

## MEMORANDUM

To: IEA DSM Task XIII Participants  
 From: Ross Malme, Task XIII Operating Agent  
 Date: October 20, 2004  
 RE: September 20, 2004 Milan Experts Workshop Meeting Minutes

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Our second Task XIII Experts Workshop was held in Milan Italy on September 20-21, 2004. Walter Grattieri and CESI, Walter's employer and an Italian energy research agency, were our willing and supportive hosts. Italy has a tradition of striving to find innovative energy solutions, such as their Automatic Meter Reading project and market liberalization efforts, so their participation in Task XIII will be beneficial to all. Furthermore, they proved to be an excellent host for our session.

All 11 countries currently registered in Task XIII attended the meeting. However, our Korea colleagues encountered some significant travel logistic difficulties and could only attend the first day of the conference.

### Day 1

Ross Malme called the meeting to order at 9:00 AM Monday, September 20, 2004. The people listed below attended the meeting.

	<b>Name</b>	<b>Country</b>
1	Walter Grattieri (Meeting Host)	Italy
2	Cristina Chemelli (Meeting Host)	Italy
3	Terry Jones	Australia
4	Soeren Varming	Denmark
5	Casper Kofod	Denmark
6	Seppo Kärkkäinen	Finland
7	Fuminori Horiya	Japan
8	Satoshi Ueno	Japan
9	Toru Matsumura	Japan
10	Marco Pagano	Italy (Stakeholder Member)
11	Marco Primavera	Italy (Stakeholder Member)
12	Insoo Kim	Korea
13	Eunhee Joeng	Korea

14	Dr. René (I.G) Kamphuis	Netherlands
15	Ove Grande	Norway
16	Dr. Carlos Alvarez	Spain
17	Carmen Rodriguez Villagarcia	Spain
18	Margareta Bergstrom	Sweden
19	Dan Delurey	USA
20	Renee Guild	USA
21	Ross Malme	USA OA Team
22	Pete Scarpelli	USA OA Team
23	Dr. Dan Violette	USA OA Team

After each meeting attendee gave a brief introduction and short background of themselves, Walter Grattieri welcomed everyone to Milan and CESI. Walter noted that his group is extremely interested in the outcome of Task XIII because they have to determine how to properly migrate and utilize 3000 MW worth of load curtailment contracts in the next couple years. They are utilizing Task XIII to support a larger research effort related to this challenge and expect that the tools and information derived from the project will help guide their decisions.

After a few welcoming words, Ross Malme gave a Task XIII Status Report (see DRR Task XIII Task Status Report Sept 04 V2\_1). This presentation provided an overview of project goals, countries enrolled, schedule, activities to date, the projects financial status (expenditures and country payment status), and actions that will be completed by the next Experts Workshop. Malme noted that a similar presentation will be given at the October 2004 ExCo Meeting in Atlanta, Georgia, USA.

A few key highlights from the presentation are as follows:

- **Schedule:** Upon further reflection, the schedule was modified slightly to recognize that some tasks will occur concurrently versus the consecutive nature of the original plan. For example, it made more sense to make DR program and DR technology data requests simultaneously. It was also noted that the project plan is constrained by the available budget. There has been some delay in receivables, so some work has been delayed to allow the project to progress based on the currently available budget.
- **Financial status:** There are still some outstanding project invoices. Because of this, the project is currently operating under its original budget from a cash perspective, but some work has been delayed so that the work matches the available budget. Arrangements are being made with those with outstanding invoices on individual basis. It was also noted that Round 2 invoices would be issued in November 2004 with a January 2005 due date and Round 3 would be issued in November 2005 with a January 2006 due date.

- **Task Information Plan:** It was noted that Task XIII existence and objectives will have been presented at 12 or more industry conferences during calendar year 2004. This includes conferences in Europe, USA, and Asia.

Pete Scarpelli gave the second presentation (see DRR Task XIII Project Plan Sept 04 V1\_0). Scarpelli provided an overview of the various project tasks with their deliverables and current status. He also reinforced that the primary objective of the project is to help facilitate the introduction and/or development of demand response resource participation in the participating countries.

	<b>Task</b>	<b>Status</b>	<b>Action</b>
1	Country Objectives	Several countries developed in-country objectives and project plans, but some have not	CE's should review sample project plans from USA and Australia as well as section 2 of the Project Guidebook and then draft their own internal action plans ASAP.
2	DR Resource Base	Most countries completed the initial Marketplace Overviews. This information was analyzed for market place similarities and differences. Some tables were included in section 3 of the Project Guidebook.  In addition, we started to compile a database of DR programs with performance figures, but it is USA based. We need information from other the other countries.	CE's should complete the homework assignment in Section 3 of the Project Guidebook by November 15, 2004.  The OA Team will continue to add to the program database for benchmarking purposes via telephone surveys with utilities and the information provided by the CE.
3	DR Market Potential	Reviewed tools with Economic Workgroup at an August meeting in Copenhagen. The tools will be:  1. DR Program Benchmarking 2. Consumer survey templates to designed to identify DR capabilities 3. Market potential modeling techniques	CE's should complete homework assignment in Section 3 of the Project Guidebook by November 15, 2004.  OA Team will provide draft tools for review prior to the end of the year. The tools will be reviewed at the next Experts Meeting.
4	DR Valuation	Reviewed tools with the Economic Workgroup at an August meeting in Copenhagen. The tools will be: 1. Standardized methodologies for assessing DR benefit/costs and market valuation 2. Two guidebooks describing how to utilize these methods. One for lay people and regulators and one for people	OA Team needs to issue minutes from the August Copenhagen meeting.  The OA Team needs to issue a draft methodology for review by the CE and the Economic Workgroup by the end of the year.

