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22 November 2016

Review of Instantaneous Reserves Event Charge and Cost Allocation

Thank you for the opportunity to comment on the WAG discussion paper reviewing the Instantaneous Reserve (IR) event charge and cost allocation. No part of our submission is confidential. Mercury's view is that the most important issue to resolve is national cost allocation followed by giving consideration to achieving an appropriately "sharp" price signal to the causers of the need for IR. Event charge issues are in our view less important as under-frequency events are relatively rare and increasingly so, due potentially to the electricity market moving away from operating large CCGTs as well as the commissioning of a new HVDC pole and control system.

We agree that transitioning from island-based cost allocation to national cost allocation is crucial to a well-functioning national reserves market which encourages participants in both islands to efficiently offer and compete for reserves. The benchmark should be whether or not we have a well-functioning national reserves market rather than being content with the fact that island-based cost allocation is unlikely to create issues relating to "perverse incentives" that could render national procurement less efficient than island-based procurement. This is too low a standard to aim for and it is too early to make an informed assessment about perverse incentives as the national market has just commenced.

As the WAG has noted there is significant inherent complexity associated with IR cost allocation due to the complex dynamics of the HVDC as both IR provider and risk setter, and the interrelationship between the energy markets and the different portfolio effects on different participants. It is important that any changes do not increase complexity as any increase in complexity is likely to increase the scope for unintended consequences and to allow market participants to search for ways to maximise their own advantage at the expense of the common good. We strongly support a cost allocation regime that is fair and simple.

Mercury agrees with WAG analysis that there are insufficient tangible benefits and too much uncertainty to justify moving to a runway methodology or any of its sub-options. We agree that there is the high impact, low probability potential for uneconomic early retirement of large plant as a consequence of implementing a runway methodology.

In terms of the various sub-options considered, Mercury is not convinced that it is necessarily a perverse outcome that a station comprised of a large number of medium sized units has a larger IR cost footprint than a station comprised of a single large unit. The principle behind the reserve cost allocation is to allocate costs to causers of the need for IR. These causers are units larger than the de minimus figure in the Code. This makes sense because the more large units that exist on the transmission system, the greater the likelihood there will be trip events requiring the deployment of reserves. We do not consider that seven medium sized units at one location should be treated differently in terms of reserve cost allocation to a participant operating a handful of medium sized units spread across an island as location has no bearing on tripping risk.

We agree that HVDC-related IR costs should continue to be allocated to the HVDC owner and then redistributed via the TPM.



Our more detailed response to the consultation questions is contained in the appendix below. If you have any questions please contact me on nick.wilson@mercury.co.nz 09 580 3623.

Yours sincerely

A handwritten signature in black ink, consisting of a large, stylized 'N' followed by a horizontal line and a wavy tail.

Nick Wilson
Manager Regulatory and Government Affairs



Appendix One

Consultation Question	Mercury Response
<p>Q1 Do you agree with our identification of the problems with current arrangements?</p>	<p>Yes.</p> <p>However, the most important issue to resolve is national cost allocation, followed by giving consideration to achieving an appropriately “sharp” price signal to the causers of the need for IR.</p> <p>We feel that event charge issues are of lesser importance as under-frequency events are relatively rare, and increasingly so. There have been 26 such events since 2011, and only 1 event since December 2014. This could be due to the market shifting away from operating large CCGTs as well as the commissioning of a new HVDC pole and control system.</p>
<p>Q2 Do you agree with these basic principles for allocating IR costs?</p>	<p>Yes.</p>
<p>Q3 Do you agree that continuing with island-based cost allocation after the introduction of NMIR is unlikely to create perverse incentives on parties to inefficiently withhold energy or IR capacity?</p>	<p>Transitioning from island-based cost allocation to national cost allocation is crucial to a well-functioning national reserves market which incentivises participants in both islands to efficiently offer and compete for reserves.</p> <p>Island-based cost allocation discourages “forward reserve sharing” from one island to another by parties who are also reserve payers. This is because any additional reserve procured for export to another island increases the reserve procured in the exporting island. Many participants cleared for reserve in the exporting island could now face increased reserve availability costs under island-based allocation, even if their percentage share of reserve costs in the island is unchanged.</p> <p>A national cost allocation will create the opportunity for a kind of “gearing effect” whereby a participant could offer and be cleared for more reserve to be exported to another island whilst its reserve costs go down since the reserve procured in the exporting island will be partially paid for by payers in the receiving island. This will encourage competition in the national reserves market.</p> <p>By the same token, under national cost allocation, beneficiaries of inter-island reserve sharing (i.e. causers of the need for reserves) will be required to contribute towards the costs of such reserve imported into their island.</p> <p>In short, the benchmark should be whether or not we have a well-functioning national reserves market rather than being content with the fact that island-based cost allocation is unlikely to create issues relating to “perverse incentives” that could render national procurement less efficient than island-based</p>



