

EDB DPP3 Stakeholder Workshop

Innovation and Dealing with Uncertainty

8 March 2019



Housekeeping

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Toilets

Access via stairwells either side of the lifts – swipe card will be required to gain entry back to the floor

Fire

Emergency exits via stairwells either side of the lifts – please follow instructions from Commission staff. Assembly area outside St Andrew's church on the Terrace

Earthquake

Drop, cover, and hold. Please do not exit the building until the all-clear is given as there may be danger of falling glass



Agenda for today

- Purpose of the workshop (5 mins)
- Recap of our EDB DPP3 consultation process (5 mins)
- Innovation in DPP3 (1 hour 20 mins)
- Break (10 mins)
- Dealing with uncertainty during DPP3 (1 hour 10 mins)
- AOB including general questions (5 mins)
- Next steps and close (5 mins)



Purpose of Workshop



Purpose of this workshop

- The purpose of this workshop is to enable the Commission to better understand the submissions we received in response to our Issues Paper that we published in November 2018.
- Our focus for this workshop will be on submitters' views around innovation and dealing with uncertainty during DPP3.
- We will use the discussions at this workshop to better inform our ongoing decision making. Any views expressed by staff will be for the purposes of stimulating discussion and are not intended to reflect the views of the Commission.

The Commission's position will be provided in the draft decision

Our consultation process

| Milestone | Indicative date |
|--|---|
| Process Paper released | 7 September 2018 |
| Issues Paper released <ul style="list-style-type: none">- Submissions period closed- Cross submissions period closed | 15 November 2018 <ul style="list-style-type: none">- 20 December 2018- 31 January 2019 |
| DPP issues specific workshops | February – March 2019 |
| Asset Management Plan updates | 31 March 2019 |
| Draft Decision to be published <ul style="list-style-type: none">- Submissions period (8 weeks) closes- Cross submissions period (4 weeks) closes | May 2019 <ul style="list-style-type: none">- June/July 2019- July/August 2019 |
| Information request on quality of service | August 2019 |
| Updated Draft Decision to be published | September 2019 |
| Final Decision to be published | 28 November 2019 |
| DPP3 commences | 1 April 2020 |

We are currently evaluating submissions to our Issues Paper

Purpose of Part 4

Section 52A Purpose of Part 4

To promote the **long-term benefit of consumers** [of regulated services] by promoting outcomes that are consistent with outcomes produced in [workably] competitive markets such that suppliers:

- have incentives to **innovate** and **invest**
- have incentives to improve **efficiency** and provide services at a **quality** that reflects consumer demands
- **share efficiency gains** with consumers, including through lower prices
- are limited in their ability to extract **excessive profits**



Innovation in DPP3



Distinction between innovation and new technology

We consider that innovation can be separated into two broad categories:

- Innovative ways of managing the network that drive improvements and efficiencies and generally allow EDBs to do things more effectively; and
- Responding to and facilitating a changing environment that accommodates the transition to smarter grids and access for distributed energy resources

While submissions to our Issues Paper from EDBs made it clear more funding should be provided for innovation in DPP3, there was less on efficiencies or improvement in services for the long term benefit of consumers.

The work of IPAG

- We are aware of the work of the IPAG and attend these meetings as an observer.
- We note the Electricity Authority will be leading an open networks development programme.

An ongoing question for the Commission is what aspects of the IPAG's identified equal access related problems should be considered as part of the DPP3 reset, and what falls outside of the DPP framework?

