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Vector's submission on the EDB DPP4 innovation workshop

1. This is Vector's ('our,' 'we,' 'us') submission on the Commerce Commission's (Commission) default price-quality path (DPP) innovation workshop. No part of this submission is confidential, and it can be published on the Commission's website.

DPP3's Innovation Project Allowance (IPA)

2. We have raised the limitations of the IPA in previous consultations so in this submission we will focus on the characteristics of a new innovation and non-traditional solutions (INTSA) scheme or schemes for DPP4.

3. Vector was pleased to be the first electricity distribution business (EDB) with a successful IPA application. Our project PRISMED revolutionised the way we receive and process smart meter data to deliver a number of use cases across our business to reduce costs to consumers and increase reliability on our network.

Scope

4. The IPA was constrained by its scope, primarily bound by the old definition of 'innovation project' which was removed at the IM final decision. Vector believes there is a huge opportunity to unlock innovation in areas beyond price and quality.

Whole of system energy cost (WESC)

5. The focus of undertaking any innovation project is that a new technology or process will reduce costs to consumers in the long run. At present the Commission will only consider benefits that appear within the silo of electricity distribution.

6. Vector has long advocated for a whole system approach to assessing consumer benefits in the electricity sector. Achieving an efficient energy transition at least cost to consumers requires consideration of costs across the whole supply chain. A narrow focus on the cost impact on only one part of the supply chain (e.g., just distribution or just transmission) will not provide the true picture of the costs and benefits of a particular investment.

7. We recognise the Commission's statutory role is focussed on protecting consumer interests in the relevant market (e.g., distribution customers). However, there is an opportunity for a new INTSA scheme to acknowledge the broader impact and support innovations that result in overall improvements to the electricity system.

8. It is also important to bear in mind that the benefits of electrification extend beyond benefits to consumers in their capacity as consumers of the regulated service. For example, while investment to support the uptake of EVs will likely increase network costs in the short-term it is also projected to significantly lower consumers' transportation costs in the long run.

Decarbonisation

9. The Commission has a crucial enabling role for regulated businesses to transform as necessary to meet New Zealand's net zero 2050 target. Regulated businesses must have the right regulatory settings to be able to fulfil their roles in the transition to net zero and deliver to customer expectations and long-term interests. The criticality of the electricity distribution layer to the wider energy system is increasingly recognised as fundamental to enabling consumer choice, electrifying transport, and ensuring resilience of electricity supply in the face of climate change impacts and necessary adaptation investment.

10. In December 2021, the Commission issued a Note of clarification[1] for their Part 4 Input Methodologies (IM) review 2023 Framework paper which stated that "we may take into account the s 5ZN considerations (of the Climate Change Response Act 2002 (CCRA)) provided they are relevant and that doing so does not compromise our achievement of the s 52A purpose of Part 4."

11. It would be bold and pro-active for the Commission to account for the s 5ZN considerations in the scope of the new INTSA. It could do this by adding a third criteria to the already established ones where the innovation project is expected to:

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[1]Note of clarification – our Part 4 Input Methodologies Review 2023 Framework paper, December 2021, available here: https://comcom.govt.nz/__data/assets/pdf_file/0022/302593/IM-Review-Decision-Making-Framework-Clarification-note-s-5ZN-of-the-CCRA-21-December-2022.pdf

a. Reduce costs to consumers;
b. Increase quality of service; and/or
c. Reduce carbon emissions in the provision of electricity lines services without materially increasing costs to consumers.

Quality of service

12. Similarly, it would be good to understand from the Commission what other aspects of 'quality of service' they would consider in scope for the INTSA; for example:

a. Improving customer service;
b. Reducing the time to connect consumers; and/ or
c. Innovative pricing options for consumers.

Energy efficiency and demand-side management (DSM)

13. The Commission describes demand-side management and energy efficiency initiatives as initiatives which involve influencing consumer demand, for example by shifting demand away from peak periods (sometimes referred to as load-shifting), or by reducing energy consumption. They can assist with the deferring or avoidance of investment that would otherwise be required to meet periods of peak demand.

14. The Commission's emerging view from the DPP Issues Paper is that a specific incentive for demand-side management and energy efficiency is not required for DPP4.

15. Vector disagrees with this view especially given Section 54Q of the Act states that in regulating electricity lines services, the Commission must promote incentives, and avoid imposing disincentives, for EDBs to invest in energy efficiency and demand-side management, and to reduce energy losses.

16. We suggest that the INTSA could be the opportune place to incentivise energy efficiency and DSM within the DPP, enabling the Commission to monitor the effectiveness and use of those incentives, and the Commission should bring them explicitly in scope (along with the others described in paragraph 11 above).

Collaboration

17. The DPP3 reason paper[2] states, in relation to the IPA:

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[2] DPP3 Final decision reasons paper, April 2020, paragraph F10 p.292, available here: https://comcom.govt.nz/__data/assets/pdf_file/0020/191810/Default-price-quality-paths-for-electricity-distribution-businesses-from-1-April-2020-Final-decision-Reasons-paper-27-November-2019.PDF

"Distributors are also able to seek contributions from other sources such as innovation and science funds in addition to their contribution. We understand that some third-party funding sources require a contribution from the recipient, and the innovation mechanism will support this. Distributors may also use the funds for joint projects with other distributors or other businesses or organisations, which may result in greater innovation benefits for the sector."

18. Vector believes that collaboration is key to enhance innovation across the sector. Whilst the IPA enabled it, the INTSA must promote and incentivise it.