	<p>procurement. This is an unsatisfactorily low standard to aim for. Furthermore, as the national market has only just commenced operation it is too early to make an informed assessment about perverse incentives.</p>
<p>Q4 What are your views on the merits of moving to a runway methodology (or its sub-options)?</p>	<p>We agree with the WAG analysis that there are insufficient tangible benefits and too much uncertainty to justify moving to a runway methodology or any of its sub-options. We also agree that there is the high impact, low probability potential for uneconomic early retirement of large plant as a consequence of implementing a runway methodology.</p> <p>Grandfathering would introduce additional complexity into the administration of reserve cost allocation and the operation of the reserve market. Phasing in a runway methodology would be unlikely to improve the aforementioned uncertainty over the costs and benefits; it would merely delay them somewhat.</p> <p>Mercury is not convinced that it is necessarily a perverse outcome that a station comprised of a large number of medium sized units has a larger IR cost footprint than a station comprised of a single large unit. The principle behind reserve cost allocation is to allocate costs to causers of the need for IR. These causers are units larger than the de minimis figure in the Code. This is somewhat logical because the more large units that exist on the transmission system, the more likely there will be trip events requiring the deployment of reserves. This then appropriately sends a reserve cost price signal to those operating and investing in larger generating units.</p> <p>We also do not see how seven medium sized units at one location should be treated any differently in terms of reserve cost allocation to a participant operating a handful of medium sized units spread across an island. There appears to be no suggestion from any quarter that the latter is inequitable, whilst the former appears an unfair situation to address simply because there are multiple units in one place.</p>
<p>Q5 Do you agree that a de minimus should continue, and if so, at what level?</p>	<p>We agree that the 60 MW de minimis is generally appropriate.</p> <p>There is likely some merit in the System Operator investigating whether the 60 MW figure is still appropriate as the threshold below which IR would not be required. However there are likely to be other priorities the System Operator would be better served attending to first.</p>
<p>Q6 Are there other cost allocation methods that should be considered?</p>	<p>No.</p>
<p>Q7 Which option do you think sends price signals to underlying causers of the need for, and location of, IR to be procured in a manner which best meets the cost allocation principles of section 5?</p>	<p>Option 5 is the most principled followed by option 4.</p>
<p>Q8 Do you think the choice of general cost allocation</p>	<p>No we see them as different issues. As described in our</p>



approach (ie pro-rata versus runway) has a bearing on which option for cost allocation under NMIR would be most appropriate.	response to question three, we are in favour of an expeditious transition to a national cost allocation.
Q9 To what extent do you think the choice of best option is affected by the effectiveness of how costs allocated to the HVDC are passed-on to “underlying causers” of the level of energy transfer across HVDC?	We agree the choice of option is affected by cost allocation to the HVDC but this is very challenging to fix within the IR cost allocation rules and best done through TPM, even if the TPM would send relatively “dull” signals that would not vary trading period by trading period.
Q10 Do you believe that some IR cost allocation options could materially impact on participants’ incentives to offer energy and IR to a degree that could have material outcomes on these markets?	Yes market participants will manage their positions as they see appropriate, this is why any cost allocation regime should be as fair and simple as possible, the greater the complexity the more the scope for unintended consequences and gaming.
Q11 If yes, which options are likely to give rise to such outcomes, and could you provide worked examples demonstrating such effects?	No comment.
Q12 Do you agree that HVDC-related IR costs should continue to be allocated to the HVDC owner and passed-on to market participants via the TPM, and do you have any observations about the interim allocation of IR costs under the NMIR?	Per our response to question nine, we agree that HVDC-related IR costs should continue to be allocated to the HVDC owner and then redistributed via the TPM. In terms of the interim allocation of costs under the NMIR, as described in our response to question three, we are in favour of an expeditious transition to a national cost allocation.
Q13 Do you think cost-allocation for commissioning plant should: a) continue as is; b) change to be quantity-and-price-runway-based without application of a de minimus; or c) change to be quantity-runway-based without application of de-minimus?	Option a) because it is the simplest and there is no clear case of the benefits outweighing the costs of making a change, particularly since commissioning events are relatively uncommon on the system in the grand scheme of things.
Q14 Do you think a change to allocating costs to commissioning plant on a runway basis should only occur if general cost allocation were to move to a runway basis?	Yes, but we do not support general cost allocation moving to a runway basis.
Q15 What cost-allocation approach do you think should apply for plant with under-frequency and voltage-fault-ride-through dispensations?	<p>Voltage and frequency are two different variables with some overlap in an under frequency event.</p> <p>To the extent that a voltage fault ride through non-compliance drives increased under frequency reserve procurement (because an under frequency event may cause a voltage event which then causes voltage non-compliant plant to trip), we favour such non-compliant plant being allocated IR costs. It may be very difficult to model precisely how an under frequency event might then cause a voltage related plant trip, so it may be expedient and prudent to treat plants with voltage dispensations as having frequency dispensations.</p> <p>However, along with the above, there should be a separate consideration for allocation of cost for addressing voltage event non-compliance for the plants with dispensation.</p>
Q16 What measures do you think should be implemented to address small generation plant that are currently excluded from the need to comply with frequency-related AOPOs?	We support doing nothing as small plants do not have a material impact that would justify the expense of developing, consulting on and implementing special measures.
Q17 Do you think the event charge should be retained, and if so, on what basis?	This is a low priority but ideally the event charge rebate should go to reserve providers not reserve causers as it



	is wrong in principle to pay participants just for having plant that does not trip. The event charge seems arbitrary but the costs of addressing this issue are likely to outweigh any benefits given the regime is rarely utilised.
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