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Electricity Authority
By email: fsr@ea.govt.nz

Addressing common quality information requirements – Consultation Paper

Meridian appreciates the opportunity to provide comment on the Electricity Authority's consultation paper on addressing common quality information requirements.

Meridian does not believe changes to the existing framework will drive benefits

Meridian agrees with the Authority's description of the changing nature of the power system and assessment of the new challenges brought by increasing penetration of DERs and IBRs. But the existing framework already provides an appropriate mechanism for the system operator (**SO**) to navigate these challenges with the cooperation of asset owners. And while Meridian can understand the desire for standardising the need for, for example, unencrypted models, Meridian believes that doing so would result in a worse cost / benefit outcome as compared to the existing framework.

The Code already strikes the right balance when it comes to the SO's ability to require information

Fundamentally, the SO already has the general power to request information from asset owner participants. Reasonableness is the touchstone. If the SO reasonably requires something before signing off on an asset, then an asset owner can be required to get it. The Authority acknowledges this at [4.18] of the paper. However, the Authority goes on to suggest that:

> …the Code does not specify what constitutes 'reasonably requested', which can lead to disputes and operational inefficiencies.

> … a lack of prescription in the Code regarding common quality-related information requirements results in additional effort, time, and costs for both the asset owner and the system operator in negotiating what information can be reasonably requested by the system operator and when this information must be provided.

Meridian does not believe it to be appropriate, necessary, or desirable to generally define what is "reasonable". Meridian has constructed a number of IBR generation projects in recent years, and our experience is that no two projects are the same. Allowing for a bespoke and proportionate approach – with good cooperation between the SO and the asset owner – is the best way to secure an outcome for each project which best balances the SO's need for common quality information with the cost to the market (and ultimately therefore to consumers) of delivering that information. Not all projects will justify an unencrypted EMT model. The SO's requirement (or preference) for information needs to be weighed against the difficulty of obtaining that information in each case.

In Meridian's view, the current Code framework manages this balance well. There is, as the Authority points out at [4.19], an SO-developed guideline in place which lets asset owners know what to expect; but at the same time, there is room for sensible cooperation between the asset owner and the SO. These are not in Meridian's experience "disputes and operational inefficiencies" but a necessary and mutually valuable part of arriving at a proportionate outcome (which is the best outcome for New Zealand as a whole). Mandating, for example, unencrypted models, would only replace the "inefficiencies" associated with discussion around the procurement of these models with the inefficiencies of resolving dispensation applications when the models cannot be procured. It becomes no more possible or inexpensive to achieve something purely by reason of the Code having mandated it.

The current standard of "reasonableness", coupled with the SO's guideline document (which can be evolved), already provides a mechanism for balancing the affordability and reliability considerations appropriately within the context of a changing technical and risk management landscape. Not only does "reasonableness" invite consideration of the increasing presence of less well-modelled IBR generation; but it also allows the changing industry practices around provision of models to be taken into account (see below regarding industry practices).

The Authority notes at [4.5] of the paper that the SO has "insufficient information" on assets connected to the power system. Meridian acknowledges that this will be the case in respect of some assets. However, the existing framework already provides a path for the SO to get that information. Where there is an information gap, that is a result of practice, rather than Code.

Unencrypted models are costly to procure, and necessitating them will have market outcomes

The Authority has noted that the non-"black box" models will be off-putting for many OEMs. This will inevitably increase costs. But in addition, Meridian notes that it is likely that this will be disproportionately difficult for smaller OEMs, who are likely to be more protective of their IP and may not be as able to comply with the SO's wishes in respect of the details of the model. This requirement may therefore have a distortionary effect on the size of OEMs in the market, and discourage new and innovative players.

It is also not fully clear to Meridian that unencrypted models are always necessary over and above black box models. We understand that the Australian approach is that, if EMT models are required, this is only ever on an encrypted basis. Many of the benefits of unencrypted models are in their convenience, for example, the ability of the SO to slot relevant code into other tools. These may not always justify the added costs (or risks of the OEM discontinuing) of convincing OEMs to compromise on their IP policies. They also create further concerns for OEMs that subsequent use of their code in other tools, for example, will lead to a loss of control over how their model is represented. We note that the previous risk of models becoming "stranded" following a software update is far less significant than it was a decade ago, and continuing to decline, as industry practices are evolving toward backwards-compatible programs for running black box models.

New Zealand has less influence on industry practices than larger countries

While it is tempting to hope that by requiring unencrypted models in every case, standard industry practices will start to shift in favour of OEMs making these available in the ordinary course, that hope may be overestimating New Zealand's ability to drive practices in that market.

