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3 November 2021

Submissions
Electricity Authority
P O Box 10041
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By email: distribution.pricing@ea.govt.nz

Dear team,

RE: Consultation Paper – Distribution Pricing Practice Note

The Independent Electricity Generators Association Incorporated (IEGA) appreciates the opportunity to make this submission on the Electricity Authority's (Authority) proposals to provide more guidance on what good looks like in efficient cost reflective distribution pricing for mass market connections to distribution networks.¹

The IEGA totally agrees distribution networks have a critical role to play in supporting New Zealand's transition to a low emissions economy through their infrastructure that connects electricity users with electricity producers and in maintaining reliability of electricity supply.

The IEGA's interest is that distribution pricing can be used to encourage and enable distributors to identify and progress efficient and timely investment in non-network solutions that delay or avoid the need for investment in traditional distribution infrastructure for the long term benefit of consumers.

What is congestion?

Our understanding of the focus of the Authority's consultation paper and draft Distribution Pricing Practice Note (Practice Note) is that distributors should be implementing a congestion charge if there is network congestion on a single feeder for a (short) period of time that will be payable by mass market connections.² The Authority clarifies that "*Network congestion means that network capacity is not adequate to meet demand at a particular network location at a particular time. It does not mean the same thing as peak demand on the network*".³

¹ The Committee has signed off this submission on behalf of members.

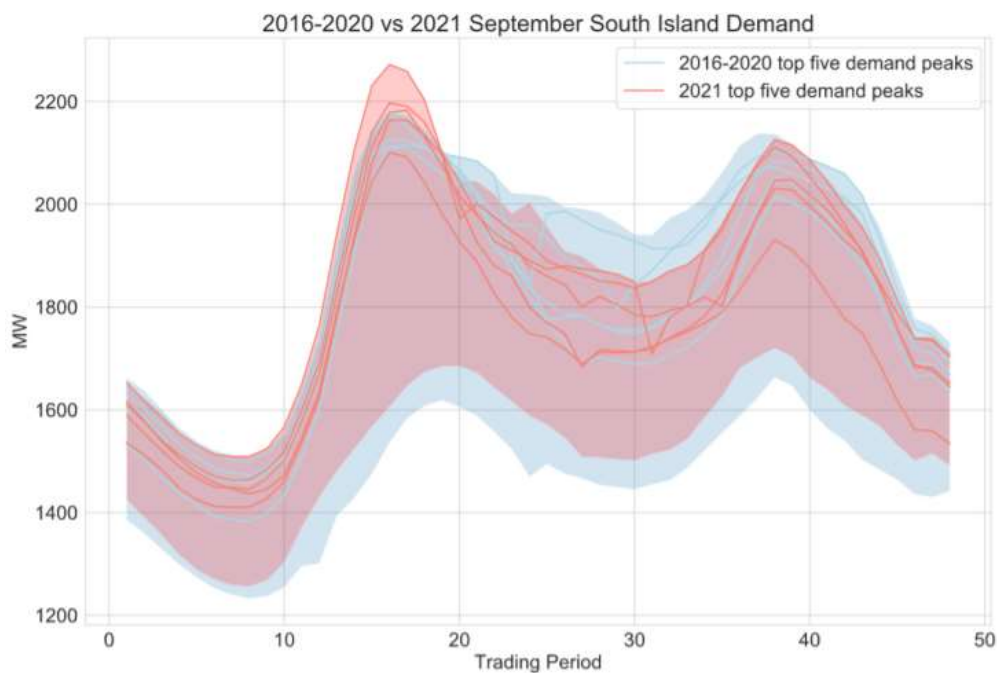
² Paragraph 16

³ Footnote 3 page 4

We note there is currently no transparency about whether congestion occurs during periods of peak demand. In our view, forecast and actual increases in peak demand probably foreshadow future congestion as volumes transported through existing capacity increase.⁴

It is already clear that the removal of the Regional Coincident Peak Demand (RCPD) methodology in transmission charges is impacting the timing of peak demand as well as increasing the volume of electricity transported by the transmission and distribution networks during particular periods of time. Transpower recently reported on South Island demand patterns in September 2021 (the first month since RCPD measurement ceased) compared with the previous 5 years.⁵

The shaded regions show the minimum and maximum values of the load profiles for the respective time periods, by trading period. The lines represent the top five load profiles for the time periods 2016-2020 and 2021.



