

## Annex c

### FINAL REPORT SUMMARY

*Key words:* new buildings, planning issues, legal initiatives, education, decision makers, local and regional authorities, property owners, energy efficiency, heating, capacity building.

The county council of Aarhus took the initiative to create the *Samsø Energy Agency* (SEA) together with the municipality of Samsø and the Danish Enterprise And Construction Authority (da: Erhvervs- og Byggestyrelsen) under the ministry of internal affairs. The SEA was established legally as an independent non-profit association on 21 March 2005. The objective is to exploit the knowledge obtained on Samsø in the past about energy efficiency and renewable energy installations.

The board of management consists of representatives from the region, the municipality, the local trade board, an adult educational institution, the local energy management agency, and the consumers' organisation. These representatives also inspire and discuss the problems that occur. An advisory board consists of representatives from two universities, the Danish Energy Agency under the ministry of climate and energy, and there are close contacts to non-governmental organisations, such as the wind turbine association and the hydrogen association. The staff consists of one full time manager, and 3-4 part time employees.

The work done during the past three years revolves around three highlights:

- Samsø as a demonstration case for citizen involvement;
- transition to the use of hydrogen produced on the basis of the renewable energy infrastructure on Samsø; and
- dissemination of best practice for combining rational use of energy and renewable energy sources, targeting high potential communities inside and outside EU.

There are two key actions in the work plan: 1) to help establish the Samsø Energy Academy (note: not ... Agency) and erect a building for it (1.7 M EUR); and 2) to establish contacts to universities, companies and public authorities.

The results of the work are summarised below.

- *Collaboration with the region.* Establishing the *Samsø Energy Agency*, SEA, was the beginning of a close cooperation with the Central Denmark Region (County of Aarhus initially). It has resulted in: participation in the regional planning of the Energy Year 2009, including the world climate conference COP15; funding of dissemination activities; and energy balance courses for 15 municipalities within the region. The cooperation with the region has thus provided access to 'customers' for the energy

agency, and it has provided a source of knowledge on energy matters for the region. The work is the subject of a case study.

- *Collaboration with the municipality.* The municipality of Samsø is small, and there are no officers dedicated to the energy area, only service personnel taking care of the daily monitoring of the town hall building. The *Samsø Energy Agency* is therefore in a position to contribute strategic planning, knowledge transfer, and information dissemination. The *Samsø Energy Agency* has provided information to politicians and decision makers, consultancy towards energy savings in the municipal buildings, and advice on centralised electronic monitoring of temperature and energy consumption. The *Samsø Energy Agency* also assisted in forming the local regulation regarding the energy consumption in new buildings. This is expressed in the so-called low energy classes, where class 2 buildings consume 25 % less than the nominal energy consumption, and class 1 buildings less than 50 %. The work is the subject of a case study.
- *Samsø Energy Academy.* Since the opening of the Samsø Energy Academy the *Samsø Energy Agency* has been a major player in the events there. The *Samsø Energy Agency* has also taken active part in the establishment of the exhibition area in the academy. More than 7,000 people have visited since the opening, among them the Baltic Sea commission under the Conference of Peripheral Maritime Regions.
- *Hydrogen.* The *Samsø Energy Agency* has contributed to the erection of an electrolysis plant on the premises of the Samsø Energy Academy. The plant produces hydrogen from water, with lye as a catalyst, and the energy source is wind turbine electricity. A hydrogen truck now runs on fuel produced by the plant. The next step is hopefully more vehicles on the island running on hydrogen.
- *Passive houses.* The SEA participates in the specification and erection of five passive houses, also on the premises of the Samsø Energy Academy. The project is a collaboration with commercial advisors, especially an architectural company at this stage.
- *Education and a conference.* The SEA together with the Samsø Energy Academy often receives school classes from all over Denmark. Last season 1,800 children and 200 teachers visited the Samsø Energy Camp School. A two days energy conference attracted 68 participants.

To conclude, our experience is that although constant focus on the planned activities has been difficult due to changing conditions, it has paid off in the long term. We have currently a portfolio of projects that lasts the next three years. For the future work we think that our wide network of contacts is a solid platform. The work will likely include some form of commercial operation, such as giving courses, as a new source of income.