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Dear Madame Chair and fellow Panel Members

**RE: Electricity Price Review Hikohiko Te Uira Options Paper for discussion**

The Independent Electricity Generators Association Incorporated (IEGA) welcomes the opportunity to make this submission<sup>1</sup> on the options for change proposed by the Electricity Price Review Panel (Panel). We refer the Panel to our submission on the First Report for background on our Association, the role of distributed generation in the current market and the exciting future for distributed generation or distributed energy resources (one and the same thing).

We commend the Panel for holding detailed workshops to provide more clarity about the options and hear feedback from stakeholders.

This submission, in Appendix 1, covers the areas relevant to members and includes reasons why we support the view of the Panel as well as suggestions for focus or further change.

There are a number of proposals that have the potential to provide more clarity on the regulatory environment for distributed generation. Distributed generation is playing an important role in NZ's renewable electricity system in competition with transmission and distribution infrastructure and providing numerous benefits. There is a need for considerable capacity investment in the medium term. IEGA members have options for new generating capacity connected to local networks that are economic, have a smaller environmental footprint than grid-connected generation and provide an incremental increase in supply more aligned to growth in demand.

We are cautious that any changes as a result of this Electricity Price Review (EPR) should not undermine or undo New Zealand's progress to a higher contribution from renewable energy. For example, a change that makes smaller scale commercial renewable distributed generation

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<sup>1</sup> The Steering Committee has signed off this submission on behalf of members

uneconomic. Regulatory imposts should be proportionate to the scale of the impact by different participants and the financial and operational ability of participants to be compliant.

For the recommendations where the IEGA has a view, the following table summarises the IEGA's position in comparison to the Panel's position.

<b>IEGA favours these recommendations as does the Panel</b>
E1, E2, B1, B2, B3, B4, B5, B6, B7, B8, D1, D4, E1, E2, E4, F1, F5, G2, G3
<b>IEGA's position is different to that of the Panel</b>
D2, E3, F1, F2, F3, F4, G1

The IEGA would welcome the opportunity to discuss this submission with you in more detail.

Yours sincerely



**Warren McNabb**

Chair

Enclosed:

**Appendix 1:** IEGA response to proposed changes

## **Appendix 1: IEGA response to proposed changes**

### **A: Strengthening the consumer voice prices**

#### **A1: Establish a consumer advisory council**

The IEGA **supports** the Panel's proposal to establish an electricity consumer advisory council.

IEGA members' experience is of an increasingly highly complex regulatory environment and electricity sector where small players do not have the voice of the utility scale participants on the buy and sell side in influencing change. This perpetuates the status quo when innovation and competition is positive for consumers (ie. turkeys don't vote for Christmas). As small, individual operators we have pooled resources to create a presence – just as a consumer advisory panel would.

Ensuring a consumer advisory panel is well resourced – financially and with capability across the wide range of topics that impact the electricity sector and electricity prices – will be important to its success.

The IEGA queries if the consumer advisory council should focus solely on electricity or be an 'energy' advisory panel. This is more consistent with the focus on energy hardship. Each electricity consumer can also be a consumer of gas, coal/wood burning, and petrol (for transport). In the context of 'energy' hardship a consumer may be deciding whether to buy electricity for lighting/heating the house or buying petrol to get to work.

As well as advocacy, the consumer council could assist with the industry's challenge to increase generation output as New Zealand transitions to a low emissions economy. Environmental concerns as well as some sense of control over investment outcomes appear to be a high priority for consumers – and renewable distributed generation investment addresses these concerns. It would be interesting to understand consumers' perceptions of the 'social licence' to operate for small commercial scale distributed generation relative to utility scale generation plant. The Council could commission a study to evaluate the public's preferences in relation to the scale of future renewable power schemes. This could identify the social cost of utility scale versus incremental smaller regional generation capacity and assist with identifying and addressing barriers to new generation investment.

Growth in distributed generation, or distributed energy resources, is a major focus overseas. These distributed systems involve local communities and consumer investment and predominately use renewable fuel. There are numerous investment opportunities for small commercial renewable DG given a stable and predictable regulatory environment. The scale of this investment means it is closely matched to progressive growth in electricity demand.

