Independent Market Operator

Renewable Energy Generation Working Group

Minutes

| Meeting No. | 15 | |
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| Location: | Meeting Room 1, Perth Convention Exhibition Centre | |
| | 21 Mounts Bay Road, Perth | |
| Date: | Thursday, 12 August 2010 | |
| Time: | 1:00 pm - 4:00 pm | |
| Attendees | | |
| Troy Forward | Independent Market Operator (IMO) | Chair |
| Courtney Roberts | IMO | Minutes |
| Fiona Edmonds | IMO | |
| Greg Ruthven | IMO | |
| John Vendel | Pacific Hydro | |
| Matthew Rosser | Pacific Hydro | |
| Dr. Steve Gould | Landfill Gas & Power | |
| Andrew Woodroffe | Skyfarming | |
| Ian McCullough | OoE | |
| Chris Brown | ERA | |
| Brooke Eddington | OoE (2:28-4:00pm) | |
| Pablo Campillos | DMT Energy (1:00-3:55pm) | |
| John Rhodes | Synergy | |
| Tom Pearcy | Western Power (1:00-3:35pm) | |
| Andrew Everett | Verve Energy - late | |
| Brendan Clarke | System Management | |
| Rob Rohrlach | Energy Response (1:00-3:55pm) | |
| Phil Kelloway | System Management | |

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| Corey Dykstra | Alinta |
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| Anwar Mohammed | SunPower |
| Shane Cremin | Griffin Energy (2:04-4:00pm) |
| Richard Harris | Mid West Energy (3:08-3:48pm) |
| Stephen Hurley | Dept. of Premier and Cabinet (1:00-3:41pm) |
| Andrew Everett | Verve Energy (2:04-4:00pm) |
| Apologies | |
| Alistair Craib | Collgar Wind Farm |
| Kyle Jackson | Mid West Energy |
| Brad Huppatz | Verve Energy |
| Tim Bray | Western Power |
| Michael Carr | Tenet Consulting |
| Wendy Ng | Verve Energy |

| Item | Subject | Action |
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| 1. | WELCOME | |
| | The Chair opened the meeting at 1.09 pm and welcomed all attendees to the Renewable Energy Generation Working Group (REGWG) meeting. | |
| | The Chair thanked Working Group members for their contribution, noting the review undertaken by the REGWG as being the most comprehensive since market start. | |
| 2. | MEETING APOLOGIES / ATTENDANCE | |
| | The apologies were noted as listed above. | |
| | The Chair welcomed the following IMO staff: | |
| | Ms Fiona Edmonds; andMs Courtney Roberts | |
| 3. | MINUTES OF PREVIOUS MEETING | |
| | The minutes of the 22 July 2010 REGWG meeting were circulated prior to the meeting for review and comment. | |
| | It was agreed by all members that the minutes were a true record of what was discussed in REGWG Meeting 14. | |

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| | Action Point: The IMO to publish minutes from Meeting 14 (22 July 2010) as final. | IMO |
| 4. | ACTIONS ARISING | |
| | All action items were complete other than: | |
| | Action Item 23: Will remain an outstanding item and will be presented to the new Rules Development Implementation Working Group. | |
| | Action Item 36: The REGWG progress report was presented yesterday to the Market Advisory Committee (MAC), outlining the proposed resolution strategy for Work Packages 2, 3 and 4. | |
| | Action Item 44: This had been subject to the final report. Mr Brendan Clarke confirmed that System Mangement accepted ROAM's recommendation. System Management reviewed the recommendations accepts ROAM's report. | |
| | Action Item 50: The REGWG progress report referred the other elements of Load Following to MAC. | |
| | Action Item 52: Referral of Work Package 4 to the ERA Technical Rules Committee is pending ratification of the Final Report at today's meeting. | |
| 5. | WORK PACKAGE 4 | |
| | The Chair introduced Mr Tom Pearcy from Western Power to present an overview of the proposed amendments to the Technical Rules currently awaiting approval by the Economic Regulation Authority's (ERA) Technical Rules Committee. A copy of the presentation is provided in Appendix 1 to these minutes. | |
| | The following points were raised by Working Group members: | |
| | Mr John Vendel questioned if the ramp rate restriction of 10MW per minute would apply for facilities both ramping up and down. Mr Vendel noted that the ramp rate limit in the NEM is 30MW per minute and noted that adhering to a 10MW restriction would be difficult for wind farms. In response, Mr Pearcy noted that the movements of wind farms must be balanced by movements from other generators on the system. | |
| | Mr Corey Dykstra questioned whether the 10MW per minute restriction would apply to all Market Generators and how the restriction aligns with that provided in the Power System Operation Procedure (PSOP): Dispatch. Mr Pearcy confirmed that the restriction would apply to all Market Generators. Mr Phil Kelloway noted that that PSOP will | |