Transpower has also updated their demand forecasts for market operations to take into account removal of the RCPD price signal, stating “It is prudent for Transpower as the System Operator to make an estimate of how much load was previously controlled during RCPD periods that may no longer be in the future”.⁶ The range of forecast increase in peak demand is 4% to 10% for NZ as a whole and a minimum of 5% increase in peak demand for the South Island and 3% for the North Island.

These results do not take into account any change in generation strategies by commercial scale distributed generation as a result of the removal of RCPD and ACOT.

⁴ Our experience is that some networks are already congested to meet both consumer demand and the connection of distributed generation. These networks should be able to invest in increasing capacity especially with the expected electrification to decarbonise our economy.

⁵ See page 1 of Transpower’s Weekly Market Movements – Week ended 17 October 2021

<https://www.transpower.co.nz/sites/default/files/bulk-upload/documents/Market%20Operations%20-%20Weekly%20Market%20Movements%20-%202024%20October%202021.pdf>

⁶ TPM – Removal of Regional Coincident Peak Demand, July 2021 <https://www.transpower.co.nz/sites/default/files/bulk-upload/documents/TPM%20-%20Removal%20of%20RCPD.pdf>

Table 1 Total Estimated Maximum and Likely Load Increase

New Zealand	EDB Increase / MW	Direct Connect Increase / MW	Total Increase / MW	Peak Winter Load / MW	Total Increase %age
Most Likely	224	79	303	6,924	4%
Maximum	481	212	693	6,924	10%

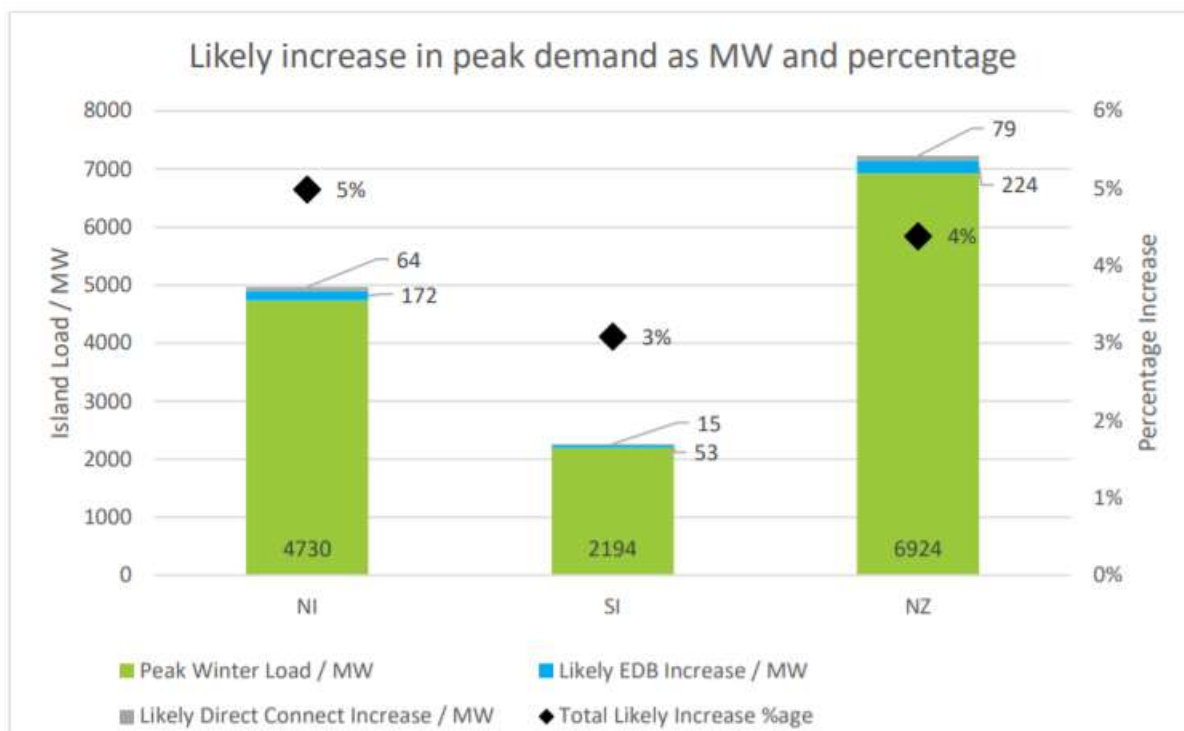


Figure 2 Total likely increase

Incentivising behaviour to manage congestion

We acknowledge the Authority’s approach to transmission pricing, and now distribution pricing, is that consumers value electricity more during periods when demand is high (peak demand) and pricing should not discourage consumption during these periods of high utility. However, it is desirable to send a pricing signal to manage congestion.⁷

