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PEA partners in Berlin, © Ekkehardt Rohkohl

TOPIC 1

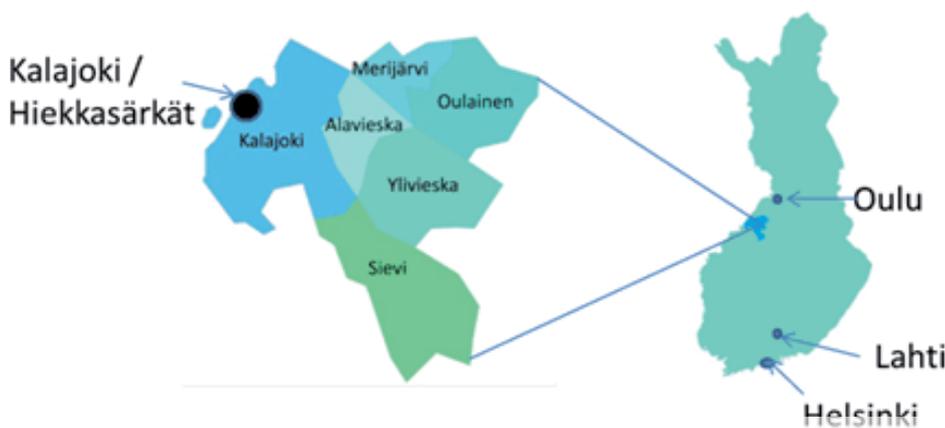
PEA Mid-Term Conference in Kalajoki

13-16 September 2011 (FI)

The PEA Mid-Term Conference will take place 13-16 September 2011 at Kalajoki, Finland. The key speakers of the conference are representing European commission, different European regions and local public organizations of the Ylivieska Subregion and Lahti. The conference will give a clear overview of the work on energy strategies in different regions of Northern

Europe and concrete actions of public organizations in Finland to increase the use of renewable energy and energy efficiency. It will also include the possibility of a study tour to local energy production sites. Finland for example is one of the leading countries in CHP (Combined heat and power) production. The study tour will especially concentrate on different CHP-concepts in Ylivieska Subregion and neighboring municipalities.

For the registration form and agenda please visit the PEA web site (www.peaproject.eu). We look forward to meeting you in Kalajoki!



TOPIC 2

PEA on the 3rd Energy and Technology Day in Perleberg

18 May 2011 (DE)

The annual Perleberg Energy and Technology Day brings together the advantages of a conference and a convention. The interested public had the opportunity to learn about the latest news and trends on energy efficiency and energy saving. The Public Energy Alternatives project, regional enterprises and businesses presented their technologies and offers regarding to these topics. The event, which took place at 18th of May, was opened by the may-

or of Perleberg, Fred Fischer. The state secretary of the Ministry of Economics and European Affairs of the Land Brandenburg, Mr. Henning Heidemanns, underlined the importance of such an event in the region and pointed out that the question of energy supply and sustainability will become more and more important not only for private households but for public households and municipalities as well. He further mentioned the outcomes of the PEA project positively and highlighted that the project will contribute to the regional development of the RCG region by conducting the necessary energy strategies. These strategies will promote the sustainable development of the region in economic and ecological aspects.

Many experts from regional enterprises as well as from universities like the University of Applied Sciences Wildau, another partner of the PEA project, informed about trends and developments in the fields of “logistics in the energy sector” and “intelligent energy systems”. Another focus of the event was the use of block heat and power plants. It was stated that the application of mini and micro block heating plants can help to save energy and money. Some entrepreneurs exposed their offers and technologies at the convention which took place simultaneously.

To make the event more interesting for younger people a schools challenge took place. Pupils from local schools could compete by measuring their knowledge on different energy topics and sportive events. A price, which was sponsored by the local energy supplier, was handed to the winner.



