30 April 2019

Submissions
Electricity Authority
By email: submissions@ea.govt.nz

Remaining elements of real-time pricing

Meridian appreciates the opportunity to provide feedback on the Electricity Authority's three remaining design elements for real-time pricing:

- the full details of dispatch-lite, now expanded to include smaller-scale generation;
- the pricing that should apply during shortfalls in instantaneous reserve; and
- a process for reviewing the default scarcity pricing values.

Dispatch-lite

Meridian supports the expansion of the dispatch-lite proposal to also include smaller-scale generation. In theory, opening dispatch-lite to a broader group of potential participants would enable greater benefits should smaller scale generators choose to engage. However, we continue to question whether dispatch-lite needs to be progressed as part of real-time pricing.

We doubt the extent to which dispatch-lite will be used initially but acknowledge that the Authority will be best placed to assess participant interest in using dispatch-lite now or in the immediate future. In the absence of proven demand for dispatch-lite we consider it best to progress it later. The move to real-time pricing will be a complex transition for the industry and one that will only be further complicated by the simultaneous addition of dispatch-lite. There is absolutely no reason why the two changes need to be tackled together as part of the same project. Once real-time pricing is well established the introduction of dispatch-lite should be reconsidered. We expect that the Authority will be resistant to delays and will want to provide an enabling environment for dispatchable demand and small-scale generation sooner rather than later. This is understandable. However, we consider the risk of a more complex transition to real-time pricing outweighs any benefits that might accrue from implementing dispatch-lite at the same time.

If and when dispatch-lite is implemented Meridian would like the Authority to consider regular reporting on the instances when participants have not followed dispatch notifications. Such transparency will help other participants to understand the extent to which dispatch-lite participants can be relied upon and the potential impact on prices as a result of their ability to say no to dispatch instructions. Transparency would also be a strong deterrent to gaming behaviour and give all participants some insight into how the system operator will exercise its discretion to suspend or revoke a dispatch-lite participant's approval if they repeatedly said no to dispatch notifications. This reporting would be in addition to the system operator's publication of suspension and revocation criteria in their policy statement and also in addition to the dispatch-lite participant's obligation to signal non-compliance and rebid or reoffer as non-dispatchable for the current and subsequent trading periods.

Reserve shortfall pricing

Meridian agrees with the proposed 'risk-violation curve' model for determining reserve shortfall prices under real-time pricing. We understand at a high level the need for such an approach under real-time pricing given:

- the inability to manually process reserve shortfalls using the current virtual reserve provider; and
- the difficulties of managing multiple risk setters.

The proposed 'risk-violation curve' approach would set a rising price for reserve as the quantity of reserve shortfall grows, this appears to more accurately reflect the economic cost of leaving risk sources uncovered. Meridian supports the use of a lower priced 'risk-violation curve' to increase the likelihood of reserve shortfall before energy deficit.

Review process for scarcity pricing values

Meridian supports the Authority's intention to review the dollar amounts assigned to the scarcity pricing values before real-time pricing goes live and every five years by requirement of the Code.

Other matters

In addition to the matters consulted on, we consider it worth reiterating some of our earlier feedback on the design of real-time pricing.

In relation to the system operator's load forecasting:

- We are pleased to see the proposed move to bottom-up load forecast using ION meters as the primary input for short-term load forecasting.
- Real-time pricing and improvements to short-term load forecasting will give more certainty to demand side consumers that can respond in real-time. However, market participants that are subject to gate closure do not have that option. Therefore, the forecast schedules, and particularly the medium-term load forecast will need to be more accurate if there is to be any improvement in decision-making and greater efficiency as a result.
- We understand the system operator is looking at improvements to the medium-term load forecast.[1] We would appreciate the publication of an update on this work and stress again the importance of forecasting improvements in advance of the go-live date for real-time pricing.

In relation to market system outages:

- We appreciate the further work that has been done to explore back-up systems to avoid market system outages. It is helpful that as part of this the system operator and Authority published recent outage statistics – 16 days with an outage in the 15 months from November 2016 – January 2018.
- We are not convinced by the conclusion that the market impact of such outages does not justify the capital and ongoing cost of providing an 'always-up' market system. The amounts of money exchanged through the market system mean the risks and costs of any outage are potentially high and we have not seen any analysis that directly compares the cost of an 'always-up' system and the potential costs to participants as a result of outages.

Finally, we appreciated the commitment in the April workshop that engagement groups will be established to operate as a key interface between the project team and industry during the next three years. We would like to be involved in these engagement groups and look
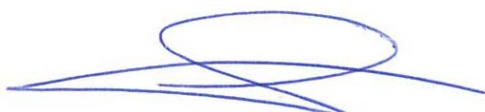
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[1] https://www.ea.govt.nz/dmsdocument/23890-tas073-evaluate-options-to-improve-the-system-operator-load-forecast and http://www.teslaforecast.com/wp-content/uploads/2015/07/MTLFTrialReport-TESLA-28April2017.pdf

forward to understanding as early as possible how these groups will be formed and how they will operate.

Answers to the Authority's consultation questions are in Appendix A.