Our early interpretation of IPAG equal access interrelated problems

1. Key network information is not collected and/or made available to DER providers 
2. Providers and procurers of DER can't see DER "market" information 
3. Technical specifications are not consistent or in some cases adhered to 
4. Transaction costs for facilitating DER trade are high 
5. Distribution pricing does not signal the cost of DER to network operation (congestion and voltage excursions for example) or its value to distributors 
6. Distributors are not confident that DER can assist with service quality or is viable as a network alternative 



Likely role for Commission



Possible role for Commission



Unlikely role for Commission

Our early interpretation of IPAG equal access interrelated problems

7. Part 4 Incentives appear to be poorly understood 
8. Distributors' DER investments are treated as regulated capital but the planning and operating services provided are contestable 
9. Distributors may misallocate costs and revenues 
10. Distributors may favour in-house or related party solutions 
11. Distributors may favour network solutions 
12. Distributors may restrict technologies or network users 
13. Security and reliability at risk if DER use by transmission and distribution in conflict 



Likely role for Commission



Possible role for Commission



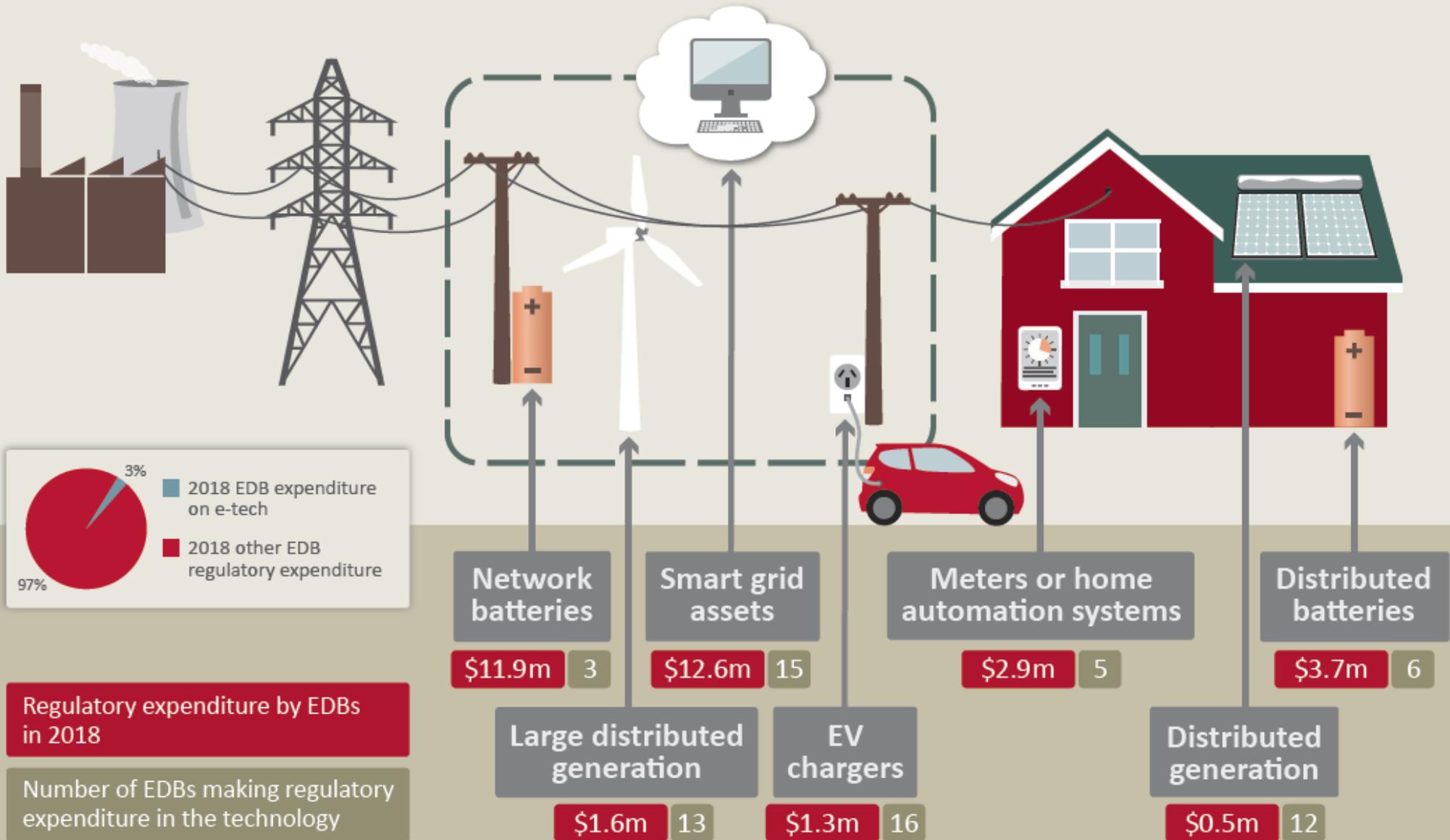
Unlikely role for Commission

We have requested information from EDBs on innovation activities

- The Commission has gathered information about EDBs investment in emerging technologies and published this on our website (October 2018).
- Clear indication that some EDBs are unsure about how to treat innovation investments under the current framework.
- We believe there is inconsistency in the way EDBs report innovation activity and some inappropriate recovery of cost through existing regulated services.

We intend to continue to better understand the reasoning for the approaches taken by EDBs

Snapshot of EDBs' spend on e-tech



Information obtained from electricity distribution businesses' emerging technology data, available at www.comcom.govt.nz

Incentivising innovation in a DPP framework

- The current DPP framework does provide some existing incentives for investment by EDBs. Capex IRIS provides financial benefits for innovative solutions, currently at 15% but potentially could be higher.
- EDBs currently have other options for seeking innovation funding, such as via EECA and Callaghan Innovation.
- Does the DPP create barriers to obtaining this kind of funding (it shouldn't!)?

Are EDBs able to ring-fence costs and benefits of innovation activities between their regulated and unregulated activities?

Some other questions we have

- How can EDBs best demonstrate the efficiencies that innovation will deliver for consumers in DPP3, both in terms of innovative practices and the uptake of emerging technology (i.e. BAU versus new technology and where controllable load has been identified as around 14%)?