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| | impose a more difficult restriction on ramping than the Technical Rules. Mr Kelloway queried whether the PSOP and the Technical Rules should be better aligned. Mr Steve Gould stated that it is easier to amend the PSOP than change the Technical Rules | |
| | Action Point: Western Power and System Management to discuss the issue of conflicting ramp rate restrictions in the Technical Rules and PSOP: Dispatch and update the Working Group at the next meeting. | WP & SM |
| | Mr Vendel questioned whether the amendments to the Technical Rules would apply to existing facilities. Mr Pearcy noted that the amendments would only apply to new Facilities. | |
| | The Working Group agreed for Work Package 4 to be provided to the Technical Rules Committee for consideration, as previously agreed and recorded as Action Item 52. | |
| | Action Point: The IMO to publish the SKM Draft Report as the Final Report on the public webpage and informally hand final report to ERA's Technical Rules Committee. | IMO |
| | Publication of Information | |
| | The Chair suggested that the recommendation of System Management in response to Work Package 4, for real time data requirements, provided an opportunity to make aggregated information on Intermittent Generators available to the market. The chair requested the comments of Working Group members. The following comments were provided: | |
| | Mr Gould suggested that, at minimum, enough information needs to be made available for Market Participants to complete a self-assessment of their expected level of assigned Capacity Credits. | |
| | Mr Vendel agreed with making information publicly available and noted that the NEM is currently moving towards real time publication of operational data. | |
| | Mr Matthew Rosser also agreed that there would be a benefit in the provision of this information to small generators. Mr Rosser also noted that transparency is one of the tenents of an efficient market. The Chair agreed and noted that the IMO is currently preparing a paper on the impacts of transparency on the WEM. | |
| | Mr Kelloway noted that the provision of information on Intermittent Generators would allow for greater understanding of the impacts of these facilities on the SWIS, and the associated Balancing requirements. Mr Vendel agreed, noting that the wider community needs to be | |

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| | educated on the contribution of wind farms, in particular their contribution during peak periods. | |
| | The Chair queried whether aggregated information should be published or individual facility information. The Chair noted that this would further increase transparency to the market. Mr Kelloway noted that publication of individual facility information would be problematic for System Management's current IT systems. The Chair noted that the IMO would need to undertake an assessment of the IT costs associated with provision of this information. | |
| | Mr Anwar Mohammed requested that the information be provided by technology type. Mr Ian McCullough noted that confidentiality considerations would limit the plausibility of providing this breakdown of information. The Chair also noted that information by technology type is not currently contemplated by the Market Rules. | |
| | The Chair requested existing Intermittent Generators to provide comments on the provision of this information at an individual facility level. | |
| | Mr Shane Cremin questioned the benefit of providing information in real time and the rationale for the Working Group considering the publication of individual facility data. | |
| | Mr Dykstra questioned the rationale for the Working Group considering this issue and noted that this information holds significant commercial value and as such he is unenthusiastic about its public provision. | |
| | Mr Gould noted that the output of landfill gas plants is quite flat and is reflected in the Capacity Credits assigned. Mr Dykstra and Cremin that the information for windfarms is commercially sensitive. | |
| | The Working Group agreed to recommend a Rule Change Proposal to publish aggregated Intermittent Generator data. | |
| | Action Point: The Working Group to prepare a Rule Change Proposal to publish aggregated Intermittent Generator data. | IMO |
| | Action Point: The IMO to recommend to the MAC that data for all Market Generators be made publicly available. | IMO |
| 6. | WORK PACKAGE 1: ACCEPTANCE OF FINAL REPORT | |
| | The Chair introduced Mr Greg Ruthven who presented an overview of the issues raised regarding Work Package 1. | |
| | Mr Ruthven explained that the REGWG had previously endorsed the Work Package 1 Interim Report subject to the resolution of other Work Packages, consideration of the | |

