



MEMORANDUM

To: IEA DSM Task XIII Participants
From: Ross Malme, Task XIII Operating Agent
Date: December 13, 2005
RE: November 9-10, 2005 Melbourne Experts Meeting Minutes

The fifth Experts Meeting was held in Melbourne, Australia on November 9-10, 2005. The meeting was co-sponsored by CSIRO and Sustainability Victoria. We are extremely grateful for their contributions. We are very fortunate to have people like Terry Jones, Tracey Colley, and Ian McNicol involved in Task XIII. Not only has their participation in project work been exceptional, they also were able to be great meeting hosts.

All meeting materials can be located on the project portal (www.demandresponseresources.com).

Tuesday Evening

On the evening before the meeting, attendees that were not too jet lagged from their long journey met for a pre-meeting dinner in the hotel restaurant. This gave us a chance to rest from our journey and catch up with our friends in person.

Day 1

Ross Malme called the meeting to order at 9:00 AM Wednesday, November 9, 2005. The following people were present (at some point during the two day meeting)*:

	Name	Country
1	Terry Jones	Australia
2	Ian McNicol	Australia
3	Tracey Colley	Australia
4	Glenn Platt	Australia
5	Stephen White	Australia
6	Julian Turecek	Australia
7	Greg Culley	Australia
8	Helen Murphy	Australia
9	Dr. Harry Schaap	Australia & IEA DSM ExCo
10	Ian Rowlands	Canada

11	Magnus Hindsberger	Denmark
12	Casper Kofod	Denmark
13	Seppo Kärkkäinen	Finland
14	Dr. René (I.G) Kamphuis	Netherlands
15	Ove S. Grande	Norway
16	Nuria Encinas	Spain
17	Margareta Bergstrom	Sweden
18	Dan Delurey	USA
19	Ross Malme	USA Operating Agent
20	Pete Scarpelli	USA OA Team
	SPECIAL GUESTS	
21	Fiona Weightman	New Zealand

* Representatives from Korea and Italy were unable to join us.

Ross Malme opened the meeting by thanking everyone for traveling from his or her respective homes to participate in the Experts Meeting. Malme then thanked our meeting sponsors supporting the meeting. He also thanked Terry Jones and Ian McNicol for their logistic assistance.

Malme then informed the group that Japan has officially decided to withdraw from the IEA DSM Programme effective October 2005. In light of this decision, they have also withdrawn from all tasks including Task XIII. However, it was noted that Tokyo Electric is considering taking over Japan's representation in IEA DSM and therefore in Task XIII. The ExCo is in discussions with them and we hope to hear their decision in the next few months.

On the other hand, Malme was also pleased to inform everyone that Canada has officially joined Task XIII. Malme welcomed Ian Rowlands, a Canadian Expert, to the group and encouraged everyone to do the same during one of the breaks. Like all countries in Task XIII, Canada is very interested in DR. The province of Ontario, in particular, is developing DR solutions at the present time. We look forward to learning more about their efforts in the coming months.

Mr. Jones and Mr. McNicol then welcomed everyone to Melbourne. McNicol provided a verbal overview of Sustainability Victoria. He noted that they are a government research arm for the State of Victoria. They are interested in ways to provide greater energy consumption strategies to their state. After this, Jones gave a short presentation on CSIRO (see CSIRO_Introduction_Nov05.ppt). CSIRO is a federal research institute. Jones leads the Energy Flagship Programme that is focused on developing low emission energy technologies and competitive energy services throughout Australia.

Malme again thanked Jones and McNicol for hosting the meeting and, more importantly, for their contributions to Task XIII.

Our first order of business focused on a project deliverable review from Pete Scarpelli (see Task XIII Deliverable Review_Scarpelli_Nov 2005).

