

Smart Domestic Appliances in Sustainable Energy Systems (Smart-A)

Project Summary Slides

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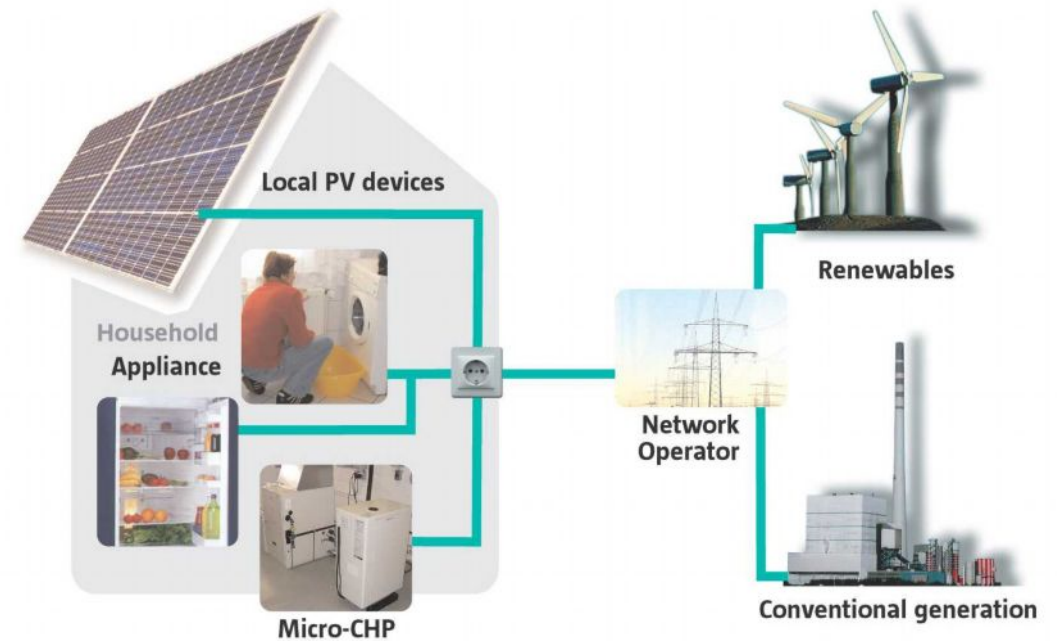


Intelligent Energy  Europe

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Smart-A – Project Summary

- The project assesses the potential for load-shifting by “smart” domestic appliances
- These options are compared with requirements from sustainable energy generation both on the local level as well as in larger electricity systems
- Based on this, the project will develop strategies how smart appliances can contribute to load management in sustainable energy systems, which include large shares of intermittent generation, e.g. from wind or solar energy.



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Project Background

- Household appliances form a significant part of energy consumption. Recent technology developments allow for their smart operation.
- In most energy systems, the management of timing of demand is a critical issue. Possibilities for storing energy are limited and costly.
- This issue is becoming more relevant than before in sustainable energy systems, which rely strongly on renewable energy and high-efficiency cogeneration.
- Improved coordination between supply and demand of energy is possible (and necessary) both locally and on the network level

Objectives and Main Steps

- To identify the potential synergies from coordination of appliances with the energy system
- To assess the acceptance of customers and to develop measures to increase this acceptance
- To evaluate the potential for intelligent management of smart appliances
- To foster harmonised communication standards
- To support the coordination between manufacturers of appliances and local energy systems, and the electricity system
- To develop scenarios for Smart-A as an integrated part of a sustainable energy system
- To develop strategies for the implementation of Smart-A

Expected Results

Expected coordination benefits comprise:

- Expanding possibilities for load management
 - Improved utilisation of renewable energies
 - Improved utilisation of local cogeneration
 - Reduction of cost for load management in electricity networks
 - Expansion of capabilities of electricity networks to integrate intermittent (renewable) generation
- Integration of appliances into a larger system context
 - Integration into building systems
 - Integration into energy systems

Partners and Contact Information



Project Website:

<http://www.smart-a.org>

Project Coordination:

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