



ATENA

FUTURE TECHNOLOGY

SCHEMA PROGETTO

Titolo:

Urban Innovation for the Smart Energy Generation, Efficiency and Consumption

Acronimo:

UI-SEGEC

Ente Finanziatore:

EU - European Commission

Call:

2016 Urban Innovation Action

Coordinatore:

Comune di Viterbo

Partner:

Università degli Studi della Tuscia, ATENA Scarl, CIRIAF – Centro Interuniversitario di Ricerca sull'Inquinamento e sull'Ambiente "Mauro Felli",

Durata prevista:

Data inizio:

Data Fine:

Budget:

	Totale	Atena	Parthenope
Budget Progetto	4.120.100	350.250	
Agevolazione			

Stato:

Non Finanziato

Obiettivi:

Buildings are responsible for 40% of energy demand, and 36% of CO2 emissions in the EU. The EU requires that new buildings must be "nearly zero energy" (NZE) by 31 December 2020, and new public buildings must be NZE by 2018. This project aims at creating a replicable model of NZE public building through an integrated approach that involves: reducing the final energy demand; improving the energy conversion efficiency; increasing renewable energy and increasing the awareness of the energy users. Such a model is specifically conceived to be applied in historical and/or densely populated urban areas. The model will be implemented on the primary school De Amicis, located in the historical center of Viterbo. Electricity and heat will be produced by an innovative Combined Heat and Power (CHP) plant based on solid oxide fuel cells (SOFC), and low visual impact photovoltaic panels. Reversible heat pumps will produce heat and chilling energy.



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An ICT system for the optimal control of the energy system will be implemented. The environmental footprint and the energy cost will be drastically reduced while improving the working conditions of students, teachers and school workers in general. Savings will be reinvested into didactic activities aimed at increasing the society awareness on energy efficiency. The utilization of the cogenerative SOFC, its integration with solar photovoltaic and the direct involvement of students on the project are the foremost innovative aspects.