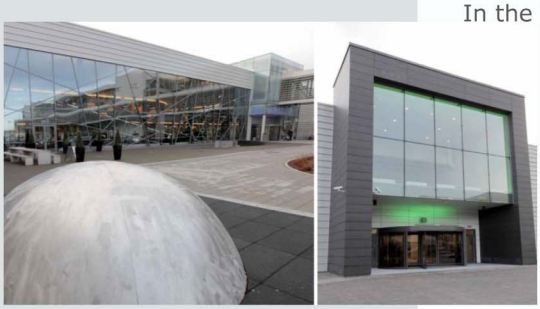
Shopping Centre

Project Profile

GULSKOGEN
shopping centre

STEEN & STRØM

Gulskogen is a Steen & Strøm shopping centre in Drammen with about 120 tenants, large common areas and a parking house in five storeys.
In the period 2007-2010, the shopping centre has been through a total refurbishment process and currently it appears as a modern shopping centre.



The property management team at Gulskogen is a relatively new team which in a short period of time has built up the property management organization and at the same time has been focusing on the work related to the environment and social responsibility.
A part of this work has been focused at reducing the energy consumption at the shopping centre both because of environmental concerns, but also to reduce the costs related to the energy consumption.
An important tool in this work has been to introduce Energinet and implement this energy management programme in the day-to-day routines.
For us, it has been useful to create adapted daily reports via e-mail to the property management staff, and in this manner, we have total control of the management of the facility and have been able to uncover errors quite immediately, at the same time as we have received proof of where the energy in the building is consumed, and therefore, we have been able to introduce the necessary measures through adjustment of set-points, operating periods and more, says head of the property management team Håvard Kristensen.

We talked to the head of the property management team Håvard Kristensen about his experience with the Energy Management work and the experiences with Energinet as their tool.

1. How do you use Energinet at the Gulskogen shopping centre?
First of all, it is important to install meters and collect automatic data from the meters which are optimal to ensure that we have a detailed picture of how and why the energy in the building is consumed and how the deviations, if any, are to be found. This is also necessary in order to generate the reports we need.

For Gulskogen, we have 35 meters installed which provide us with the detailed information we need for optimal follow-up.
The shopping centre has 16 modern ventilation systems and uses the surplus heat from the grocery store for heating.
All the installations are connected to a Building Management Systems which is followed up on a daily basis by the property management team.
In the daily follow-up work through Energinet, we have a continuous focus on both light control and how we manage the technical installations.
This has been an important reason for the reduction of the energy consumption of the shopping centre by nearly 600 000 kWh in 2012 compared to the previous year, and this has been achieved without major investments.

""The property management team at Gulskogen is a relatively new team which in a short period of time has built up the management organization and at the same time has been focusing on the work related to the environment and social responsibility.
An important tool in this work has been the introduction of Energinet and to implement this energy management programme in the day-to-day routines."

Håvard Kristensen, head of the property management team

"Since 2006, Steen & Strøm have been working full of purpose to reduce the environmental load from their shopping centres. In Norway, the effort has been called "Godt Valg" (Good Choice) and includes a lot of activities and target areas. One of the main focus areas is to reduce the energy consumption in their shopping centres. Ever since the start, EvoTek AS have taken on the role as project leader of "Godt Valg Enøk" (Good Choice Energy Saving) and have assisted Steen & Strøm to optimize the energy consumption in their shopping centres. One of the most important success factors in such projects is the Energy Management tool. Energinet has been well received and is used on a daily/weekly basis by those who have been involved in the central organization as well as in the shopping centres. During the first 3 years, we reduced the energy consumption by 20 GWh/year. In the next phase, we have documented a further reduction by 8 GWh/year.
"The Gulskogen shopping centre is one of the shopping centres which, by employing Energinet in an efficient manner, is able to document an energy consumption which is among the lowest in Norway. (about 230 kWh/m2 heated area including heating of the street/pavement, parking house, tenants and so on)"

Kjell Petter Småge,
General Manager EvoTek AS

Energinet is developed and maintained by:
www.cebyc.no

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The property management team at Gulskogen. From the left: Sølve Lislelid, Håvard Kristensen and Stian Strand

An example: Modification of the light control regime in the parking house after the night-watch. Investment: about 20,000 NOK, saving of about 62,000 kWh in

EnMS – A tool for control of the investment in energy saving projects. In Steen & Strøm we use Energinet as control tool in the design, and to document the savings which can be made from the investment.

