Urban Planners with Renewable Energy Skills – UP-RES
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Abstract

Missing link to energy and emissions

Traditionally, energy and emissions have not been integrated into the urban planning processes. Only in a very few planning schools in the world the spatial planners are educated with understanding on energy, and on renewable energy sources (RES) and energy efficiency (EE) in particular.

Relevance of the work to planning education

To fight Climate Change, however, such new understanding has become essential: the understanding may materialize in the following two ways:

- The energy experts and the urban planners shall start working together with all spatial development plans regardless existing or new building areas. In order to facilitate such co-working, training shall be provided to both types of professional to help them to understand each other.
- The training shall be extended to bachelor and master level education in parallel to the continued education of professionals.

UP-RES (Urban Planners with Renewable Energy Skills) Project as a part of the Intelligent Energy Europe framework programme provides pilot training to spatial and energy planners in five EU countries as well as material support to other universities to adopt such training into their curricula.

The training material designed to other planning schools in Europe will be made freely downloadable in 10 languages by mid July 2012 on the web page: http://aaltopro2.aalto.fi/projects/up-res/materials.html

Methodology

During 2012, the pilot training is carried out in five European countries, namely in Hungary, Spain, Germany, U.K. and Finland, the latter being the country of the coordinator.

The project work started with the competence and training needs analysis. Based on the analysis, the training concept was designed specifically for each country. Practicable examples and best practice cases of combined spatial and RES planning have been collected and used in the pilot training. Real cases have been identified in which win-win situations have been achieved when both the lifecycle costs and the emissions could be substantially reduced compared to the traditional way of spatial planning. The pilot training is underway during the period Oct. 2011 – June 2012.

Pilot Training Approach

The core of the training is the structure comprising ten modules. Each module typically comprises two days of training.

The module titles are as follows:

M1 SUSTAINABILITY CONCEPTS IN REGIONAL AND URBAN PLANNING: A HOLISTIC VISION
M2 ENERGY, FORMS - TRANSFORMATION - MARKET OUTLOOK
M3 ENERGY DEMAND REDUCTION STRATEGIES: POTENTIAL IN URBAN PLANNING
M4 ENERGY DEMAND REDUCTION STRATEGIES: POTENTIAL IN NEW BUILDINGS AND REFURBISHMENT
M5 ENERGY RESOURCES AND RENEWABLE ENERGY TECHNOLOGIES
M6 ENERGY DISTRIBUTION: DISTRICT HEATING AND COOLING
M7 THE RIGHT SCALE FOR EVERY ENERGY CONCEPT: HEAT AND COOL DENSITY (DEMAND SIDE), POTENTIAL ON SUPPLY SIDE
M8 NEW MANAGEMENT CONCEPTS IN THE ENERGY MARKET
M9 ENERGY PLANNING
M10 NEW TRANSPORT MODELS AND URBAN AND INTER-CITY URBAN MOBILITY

The above listed Modules will be described in the attached documents, including the objectives, the main contents and the information sources available to design local training of the particular module.

Country Specific Differences

Designing and implementing the training heavily depends on the local circumstances, and therefore, has to be adjusted to the local needs and conditions. Therefore, various approaches were chosen in the five countries to implement the pilot training, as follows:

Finland:
- In Spring 2011 already 7 one-day courses were organized in the cities of Espoo, Kuopio, Oulu, Turku, Tampere, Seinäjoki and Jyväskylä to market the long pilot training course.
- During Fall 2011-Spring 2012, a 9 months lasting long course of 8 modules of two days each was organized for 26 urban and regional planners.
- However, a voluntary excursion of three days to Germany was arranged.

Expected outcome

In summer 2012, the UP-RES project has provided support to extend similar training of urban planners with renewable energy and energy efficiency skills to other planning schools in Europe by means of publishing training materials. These downloadable materials comprise:

- The module structure of training;
- Introductory reading of the general approach and the content of each training module;
- Sources in literature and internet for more detailed information; and,
- Some 300 slides and supporting texts as well as shared experiences.

The material is available in 10 European languages such as:

- English
- Italian
- French
- German
- Hungarian
- Romanian
- Spanish
- Swedish

From fall 2012 on, the material is expected help extend such training to other European planning schools that consider integral spatial and RES planning as an important approach to fighting Climate Change.

The material above is freely downloadable. However, we would need to keep record on how, where and when such material has been applied in order to report on the use to the project sponsors, primarily the EU.