INNOVATION AND PARTICIPATION ADVISORY GROUP

MINUTES

Meeting number: IPAG #31

Venue: Virtual

Time and date: 9:00, Tuesday, 28 September 2021

Members in attendance

- John Hancock (Chair)
- Glenn Coates
- Allan Miller
- Terry Paddy
- Tim Rudkin
- Corrie Stobie
- Scott Willis
- Roxanne Salton

Other attendees

- Charlie Sheppard (Electricity Authority)
- John Rampton (Observer – Commerce Commission)
- James Tipping (Electricity Authority)
- Alistair Dixon (Electricity Authority)
- Chris Otton (Electricity Authority)
- Joey Au (Electricity Authority)
- Louise Stumbles (Electricity Authority)
- Moshika Chandra (Electricity Authority)
- Nathan Spence (Electricity Authority)
- Stephen Jay (Transpower)
- Murray Henderson (Transpower)
- Richard Hobbs (Transpower)
- Nicolas Vessiot (Transpower)
- Simon Murrow (Transpower)
- Andrew Kerr (MDAG, Powerco)
- Tony Oosten (MDAG, Fonterra)
- Stu Innes (MDAG, emhTrade)
- Stephen Batstone (Consultant).

The meeting opened at 9.00 am

1. Welcome

- John welcomes group and outlines agenda.

2. Transition of Ripple Control into flexibility markets

- People have asked why Transpower's DR programme did not contribute when there was a supply shortage on 9 August.
- Although it reveals confusion about the purpose of and limits to the Transpower DR programme, it provides a good opportunity to look at how ripple control was used and look at more broadly how flexibility services could participate in the reserves market.
- Ripple control is usually operated by distributors. However, Trustpower controls some ripple control and uses it to manage spot market price. In this case, Trustpower is behaving like the flexibility traders described in IPAG's review of the DR Programme.
    - Action: Authority to find out how Trustpower operates its ripple control relays where customers have different retailers.
    - Action: Find out if the DDA has any provisions relating to controllable load (like ripple control).
- Ripple control is underutilised because it does not have two-way communication and may not be allocated to its highest value use.
- Generally ripple control is not offered into the reserve market or dispatched against the spot price. In Grid Emergencies, EDBs will dispatch ripple before shedding load when instructed to by the System Operator, without responding to a price.
- Under the Code, restrictions on the size and location of offered generation in the Reserves market are a barrier to DER fully participating. IPAG have previously recommended a code change.
- Any changes to the management of ripple control would need to include a transition period to ensure that distribution networks who rely on them to manage peaks can continue to do so without needing to augment network capacity unnecessarily.
- If EDBs did not have ripple control, they would only procure flexibility in constrained places. Consumers may not get long term signals. For example, someone in a non-constrained area could change from a hot water tank to instant hot water and then the flexibility from the water tank will not be available in the medium to long term if the network became constrained.
- Cost reflective pricing and half hourly metering will be important. In the future retailers will be more alert to spikes in spot market.
- There also needs to be public by in, collaboration, and diplomacy. Prosumers want to be involved, and not subject to big players.

- Some EDBs currently use ripple control to respond to the RCPD peak price in the Transmission Pricing Methodology. This peak component does not exist in the new methodology which removes one use for EDBs investing in ripple control.

Action

- IPAG to consider a mini project looking into how ripple control should transition.
- Terry to send link to EECA ripple control study.

3. Ensuring the reliability of flexibility services - DSOs, Flexibility Traders and the System Operator (Richard Hobbs, Stephen Jay, Murray Henderson, Simon Murrow, Nicolas Vessiot)

