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**INTERNATIONAL ENERGY AGENCY**  
**IMPLEMENTING AGREEMENT ON TECHNOLOGIES**  
**AND PROGRAMMES FOR DEMAND SIDE MANAGEMENT**

***Task XV: Network-Driven DSM***

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# **Task Status Report**

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***Prepared for***  
***IEA DSM PROGRAMME***  
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## INTRODUCTION

At its meeting in April 2004, the IEA DSM Executive Committee approved the initiation of Task XV: “Network-Driven DSM” and nominated David Crossley as the Operating Agent. At its meeting in October 2004, the IEA DSM Executive Committee declared Task XV to be ‘in force’ from 18 October 2004 and to be completed by 30 April 2006. At this meeting, the Executive Committee also approved a modification of the Objectives and Work Plan for Task XV to include the use of DSM measures to provide both relief of electricity network constraints and network operational services. At its meeting in October 2005, the Executive Committee approved a six month no-cost extension of Task XV; under this decision, Task XV is to be completed by 30 September 2006.

## SUMMARY OF TASK OBJECTIVES AND SUBTASKS

### Objectives

The objectives of Task XV, as approved at the October 2004 Executive Committee meeting, are as follows:

- to identify a wide range of DSM measures which can be used to relieve electricity network constraints and/or provide network operational services;
- to further develop the identified network-driven DSM measures so that they will be successful in cost-effectively achieving network-related objectives;
- to investigate how existing network planning processes can be modified to incorporate the development and operation of DSM measures over the medium and long term;
- to develop ‘best practice’ principles, procedures and methodologies for the evaluation and acquisition of network-driven DSM resources;
- to communicate and disseminate information about network-driven DSM to relevant audiences.

### Subtasks

The Work Plan for the Network-Driven DSM Task comprises five Subtasks.

#### ***Subtask 1: Worldwide Survey of Network-Driven DSM Projects***

##### *Subtask Objective*

To identify a wide range of DSM measures which can be used to relieve electricity network constraints and/or provide network operational services.

##### *Subtask Deliverable*

A report listing and summarising network-driven DSM projects implemented around the world.

#### ***Subtask 2: Assessment and Development of Network-Driven DSM Measures***

##### *Subtask Objective*

To further develop the identified network-driven DSM measures so that they will be successful in cost effectively achieving network-related objectives.

#### *Subtask Deliverable*

A report listing and summarising successful network-driven DSM measures and the specific network problems they address.

#### **Subtask 3: Incorporation of DSM Measures into Network Planning**

##### *Subtask Objective*

To investigate how existing network planning processes can be modified to incorporate the development and operation of DSM measures over the medium and long term.

##### *Subtask Deliverable*

A report on ways in which network planning processes can be modified to incorporate DSM measures as alternatives to network augmentation.

#### **Subtask 4: Evaluation and Acquisition of Network-Driven DSM Resources**

##### *Subtask Objective*

To develop 'best practice' principles, procedures and methodologies for the evaluation and acquisition of network-driven DSM resources.

##### *Subtask Deliverable*

A report on 'best practice' principles, procedures and methodologies for the evaluation and acquisition of network-driven DSM resources.

#### **Subtask 5: Communication of Information About Network-Driven DSM**

##### *Subtask Objective*

To communicate and disseminate information about network-driven DSM to relevant audiences, including representatives of electricity network businesses, government agencies and electricity end-users.

##### *Subtask Deliverables*

- A Task Newsletter.
- Information databases about network-driven DSM projects and measures.
- Regional workshops about network-driven DSM held in Europe, North America and Asia Pacific.

### **MAJOR ACCOMPLISHMENTS SINCE SEPTEMBER 2005**

Following are the major accomplishments in Task XV over the last six months. The work during this period has concentrated on Subtask 2: Assessment and Development of Network-Driven DSM Measures.

- Completion of Activity 2-1 in Subtask 2 which comprises identifying the value propositions for network-driven DSM measures, including the specific network problems which these measures can successfully address.
- Completion of Activity 2-2 in Subtask 2 which comprises analysing the information contained in the Task XV case study database of 44 network-driven DSM projects to determine the factors which result in a DSM measure being successful in cost-effectively achieving network-related objectives.
- Completion of preliminary work on Subtask 2-3 of Subtask 2 which comprises further developing the network-driven DSM measures to improve their effectiveness in achieving network-related objectives.

