



4 May 2017

Kade Sheely  
Analyst, Part 4  
Commerce Commission  
PO Box 2351  
Wellington

By email: [regulation.branch@comcom.govt.nz](mailto:regulation.branch@comcom.govt.nz)

## Listed Projects decision: Central Park – Wilton reconductoring

We welcome the opportunity to submit to the Commerce Commission's draft decision on our application for base capex funds for the Central Park - Wilton (CPK-W) line reconductoring, published 13 April 2017. The Central Park - Wilton reductor project is one of the five listed projects in our *Individual Price Path determination (IPP) 2015 – 2020*.<sup>1</sup>

Our application and the Commission's decision is the first application of the new regulatory process for additional base capex funding during a regulatory control period, introduced just before the second regulatory control period (RCP2).

We appreciate the Commission's agreement on the need for the project and our proposal. In this submission, we:

- first discuss how our application, and the draft decision by the Commission, has highlighted framework issues for the listed projects mechanism we have previously identified<sup>2</sup>
- respond to the Commission's adjustments to our application for approval of \$12.4 million
- indicate the difficulty in cost estimation for project contingencies using examples from this CPK - W project
- present a review of the costs we had proposed in our application, for information.

## Listed projects policy designed to manage cost and timing uncertainties

In our submission to the CC's final decision on the IPP for 2015 – 2020 we stated:

*we consider that it will be necessary to define, in light of the Commission's policy decisions for listed projects, how the listed projects framework will operate - for example, the basis for setting the listed project allowance (which will be affected by the incentive mechanism selected). We propose to work with the Commission to develop that framework further once the IPP is finalised.*<sup>3</sup>

---

<sup>1</sup> Available at <http://www.comcom.govt.nz/regulated-industries/electricity/electricity-transmission/transpower-individual-price-quality-regulation/transpowers-price-quality-path-from-2015-to-2020/>

<sup>2</sup> Transpower submissions to IPP determination, 27 June 2014 and 11 July 2014. Both submissions available at <http://www.comcom.govt.nz/regulated-industries/electricity/electricity-transmission/transpower-individual-price-quality-regulation/transpowers-price-quality-path-from-2015-to-2020/>

<sup>3</sup> Ibid, from submission 11 July 2014.

The listed project mechanism was designed to assist in managing timing and cost uncertainties for large reconductoring projects. We consider the current listed project mechanism deals with the timing uncertainty by allowing the base capex allowance to be reopened within the regulatory period, but it does not yet deal with the cost uncertainty.

High cost uncertainty is problematic within the base capex incentive framework when a reconductoring project is large relative to our overall base capex programme. If a project is approved at P50 and subject to a 33% incentive rate it can create significant risk for consumers and Transpower. For example, a project with cost estimates of \$140m, \$200m and \$260m (at P10, P50 and P90 respectively) would present consumers with the prospect they may over-pay by \$20m (or more) and us with the prospect that we may under-recover by \$20m or more.<sup>4</sup>

The approach to cost uncertainty still needs to be resolved for future large reconductoring projects, including the remaining RCP2 listed projects. We are forecasting several large reconductoring projects over the next 30 years and it is important to get the settings right. For the CPK-W reconductoring project the cost uncertainty is relatively small due to project size and the scope is reasonably well defined for a reconductoring project (due to limited tower and access work).

Transpower strongly supports the Commerce Commission's application of incentive regulation.<sup>5</sup> However, we are concerned that the combination of P50, cost uncertainty and a 33% incentive rate creates unnecessary risk for consumers and Transpower and could create perverse incentives for Transpower. We suggest that listed projects could be approved at a P50 level, but the risk could be lowered by applying an incentive rate tailored to the characteristics of each individual project.

We consider there are a couple of avenues open for further discussion of the listed projects framework. Firstly, in the short term (during RCP2), by exploring the possible use of the adjustment term 'g' under the base capex incentive mechanism of the current Capex IM. Secondly, and for the longer term, through the impending Capex IM review.

