

Canadian community stores summer's solar heat for the winter – IEA SHC project wins Energy Globe Award

1 December 2011. This year's prestigious Energy Globe Award is awarded to a solar heating and cooling project in Alberta, Canada. The Drake Landing Solar Community achieves to cover 80% of the heat demand with solar thermal energy. Former IEA SHC chairman Doug McClenahan was personally involved in the project development and proudly accepted the award at a gala ceremony in Wels, Austria.

“A park that is used for heat storage!” rejoiced the jury of the Energy Globe Award. “52 homes of the Drake Landing Solar Community in Okotoks, Alberta (Canada) are profiting from an ingenious system where heat from the summer sun is stored below the surface of the earth. In winter it is used to meet 80% of the community's entire energy needs”.

This solar heating system is part of a larger research project of the International Energy Agency's Solar Heating and Cooling Programme (IEA SHC). “Large Solar Heating/Cooling Systems, Seasonal Storage, Heat Pumps” (Task 45) aims at supporting the fast growing market for solar district heating systems with research, which could lead to higher performances as well as improved cost effectiveness. Already today, large solar thermal systems can be competitive with conventional energy solutions. The world leader in such systems, Denmark, experiences a doubling of this market in 2011 – without any subsidies.

The Drake Landing Solar Community (DLSC) shows the extent to which solar heat can be used even at higher latitudes. But before the system could be completed, there was a lot of drilling to be done: 144 boreholes were drilled up to 37 metres deep into the ground. During the summer, 800 solar collectors heat up a glycol-and-water mixture kept in this system of underground heating tubes – to store heat for the winter. The area is now overgrown by a beautiful park. DLSC is en route to achieving its target of 90 percent in the year 2012 and a reduction of five tons of greenhouse gas emissions per home per year.

The Energy Globe World Award for Sustainability was first launched in 1999. Its goal is to present successful sustainable projects to a broad audience. Each year some 800 projects and initiatives from all over the world are submitted to compete for the award in the categories Earth, Fire, Water, Air and Youth.

“We are thrilled to receive the Energy Globe Award”, says Doug McClenahan.” We knew we had built a great renewable heating system, able to save most of the energy our community

would otherwise have to buy from non-renewable sources. We hope that the Energy Globe Award for this project will help make it a showcase for others to see what is possible already today.”

Further information:

- Information on the Energy Globe Award, including photos (of the projects and of the award ceremony) can be found at <http://www.energyglobe.com/>
- Information on the IEA SHC project “Large Solar Heating/Cooling Systems, Seasonal Storage, Heat Pumps” can be found at: <http://www.iea-shc.org/task45/>

About the International Energy Agency’s Solar Heating and Cooling Programme (IEA SHC):

- The Programme was established in 1977.
- Its objectives are co-operative research, development, demonstration and exchange of information regarding solar heating and cooling systems.
- 19 countries and the European Union are IEA SHC members.
- The research topics of the current 9 projects range from more general topics, such as “Solar resource assessment and forecasting” , system research, such as “Large solar thermal systems” to material research, such as the use of “Polymeric materials for solar thermal applications.”
- Additional information: www.iea-shc.org

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