

# IEA DSM Agreement

## Task XVII: Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages

Workshop in Petten

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Business from technology

# The IEA DSM Programme (1)

- Work begun in 1993
- With 19 OECD Countries (but open to all countries in the world)

**Programme Vision:** In order to create more reliable and more sustainable energy systems and markets, demand side measures should be the first considered and actively incorporated into energy policies and business strategies.

**Programme Mission:** To deliver to our stakeholders useful information and effective guidance for crafting and implementing DSM policies and measures, as well as technologies and applications that facilitate energy system operations or needed market transformations

# The IEA DSM Programme (2)

The Programme's work is organized into two clusters:

- The load shape cluster, and
- The load level cluster.

The 'load shape' cluster includes Tasks that seek to impact the shape of the load curve over very short (minutes-hours-day) to longer (days-week-season) time periods.

The "load level" cluster includes Tasks that seek to shift the load curve to lower demand levels or shift loads from one energy system to another.

# The IEA DSM Programme (3)

A total of 18 projects or “Tasks” have been initiated since the beginning of the DSM Programme.

The overall program is monitored by an Executive Committee consisting of representatives from each contracting party to the Implementing Agreement. The leadership and management of the individual Tasks are the responsibility of Operating Agents

One of the ongoing Tasks is

**Task 17: Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages**

# Objectives of the Task

The main objective of the proposed Task is

- ❑ to study how to achieve the optimal integration of flexible demand with Distributed Generation, energy storages and Smart Grids, and thus increase the value of Demand Response, Demand Side Management and Distributed Generation and decrease problems caused by intermittent distributed generation (mainly based on RES) in the physical electricity systems and at the electricity market The Task deals with distributed energy resources both
  - at local (distribution network) level and
  - at transmission system level where large wind farms are connected.
- ❑ The Task will also provide the integration based solutions and examples on successful best practices to the problems defined above.

# Approach

The first step in the Task is to carry out a scope study collecting information from the existing IEA Agreements, participating countries and other sources (research programmes, field experience, information collected through Cigre working groups, etc), analyse the information on the basis of the above mentioned objectives and synthesize the information to define the more detailed needs for the further work.

Especially information exchange and coordination with Wind and ENARD IAs is organised, and possibility to have common workshop is considered.

# Subtasks

Four subtasks are planned

- ❑ Subtask 1: Information collection on the characteristics of different types of DER in the integrated solutions
- ❑ Subtask 2: Analysis of the information collected and preliminary conclusions (state of the art)
- ❑ Subtask 3: Feedback from the stakeholders: Workshop
- ❑ Subtask 4: Final conclusions and the detailed definition of the further work

# Participating countries and time schedule

## Participants

- Austria
- Finland
- Italy
- Korea
- The Netherlands
- Spain
- USA

## Time schedule:

October 2007 – end of September 2008