COMMERCE COMMISSION NEW ZEALAND
Te Komihana Tauhokohoko

Capex IM review – Knowledge sharing workshop

Review of the Transpower Capital Expenditure Input Methodology

24 May 2017

Presented by Commerce Commission staff

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Introduction

Purpose and outcomes

Purpose

Purpose of the workshop is to:

- explain how the capex IM works
- share some lessons learned to date
- introduce the proposed focus areas for the review

Outcomes

We hope that the workshop will provide an opportunity for stakeholders without a close understanding of the capex IM to better understand what it is, how it works, and how it might be relevant for them.

Agenda

1.	Introduction	9.30 – 9.45
2.	Overview of the capex IM; the features of the capex IM; and lessons learned from working with the capex IM to date	9.45 – 11.15
3.	Morning tea	11.15 – 11.30
4.	The proposed focus areas for the review	11.30 – 12.00
5.	Transpower's experience with the capex IM	12.00 – 13.00
6.	Wrap up and opportunity for final questions and comments	13.00 – 13.30

What is the capex IM?

In short, the capex IM sets out the rules, processes and requirements for:

- the submission, assessment and approval of Transpower's capital expenditure proposals
- a number of capex-related incentives, which are applied through the price-quality path (IPP)
- Transpower to provide an Integrated Transmission Plan (ITP)

Why are we reviewing it?

- The Commerce Act requires us to review our IMs no later than 7 years after setting them
- We must complete the review by February 2019 at the latest
- It may be desirable to complete the review (or aspects thereof) well in advance of that date, so that any changes can be taken into account by Transpower in preparing its price-quality path (IPP) proposal for the 2020-2025 regulatory control period (RCP3). Transpower is required to submit this proposal in December 2018, but begins preparing it much earlier.

Why are we reviewing it? (2)

- At this stage, we are aiming for a final decision in Q1 2018
- We want the issues to drive the process – so the process and timing for the next phase of the review will be informed by your submissions on the current consultation paper

Approach to the review

- Similar approach and framework to the 2015/16 IM review
- We want to start by identifying most important things we should be focusing on, and the specific problems within those areas that we should explore through the review
- We want your feedback on whether the focus areas proposed in our paper are the right areas to focus on, and what the specific problems within them might be
- Once we've identified specific problems, we'll be able to move on to explore how they might best be solved

Framework for the review

We propose to use the 2015/16 IM review framework

- Starting point for the review is the existing capex IM
- We propose to only change the IM where this is likely to:
  - promote the Part 4 purpose in s 52A more effectively;
  - promote the IM purpose in s 52R more effectively (without detrimentally affecting the promotion of the s 52A purpose); or
  - significantly reduce compliance costs, other regulatory costs or complexity (without detrimentally affecting the promotion of the s 52A purpose).

Next steps

- On 15 May 2017 we published our first consultation paper
- Our consultation paper invites submissions on:
  - what the focus areas for the review should be
  - any specific problems that should be considered within those focus areas

Next steps (2)

Timeframes:

- Submissions due 14 June 2017
- Cross-submissions due 28 June 2017
- Once we have considered submissions and cross-submissions, we expect to issue an update outlining the next steps for the capex IM review
- Current view beyond that is draft decision in Q4 2017, final decision in Q1 2018

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Some essential background

Essential background for the focus areas

- Overview of the capex IM – how we got to now
- Key features of the capex IM – how it was set and how it has evolved
- Lessons we have learned from working with the capex IM to date

Overview of the capex IM

History of the capex IM

- We regulate Transpower's electricity lines services under Part 4 of the Commerce Act
- Transpower is subject to an individual price-quality path (IPP) where we set its maximum revenues, and it must make annual and periodic information disclosures
- Responsibility for approval of Transpower's grid upgrade plan proposals was transferred from the Electricity Commission to us in November 2010 and is now incorporated in the rules on 'major capex' approvals

History of the capex IM (2)

- We determined the Transpower IMs (primary rules) in December 2010 (and these were reviewed in 2015-2016):
  - specification of price (ie, how the maximum revenues are to be set)
  - asset valuation (including how the RAB works and what values are recorded for commissioned projects)
  - cost of capital (ie, the WACC)
  - cost allocation, taxation, IRIS opex incentive, and price-quality path reconsideration

Transpower capex input methodology review; Chapter 2: Regulatory context

History of the capex IM (3)