A few key highlights from the presentation are as follows:

- **Task XIII Approach:** Develop a set of toolkits that users can implement to assist in evaluation DR opportunities. The toolkits will ultimately be organized into a guidebook that could serve as the foundation for the development of professional certification programs in the participating countries.
- **Project Schedule:** A project plan spreadsheet was provided to all Experts. The spreadsheet includes the steps involved with each subtask. It also notes input from each country for each work step (see IEA DSM Task XIII Detailed Project Plan Nov 2005 v1.0.xls)
- We issued an updated Country Comparison report (**Subtask 2**) based on input from all Country Experts. We have requested final comments by all Country Experts by the end of September 2005.
- We issued a DR Market Potential report (**Subtask 3**) that established DR market potential benchmarks, modeling techniques, and consumer survey tools. The report was created based on a survey completed by the OA Team. We circulated an International DR Market Potential Survey to acquire additional data points on multiple occasions, but we did not receive any completed surveys.

In addition, with the direct cooperation of Walter Grattieri, the Italian Expert, we developed an Online DR Market Potential Calculator. With this tool, a user can input some basic market demographic information, and the tool will translate the DR market potential benchmarks to their market.

- We issued a DR Valuation report (**Subtask 4**) that proposes a methodology for estimating the net present value for DR. The methodology utilizes probabilistic modeling techniques to value the future impact DR can have in a liberalized market. The report is out for final review and comment from all Country Experts by mid-October 2005. The final report will be published prior to the end of 2005.
- We've collected DR Technology case studies (**Subtask 5**) from Australia, Denmark, Italy, Netherlands, and Norway. These case studies are organized into a database on the project portal. We are actively requesting more case studies from these participants as well as seeking initial efforts from the other participants. Several Experts noted that the database does not have as many case studies as it should. All Experts were asked to provide additional information by the end of 2005.
- We have created an Online DR Product Database (**Subtask 6**). The database contains nearly 100 DR products from Australia, Denmark, Norway, Spain, Sweden, and USA. The online tool allows a user to search for specific products using selective search criteria. We are actively seeking additional products from all participants. We will use this information to highlight strong performing and/or innovative products that others should consider during any product design

discussions in their countries. In addition, we have collected input from nearly all countries on some of the DR market barriers they encounter. This information will be built into a database and summarized when all the input is received.

- As part of our Task communication plan (**Subtask 7**), the OA Team issued 3 project newsletters, jointly hosted two DR workshops with our Expert Meeting host, and gave several presentations at industry conferences.
- The OA Team continues to discuss and encourage the Country Experts to formulate in-country implementation plans (**Subtask 8**). We circulated a memo to all Country Experts providing guidance and suggestions on how to do this. In addition, we discussed several ideas at the Stockholm Experts meeting and heard presentations from a few of the Experts. In addition, we are hoping to hold a conference in Paris during the summer of 2006 for all Task XIII participants, particularly the European participants, to share their experiences.

COMPLETED DELIVERABLES

Subtask 1:

- Task XIII Guidebook Chapter 1 & 2 – project plan and suggestions for getting started
- Creation of www.demandresponseresources.com
- Requests for each country expert to establish project objectives and country stakeholder groups

Subtask 2:

- Task XIII Guidebook Chapter 3 – overview and classification of DR
- Marketplace Overview surveys from all participating Country Experts
- Country Comparison Report – summary of market structures, infrastructures, regulatory oversight, and current/past DR efforts
- Creation of DR research library on project portal
- Communication Toolkit – recommendations and forms for developing an in-country communication roadmap to maintain engagement with stakeholders and regulators

Subtask 3:

- Task XIII Guidebook Chapter 4
- Market Potential Survey Final Report – (a) creation of DR market potential benchmarks for 1st level market potential estimations, (b) creation of consumer surveys for 2nd level market potential estimations, (c) description of known DR market potential modeling techniques
- Creation and requested completion of International DR Market Potential Survey
- Creation of Online DR Market Potential Calculation - methodology for translating DR market potential benchmarks to other markets

Subtask 4:

- Task XIII Guidebook Chapter 5 (to be updated by January 2006)

- DR Valuation Market Analysis Volume 1 – technical report describing proposed Task XIII valuation methodology
- DR Valuation Market Analysis Volume 2 – industry layman/regulator report describing proposed Task XIII valuation methodology

After a short break, we returned to discuss the recent Task XIII mid-term Evaluation Report (see DSM_TaskXIII_Evaluation.pdf and Oct EXCO Meeting Debrief_Scarpelli_Nov 05.PPT).