		with technical skills in the area.	
5	DR Technologies	<p>The State of the Practice Work Group was initiated at this conference to begin working on this. The tools will be:</p> <ol style="list-style-type: none"> <li>1. A database of currently used DR technologies</li> <li>2. A database of DR Technologies in R&amp;D</li> <li>3. A database of consumer promotional materials for DR technologies and programs</li> </ol>	<p>The OA Team needs to take the comments from the work group participants and structure them into a data request for all CE. The data request will be issued by the end of the year.</p>
6	Market Barriers & Potential Solutions	<p>The Operational Issues Work Group was initiated at this conference to address this task. The tools will be:</p> <ol style="list-style-type: none"> <li>1. A database of DR program designs with key challenges and solutions</li> <li>2. Description of DR operating characteristics</li> <li>3. Issues and concerns about DR with potential solutions</li> </ol>	<p>The OA Team needs to take the comments from the work group participants and structure them into a data request for all CE. The data request will be issued by the end of the year.</p>
7	Project Communications	<p>The OA has created a project newsletter and a web portal to communicate with project participants. The OA will also initiate monthly web teleconferences for all participants beginning in November 2004.</p> <p>The OA will also provide an In-Country Project Communication Template that the CE can use. It will provide a roadmap for when and where to share information about the project internally.</p> <p>In addition, the OA is promoting Task XIII a more than 12 industry conference.</p>	<p>The OA Team needs to schedule the first web teleconference (1<sup>st</sup> week in November).</p> <p>The OA needs to issue the In-Country Project Communication Template.</p>
8	Final Project Delivery	<p>The OA Team will host four regional conferences explaining the results of the project and how they can be utilized.</p>	<p>The OA Team will schedule the events when we are closer to implementation.</p>

After this presentation, we asked each Country Expert to give a brief overview of current DRR activities in their country. There are many things that we learned from this exchange. A few highlights are as follows:

- **Italy:** Italy has about 3000 MW currently under contract via interruptible tariffs. This provides about 5.6% of the system reserve margin. The program costs approximately 109,000 EUROS / MW Year, but it has no direct impact on the price market price curve because it operates outside of the market. They desire to integrate this into a market based DR effort in the next couple years.
- **Australia:** The Energy Users Association of Australia conducted a paper DR trial in December 2003. The trial demonstrated the ability to aggregate 119 MW of DR capacity based on discrete prices and dispatch characteristics. In addition, the Sydney Demand Management Project has initiated a project to aggregate DR capability in the Sydney area to help defer large system infrastructure upgrade costs. The project has a \$10 M budget and will be completed by 2007.
- **Norway:** Norway has several consumer load control pilot projects currently in place. They are testing infrastructure needs, consumer participation levels and reliability of supply.

These are just a few highlights. Most countries provided written descriptions of the projects that they discussed. These descriptions can be located on the project portal ([www.demandresponseresources.com](http://www.demandresponseresources.com)).

After a great lunch in the CESI cafeteria, Scarpelli introduced the Task XIII Project Guidebook. This book is intended to help guide the country expert through the project. The book is divided into sections that follow the task plan. Each section has information on the task and ends with a "homework" assignment. The homework assignment is intended to either (a) help facilitate activity inside the country and/or (b) provide information relative to the task to the OA that can be synthesized, packaged and distributed to the other participants. Each country can find an electronic copy of their Task XIII Project Guidebook on the project portal. It was duly noted that country experts would not violate the Copy Write or Intellectual Property rules if they share the share the Task XIII Project Guidebook with its stakeholders and others inside its country.

We concluded our first day discussions around 5:15 PM. Later in the evening, CESI hosted most of the meeting attendees at "la Tratoriaccia" for a traditional Italian dinner.

## **Day 2**

Ross Malme called the meeting to order at 9:00 AM on September 21, 2004.

The opening discussion focused on when and where to host the next Experts Workshop. Two options were offered for consideration: San Francisco, CA, USA and Melbourne, Australia.

There was support for both options. After giving it some thought and additional discussion (during the October 2004 ExCo meeting), we have settled on hosting the next Experts Meeting in San Francisco on February 2-3, 2005. Lawrence Berkley National Laboratories (LBNL) will be our meeting host. LBNL recently created the Demand Response Research Center to study many elements of DR. They will provide some insights into their studies and findings while we are there.

