



**T R A N S P O W E R**

Transpower House  
96 The Terrace  
PO Box 1021, Wellington  
New Zealand  
www.transpower.co.nz  
Catherine.jones@transpower.co.nz  
04 590 8624 / 027 5646976

22 September 2017

Regulation Branch  
Commerce Commission  
Wellington  
By email: powercocpp@comcom.govt.nz

Dear Commerce Commission

## Powerco's CPP application and innovation funding

We appreciate the opportunity to submit to the *Invitation to have your say on Powerco's proposal to change its price and quality standards*, published 18 August 2017.

Our submission discusses regulatory funds for innovation and focuses on the network evolution funding views in Farrier Swier's verification report.

### Why have regulated funds for innovation?

We have looked at the innovation approaches of Australian and United Kingdom regulators (AER and OFGEM)<sup>1</sup>, and referred to information from PwC (comparison of R&D spending)<sup>2</sup> and Deloitte (Ten Types of Innovation).<sup>3</sup>

We conclude that regulatory funding for innovation is an established construct in comparable jurisdictions to New Zealand, and the rationale for separate funding recognises that there are limited incentives for R&D expenditure in regulated environments.

As noted by the AER, R&D can deliver value to consumers in the long term, but produce higher costs in the short term. Compared to companies in competitive markets, regulated monopolies face lower up-side reward; instead of R&D creating competitive advantage, where R&D results in future cost reductions, they will pass a material portion of these gains onto electricity consumers under the regulatory regime.

OFGEM's recent review decision for Network Innovation funding (July 2017) describes the role for innovation:

*"At a time when there is significant change in the energy system, the companies need to be innovative to adapt networks to meet future challenges. They also need to get the most out of their existing capacity. Innovation is critical for transitioning to a low carbon economy at lowest cost to consumers."*<sup>4</sup>

---

<sup>1</sup> AER Australian Energy Regulator and OFGEM Office of Gas and Electricity Markets, United Kingdom

<sup>2</sup> PwC Strategy & [https://www.strategyand.pwc.com/global/home/what-we-think/innovation1000/rd-intensity-vs-spend-2014#\(Chemicals and Energy\)](https://www.strategyand.pwc.com/global/home/what-we-think/innovation1000/rd-intensity-vs-spend-2014#(Chemicals%20and%20Energy))

<sup>3</sup> Deloitte <https://www.doblin.com/ten-types>

<sup>4</sup> OFGEM *Network Innovation Review decision* 31 March 2017 available at <https://www.ofgem.gov.uk/>

Part 4 of the Commerce Act, section 52A<sup>5</sup> describes its purpose is to promote the long-term benefit of consumers...by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services—

(a) have **incentives to innovate** and to invest, including in replacement, upgraded, and new assets; and

(b) have incentives to **improve efficiency and provide services at a quality that reflects consumer demands**; ... (emphasis added)

We consider that the development of policy to support the statutory incentives can benefit from the discourse and evaluation evidence developed elsewhere.

### Why fund individual Electricity Distribution Businesses?

Powerco is one of the largest distribution companies in New Zealand and we expect that providing regulated funding for the network evolution component of its Customised Price - Quality Path, will generate learning for all lines companies and their stakeholders.

### Our evaluation of Powerco's Network Evolution capex

We support Powerco's application for funding for network evolution to *"stay abreast of [these] developments, and to ensure the continued stability and efficiency of our network, we need to invest in trials and pilot schemes of new solutions"*<sup>6</sup> and to *"develop, consult on and publish a network evolution plan that will set out our plan to evolve to a distribution system integrator."*<sup>7</sup>

We note that the \$18.1 m proposed is approximately 1.37% (18.1m / 1.32bn) of the revenue proposed under the customised price-quality path. The 1.37 % value is within the R&D range (spend as a percentage of revenue) that PwC Strategy has surveyed globally for firms in the Chemical and Energy industry sector of 0.4% to 2.5%.<sup>8</sup>

Farrier Swier's verification concludes for network evolution expenditure that the *"Information provided does not provide sufficient justification to verify the level of expenditure proposed."* It suggests the line of inquiry for the Commission as: *"...whether the expected benefits of each initiative are likely to outweigh the costs and the alternative options available"*.<sup>9</sup>

We consider examining the benefits versus cost for each initiative, coupled with the "efficient cost" objective of verification<sup>10</sup>, are not the right approaches for innovation capex. It may not be feasible, ex-ante, to tie the costs of individual initiatives to benefits when the research and development has not yet been undertaken to understand:

- the viability of different technology solutions
- the potential for third party alternatives
- the associated commercial arrangements; and
- interfaces with the electricity market and customers (including sharing of information).

---

<sup>5</sup> <http://www.legislation.govt.nz/act/public/1986/0005/latest/DLM1685404.html>

<sup>6</sup> Powerco CPP Main Proposal page ix

<sup>7</sup> Ibid page 69

<sup>8</sup> PwC strategy & [https://www.strategyand.pwc.com/global/home/what-we-think/innovation1000/rd-intensity-vs-spend-2014#\(Chemicals and Energy\)](https://www.strategyand.pwc.com/global/home/what-we-think/innovation1000/rd-intensity-vs-spend-2014#(Chemicals%20and%20Energy))

<sup>9</sup> Farrier Swier final verification report, Table 2 page 20

<sup>10</sup> From page 9 of Farrier Swier report: *the objective that capital expenditure and operating expenditure reflect the efficient costs that a prudent non-exempt EDB meet or manage the expected demand for electricity distribution services, at appropriate service standards, during the CPP regulatory period...*

We consider regulatory funding for innovation should stimulate activities with pay-offs such as improved efficiency and quality<sup>11</sup>, adapting services to changing customer needs, or reconfiguring business models. We think funding baselines could be set with provision for innovation investment, by reference to the rationale and context for innovation programmes (not focussed solely on projects or programmes fixed in advance) and against benchmarks.

Transpower's regulation, with equal capex and opex incentives and fungible base capex, provides a dynamic and responsive base to stimulate innovation. For example, fungibility allows expenditure decisions on certain assets in response to up to date condition data or the emergence of more efficient and effective technology. Information gained from research and trials could enable better targeted expenditure in future.

Powerco's application demonstrates extensive customer engagement to understand the expectations and value preferences of their customers. Reflecting this understanding in its innovation plans should enhance the sustainability of its innovation strategy. As the electricity industry moves through change, Powerco's intention to *"invite external parties to take part in the evolution of our network"*<sup>12</sup> and *"look to partner with others where they can provide appropriate solutions more cost-effectively than ourselves"*<sup>13</sup> is a welcome approach.

For Powerco to achieve network evolution towards being a distribution system integrator it needs to identify approaches that are suitable to repeat across its network and those that are specific to a location or type of project. We consider sharing information about suitable approaches should happen as early as possible to benefit not only Powerco's customers but all other EDBs and their customers.

The innovation framework could encourage periodic disclosure to explain the expenditure use, the activities pursued, and the alignment with company strategy and customer engagement.

Please let me know if you have any questions or would like to discuss any of the points made in this submission.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Catherine Jones', written in a cursive style.

Catherine Jones

**Regulatory Affairs and Pricing Manager**

---

<sup>11</sup> For example, our demand response can create quality benefits by reducing risk of non-supply during maintenance outages on N-1 sites

<sup>12</sup> Ibid page 69

<sup>13</sup> Ibid page 153