Mayor Fred Fischer and State Secretary Henning Heidemanns,
© Jan Schmidt

TOPIC 3

Pilot Installation in Niepolomice June 2011 (PL)

The second phase of Polish pilot project, partly financed by PEA, started in late June – the design phase has already been finished providing the system topology and dimensions that are tradeoff between the cost of the system and its performance. The installation to be built in Niepolomice merges technologies that are not commonly used in the single-family housing i.e. PV/T collectors and fuel cell technology together with hydrogen storage in the form of metal hydrates. The aim of the installation is to evaluate the scheme of the system suited for small private buildings according to the recent advances in the renewable energy technologies.

As a result of extensive numerical analysis of different system topologies the final system layout has been chosen and the energy production rates have been assumed. The monitoring system for the whole installation has been designed simultaneously. As soon as the installation is finished the monitoring system will supply all information about the current state of the system together with current energy production and instantaneous energy demand. The energy demand for domestic hot water preparation is assumed to be substituted in 60% (annually) by energy coming from the sun. The electric energy substitution factor is said to be at the level of 15-20% (annually). The level of the performance factor for the electric energy production results from the size of the electrolyzer that is planned to be used in the installation. In this case the electrolyzer with rated efficiency of 40 NI/h will provide “fuel” for the 1kW fuel cell. The indoor electric network will be broken down into smaller

sub-circuits that can be switched manually, this way allowing simulation of different energy demand profiles. It is particularly important as the system monitoring and reasoning process will be carried out throughout the one year period within PEA project. Moreover, the installation host building is characterized by higher electric energy demands than standard households in the region (that is why the internal electrical network has to be broken down). The use of more efficient electrolyzer is not feasible due to two reasons: one is simply the cost of such device that would not fit in the project budget, the other is the rate of price falling for such devices that would not make a common household afford it in the near future. However, the evaluated installation scheme still can prove to be more economically justified than a standard battery based PV plus TC (thermal collector) system for domestic hot water preparation and both auxiliary power supply and uninterruptible power supply.

The communication of the project results beside the standard form of written articles, leaflets etc. will be brought to the public via an online display of the installation parameters and energy production rate in a few remote locations.

TOPIC 4

PEA Press Conference in Võru 2 June 2011 (EE)

In the beginning of June all Estonian partners and press representatives gathered in Võru for the first PEA Estonian press conference. The aim of the conference was to obtain a broader media attention and public support for already implemented and upcoming PEA project activities on regional and local level. General information dissemination and targeted materials addressing print media, TV, websites and news releases help to attract attention and inform

The installation phase is presumed to be finished by the end of 2011. The ongoing activities are focused on tender formalities and will shortly result in first installation works in the host building. By now the pre-feasibility, feasibility and design studies have been conducted including shadowing analysis, PV/T collector placement analysis, sensitivity analysis of design parameters on the systems performance.

The advance of the pilot installation is regularly communicated to the public by articles in local and regional magazines. The pilot installation idea is frequently described as very interesting and innovative by people from the branch of renewable energy when asked for technical consultations. The whole team working on the pilot from the University of Science and Technology as well as from the commune of Niepolomice hopes that the interest will further increase after the announcement of the results following the monitoring period.

Michal Lubieniecki
AGH – University of Science and Technology
Krakow, Poland

the general public but also entrepreneurs and stakeholders about the PEA project implementation, importance of renewable energy utilization and the effect of energy efficiency and energy saving measures in the region.

The press conference started with a panel of presentations, where all project partners from Estonia had the possibility to present their activities, goals and outcomes of the project achieved so far. The floor was opened by South-Estonian Centre of Renewable Energy (LETEK) as the leader of WP 3, who made an introduction to the general idea and goals of the PEA project, planned activities and expect-

ted outcomes during the project lifetime. The Estonian University of Life Sciences and its Energy Class explained the role of a research institution in the project activities and the importance of energy saving and efficiency to the companies and local inhabitants.