Highlights from the presentation are as follows:

- The Task XIII Evaluation report was created based on a survey submitted to all project participants from the ExCo. Eight of the 14 participants returned the survey.
- The survey indicated that the expected results as well as the approach to accomplish the tasks were adequately to well described. However, a few noted that the workgroups caused some confusion. The project goals were well described, but there was some disagreement if they will be met. For example, some respondents were unsure if they will be able to implement the DR valuation modeling work. Some others thought that the modeling implementation would be completed as part of the Task XIII subtask. The OA clarified that Task XIII never intended to complete the implementations for each country. The budget and timeline only provided us the ability to develop a valuation methodology and then provide a sample implementation that others could mimic.
- Project technical quality was self reported to be Average and some noted it was too US focused. In regards to the US orientation, the OA noted that we had to produce reports based on the information received to date and, unfortunately, this was US dominated. For example, we did not receive any International DR Market Potential Surveys, so we were forced to use the North American surveys the OA Team completed to establish the Market Potential Benchmarks. However, we also created the Market Potential Calculator (see project portal) to provide a way to translate the results based on local market demographics. After this we engaged in a roundtable discussion to identify ways to make sure the project produces excellent results, not average results:
 - Australia: Given that some have not provided input yet, we may be closing the input phase too soon.
 - Denmark: Desires business case discussion, help illustrating how actors can use the project tools, and more technology case studies.
 - Finland: Help with transferring information to stakeholder use.
 - Netherlands: Stakeholder group has just finally been formed, so it has been difficult getting things accomplished. But things are up and running at this time. They would like business models with references to EE and renewable energy.
 - Norway: Would like to see better portal mapping (e.g. highlight top 10 things on portal). There is too much info and it would help if it was filtered.

- Spain: People will learn more about the tools after they try to implement them. The project and the tools would benefit from this feedback.
- Sweden: Will find it difficult to get all data input submitted by Christmas.
- USA: Will provide nearly 40 DR technology case studies by Christmas.
- Canada: They just joined, so they need more time to better understand the project plan, tools, and expectations.

At the end of this discussion, there was a general consensus that at 6-month project extension would be desired from all participants. People thought this would give time for everyone to provide the input the project needs and it would also give time for some implementation efforts. These implementation efforts would provide valuable feedback on the project tools to ensure that they rise to the level of excellence; it would be a QA process. The OA noted that we cannot make this decision, but we will develop a plan and seek approval from the ExCo.

At the end of this discussion, we began a series of presentations from each country on DR Market Barriers. All presentations can be located on the project portal. Highlights are as follows:

- Australia (Jones): A recent DR Market Barrier report identified 16 barriers. The top 5 are: (1) ability to model DR benefits; (2) lack of simple consumer contracts; (3) need better metering; (4) Federal government needs to reduce barriers for DG with the ability to capture TUOS and DUOS benefits; and, (5) need simple standard DG interconnection agreement.
- Canada (Rowlands): Since this was their first meeting, Rowlands started with a nice overview of the Canadian electric market. The main barriers he identified were: relatively low electric prices, “tragedy of the commons”, consumer education, and concern for DR project start up costs.
- Denmark (Hindsberger): Even though retail companies have balancing responsibility, they have not shown an interest in DR aggregation. A pilot study is might be helpful to assess why and demonstrate how the retail companies can do it. A similar effort was done for DG and it had significant impacts.
- Finland (Kärkkäinen): Technical: lack of low cost control and monitoring equipment; system integration is difficult and expensive due to lack of standardization; even though a great deal of AMR technology is being installed, there is not a clear strategy for how those other than the DSO can use the data. Structural: lack of price transparency at the consumer level; tragedy of the commons. Informational: lack of education at all levels: consumer, DSO, aggregator, and regulators.
- Netherlands (Kamphuis): The presentation provides a detailed look at barriers from the perspectives of wholesale customers and retail customers. This includes a look at market rules, technology challenges, and impacts an interruption has on consumer operations/use of electricity.

