


EDITO - SEC-Tools project is dedicated to encouraging the establishment of Sustainable Energy Communities (SEC) in Europe; e.g. local societies that will take up the challenge of making a sustainable energy supply structure building on local renewable resources and improving security of energy supply. The project's main focus is on smaller communities in EU's New Member States (between 3,000 and 30,000 inhabitants) and pilot actions are carried out in Latvia, Lithuania, Poland, Czech Republic, Bulgaria and Eastern Germany. This is accompanied with creating a 'Toolbox' that is to assist communities and related actors in developing SEC actions.


SEC-Tools is now in its final year, and the efforts on disseminating SEC methods are being intensified. In recent period this has comprised holding a seminar in relation to the European Sustainable Energy Week/EUSEW in Brussels, 29 January 2008 as well as a number of events and other dissemination activities in the targeted regions. The core product of the project, the Toolbox, is a dynamic process and the challenge is to make communities around Europe aware of the potential benefits of SEC actions and showing ways to fulfil those in practice.



By this introduction, we invite our readers to find an update of the project activities in this Newsletter and to look for further information at the project website, www.sec-tools.net, where also linkages to the local websites can be found

 The SEC-Tools team, Sec-tools@info.eu

Video for inspiring SEC actions! The involved communities have produced videos showing their development since they are involved in the process of sustainability. A common video produced is based on the national videos of the pilot actions undertaken in Latvia, Lithuania, Poland and Bulgaria. The aim is to show the overall perspectives of initiating Sustainable Energy Communities (SEC) actions. It is based on the pilot work implemented under the SEC-Tools project. You are welcome to take advantage of the SEC practices. Please **click** on the link below to see the video.

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Energy balance of the town of Ustka in Poland

Ustka, situated on the Baltic Sea in the west of Pomeranian Region, has a surface of 1 014 ha and is inhabited by 16 955 people. The town is a tourist centre and a spa. The main heat source of the town is a district heating system – DH „EMPEC” Ltd. The town is supplied with heat by 5 boilers of 5.8 MW capacity fired with coal dust and one 6 MW boiler fired with natural gas and fuel oil. The total ordered capacity is ca. 21 MW.

The major end-user of heat supplied by district heating system is residential housing. 35% of the demand for heat of residential buildings is met by the district heating system. Individual wood and coal fired boilers as well as the boilers fired with fuel oil and natural gas are also in use. Natural gas is used by ca. 95 % of town population, mostly for cooking and preparation of h.t.w. in households.

The energy carrier of the largest share in the town's energy balance–38,6%.- is coal. This high share of coal results from the fact that the central boiler house is fired with coal dust.

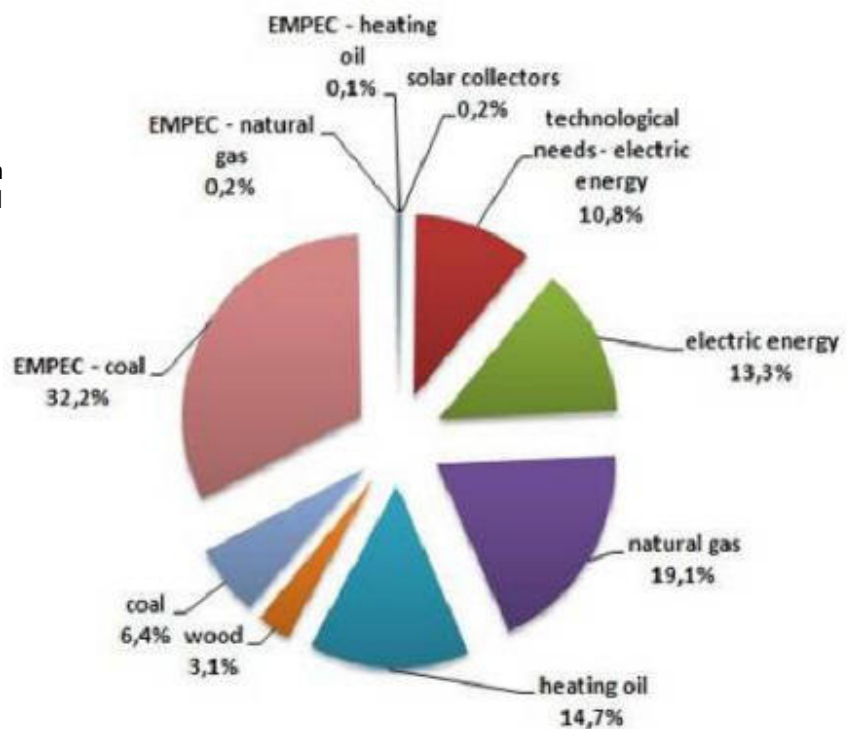
Chart 1. Present share of energy carriers in the energy balance

The spatial planning policy of the town is based on the principle of sustainable development. Both „Development Strategy of Pomeranian Region” and „Program of Environmental Protection in Pomerania Region” attach importance to the improvement of ecological conditions through upgrading the quality of the air. It is especially significant for the town of Ustka because of its spa character.