Rõuge Municipality has been a kind of national success story with their systematic work in the local energy sector, environmental issues and related education. Therefore Tiit Toots, the mayor of Rõuge Rural Municipality started his presentation by explaining the role of the Rõuge Energy Park and the goals and aims of the PEA project in this context. The main goal for Rõuge is to work out a local energy strategy and perform necessary basic studies for planning future investments and development projects necessary for achieving the status of an energy efficient region and for balanced regional development. In addition, during the project period, Rõuge is going to develop the Rõuge Energy Park excursion package, organize different study visits and trainings for the local school, homeowners and entrepreneurs targeting energy saving and efficiency topics, carry out feasibility studies for solar collectors to be installed on the local kindergarten, transfer of street lighting to solar energy and reconstruction of an outdated district heating boiler house including fuel switch to pellet.

Anti Allas, the head of the development and planning department of Võru County Government, another partner in the PEA project, presented the currently running study on prospective energy resources and forecast of future energy consumption in Võru County which will be the main input to the ongoing development of the regional energy strategy. He specifically stressed the importance of regional energy strategy and its impact on the regional development including the energy sector during the years ahead and the next EU funding period. The aim of regional energy strategy is to give the municipalities and private sector reliable

information about the energy situation and options for further development. The strategy as a document should become a road map for future investments and developments and as such it should keep activities to be undertaken in a logical order and help to avoid mistakes and waste of financial resources caused by an unstructured planning. The image of the energy sector in the regional context depends to a great extent on the decisions we make today. Mustvee Municipality is looking for different options for reconstructing the local district heating system. Juri Frorip, the representative of Mustvee Municipality, presented some of the ideas identified during their baseline study: using the water resource of Lake Peipus for introducing geothermal energy into the local district heating system or reconstruction of the existing boiler plant and heating pipes and a change to locally produced landfill gas. There are several possibilities for increasing the efficiency and eliminate losses in the district heating system. By the end of the project lifetime the answer to the question, which investment is the most feasible, shall be given.

The second part of the press conference was a questions-answers session giving the participating journalists and media representatives a possibility to address each speaker and team members sitting among the audience for additional information and clarifications and give their own comments. Most of the questions concerned the local activities and their implementation within the PEA project, but also information about the energy situation in Estonia compared with the rest of Europe was requested.

The direct outcome of the press conference was two articles published in the regional newspapers. The next press conference will be held by the end of the year, when the partners are ready to present the results of the implemented studies, finalized regional energy strategies and training modules of WP4.

Combination of the experiences and existing know-how of individual partners helps us to run the project as one team and achieve concrete goals set in the project. The jointly organized press conference was one possibility of cooperation between the partners – an example to the whole international consortium worth following. I hope that the cooperation between all partners will continue and at the

TOPIC 5 PEA presentation at Brussels 25 March 2011 (BE)

The Urb.Energy project, in cooperation with the Representation of the Land Brandenburg in Brussels and the INTERREG IV B projects Public Energy Alternatives and Longlife, had invited to the conference on the 25th of May on the topic: Sustainable energy solutions in the urban and regional context – reflection on EU support.

With the help of specific experiences of three INTERREG IV B projects addressing the building sector, and the urban and the regional levels of government the event was dedicated to initiate an exchange between experts from the European Commission, the European Parliament, representatives from cities and regions as well as other relevant European stakeholders.

Christian Huttenloher from the German Association for Housing, Urban and Spatial Development and lead partner of Urb.Energy presented the project with the topic: Integrated approaches for the energy efficient upgrading

end of the project we can be proud of the achieved results.

Mairi Raju
Võru County Government
Project chief specialist

of residential areas: Experiences from the INTERREG IVB project Urb.Energy.

Dr. René Daszenies, project manager of the PEA project presented the topic: Promotion of renewable energy sources as a driving force for the development of rural regions: Experiences from the INTERREG IVB project PEA. Mr. Daszenies pointed out the importance of small scale investments in rural areas which can have a lasting and economic effect for the whole image of the respective region.



Dr. René Daszenies in Brussels,
© Michael Färber

TOPIC 6

Study tour of PEA partners

6-9 April 2011 (EE)

The study tour of Latvian and Lithuanian project partners to Estonia was organized within the project “PEA – Public Energy Alternatives” from April 6- 9 in collaboration with project partners from Estonia. The aim of it was to promote the acquirement of good practice and experience within the usage of efficient energy resources by visiting not only the samples of alternative energy usage, but also the international construction exhibition Estbuild 2011, which was taking place in Tallinn.