- Norway (Grande): The primary barrier in Norway is related to the Tragedy of the Commons. There is definitely a strong socio-economic incentive, but the benefit is spread out across multiple actors (consumer, network owner, supplier, and TSO). Grande provides a complete breakdown of this issue in his presentation.
- Spain (Encinas Redondo): The presentation provides a detailed breakdown on four main categories: technical, cost (some tariffs are lower than market prices), regulatory (DR not allowed in operating markets), and cultural (consumer switching is new and DR education levels are low).
- Sweden (Bergstrom): There are a lack of proper price signals, low incentives to suppliers if price spikes continue to be rare, and high likelihood of free rider benefits which dilute benefit from others that provide the service. In addition, Sweden operates an energy only market, so things like capacity payments are not possible.
- USA (Delurey): The federal government cannot require states to implement DR and FERC does not have jurisdiction over retail pricing. State regulators are slow to push new things because of problems encountered during the retail choice process and some still think consumers would be unwilling to participate. DR technology costs may be greater than people are prepared to incur. There is still a large information/education void.
- New Zealand (Weightman): Weightman provided an overview of the New Zealand electric market and then introduced a number of DR activities currently under investigation. They estimate that that there are 460 MW of DR that can be capture in the market, an 8,000 MW system. They are attempting to understand the best way to acquire these MWs and have a very active consumer education effort in place.

We closed Day 1 at 5:00 PM.

Sustainability Victoria then hosted a wonderful dinner for everyone at a restaurant called the Treasury. The restaurant was housed in a former bank building, which provided a unique dining atmosphere...and the food was great too. We are very grateful for their sponsorship.

Day 2

Malme opened the meeting at 9:00 AM.

The first presentation was given by Nuria Encinas-Redondo of Spain (see IIEE-UVP Customer Encouragement.ppt and IIEE-UVP Product Feasibility.ppt). These presentations provided insight into the research they are doing as part of the EUDEEP project. The main focus is to develop a database of demand response performance capabilities for each customer industry group. They are then also trying to determine the best way to motivate those consumers into participating. The presentations are very

detailed and we all gained a greater understanding of how the consumer looks at DR participation options.

We deferred the Market Barrier Roundtable to the afternoon session.

Ms. Bergstrom then provided the group with an update on their Market Design project (see Swedish Business Cases.ppt and Swedish market based DR models.ppt). As we learned at the Stockholm Experts Meeting, the Swedish team was actively developing a set of DR business cases to demonstrate how DR could be implemented in their market. Sweden ran several trial projects based on the business cases and the results are summarized in the presentation. However, the bottom line is that they concluded that DR is necessary for the efficient operation of their electric market. The challenge, of course, is determining how to make it happen.

Mr. Hindsberger then gave a presentation describing their implementation plan (see Business Case Plan.ppt). Their strategy involves creating market actor business cases and mapping the project tools and methodologies to the business cases. The idea is that this will make it easier for stakeholders to understand how to use the project results. This will also begin to provide a foundation for a collection of business cases that others can review. The OA Team endorsed this strategy because it provides an easy way to see how the project results can be used in a market. The OA Team encouraged others to follow this example when they develop their Subtask 8 strategies.

When we returned from our lunch break, Scarpelli began a presentation on DR Technologies (see DR Technologies_Scarpelli_Nov05.ppt). Some highlights were:

- Only 5 countries have provided case studies. It is important that we receive input from everyone immediately.
- All technology case studies are currently posted on the project portal.
- The case studies are organized in a tabular format. If we receive a larger volume, we can migrate it to a searchable database.
- We then heard overviews of the submitted technology case studies from Australia, Denmark, Italy, Norway, and the Netherlands.
- In addition to the actual case studies, the final report will include information on consumer load shedding strategies, technology standardization efforts, and DR Technology recommendations.