The factors determining the directions of changes are:

- rational use of energy,
- increased share of RES,
- requirement of ensuring energy security for the town,
- improved living standard.

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Prospects & examples from Latvia

The initial evaluation of the situation in Iecava (Latvia) regarding the energy efficiency of privatised apartment houses demonstrated that one of the most serious problems is lack of training and responsible superintendents that could organize the management of the houses and the implementation of energy efficiency measures. The Iecava


municipality has implemented a training program for these managers in order to support organization of housekeeping cooperatives and to initialize discussions about an efficient and sustainable management of the old apartment houses.

The training program "Administering and organization of management of the privatized apartment houses" included the following:

- Legal aspects of cooperative management of privatized houses;
- Life – cycle of the apartment houses;
- Electricity, gas, water and heat supply, principles of calculation of tariffs, planning and implementation of energy efficiency measures;
- Bookkeeping, taxation and calculation of operational expenses;
- Record keeping and organization of correspondence;
- Communication and solutions of conflict situations.

At the beginning of 2008, within the scope of SEC-Tools project, the Iecava municipality has realised a video about the development of the village heating system during last 10 years in cooperation with the companies Strasa Konsultanti and Vides projekti. This 10 minutes video includes interviews of the director of the heat supply company, of the chairman of the Iecava municipality and of the representatives of municipal organizations implementing different energy saving measures. The video has been broadcasted twice at the Latvian television.

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Project SEC-Tools continuation in Czech Republic In practice, every city and large village must take care for their local energy system, mainly in relation to heat energy. The municipality is active in ownership of the energy system and is participant of the solution of heat net renovation, or energy heat source renovation. When the municipality is not owner of local energy system, it is at least passive consumer of energy for own buildings. Indirectly the municipality is also participant of negotiations on local energy planning.

These aspects and other items in the field of energy planning and energy savings were the subject of the seminar held on last winter in the building of Southern Bohemian Region in the city of Ceske Budejovice. More details on the seminar, including all presentations can be founded at the local Czech website of the project SEC-Tools (www.sec-tools.cz). The seminar was held within the scope of the project. Participants were from the municipalities, from energy services companies and from other companies providing various services for the municipal sector.

The activities of the project are oriented directly at the city of Milevsko, which is engaged in the project. In the condition of the city of Milevsko the community energy planning tools are testing. The activities of the project in the Czech Republic are not in relation to the city of Milevsko only. SEVEN, Energy Efficiency Center, who is coordinator of the project in the Czech Republic is in contact with many communities which need consultation or assistance in the field of energy planning.

In 2008 next seminar is planned for the Southern Moravian Region in the city of Brno. Programme of the seminar will contain again primarily the items of energy planning and energy savings.

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Installation of biofuel boiler in Kaisiadorys in Lithuania

The Kaisiadorys municipality covers 1'087 km² and has 37'000 inhabitants. Its centre - Kaisiadorys town - is inhabited by 10'000 people. The project activities in Kaisiadorys were implemented in 2 directions: the first one on the assistance in installation of a biofuel boiler in the heat supply company "Kaisiadoriu siluma" and the second one on Energy management in public buildings

Biofuel boiler The Kaisiadorys district heating plant supplies to the network with heat produced in natural gas fired boilers of 44.1 MW capacity in total. Due to sharply rising natural gas prices, and in line with the project SEC-Tools, it was decided to install a biofuel heat boiler of 5 MW capacity. Locally produced wood chips are intended to be used as a fuel. The boiler should be working at 100% capacity in winter time, working in a base load and covering 60% of total heat demand. In summer period, only 20% of boiler capacity will be used in order to supply warm tap water demand. The investment of 3.3 million Lt (950,000 €) will include the installation of the biofuel boiler, the construction of a wood chip storage, the fuel transportation system and a new chimney. The financial appraisal of the project viability was made using a special SEC-Tool "Economic and financial appraisal of heat supply projects" (located on the SEC-Tools website). The operation of the biofuel boiler will require 15'000 tons of wood chips per year. Calculations confirmed the profitability of the investment. The heat production cost is estimated at 9.3-9.5 ct/kWh, which is well below the cost of heat produced by natural gas boilers - 11.95 ct/kWh (this heat production price was approved by the Price Commission by its decision of May 4, 2007). The change of fuel will allow the municipality to protect district heating consumers from fast growing natural gas price and heat price correspondingly. The construction of the biofuel boiler is expected to complete by the autumn 2008.