- Transpower presented slides on:
  - How Principal Performance Obligations are implemented under the Code
  - Products and services the SO schedules
    a) Energy – generation and dispatchable demand.
    b) Ancillary Services – frequency keeping, institution reserves, over frequency reserves, black start, voltage support.
  - Products and services delivery assurances. Through SCADA, the SO can see what generators are doing in real time. The compliance process starts with a phone call if generators are not doing what they have offered, escalating to a compliance process with the Authority.
  - Dispatched products are subject to the Authority's compliance regime, not just contract with SO. There is no dispatchable demand being fed in currently. Dispatchable demand is not a paid product. Under RTP this is moving to real time and co-optimised with interruptible load. The Authority and SO will be covering this in a future RTP briefing in the next few months. Interruptible load is the only paid service.
  - Compliance and assurance requirements for Instantaneous Reserve market participation.
  - Comparison of the real time 'safety nets' available to the SO under the Code.
- Discussion on whether the regime could be modified for flexibility markets:
  - There could be a test to ensure that participants can do what they say they will do and post event reviews.
  - Having flexibility traders with large, diverse portfolios will help ensure obligations can be met.
  - The appropriate level of assurance needed will be proportionate to the consequences of non-delivery.
  - The Upper Clutha project is based on availability. Battery storage lends itself to real time visibility as you can see how charged they are at any point. EVs would be more difficult.

- Availability payments may be needed initially to ensure the resources are available when needed. In future, there may be enough supply to ensure demand will be met.

4. Demand Side Engagement (James Tipping, Alistair Dixon, Chris Otton, Andrew Kerr, Tony Oosten, Stu Innes, Stephen Batstone)

- The wholesale market is the most advanced and established 'flexibility market' in electricity.
- Does today's wholesale market meet IPAG's vision of healthy flexibility markets? Considerations included:
  - Might need to start with targeted procurement to get DER up and running. Including an availability market to encourage more penetration. Availability payments may not be needed in future as the market develops.
  - Opportunities for DER are more time and location specific.
  - Wholesale market doesn't consider distribution pricing or congestion.
  - Flexibility services may require different contractual arrangements for different products.
  - The command and control compliance regime for the wholesale market may not necessarily be the most efficient and effective for markets on distribution networks.
  - DER is more likely to respond to smaller duration peak price as they generally can't run for as long as diesel or hydro.

Action:

- Chris Otton is presenting on real time pricing and dispatch instructions for DER in 8 weeks. Action to send recording of presentation to group.

Update on "Updating the Regulatory Settings for Distribution Networks" Consultation Meetings (Joey Au, Charlie Sheppard, Louise Stumbles, Moshika Chandra, Nathan Spence)

- Authority staff went through some of the feedback received from stakeholders in engagements on the discussion paper. Some of the feedback included:
  - Better access to data is needed through a more efficient process.
  - EV charging is considered to be one of the most pressing challenges.
  - Flexibility markets are in their infancy and need time and trials to develop.
  - Operating agreements were not seen as being needed urgently.
- Once the official submissions have been reviewed, Authority staff will summarise submissions and draw out key themes. This will be presented to IPAG in October.

5. Administration

Interests register

- The group noted the Interests register.

Minutes of previous meeting

- The minutes of the previous meeting (IPAG #30) were approved.

Matters Arising

- John, Tim, and Terry to attend 5 October Board meeting to present on Input Services.
- The pricing scorecards have been published along with a practice note.
- This is Roxanne's last meeting. Chair thanked her for her commitment and insights during her time on the group.
- Update from Terry on most recent open energy workshop.

Action Points:

- Decide whether to submit on the distribution pricing practice note. Submissions close at 5:00pm Wednesday, 3 November 2021. The submission could be added to the agenda for the IPAG meeting 20 October.

6. International review of DSO models part 2 and Grid Support Contract mechanics (Richard Hobbs, Simon Murrow, Nicolas Vessiot)

- Assurance requirements could be different for different value streams. If a flexibility trader wanted to participate in national reserve markets, then they would need the highest level of assurance.
- Richard presented the model of flexibility markets in the United Kingdom (UK). The model includes a digital platform with bids and offers for flexibility. The regulator has not enforced rules on platforms.
- The Totex model in the UK means that distributors may have different incentives to New Zealand. In New Zealand, distributors may find it easier to justify $1 capex than $1 of opex under the current regime which would be a deterrent to investing in flexibility.
- Transpower has a standard Grid Support Contract. The contract form is used where it is useful.
- Transpower's Grid Support Contract design guidelines support an end-to-end decision-making process.
- EDBs could learn from Transpower's process for non-transmission solutions for network investment deferral.
- Transpower's guidelines might focus more on the business case rather than procurement, and the business case might be quite different for EDBs because of scale.
- However, there are some procurement guidelines that might be useful, including the three types of Grid Support Contracts – risk management, transmission deferral, and voltage support.

The meeting ended at 3pm