



MAJOR ELECTRICITY USERS' GROUP

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Greg Williams
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By email to submissions@ea.govt.nz

Dear Greg

Information Paper – Assessment of real-time pricing options

1. This is a submission by the Major Electricity Users' Group (MEUG) on the Electricity Authority (EA) information paper "Assessment of real-time pricing options" 12th April 2016 including the System Operator Technical Advisory Services Contract (TASC) report and cost-benefit-analysis (CBA) spreadsheet.¹
2. MEUG members have been consulted in the preparation of this submission. This submission is not confidential. Some members may make separate submissions.
3. MEUG has been a proponent for further consideration of RTP for a long time.² There are many versions of RTP that are possible. MEUG has lacked the resources to evaluate the costs of various options and depending on specific design choices taken estimate the relative incremental benefits expected to accrue. The information paper, TASC report and CBA have filled in the missing detail.
4. The analysis by the EA and System Operator to hone in from an initial 80 different combinations of base case options in the TASC report to the two most likely highest NPV options in the information paper has been very thorough.³ MEUG welcomes the clear visibility on the methodology and decision points in the TASC report and EA information paper leading to the two options proposed for further investigation. Publishing the CBA as a spreadsheet makes the analysis easily tractable and lowers the cost for interested parties to test their own sensitivity analysis.
5. Allowing interested parties to hear from and ask questions of Dr Howard Haas, Chief Economist from Monitoring Analytics (the market monitor for PJM market), at the workshop on 21st April 2016 also assisted in commenting on the information paper.

¹ All materials published at <http://www.ea.govt.nz/development/work-programme/wholesale/exploring-refinements-to-the-spot-market/consultations/#c15922>. EA paper URL <http://www.ea.govt.nz/dmsdocument/20599>.

² For example MEUG submission of 23rd August 2013 on the WAG paper on aligning forecast and final prices (response to Q 13. Stated "On balance MEUG recommends the Authority continue investigating possible changes to either closer to real-time final pricing or ex ante final pricing." refer <http://www.meug.co.nz/node/552>.

³ TASC report refers to 80 initial options at p17.

6. Responses to questions in the consultation paper follow:

Question	MEUG response
<p>1. Do you agree the spot pricing issues identified by the Authority are worthy of further investigation?</p>	<p>Yes.</p> <p>This work should be retained as a high priority given the potential large size of NPV benefits relative to other work the EA is undertaking.⁴ MEUG is not aware of any other work apart from TPM where the potential NPV is greater.</p>
<p>2. Are there any options you think we missed? If so, please describe them.</p>	<p>Yes. There is no explanation as to why alignment of the trading period with that used for pricing and dispatch rather than retaining the current ½ hour trading period will not be considered further other than the following:</p> <p>“In theory, the ideal approach would be to align the trading period interval with the intervals used for dispatch and pricing. Doing this would make prices both actionable and more efficient. However, shortening the current 30-minute trading period would require extensive changes to settlement systems and processes affecting everyone in the wholesale and retail market. Given the likely substantial cost to implement such changes, the scope of the investigation and options did not include changing the length of the trading period”⁵</p> <p>No evidence is submitted that the incremental higher costs of using shorter trading periods will exceed incremental higher benefits. Some analysis should be made to test this proposition. In any case MEUG suggest an important design parameter is to provide for an option in the future for further changes to align trading periods with the period used by the System Operator for dispatch.</p> <p>We don't believe the EA has missed any other broad design options.</p> <p>In further work finalising the design parameters for options B and C MEUG is particularly interested in the treatment of dispatchable demand (DD) and a possible ahead market. MEUG's current view on those are:</p> <ul style="list-style-type: none"> • Implementation of RTP is an opportunity to address the flaws uncovered with the modified DD we currently have and replace it with the full DD regime as originally proposed. MEUG made submissions to the EA on this topic in March 2016. Appendix A has the full text of those submissions.

⁴ In the EA's consultation paper of 13th October 2015 on proposed appropriations for 2016-17 work on RTP was part of the project "Spot market refinements". This was proposed to be in the 1st priority suite of projects (p26 of appropriations paper). Refer <http://www.ea.govt.nz/dmsdocument/19972>

⁵ RTP Information paper, paragraph 3.2.2.

Question	MEUG response
	<ul style="list-style-type: none"> We are not convinced a mandated ahead market will be needed in New Zealand. Existing policy problems we think will be solved or detriments largely muted by a range of concurrent market improvements including RTP, closer to real time gate closure and ASX introducing a cap product. MEUG submitted in May last year that development of RTP should proceed ahead of investigating a mandatory ahead market.⁶ In finalising the design parameters for the proposed RTP design care needs to be taken that there are no material incremental costs to implement RTP in order to provide optionality for the possibility we may implement a mandatory ahead market. <p>The above points are raised because it was not clear in the TASC paper and information paper exactly how DD and an ahead market were to be treated. For example section 4.5 (pp27-28) of the TASC paper under the heading Dispatchable Demand concludes with a question for the Authority:</p> <p>“Would it be better to implement a real time pricing solution and an ahead market incrementally or at the same time?”</p>
3. Do you agree with the cost benefit assessment? If not, why not?	The analysis is reasonable as a rough order of magnitude estimate. The sensitivity and breakeven analysis gives sufficient confidence that further work should focus on options B and C.

7. MEUG looks forward to the EA considering submissions and proceeding to develop a Code amendment for implementing a preferred RTP proposal in the 2016-17 financial year.

Yours sincerely



Ralph Matthes
Executive Director

⁶ MEUG to EA, Feedback on spot market review, 5th May 2015, p2, response to Q.4. URL <http://www.meug.co.nz/node/642>

Appendix A

Extract from MEUG submission to EA,
Consultation Paper – Dispatchable demand during tight market conditions, 1st March 2016⁷

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10. The current EA project⁴ “Exploring refinements to the spot market” includes an investigation into adopting real-time-pricing (RTP). There are different designs to consider for RTP; though all will have final prices derived from and published from schedules closer to real time than how final prices are currently set. The original full DD regime would have dispatched demand using an existing schedule closer to real time as noted in the executive summary of the consultation paper:

“When the DD regime was developed, the Authority’s original design would have allowed the system operator to dispatch participating load in real time, using the same real time dispatch schedule (RTD) as for generators and the same dispatch process.”

11. MEUG expects New Zealand will adopt RTP. Implementation of RTP will not be trivial. However the benefits will be much larger because knowing final prices closer to real time is becoming both more realistic and necessary. RTP is becoming more realistic for New Zealand because of the improved speed of communicating real time data and the speed of software to optimise the system. Overseas experience has shown RTP is possible without

⁴ This project arose from the prior project titled Spot Market Review. The current work on Spot Market Refinements, project #1.4 in the 2015/16 EA work programme, can be found at <http://www.ea.govt.nz/development/work-programme/wholesale/exploring-refinements-to-the-spot-market/>

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degrading real time security. RTP is also becoming necessary if New Zealand is to be productive and efficient in terms of facilitating demand side and supply side innovation given more elasticity in demand with a range of demand response and small scale distributed generation (eg PV) and storage (eg batteries) enabled by Advanced Metering Infrastructure and service-based distribution pricing. Changes to SPD to implement RTP will also be an opportunity to make changes to the SPD (scheduling, dispatch and pricing) optimisation software to provide for a full DD regime as originally proposed.

12. There may be some interim steps that could be taken towards a full DD ahead of final decisions on RTP. Those possible interim steps could be uncovered through a post implementation review of the original 2013 modified DD decision and implementation.

⁷ URL <http://www.meug.co.nz/node/747>