The Authority has mentioned the nascently evolving approaches of larger overseas jurisdictions. It would seem to Meridian that New Zealand will benefit from whatever impacts these jurisdictions have on OEM industry practices and expectations around modelling requirements. But New Zealand can take advantage of those benefits without needing to take on the inflexibility and cost of being an early mover in this space (and a comparatively less influential one). And, as noted above, the existing standard of "reasonableness" already allows for consideration of the difficulty of obtaining the requested model. If such model is becoming more standard overseas, then we would expect an SO request for it to be more reasonable.

Concluding remarks

For the reasons outlined in this submission, Meridian believes that the current framework already achieves the appropriate balance between reliability and efficiency, which creates the best outcome for New Zealand as a whole. Meridian does not believe that Option 1 (and therefore Options 2 and 3, which include Option 1) is necessary or desirable and does not support the proposed changes.

This submission is not confidential and can be released in full. I can be contacted to discuss any of the points made.

Nāku noa, nā

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Appendix A: Responses to consultation questions

Consultation Question	Comment
Q1. Do you agree with the key drivers of change in power system modelling requirements identified in this section? If you disagree, please explain why.	Meridian broadly agrees with the content of this section.
Q2. Are there any other drivers of change in power system modelling requirements which are not covered in this section? If so, please elaborate.	Meridian does not have anything to add for the purposes of this consultation.
Q3. Do you agree with the Authority's elaboration on the common quality-related information issue set out in this section? If you disagree, please explain why.	Meridian does not agree with the elaboration in this section, because Meridian considers that the existing framework is already appropriate and the issues the Authority has identified can be addressed without Code change. We assume that no asset owner would expect the SO to forgo detailed models which are necessary to identify modes of failure and are therefore needed to ensure the reliability of the power system. As addressed in the body of this submission, reasonableness is a perfectly appropriate standard for whether the asset owner should be made to procure certain information, and it is entirely appropriate that the SO and asset owner consult before the SO can determine that a given request is reasonable. This is not inherently inefficient, and avoids the need to obtain information which was not actually necessary or proportionate to the SO's need in the circumstances.
Q4. Do you agree that the current provisions in the Code are insufficient to address the common quality-related information issue described in this	Meridian does not agree that the current Code framework is insufficient for the reasons discussed in the body of this submission. The current framework is not ambiguous or uncertain, but structured around negotiation and cooperation (e.g. cl 8.26). This is appropriate given the

section? If you disagree, please explain why.	need to balance reliability with cost to serve consumer in the interest of New Zealand as a whole.
Q5. Do you consider there to be any other aspects of the common quality-related asset information issue that are not covered in this section? If so, please elaborate.	Meridian has nothing further to add.
Q6. Do you agree with the short-listed options presented by the Authority? If you disagree, please explain why.	Meridian does not agree with the options listed for the reasons discussed in this submission. For clarity, we agree with extending access to information to the grid owner and EDBs where appropriate, but we note that the standard of reasonableness should be the underlying guide.
Q7. Do you have any feedback on the desirability of a document incorporated by reference in the Code specifying various common quality-related information requirements?	Meridian believes that this is unnecessarily rigid and that the existing SO-developed guidelines document provides useful guidance for the industry on the SO's standard expectations and preferences.
Q8. Do you agree with the pros and cons associated with each option? What costs are likely to arise for affected parties (eg, asset owners, network operators and network owners) under each of the options?	Meridian does not agree with the assessment of pros and cons and notes in particular that: - Transaction costs ([5.16(b)]) would not be decreased but instead, increased; because unencrypted models are difficult to obtain from the OEM and usually come at increased costs, if at all. If any information cannot be obtained then there is the cost of seeking dispensation. This point is a con. - Surety of sufficient information ([5.16(c)]) is readily overstated because the existing framework is already appropriate for obtaining this.
Q9. Do you consider any perceived conflicts of interest under the second and third shortlisted options to be material in nature? If so, please elaborate	Meridian does not have a strong view on this.

Q10. Do you propose any alternative options to address the common quality-related information issue? If so, please elaborate.	Meridian believes that, if there are currently common quality-related information issues, then these are issues of practice. Meridian suggests that if the SO is feeling that it is getting push-back from asset owners when it requests certain common quality information, then it may be beneficial to have a broader industry discussion around (or a working group tasked with looking at) what information is reasonably required and in what circumstances. This could help align the expectations of asset owners and the SO. Amendments to the guidelines, for example, could be jointly agreed so that there was buy-in from both sides. Fundamentally however, guidelines strike Meridian as a better approach in this area than a prescribed list of information.
Q11. Do you agree with the Authority's high-level evaluation of the short-listed options to help address the common quality related information issue? If you disagree, please explain why.	Meridian broadly agrees. We would suggest that: - an increase in breaches or dispensation / exemption applications would be an unintended consequence (point 1). - the options favour reliability at the expense of efficiency (point 2). - the SO will be the causer of costs where the information in question was not reasonably required (point 4). A prescriptive approach to information requirements will mean oversupply is more frequent, but the SO will not be allocated the cost of this oversupply.