



Collaboration With The Municipality

Samsø Energy Agency, Denmark

Summary

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 designing 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 %.

End-user area

- X New buildings
- Refurbishment of buildings
- Transport and mobility
- Financial instruments
- Industry
- X Legal initiatives (regulations, directives, etc)
- X Planning issues
- Sustainable communities
- User behaviour
- Education
- Other

Target Audience

- Citizens
- Households
- X Property owners
- Schools and universities
- X Decision makers
- X Local and regional authorities
- Transport companies
- Utilities
- X ESCOs
- X Architects and engineers
- Financial institutions
- Other

Technical

- X Energy efficiency
- X Heating
- Cooling
- X Appliances
- X Lighting
- CHP
- X District Heating
- X Solar energy
- X Biomass
- X Wind
- Geothermal
- Hydro power
- X Other: electronic energy monitoring

Context

The collaboration between the *Samsø Energy Agency* and the Samsø municipality has always been efficient. Because the municipality was involved in a past energy project, their support to the *Samsø Energy Agency* was quickly established. The mayor demonstrates the support clearly and publicly through his seat in the management board of the *Samsø Energy Agency*. The municipality covers now 4000 inhabitants (decreasing), and there are 0.07 employees per capita on the municipal payroll.

Objectives

The main objective of this case study was:

- to assist the municipality with energy planning and implementation.

The area is under constant development, and it is impossible for the municipal organisation to build the expertise in-house.



Process

- *To assess buildings.* New Danish legislation prescribes tighter rules for energy savings in municipal buildings. The information provided by the *Samsø Energy Agency* to the town council is considerable, and it helps the politicians make decisions. The legislative rules concern buildings larger than 60 square meters with a heating system. When an external advisor has examined a building, it receives an official energy stamp. The stamp and report indicate where the energy savings are obvious, for instance by adding insulation or improving window sections. The municipality must renew the energy stamps every three years.
- *To implement savings in buildings.* Next step for the municipality is the actual renovation of the buildings. The Energy Supply Company (ESCO) model provides a short term solution: The utility company, based on the energy stamp assessments, offers financing of for instance new energy efficient ventilators and pumps. The savings pay toward the investment, and after a number of years the investment will be an income for the municipality.
- *To monitor buildings.* Finally the municipality will invest in an electronic energy monitoring system, where one person with a PC can monitor and control the energy consumption in all buildings. Monitoring could thus become a future contract for the *Samsø Energy Agency*.
- *To regulate residential areas.* The national legislation for buildings in new areas requires energy class 2. The local politicians consider a thematic district plan for the whole island, where they may wish to require the stricter energy class 1. Energy class 2 implies a reduction of the nominal energy consumption by 25 %, where energy class 1 implies a reduction by 50 %. The calculated energy consumption, or the energy losses, is based on volume, area of outside walls, heat capacity and heat conductivity of the materials used. It is a major political decision, because it will regulate the local society towards building more efficiently, and at an earlier stage, than the national legislation prescribes.

Financial resources and partners

The EU contributed 50%, the Danish Enterprise And Construction Authority (da: Erhvervs- og byggestyrelsen) contributed 35 %, and the municipality contributed the remaining 15 % through the Samsø Offshore Wind company. The total funding, which covered other activities as well, was 440 k EUR.

Results

The *Samsø Energy Agency* is now acting as energy consultant for the Samsø municipality: energy stamps, district plans, and energy monitoring. The *Samsø Energy Agency* collaborates with the utility company NRGi, and as a sub-contractor helps NRGi with the local work concerning the energy stamps.

Lessons learned and repeatability

The constant focus on the planned activities, and the dissemination value of these activities, has been important. But the most important success factor is the local involvement of the citizens; if the citizens are happy, the municipality is happy. Our wide networks, internal and external, has resulted in projects reaching three years ahead of now.



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Title: File archive

Cost: free download

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For your information. To be taken into account when filling in the template

Criteria for selection of Good Practice Case Studies

Energy effective (Weight factor: 2)

The activity should result in quantified energy savings and/or in energy produced from renewable energy sources in a definable period of time. If not applicable (e.g. education or information) give potential benefits in the long term.

Environmentally benign (Weight factor: 1)

The activity should result in a reduction of greenhouse gases emission, lower local pollution, higher air quality and saving of natural resources.

Adequacy of techniques and tools used (Weight factor: 1)

The activity should not use techniques that are not viable or that present high technical risks. The complexity of the technologies and tools used should be adequate to the role of a local or regional energy agency. An activity with limited technical content (e.g. information sessions for children) would perform well according to this criterion. Integration of technologies will also be evaluated under this criterion.

Economically viable (Weight factor: 2)

The project should be economically attractive for the society as a whole, and involve reasonable costs for a local/regional agency. Quantitative results are required using indicators adequate to the type of project. For projects predominantly "technical", life-cycle cost is preferred, but other economic indicators can be used. For other projects, indicators can be audience reached, participation rate, number of meetings etc. Other non-energy benefits should be mentioned. The use of subsidies should be clearly stated.

Socially and politically acceptable (Weight factor: 1)

The socio-economic benefits and acceptance issues of the activity should be described. Regarding acceptance, positive aspects (e.g. the project has become a landmark or is used for education purposes) as well as negative aspects (e.g. opposition from local actors) should be mentioned.

Replicability (Weight factor: 3)

The success factors and the specific conditions needed for repeating the activity in a different context should be described. The action should present a high potential of replicability.