#### **A2: Ensure regulators list to consumers**

The IEGA is also undecided about altering the statutory objective of the Electricity Authority and Commerce Commission to include explicit responsibility to consult with electricity consumers.

Establishment of an electricity consumer advisory council can occur more quickly than changing legislation and should result in the same outcome – that consumers have an effective voice.

## **B: Reducing energy hardship**

The IEGA supports the government's focus on fairness, affordability and competitiveness which should assist in ensuring fair prices for consumers. While the majority of IEGA members do not have direct retail consumers, the IEGA is in favour of the proposals in relation to energy hardship and agree that any funding remedies come from government as it is in essence welfare assistance.

The IEGA **supports** all the proposals in section B.

Defining energy hardship (**B2**) is particularly important and urgent to ensure the other targeted solutions reach the right people. This should be the first priority.

Recommendation **B8: Explore bulk deals for social housing and / or Work and Income clients** should be structured to ensure that any generator or aggregation of generators can participate. The experience of IEGA members is that the current Whole-of-Government (WoG) contracting model is flawed and is unavailable to IEGA members.

WoG officials are not interested in contracting with smaller suppliers, or aggregated smaller suppliers. Once a generator is an approved supplier, the contracts are for an extended period of time and there is limited opportunity for new suppliers to be involved in any retendering.

Further, the WoG model cuts across local government as well as central government entities such as hospitals and schools where there is untapped potential for distributed generation options to reduce these entities use of coal-fired burners and therefore carbon emissions. These opportunities are not valued in any WoG tender process.

## **D: Reinforcing wholesale market competition**

IEGA members own generation plant connected to the local distribution network – ie distributed generation, or the current catch phrase of 'distributed energy resources'.

The Electricity Industry Participation Code has two capacity thresholds which mean distributed generation are exempt from some of the requirements to assist the System Operator meet its principal performance obligations. Generating plant with a capacity less than:

- 10MW is exempt from providing information about intended output for dispatch to the System Operator (8.25(5)(a)); and
- 30MW is exempt from technical requirements from the System Operator, including in relation to frequency keeping, fault ride through, reactive current and active power output (8.21(1)).

This threshold reflects the negligible impact of this generation on the operation of the wholesale market and technical operation of the system. It also acknowledges that owners of this sized plant do not have the financial or personnel resources to install and manage controls over the generation output or participate 24/7 in dispatching generation into the wholesale market.

The System Operator also does not 'see' our members' generation output as it feeds directly into the local distribution network beyond the transmission grid's grid exit point. Distribution generation output reduces the quantity of electricity a distribution network takes from the transmission grid.

Distributed generation is contributing to competition in the wholesale market and in the supply of electricity to consumers. Distributed generation:

- is economic with utility scale generation
- competes with transmission to deliver electricity from distant utility scale generation plant to consumers
- avoids transmission losses and reduces distribution losses
- provides incremental increases in generation capacity (utility scale investors can be reluctant to invest because as soon as it is generating the price that might have been higher in that region declines because there is no longer a constraint); as well as
- having a smaller environmental impact due to the scale of the plant

### **D1: Toughen rules on disclosing wholesale market information**

The IEGA **agree** transparent and fulsome information is critical for well-functioning competition in both wholesale and retail electricity markets.

Connection agreements with local distribution networks require distributed generation to provide information that is relevant for their effective management of the network. The existing threshold of 10MW is relevant here as further information in relation to fuel or the operation of members' plant is unlikely to impact wholesale market competition.

### **D2: Introduce mandatory market-making obligations**

The majority of members own only generation assets. The existing threshold of 10MW is relevant here. IEGA members do not have the scale of operation or financial backing to be consistently offering a buy and sell price in the hedge market. Their physical generation output is not sufficient to be a natural hedge to activity on the hedge market.