We then heard Dr. Antonio Capozza, CESI and Operating agent for Task XIV: Market Mechanisms for White Certificates, give an overview of his project. We asked Dr. Capozza to give this presentation because we felt that the meeting participants would find value in knowing about other IEA-DSM efforts. Dr. Capozza recently initiated his project and welcomes comments and/or your participation in it. You can get more information on Task XIV at <http://dsm.iea.org>. Dr. Capozza can be reached directly at [capozza@cesi.it](mailto:capozza@cesi.it).

Renee Guild, AREVA and a member of the US Demand Response Coordination Committee, gave a presentation describing a demand response software package that they built for a pilot project in California. Among other things, the system allows utilities and consumers receive DR offers, monitor their event participation.

Casper Kofod, Energy Piano and Co-Expert from Denmark, gave a presentation on his EFFLOCOM Project. This project focused on studying residential consumer direct load control strategies. The project allowed consumers to set various levels of heating comfort relative to price signals. They were able to demonstrate consumer acceptance and technical feasibility of the effort.

Both presentations from Guild and Kofod can be found on the project portal ([www.demandresponseresources.com](http://www.demandresponseresources.com)) with the other Milan Expert Meeting information.

Dr. Dan Violette then gave a presentation describing the status of the Market Potential and Economic Valuation task (see DRR Task XIII Valuation Sept 04 V1\_0). The presentation described the following work areas:

1. **Work Area 1: Benefit/Cost Framework** -- Develop the Benefit-Cost Framework that appropriately supports the economic case for DRR as part of a resource plan.
2. **Work Area 2: Valuation and Planning** -- Develop "approaches" (not specific models) to incorporate DRR in forward planning – short-term (1 to 2 years), medium-term (3 to 6 years), and long-term plans (10 years).
3. **Work Area 3: DRR Potential** -- estimation of DRR potential in a market.
4. **Work Area 4: Ex-Post Evaluation of DRR** – Discuss and develop approaches and requirements for evaluating and verifying the benefits and costs of DRR for specific programs that are in place.

In addition, Dr. Violette described that he is working with some system planners, valuation modeling technology vendors, and the Economic Workgroup to help formulate the results for these work areas.

Dr. Violette noted that we intend to create two guidebooks based on the conclusion from this research. He provided a white paper describing the form and structure of these guidebooks (see DRR Valuation and Planning Outline V3). They

- First Volume -- A high level overview that would be useful to general parties, i.e., to utility management, regulators, and planners wanting to learn more about the issues and some elements of the applied problems.
- Second Volume -- Practitioner guidelines for incorporating DRR in energy markets and would be targeted at a more technical level.

The first draft of these reports will be released by the end of the calendar year and the final drafts should be published in July 2005.

It was noted that the OA Team should provide the minutes from the Copenhagen Economic Work Group meeting to the Country Experts post haste. Furthermore, the OA Team should provide some direction on how the CE can assist with this work (if they are able to do so).

Scarpelli then gave a quick tutorial on how the Task XIII project portal is organized ([www.demandresponseresources.com](http://www.demandresponseresources.com)). The project portal has information on the project as well as supporting information such as a demand response research library.

Each country also has a private section on the portal. The country expert can use this section to host communications and information exchange with its stakeholder community. If you would like to know more information about how to do this, please contact Mark Wright ([mwright@retx.com](mailto:mwright@retx.com)) or Pete Scarpelli ([pscarpelli@retx.com](mailto:pscarpelli@retx.com)).

A password is required in order to access the portal. Passwords can be given to any participating CE, EXCO, or person designated by the CE. Password requests should be sent to [pscarpelli@retx.com](mailto:pscarpelli@retx.com).

The meeting adjourned for lunch at 1:30 PM. CESI was kind enough to provide lunch to the meeting participants in their cafeteria once again. We thank them for their support.

After lunch we broke into three small groups to kick off the newly created workgroups. We created the workgroups to help guide the completion of some of the tasks. The OA Team lead the groups.

The workgroups are:

Economic Analysis Workgroup: This group will focus on project Tasks 3 (market potential) and 4 (DR Valuation).

State of the Practice Workgroup: This group will focus on project Task 5 (DR Technologies).

Operational Issues Workgroup: This group will focus on project Task 6 (Market Barriers and Potential Solutions).

These discussion sessions provided some additional insight into the type of questions that should be asked and answered as well as the structure of the deliverables relative to each tasks. The OA Team will use this advice to create action plans for each work group in November.

Ross Malme called the meeting to a close at 5:30 PM.

Action Items:

1. OA Team needs to determine when and where the next Experts Workshop will be held
2. OA Team needs to structure the first, and subsequent, monthly web teleconferences
3. OA Team needs to take comments from the work group sessions and structure and action plan and next steps for the first web teleconference in mid-November.
4. CE should complete the homework assignments from the first three sections of the Task XIII Project Guidebook by November 30, 2004