On the first day, the only stop on the way to Tallinn was Aizkraukle, where the attendants got acquainted with the experience of Aizkraukle Municipality in the renovation of apartment blocks in order to improve the thermal stability, discussing the low activity of the inhabitants both in Lithuania and Kraslava Municipality. The international construction exhibition Estbuild 2011, followed on the next day, thus using the possibility not only to view and get acquainted with different materials, but also to ask all the questions that interested the participants to the branch specialists, sharing the impressions and discussing seen, after the exhibition.

TOPIC 7

Biomass-Waste-Energy 2011

10 March 2011 (PL)

Biomass-Waste-Energy 2011 seminar attracted more than 110 participants – synergy effect of Bioenergy Promotion, PEA and REGNA projects at IFFM PAS Institute of Fluid-Flow machinery Polish Academy of Sciences (www.imp.gda.pl) in Gdańsk (Poland)

On the third and fourth tour day the participants learned about different possibilities of alternative energy usage in Estonia not only in theory: After listening to the presentations, which were prepared by the representatives of Estonia regarding possibilities of alternative energy, hemp planting and treatment and passive house construction, they had the chance to visit different objects, where the alternative methods are already successfully used. Foremost example the Pakri wind farm, but also the Valgjärve waste wood fuelled boiler plant, sewage treatment system with energy crop cultivation in Kanepi, the restored hydropower plant in Leevaku and the system of grain waste incineration – solar panels for hot water production – PV for electricity production in Piusa, etc.

The study tour enabled the representatives of Latvia and Lithuania not only to learn from the successful Estonian experience, but also to discuss the interesting questions with the representatives of South Estonian Centre of Renewable Energy (LETEK) and the Estonian University of Life Sciences, both partners in the PEA project, who not only helped to organize the tour program and joined the tour participants in the road seminars and the trips to the objects, but also provided the valuable information on the project activities within the 3rd WP.

On the 10th of March 2011, the Baltic Eco-Energy Cluster (BEEC) and the Foundation of Energy Saving in Gdansk co-organized a “Biomass-Waste-Energy 2011” seminar. The Baltic Eco-Energy Cluster is led by IFFM PAS and realizes the INTERREG IVB projects Bioenergy Promotion and PEA - Public Energy Alternatives. The event was focused on possibilities of energetic use of biomass and alternative means of utilization and management of biodegradable waste in Pomeranian Region.

The seminar was targeted at decision-makers responsible for waste management (including biodegradable waste) in Gminas of the Pomorskie Region as well as companies that provide services in the field of solid waste management. The seminar attracted representatives of academia as well as regional business entities. More than 100 persons participated in this event. The topic is currently of special interest, and thus attracted many participants, not only due to the aspect of bioenergy potential but also due to the EU law that obliges local self-governments to decrease significantly the amount of biodegradable waste that is landfilled.

This seminar was a follow-up of the seminar entitled „Waste Biomass to Energy. Technologies for waste utilization and conversion”, which was organized in March 2010 under the activities of the Regional BEEC Contact Point on Bioenergy. As a result of these two seminars, a wide spectrum of currently available technologies of biodegradable waste utilization for energy purposes was presented towards decision makers in the waste management sector in the Pomorskie region as well as other stakeholders (producers of industrial and agricultural waste, staff of environmental departments in Gminas from the Pomorskie region).



Adam Cenian at the Biomass-Waste-Energy Seminar 2011 © Ewa Domke

A number of contacts were stimulated between decision-makers in Gminas and providers of technology and solutions. This is expected to bring real life effects as well as investments in the long run. Facilitation of the discussion itself, involving all the stakeholders of the waste management arena in the region, being a primary goal, was achieved by the event organizers. Similarly to previous events, we again have the pleasure to inform you that this seminar was organized under the honorary patronage of the Marshal of Pomorskie Voivodeship, Mr Mieczysław Struk.