- Are EDBs currently recording these efficiencies and, if so, what results are they indicating? For example, are EDBs able to differentiate between benefits to the network service (and its consumers), and benefits more broadly (such as benefits in the generation and retail markets)?

Some other questions we have (cont.)



- What role should the DPP3 reset play in facilitating innovation? How should this interact with other regimes and in what way (such as with the work of the Electricity Authority and the Electricity Pricing Review)?
- How can DPP3 better facilitate the sharing of innovative practice amongst all industry participants for the long term benefit of consumers (i.e. sharing of asset management systems and learnings from best practice)?
- Should EDBs share innovative practices with other EDBs, and on what basis? How can DPP3 better achieve this and be consistent with s 52A of the Act?

Some other questions we have (cont.)



- What replaces ripple load control and how should this investment be allowed to flow into the regulatory asset base while maintaining a level playing field amongst all potential providers?
- Should EDBs recover the full costs of innovation investment if there's potential for non-regulated income to be generated? What should change and why?
- What aspects of the current DPP are preventing EDBs from innovating more now and why?

Options for Dealing with Uncertainty in DPP3



We are aware the industry faces a number of uncertainties



- We appreciate EDBs and the wider industry faces many challenges about how best to manage future energy demands across networks. We need to be clear about the best overall approach for dealing with uncertainty in DPP3.
- We also acknowledge there is a need for joined-up thinking between various regulatory bodies such as the Electricity Authority, EECA, MBIE and ourselves. This was evidenced in the preliminary findings of the EPR expert panel.

Considering options for addressing uncertainty in DPP3

- Some examples of where we may want to consider addressing uncertainty include uptake of DER, EPR final recommendations and IPAG work programme.
- We think EDBs need to provide better information in support of any uncertainties and how they should be addressed. We consider it vital that EDBs can clearly justify how remedies proposed would benefit consumers in the longer term.

We are actively considering how to address uncertainty in the DPP3 reset. This could include mechanisms such as wider use of reopeners, volume drivers and/or one-off projects.

So how can uncertainty mechanisms address the needs of consumers?

Some Questions we have:

- What uncertainties do EDBs face in DPP3 period (such as demand growth and DERs)?
- Are attendees in favour of uncertainty mechanisms within the DPP3 reset period and, if so, what types of qualitative/volumetric mechanisms should be considered (and to address what specific issues)?
- What behaviours will uncertainty mechanisms incentivise?

