

Appendix D: Overview of the International Energy Agency and the Implementing Agreement on Demand Side Management Technologies and Programmes

The International Energy Agency (IEA) is an autonomous agency established in 1974. The IEA carries out a comprehensive programme of energy co-operation among 28 advanced economies, each of which is obliged to hold oil stocks equivalent to 90 days of its net imports. The aims of the IEA are to:

- Secure member countries' access to reliable and ample supplies of all forms of energy; in particular, through maintaining effective emergency response capabilities in case of oil supply disruptions.
- Promote sustainable energy policies that spur economic growth and environmental protection in a global context – particularly in terms of reducing greenhouse-gas emissions that contribute to climate change.
- Improve transparency of international markets through collection and analysis of energy data.
- Support global collaboration on energy technology to secure future energy supplies and mitigate their environmental impact, including through improved energy efficiency and development and deployment of low-carbon technologies.
- Find solutions to global energy challenges through engagement and dialogue with non-member countries, industry, international organisations and other stakeholders.

To attain these goals, increased co-operation between industries, businesses and government energy technology research is indispensable. The public and private sectors must work together, share burdens and resources, while at the same time multiplying results and outcomes.

The multilateral technology initiatives (Implementing Agreements) supported by the IEA are a flexible and effective framework for IEA member and non-member countries, businesses, industries, international organisations and non-government organisations to research breakthrough technologies, to fill existing research gaps, to build pilot plants, to carry out deployment or demonstration programmes – in short to encourage technology-related activities that support energy security, economic growth and environmental protection. More than 6,000 specialists carry out a vast body of research through these various initiatives. To date, more than 1,000 projects have been completed. There are currently 41 Implementing Agreements (IA) working in the areas of:

- Cross-Cutting Activities (information exchange, modelling, technology transfer)
- End-Use (buildings, electricity, industry, transport)
- Fossil Fuels (greenhouse-gas mitigation, supply, transformation)
- Fusion Power (international experiments)
- Renewable Energies and Hydrogen (technologies and deployment)

The IAs are at the core of a network of senior experts consisting of the Committee on Energy Research and Technology (CERT), four working parties and three expert groups. A key role of the CERT is to provide leadership by guiding the IAs to shape work programmes that address current energy issues productively, by regularly reviewing their accomplishments, and suggesting reinforced efforts where needed. For further information on the IEA, the CERT and the IAs, please consult www.iea.org/techinitiatives.

The Implementing Agreement on Demand Side Management Technologies and Programmes belongs to the End-Use category above.

IEA Demand Side Management Programme

The Demand-Side Management (DSM) Programme is one of more than 40 co-operative energy technology programmes within the framework of the International Energy Agency (IEA). The Demand-Side Management (DSM) Programme, which was initiated in 1993, deals with a variety of strategies to reduce energy demand. The following member countries and sponsors have been working to identify and promote opportunities for DSM:

Austria	New Zealand
Belgium	Norway
Finland	Spain
France	Sweden
India	Switzerland
Italy	United Kingdom
Republic of Korea	United States
Netherlands	EI (sponsor)
	RAP (sponsor)

Programme Vision during the period: Demand side activities should be active elements and the first choice in all energy policy decisions designed to create more reliable and more sustainable energy systems

Programme Mission: Deliver to its stakeholders, materials that are readily applicable for them in crafting and implementing policies and measures. The Programme should also deliver technology and applications that either facilitate operations of energy systems or facilitate necessary market transformations

The Programme's work is organized into two clusters:

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

The 'load shape' cluster will include Tasks that seek to impact the shape of the load curve over very short (minutes-hours-day) to longer (days-week-season) time periods. Work within this cluster primarily increases the reliability of systems. The 'load level' will include Tasks that seek to shift the load curve to lower demand levels or shift between loads from one energy system to another. Work within this cluster primarily targets the reduction of emissions.

A total of 23 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. These Tasks and their respective Operating Agents are:

- Task 1 International Database on Demand-Side Management & Evaluation Guidebook on the Impact of DSM and EE for Kyoto's GHG Targets – Completed
Harry Vreuls, NOVEM, the Netherlands
- Task 2 Communications Technologies for Demand-Side Management – Completed
Richard Formby, EA Technology, United Kingdom
- Task 3 Cooperative Procurement of Innovative Technologies for Demand-Side Management – Completed
Dr. Hans Westling, Promandat AB, Sweden

- Task 4 Development of Improved Methods for Integrating Demand-Side Management into Resource Planning – Completed
Grayson Heffner, EPRI, United States
- Task 5 Techniques for Implementation of Demand-Side Management Technology in the Marketplace – Completed
Juan Comas, FECSA, Spain
- Task 6 DSM and Energy Efficiency in Changing Electricity Business Environments – Completed
David Crossley, Energy Futures, Australia Pty. Ltd., Australia
- Task 7 International Collaboration on Market Transformation – Completed
Verney Ryan, BRE, United Kingdom
- Task 8 Demand-Side Bidding in a Competitive Electricity Market – Completed
Linda Hull, EA Technology Ltd, United Kingdom
- Task 9 The Role of Municipalities in a Liberalised System – Completed
Martin Cahn, Energie Cites, France
- Task 10 Performance Contracting – Completed

Dr. Hans Westling, Promandat AB, Sweden
- Task 11 Time of Use Pricing and Energy Use for Demand Management Delivery- Completed
Richard Formby, EA Technology Ltd, United Kingdom
- Task 12 Energy Standards
To be determined
- Task 13 Demand Response Resources - Completed
Ross Malme, RETX, United States
- Task 14 White Certificates – Completed
Antonio Capozza, CESI, Italy
- Task 15 Network-Driven DSM - Completed
David Crossley, Energy Futures Australia Pty. Ltd, Australia
- Task 16 Competitive Energy Services
Jan W. Bleyl, Graz Energy Agency, Austria / Seppo Silvonon/Pertti Koski, Motiva, Finland
- Task 17 Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages
Seppo Kärkkäinen, Elektraflex Oy, Finland
- Task 18 Demand Side Management and Climate Change - Completed
David Crossley, Energy Futures Australia Pty. Ltd, Australia
- Task 19 Micro Demand Response and Energy Saving - Completed
Linda Hull, EA Technology Ltd, United Kingdom
- Task 20 Branding of Energy Efficiency
Balawant Joshi, ABPS Infrastructure Private Limited, India
- Task 21 Standardisation of Energy Savings Calculations
Harry Vreuls, SenterNovem, Netherlands
- Task 22 Energy Efficiency Portfolio Standards - Completed
Balawant Joshi, ABPS Infrastructure Private Limited, India

- Task 23 The Role of Customers in Delivering Effective Smart Grids
Linda Hull. EA Technology Ltd, United Kingdom
- Task 24 Closing the loop - Behaviour change in DSM, from theory to policies and practice
Sea Rotmann, SEA, New Zealand and Ruth Mourik DuneWorks, Netherlands

For additional Information contact the DSM Executive Secretary, Anne Bengtson, Liljeholmstorget 18, 11761 Stockholm, Sweden. Phone: +46 70 7818501. E-mail: anne.bengtson@telia.com

Also, visit the IEA DSM website: <http://www.ieadsm.org>