- The Act provided for a capex IM to come later than the other IMs and this set of rules for capex was determined in January 2012

Main influences on the original capex IM design

- The capex IM is based on the general premise that Transpower is the principal grid planner and is responsible for proposing and seeking our approval of capex that it considers necessary
- Transpower undertakes and manages capex projects we have approved
- Key objectives of the capex IM are to promote good investment and efficient performance

Main features of the capex IM design

- The capex IM sets up-front rules the cover two main functions:
  - our ex-ante approval of forecast expenditure (capex and related opex) that is proposed by Transpower
  - our ex-post assessment of capex incentives, where the values are calculated and proposed to us by Transpower

Transpower capex input methodology review; Page 17

Main features of the capex IM design (2)

- The capex IM rules do five things:
  - set the process for submitting, assessing and approving base capex proposals prior to each RCP
  - set the process for submitting, assessing and approving major capex projects proposed at any stage during an RCP
  - set capex-related incentives which are applied through the IPP
  - set requirements for grid output measures which are applied through the IPP
  - set requirements for Transpower to provide an integrated transmission plan (ITP)

Transpower capex input methodology review; Page 17

Our regulation of Transpower has evolved

- Our RCP2 decisions paper set out our view of how our regulation of Transpower could evolve over time (ie, over multiple 5-year RCPs)
- Amendments have been made to the capex IM since 2012 as part of that evolution
- This review of the capex IM is a further opportunity to test whether these key rules can deal with evolving circumstances

Setting Transpower's individual price-quality path for 2015-2020 – final decisions and reasons [2014] NZCC 23 (29 August 2014); Attachment A

Our regulation of Transpower has evolved (2)

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Table B1: IM determinations and reasons papers published by the Commission in respect of the capex IM

IM determination	Associated reasons paper	Brief description
Transpower Capital Expenditure Input Methodology Determination 2012 [2012] NZCC 2 (31 January 2012)	Transpower Capital Expenditure Input Methodology: Reasons Paper (31 January 2012)	Original capex IM determination (the "principal determination").
Error correction: repaired reference links in clause D1(2)(b) (2 February 2012)	N/A	Re-publication of the capex IM determination including repaired reference links in clause D1(2)(b).
Transpower Input Methodologies Amendments Determination 2014 [2014] NZCC 22 (28 August 2014)	Amendments to input methodologies for Transpower 2014: Reasons paper (28 August 2014)	Amendments to address issues relevant to the determination of Transpower's IPP that apply from 1 April 2015.
Transpower Input Methodologies Amendments Determination 2014 (No. 2) [2014] NZCC 34 (27 November 2014)	Amendments to input methodologies for Transpower to provide a listed project mechanism: Reasons paper (27 November 2014)	Amends the capex IM determination and, Transpower IM determination to provide a listed project mechanism in respect of electricity lines services supplied by Transpower.
Transpower Input Methodologies Amendment Determination 2015 [2015] NZCC 3 (5 February 2015)	Explanatory note provided in the determination.	This amendment corrects two errors identified post-publication in amendments to the Transpower Input Methodologies Amendments Determination 2014 [2014] NZCC 22 and in the Transpower Input Methodologies Amendments Determination 2014 (No.2) [2014] NZCC 34.

Transpower capex input methodology review; Attachment B, Table B1, page 64

Our regulation of Transpower has evolved (3)

- In the interests of certainty for Transpower and stakeholders, changes made to IMs during an RCP generally only have effect on the price-quality path from the next RCP
- This means that the key rules in the capex IM need to anticipate what might happen during the next RCP (eg, the listed projects mechanism for approval of identified forecast replacement or refurbishment base capex projects)

Transpower capex input methodology review; Attachment B, Table B1, page 64

Summary of decisions in the capex IM including listed projects decisions

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Table B2: Decisions in the capex IM reasons paper and listed project reasons paper

Commission decision	Reference in capex IM determination[64]	References in Transpower RCP2 IPP determination[65], Transpower IM determination[66] and ID determination[67]	Reference in capex IM reasons paper[68] and in listed projects (LP) reasons paper[69]
Interaction with the IPP			
All capital expenditure adjustments are to be applied as post-tax entries to the appropriate EV account		IPP clause 7, definition of 'EV account entry'	Chapter 2 paragraph 2.3.7
Calculations relating to adjustments for base capex and grid outputs	Schedule B Division 1	IPP clause 23.1.3(i), (j) and (k)	Chapter 2 Section 2.3
Calculations relating to major capex adjustments	Schedule B Division 2	IPP clause 23.1.3(l), (m) and (n)	Chapter 2 Section 2.3
Major capex adjustments are EV account entries		IPP clause 7 definition of 'EV account entry'	Chapter 2 Section 2.3
Transpower must calculate EV adjustments that attribute the balances of the EV accounts to the update of the forecast MAR		IPP clause 24	Chapter 2 Section 2.3

