

DISTRICT HEATING AND COOLING NETWORKS

Agenda 2030 Goal: Affordable and clean energy - Sustainable cities and communities



ENEA has developed innovative and efficient configurations for district heating and cooling networks that can integrate different energy sources, whether renewable or not, and recover excess waste energy. Such a system allows end users to become “prosumers”, i.e. they can exchange the excess heat they produce with the thermal network. ENEA also provides software applications to assess and maximize the performance of existing networks as well as to assess if building new networks is technically and economically feasible.

Benefits and Advantages:

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ENEA Service:

- Technology transfer
- Consulting
- Training

ENEA Activities:

Programme Agreement between ENEA and the Italian Ministry for Economic Development on Electric System Research, 2019-21 Three-Year Plan



Figura 1: District heating network scheme

Keywords:

energy efficiency, renewable energy sources, heat pump, photovoltaics, electric storage, thermal storage, nearly zero-energy