The IEGA is **indifferent** about a mandatory or voluntary hedge market. Members increase the liquidity of the contract market if they use this market to hedge the price received for their generation or sign contracts to underwrite a new generation plant. Members therefore benefit from a liquid hedge market. Below is one of many definitions of liquidity – all of which focus on a trade having minimal impact on price:

“...a high level of trading activity, allowing buying and selling with **minimum price disturbance**. Also, a market characterized by the **ability to buy and sell with relative ease**.” (*The New York Times Dictionary of Money and Investing*)

IEGA notes the discussion at the 13<sup>th</sup> March workshop. If the vertically integrated large gentailers are to be given a fixed period of time to improve the voluntary market-making arrangements the IEGA suggests there should be very clear criteria about what success looks like.

Open interest is only one measure of success / liquidity. Volumes traded on the hedge market as a multiple of total physical volumes is an indicator of liquidity. Spread is a third measure of success. We

note that the spread in the British hedge market went from ~1.6% to ~0.6% when mandatory market making was introduced<sup>2</sup>.

A liquid active contract market is essential to underpin the new renewable investment required for New Zealand to transition to a low emissions economy. Power purchase agreements or trading on a long-dated liquid hedge market are important for small generators (while vertically integrated utility scale generators have their own internal hedge with a retail book).

**D4: monitor contract prices and generation costs more closely** – IEGA **agree** the Electricity Authority should periodically compare wholesale contract prices with new generation costs. This analysis could reveal evidence of any excessive profits by generators as well as if contract prices are reasonable.

## **E: Improving transmission and distribution pricing**

**E1: Issue a government policy statement on transmission pricing** and **E2: Issue a government policy statement on distribution pricing**

The IEGA **agrees** that a government policy statement (GPS) on transmission pricing and distribution pricing will provide industry participants and consumers clarity about government's expectations with respect to:

- transitioning to a new transmission pricing methodologies and more cost reflective distribution pricing
- managing price shocks, fairness and affordability for different classes of consumers
- treatment of sunk costs (existing versus new assets) which may be different for 'national' assets (the transmission grid) and 'regional' assets (the distribution networks)
- how transmission and distribution infrastructure investment can contribute to the government's wider policy objectives (such as internationally agreed climate change targets, environmental policy, preference for renewable resources)
- assisting in consideration of distributed energy resources as cost effective less lumpy alternatives to transmission investment, including expectations about the detail of a grid support agreement between Transpower and distributed generation<sup>3</sup>
- recognising that the need for new investment in transmission infrastructure is driven by the level of peak demand. Prices signalling developing transmission constraints is also important. Transpower's recent report<sup>4</sup> on this is insightful. Signalling developing transmission constraints enables a competitive market to develop solutions which Transpower can contract with as an alternative to transmission investment. Consumers and service providers (including

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<sup>2</sup> See page 27 of Electricity Networks Association submission on the Electricity Price Review, 23 October 2018 <https://www.mbie.govt.nz/dmsdocument/4161-electricity-networks-association-electricity-price-review-first-report-submission>

<sup>3</sup> Consistent with the revised Part 6.4 of the Code

<sup>4</sup> See <https://www.transpower.co.nz/industry/transmission-pricing-methodology-tpm/role-peak-pricing-transmission>

distributed generation) should be compensated for deferring or avoiding new investment due to growth in peak demand

- recognising that distribution pricing should signal peak demand periods and potentially encourage a reduction in consumption, increase in consumption from consumer owned generation or increase in output from small commercial distributed generation during peak demand periods, and that owners of these assets are compensated. Consumers sign up to reducing demand during peak demand periods by going on controlled as opposed to uncontrolled tariffs and pay lower distribution tariffs. Currently small commercial distribution generation receive no compensation from distribution companies for generating during periods of peak demand and reducing the volume the distribution company has to carry from the national grid.

Investors in distributed generation face a regulatory environment that might only become more stable in about five years when changes to the transmission pricing methodology and distribution pricing are in place. The level of uncertainty is disproportionate to the size of this sector and the scale of the businesses owned by IEGA members. This uncertainty is impacting the bankability of existing and new DG investments.

In the past, GPSs have included a preference for particular types of generation – for example in the 2000s the expectation of facilitating investment in distributed generation was included. As discussed above distributed generation has considerable benefits for consumers relative to large scale generation plant.

The IEGA suggests there must be some mechanism to ensure the Electricity Authority activities and decisions are guided by the GPS. Under the current legislative settings the Authority must have regard to a GPS. Instead of requiring a legislative change maybe the government could ask the Authority to report to it on how the Authority has had regard to a GPS in any decision it makes.