Transpower capex input methodology review; Attachment B, Table B2, page 65

Current key decisions in the capex IM including listed projects

- The capex IM applies to all capex intended to enter Transpower's RAB
- Transpower must consider transmission alternatives in the development of major capex proposals
- The capex IM does not apply to new investment contracts (NICs) and SOSPA
- Capex is categorised as base capex or major capex (listed capex is a subset of base capex)

Transpower capex input methodology review; Attachment B, Table B2, page 65

Current key decisions in the capex IM including listed projects (2)

- Major capex must be consulted on, assessed and approved on a project-by-project basis
- Base capex is proposed, assessed and approved on a pooled expenditure basis before the start of an RCP
- Additional base capex for listed projects is proposed, assessed and approved on a project basis during an RCP
- No substitution between major capex projects or from major to base capex

Transpower capex input methodology review; Attachment B, Table B2, page 65

Current key decisions in the capex IM including listed projects (3)

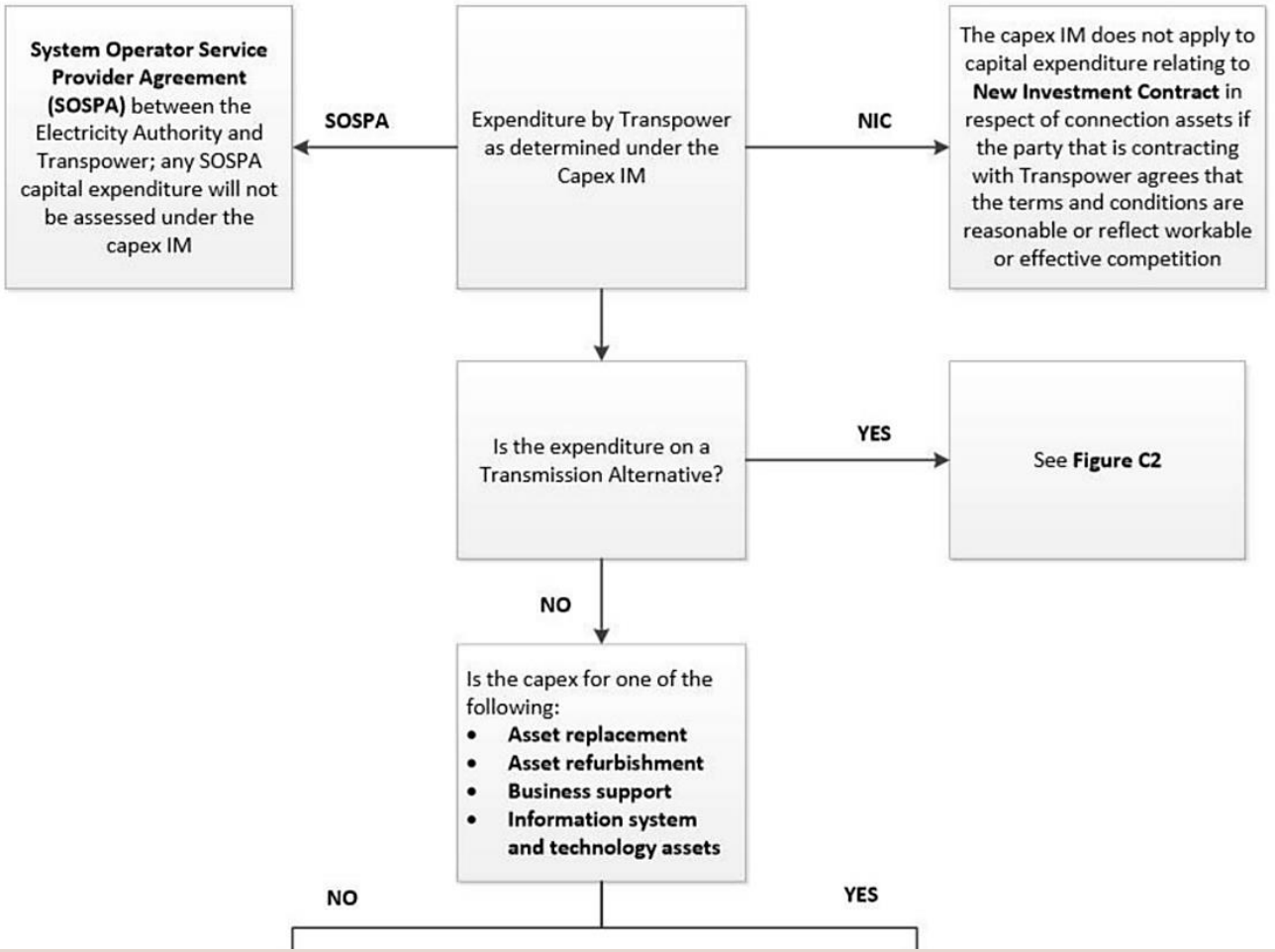
- Base capex substitution is available at Transpower's discretion between disclosure years in an RCP and between expenditure categories (ie, pooled approach, not subject to individual project approval)
- An incentive regime applies to both major capex and base capex
- Although substitution applies to base capex expenditure, there is no substitution of pre-set values within the incentives regime