## Response to Commerce Commission draft decision for CPK-W

Without prejudice to our comments above, we agree that the decision to approve funds for base capex means that P50 is the appropriate basis for the approval quantum. We also agree with the Commission's view that the approval should exclude costs that have already been accounted for under the RCP2 base capex regime. Our application wrongly included capital investigation costs and an inappropriate treatment of foreign exchange costs.

Below we outline adjustments that we query:

**Cost estimate being in 2017 dollars.** The original cost estimate was received by Transpower in December 2016 and so is in 2016 dollars. Accordingly, we used 4th quarter 2016 as the base for calculating inflation as the appropriate base period. The cost estimate was then reflected into our application which was submitted to the Commission on 2nd March 2017. We acknowledge our submission was not clear on this and could have indicated the date of our original cost estimate (December 2016) more clearly.

---

<sup>4</sup> 0.33 times the difference between P50 and P90

<sup>5</sup> For example, refer Transpower submission to the *Incremental Rolling Incentive Scheme (IRIS)*  
<http://www.comcom.govt.nz/regulated-industries/input-methodologies-2/input-methodologies-review/transpower-iris-provisions/>

**Deduction of Transpower overhead costs.** We do not agree that overhead costs for this project are already included in our base capex allowance. The overheads are for procurement, property, environmental management and project management functions. In our RCP2 proposal we assumed that a portion of these costs would be capitalised to major (or listed) projects as they were individually approved. The portion was therefore not included in the RCP2 proposal.

**Approach to consumer price inflation (CPI) and interest during construction (IDC).** We query an inconsistency in the Commission's treatment of CPI and IDC which we consider results in double counting. We outline in Appendix A the reasons for this view.

### P50 estimation for project contingencies

In our submission to the draft IPP decision in June 2014<sup>6</sup> we highlighted that the *proposed inclusion of these [listed] projects within the Base Capex incentive is likely to generate material rewards or penalties due to estimation uncertainty rather than underlying efficiency gains or losses. We identified that accurate cost estimation for lines projects is inherently difficult, even at a relatively advanced planning stage and as a guide, cost uncertainty of 30% or more is expected at the regulatory approval stage, reducing to 20% following detailed design work. The alternative to reduce cost uncertainty below 30% is to significantly increase resources for investigation work for the 'listed' re-conductoring projects prior to seeking approval.*<sup>7</sup>

As noted, we consider the cost uncertainty for the CPK-W project to be relatively small due to project size, however to illustrate the concerns alluded to in the submission above, we outline below some of the project's unique uncertainties. Many of the residual uncertainties are project specific contingencies and cannot be clarified until the project is underway. For example:

- **Wellington Weather.** The delivery of reconductoring projects can be significantly disrupted by prevailing weather conditions. Moderate and high winds can prevent the safe pulling of the conductor, and sometimes more critically, the subsequent sagging and clamping of the conductor into its designed position. The CPK-W line is very exposed to Wellington's winds. We plan to undertake these works in the least windy season, typically late summer and autumn. We have included a prudent allowance for poor weather in our P50 application, however actual conditions during the works can increase downtime for a crew of 30 – 40 and associated equipment. In addition, exceptional rain events would affect safe access to sites, beyond what prudent and planned preparatory works will have catered for.
- **Access track.** We will need to move heavy machinery over a private driveway. We do not know if our heavy machinery will cause damage, leading to repair or replacement costs to return the driveway to an acceptable condition. The cost may vary between zero and replacing the entire driveway.
- **Conductor treatment to mitigate audible noise.** We are currently testing 220kV conductors in a simulated environment, which is to be followed by 110kV testing to assess the level of noise, and if problematic, what mitigation solutions would be appropriate. However, at this stage, it is unknown whether the noise will be a risk at 110kV and what level of noise mitigation (if any) will be required. In our submission, we estimated a cost range of \$20k to \$100k, which depends on the extent of the mitigation required.

