

Annex XI

TIME OF USE PRICING AND ENERGY USE FOR DEMAND MANAGEMENT DELIVERY

1. Description of Technical Sector: Definitions

(a) Description of Technical Sector.

Investigates pricing and monitoring of energy end use and mechanisms for changing end use and enabling demand participation by smaller customers in energy markets via DSB (Demand Side Bidding). It also considers whether and how advanced energy pricing and monitoring information can be used to motivate energy saving and modify energy use patterns. This is particularly important if aggregated small customers are to bid into power pools by ESCOs offering a range of energy related and other services.

(b) Definitions.

DSB	Demand-Side Bidding
DR	Demand Response
DT	Demand Turndown
ESCO	Energy Service Company

2. Objectives

The aim of the Task is as follows:

Quantify mechanisms to motivate smaller customers to modify demand and participate in the Demand Side of competitive energy markets.

This can then be interpreted as a set of specific objectives:

- Understand what time of use and end use pricing and metering for smaller customers has been implemented and results achieved to date in different countries
- Determine the drivers for any energy use modification achievements made and the potential for applying them in other markets
- Quantify how demand elasticity and aggregation of smaller customer demand can be bid into competitive electricity markets

3. Means

The objectives shall be achieved by the Participants in the following Subtasks:

(a) Subtask 1: Quantify the impact of end use metering and feedback on energy saving and DSM processes for smaller customers

This Subtask is to analyse and determine what is technically and economically feasible in terms of collecting and feeding back end use energy data to smaller customers. This will allow and encourage the use of end use data for energy saving purposes. These are significant tasks and will be carried out through discussion and collaboration among participating Experts and countries, based on existing experience and expertise.

(b) Subtask 2: Quantify the impact on demand response of time of use pricing for smaller customers

The objective of this Subtask is to quantify the impact on energy use profiles of time of use pricing based on the collective experience of participating countries. The study will assess the technological developments and application routes that allow the implementation of time of use pricing for small, commercial and domestic customers.

(c) Subtask 3: Quantify the pricing, control and energy use validation requirements and mechanisms to facilitate Demand Side Bidding for smaller customers

This Subtask will quantify the issues involved in smaller customers participating in the demand side of energy markets. This process includes both demand and small scale generation management. Demand aggregation processes will be considered in order to meet demand bidding thresholds. Validation and reward mechanisms will be considered including time of use metering and the presentation of prices. Automated and remote control means of demand management and validation will be considered.

The Participants shall achieve these objectives through correspondence and meetings of Experts. Subtasks will be both cost and Task shared.

4. Results

The products of work performed in this Task will be designed for use by national and regional governments, utility regulators, and electricity transmission, distribution and supply companies, demand aggregators and system operators.

Results of the joint activity will include:

(a) Subtask 1:

A report on the impact of end use metering and feedback on energy saving and DSM processes for smaller customers

(b) Subtask 2:

A report on the impact of demand response on time of use pricing for smaller customers

(c) Subtask 3:

A report on the pricing, control and validation requirements and mechanisms to facilitate Demand Side Bidding for smaller customers

5. Time Schedule

This Task shall remain in force until 30 April 2005. Within the limits of the term of the Agreement, this Task may be extended by two or more Participants, acting in the Executive Committee, and shall thereafter apply only to those Participants.

6. Specific Obligations and Responsibilities of the Participants

In addition to the obligations enumerated in Article 7 of the Agreement:

(a) Each Participant shall provide the Operating Agent with detailed reports on the results of the work carried out for each Subtask;

(b) Each Participant shall participate in the editing and reviewing of draft reports of the Task and Subtasks.

7. Specific Obligations and Responsibilities of the Operating Agent

In addition to carrying out the specific responsibilities enumerated in Articles 5 and 7 of this Agreement, the Operating Agent shall prepare, review and distribute the results mentioned in paragraph 4 above.

8. Funding

(a) Common Fund

A common fund shall be established by the Executive Committee and shall be included in the annual Programme of Work and Budget for the purpose of funding the obligations of the Operating Agent under this Task.

(b) Task Costs

The Budget of the Operating Agent, for carrying out the management of Subtasks 1, 2 and 3 of the Task is set at Euros 198k. This amount is covered by a direct agreement between the participants in the Introductory Task Shared Work Plan and the Operating Agent.

If significant changes in price levels or the scope of activities under the Task occur, the Executive Committee, acting by unanimity of the Participants in this Task, shall consider whether to adjust the Programme of Work to the available funds or increase the Budget.

(c) Sharing of Task Costs

The Budget shall generally be funded by the participants through a standard contribution of five per cent of the Budget plus a pro rata contribution based on a countries' percentage contributions to the Budget of the Agency, where pro rata percentages are applied to the portion of the Budget which remains to be funded after the standard contribution are made. However, this formula may be modified by the Executive Committee acting by unanimity of the Participants in the Task. The contribution of the European Communities and Associated Contracting Parties shall be determined by the Executive Committee, acting by unanimity of the Participants in this Task.

(d) Payment terms

The Operating Agent shall send invoices to the Participants at the beginning of each financial year of the Task. Payments from each Participant must be received by the Operating Agent no later than 60 days after the participant's receipt of the Operating Agent's invoice.

(d) Changes in Numbers of Participants

If the number of Participants changes, the shares of contributions to the costs will be adjusted accordingly by the Executive Committee, acting by unanimity of the Participants. New Participants shall pay the full share of the costs beginning with the project year in which they become Participants.

(e) Individual Financial Obligations

In addition to the contributions described in sub paragraph (c) above, each Participant shall bear all the costs it incurs in carrying out its obligations under the Task.

(f) Task Sharing Requirements

The level of effort to perform the work specified in this Task is estimated for each participant as follows:-

Subtasks 1, 2, 3 60 person-days over 15 month period

9. Operating Agent

EA Technology Limited, acting through the United Kingdom, is designated as Operating Agent.

10. Participants in the Task

The Contracting Parties which are Participants in this Task are the following:

The National Technology Agency (TEKES), Finland
Ministry of Energy, Danish Energy Authority, Denmark
The Ministry of Development, Greece
The Netherlands Agency for Energy and the Environment (NOVEM), Netherlands
The Ministry of Industry and Energy, Spain
Department for Environment, Food & Rural Affairs (DEFRA), United Kingdom
EA Technology Ltd, United Kingdom