



## **SMHI WeatherSync® - Forecast Control for heating in buildings**

Everybody knows the impact of various weather conditions when heating a building. Most heating control systems consider only outdoor temperature as a reference for energy needed, in reality the effects of wind and sun and sudden weather changes are important as well.

### **Forecast Control by WeatherSync® makes the difference**

We use specialised weather forecasts transformed in an advanced energy balance model to calculate an equivalent temperature for a specific building, instead of just on-line measured data. Using weather forecasts enable you to take the thermal mass of the building into consideration (heat storage). We offer you a system that in advance calculate the need for external heat depending of future changes in temperature, wind and solar radiation and this knowledge saves energy.

### **What´s the benefit of SMHI WeatherSync® Forecast Control?**

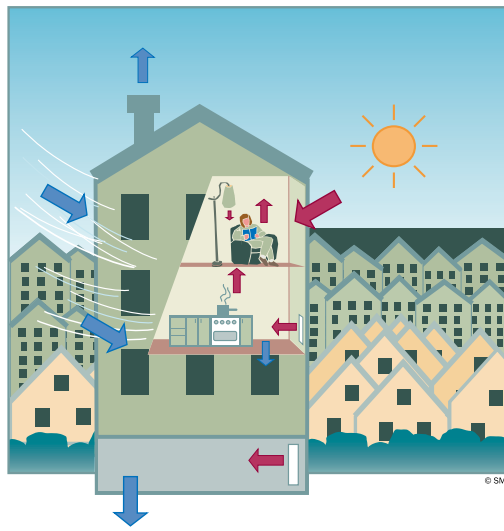
- Cover large residential areas quickly – fast installation.
- Improved finances – average 10% all year in energy savings.
- Strengthened environmental profile – forecast control contribute to reduce of CO<sub>2</sub>.
- More even indoor temperature – comfort for the tenants.
- Simplified facility management – our installation counters the weather changes.

For further information contact our sales manager

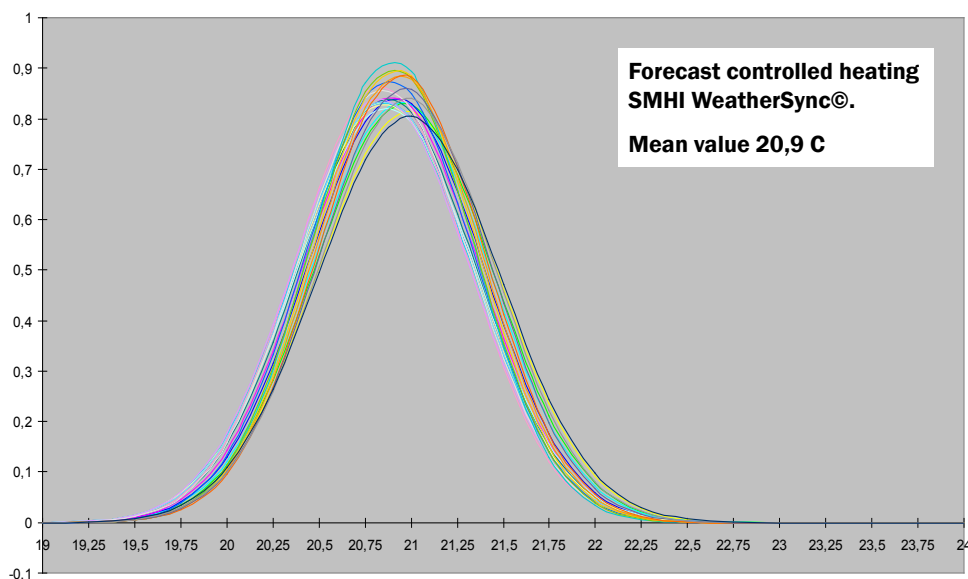
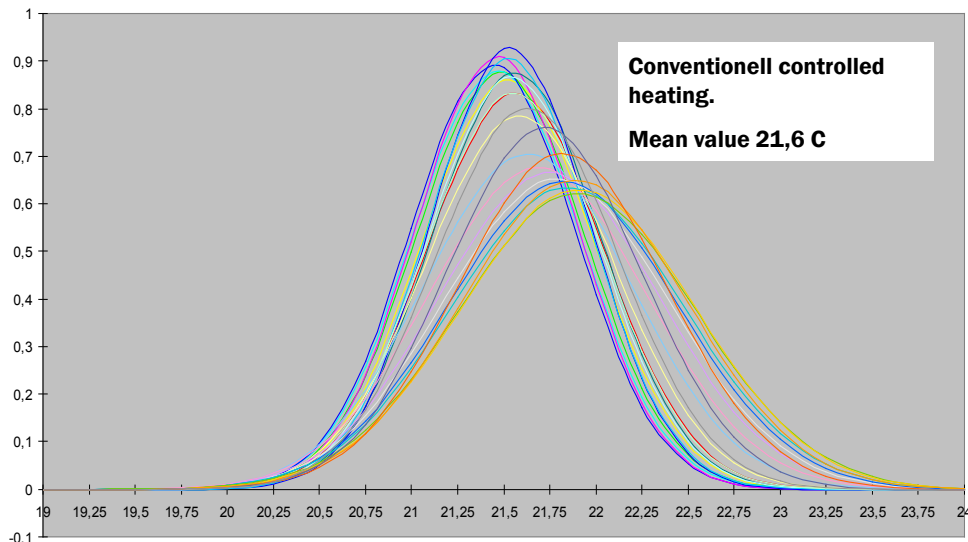
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**Losses**  
 Transmission (walls/roof)  
 Mechanical ventilation  
 Infiltration  
 Conduction to the ground

**Gains**  
 Solar radiation  
 Electrical appliances  
 Personal heat  
 Heating system



**Heat Budget of a Building**  
 The energy balance model from SMHI is calculating the heat budget for a specific building. For every hour a value is produced showing the net energy need to keep a predefined indoor temperature. Some of the factors in SMHI energy balance model are illustrated with red and blue arrows indicating energy gain and loss.



**Indoor variances – half year study of result - SMHI WeatherSync®**  
 Diagrams showing the spread of indoor temperature for each hour of the day calculated from six month data on two similar buildings located outside Gothenburg Sweden. Higher curve indicate more data at a specific indoor temperature and flat curve indicate a spread of indoor temperatures in the measured data.

