

Project No: **1245R4**

**REENERGY**

**Regional Strategies for Energy Conscious Communities**

**Regional Initiative Project**

*Priority: Environment and risk prevention*

*Theme: Energy and sustainable transport*

***Case Study (TG3: Community involvement)***

***Network of energy responsible personnel***

***Slagelse Municipality***



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## **1. Case study concept**

### **1.1. General information**

Title (case study name): Network for personnel, responsible for energy in municipal buildings.

Selected Topic: TG3: Community involvement: Engaging stakeholders in EE and RES solutions at local level.

Targeted segment: Municipal sector, energy savings and RES solutions.

Region / city where the case study takes place: Denmark, Region of Zealand, Slagelse Municipality.

Year of implementation: 2002

### **1.2. Introduction and background**

#### **Introduction**

Slagelse has a tradition for energy renovation of municipal buildings and many of the municipal buildings are equipped with SCADA systems that automatically measure energy and water consumption. Moreover, there is one person appointed responsible for energy consumption in all buildings. In many of the larger buildings the janitor is in charge. In many of the minor institutions the leader or another person may be in charge.

The case study for community involvement (TG3) in Slagelse is the network that was founded for the personnel responsible for energy.

#### **Background to the case study**

Slagelse has a tradition of energy renovation of municipal buildings, and with an annual renovation budget of about 1 million EURO systematic renovations have been planned and executed for years.

From 2013 to 2015 the municipality is even able to increase the efforts, also due to the EU REEEZ project. This project enables the municipality to perform important and exhaustive energy retrofitting of certain buildings and to install solar cells in about 17 of the municipal schools. Installation of such solar cells goes hand in hand with a process that enables teachers to integrate solar cells into their lessons.

The thorough energy retrofitting is planned and executed by a centralised working group (Group: Buildings in the Centre of Operation and Buildings in Slagelse Municipality) within the municipality. The costs of the retrofitting are only partly counter-balanced by a decrease of the energy budgets of the institutions. Due to the fact that savings are only partly counter-balanced, institutions can save money immediately when the renovation is finished.

Savings achieved by decentralised measurements obtained by changes of attitude or financed by own budgets, are kept by the institutions.

Due to the internal financing of energy retrofitting, ESCO models have been deselected.

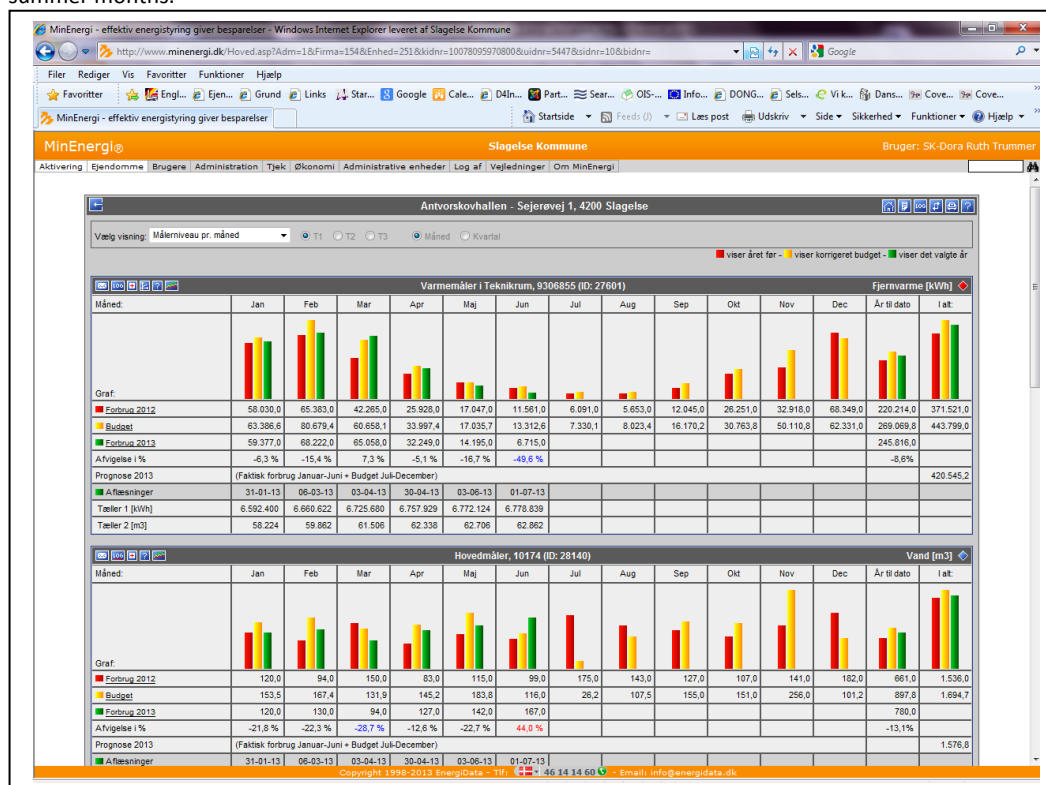
In 2009 Slagelse Municipality joined the climate agreement under The Danish Society for Nature Conservation, aiming at a reduction of CO2 emissions arising from internal actions (for instance: electricity and heat consumption in municipal buildings, fuel for transport) of 2% annually.