Energy management in public buildings In the town of Kaisiadorys, 2 public buildings - nursery school "Zvaigzdute" and public library - have been selected for introduction of energy management with a view to optimise heating in accordance with the required indoor temperature and possibly save energy. Currently, the special energy management software is being selected for practical testing in the selected buildings. These issues are negotiated with some Danish companies.

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Measures on renovation of multifamily houses in Kelme in Lithuania

Kelme municipality covers 1705 km² and has 40900 inhabitants. Its centre - a town of Kelme - is inhabited by 10900 people.

The project activities in Kelme municipality were implemented in delivering awareness campaigns on energy efficiency to residents in multifamily houses. However, the first straightforward attempts to convince people to embark on renovation of their highly energy-inefficient homes were unsuccessful. More detailed analysis of the situation revealed 2 principal barriers:

- Since not a single house has established home owners association, the municipal authorities appointed administrators to these houses. Due to lack of motivation and weak control, the administrators' performance was poor. This resulted in absence of a real house owner even though formal ownership belonged to the flat owners.
- Flat owners typically complained about lack of own funds for renovation. Scarcity of funds has been predetermined by insufficient government policy, which does not require mandatory planning of renovation and corresponding accumulation of earmarked funds as a must. Planning renovation is therefore absent and accumulation of funds is put on voluntary base. Combined with weak administration, both shortcomings resulted in very poor situation - people do not have any renovation plans - or even intentions - and at the same time, they have no funds for renovation.

It should be noted that these deficiencies, which exist throughout the country, have been addressed at the state level. To date, the following measures were taken:

- Analysis of house administrators' work was done and conclusions as well as necessary changes in government regulations were submitted to the Environment ministry who is responsible for these issues. The proposals were discussed at 2 meetings with Ministry's mid-level officials.
- It has been agreed with the Environment ministry to organise a workgroup and a follow-up conference on the above issues with participation of principal stakeholders in May-June.
- It was suggested to the Ministry to provide further assistance in case new government regulations are to be drafted.

Additionally, as an extra mean, 2 new and more progressive heat allocation methods in multifamily houses were elaborated by a SEC-Tools partner. One method is based on an allocation related to square meters. Another method involves heat meters and thus creates motivation to save energy. The second method uses one technical innovation, which allows more precise allocation of heat consumption and does not require that all flat owners must install heat meters. Such strict requirement was a serious impediment for the installation of heat meters because in many cases, there has been a few opposing flat owners. Both methods are more precise compared to existing practice, which is based on normative approach. In addition, the official method with heat meters suffers from improper method of calculation that weakens heat saving motivation. This existing weakness has been removed in the new method.

With a supportive letter from the Ministry of Economy, both methods were proposed to the Price Commission for approval, which is currently under way. After the approval, these methods will be offered for people in Kelme. It is intended to award the first house who will decide positively, by installation of heat meters and partial funding of this investment from the project earmarked funds.

Both heat allocation methods will be placed on the Lithuanian SEC-Tools website, soon.

It is also intended to arrange an international workshop in Kelme with focus on these matters in May 2008.

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Heat supply planning in Trakai municipality in Lithuania Trakai municipality covers 1200 km² and has 38200 inhabitants. Its centre - a town with glorious historical past - Trakai is inhabited by 5400 people. In accordance with the SEC-Tools action plan, activities in Trakai municipality were carried out in 2 principal areas: the first one on Municipal energy planning ; the second one on Energy management in public buildings:

Heat supply planning in 3 small towns In May-June 2007, heat supply planning was launched for 3 small towns: Aukstadvaris (1000 inhabitants), Senieji Trakai (1500) and Rudiskes (2500). All the 3 towns have in somewhat similar situation which exhibits the features as follows:

- Heat supply is costly due to small size of all 3 systems. Also it exhibits numerous inefficiencies – low boiler efficiency, bad insulation of distribution networks and oversized piping originally intended for more users.
- Due to high heating costs, a lot of consumers have disconnected from the district heating systems and installed various individual heating systems, many of them are rather primitive. To date, less than half of flats remain connected to the district heating systems, consequently district heating is in a very unfavorable position. Those who have disconnected represent the biggest problem for the future of local district heating.
- Owing to complexity of district heating regulation, the heat prices in small towns are relatively high compared to big cities and it is combined with unfair practices frequently applied by heat suppliers. The district heating lacks attractiveness and popularity among consumers; people tend to favor individual modes of heating instead.

