



15 November 2024

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

Review of forecasting provisions for intermittent generators

Meridian appreciates the opportunity to provide feedback on the Authority's consultation paper 'Review of forecasting provisions for intermittent generators'.

Our responses to the Authority's specific consultation questions are attached as Appendix A. Further to this, we have the following comments and questions on the Authority's proposed Code amendments:

- We note the proposal provides a fallback option which requires an intermittent generator to submit an offer 71 trading periods before the relevant trading period if it does not receive an approved forecast from the centralised forecaster. This raises questions around the relevant expectations on the centralised forecaster to consistently produce a centralised forecast. Meridian's view is that – as a paid service provider – the centralised forecaster should be required to meet a high standard of performance in the consistent and reliable delivery of a centralised forecast. This would include sufficient redundancy in its systems such that any fallback arrangements are rarely relied upon. These standards and expectations should be clearly set out in the service provider agreement between the centralised forecaster and the Authority.
- We note that under the fallback arrangements above, an intermittent generator would be required to submit a forecast of generation potential based on either a long-term seasonal average (or other information provided it is at least as accurate) and that the seasonal average would be provided by the centralised forecaster "if it is able to do so". However, it is unclear how an intermittent generator would be expected to submit a forecast of generation potential if the centralised forecaster is not able to provide the seasonal average. We request that the Authority clarify how such a situation would work. It will also be important for intermittent generators to be notified clearly and as early as possible when a centralised forecaster switches to a seasonal average forecast.

- We note that Figure 1 in the Consultation Paper indicates a “verification step if generator thinks forecast is inaccurate” [sic]. What are the expectations on the generator to test or validate the forecast of generation potential? Meridian considers that, as the centralised forecaster will have contractual and Code responsibilities to deliver a forecast in line with specified accuracy standards, all obligations to ensure forecast accuracy should sit with them. It may also be difficult for an intermittent generator to determine whether a forecast is inaccurate (beyond testing whether it exceeds plant capacity) as it may not be producing its own forecasts for comparison.
- We note that under the proposed Code amendment a forecast of generation potential must use the most recent approved forecast from the central forecaster and be adjusted for any bona fide physical reason or planned outage. We note also that the Authority states in the consultation paper that it is interested in whether intermittent generators will need to provide up-to-date information on plant outages to the centralised forecaster. This makes it unclear whether the centralised forecaster will incorporate planned outages in its approved forecast or whether intermittent generators will incorporate planned outages in their forecast of generation potential after receiving the approved forecast from the central forecaster. It would be helpful if the Authority could clarify how this is intended to work. There is risk that outages may be double counted if these responsibilities are not clear e.g. the central forecaster picks up an existing (planned) outage through its download of SCADA data and reflects that in its approved forecast, but the intermittent generator adjusts the approved forecast to account for the same outage when determining its forecast of generating potential. We note also that different types of outages (e.g. string/turbine outages vs transformer deratings) will impact wind farm output in different ways. It will be important that the process to incorporate outages allows for these differences to be reflected. Meridian would be happy to talk through some case studies on the complexities of wind farm outages with the Authority if that would be helpful to inform the Authority’s decisions around these processes.
- We note that the proposals will require an intermittent generator to submit a revised offer within 30 minutes of receiving a revised forecast from the central forecaster. Meridian considers this timeframe is reasonable. However, it would be our preference (to the extent possible) for revised forecasts from the central forecaster to be updated according to a fixed schedule e.g. once per trading period. This would integrate more efficiently with our systems and minimise the risk of oversight.
- The Authority notes that a number of matters are still to be determined including the forecast performance standards that will apply to the centralised forecaster, the frequency that the central forecaster will issue revised forecasts, the specific information that the central forecaster will need to develop forecasts etc. Some of these matters will have a significant bearing both on the operation of the scheme and on the responsibilities of intermittent generators. We request that the Authority continues to engage closely with the industry – and with intermittent generators in particular – as these matters are decided. This will ensure the Authority is able to draw on the experience of intermittent generators in further developing system requirements and that intermittent generators have a good understanding of how the system will ultimately function.

Please contact me if you have any queries regarding this submission. This submission can be published in full.

Nāku noa, nā

Matt Hall
Manager Regulatory and Government Relations

Appendix A: Responses to consultation questions

	Question	Response
1	Do you agree that the proposed Code amendments are necessary to give effect to the Authority's policy decisions? If not, please explain why.	We broadly agree the Code changes are necessary to give effect to the Authority's policy decisions, subject to the points in the body of our letter and our response to Question 6 below.
2	Do you agree that intermittent generators will be required to submit their first offer six days before the beginning of the trading period to which the offer relates? What impacts, if any, would this change have on you?	Meridian does not object to intermittent generators being required to submit their first offer six days before the beginning of the trading period to which the offer relates. This is not dissimilar to our current practice. However, we note that in relation to wind forecasts such long-term offers are unlikely to be accurate. As such, these offers will not provide a strong basis for participants to make generation and consumption decisions, or for the system operator to determine potential security issues, as the Authority suggests.
3	Do you agree with the revised decision that all industry participants (ie, not only generators) should be required to contribute to the costs of the centralised forecast rather than generators only?	We agree that both generators and purchasers should be required to contribute to the costs of the centralised forecast. In addition to being consistent with public sector charging principles, this approach is consistent with a beneficiaries pay approach, as both generators and purchasers will benefit from improved wind forecasting. We note, however that the proposed budget of \$100,00-\$120,000 per annum seems low given the complexity and responsibility of the role.
4	Do you agree the Authority's proposed Code amendments complies with section 32(1) of the Act?	We agree.
5	What inputs would intermittent generators need to provide to the centralised forecaster to produce accurate generation forecasts? Would there be issues with intermittent generators providing this information?	We anticipate that inputs will include information on wind farm/turbine capacity, wind speed, wind direction and planned outages. In addition, we expect intermittent generators may need to provide details on the power curve function of specific wind farms and/or turbines i.e. the mathematical relationship between wind speed/direction and power output. However, it may be that a centralised forecaster will derive their own power curve information.

		<p>In general, we think it will be feasible to provide a centralised forecaster with this information. Where appropriate, the centralised forecaster should seek to draw information directly from existing systems; for example, extracting outage information from POCP. This will improve the efficiency of any information sharing requirements.</p> <p>It is unclear to us whether a centralised forecaster would require or demand direct access to SCADA outputs from each wind farm. This could give rise to potential security concerns and costs. We also note that one Meridian wind farm does not use SCADA. It would be helpful if the Authority could clarify how SCADA data is intended to be shared.</p>
6	Do you have any comments on the drafting of the proposed Code amendments?	<p>We have the following comments on the proposed Code drafting:</p> <ul style="list-style-type: none"> • Clause 13.9B(3): This clause cross references 13.6(1)(b)(ii). We are not sure this is the correct reference. The Authority may be intending to refer to 13.6(1)(b)(iii). • Clause 13.18A(3): This clause includes a superfluous “a”.