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Efficient Energy Use



TECHNOLOGY FOR BUSINESS

Next generation energy company



APROS, tool for district energy efficiency

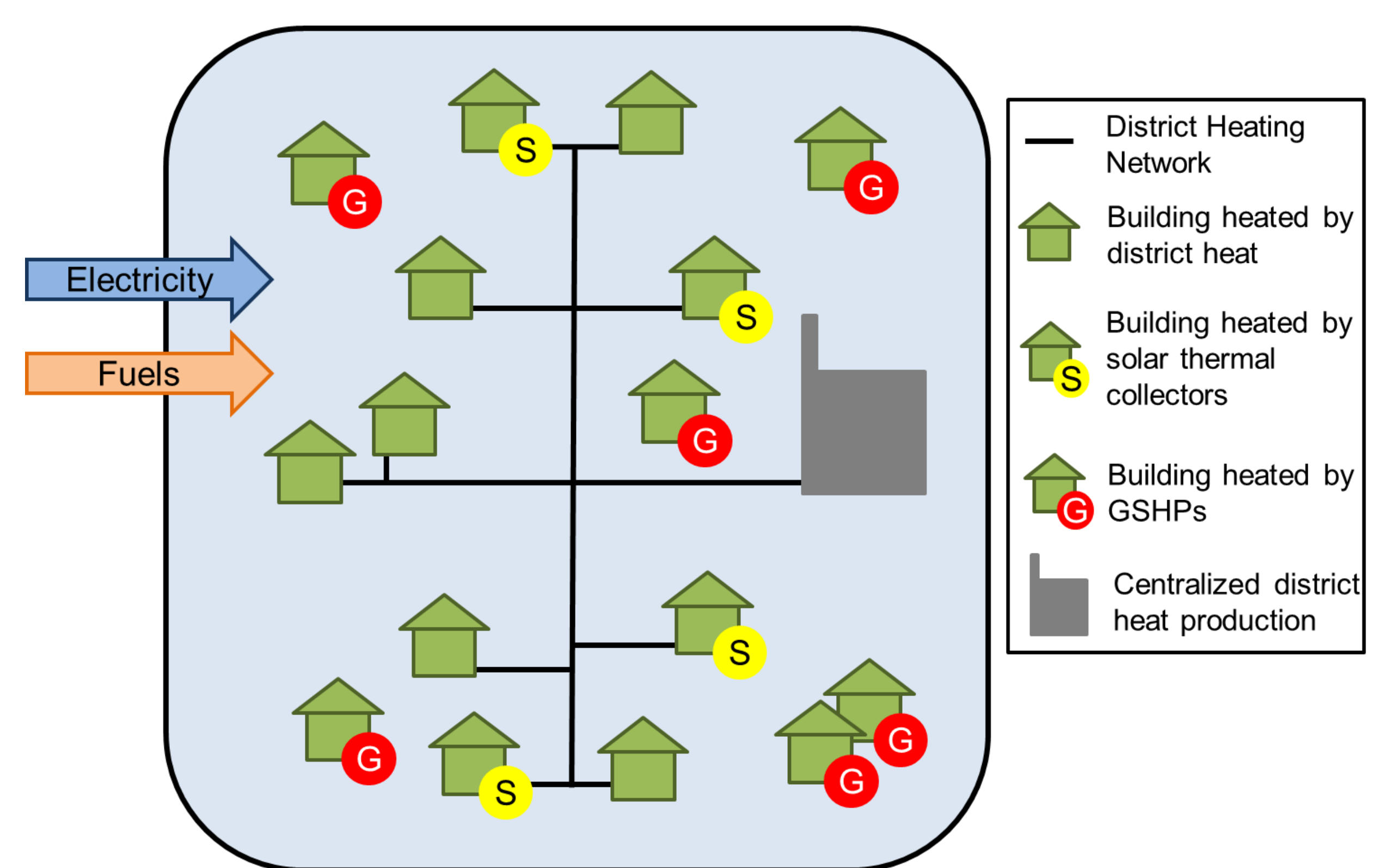
APROS[®] is a powerful tool for energy and performance analyses of buildings and districts. It enables modelling of complex dynamic systems and their interactions.