Transpower's draft GPS is a good start. The IEGA does not have any specific comments at this stage as we anticipate a consultation process if a GPS is progressed.

### **E3: Regulate distribution cost allocation**

In our view, the issue of distribution companies' allocation of common costs to small commercial scale DG has been well analysed and reviewed and the December 2016 decision by the Electricity Authority does not need to be re-litigated.

IEGA notes that cost allocation should take into account services provided to distributors by users of the network as well as the services provided to users of the network. For example distributors compensate consumers for reducing demand during peak periods (with lower charges in off-peak periods) – distributed generation offers the same service but is currently not compensated for this.

#### **E4: limit price shocks from distribution price increases**

As a customer of distribution businesses the IEGA **support** limiting price shocks from distribution price increases. The government's expectations on this could be included in the GPS. Grandfathering or transition in cost allocation and price increases may be appropriate to ensure fairness and affordability.

#### **F: Improving the regulatory system**

##### **F1: Give the Electricity Authority clearer, more flexible powers to regulate network access for distributed energy services**

There appears to be three different recommendations under this heading:

*Clarify that the Electricity Authority can regulate terms of conditions for connection of retailers to distribution networks* – this is not relevant to IEGA members.

*Refine obligations in s54V of the Commerce Act to ensure effective co-ordination of the functions of the Authority and the Commerce Commission* - the IEGA supports any improvement to co-ordination between these two regulators.

*Tighten arm's-length rules in Part 3 of the Electricity Industry Act* – the IEGA query whether the Electricity Authority is the right agency to be monitoring and managing these rules. It seems odd that the Authority is responsible for rules relating to ownership and governance while the Commerce Commission regulates how distribution companies account for costs across regulated and un-regulated activities. As discussed in response to F2 below, the IEGA strongly favours that all the regulatory functions associated with monopoly transmission and distribution networks be undertaken by the Commerce Commission.

Change is constant. IEGA cautions that trying to anticipate the impact of technology could over-complicate the rules, have unintended consequences and stifle innovation. Any changes must be consistently applied across all technologies that provide the same products or services.

The IEGA's principle concern is to ensure that independently owned distributed generation is treated the same by distributors as its own comparable assets on the same network.

##### **F2: Transfer the Electricity Authority's transmission and distribution-related regulatory functions to the Commerce Commission**

The IEGA still **strongly favours** this option (noting the Panel does not) that all the regulatory functions associated with monopoly transmission and distribution networks be undertaken by the Commerce Commission.

The Commission is already responsible for regulating investment, revenue and quality for Transpower and distribution companies. It regulates these aspects as well as prices, access and technology for a number of other network sectors – gas, telecommunications, airports, and ports.



Consolidating regulatory activity under one regulator would also eliminate duplication of effort – for example when both the Authority and the Commission consulted at the same time on the impact of emerging technologies from their own perspectives and industry participants had to make submissions on both reports.

The Commission is the regulator of monopolies – transmission, distribution, ports, airports; the Authority is promoting efficient competition which doesn't occur in monopoly markets, by definition. This is emphasised in Authority's interpretation of its statutory objective:

*“Authority is focussed on improving the arrangements in the electricity industry to promote competition”<sup>5</sup>*

### **F3: Give regulators environmental and fairness goals**

The IEGA suggests the proposed GPS include government's expectations of regulators in regards to fairness and environmental outcomes. This might give consumers more confidence that the Authority is working in the interests of consumers.

As mentioned at the workshop, the IEGA strongly submits that the Electricity Authority's treatment of **wealth transfers** should be the same as the Commerce Commission in any cost benefit or Code change proposal. The purpose of Part 4 of the Commerce Act and the statutory objective of the Electricity Industry Act 2010 require these regulators to make decisions for the long-term benefit of consumers. Using the Official Information Act, the IEGA has seen officials' advice to the Authority and Ministers saying the treatment should be the same.

At the moment the Authority is placing the most emphasis on the 'promoting an efficient market' part of the statutory objective. Government should advise the Authority whether this is the expectation or the emphasis should be on 'long-term benefit of consumers'.

