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## Submission on EDB DPP4 innovation workshop

19 March 2024

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## 2 Submission and contact details

Consultation	Submission on EDB DPP4 innovation workshop
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## 3 Confidential information

There is no confidential information provided in this submission. This submission can be publicly disclosed.

## 4 Introduction

Wellington Electricity Lines Limited (**WELL**) welcomes the opportunity to make a submission in response to the Commerce Commission’s (**Commission**) Default Price-Quality Path (DPP) Innovation workshop held on 4 March 2024. This submission will refer to the Capex Workshop slide deck as the ‘**Workshop Paper**’. This submission will also refer to the **Commission’s** ‘*Default price-quality paths for electricity distribution businesses from 1 April 2025, Issues paper*’ as ‘**The Issues Paper**’.

As we highlighted in our submission to The Issues Paper<sup>1</sup>, demand side management and flexibility services will play an essential role in delivering the Emissions Reduction Plan. An effective innovation scheme is needed to support this development as EDBs test, trial and roll out the tools and capability to incorporate flexibility into their demand response tools. Customers will be the ultimate beneficiary of the new capability and an effective innovation process will help ensure those new practices are

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<sup>1</sup> Section 12 of our submission.

efficient. This was demonstrated in the solar flexibility trials in South Australia. The purpose of the trial was to manage solar use so that it remained within the network's security limits. While the trial was initially about keeping the solar load below the point at which the networks would become constrained, the trial also found that the networks was able to offer double the export capacity during off peak periods. The trial evolved into developing a solar model which maximises a customer's return for solar exports.

## 5 Answers to workshop questions

### Question 1

**Conditions:** eg, Conditions EDBs must meet to fulfil INTSA scheme requirements, eg, project closure reports - sharing the learning from projects and the expected benefits for consumers

#### 5.1 A framework for coordinating projects and sharing results

The INTSA scheme should be supported by an overall framework for coordinating projects across EDBs and for sharing results. EDBs should present the results to stakeholders, providing the opportunity to ask questions and understand the results. All projects should provide<sup>2</sup>:

- **Project brief:** providing an overview of the project and project benefits before the start of projects. This should then be used to seed a project log to assist in the coordination and management innovation projects. This would be important to:
  - Monitor whether the consolidated programmes are capturing all essential new tools/capabilities that EDBs will need going forward and that the new capabilities will be in place when they are needed (e.g. the Bosten Consulting, 'Future is Electric' delivery programme requires a 3x increase in demand side management by 2030).
  - Check whether the innovation aligns with any relevant industry delivery plans. For example, the FlexForum has its Flexibility Plan 1.0 which outlines the key actions needed to develop flexibility services. Any flexibility-related projects should fit within this wider plan to ensure the innovation is necessary.
  - Ensure the innovation is efficient and projects aren't duplicated.

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<sup>2</sup> The exception to this could be applications for flexibility payments which are more like the provision of traditional allowances, as opposed to an innovation project (as discussed in our answer to question 2).

- Ensure the results are quickly shared so that other stakeholders and EDBs can build on those learnings. Transparency of innovation projects will be important so that EDBs can build their own development programmes around when they expect the results from other networks. We think the ENA could play an important co-ordination role.
- **A closing report:** providing details of the findings and a network contact if a network could benefit from further details. For multi-year projects, the projects should provide annual updates. Its important that results are quickly shared with stakeholders so that all EDB development programmes and innovation projects can incorporate the results.
- **A closing presentation:** summarising the results and providing an opportunity for other EDBs and stakeholders to ask questions.

## 5.2 Co-ordination and project pooling

Our experience with our joint Resi-flex project with Orion is an example of how joint projects can access wider resources (including pooling allowances) and can provide the project with a greater scale than what's available to a single network. The INTSA scheme should be structured so that an EDB provides part of their available INTSA allowance for pooled, industry co-ordinated programmes.

A network would need to also retain part of their allowances for network-specific programmes like flexibility payments to purchase flexibility services for specific constraints.

To support this, a coordinating resource is needed. They would:

- Maintain a log of project briefs that could be used to pool EDBs who are proposing similar projects.
- Manage the funding pool.
- Co-ordinate the sharing of project results
- Highlight development areas from the various industry Roadmaps and actions plans (including the ENA's Network Transformation Plan, The FlexForum's Flexibility Plan 1.0 and WELL's EV Connect Roadmap). The EV Connect Roadmap provided a clear coordination of activities both stakeholders and EDB's need to deliver to advance managed EV charging flexibility services.

The co-ordination resource could be provided by the ENA and the industries representative.

### 5.3 Conditions that scale

We support the INTSA framework presented in the workshop and the ability to scale the conditions an EDB must meet. i.e. more stringent conditions for more expensive or risky innovation projects.

Project eligibility assessments for small to medium projects should not need Director certification. Director Certification will slow the application process down. Directors give a delegated authority to executive officers. This could be relied on for lower-value projects.

#### Question 2

**Project type definition:** eg, Would it be better for the project type definition to be specific for certainty or general to allow greater accessibility?

We like the 'research, test and build' categories, and think they would fit the process of developing most new capabilities.

As highlighted in our submission to the '**The Issues Paper**', we think there needs to be a separate streamlined application process for flexibility payments. We think this is needed because the IRIS mechanism doesn't allow capex/opex substitution across regulatory periods and the opex step change mechanism is not suited to providing uncertain flexibility payment budgets. We have provided the reasons we think a separate mechanism is needed in our Issues Paper Response.

