Heat supply planning for the ecological housing community Munksøgårds - DTU Orbit
(04/11/2019)

Heat supply planning for the ecological housing community Munksøgårds

Munksøgårds is a housing community near the city of Roskilde, Denmark. In 2014, Munksøgårds's residents have agreed to change the existing heat supply system. The choice of future heat supply was narrowed to heat pumps, new biomass boiler and connection to nearby district heating network.

The present paper compares results from techno-economic energy system analysis, simple private-economic analysis and assessment of externalities related to the heat supply and discusses the differences in conclusions - is the economic optimal solution different from a system or private-economic point of view?

The techno-economic energy system analysis is done using TIMES-DTU model, which optimizes over all sectors in Denmark and all periods until 2050. The result from this model gives the least expensive solution from the overall system point of view. A spreadsheet model has been developed to do the private-economic analysis and the evaluation of external effects related to the different solutions.

General information
Publication status: Published
Organisations: Department of Management Engineering, Systems Analysis, Energy Systems Analysis, Danish Energy Agency
Contributors: Karlsson, K. B., Petrovic, S., Næraa, R.
Number of pages: 23
Publication date: 2015

Host publication information
Article number: 0673-1
Keywords: National energy system, Local energy system, Energy system modelling, Renewable energy, District heating, Heat supply, Private-economy, Socio-economy
Electronic versions:
Heat_supply_planning.pdf
Research output: Chapter in Book/Report/Conference proceeding › Article in proceedings – Annual report year: 2015 › Research › peer-review