Please contact me if you have any queries regarding this submission.

Yours sincerely

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A. Responses to consultation questions

	Question	Response
1.	Do you agree with our proposed criteria for distributed generation to be eligible for dispatch-lite? If not, please explain your reasoning.	Yes.
2.	Do you agree with our proposed criteria for purchasers to be eligible for dispatch-lite? If not, please explain your reasoning.	Yes.
3.	Do you agree participants providing SCADA telemetry should be eligible for dispatch-lite? If not, please explain your reasoning.	Yes.
4.	Do you agree combining an acknowledgement response via the dispatch system with an obligation to immediately rebid or reoffer is the best design option? If not, please explain your reasoning.	Yes.
5.	Do you agree gate closure for all dispatch-lite participants should be set at 30 minutes (one trading period), the same as for current embedded generators?	Yes.
6.	Do you agree with the proposed compliance arrangements for dispatch-lite? If not, please explain your reasoning.	Yes. However, as discussed in the cover letter of this submission Meridian would also appreciate the Authority or system operator regularly reporting on the instances in which participants have not followed dispatch notifications.
7.	Do you agree with the proposed method to allow dispatch-lite participants to withdraw from dispatch? If not, please explain your reasoning.	Yes.

8.	Do you agree we should implement dispatch-lite as part of RTP, should we decide to proceed? If not, please explain your reasoning.	No, we consider it a distinct proposal and that it should be progressed following a 'bedding in' period for real-time pricing. Further discussion on this point is in the cover letter for this submission.
9.	Do you agree reserve pricing under RTP should place a higher cost on scarcity of FIR than scarcity of SIR? If not, please explain your reasoning.	Yes.
10.	Do you consider the risk-violation curve approach would increase incentives or opportunities for gaming? Please explain your reasoning.	No.
11.	Do you agree we should implement the risk-violation curve we have described to handle reserve shortfalls under RTP? If not, please explain your reasoning.	Yes.
12.	Which configuration of the risk-violation curve do you consider we should adopt? Please explain your reasoning.	Meridian prefers the lower priced 'risk-violation curve' with three tranches priced below the first default energy scarcity pricing block at $10,000/MWh. We consider it sensible to increase the chance of reserve shortfall before energy deficit and thereby constrain prices. The lower priced 'risk-violation curve' prices will still be sufficient to signal scarcity.
13.	Should we set a total reserve shortfall quantity limit if we implement the risk-violation curve under RTP? Please explain you reasoning.	We understand the rationale for specifying a limit on the quantity of reserve shortfall for the first four tranches (50MW) of the 'risk-violation curve'. For the final tranche, the 100MW limit seems less well justified. It is highly likely that following the last tranche of the 'risk-violation curve' load shedding will occur on the remaining 80 percent of load priced in as the $20,000/MWh scarcity block. At that point, load shedding will be beyond the approximate 'comfortable' level of load management within distribution networks – meaning it would be less reliable and more difficult to target, driving up costs. Allowing a larger or unlimited top tranche of the 'risk-violation curve' should be considered in order to avoid

		those circumstances.
14.	Do you agree a new type of formal notice to cover periods of reserve shortfall under RTP is not warranted? If not, please explain your reasoning.	Yes.
15.	Do you agree with the proposed methodology to calculate the scarcity pricing values? If not, please explain your reasoning.	Yes.
16.	Do you agree the Authority should have an obligation to review the scarcity pricing values at least once every five years? If not, please explain your reasoning.	Yes.
17.	Do you agree with the objectives of the proposed amendment? If not, why not?	Yes.
18.	Do you agree with the objective of the proposed Code amendment? If not, please explain your reasoning.	Yes.
19.	Do you agree with the cost benefit assessment? In particular: – what (if any) other sources of benefit should be included in the assessment? – what is your view on key assumptions, such as the level of improved demand response enabled by RTP? – what (if any) other sources of costs should be included in the assessment? Please explain your reasoning.	We are not aware of other sources of benefit or cost, we are not in a position to comment on the assumptions made in the assessment.
20.	Do you agree with our assessment of alternatives? If not, why not?	Yes.

21.	Do you have any comments on the drafting of the proposed Code amendment?	The proposed drafting of clause 13.173C still limits the discretion of the Authority to decide whether a pricing error has occurred. We pointed this out in our earlier submission and had assumed it was corrected given the assurances in the workshops that "the Authority will decide after considering advice".
		The drafting in question is the words highlighted below, which imply that the Authority must reject a pricing error claim if the system operator has advised it to do so, i.e. if the system operator advises that there is a pricing error then the Authority would be unable to reject the error claim. Meridian would like to see the drafting tightened so that the Authority is clearly able to accept or reject, at its sole discretion, an error claim and is not bound by the advice of the system operator.
		13.173C Authority to decide whether pricing error has occurred (1) No later than 2 **business days** after receiving a report from the **system operator** under clause 13.173(1)(f), the **Authority** must either— (a) decide whether a material **pricing error** has occurred; or (b) ==if the **system operator** has advised the **Authority** to reject a claim,== reject the claim.