WP 4 Energy Supply

Minutes – WP 4 Workshop

Piaseczno, 11th June 2010

Agenda

First part of the workshop was an on site visit to the target area of Piaseczno. Mr. Marcin Malinowski, Mr. Andrzej Rajkewicz and a representative of the local city council showed the problems and potentials of the target area and the ongoing process of insulation of walls, windows etc.

After this very interesting practical experience the participants were welcomed to Piaseczno Hotel to proceed with the presentations of the TAs and case studies and discussion on WP 4 topics.

Topics for discussion

Topic 1: Current situation, needs and deficits

All project partners of the target areas presented the actual status of their area along the agreed template. The presentations were held by:

Presentation of **Riga** Target Area , Benita Freliha, PP12

Presentation of **Grodno/Lida** Target Area , Tatiana Dashkevich, PP18

Presentation of **Berlin Case Study,** Prof. Dr. Ursula Flecken, PP03

Presentation of **Siauliai** Target Area , Ieva Kascionyte, PP11

Presentation of **Rakvere** Target Area , Marit Otsing, PP15

Presentation of **Piaseczno** Target Area, Andrzej Rajkiewicz, PP08

All presentations are available online on the Urb.Energy website.

It became clear that the preconditions vary heavily between the target areas. This relates to the ownership of the apartment blocks, the existing management and maintenance structure (private, NGO or by state authority/housing department) and also differences in the existing energy sources (district heating, use of CHP, use of renewable, individual heating by oil, wood, gas) as well as existing support schemes for low income households or other supporting schemes and differences in funding schemes for investments. The objectives for the planned energy reduction and reduction of greenhouse gas emissions also vary in relation to national climate protection strategies and energy efficiency in buildings regulations.

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The energy sources used are mainly based on natural gas and district heating systems, but CHP share differs between none in Piaseczno and none in Rakvere (first one planned for end of 2011), 1 in Siauliai and already 43 in Riga target area. Additional heat sources vary from intensive share of renewable like Wind energy and hydroelectric energy in Riga area or 25 5 share of biofuel (wood chips) like in Rakvere area to areas with no use of renewable sources like Grodno or Piaseczno or small parts of renewable like the use of sun battereies in Jelgava area.
Most areas are still dependant to one single supplier, usually still state –owned or at least partly state owned. In Rakvere 2 suppliers support the target area.

Potential energy savings estimations also vary between 25 – 50 %. Grodno area expects energy reductions by energetic refurbishment by 25 – 30 % which seems to be reasonable for a start. The more advanced target areas of Riga and Jelgava expect energy reductions of 30 – 50 % which will reach up to the German average of 50 % for prefabricated housing.
Piaseczno area expects only a moderate 35 % reduction of energy but this may be due to financial restrictions of the apartment owners.

Due to the different preconditions and restrictions all presentations were very interesting in highlighting the actual status of challenges and options, needs and potentials of the target areas but no general conclusions could be fixed yet.

Topic 2: Experience with case studies from Berlin

Prof. Ursula Flecken held a presentation on the problems and needs of the case study area in Berlin, which investigates retrospectively the implemented energy renewal measures and procedures.
According to Prof. Flecken, energy savings of up to 50 % for old residential buildings can be achieved by energetic renovation (especially insulation) and up to 60 % for prefabricated multi-storey apartment houses of the 60ies and 70ies (typical eastern socialist countries construction type).
In absolute figures around 120 – 160 kWh/m2/a could be saved in prefabricated buildings and an average of 130 kWh/m2/a in old brick type residential buildings with a much wider range of 60 – 260 kWh/m2/a related to the special conditions of the individual building.
One important finding of the case study was, that it does not matter, whether refurbishment is done together with energetic renovation or whether singular measures are implemented individually time after time.

Outlook:

The case studies final evaluation will be presented in detail at the next project WP 4 meeting in Berlin at 21st/22nd October 2010.

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