Some potential benefits we see of uncertainty mechanisms

Potential Benefits

- Consumers will not pay for something that may not be required
- Acknowledges that not all activities can be forecasted by EDBs and provides options to address this at a later date
- May help to address issue of accurately forecasting in fifth year of DPP period
- Fairer balance between charging current and future consumers (i.e. consumers now don't get exposed to investment that they may not receive benefit from in future)

Some potential concerns we see of uncertainty mechanisms

Potential Concerns

- May lead to increased volatility or unpredictability of network charges
- Increase in complexity and cost of regime (would this still make the DPP relatively low cost?)
- May undermine incentives for efficiencies (i.e. an EDB will seek to maximise revenue rather than propose the most efficient method of delivery)
- Resource requirement to assess and implement any reopener and assess compliance
- Places more risk onto consumers rather than EDBs
- Any other unintended consequences?

Some potential options for addressing uncertainty during DPP3

| | Advantages | Potential Concern | Potential for inclusion in DPP3 |
|--|---|--|---|
| Pass through costs (i.e. where costs are outside the control of EDBs) | <ul style="list-style-type: none"> Provides certainty for costs that are outside the control of the EDB. | <ul style="list-style-type: none"> N/A. | Already in place. EDBs have raised FENZ levies that could be considered. |
| Mechanistic volume drivers (i.e. a revenue adjustment that allows for increased outputs of expected (but unquantifiable) high volume outputs) | <ul style="list-style-type: none"> Allows revenues for known eventualities. Reflects customer driven demand. Reflective of actual uncertainty faced by each EDB. | <ul style="list-style-type: none"> Actual costs to consumers unknown at start of reset. May incentivise increased activity in areas that consumers don't want. | Potential for some categories of expenditure such as new connections/load demand. |

Some potential options for addressing uncertainty in DPP3 (cont.)

| | Advantages | Potential Concern | Potential for inclusion in DPP3 |
|---|---|--|--|
| Ad-hoc reopener requests (i.e. to target one-off unexpected/non-forecastable events) | <ul style="list-style-type: none"> Challenges EDBs to submit good quality applications. Certainty for EDBs on exposure to levels of risk where unanticipated step changes occur in period. May defer need for CPP. | <ul style="list-style-type: none"> Could become very time consuming to manage. Could result in significant pricing impacts for consumers not known at outset of DPP. | Could be considered in limited circumstances where justified but would likely require IM change(s). Note that some reopeners already exist. |
| Provide specific innovation funding (i.e. an opex allowance to allow speculative investment) | <ul style="list-style-type: none"> Provides certainty EDBs are seeking. Allows EDBs to experiment with initiatives. Recognises changing technology landscape. | <ul style="list-style-type: none"> How will efficiencies and improvements be demonstrated? Criticism of protecting EDBs against competition. May not address whole of system solutions. | Would likely require legislative changes outside of DPP framework. Complex funding and administrative structure would need to be created with improved accountability by EDBs. |

Some potential options for DPP3 (cont.)

| | Advantages | Potential Concern | Potential for inclusion in DPP3 |
|--|--|--|--|
| 4 year rather than 5 year regulatory period | <ul style="list-style-type: none"> • Allows quicker response to unforeseen events. • May better address innovation challenges and shortens forecasting period. • More difficult to accurately forecast in fifth year. | <ul style="list-style-type: none"> • No support from submissions. • May create financing issues for EDBs. • May entail extra work for EDBs and additional resourcing constraints. | Part 4 allows the regulatory reset period to be 4 years (instead of the standard 5 years) if this better meets the Part 4 purpose. |
| High value projects (i.e. one-off projects over a certain threshold to be agreed) | <ul style="list-style-type: none"> • Alternative to CPP in addressing single projects. • Would allow scrutiny and market testing of options. | <ul style="list-style-type: none"> • Only takes an individual project approach. • May not cater for numerous high value projects. | Framework already allows for this via a CPP application. Could be option for smaller EDBs where CPP is not viable. |

Any Other Business

Any additional points on innovation and uncertainty you would like to raise?