19. For that to happen, the Commission must be clear on which parties the EDB can collaborate with and how the funding recovery arrangements would work in principle. We believe that the IPA did not have this explicitly outlined and therefore hindered joint applications or applications including third party funding.

20. To that end, the Commission must indicate in the DPP draft decision how in working competitive markets, EDB collaboration on the INTSA will work with:

    a. Unregulated parties of an EDB's wider group;
    b. Other EDBs;
    c. Retailers and aggregators;
    d. Consultants brought into assist with the innovation project;
    e. Third parties providing supplementary innovation funding; and
    f. The limitations of a collaborative INTSA versus a customised price-quality path (CPP).

Sandboxing

21. The IM review final decision was not to introduce a regulatory sandbox mechanism:

    "Our view is that the current rules afford a large degree of flexibility for suppliers to innovate, and, we have not been presented with evidence of specific examples where innovation has not occurred that a regulatory sandbox would have enabled. We consider that implementing a formal sandbox in the IMs would not better achieve the overarching objectives of the IM Review."[3]

22. In its DPP Issues Paper[4] the Commission has questioned its ability to enforce quality standards and penalties if it were to allow experimentation of non-network solutions using regulatory sandboxes. Specifically, the concern is related to those occasions when experimentation causes negative impacts on quality of service for consumers and how those quality issues

[3] Ibid paragraph 6.15 p.10

[4] Question 21 from the Commerce Commission DDP4 Issues Paper, November 2023 available here: https://comcom.govt.nz/__data/assets/pdf_file/0025/332944/Default-price-quality-paths-for-electricity-distribution-businesses-from-1-April-2025-Issues-paper-2-November-2023.pdf

should be treated when assessing an EDB's compliance with quality standards. The Commission wants to ensure this does not act as a potential impediment to innovation.

23. We would argue that allowing for regulatory sandboxing across the regime will enable innovation. From the three sandboxing tools proposed by the Commission in the IMs, we suggest only option b. below is adopted (fitting best with the DPP's low cost-regulatory outlook).

    a. formalised regulatory guidance, where the regulator works with suppliers to navigate regulatory rules, giving suppliers confidence that they will avoid penalties incurred for breaching regulatory rules;

    b. regulatory rules exemptions, where suppliers are granted short term, limited scope exemptions to regulatory rules that may be standing in the way of an innovative project; and

    c. regulatory rules changes, where suppliers and the regulator work together to draft a change to a specific regulatory rule which is then trialled on a limited time basis by the supplier.

Preferred INTSA options

Option	**A**	**B**	**C**
Project type	*Might be* research based e.g. problem defining projects, feasibility studies etc.	*Might be* tests e.g. controlled experiments, prototype development, field tests etc.	*Might be* projects that build and operate e.g. demonstrations in a live network environment etc.
Permissible expenditure	Small (e.g. 0.1% of maximum allowable revenue over DPP4)	Medium (e.g. 0.5% of maximum allowable revenue over DPP4)	Large (e.g. akin to a reopener)
% share of recoverable costs for EDBs	High (e.g. 90%)	Medium (e.g. 75%)	High (e.g. 90%)
Supporting evidence (ex-ante)	Project eligibility assessment (PEA) signed off by EDB director.	PEA signed off by EDB director and approved by independent expert.	PEA signed off by EDB director and approved by independent expert
Receipt of expenditure + conditions	Reported in Annual Compliance Statement	Ex-post costs approved subject to audit demonstrating costs spent correctly At a max of 110% of forecast.	Full costs approved subject to net benefit to consumers achieved.
Risk burden for consumers	*Limited because of scale*	*Greater risk mitigated by supporting evidence and conditions*	*Small risk mitigated by receipt of expenditure on delivery of benefits*

24. We appreciated the Commission's efforts to provide an illustrative range of options for the INTSA (see above table from the Commission's INTSA slide deck).

25. Vector's preference would be for the Commission to build two INTSA schemes:

    a. A small-scale fund closer to Option A above where small-scale R&D or innovation trials can be easily started and funded without securing high level approvals from the Commission or a suitable expert.

b. A larger fund closer to Option B which promotes collaboration with other parties, with a larger pot of expenditure available across the country and with a higher level of ex ante approval required, and at least a portion of the recoverable fund awarded upfront.

26. In both options the split of EDB recoverable costs should match or exceed 75%, the customer should bear more risk as the true beneficiary of successful innovation projects, as would be proven by the project eligibility assessment.

Commerce Commission questions:

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*

The Commission could look at standardising the reporting required to satisfy the scheme requirements, for example:

- A template for the INTSA application
- A simple cost-benefit analysis (CBA) template
- A template for post-project closure reports

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?*

If the Commission decides on a project type definition, we urge them to consider all our points above from the section on "Scope."

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

Please see above section on "Preferred INTSA options."

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

A simple standardised CBA could help assist EDBs, the Commission and stakeholders to assess the value of proposed innovation projects.

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?*

During DPP4 we would like to see the scope of the INTSA expanded as per our above section on "Scope". If the scope is not extended, we expect to see Vector projects around flexibility and demand side management, innovative pricing trials, using data analytics to enhance network performance, modern technologies, modelling around network resilience. We expect the same type of projects to be used in DPP5 unless the scope of the INTSA is expanded.

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?*

Please see the answer to question 2. If the requirements for the INTSA are standardised and kept simple, this could limit the internal requirements on EDBs. The more time EDBs are not pulling together the requirements to qualify their innovation projects, the more time EDBs can spend innovating.

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

A simple CBA template could mitigate the risk burden on consumers.

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?*

We answer this question throughout our above submission.

Yours sincerely

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