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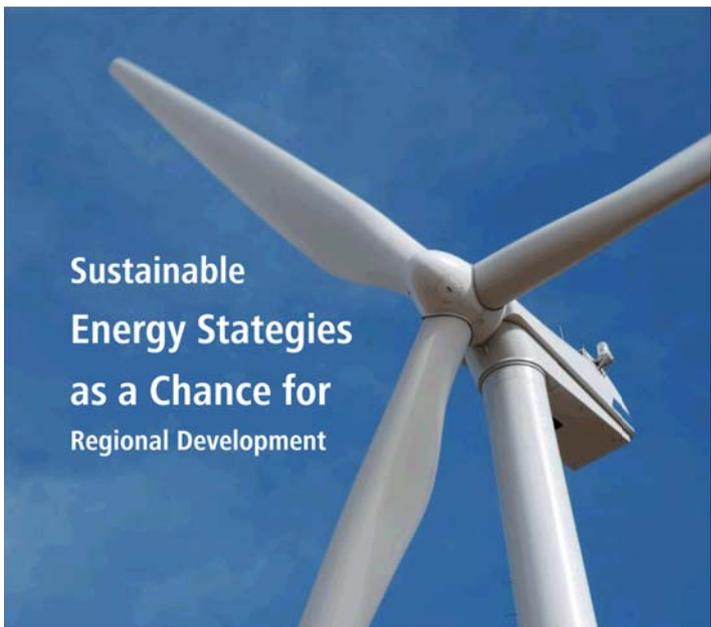
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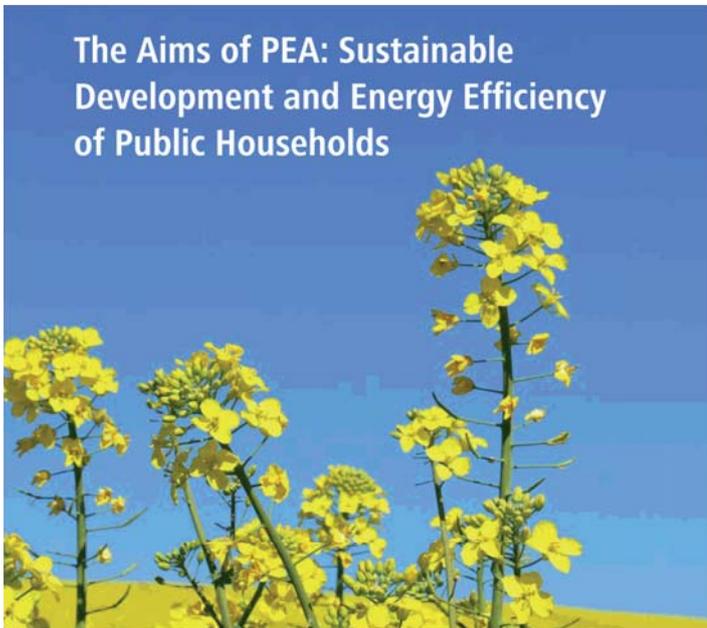
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**Sustainable
Energy Strategies
as a Chance for
Regional Development**



**The Aims of PEA: Sustainable
Development and Energy Efficiency
of Public Households**

PARTNERS

- City of Wittenberge, DE
- Brandenburg University of Technology, Cottbus, DE
- Technical University of Applied Sciences Wildau, DE
- German Association for Housing, Urban and Spatial Development, DE
- South-Estonian Centre of Renewable Energy, EE
- Estonian University of Life Science, EE
- Rõuge Municipality Government, EE
- Mustvee Municipality, EE
- Voru County Government, EE
- Zarasai District Municipality Administration, LT
- Ignalina Nuclear Power Plant Regional Development Agency, LT

PARTNERS

- Ignalina District Municipality Administration, LT
- Visaginas Municipality Administration, LT
- Lithuanian Energy Institute, LT
- Kraslava municipality council, LV
- Riga Technical University, LV
- AGH – University of Science and Technology, PL
- Commune of Niepołomice, PL
- The Szewalski Institute of Fluid-Flow Machinery Polish Academy of Sciences, PL
- Ylivieska Subregion, FL
- Lahti University of Applied Sciences, FL



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