### **F4: Allow Electricity Authority decisions to be appealed on their merits**

The IEGA still **favour** this option (noting the Panel does not). It is difficult to understand why the legal remedy in relation to decisions made by the Electricity Authority should be different from that of the Commerce Commission.

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<sup>5</sup> See para A.28 <https://www.ea.govt.nz/dmsdocument/9495-interpretation-of-the-authoritys-statutory-objective-february-2011-track-changes-version>

## **F5: Update the Electricity Authority's compliance framework and strengthen its information-gathering powers**

The IEGA **supports** reviewing / updating the Authority's compliance framework if that will result in more timely and well-resourced breach investigations. There is also the opportunity for the Authority to be more pro-active in relation to breaches of the Code. A member experienced a lengthy time process after alleging a breach by a distribution company.<sup>6</sup>

## **G: Preparing for a low-carbon future**

### **G1: Set up a fund to encourage more innovation**

There may be electricity sector specific initiatives that encourage innovation where the public benefit or benefit to electricity consumers is greater than the benefit to an individual industry participant. Or the opportunity for one participant to trial a new innovation that can then be taken up by other participants. For example, development of a standard grid support contract with Transpower that would be available to any potential supplier of transmission alternatives. The cost in time and resources of developing and finalising the first contract for the first investment probably exceeds the benefits of that investment. This is similar to the government's decision to regulate default connection terms for distributed generation with network companies (Part 6 of the Electricity Industry Participation Code).

### **G2: Examine security and resilience of electricity supply**

IEGA suggests the terms of reference and resourcing for the Security Reliability Council be reviewed and updated to ensure the proposed analysis of long-term security and resilience can be undertaken and replicated over time.

A significant issue for the industry, and government, is how New Zealand cost effectively 'covers' the ~15% variability in hydro inflows from year to year (and the ~7% variability in wind flows). Options include moving from the energy only market structure to include a new market for reserves or capacity. This review should include an assessment of the level of ongoing reliance on gas to cost effectively 'cover' renewable fuel variability.

The IEGA also suggests the impact on the contract and wholesale electricity market of the government imposed 1,500GWh 15 year term swaptions to 2026 between partially-government owned gentailers should also be assessed. The IEGA understand the price is being renegotiated (or was being renegotiated during the high price period in late 2018) for these long dated contracts. Is the scale and concentration of these swaptions reducing competition in the contract and wholesale market or impacting wholesale contract market prices? For example, the current ASX Open Interest at 8,000GWh (mentioned at the 13 March workshop) which covers 42 trading periods suggests the 1,500GWh swaptions are included in Open Interest – but these contracts / volumes are regulated to involve only three participants.

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<sup>6</sup> Published as a case study by the Electricity Authority <https://www.ea.govt.nz/dmsdocument/24747-determination-of-connection-charges-payable-by-distributed-generator>

### **G3: Encourage more co-ordination among agencies**

The IEGA **strongly supports** more co-ordination among government agencies.

The Council of Energy Regulators is a positive initiative. However, there are a number of agencies not listed as part of this Council that do regulate or advise on matters relevant to the electricity industry and electricity consumers. From our perspective these include:

- Ministry for the Environment: climate change policy including advising on New Zealand's international climate change commitments and policy relating to the Emissions Trading Scheme; freshwater management including allocation and pricing; resource management including the Resource Management Act, National Policy Statements for Renewable Electricity Generation, Transmission and Freshwater and a number of National Environmental Standards
- Department of Conservation: management of the conservation estate impacts access to, and fees paid for, land and fuel for renewable generation plant; management of indigenous freshwater fish
- Energy Efficiency and Conservation Authority: implements government's energy efficiency policies and funding
- Interim (and actual) Climate Change Commission: while it is not yet clear what scope and mandate this Commission will have it will no doubt be a significant influence on the electricity sector.

The purpose of this 'joined-up' cross agency co-ordination should be to understand and consciously prioritise if there are any unintended consequences from a policy or rule change proposed by one entity on the policy objectives or drivers managed by another entity. The GPS discussed in section E1 and E2 can provide guidance to officials about how to prioritise policy or rule change initiatives.