Transpower capex input methodology review; Attachment B, Table B2, page 65

Key features of the capex IM

Overview of capex categories

Figure C1: Overview of expenditure categories



Transpower capex input methodology review; Attachment C, Figure C1, page 119

How we categorise capex for approval

- Base capex covers all capex except individual large enhancement projects that we consider should warrant individual scrutiny and public consultation (ie, major capex)
- The base capex project threshold currently sets that cut-off on enhancement projects forecast to be in excess of $20M
- Asset replacement or refurbishment projects are base capex projects and have no upper threshold, but do have additional consultation requirements if forecast at over $20M

Transpower capex input methodology review; Attachment C, Figure C1, page 119

How we categorise capex for approval (2)

- Listed capex projects are base capex projects that are identified prior to the RCP as being reasonably required, but where the timing of commissioning cannot be forecast with specificity
- Listed projects can be approved prior to the RCP for inclusion on the 'list' in the IPP, but the capex amount is not approved at that time

Transpower capex input methodology review; Attachment C, Figure C1, page 119

Capex approval process – base capex allowance

- Transpower base capex proposal requirements on content and timing
- Commission consultation requirements
- Commission determines the base capex allowance before the start of an RCP

Transpower capex input methodology review; Attachment C, pages 133 to 136

Capex approval process – listed projects

- Requirements for Commission to identify listed projects prior to RCP
- Projects are listed in the IPP determination (IPP)
- Transpower application requirements on content and timing for additional listed project base capex allowance during the RCP
- Commission may determine an amount of additional base capex allowance
- IPP may be reopened for revenue impact of forecast additional base capex (Transpower IMs)

Capex approval process – major capex

- Consultation requirements (Transpower and Commission)
- Proposal and certification requirements
- Investment test
- Commission approval or rejection of proposal
- IPP may be reopened for revenue impact of forecast additional major capex (Transpower IMs)
- Project amendments process
- Annual reporting requirements

Transpower capex input methodology review; Attachment C, pages 124 to 133

How major capex works

- Commission and Transpower agree to a programme and consultation timeframe
- When Transpower develops the proposal, it is required to consult twice and invite proposals for non-transmission solutions
- Two consultations are the long list of options and short list of options
  - Long list of options – consults on assumptions, need date and options
  - Short list of options – consults on the develop proposal

How major capex works (2)

- Transpower develops technically feasible options and uses the investment test (economic test) to determine preferred option
- The investment test considers the electricity market costs (over the long term) and the benefits
- Costs and benefits are calculated using electricity demand and generation scenarios (EDGES)
- We assess Transpower's proposal and consult on our draft decision before making our decision
- We can only accept or reject the proposal

How the approved capex links with the revenues in the IPP

- The forecast MAR (ie, maximum revenue) is calculated prior to the RCP taking into account the forecast commissioned values of the approved pool of base capex and the approved major capex projects at that time
- Actual capex then enters the RAB generally on a GAAP accounting basis (see Transpower asset valuation IM), irrespective of whether it exceeds or is less than the approved values

How the approved capex links with the revenues in the IPP (2)

