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Submissions
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To Whom It May Concern:

Todd Energy Submission: Normal Frequency – Generator Asset Owner Performance Obligations

Todd Energy welcomes the opportunity to provide comment on the Electricity Commissions (**EC**) consultation paper. We have reviewed the companion paper for the proposal for allocation of frequency keeping (**FK**) costs in preparing this submission.

Todd Energy supports the principle that participants should contribute to maintaining system frequency under normal conditions on a 'level playing field' or otherwise receive an appropriate allocation of relevant costs, though would query the EC's objective of 'improving generation investment signals' while the current inefficient and competition-lacking frequency keeping procurement arrangements are in place.

While we note the intent of the review is on the appropriateness of generator requirements rather than specification and procurement of frequency keeping ancillary service (which is the subject of another long-standing work stream) there is a risk that distortionary FK price signals will be forced onto investors until such time an efficient FK market is developed.

We thereby argue the EC's (and industry) focus should remain squarely on expediting introduction of competition in the FK market with the aim of reducing FK procurement costs to efficient levels rather than introduce transitional rule changes that are unlikely to deliver any significant benefit to overall procurement costs.

Should the EC decide to push ahead with transitional arrangements there must be an allowance in the rules for generators to incorporate an appropriate dead band in governor or equivalent control systems. It is unreasonable to expect generators who can maintain a firm or constant dispatch set point to incur additional operational costs through providing unrestricted free governor action to support the normal frequency fluctuations that result from real time changes in demand and non-firm generation, these latter participants being the contributors to the need for the frequency keeping service.

Please find our specific answers to the consultation questions attached.

Yours sincerely

Tristan Maunsell
Todd Energy Limited

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Response to specific consultation questions.

Question		Response
1.	With respect to normal frequency management, are there features of other grid codes you think the Commission should consider?	<p>Neutral</p> <p>We would make the general comment that the current inflexible and competition-lacking frequency keeping (FK) procurement arrangements result in inefficient pricing of the ancillary service. The proposed changes will do nothing to address this key issue.</p>
2.	Do you agree with the proposal to clarify rule 2.1 so that generators must ensure their generating units operate under unrestricted governor control?	<p>No.</p> <p>There needs to be an allowed small dead band or insensitivity range as there is a considerable maintenance penalty incurred by some plant (eg. wear of parts and/or reduction in operating hours between maintenance intervals) in providing full FGA response from 50Hz. The cost of this maintenance penalty is a component of the offer from the FK willing to provide the service.</p> <p>It is unreasonable to expect generators who can maintain a firm or constant dispatch set point to incur additional operational costs through providing completely unrestricted free governor action to support normal frequency fluctuations caused by real time changes from the demand-side and non-firm generation. It is these participants that cause the need for the FK service.</p> <p>Further, and perhaps hypothetically, if full FGA was provided with no dead band setting there would be no steady-state frequency error for the FK to provide the integral control that is contracted under the FK ancillary service, and generators providing FGA would move further from their dispatch set point until re-dispatch occurs.</p> <p>Without an appropriate dead band allowance in the rules there would need to be consideration given to the level of non-compliance in determination of any costs associated with a dispensation under rule 2.1 for the ECs proposal to have the desired effect.</p> <p>Eg. A generator may be required by the manufacturer to have a minimum dead band of</p>

		<p>+/-25 mHz for which it requires a dispensation. Under the EC's FK cost allocation proposal, once the generator has a dispensation it would then be allocated an unavoidable portion of total FK costs based solely on the generators reconciled kWh volume for the month regardless of the magnitude of non-compliance. Under the current proposal, once a dispensation is required there is no incentive for the generator to contemplate setting the required dead band to the minimum level practicable for the machine as the generator will incur additional maintenance costs in doing so. The outcome could be less FGA provided by generators requiring a dispensation, potentially increasing the FK band required.</p> <p>Also on a 'level playing field' basis, the magnitude of non-compliance with rule 2.1 should be taken into account in allocating costs to each generator, though it is acknowledged that this will add further complexity to the dispensation assessment and cost allocation process.</p> <p>An appropriate dead band or insensitivity should be allowed under rule 2.1 (eg. 50% of the normal band) as a workable compromise.</p>
3.	Do you agree with the proposals for speed governor requirements?	<p>Neutral</p> <p>The EC's proposed re-wording seems largely arbitrary, as is the context of rule 5.1 reducing the upper limit of the droop setting to 6% reduces the expected range of the governor, but 6% is not a strict 'upper limit' as the context of the rule is that the governor "can have droop set" within the range.</p> <p>We would also query whether 0% droop is physically practicable, as this would imply the control system is required to have infinite proportional gain (gain being inversely proportional to droop)?</p>
4.	Do you agree with the proposal that initial and all subsequent changes to the speed governor settings be agreed by the System Operator?	<p>No.</p> <p>Modern digital speed control systems have many parameters and settings that have no impact on the power system.</p> <p>Only those settings 'that may have an adverse effect on the integrated operation of the power system' should require prior SO approval.</p> <p>There should be a requirement for the SO to approve any proposed change to relevant settings within a mandatory timeframe, or as otherwise agreed with the asset owner.</p>

5.	Do you agree with the Commission's analysis regarding the "catch-all" rules?	<p>No.</p> <p>Rule 5.1.1.1 is currently too subjective around what may be required of the generator in "supporting" the SO in meeting its PPOs. These are technical requirements so should be objective wherever possible.</p> <p>Rule 5.1.1.1 should be amended to read "does not adversely affect the ability of" the SO in meeting its PPO's.</p>
6.	Do you have any comments on the proposed rules?	<p>It is our view that industry efforts would be better focussed on implementing the broader market initiatives that will introduce much needed competition and flexibility into the current non-efficient FK arrangements for the benefit of putting downwards pressure on FK procurement costs.</p> <p>We remain dissatisfied with the time being taken to develop these broader initiatives. The rules proposed under this paper are likely just a distraction from the more important FK work stream and are just tinkering around the edges and likely to have minimal effect on overall FK costs.</p>
7.	Do you think there are other reasonably practicable options the Commission should consider?	<p>Yes.</p> <p>Defer proposals from this paper and concentrate on fast-tracking the broader FK procurement initiatives.</p> <p>Otherwise our preference is Option B (allowance for dead band / insensitivity) from the paper.</p>
8.	Do you have any comments on the Commission's assessment of the options?	As per comments above.