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Scott Pearse-Smith
Regulation Branch
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Wellington

By email: regulation.branch@com.com.govt.nz

Dear Scott

Capex IM review: issue identification via focus areas

We appreciate the opportunity to provide input to the problem definition stage of the Commission's review of the Capex input methodology (Capex IM).

We support the Commission's approach of using focus areas to guide stakeholder identification of problems and issues (or potential areas for improvement) with the current rules. We consider the five areas are well chosen to cover high level and operational policy settings[1] and that the changing energy landscape focus is the primary context for revisiting any policy in support of the Part 4 purpose of the Commerce Act. Our publication, Transmission Tomorrow[2], looked closely at the drivers for change and the potential impact of new technologies on demand for grid services. We discuss our conclusions for asset investment and management in the following section.

We see improving regulation as an important part of shaping the industry's future. The Capex IM is a set of rules that guides the operation of Transpower's Individual Price Path and we are uniquely positioned to provide evidence of our experience with the Capex IM. The opportunity to present our experience to stakeholders[3] was very useful, and this submission builds on the points raised in that presentation.

We agree with the Commission that the Capex IM does not require wholesale change[4] and consider targeted incremental change is appropriate to solve identified problems. The Commission's decision framework for change under the three criteria indicated[5] will ensure attention on the issues that warrant policy change.

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[1] We consider focus areas 1 and 4, investment and incentives, are high-level policy; the remaining focus areas are more operational; covering scrutiny, complexity / prescription of application, and processes
[2] Available at www.transpower.co.nz/tt2016
[3] Capex IM review introductory workshop on May 24th http://www.comcom.govt.nz/regulated-industries/input-methodologies-2/transpower-input-methodologies/capex-input-methodology-review/
[4] Paragraph 75
[5] Page 10 Promote Part 4 purpose; Promote IMs purpose; Reduce compliance cost / complexity

We particularly support progressing some review areas ahead of others, to support the planning and production of our RCP3 proposal (to be submitted December 2018).

This submission covers:

- our strategic focus on investment: 'least regrets' planning and decisions supported by our management framework (our strategy framework is shown at Appendix B)
- investment and efficiency performance: we raise concerns with productive efficiency as a performance lens and using volumetric targets for asset health
- decisions required to support the RCP3 proposal and the next regulatory period (RCP3)
- our detailed response to the considerations raised under each of the five focus areas with examples of implementation issues (at Appendix A).

Our strategic focus on investment

In Transmission Tomorrow, we concluded that the grid will continue to provide a valuable role in New Zealand's energy system, but the growth in alternatives to grid delivered electricity means we need to reduce our costs and evolve our services to remain competitive. Our planning trajectory, covering three plausible future states, is designed to capture a likely sequence of events and create a 'least regrets' basis for our planning.

We consider our investment framework may need to include new options analysis tools that create flexibility to allow for investment decisions to be made after analysing options and their outcomes against a context of greater uncertainty. Traditionally our capacity investment has been driven by demand growth and economies of scale that resulted in large and infrequent investment. With less certainty for demand outlook, we have concluded there is increasing value in deferring commitment to large investments through staged or incremental investments and use of non-transmission solutions. Such an approach could be designed to match our infrastructure build to need over time. We are also mindful of sustaining our social licence to operate while balancing the value-proposition of grid supplied energy.

The Capex IM review should revisit whether the prescription and decision rule of the existing investment test for major capex is still the only approach, or whether to consider the value of a wider range of decision support tools for economic analysis. To justify any departure from the default investment test, possible approaches are to allow judgement on a wider range of costs and benefits (for example, our decision-making in dense urban areas is complex), or considering economic analysis under staged approval.

After completing a series of major investments to strengthen the grid, our attention is on developing our organisational effectiveness and improving our management and maintenance of existing assets through a more flexible approach to grid asset lifecycle planning. Asset management is a core business competence required to effectively invest in and maintain hundreds of thousands of assets valued at more than $5 billion. We support the financial incentive schemes of the Capex IM that are intended to reinforce good business and asset management decisions. We agree with the Commission's identification of issues with some of the incentive schemes and provide further explanation and evidence for them in this submission (refer below, and Appendix A).

Our investment and efficiency performance

We note that the focus areas are based on the Commission's view that scrutiny of investment and efficiency performance are major functions for the Capex IM (paragraph 55). We agree with a framework for investment performance premised on dynamic efficiency (right things, right time e.g. via the investment test and balanced incentives for operating and capital expenditure).