Simulation of energy network

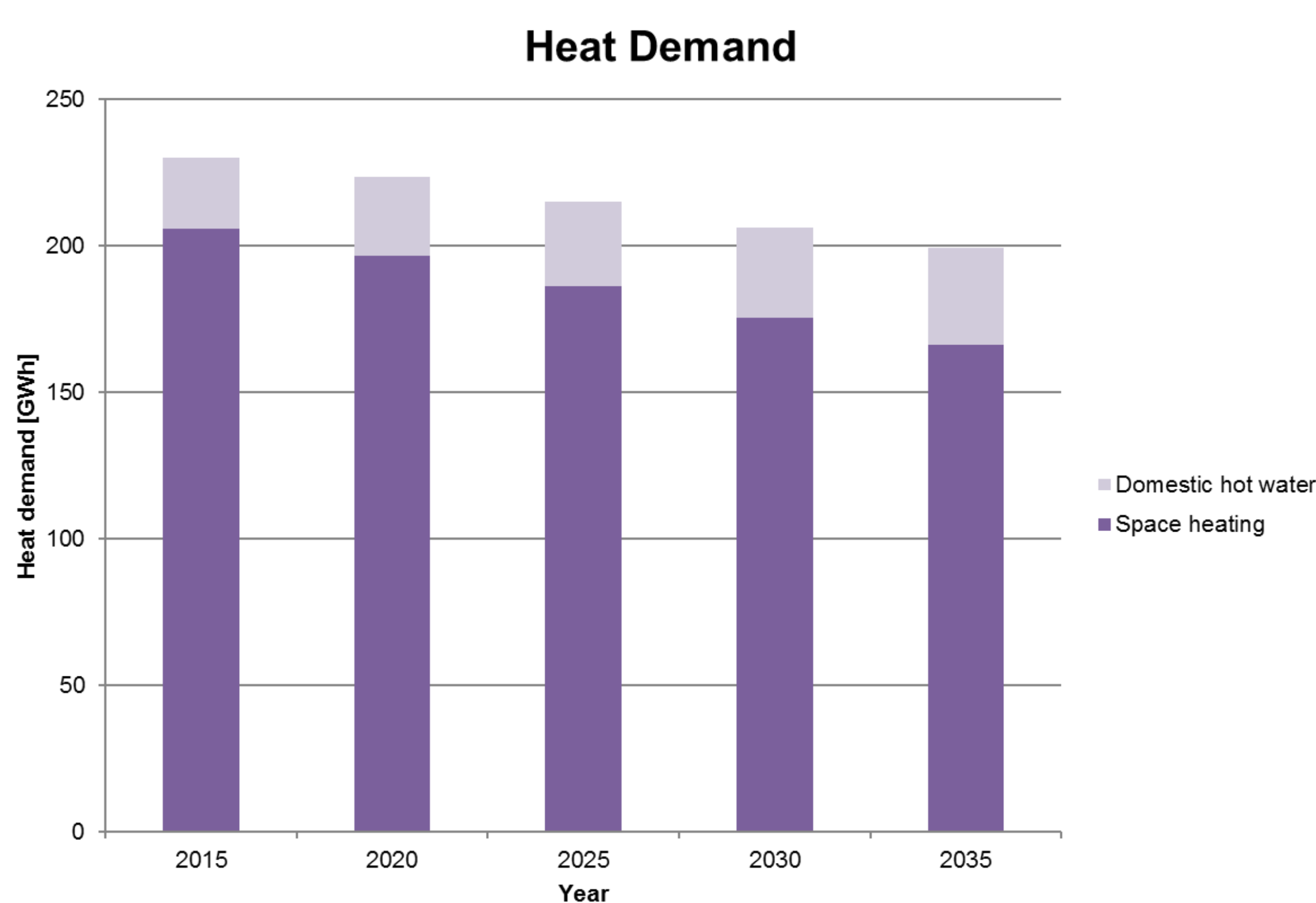
APROS[®] is an integrated environment for the modelling of production, distribution, storage and consumption of energy in different forms, and their conversions. It provides comprehensive, detailed analyses for energy systems from single building cases to district-level complex control studies and long-term scenario analyses.

Scenario analysis for city planners and decision makers

Scenario analysis will support in road mapping of strategies, finding out optimal solutions for city planning and the visualization of different solutions and their impacts at city level.



Modelling of complex dynamic networks and systems needs sophisticated simulation tools. The energy system can be centralized or decentralized and may have several design options.