This political aim forces the municipality to annually measure and report energy consumption (in a green account report), thereby guaranteeing a structured progress on the CO2 emission reduction target.

### 1.3. The Case study / Good Practice

The majority of the app. 250 municipal buildings are equipped with the SCADA system “Min energy” (“My Energy”) that automatically controls and monitors energy and water consumption in the buildings. The system also visualizes the consumptions and is able to provide warnings if certain set-points are exceeded.

**Figure:** Example from the monitoring system. The red columns show the energy consumption the previous year, the yellow columns show the estimated (budgeted) consumption of the current year, whereas the green columns show the actual consumption. The graph clearly shows reduced heat consumptions during the summer months.



In addition to the software, all municipal buildings have appointed personnel, responsible for energy. In larger institutions such persons are often the caretakers of the building, in minor institutions pedagogues may be appointed responsible for energy.

**Photo** from a network meeting for the personnel responsible for energy.



The energy responsible personnel of the larger buildings is part of a network that meets 4 times a year. There are 15 – 20 persons joining the **network**, which deals with aspects of common concern, and the participants learn and get inspiration about good practices in certain institutions and other municipalities. Further, the network addresses and discusses common problems in order to ease operation of the buildings. The concept is also open to persons who i.e. share common computer systems, who can share knowledge and experience.

From time to time, inspiration events are organised, targeted to leaders or other personnel of minor institutions.

The **Key issues** addressed by the case study are energy saving and energy saving behaviour.

The **overall objective** of the case study is the reduction of energy consumption and thereby a reduction of CO<sub>2</sub> emission from municipal operation – and knowledge sharing between people working in the same field of action.

The **Operating objectives** of the case study are 4 annual meetings and a good dialogue between personnel in charge of energy and the central administration.

The good practice is **sustainable** because it can be executed at different resource inputs, according to the number of meetings or other platforms for knowledge sharing.

The **costs** for the network are minimal, despite working time for the people organizing and joining the network. The network is embedded in the existing organization; anyhow,

support from the decentralized leadership is important in order to keep focus on the work of energy saving.

## 2. Case study exchange aspects (Added value of the Case Study Exchange)

The main factors that **support the transferability** of the case study are a political wish that the municipality should serve as a good example, a political objective for energy reduction in the form of a goal, maybe an action plan and a budget for energy renovations. But if only one of the factors is in place, the network can still be organized, if local institutions are interested.

The **parts that can be transferred** are the personnel in charge of the appointment of energy, reporting requirements in terms of reports of buildings energy consumption and the implementation of a supporting structure (the network).

The **necessary conditions for the transferability** are the presence of persons in the institutions that engage themselves and someone that organizes the network and the meetings.

The **envisaged results and/or positive side effects** deriving from the good practice implementation are controlled energy consumption and a forum of knowledge sharing.

## 3. Final remarks

The good practice on community involvement (TG3) under the Renergy project is the network of energy responsible personnel in Slagelse Municipality.

The good practice can easily be transferred, as it requires only some engaged persons in single buildings and someone organising network meetings. Political and administrative will and defined energy savings and CO2 saving goals support the initiative, and the budget for energy renovation enables larger renovation projects.

The case study would be more sustainable by a person that could visit all small institutions regularly and support the personnel with energy savings initiatives.

The main factors that have to be considered in the transfer process are a clarification about the resource input in the established network and support of a network and the duration until evaluation of the network.

## 4. References

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