- Wash-up calculations are carried out under the IPP and applied to later years' revenue to adjust for the actual vs forecast timing of CPI, FX and timing of commissioning
- The net effect of the revenue adjustments is that the NPV of revenues over time ends up being based on the actual capex, adjusted for incentive amounts
- Incentives for overspends, underspends and other incentive adjustments are handled through IPP revenue adjustments (ie, not by adjusting the RAB)

Overview of Transpower incentives regime (capex IM and other)

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Attachment A: Overview of the Transpower incentives regime

Expenditure category	When forecast expenditure is initially approved	Incentives – forecast amounts vs actual amounts	Incentive process mechanism	How incentive mechanism is initiated	Effect and timing of mechanism	Comments
Major capex (1)	Major capex may be approved at any time during an RCP	Effect of capex overspend	Major capex overspend adjustment (capex IM clause 3.3.7(1) and Schedule B4)	Transpower provides the information each year (IPP clause 23.1.3(l)) and the adjustment is determined by the Commission as an EV account entry which is applied to a later update of the forecast MAR	• Overspend incentive effect on Transpower is NPV negative • Total actual capex enters the RAB when assets are commissioned • An adjustment for the sum total of incentive adjustments on commissioned projects is given effect through the EV account in the IPP determination • The RAB value and incentive adjustment will only impact the forecast MAR in the RCP if the project is approved (and assets are commissioned) in the first 3 disclosure years of the RCP • Any balance in the EV account carried forward to a future forecast MAR in the current or next RCP is adjusted by the WACC rate	This overspend incentive is a potential penalty calculated at the completion of a major capex project. Transpower bears 100% of costs in excess of total approved project costs

Transpower capex input methodology review; Attachment A, pages 37 to 61

Capex IM incentive mechanisms

Base capex incentives in the capex IM:

1. Annual expenditure adjustment
2. Annual policies and processes adjustment
3. Annual grid output adjustment

Major capex incentives in the capex IM:

4. Project overspend adjustment
5. Project output adjustment
6. Project sunk costs adjustment
7. Periodic efficiency adjustment

How incentive adjustments are applied to revenues

- Incentive amounts calculated under the capex IM mechanisms are applied to the EV account through EV account entries (see the IPP)
- The price path is updated each year to take account of the revenue effect the wash-ups in forecast v actual costs and for incentive amounts in the EV account (see price path reopener provisions in the Transpower IMs)

1. Base capex expenditure adjustment

- Expenditure incentive adjustment on pooled base capex
- Penalty if Transpower overspends relative to the approved total allowance
- Reward if Transpower underspends relative to the approved total allowance
- Approved allowance for a year is adjusted if listed project capex is approved
- Base capex incentive rate of 33% applies
- Calculated annually

Transpower capex input methodology review; Attachment A, pages 45 and 46

2. Base capex annual policies and processes adjustment

- Asymmetric penalty on Transpower for not following policies and processes
- Base capex incentive rate of 33% applies
- Calculated annually

Transpower capex input methodology review; Attachment A, page 51

3. Annual grid output adjustment

- Symmetric incentive on Transpower to deliver agreed level of 4 types of grid outputs:
  - Grid performance
  - Asset performance
  - Asset health
  - Asset capability
- Each grid output measure has a target level, an incentive rate, and a cap and collar
- Calculated annually

Transpower capex input methodology review; Attachment A, page 49

4. Major capex overspend adjustment

- Asymmetric penalty if Transpower overspends on a major capex project (ie, exceeds the approved major capex allowance)
- Transpower bears 100% of costs in excess of the total approved costs for the project
- Transpower may apply for an amendment to an approved investment, which may increase the approved capex allowance
- Calculated at the completion of the project

Transpower capex input methodology review; Attachment A, pages 37, 38 and 42

5. Major capex project output adjustment

- Asymmetric penalty if Transpower does not deliver the agreed project outputs
- Major capex incentive rate of 33% applies
- Calculated at the completion of the project

Transpower capex input methodology; Attachment A, page 41

6. Major capex sunk costs adjustment

- Allows Transpower to avoid being exposed to costs where a major capex project is abandoned for a good reason
- Provides Transpower with an incentive to discontinue a project when:
  - it is no longer in consumers' interests; or
  - the project takes longer than expected (ie, approval expiry date has passed)
- Does not apply to base capex, because those projects are treated on a pooled basis and Transpower is expected to manage its sunk costs within the base capex allowance

