Energy, IT, and Design

A Research Program f i nanced by the Swedish Energy Agency





About Energy, IT, and Design

The research program "Energy, IT, and Design" 2009-2012 is a cooperation between the Energy Agency and seven Swedish companies (Fagerhult, Göteborg Energi, Logica, Riksbyggen, Sjätte APfonden, Vattenfall and ÅF).

The program supports research that combines IT and design to develop innovative technical solutions for energy efficiency in everyday life. The program has a program committee with representatives from the Energy Agency, the seven companies and the research community.

The program committee



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The Power-Aware core

The Flower Lamp

The Energy Aware clock

Looking forward

Sweden is a pioneer in the area of combining IT and design to develop services for more efficientenergy use in homes and commercial buildings. Interest in the area is now growing and much is happening, particularly in the US.

Energy use in homes and commercial buildings amounts to 40% of the energy use in Sweden and more than half of the electricity used. In the last thirty years the use of electricity in homes has doubled. It is easy to see that radical savings are possible using relatively simple means, in old houses and in new.

Our everyday behavior is shaped and supported by the technology we use. Working closely with users, combining ethnographic studies and technical development, our ambition is to develop technology for a more rational energy use. The program has fi nanced research on visualization of energy use in homes and offi ces, computer games with energy contests for young people, and sensor network technology for home automation.

Some of the more widely known prototypes visualizing energy use in homes are the Power Lamp, the Power-Aware Cord and the Energy Aware Clock. They have all been designed by the Interactive Institute (www.tii. se) with fi nancial support from the Energy Agency.

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The Swedish Energy Agency's US visit, March 27 to April 1, 2011

During our stay in the US we will visit Washington DC and the US Congress, the Department of Energy (Office of Energy Efficiency and Renewable Energy, Buildings Program), the US Green Building Council, the Alliance to Save Energy, and the Urban Land Institute. We will host a seminar on "Energy, IT, and Design – how to make everyday life smarter" at the House of Sweden together with the Energy and Environment Study Institute. We will participate in a seminar on "Cutting costs and job creation through energy efficiency" at the Johns Hopkins University.

In San Francisco we will visit the Precourt Energy Efficiency Center at Stanford University and the companies Cisco and Google. We will meet with the Energy Coalition and participate in the Aspen Accord seminar. We will visit the design bureau IDEO and the Pacific Energy Center.

Companies represented in the comittee

Chalmers Professional Education is a wholly owned subsidiary of Chalmers University of Technology. We are Chalmers' organization for commissioned education. Our main focus is continuing and professional studies for industry.

Fagerhult is one of Europe's leading lighting groups with 2,000 employees and operations in 17 countries. We create modern products and exciting, energyefficient and environmentallyadapted lighting installations, successfully integrated into their individual environments.

Logica is a business and technology service company, employing 39,000 people across 36 countries. We deliver business consulting, systems integration and outsourcing across all industries and business functions.

Riksbyggen is an all-around service company involved in building, property management and residential services. Over 350 000 people live in dwellings managed by Riksbyggen. The company has been a major player on the Swedish property market for more than 70 years.

The Royal Institute of Technology in Stockholm is the largest

institution of higher education in technology in Scandinavia. KTH accounts for one-third of Sweden's technical research and engineering education capacity at the university level.

The Sixth Swedish National

Pension Fund manages public pension funds in order to create high long-term returns, taking into consideration the need for satisfactory risk diversification. The task is to invest in small and medium-sized growth companies, mainly Swedish, thus contributing to the development of Swedish industry.

Sustainable Innovation is a center for energy efficiency, founded by the Swedish Energy Agency in cooperation with Swedish companies. We initiate and organize

large innovative, demonstration projects for energy efficiency in everyday life.

The Swedish Energy Agency is a government agency for national energy policy issues. Our mission is to promote the development of Sweden's energy system so that it will become ecologically and economically sustainable.

Vattenfall is Europe's fifth largest generator of electricity and largest producer of heat. The Group has 38,000 employees with operations in Sweden, Denmark, Finland, France, Germany, Poland, the UK, the Netherlands and Belgium. Vattenfall AB, is 100% owned by the Swedish state.

The ÅF Group is a leader in technical consulting, offering **highly qualified services and** solutions for industrial processes, infrastructure projects and the development of products and IT systems. The ÅF Group has 4,500 employees.





The research program, Energy, IT, and Design.