

15 May 2015

Bryan Field
Manager, Modelling and Sector Trends
Ministry of Business, Innovation and Employment
Wellington 6140

Via email: EDGS@mbie.govt.nz

Dear Bryan

Thank you for the opportunity to comment on the Electricity Demand and Generation Scenarios (EDGS) discussion paper.

Contact considers the EDGS to be an important document, not least because this document will form the basis for future grid investment. Contact's responses to the Ministry of Business, Innovation and Employment's (MBIE's) questions can be found from page two.

Our main concern with the scenarios is that there appears to be insufficient attention paid to the demand side, with demand assumptions largely held constant until 2040 and little thought given to industrial retirement or the response of demand to price changes. Given the important role demand plays, particularly in relation to new investment, we believe it would be useful for the demand assumptions to be reviewed.

Contact also believes there would be a significant benefit in MBIE looking beyond the traditional indicators of demand growth (GDP, population, solar, electric vehicles) and modelling the scenarios that would be required to see an increase in demand and in what areas/industries.

Given this document's importance, it would also be useful for MBIE to articulate how accurate past EDGS forecasts have been and what, if any, changes have been made to the methodology to improve how current forecasts are arrived at.

Finally, we think MBIE's new build scenarios must be revisited as we believe it is unlikely any new medium- to large-scale generation will be built while uncertainty remains over Tiwai's future. Likewise if demand scenarios consider reduced or no growth scenarios, then generation scenarios should consider more accelerated plant closure timings to match demand.

For any questions relating to our submission, please contact me.

Yours sincerely



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| Organisation name | Contact Energy |
| Submitter name (on behalf): | Louise Griffin |
| Date | 15 May 2015 |

| Question | | Response from Contact Energy |
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| Q1. | Do you agree with the description of the purpose of the EDGS, including the material in the appendix? | <p>While Contact understands that the primary role of the EDGS relates to the Commerce Commission's approval of Transpower's capital expenditure, in our view the purpose is too narrowly defined. This document is relied on for a myriad of other purposes¹ and its purpose should reflect that. Most recently, we have seen it referred to in relation to the modelling of a revised flows regime for hydro catchments².</p> <p>Most importantly, we believe the EDGS must include regional and peak demand projections.</p> |
| Q2. | In the absence of regional and prudent peak demand projections being a part of the EDGS, the Ministry would like to ask for your feedback on the best way to independently verify regional and prudent peak demand projections? | <p>As noted above, Contact disagrees with the absence of regional or peak demand projections. Contact would not want to see regional and/or peak demand projections dealt with through a separate forum in isolation from the industry. In our view, regional and peak demand projections should be included within the EDGS (this could be reviewed or developed by Transpower first, then provided to the industry for comment).</p> <p>The network companies are well suited to review demand at their own GXP's.</p> |
| Q3. | Do you agree that the key uncertainties identified in this section, and the proposed eight equally weighted scenarios, sufficiently represent overall uncertainty for the purpose of the EDGS? | <p>While we agree with the key uncertainties identified, we think the breadth of approach is too narrow and the scenarios too static. For example, there are only two scenarios for Tiwai that cover a reduction and an exit. All examples should have a point where Tiwai exits, just like the retirement of Huntly, as it is unlikely that Tiwai will continue to 2040³.</p> <p>While a lot of focus has been given to the supply side (and accordingly the building of the supply curve), Contact is concerned that the demand side has not been given sufficient attention, with demand assumptions largely held constant over the entire period (for example, no industrial retirement</p> |

¹ Treasury National Infrastructure Unit Evidence Base, Energy, Regional Energy Strategies

² Assessment of the Impact of Flow Alterations on Electricity Generation - Energy Modelling Consultants Ltd for Ministry for the Environment

³ Section 1, 'Eight Scenarios for Future Development of the Electricity Sector out to 2040'

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| | | <p>or demand response to price changes).</p> <p>In terms of the retirement of TCC and Ōtāhuhu B, in Contact’s half year 2015 investor presentation we noted that only 19,400 equivalent operating hours remain between Ōtāhuhu and TCC before major maintenance is required⁴.</p> <p>In terms of the new builds referred to in the document, Contact’s Ōtāhuhu C is stated as having an earliest commissioning date of 2015 – this date should be pushed out as no final investment decision on Ōtāhuhu C has been made and there is no plan to make one.</p> <p>Te Mihi, which is listed as ‘commissioning’ should be updated to reflect that commissioning is now complete.⁵</p> <p>The following new builds also require updating:</p> <p>Hauauru ma raki (HMR) wind project – in August 2013 Contact announced it had decided to exit the HMR wind project.⁶</p> <p>Tauhara stage 2. As no final investment decision has been made, and given that from that decision there is a build time of ~4 to 5 years, the dates around Tauhara 2 should be pushed out. Given the degree of oversupply in the market we would expect other investments to be deferred.</p> |
| Q4. | Do you have any specific feedback on the proposed EDGS capital cost assumptions which are sourced primarily from the PB generation data update 2011? | The assumptions appear quite static. We would also expect to see forecast cost curves or similar to show expected changes in technology over time. We note the data used also appears to be quite old at 4 years. |
| Q5. | Is the variation in key assumptions consistent with the scenario design and future uncertainty? | In terms of high geothermal availability, we wonder whether what is actually meant is ‘favourable economics for geothermal’? Regardless, in Contact’s view we cannot see anyone building significant new generation while so much uncertainty remains around Tiwai. Unless this is added as a variable, what is presented does not seem like a realistic scenario. |

⁴ 2015 interim results presentation, slide 22

⁵ Media release: Contact unveils Te Mihi Geothermal Power Station, 14 August 2014

⁶ Media release: Diverse asset and fuel position and a focus on efficiency lifts results, 20 August 2013, page 2, para 3.

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| | | Each asset owner or developer will make a commercial decision. We have noted earlier the limited operating hours on our CCGTs before major maintenance is required. To extend the life of one CCGT would require spending ~\$50m ⁷ , a decision that would only be made if a return on that investment can be seen. Accordingly Ōtāhuhu B's future is subject to its revenue being able to support the maintenance investment. |
| Q6. | Given the current flat demand environment, should we put more weight on low demand growth scenarios? | Yes. However, more thought should also be given to demand generally, and how its components are expected to change over time and with new technology and the life cycle of major users. |
| Q7. | Does the high uptake of electric vehicles (and Solar PV) that are used in our Global Low Carbon Emissions scenario reflect future uncertainty? | We would be happy to share our views on solar and electric vehicle uptake with MBIE. |
| Q8. | Should we put more weighting on the low gas availability option given the current level of oil prices? | No. We would expect oil and gas exploration to be more closely tied to forecast oil prices, not just the current level of oil prices. |
| Q9. | Does the range of retirement for the Huntly units across all scenarios adequately reflect the associated uncertainty? | While this doesn't seem unreasonable, we believe this question is better answered by Genesis. |
| Q10. | Are there any comments on the build schedules or other key results published in this document and the accompanying excel files? | In Contact's view, the build schedules are far too aggressive. We find it difficult to envisage major generation being built while uncertainty remains over Tiwai. |
| General comments: | | <p>Given the Ministry of Business, Innovation and Employment/Ministry of Economic Development have been drafting the EDGS for some time, it would be useful to understand how accurate past forecasts have been and what, if any changes have been made to the methodology to improve the current forecast.</p> <p>As part of looking at future sources of electricity supply, we think more focus should be put on freeing up existing generation capacity, such as that on the Clutha which is currently restricted because of the HAMI charge.</p> |

⁷ 2015 interim results presentation, slide 26