Transpower capex input methodology; Attachment A, pages 43 and 50

7. Major capex efficiency adjustment

- Asymmetric reward to Transpower for efficiency gains over an RCP
- Major capex incentive rate of 33% applies
- Applied at the conclusion of the RCP

Capex IM implementation decisions

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Table B3: Decisions made in implementing the capex IM decisions since 2012

Commission decision	Decision Date	Reference
Transpower major capex proposals		
HVDC – increase in interim grid expenditure: On 14 June 2011, Transpower applied to the Commission concerning the recovery of the HVDC interim grid expenditure. The former Electricity Commission approved the interim grid expenditure of $6.3 million for preparatory work on the HVDC upgrade project.[70] On 25 August 2011, the Commission agreed to amend the approved amount to $8 million. This was a project amendment made under the transitional provisions of the capex IM.	25 August 2011	Details on this proposal can be found on the Commission website: http://www.comcom.govt.nz/regulated-industries/electricity/electricity-archive/approved-transpower-grid-upgrade-plans/hvdc-increase-in-interim-grid-expenditure-2011/
Kaitaia Capacitor Bank Project Overspend: On 29 March 2011, Transpower applied to the Commission for an amendment of the approved expenditure for the Kaitaia capacitor bank project from $2,600,000 to $2,848,119. The former Electricity Commission approved this project on 9 March 2006 as one of the projects included in the Grid Development Proposals. On 21 June 2011, the Commerce Commission agreed to amend the approved expenditure for this project to $2,848,119. This was a project amendment made under the transitional provisions of the capex IM.	21 June 2011	Details on this proposal can be found on the Commission website: http://www.comcom.govt.nz/regulated-industries/electricity/electricity-archive/approved-transpower-grid-upgrade-plans/kaitaia-capacitor-bank-project-overspend-2011/

Transpower capex input methodology review; Attachment B, Table B3, page 105

State of development of performance measures

- Grid performance – measure of reliability in terms of:
  - number of interruptions
  - average duration of interruptions
  - duration of longer interruptions
- Asset performance – measure of availability of assets – HVDC and key HVAC circuits
- Asset Health output measures – an attempt to quantify the direct impact of capex and opex – applied in simplified form, under development
- Asset capability – related with impact of E&D projects – not applied in RCP2

Experience of major capex proposals

- To date, we have not rejected any, due to the effort already put in by Transpower in developing proposals
- But we have asked Transpower to amend the proposal or do further work
- So far, Transpower has withdrawn one proposal (land purchase near Otahuhu)

Useful reference documents

- *Transpower capex input methodology review – Proposed focus areas for the capex IM review* (15 May 2017)
- *Transpower Capital Expenditure Input Methodology Determination* [2012] NZCC 2 (consolidated as at 5 February 2015)
- *Transpower Capital Expenditure Input Methodology – Reasons Paper* (31 January 2012)
- *Transpower Input Methodologies Determination 2010* [2012] NZCC 17 (consolidated as at 28 February 2017)
- *Transpower Input Methodologies Reasons Paper* (December 2010)
- *Input Methodologies (Electricity Distribution and Gas Pipeline Services) – Reasons Paper* (December 2010)

Useful reference documents (2)

- *Transpower Individual Price-Quality Path Determination 2015* [2014] NZCC 35 (consolidated as at 31 October 2016)
- *Companion paper to final determination of Transpower's individual price-quality path for 2015-2020* (28 November 2014)
- *Setting Transpower's individual price-quality path for 2015-2020 – final decisions and reasons* [2014] NZCC 23 (29 August 2014)
- *Draft decision on Transpower's Central Park Wilton B listed project* (13 April 2017)
- *Decision on Transpower's Bunnythorpe-Haywards Lines A and B major capex proposal* [2014] NZCC 11 (9 May 2014)
- *Amending Transpower's allowance and outputs for the North Island Grid Upgrade Project (NIGU Project)* [2015] NZCC 21 (6 August 2015)

Lessons learned from working with the capex IM to date

Lessons learned

- Approving major projects in an uncertain environment is challenging
- Ex-post reviews can be complex and not effective
- Stakeholders want certainty on costs of major capex projects and are resistant to increasing the approved allowances

