



## Project Fact Sheet



### Good practise of multi-level governance

<b>Key Action:</b>	Reduce energy consumption in municipal buildings
<b>Cluster of</b>	Sweden
<b>Island</b>	Region Gotland
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### Summary

Region Gotland has decided on goals for reduction of energy consumption in municipal buildings. During the past 10 years the heating consumption has been reduced by over 40%. The electric power consumption has been reduced by 10%. That is not enough, and to reach an even lower level of energy consumption and to be able to phase out the last oil-powered heating, an EPC-project (Energy Performance Contracting) started in 2011. The goal for the project is to implement all viable actions to reduce the energy consumption before 2015. During the procurement process an energy service company was contracted to analyze buildings, perform actions and guarantee the savings.

The first phase of the project, to analyze buildings is financed by the energy council of Sweden as a part of the project "energieffektivisering i kommuner och landsting" (energy efficiency in municipalities and county councils), which is a part of fulfilling the EU directive "Energy end-use



efficiency and energy services” The second phase is financed by the municipality of Gotland.

## Project’s results

All municipal buildings (400 000 s.q.m) have been analyzed with respect to energy consumption, and a big number of proposed actions have been listed. All actions are costed and payback time is calculated.

Now the project is in the implementation phase. 20 m.sek have been invested in 20 buildings so far. 512 000 kWh electric power and 685 000 kWh heating is expected to be saved in these buildings. In some of the buildings a reduction of electricity consumption by 40% is confirmed. The total energy reduction is calculated to be 20% by 2015.

### Barriers

The laws of public procurement were a barrier to overcome. Due to the high complexity of the project and earlier fails with this type of project the procurement process was long and had to be done very careful. The Energy Council of Sweden and the Environmental Management Council was a part of the process as advisors.

Funding of the investments was another barrier. The responsibility for the municipality of Gotland to participate to contribute in EU energy goals is unclear. Also the internal goals for the Municipality of Gotland are somehow unclear. The result is that the project in whole has to be bankable which excludes many of the proposed actions, for example solar panels.

Result 1	Energy savings in buildings up to 40%
Result 2	Good practices are spread in the society
Result 3	Other problems in the buildings are solved in the process of replacing and upgrading energy systems, for example poorly working vent-systems.
Result 4	A modified model for Energy Performance Contracting was created.
Result 5	



## Lessons learnt

- The decision to put a lot of effort into the pre study and procurement phase was good. A lot of time was spent on researching other cases, both successful and unsuccessful. The traditional procurement model for EPC was reworked from scratch.
- The technical knowledge of the ESCOS (Energy Service Company) varies. One lesson to learn is to build your own technical competence early in the project or hire technical competence in order to put proper technical requirements on the ESCO in the procurement phase. Also it is very crucial to establish technical standards early in the project so that the ESCO produce solutions that will function in the long term.

Lesson 1	A successful and well planned procurement process is crucial for a good result.
Lesson 2	Make sure that the ESCO meet the requirements on technical knowledge.
Lesson 3	Specific and measurable energy-goals are a big advantage before starting an EPC-project.





Image 1. New control equipment for heating control to make sure that the right amount of hot water is supplied at every moment.



Image 2. New ventilation unit with heat recovery and energy-efficient fans.



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