

25 July 2023

Electricity Authority

Submission - **Review of forecasting provisions for intermittent generators**

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To whom it may concern,

**Review of forecasting provisions for intermittent generators**

**1. Executive summary**

- 1.1 The Consumer Advocacy Council (the Council) recommends that the Electricity Authority (the Authority):
- 1.1.1. Adopts a centralised arrangement where a service provider is responsible for forecasting the likely intermittent generation quantities available.
  - 1.1.2. Introduce accuracy standards requiring intermittent generators to submit a revised offer to the system operator if the total MW specified in an offer exceeds or falls short of the total MW that the centralised arrangement has forecast for a generator where the generator may not meet the forecast. At T-12 hours, a P50 forecast should be +/- 10% from actual generation at real time, and at T-3 hours this should be narrowed to +/- 1MW.
  - 1.1.3. Introduce penalties for non-compliance with the prescribed standards.
  - 1.1.4. Undertake a consultation on the structure and suitability of the system that integrates the issues that the Authority has treated as discreet in previous consultations.

**2. Introduction**

- 2.1 The Consumer Advocacy Council (the Council) thanks the Electricity Authority (the Authority) for seeking submissions on the issue of uncertainty in intermittent generation forecasts and proposed solutions to improve the accuracy and frequency of intermittent generation forecasts in the spot market.
- 2.2 This submission is from the Consumer Advocacy Council, the independent advocate for residential and small business electricity consumers (consumers) in Aotearoa New Zealand.
- 2.3 While the issues and options paper comprehensively considers the issue of intermittent generation forecasting, the Council notes that it neglects the broader context and the underlying issues that need to be addressed to manage the transition to 100 percent renewable generation while protecting the needs and rights of consumers.

2.4 The Council has chosen not to respond in the format of questions provided in the consultation paper. The format of questions is not the appropriate mechanism to provide our feedback advocating for change in the electricity sector, and to help make the sector fairer for consumers. We have chosen instead to provide individual comments below.

### **3. Small consumers' vulnerability to high electricity prices**

- 3.1. Electricity is an essential service. It is needed to support health and wellbeing. Most New Zealanders need electricity to heat, cool and light their homes and small businesses rely on electricity to operate.
- 3.2. Many consumers have limited ability to change their electricity demand in response to price rises. It is therefore crucial that market settings ensure consumers can access electricity at fair prices and that prices are not returning excessive profits to generators.
- 3.3. We submit that current settings are not delivering optimal outcomes for consumers.
- 3.4. The issues and options paper identifies that inaccurate forecasting affects participants' ability to make generation decisions. The paper does not emphasise that inaccurate intermittent generation forecasting leads to higher prices for consumers. We believe this to be an unsatisfactory problem definition.

### **4. The Council supports a centralised forecasting arrangement with accuracy standards and associated penalties to improve the accuracy of intermittent generation forecasts**

- 4.1. The Council believes a centralised approach is potentially an improvement on the status quo for forecasting accuracy and minimising subsequent impacts on other market participants and the electricity system. It also removes a barrier for intermittent generators who do not have the capability or systems to perform accurate forecasting.
- 4.2. Given the intermittent nature of wind and solar energy, we believe that more frequent forecasting is useful for participants whose generation or consumption decisions are based on these forecasts. The Council believes a P50 forecast should be +/- 10 percent from actual generation at real time, and at T-3 hours this should be narrowed to +/- 1MW.
- 4.3. Accuracy standards should be supported by penalties to incentivise intermittent generators to protect against large shortfalls in generation close to dispatch.
- 4.4. However, these options are only supplementary, and we do not consider that they will be sufficient to effect real change in the market given the expected increase of intermittent generation in the next 30 years.

#### **Recommendation:**

The Council recommends the Authority:

- a. Adopts a centralised arrangement where a service provider is responsible for forecasting the likely intermittent generation quantities available.
- b. Introduce accuracy standards requiring intermittent generators to submit a revised offer to the system operator if the total MW specified in an offer exceeds or falls short of the total MW that the centralised arrangement has forecast for a generator where the generator may not meet the forecast. At T-12 hours, a P50 forecast should be +/- 10% from actual generation at real time, and at T-3 hours this should be narrowed to +/- 1MW.
- c. Introduce penalties for non-compliance with the prescribed standards.

**5. The Council suggests the Authority consult on the structure of the market**

- 5.1 The Council acknowledges the Authority's effort to address the discreet issues related to intermittent generation. However, there are underlying issues that need to be addressed for the market as a whole that could be significant by 2030.
- 5.2 The Council encourages the Authority to re-evaluate the structure and suitability of the system and make the necessary changes to address problems with the transition to 100 percent renewable generation. Consumers need to be at the heart of this planning.

**Recommendation:**

The Council recommends that the Authority undertake a consultation on the structure and suitability of the system that integrates the issues that the Authority has treated as discreet in previous consultations.

**6. Conclusion**

- 6.1 We wish to thank the Electricity Authority for the opportunity to submit on the Review of forecasting provisions for intermittent generators.
- 6.2 If you have any further queries regarding the submission do not hesitate to contact Tammy Peyper – Consumer Advocacy Council Manager, on either [info@CAC.org.nz](mailto:info@CAC.org.nz) or 021 829 931.

Yours sincerely,



**Deborah Hart**

Chair

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