---

<sup>6</sup> Transpower submission on individual price-quality path draft decision, 27 June 2014  
<http://www.comcom.govt.nz/regulated-industries/electricity/electricity-transmission/transpower-individual-price-quality-regulation/transpowers-price-quality-path-from-2015-to-2020/>

<sup>7</sup> Ibid Page 57

It is difficult and sometimes impossible to define a probability distribution for these types of project contingencies. In our application, we estimated a reasonable minimum and maximum cost level, and then assumed a simple uniform distribution of values in-between. For our application, our P50 estimation of these costs was the mid-point from the range. On reflection, a mid-point cost may not be appropriate. For example, if the access track is not damaged, no cost is incurred; or if it is damaged, and the cost incurred comes in at close to the maximum level. For the purposes of this application we have used the mid-point approach, but intend to review this in future.

## Review of costs

The table below is presented for information, to assist the Commission's final decision. It compares the Base Capex allowance adjustment from our original application, the Commission's draft decision and our revised adjustment covering the issues discussed in this submission.

	TP application (\$k)	CC draft decision (\$k)	TP review (\$k)
Real costs (P50 values)			
Investigation	550	0	0
Design & prep work	1,399	1,399	1,399
Construction - labour	5,176	4,484	5,176
Construction - Material & plant	1,886	1,886	1,886
Sub-total SSR+ costs	9,011	7,769	8,461
Other construction costs	1,450	1,450	1,450
<b>Total real costs</b>	<b>10,462</b>	<b>9,219</b>	<b>9,912</b>
Project specific contingencies (real costs)			
SSR+ costs (P90)	468	0	0
Other construction costs (P100)	485	0	0
Exchange rates	86	0	0
Inflation	511	362	461
IDC	391	246	259
Hedging	23	0	0
<b>Total application</b>	<b>12,425</b>	<b>9,827</b>	<b>10,632</b>

Please contact me if you have any questions or would like to discuss any aspect of this submission.

Yours sincerely,



Catherine Jones

**Regulatory Affairs & Pricing Manager**

## Appendix A - Evaluation of CPI and IDC

### Change to inflation method

The Commission has used an annual method to calculate inflation, which assumes a base date of 1 July 2017, and all annual cashflows occurring at year end (30 June). This base date for inflation is not appropriate as explained in the letter. We consider assuming year end cashflows is also not appropriate, particularly for 2019. Construction occurs over the summer of 2019, but it appears the Commission assumes all construction cashflows occur on 30 June 2019.

In our view, using a quarterly cashflow model provides a more accurate matching of cashflows to the expected construction timetable, and therefore a more accurate estimate of inflation (and IDC). The mismatch of cashflow timings (between the annual and quarterly models) also explains the discrepancy raised in the Commission's footnote 34.<sup>8</sup>

### Consistency between inflation and IDC calculation

The Commission has used annual year end cashflows to determine the inflation allowance, however has used smoothed quarterly cashflows for calculating IDC. The calculations of inflation and IDC should be internally consistent – inflation is calculated up to the point of purchase only, then IDC is calculated thereafter. Both calculations should use the same cashflows to avoid double-counting inflation and IDC.

The Commission's approach results in an inconsistent calculation of either IDC or inflation (depending on which single set of cashflows are used as the basis for the calculation).

---

<sup>8</sup> Commerce Commission's draft decision on *Transpower's Central Park Wilton B Line listed project* page 12 footnote 34 "We would expect that by smoothing that annual rate on a quarterly basis would produce the same outcome. However, we found a small difference when we applied CPI on an annual basis. We will discuss this anomaly with Transpower following the publication of this draft decision". <http://www.comcom.govt.nz/regulated-industries/electricity/electricity-transmission/transpower-individual-price-quality-regulation/transpowers-price-quality-path-from-2015-to-2020/>