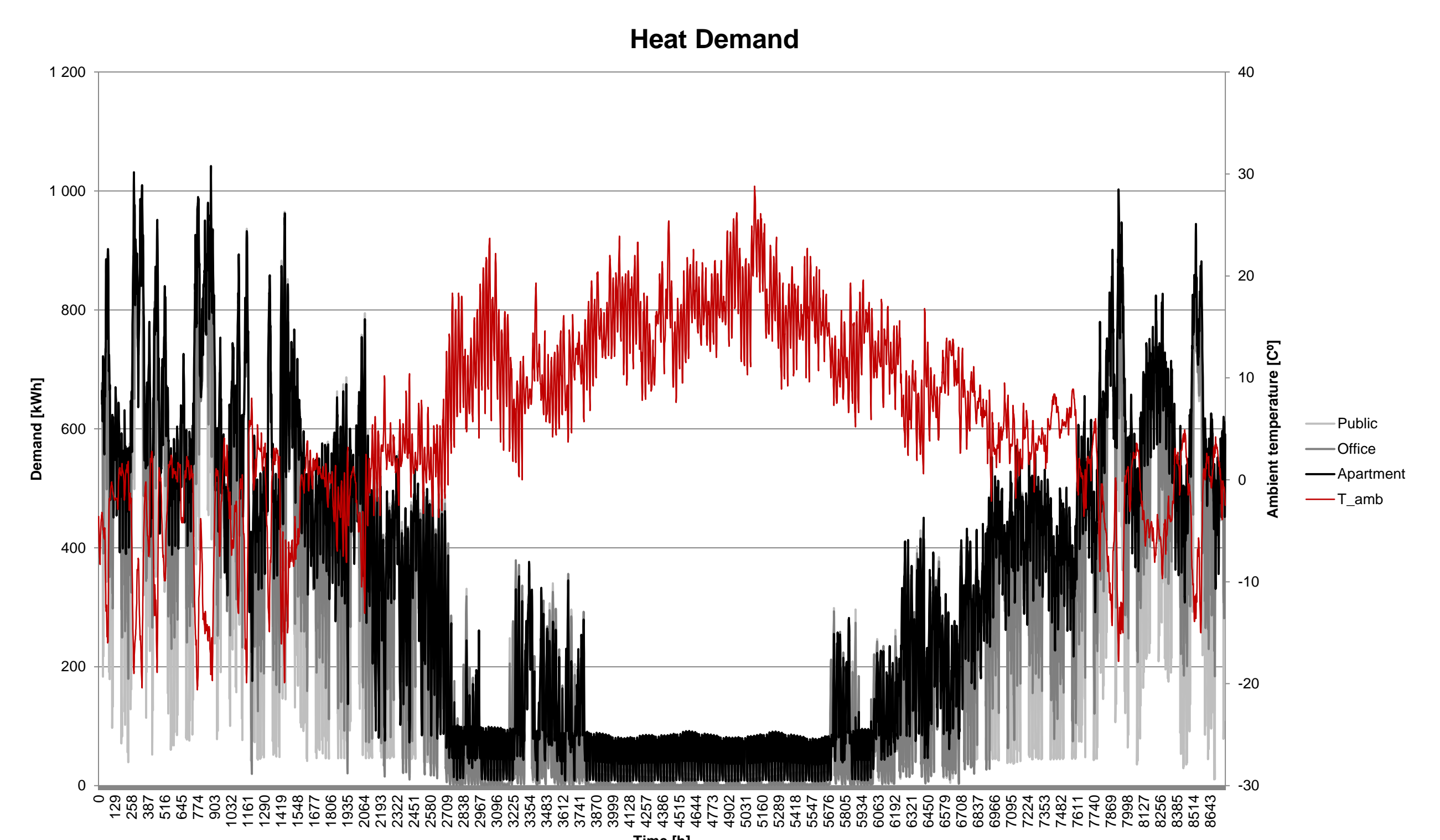
In the Keski-Uusimaa case study, scenarios for the development of the heat demand in the area were studied. The results implied that the demand will decrease in the future.

Technical studies for energy players in districts

APROS[®] can be utilized to simulate and analyse the dynamic behaviour of energy networks. The case studies include advanced control methods of energy systems from buildings to whole energy systems, new components and alternatives in systems, as well as integration of distributed elements, e.g. renewables, storages and consumer-producers.

Optimized building energy systems

The detailed analysis supports the better integration of energy and HVAC systems and energy efficiency in built environment. The influence of building design options, distributed renewables and user behavior can be studied, e.g. two-direction heat trade and influence on energy end-price.



The detailed analysis shows the performance indicators for the simulated case, e.g. energy efficiency, costs, emissions and social aspects. The influence of the environmental conditions on hourly energy demand shows the dynamics of the building system.



Solution Architect for Global Bioeconomy & Cleantech Opportunities

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