The Authority suggests that “A distributor can offer a ‘first off’ option or demand response option to help it control network congestion, usually in return for a payment or a discount to charges.”

⁷ The IEGA queries why these benefits of a congestion price signal are not a priority in the new transmission pricing methodology. Further, we note that the Authority’s cost benefit analysis of the new transmission pricing methodology proposal includes a net cost associated with bringing forward transmission investment so that “Grid constraints and losses [are] reduced sooner due to transmission investment occurring earlier than it would otherwise to cater for increases in peak demand”. Source: Summarised in Table 2 <https://www.ea.govt.nz/assets/dms-assets/29/TPM-CBA-technical-paper.pdf>

The Authority also notes that with the revenue (and not price) cap regulation *“Distributors can now undertake more active price signalling to consumers to both encourage usage in times of low network congestion or demand, and to discourage usage during times of network constraint. This also applies to signals to suppliers of energy (via localised generation activity or distributed energy resources) where prices can signal when and where it is efficient for the network to receive energy, and when it is not.”* [emphasis added]

The IEGA suggests all consumers would benefit if there was an increased focus, including implementation in the near term, of a mechanism across all distributors that incentivises distributed generation to operate to reduce / eliminate any congestion and defer and/or avoid investment in new distribution infrastructure.

This would increase efficiency as the Authority notes *“It is efficient for such price signals to delay network investment by the distributor, or a non network provider, until the cost of a network upgrade becomes economically justifiable (ie, the value to consumers exceeds the cost)”*.⁸

Part 6 of the Code already requires payment to distributed generation of the avoided cost of distribution (ACOD). Only one network company has been recorded as making this payment. This payment is clearly efficient according to the Authority’s latest Practice Note for efficient distribution pricing.⁹

The IEGA’s submission on ‘Updating Regulatory Settings for Distribution Networks’¹⁰ provides more detail about our views on incentivising distributed generation/distributed energy resources to contribute to reducing / eliminating any congestion and deferring and/or avoiding investment in new distribution infrastructure.

Our conclusion in this submission is equally relevant to efforts to implement efficient cost reflective distribution pricing as these suggestions will incentivise cost effective non-network solutions to address current and potential congestion.

“In conclusion, the IEGA supports:

- *increasing focus on the opportunities for non-network infrastructure investments to support the technical requirements of distribution networks at a lower cost to consumers, including:*
 - *development of a flexibility market*
 - *establishment of an industry working group (including an IEGA representative) to develop standard contracts*
- *where possible, standardisation of the methodology and pricing of reliability and network value attributes for non-network solutions and related contract terms, to ensure consistency and lower entry cost barriers”*

⁸ Paragraph 17

⁹ The IEGA submits the Part 6 rule that distributed generation pay the incremental cost of connection is also efficient distribution pricing. This rule is the same as the Authority’s guidance for growth from infill that *“the network’s Capital Contribution policy should apply to reflect the incremental impact on network costs”*. (page 18)

¹⁰ We couldn’t find this submission on the Authority’s website but can provide another copy if needed to support this submission.

We support efficient distribution pricing initiatives that provide incentives to defer or avoid network investment via a payment for services and favour a mechanism / approach that is consistent across all distributors.

IEGA members have new small commercial scale distributed generation options available that are environmentally and economically sustainable. Construction of this capacity will contribute to NZ's renewable energy target as well as realising substantial benefits from generating electricity close to local load¹¹.

We would welcome the opportunity to discuss this submission with you.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Chris Fincham', with a long horizontal flourish extending to the right.

Chris Fincham

IEGA Committee

¹¹ Including improving local resilience and security of supply especially with an increased dependence on electricity, reduced transmission and distribution losses.