We would prefer a 'use it or lose it' allowance for flexibility but note the Commission has signalled the INTSA will be used for funding flexibility payments during DPP4.

#### Question 3

**Share of recoverable expenditure:** eg, What share of potential project costs should be recoverable under an INTSA scheme?

We think the allocations provided in the framework are appropriate.

The share of recoverable expenditure for our proposed separate flexibility payment INTSA category could include an offsetting calculation of the value provided by the IRIS within a regulatory period. However, we think it will take time to develop flexibility services at the scale needed to provide a viable substitute for traditional wire solutions and any amount offset from a network's recoverable expenditure is unlikely to be realised by deferred capex during DPP4.

If the mechanism was retained for payments for flexibility services once they are established, then we think it would be important to capture the IRIS rewards. However, we hope by this time the IRIS has been corrected (or another alternative method used) and the INTSA will not need to be used for flexibility payments.

#### Question 4

**Supporting evidence:** eg, What type of supporting evidence should be required to ensure an INTSA is workable for EDBs, but protects consumers?

In addition to our answer to question 1, we support using expert advice as part of the application process for higher value projects. Our experience with the current scheme shows that expert advice doesn't have to be comprehensive or expensive.

#### Question 5

**Types of projects:** eg, How would EDBs want to use the INTSA in DPP4; would that be different in the DPP5 period? Are there projects EDBs consider could be accommodated under these illustrative options?

As highlighted in chapter 4 of our 2023 and 2024 AMPs, New Zealand's decarbonisation and the step change in electricity demand will require EDBs to develop new capabilities. This will include:

1. **Flexibility:** The development of flexibility that uses controllable smart devices to shift electricity use away from peak demand periods. We expect to continue to trial different services in DPP4 and roll them out at scale towards the end of DPP4 and into DPP5.
2. **LV management:** In DPP3, EDBs trialled LV monitoring solutions and we hope the opex step change mechanisms can provide allowances for purchasing data, software and operators to provide visibility of the LV network.

The next step is to develop Advanced Distribution Management Systems (ADMS) which can incorporate flexibility on the LV networks and can directly manage constraints. We think this capability will be trialled in DPP4 and rolled out in DPP5. We also think this will include incorporating data from customer smart devices to complement meter and transformer monitoring data.

3. **New delivery tools:** The step change in the DPP4 work programme will require new delivery and supply management tools. This could include tools to better manage long-order

equipment and spares, sector-wide training or new delivery methods like horizontal drilling for underground excavation.

4. **Customer needs:** As customers become fully reliant on the electricity system and as they start to adopt distributed energy resources that use two-way power flows, customer distribution service and quality expectations are likely to change. EDBs will need to develop effective methods for understanding what customers want distribution services to look like in the future and how to confirm customers are willing to pay for any changes (i.e. the price-quality trade-off). The price-quality trade-off discussion could also include whether customers would use their own home and EV batteries to contribute to network resilience.
5. **Pricing and commercial models:** EDBs will need to develop more cost-reflective pricing and commercial models for network tariffs, operating envelopes and flexibility services. We have started the development process this year with our own cost-reflective pricing programme and the Resi-flex project with Orion. Further development and trials are needed with retailers and flexibility providers.

#### Question 6:

**Other challenges:** eg, what internal hurdles do you see with undertaking innovation and non-traditional solutions? How could an INTSA help to overcome those challenges?

The main hurdle is funding the innovation project – both the EDBs share and the internal resource to deliver a project. At WELL, our existing cost base has no headroom for discretionary expenditure, like research and development. What we have been able to deliver has either been inexpensive or we have fitted the work within existing roles. Increases to non-discretionary costs like insurance and inflation costs not captured by allowances have eroded all of our discretionary headroom.

We have also used other funds like EECAs LEVCF scheme. However, these schemes also required a substantial financial input that has to be funded from allowances.

This hurdle can be removed by the INTSA providing funding for resources to run projects and a share in the non-recoverable costs that networks can afford.



## Question 7

**Safeguards for consumers:** eg, How can we design the INTSA so that it manages the risk burden for consumers?

The proposed framework of providing supporting evidence and the tiered approach to conditions will protect customers from imprudent expenditure. As highlighted in our answers to question 1, a framework to coordinate projects across the industry will also help avoid projects being repeated in silo's.

As highlighted in our response to the Issues Paper (in our answer to consultation question 24), we do think that the innovation process should also include quality exemptions for flexibility trials. The application process should be explicit about any potential quality impacts and how they will be managed.

## Question 8

**Designing INTSA scheme accessibility:** eg, How can we design a user-friendly INTSA scheme so EDBs can part-fund and deliver innovative projects and nontraditional solutions?

As highlighted in our answer to question 1, we think there needs to be a co-ordinating framework around the INTSA scheme. Ofgem, EECA and ARENA have all run innovation funding schemes which have clear frameworks. Once the framework is agreed, then the coordination function could be provided by industry (potentially the ENA). We think part of the function should be managing the process of pooling funding and managing cross network projects. The scheme should allow networks to contribute part of their available funding to a pool which can then be used to fund joint projects. The scheme would therefore need to allow:

1. Joint applications and final reports;
2. Funding to be pooled;
3. Finding to be used for a co-ordination resource for managing all innovation projects (as discussed in our answer to question 1).
4. Allow other funding sources to be included in the funding pool. For example, the ARENA fund could be combined with the regulatory innovation allowance.