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TRUSTPOWER SUBMISSION: LIST OF APPROVED DG IN LOWER NORTH ISLAND

1 Introduction

1.1.1 Trustpower Limited (**Trustpower**) welcomes the opportunity to provide a submission to the Electricity Authority (**the Authority**) on its consultation paper on the *Draft list of distributed generation eligible to qualify to receive avoided cost of transmission payments under regulated terms: Lower North Island* (**the Consultation Paper**).

1.1.2 In this submission, we focus our comments on three areas:

a) Transpower's eligibility assessment methodology;

b) The evidence of consumer detriment from payments to existing distributed generation (DG); and

c) The list of approved generators for the Lower North Island (**LNI**).

2 Comments on Transpower's eligibility assessment methodology

2.1.1 Trustpower notes that Transpower has largely followed the same methodology as in the previous Lower South Island (**LSI**) analysis.

2.1.2 The exception is the introduction of an effectiveness hurdle**.** This hurdle provides that, for DG at a GXP to be considered required, the DG must improve any transmission issue by at least 0.1%/MW injected.

2.1.3 This hurdle was introduced because

> *"the size and scope of the LNI region and analysis…interactions between regional and grid backbone power flows can show DG improving transmission issues by percentages within the margin of modelling accuracy. The hurdle ensures that only DG directly linked to a regional transmission issue is assessed as required to manage that issue."*

2.1.4 We think this approach is sensible and that the methodology employed by Transpower is appropriate and fit for purpose.

3 Evidence of consumer detriment

3.1.1 In its May 2016 *Review of distributed generation pricing principles Consultation paper* the Authority stated that

> *"Of the $62 million allowance in 2014, approximately $37 million (60%) related to the lower South Island (LSI) and lower North Island (LNI) regions. However, the Authority expects that the actual avoidable cost of transmission in these regions has been relatively low or nil, because these regions are not import constrained."*[1]

3.1.2 In fact, Transpower's LNI analysis for this Consultation paper identifies distributed generation at thirty one locations as required to meet its grid reliability standards in the period from 1 April 2017 to 31 March 2020 (**designated period**).

3.1.3 In addition Transpower's expert advisers Mitton ElectroNet state:

> *"We also note that this study has a narrow focus and that there are factors which have not been accounted for within this analysis, including, but not limited to:*
>
> *• A potential reduction in transmission system losses. DG generally supplies load close to the point of supply and can reduce loading on the transmission system, which generally reduces system losses.*
>
> *• Potential displacement of more expensive marginal generation. By reducing the amount of dispatched market generation, overall generation prices could be lower. Detailed analysis on this has not been undertaken and it is possible that the DG could be inflationary on energy prices also. Note that this only applies to those DGs which are not market based; that is, they don't offer into the electricity market.*
>
> *• Operational flexibility. Transpower can benefit from DG, if it can be contracted "ON", during times of grid maintenance, when the security criteria effectively becomes N-1-1, where not having the DG available might otherwise introduce system constraints.*
>
> *• No analysis was completed on time periods other than peak Winter and peak Summer. Consideration of additional scenarios, such as the shoulder period, would improve the robustness of the analysis. "*[2]

3.1.4 Transpower notes these comments and says:

> *" We agree DG provides benefits that are not assessed as part of this report and confirm that DG in the LNI regions helps to mitigate the impact on consumers of grid outages (removing grid assets for maintenance or enhancement purposes)*[3]

3.1.5 A number of lines companies also acknowledge that DG provides benefit in terms of ensuring a supply remains available within a network while maintenance is undertaken. This also mitigates the need to purchase or hire in expensive standby generation.

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[1] See Page E of the Executive Summary
[2] Mitton Electronet *Lower North Island Distributed Generation Impact Study* pages 4-5
[3] Transpower "*Distributed Generation to meet grid reliability standards, :Lower North Island*" page 6

3.1.6 This suggests that the application of this reform to existing DG was misguided as the Authority appears to have prematurely assumed that existing DG is not providing system benefits.

4 Comments on the list of approved generators

4.1.1 The Mitton ElectroNet report identifies that some of Trustpower's generation is required to maintain grid reliability but this generation is excluded as being outside the Authority's "bright lines".

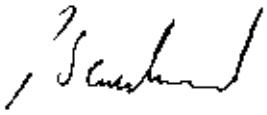
4.1.2 For example generation which is required:

(a) in the designated period but is not included in the eligibility list as it is *notionally embedded* not embedded (e.g. Patea and Matahina power stations) and

(b) in the *period immediately following the designated period* (Mangorei power station at Carrington Street GXP and Whaeo/Flaxy power stations at Rotorua GXP).

4.1.3 Making these arbitrary distinctions, after long term bespoke contracts have been entered into in good faith by industry participants on the basis of the then prevailing regulatory frameworks, does not inspire market or investor confidence.

Regards,



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