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| | overnight load forecasts and review of the discrepancy between the long-term demand forecasts used by ROAM and the long-term forecast produced by NIEIR for the Strategic Energy Initiative. These matters have each been resolved and, in particular, the IMO considers that the demand forecasts used by ROAM are fit for purpose for the REGWG analysis. | |
| | The Chair requested that the Working Group support ratification of the Interim Report as being the Final Report. The Working Group accepted Work Package 1 as final and agreed that the ROAM forecasts are appropriate and fit for purpose. | |
| | Action Point: The IMO to publish the Work Package 1 Final Report. | IMO |
| 7. | WORK PACKAGE 3: ACCEPTANCE OF FINAL REPORT | |
| | The Chair noted that the MAC has endorsed the proposal that competitive procurement of Ancillary Services be reviewed first by System Management and then later by the Rules Development Implementation Working Group (RDIWG). The Chair noted that this later review would be included in the scope of works for the RDIWG. | |
| | The Chair noted that ROAM Consulting had identified significant rule changes to implement the outcomes on the allocation of load following and spinning reserve costs (Work Package 3). The Chair proposed to accept ROAM's recommendations and request ROAM Consulting to develop the necessary Rule Change Proposal to implement the changes to the cost allocation. | |
| | Mr Dykstra queried whether the proposed changes would apply to all Intermittent Generators. The Chair noted that there would not be grandfathering of the amendments. Mr Dykstra also noted that ROAM's recommendations are unclear. | |
| | The Working Group agreed that the aspect of cost allocation was within its scope. Mr Cremin noted that apportionment of costs for Spinning Reserve are currently based on risks to the system and do not take into account the benefits of larger more cost efficient facilities. | |
| | Mr Vendel questioned how the market can manage their requirements for Ancillary Services. In particular, Mr Vendel noted that it is difficult to look at just one aspect of the Ancillary Services market. | |
| | The Chair noted that the Working Group would only fix those aspects that which have been identified and are within the scope of the working group (i.e. not being reviewed by System Management). Mr Gould suggested that it would be inappropriate to refer these matters to the MAC when the REGWG can resolve them. Mr Dykstra agreed that irrespective | |

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| | of what happens with the broader procurement of Ancillary Services, the issues identified by ROAM need to be fixed. | |
| | The Chair agreed that the IMO should prepare a concise list of ROAM's recommendations with suggestions on the forward plan. The Chair also agreed to develop a summary of the work that will be passed to the MAC and the reasons for doing so. | |
| | Action Point: The IMO to prepare precise recommendations to be agreed by the Working Group at Meeting 16. | IMO |
| 8. | WORK PACKAGE 2: NUMERICAL ANALYSIS OF VALUATION OPTIONS | |
| | The Chair presented an overview of the impact of increasing Intermittent Generation during the peak times under the Load for Scheduled Generator (LSG) valuation methodology. | |
| | Mr Gould questioned why Individual Reserve Capacity Requirements are not determined on the same basis as LSG and why it would not also be applied to Scheduled Generation. The Chair noted that Scheduled Generation can shift the times at which it operates. Mr McCullough agreed that this is a valid question but noted that it is outside of the Working Groups scope. | |
| | Mr Campillos noted that the LSG valuation methodology is dynamic and takes into account the contribution of other Intermittent Generators. Mr Clarke responded that both the LSG and system load methodologies would result in a similar outcome in the short term. The system load methodology is however much simpler. | |
| | Mr Gould indicated if Proposal 1 or 3 was selected, the selection of LSG over peak demand would be a significant issue. He suggested that the REGWG review the report again in the next meeting. | |
| | Mr Rhodes suggested that this discussion be progressed to the MAC. The Chair noted from the discussion that the group did not appear to be supportive of the use of LSG. However, he agreed that it could be raised and discussed further by the MAC. | |
| | The Working Group, including System Management, agreed that the while the LSG methodology would likely be the best long term option, this is outweighed by the simplicity of the System Load methodology. The Working Group noted that while the maturity that this methodology provides, may be required in the future, this may not yet warranted. The Working Group also noted that there may be a price shock if the LSG methodology was adopted. | |
| | It was noted that the REGWG would continue its discussion of | |

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| | Work Package 2 at the next meeting with a view to make a final decision. | |
| 8. | GENERAL BUSINESS | |
| | The REGWG agreed for all future meetings to be held from 2.00-5.00pm. | |
| 9. | NEXT MEETING | |
| | The next meeting is scheduled for Thursday 2 September from 2.00-5.00pm. | |
| CLOSED The Chair declared the meeting closed at 4.06 pm. | | |