NACE Cod: D35, J63, L68, M71, N81

BUILDING NETWORK MANAGEMENT

Advanced Service Available - This service is based on the use of sensors and actuators, allowing to transform buildings into smart buildings, which are successfully managed via a remote control service. To this end, ENEA has developed NIS (Network Intelligence system), a coordinated set of high-tech software models which allows to enable high-level functions, such as advanced diagnostics, energy efficiency by energy-on-demand strategies, and optimization of the set points of regulation, energy cost reduction and higher flexibility by demand management policies.

Uses - Energy management of building networks and housing complexes made of several buildings (urban districts, facilities). The model is appropriate for the tertiary (offices; help desks), residential (condominiums, social housing, etc.) sectors, both for new smart buildings and districts and for existing buildings, where it represents the most competitive approach to abate energy consumptions. This service allows to obtain energy reduction of 25-40% (depending on how old and problematic the network is) with return-on-investment time range between 3 and 6 years for networks of more than 10 buildings.

Past and Present Activities - This service is under testing at the Smart Village in the ENEA Casaccia Research Centre (collaborations with Harpa, Telecom, UMPI, Almaviva, Energy Team) and in urban realities, such as:
- Bari (an office, a school, a social housing): Res Novae project; collaborations with IBM, Tera, ENEL, Asperience.
- L'Aquila (two schools): City 2.0 project in L'Aquila, collaboration with Almaviva.
- Brescia (residential): Brescia Smart Living project, collaborations with Almaviva, A2A.

The business model has been fine-tuned within the Task Force Smart Energy started up by Confindustria in collaboration with ENEA and RSE.

Characteristics: CUSTOM
Thanks to its flexibility, the building network management service can be adjusted to different needs and contexts.

Italian National Agency for New Technologies,
Energy and Sustainable Economic Development
www.enea.it

Energy Technologies Department
Smart Energy Division
Referent: Mauro Annunziato - mauro.annunziato@enea.it