

## MINUTES OF IPAG MEETING

Meeting numbers: 37

Held on 23 June 2022 at 9.00

Zoom + In Person

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<b>Members in attendance:</b>	John Hancock (Chair), Allan Miller, Victoria Parker Tim Rudkin, Corrie Stobie, Scott Willis, Buddhika Rajapakse, Andrew Sibley, Glenn Coates, Neil Williams, Terry Paddy
<b>Other attendees</b>	Calum Gunn (Commerce Commission), Tony Baldwin, Stephen Batstone (Whiteboard Energy), Joey Au (Electricity Authority), Andy Doube (Electricity Authority), Brent Lewers (Electricity Authority), Geoff Parr (Electricity Authority), Alistair Dixon (Electricity Authority) Monique Dodunski (Electricity Authority), Andrew Matheou (Electricity Authority)
<b>Apologies:</b>	John Rampton (Commerce Commission), Margaret Cooney (Octopus Energy Group), Scott Willis (10.35am-1.20pm)

The Chair welcomed the members to the meeting.

### 1. IPAG and the next 6 months – Andy Doube

- 1.1 Andy outlined the large body of work that the Authority has underway at the moment, for example: the *Wholesale Market review*; *Real-time Pricing*; *Future Security and Resilience*; *Commercial Market Making*; and *Updating the Regulatory Settings for Distribution Networks*. Much of this work has been influenced by the IPAG's advice.
- 1.2 Andy explained that the Authority is focusing its efforts on delivering this work and is carefully prioritising its resources to ensure this work is completed in a timely manner and to a suitably high standard. And that after much consideration, the Authority has decided to pause IPAG for the next 6 months to enable Authority staff to specifically focus on delivering the work currently underway.
- 1.3 Andy thanked the IPAG for their work and advice to the Authority over the past several years and noted that this has had a positively contributed to the long-term benefits for consumers. IPAG members raised concerns over lack of funding for the Electricity Authority to support the IPAG and implement IPAG recommendations.

- 1.4 IPAG discussed the implications of being paused.
- 1.5 Chair summarises Andy's words regarding IPAG's future for late arrivals.

## **2. FSR Work Programme Update – Alistair Dixon and Joey Au**

- 2.1 Introduction of the Future, Security and Resilience roadmap and programme overview.
- 2.2 High-priority items involve more technical requirements regarding inverter-based generation and reviews of the Code.
- 2.3 Summary of submissions on the Phase 2 draft roadmap outline future work with the System Operator. The roadmap is slated to be released in two months.
- 2.4 Part 8 Code review is underway to accommodate new technologies. Currently, Part 8 is not fit to cover batteries and solar and as it is written around technology it becomes out of date very quickly.
- 2.5 There was discussion around defining “flexibility” in legislation to help develop markets for value-stacking.
- 2.6 There was discussion about how dispatchable demand could better support reliability such as, in particular during, Grid Emergencies. It was noted that governor action is still used to provide a form of reserve without being paid. If all forms of reliability and security were priced, it is likely that alternative, potentially more efficient solutions would emerge, including ones that use flexible DER.
- 2.7 An IPAG member mentioned a report by the GREEN Grid project recommending changes to ancillary services under high penetration of renewable energy. This deals with valuing important frequency keeping ancillary services such as droop response and inertia.

**Action Item** Chair to send IPAG explainer on the wholesale market and ripple control to FSR project team.

## **3. FlexForum Update – Buddhika Rajapakse**

- 3.1 The FlexForum is made up of small and large EDBs from across the country, and organisations such as Ara Ake, Kainga Ora, Transpower and retailers to be as representative as possible.
- 3.2 Intention was to keep FlexForum small enough to manage, but big enough to cover stakeholder views.
- 3.3 Goal is to facilitate widespread DER integration to maximise benefits for consumers by identifying technical requirements and steps needed while supporting ongoing learning and collaboration across the sector to realise DER benefits. FlexForum wants the integration of flexibility services into the market to be as accessible as possible for consumers.
- 3.4 The FlexForum group has identified situations where flexibility could be well-utilised, for example:
  - (a) Price optimisation