To date, the 3 heat supply plans have been drafted, the most important results being reflected in detailed maps, which depict consumer zones with preferential heating mode. The plans were discussed at a few meetings organised by the Trakai municipal administration and with participation of a SEC-Tools consultant. Consultant's main findings and suggestions were as follows:

- Heat demand prospects need better substantiation. Taking into account that a great number of consumers have disconnected from district heating network, a more detailed consumer survey is needed. Investigation of consumer preferences for district or individual heating modes should be carried out at the planning stage and preliminary agreements with multifamily houses and other larger consumers are strongly recommended. This would considerably increase reliability of planning. Meanwhile all the 3 draft plans have used very approximate and unreliable figures for estimation of the perspective heat demand.
- Selection of wood pellets as biofuel for district heating is quite expensive and may undermine competitiveness of the district heating option. The use of much cheaper wood chips must be instead considered which may improve significantly the district heating option.
- There is no uniform and reliable heat supply planning approach among consulting companies. Each company uses its own methodology, principles and software, some of which seem quite primitive and insufficient. Hence, a well substantiated planning methodology, based on simple and easily understandable principles would be of great value for better energy planning throughout the country. Within the SEC-Tools project, it is intended to develop a special heat planning tool, which might remove the present shortcomings, make a consultant's work more efficient and the heat planning outcome considerably better.

Energy management in public buildings 2 public buildings have been selected for introduction of energy management with a view to optimize heating in accordance to the required indoor temperature and possibly save energy. The 2 buildings are situated in Trakai town. Currently, a special energy management software is being selected for practical testing in the public buildings. Negotiations with some Danish companies are under way.

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Boosting Sustainable Energy Communities across Europe Seminar


Under the umbrella

of the Sustainable Energy Europe campaign (SEE), the European Commission's Directorate-General for Energy and Transport, the European Institutions, the Slovenian Presidency and major stakeholders concerned with sustainable energy together arranged the second EU Sustainable Energy Week (EUSEW). It took place in Brussels, Belgium and in other cities across Europe from Monday 28th January to Friday 1st February, 2008.



Each community, with its own vision and specificities, could adopt the more convenient approach for its territory and has the capacity to give a local answer to its own stakes in sustainable energy development. The Seminar "Boosting Sustainable Energy Communities across Europe" will give to decision makers, stakeholders and civil society at local and regional levels a testimony of sustainable energy development in Communities drawn from SEC-Tools and BELIEF experiences, two on-going IEE projects.

This workshop was held in the framework of the [SEC-tools project](#), supported by the [Intelligent Energy Europe Programme](#) in the Committee of the Regions in Brussels. The slides of this workshop are available from [here](#).



Intelligent Energy - Europe (IEE) is the Community's support programme for non-technological actions in the field of energy, precisely in the field of energy efficiency and renewable energy sources.

The Intelligent Energy for Europe (IEE) 2008 call for proposal has been launched. For further information, consult [here](#) : and read carefully the IEE 2008 working programme, available in English, French and German. Guide for proposers and Online application forms will be available soon.

The total budget for projects under this call for proposal is 43 millions EUR. Given the new co-financing ceilings (75%) the European Commission expects to allocate approximately 50 to 60 grants. In addition, 2 millions EUR are allocated to the creation of energy agencies – the Commission expects to select the creation of 8 agencies with this budget. The participating countries are EU 27 + Norway, Iceland, Lichtenstein and Croatia.

The priorities are structured within SAVE (Energy-efficient buildings; industry excellence in energy) within ALTENER (renewable electricity; renewable heating and cooling; domestic and other small-scale applications; biofuels) within STEER (Energy-efficient transport; b) clean vehicles and alternative motor fuels; capacity building in transport for existing local and regional agencies) within Local leadership (Creation of local and regional energy agencies; European networks for local actions) and finally within Special initiatives (Bio-business; Energy services; Intelligent energy education; Product standards; Combined heat and power).

Finally, it should be noted that, this year, proposals can ONLY be submitted electronically. Deadline for submission is set for June 26th, 2008, 17.00 (Brussels' time).