In order to succeed and make the best use of energy management, the following is important, as we see it:
- Spend time on the property management team to check that the routines are in place
- Get help to understand the system and the design
- Create the report groups to be used
- Use them to increase the motivation to initiate and complete measures and to ensure that energy saving is a continuous focus point
- Have enough meters down to the level of each individual installation
- Get updated values every day from technical installations
- Create automatic reports to be submitted via e-mail where all the installations may be presented individually.
- Report to and involve the owner in the work. It is there the money for new investments is granted.
- By spending a few minutes every day on Energinet, we have obtained control of the energy consumption and at the same time introduced energy efficient measures

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How are the results from the meters used for efficient management of the building and how do you use Energinet in your everyday work?

We employ automatic reports which are submitted via e-mail to the property management staff. These are submitted either every day or every week relative to their importance.
For example, with hourly values the last seven days for all ventilation heating/ cooling systems, to get a quick overview of the consumption and any errors as well as whether the installations are operated optimally.
Daily updates facilitates that we are able to correct deviance quickly which in turn saves unnecessary costs.
We receive an overview of the consumption in a few minutes and are able to uncover errors in the installations and the operation fast and efficiently. If we uncover deviations, they are corrected immediately by our efficient property management team.
As a result of the efficient management, we reduced the consumption as a result of modification of the return air sequence by about 55 000 kWh per year. 3 installations were programmed to be running return air during the night to secure an even temperature in the shopping centre and to prevent a too tough load on the heating installation and heat recovery on start-up. This has resulted in an energy reduction of 165 000 kWh/year.
We also see that the daily follow-up of the heat production is important. By continually asking ourselves: Do we have control on the heat?, Where in the building is the heat spent?, Are we able to introduce measures?, - safeguards that we have continuous focus on energy consumption and costs.

An example: The snow melting installation in the parking house was running day and night. We had no efficient control of it. The installation consumes about 25,000 kWh per month.
Which simple measures are we able to do here?
By introducing property management routines such as snow clearing and sanding during snowfalls, this will replace the heat with great savings as the result.
Therefore, the daily reports from the technical installations safeguard that they:
- provide us with the opportunity to uncover abnormal operation of the installations quickly and efficiently.
- we are able to see where the energy is consumed and use this as a basis in order to trim the installations, and at the same time look at measures to reduce the energy consumption where we see it is too high.
Daily function control safeguards efficient operation of the building's technical installations.

We also carry out annual comparisons on a weekly follow-up. Here, we want to find answers to questions like: Are we on the correct level? Any deviations provide a basis for more in-depth inquiries. Do we reach our goals?
It is motivating for the property management team when we are able to record visible reduction of the energy consumption and shows the need for measures if the contrary is the case.

The results for the Gulskogen shopping centre by the use of active energy management is a more optimal energy efficient management, and in 2012, we saw a reduction of 600 000 kWh compared to the previous year, without any major investments.
And not in the least for us who are responsible for the property management, this will safeguard lower common costs for our tenants and a positive profile as a big player in society, Håvard Kristensen concludes.

Steen & Strøm is owned by the French shopping centre giant Klépierre (56.1%) and the Dutch pension fund APG (43.9%).
- Klépierre is Europe's leading shopping centre company and is represented in 13 countries.
- Klépierre operates 374 shopping centres in Europe, of which 274 are wholly owned.
The company's business idea is to own, develop and manage leading shopping centres localized in attractive commercial areas.

ENERGINET

Energinet was supplied by distributor:
evotek