

Best Practice from Espoo, Finland

Description

The aim of the Energy Information System (EIS) is to develop a user-friendly service that raises awareness of renewable energy resources and encourages their adaption as a part of energy solutions in buildings. Heating and electrical energy for buildings causes majority of Espoo's total CO₂ emissions. Developed by City Planning Department, City of Espoo, the EIS can be used as an independent, third-party analysis of the potential energy solutions as opposed to calculations provided by machinery manufacturers or suppliers.

The EIS is a browser-based service that compares forms of energy. The service is targeted at those considering switching to renewable energy. The EIS will help to cut down overall emissions cost-effectively, as the energy solutions based on renewable sources of energy can be optimized for each property. The EIS also aims to create a new market platform for renewable energy markets in Espoo by bringing customers and companies together.

The EIS can be effectively used in planning without the need for significant expertise in energy issues. The service is scalable both nationally and internationally for cities, companies, and communities. It is also easy to put to use for all parties due to open source development which provides a platform for further innovation.

EIS is based on solar energy analysis created with LiDAR and the weather data of the Meteorological Institute. EIS also consists of geothermal analysis combined with a soil map of the city of Espoo, soil and bedrock data of the Geological Survey of Finland as well as the map data of the National Land Survey of Finland. The energy calculation methodology utilizes applied algorithms of The National Building Code of Finland. EIS is thus an extensive multi-discipline data analysis combining multiple GIS sources and open API's.

Factual Information

Budget: In the course of creating the service in three years, the total budget was approximately 100,000 euro.

Funding sources: Funding sources are City of Espoo, Ministry of Employment and the Economy, Tekes-the Finnish Funding Agency for Innovation

Source: EuroCities - <http://wsdomino.eurocities.eu/eurocities/home>