- Completion of two presentations on the work done in Task XV to date. The first presentation was given at a workshop on demand response organised in Melbourne by the Task XIII Australian team. The second presentation was given at a public seminar in Port Macquarie, Australia organised in conjunction with the fourth Task XV Experts meeting.

## **WORK PLAN FOR THE PERIOD APRIL TO SEPTEMBER 2006**

### **Timetable**

The current timetable for the five subtasks which comprise Task XV is shown in Table 1 on the next page.

At present, the work completed so far in Task XV is slightly behind schedule. Under the timetable, both Subtask 2 and Subtask 3 were to be commenced in October 2005. Subtask 3 was to be completed by the end of March 2006 and Subtask 2 by the end of May 2006. Subtask 2 is nearly completed and will be finished by the end of April. At the time of writing, Subtask 3 has not yet commenced. However, at the Experts meeting, the Experts discussed the methodology to be used in Subtask 3.

While more elapsed time than expected will be taken to complete Subtasks 2 and 3, the actual paid labour time by the Operating Agent is well within the budget (see Table 3 below).



## **Work Plan**

The following work is planned to be carried out over the next six months:

- complete Subtask 2 by writing up the preliminary work on Activity 2-3 carried out at the Experts meeting and finalising the Subtask 2 report;
- carry out a survey of the network planning processes implemented in the countries participating in Task XV (Activities 3-1 and 3-2 of Subtask 3);
- develop options for modifying network planning processes to incorporate DSM measures as alternatives to network augmentation (Activity 3-3 of Subtask 3);
- complete the Subtask 3 report;
- carry out a survey of evaluation and acquisition procedures for network-driven DSM resources (Activity 4-1 of Subtask 4);
- carry out the development of 'Best Practice' procedures for the evaluation and acquisition of network-driven DSM resources (Activity 4-2 of Subtask 4);
- complete the Subtask 4 report;
- provide information about the progress of Task XV to the country Experts and relevant IEA DSM Programme Executive Committee members through a regular newsletter (Activity 5-1 of Subtask 5);
- update databases containing relevant information about network-driven DSM projects and measures, and network planning processes, and make these available to the country Experts through the secure web site (Activity 5-2 of Subtask 5).

## **EXPERTS MEETINGS**

The fourth Experts meeting for Task XV was held in Port Macquarie, Australia from 22 to 24 March 2006.

## **FINANCIAL REPORT**

### **Receipts**

The full amount of the second (and final) annual financial contribution to Task XV has been received from two of the four participating countries. One participating country still has to pay a small amount owing on their contribution. One-half of the contribution from the fourth participating country has been received; the remaining one-half has still to be paid.

### **Expenditure**

Table 3 on the next page details the expenditure incurred in Task XV from the commencement of the Task to 27 March 2006.

Labour is charged in euros and converted to Australian dollars at the exchange rate applicable on the date of invoice payment. Other expenses are charged in the original currency in which the expense was incurred and converted to Australian dollars at the exchange rate applicable on the date of invoice payment.

To produce this statement, the Australian dollar amounts were converted back to euros at the exchange rates applicable on 27 March 2005. Consequently there are some minor discrepancies compared with the original currency amounts. These discrepancies are caused by movements in exchange rates since the invoices were paid.

<b>Table 3. Task XV Expenditure</b>		
<b>Expense Item</b>	<b>AUD</b>	<b>EUR</b>
Labour	201,601.83	119,061.00
Contractors	0	0
Travel	20,838.63	12,306.80
Bank charges	35.15	22.06
Total	222,475.61	131,389.86

The expenditure to date of EUR 131,389.86 is **58%** of the EUR 228,200 budget for Task XV.

## **ISSUES TO BE CONSIDERED BY THE EXECUTIVE COMMITTEE**

### **Possible No Cost Extension**

The Operating Agent reported to the Experts meeting that he had been receiving offers to carry out other work. As a consultant totally dependent on being offered work, he had difficulty refusing these offers. This additional work was impacting to some extent on the time he had available for Task XV, with the result that the completion date for the Task may extend beyond the end of September 2006 into early 2007.

The Experts discussed this issue and came to the conclusion that they would prefer to have Task XV completed to a high level of quality rather than requiring the Task to be completed by the current scheduled date of 30 September 2006. If the Task does extend past September, the Experts agreed to hold an additional (fifth) Experts meeting.

Consequently, the Executive Committee is requested to approve a no cost extension of the completion date for Task XV to no later than 31 March 2007, and earlier if possible.