Approving major projects in an uncertain environment is challenging

- Rules were set in a predictable environment, but we were applying them in an uncertain environment, so we adapted to the extent possible
- Is it better to approve one large project or break it into smaller bits?
- Applied a staged approach to Upper South Island reliability project – stage two:
  - Transpower applied for an amendment to stage 1 major capex proposal for property & resource consents rather than submitting a separate one
  - Did not need to approve an $80 M major capex proposal with a highly uncertain need date
  - Now the stage 2 need date is delayed from 2018 to late 2020
- Not always possible under the current rules

Ex-post reviews can be complex and not very effective

- Both for Transpower and the Commission
- A lot of time and effort was involved amending the Otahuhu Diversity and the NIGU projects
- Main reason for allowing amendment is because major capex projects are approved early phase of their lifecycle
  - Significant scope and cost
  - So we approve an allowance and Transpower recovers actuals up to the allowance or seeks and amendment to the allowance

Stakeholders want certainty on costs of major capex projects and are resistant to increasing the approved allowances

- Stakeholders want major capex allowance to be a project budget that Transpower should work towards
- Highlighted in submissions to our draft decision on the NIGU project
- A budget and early approval are not complementary
- Should we consider alternative approaches
- Such as staged approval with process for subsequent stages simplified

Morning tea

Proposed focus areas

Proposed focus areas for capex IM review

Focus area 1: Given the changing landscape in the energy sector, are there adjustments that could be made to the capex IM to better ensure the right transmission investments are being made, including non-transmission solutions?

Focus area 2: Does the capex IM support a proportionate approach to scrutiny?

Focus area 3: Once expenditure has been approved, does the capex IM appropriately deal with changing circumstances during a regulatory period?

Focus area 4: Are the incentive mechanisms in the capex IM effective?

Focus area 5: Are aspects of the capex IM too complex and prescriptive?

Focus area 1: Given the changing landscape in the energy sector, are there adjustments that could be made to the capex IM to better ensure the right transmission investments are being made, including non-transmission solutions?

- Changing landscape – evolution towards a smart grid, changing business models, more choice for consumers over how they use energy and how much they use
- Will change the way the transmission grid is used, what investment is needed, and when it is needed
- Important focus area because:
  - Transmission investment has big impact on consumers
  - Significant risks to consumers of over/under investment
  - Changing landscape increases these risks

Focus area 1: Given the changing landscape in the energy sector, are there adjustments that could be made to the capex IM to better ensure the right transmission investments are being made, including non-transmission solutions? (2)

Potential questions for the Capex IM review:

- Should we change our process or analytical approach for assessing Transpower's capex proposals?
- Should Transpower adapt how it assesses its capex proposals?
- Are transmission alternatives and interactions with transmission and nodal prices being considered appropriately?
- Should the requirement for Transpower to consider transmission alternatives be extended to base capex?
- Should we improve the investment test?

Focus area 1: Given the changing landscape in the energy sector, are there adjustments that could be made to the capex IM to better ensure the right transmission investments are being made, including non-transmission solutions? (3)

- Investment tests look at dynamic efficiency, so tend to favour large projects, eg, NIGU project:

Option	Construction costs ($m)	NPV of cost and benefit ($m)
1. New 400 kV line	705	690
2. New 220 kV line	646	700
3. Duplex existing 220 kV line	501	813

- Option 3 has least project cost but highest overall cost in NPV terms. May not be the best approach in the changing landscape.

Focus area 1: Given the changing landscape in the energy sector, are there adjustments that could be made to the capex IM to better ensure the right transmission investments are being made, including non-transmission solutions? (4)

- Options analysis is often used to deal with changing landscape
- The capex IM allows for this
- But options analysis is not practical for transmission investments based on dynamic efficiency
- In the past, Transpower considered NPV analysis and monte carlo simulation to estimate expected net market costs of investment options
- Is such detailed analysis necessary?
- Could we treat major capex with multiple stages differently?
- Could we accept simpler approach for option analysis?

Focus area 1: Given the changing landscape in the energy sector, are there adjustments that could be made to the capex IM to better ensure the right transmission investments are being made, including non-transmission solutions? (5)

- Economic investments:
  - increase transmission prices
  - but provide market benefits
- We can quantify transmission prices but it is difficult to predict the behaviours of market participants
- For example, NIGU series capacitor:
  - will reduce losses
  - will possibly reduce cost of electricity
- How should we treat such investments?

Focus area 2: Does the capex IM support a proportionate approach to scrutiny?

