

7 April 2022

Powersmart NZ Limited submission to Transpower Renewable Energy Zones Northland Pilot Concept Consultation 2022

Overview

Powersmart welcomes the opportunity to provide feedback to Transpower New Zealand Ltd (Transpower) on the consultation paper Renewable Energy Zones Northland Pilot Concept Consultation (Consultation Document).

We are highly supportive of Transpower's efforts to accelerate New Zealand's transition to a low carbon future and we believe that a pilot Renewable Energy Zone in Northland is an excellent step in this direction. We see the following benefits for project developers and end users alike:

- i. REZs will help unlock more renewable generation through efficient transmission and distribution development, shared costs and reduce barriers to generation development;
- ii. Improved resilience through greater diversity of electricity sources, energy storage systems and generation locations that are often nearer to the centres of demand; and
- iii. REZs would increase the overall supply of electricity and should therefore reduce prices for households by encouraging the deployment of low-cost solar PV and wind generation sources and leverage access to both public and private capital.

Our feedback in response to the consultation questions is on pages 2-3 below.

About Powersmart

Powersmart NZ Limited (Powersmart) is a subsidiary of Vector Limited. We are a multi-award-winning New Zealand-based solar integrator with over 15 years of design, installation, commissioning and project management experience in the solar photovoltaic industry.

Powersmart has delivered some of the largest and most iconic solar and battery projects in New Zealand and in the South Pacific, where we specialise in solar and battery installations and micro-grids on remote atolls. To date we have been involved in the delivery of a multi-megawatt portfolio of solar PV projects, 80 MWh of battery storage and are currently working with industry partners in New Zealand on a future pipeline of solar PV projects totalling several hundred megawatts.

Our customers range from agencies such as the Ministry of Foreign Affairs and Trade through to commercial and industrial businesses who are seeking to reduce energy-related costs and meet emissions-reduction goals using unlimited clean energy from the sun.

Contact details

Address: PO Box 5078, Mount Maunganui 3150

Web: www.vectorpowersmart.co.nz

Email: rogier@vectorpowersmart.co.nz

Phone: 021 242 4702

Yours sincerely,


A handwritten signature in black ink, appearing to read 'Rogier Simons'.

Rogier Simons

General Manager

Powersmart NZ Limited

#	Consultation questions	Powersmart comment
1	<p>Do you support the development of a REZ in Northland?</p> <p>Please provide your reasons as to why or why not.</p>	<p>Powersmart supports a pilot REZ in Northland as it has good site conditions for solar PV (e.g. solar irradiance), available lines capacity and is close to centres of electricity demand in Auckland and the Waikato region. Land availability is also a consideration and the region could make use of marginal land and convert to multi-use farmland via 'agri-voltaics' (https://www.pv-magazine-australia.com/tag/agrivoltaic), with the potential for Northland to supply up to 10% of the country's electricity. Investment in new renewable generation would provide an economic boost via employment from installation work & related trades, rental income for landowners/farmers/iwi, and should ultimately reduce wholesale electricity prices for end-users in a region that already suffers from economic hardship and inequality.</p>
2	<p>What potential benefits of a REZ are important to you? Consider economic, social, cultural and environmental factors.</p>	<p>The potential benefits of REZs to Powersmart are:</p> <ul style="list-style-type: none"> • Help unlock more renewable generation projects through efficient transmission and distribution development, shared costs and reduced barriers to new generation development. • Provides greater certainty for projects in the REZ regarding lines capacity upgrade pathways, timeframes, permit approvals, as well as a clear contestable process for projects to join an REZ. • Leverage the advantages of distributed generation by widening generation ownership to include businesses and new generators - increasing access to capital has the potential to deepen generation markets. Industrial and commercial-scale solar PV can be delivered at a capital value accessible to a much wider group of investors than was the case for traditional hydro, wind and geothermal, which should ultimately benefit end-users in Northland. • Provides greater opportunity for community-led & charitable initiatives such as community solar (less likely to have output curtailed or the project delayed).
3	<p>What potential costs of a REZ are important to you? Consider economic, social, cultural and environmental factors.</p>	<p>Powersmart supports the proposed REZ approach for Northland and the wider country.</p> <p>Ideally, REZs will reduce costs for individual projects by sharing the grid connection cost burden across multiple developments and investors. However, in any collective effort there are collective risks that may result in a more time-consuming and costly project approval process.</p> <p>Clarification required: It would be helpful to clarify Transpower's contribution to the Northland pilot. We hope that resources will be dedicated to prioritising renewable generation grid connections in the REZ, rather than simply creating an additional approvals entity comprising Transpower and the two lines companies.</p> <p>Clarification required: Consideration should be given to the cost and time impact on a group of new generation projects in an REZ</p>

#	Consultation questions	Powersmart comment
		<p>that are delayed by a single project not receiving a permit or resource consent or being disrupted by protest action by interest groups.</p> <p>Clarification required: Re project inclusion in a REZ, it would be helpful to clarify if there would be several rounds of tenders spanning a 5-10 year period, or if projects that are not yet identified in year 1 or were not selected are excluded from a REZ.</p>
4	<p>Do you support enabling developments through upgrades to existing lines and substations as demand for connections to the networks emerge? If not, what alternatives would you propose?</p>	 <p>Yes, the proposed division on page 16 of enabling investment between REZ funded (assets A-E) and the standard regulatory investment process recovered from customers via the TPM (assets F-I) is noted and understood. We also note the estimated lines upgrade cost range of \$20m to \$400m for up to 700MW of new generation.</p>
5	<p>If new lines needed to be built to connect resources, where should they be constructed/not constructed?</p>	-
6	<p>Are there alternative proposals that we should consider?</p>	-
7	<p>Do you have development projects that a REZ might assist you to construct and connect?</p>	<p>Not currently, but we are working as engineering consultant to developers with projects at various stages of development in the pipeline (see below), and projects may follow from this within five years that could benefit from a REZ. Until then it is critical that the development that is already underway is not stalled by the REZ process.</p> <ul style="list-style-type: none"> • 4 projects (advanced stage), 70 MW • 2 projects (early stage), 50+ MW <p>Clarification required: It would be helpful to clarify if projects that are already in consultation will continue as planned alongside the proposed REZ, or if all new generation projects now in the pipeline must participate in the REZ tender process scheduled for 2023.</p> <p>This situation has significant implications that affect investment decisions, liabilities and delivery dates. Existing projects are subject to PPA terms with firm delivery dates and liquidated damages.</p> <p>We see this as two parallel processes where both existing and newly planned projects need to have a beneficial outcome. If existing renewable generation projects were stalled by the REZ then this would be a perverse outcome that all parties should seek to avoid.</p>