- (b) Corrective congestion management
  - (c) Predictive congestion management
  - (d) Generation adequacy
  - (e) System/network/ancillary services balancing
- 3.5 FlexForum has also identified the technical requirements to facilitate DER, for example:
- (a) Planning information for detecting events, location, procurement/deployment timeframe and form of response.
  - (b) Operational information for type of response, activation/deactivation speed, duration of response
- 3.6 The FlexForum intends to provide a roadmap for interested participants; the market itself needs to be modelled before indicating a price range for said services.
- 3.7 UK market modelling has been studied for developing the NZ market in influencing the value of flexibility.
- 3.8 The following questions were raised as key points of interest in facilitating ease of access to flexibility services for consumers:
- (a) Would flexibility have a faster uptake across the distribution market or the wholesale market?
  - (b) Do you develop a market that facilitates flexibility to be introduced or do you treat flexibility as a distinct market?
- 3.9 Value package for the consumer must provide consumer autonomy along with benefits to justify distributor control over DER services such as EV chargers, ripple receivers, etc.
- 3.10 A Flexibility Management System (FMS) is proposed to manage flexibility traders.
- 3.11 Distributed Energy Resource Management Systems (DERMS) are required to provide a platform to manage DER use and output.

#### **4. MDAG 100% Renewable Project Discussion – Steve Batstone**

- 4.1 MDAG's investigation into wholesale market design changes necessary to support a reliable 100% renewable electricity system continues.
- 4.2 As demand-side flexibility has increased in the wholesale market, so too has its volatility due to the difficulty in managing these networks. This volatility is projected to increase as we shift to 100% renewables.
- 4.3 NZ currently has an electricity generation system with a capacity of 9GW, expected to rise to 15GW by 2035, with 3GW of wind and 3GW of solar (split across rooftop and network-connected solar farms). Very much going to be a weather-driven system.
- 4.4 It will be beyond the capability of New Zealand's hydro system to manage the impact of weather-related events.

- 4.5 Modelling assumed the existing capabilities of batteries, particularly in storing wind and solar.
- 4.6 Batteries and peakers were selected by the model on an economics basis, evaluating whether it was commercially viable to implement or not.
- 4.7 The shortage of demand-side flexibility available to the market will have a substantial impact on volatility on a weekly and monthly level by 2035.
- 4.8 Short-term visibility of flexibility assets is necessary for facilitating demand-side flexibility, and overseas examples can help provide context for a New Zealand framework.
- 4.9 Modelling is currently underway for five case studies being used to highlight the size of the wholesale flexibility market in a 100% renewable energy 'energy only market' (EOM) in 2035.

## **5. Commerce Commission Overview of Part 4, continuation from last meeting – Calum Gunn**

- 5.1 Commerce Commission staff returned to present 'Part 4 on a page', as a continuation of the Commission's session at IPAG's 5 May meeting.
- 5.2 Part of the Commerce Act applies to electricity lines, gas pipelines and the three main international airports. In the electricity sector, Part 4 regulates electricity lines services, namely the conveyance of electricity by line. The Commission regulates those services through information disclosure regulation (which applies to all 29 electricity distribution businesses (EDBs) and to Transpower), as well as through default/customised price-quality regulation (applying to 16 of the EDBs), and individual price-quality regulation (applying to Transpower).
- 5.3 The Commission also sets 'input methodologies' (IMs), which are the upfront methodologies, rules, processes and requirements that underpin key aspects of both information disclosure regulation and price-quality regulation. The purpose of input methodologies is to promote regulatory certainty.
- 5.4 Input methodologies were introduced over concern that the Commerce Commission had too much discretion in setting allowable revenues for regulated businesses. They are an upfront and embedded set of rules that are intentionally difficult to overturn, in order to give regulated businesses certainty for a reasonable length of time. Their purpose is to promote regulatory integrity and efficiency.
- 5.5 The 'building block' IMs, which relate to asset valuation, cost of capital, tax and cost allocation, are applied in determining financial performance measures, and in determining revenue limits for suppliers subject to price-quality regulation. Among other things, the IMs also set out the circumstances when revenue limits and quality standards may be reconsidered during a regulatory period, such as when a change to legislation results in a material increase to regulated suppliers' costs. The Commission is currently undertaking a review of its IMs which is due to be completed by the end of 2023.
- 5.6 The Commission is currently undertaking a review of its IMs which is due to be completed by the end of 2023. One issue the Commission will be able to consider as part of its review is any bias towards capital expenditure over operating expenditure.

## 6. Administration

- (a) Apologies
- (b) Interests register
- (c) Minutes of previous meeting #36

**Action Item** Chair requested for a re-evaluation of the minutes for IPAG #36.

- (d) Matters Arising
- (e) Correspondence
- (f) Action list
- (g) Publication of meeting papers

There being no further business the meeting closed at 2.23pm.

### Action Point Summary

#### Action Item

**Action Item** Chair to send IPAG explainer on the wholesale market and ripple control to FSR project team.

**Action Item** Chair requested for a review of the minutes for IPAG #36.