévêque - l.leveque@avitem.org http://www.avitem.org