- Proportionate scrutiny is ensuring the effort spent on scrutinising Transpower's investment proposals is commensurate with the potential benefits to consumers of doing so
- Important principle
  - It led to the division between base capex and major capex
  - It guided us during the IM review when we considered improvements to the way DPPs and CPPs work together
- Important focus area because we want to focus our scrutiny where the greatest benefits to consumers are likely to result

Focus area 2: Does the capex IM support a proportionate approach to scrutiny? (2)

Potential questions for the Capex IM review:

- Are the thresholds and criteria still appropriate?
- Which types of capex should be subject to more scrutiny and which to less?
- Should we have the discretion to NOT scrutinise a project?
- Should Transpower be required to consider options and consult on all major capex proposals?
- Are we getting the information we need, when we need it, and in the form we need it, so we can effectively assess potential investments at the right times?
- Are the requirements for the ITP clear and give a good picture of Transpower's strategy and expenditure requirements?

Focus area 3: Once expenditure has been approved, does the capex IM appropriately deal with changing circumstances during a regulatory period?

- Do we have the flexibility we need to deal with changing circumstances during a regulatory period?
- Our experience with the capex IM has shown us that some circumstances cannot be accommodated under the current rules
- Important focus area because we don't want to inhibit efficient investment where there would be material benefits to consumers from that investment

Focus area 3: Once expenditure has been approved, does the capex IM appropriately deal with changing circumstances during a regulatory period? (2)

Potential questions for the capex IM review:

- Whether some capex should be 'set and forget'
- Whether we should have a staged approval approach for major capex
- Who should be able to initiate a reassessment of major capex once it has been approved
- How the capex IM deals with Transpower not spending its base capex allowance
- How the capex IM deals with changes in input costs outside of Transpower's control
- Whether Transpower should be allowed to undertake 'enabling works' in major capex

Focus area 3: Once expenditure has been approved, does the capex IM appropriately deal with changing circumstances during a regulatory period? (3)

- Capex IM already allows Transpower the following amendments to deal with changing circumstances:
  - Amend the major capex outputs
  - Amend the commissioning or expiry date
  - Amend the allowance
  - Terminate the project and seek major capex sunk cost adjustments
  - Are there any others for us to consider?
- Only Transpower can initiate these change processes

Focus area 4: Are the incentive mechanisms in the capex IM effective?

- Now that we have some experience with applying the capex IM, it would be useful to reflect on the extent to which the suite of incentive mechanisms are doing what we intended they would
  - Incentivise Transpower to improve efficiency, deliver outputs within approved expenditure, and improve the outputs
  - Encourage downward pressure on costs, and share any cost efficiencies with consumers
  - Ensure the appropriate level of service is delivered, and provide visibility of the outputs delivered
- Important focus area because ineffective incentive mechanisms won't be driving the desired behaviours or outcomes

Focus area 4: Are the incentive mechanisms in the capex IM effective?

Potential questions for the capex IM review:

- Are the incentive mechanisms targeting the right things and influencing Transpower's behaviour as intended?
- Are the incentives rewarding or penalising Transpower for things within its control?
- Are the incentive rates appropriate?
- Are any of the incentives ineffective or would be better outside of the capex IM?
- Do the incentives work well with the IPP quality standards?
- Are any of the incentives redundant?
- Do we need any additional incentives?

Focus area 4: Are the incentive mechanisms in the capex IM effective?

- Major capex efficiency incentive is based on assessing project efficiencies and inefficiencies
- This is difficult to do
- Should we refocus our incentive mechanisms on other aspects of project delivery such as inputs and outputs?
  - For example, innovation that saves costs

Focus area 5: Are aspects of the capex IM too complex and prescriptive?

- Exploring opportunities to reduce complexity and compliance costs and improve the clarity of the capex IM
- Important focus area because we should always be mindful of the costs our regulation places on regulated businesses
- Questions we might consider:
  - Can we streamline the process requirements for making and assessing capex proposals?
  - Can we simplify the incentive mechanisms without reducing their effectiveness?

Focus area 5: Are aspects of the capex IM too complex and prescriptive?

- Complex rules may restrict ability to respond to changing circumstances
  - For example, can we allow flexibility for projects that evolve from base capex to major capex and accept any previous consultations by Transpower before we agree on the timeframes and consultation requirements?

Transpower's presentation

Final questions and comments

Contact us

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