One of the main benefits countries receive from participating in Task XIII is the ability to share and receive information with experts from around the world. To make sure this benefit is received we held a roundtable discussion. People were asked to use this forum to find out if others have information that may help with a challenge that someone is currently trying to resolve (hopefully related to DR market barriers, but not limited to it). The discussion went as follows:

- USA: Looking for information on customer acceptance of DR (see Nuria and Seppo on EU Deep). Looking for information that illustrates a net kWh reduction from DR (see EFFLOCOM); looking for information on performance based rate making (see New South Wales and ECN).

- Sweden: looking for information on meter data standardization (see US Open AMI discussions)
- Norway: Looking for ways to include DR in markets even when price spikes are infrequent. In addition, they are about to begin a DR valuation project. They can share their results when they are finished.
- Finland: Interested in reviewing the DR valuation methodology from others (Australia, Denmark, and Norway).
- Denmark: Interested in DR acquisition costs as it relates to market penetration. Interested in actual costs of DR infrastructure, costs for maintaining a DR customer. Recommended a menu of most valuable things on first page of project portal.
- Canada: Interested in whether and how DR can lead to conservation and/or renewable. They are also interested in DR business cases as well as information on consumer motivations for participating in DR.
- Australia: Interested in the economic case for DR as well as a CO2 justification. If there is a reduction in energy, AUS can claim a CO2 credit (see Denmark and Norway).

Our next discussion focused on Subtask 8: Implementation Plans. Before we engaged in an open roundtable discussion, we heard prepared presentations from Australia (see AU ST8_Nov05_v1.ppt) and the Netherlands (see IEA DRR_2005110910_NL-Implementation.ppt). These presentations provided overviews on the current strategies for sharing Task XIII information, tools, and methodologies in each country.

In addition to this, the Nordic countries discussed having a Nordel conference, but felt that broader European DR workshop may be more valuable to them. At this time, Malme indicated that he has been having discussions with the IEA DSM Chairman about coordinating a joint IEA DSM – CIGRE conference in Paris in the late summer or early fall of 2006. Most people thought this would be a good forum to discuss their lessons learned from the project.

The last order of business was to discuss next steps. The Netherlands tentatively agreed to host the next Experts Meeting on February 22-23 (provided that we get ExCo approval to hold the meeting). Everyone reiterated their desire to extend the project another six months so people have time to provide input as well as utilize the project tools. The OA agreed to pursue this with the ExCo assuming that the Experts will support the request.

Malme called the meeting to a close at 4:30 PM.

Action Items:

	Responsible Party	Issue	Due Date
1	OA Team	Request a six month project extension from the ExCo per Expert recommendation	December 31, 2005
2	OA Team & Netherlands Team	Coordinate the next Experts Meeting in Amsterdam.	January 10, 2006
3	OA Team & Each Individual Country Expert	Schedule status teleconferences with each country in January.	January 31, 2005
4	OA Team	Issue final valuation report.	December 31, 2005
5	OA Team	Create a "top 10 list" for project portal information.	January 31, 2005
6	OA Team	Issue completed deliverable sign off sheet	January 5, 2006
7	Country Experts	Review and approve completed deliverables (see page 4)	January 31, 2006
8	OA Team	Submit approved deliverables to ExCo for approvals	March 15, 2005
9	Country Experts	Discuss 6-month extension with country ExCo member	December 20, 2005
10	Country Experts	Provide additional input on DR Product Database and DR Technology Case Studies. (contingent on 6-month extension decision)	August 15, 2005 (Past due....please hurry)
11	OA Team	Compile DR market barriers and circulate draft report (contingent on 6-month extension decision)	December 31, 2005
12	OA Team	Compile DR Technology Case studies and circulate report (contingent on 6-month extension decision)	December 31, 2005
13	OA Team	Work with IEA DSM Chairman on Paris DR conference	February 28, 2006
14	Country Experts	Create draft outline of DR Implementation Strategy presentation and review with OA	February 15, 2006