However, we are concerned with the following statement:

> *Once Transpower has selected its investments and the timing thereof, there is still the cost-effectiveness with which the investment is carried out to consider (i.e., productive efficiency) …. productive efficiency appears the most relevant as it relates to Transpower's investment and operating decisions.*[6]

We consider characterising and viewing our efficiency performance through the productive efficiency lens [paragraph 64] could be detrimental to the Part 4 purpose especially for incentive settings for innovation and investment. For our RCP3 proposal we will submit an expenditure plan, in December 2018, for a range of potential works across the future five-year period starting April 2020. At the proposal stage, we are not 'selecting investments and the timing thereof'. Our plans are based on the best information at the time they are produced, but we expect to refine or revise need and delivery as we move towards and through the control period.

The management consultant Peter Drucker concluded *efficiency is doing things right; effectiveness is doing the right things.*[7] We might be assessed on delivering our plan at lowest cost, but plans may need to change; as well as refining our plans through new information and analysis we may need to deliberately re-prioritise. If the regulation focuses on productive efficiency, then we are at risk of not 'doing the right things' from a rigid plan to meet our service objectives. We provide an example of how this 'outputs' approach can be ineffective in the next section.

For the rest of the current regulatory period and forward, we strongly believe that we need to change how we express the role of the base capex quantum approved by the Commission. The underlying policy for substitution of base capex means that the base capex 'allowance' is better expressed as a fungible funding baseline, and not as an allowance to implement a specific plan.

To make the trade-off for price-quality levels the incentives need to be balanced across those that drive down costs (and consequently the price) and those that ensure levels of asset health and network performance (the quality). To be able to switch between opex and capex solutions or find innovative alternative solutions we need discretion to make the best decision we can on the available information. We consider the financial and performance incentives framework needs to be simple but robust enough to reinforce our strategic objectives and create the right context for good decisions nearer to real-time.

Asset health performance (as a grid output measure)

We fully support the grid output measures framework as the means to assure the Commission and stakeholders of the line of sight between investment and quality (network) performance under our IPP. We support measures to assess network performance and that some performance dimensions have financial reward and penalty. Nevertheless, in our previous submission to RCP2, and at a practical application level, we have found the detailed specification of the grid output measures difficult to apply. For example, asset health is not fully objective. We consider revising the grid output measures could be a way to reduce complexity and avoid unintended consequences.

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[6] Page 21

[7] Source: The Definitive Drucker: Challenges For Tomorrow's Executives" by Elizabeth Edersheim

We fully support the Commission's view of the role of asset health measures for understanding the condition of assets and for supporting decisions on levels of investment and/or maintenance. However, we consider any revenue-linked regime for asset health requires further development. We are studying how other regulatory regimes deal with the issue and trialling some approaches. We seek to remove the volume targets for all asset portfolios[8] for RCP3 because of the perverse incentives volume targets create.

For example, under the IPP we have a volume incentive to deliver 15 outdoor to indoor switchgear conversions (ODID) over RCP2. The conversions have a wide range of costs resulting in an incentive rate of $2.7m risk / reward per conversion. The lowest cost conversion was forecast at $3.3m but after further investigation we found a lower cost solution of ~ $1.3m (which didn't require a conversion at all). Under the base capex incentive, the $2m saving produces an incentive credit of about $0.7m (33% of $2m), but under the grid outputs incentive, completing one less conversion results in an incentive debit of $2.7m. The lower cost solution of $1.3m creates a net $2m debit to Transpower. We have chosen to proceed with the lower cost solution and effectively ignore the incentive. If we must ignore an incentive to make the best decision for the benefit of consumers, then confidence in the incentive regime is undermined.

Scrutiny to assess efficiency performance

Our vision is to harness the power of the incentive regime across our business and service providers, to create confidence that we are optimising innovation and investment for price-quality outcomes. As regulatory arrangements mature, the Commission can increasingly rely on the operation of incentives to drive continuous efficiency gains and reduce the extent to which regulatory scrutiny is expected to be a driver. The incentives are both more effective and require less administrative effort from the Commission.

Based on our experience with the major capex incentive regime, we agree with the Commission that the ex-post reviews can be complex and not effective. We consider that periodic scrutiny is a poor mechanism for driving efficiency. Interventions such as making ex ante adjustments to allowances for possible future efficiency gains, requiring disclosure of policy and process changes, reconciling plans to delivery, and making ex post assessments of efficiency are administratively demanding and cumbersome. Such intervention is fraught with information challenges and incentive problems. Our view is that better outcomes could be achieved with well-designed incentive arrangements that motivates ingenuity and effort in our workforce, suppliers and service providers to drive towards the best outcomes.

An emphasis on incentives is particularly important given the increasing need for us to be flexible and agile in responding to our strategic environment. The balanced opex and capex incentives in place for RCP2, and the quality incentives (including asset health) that can be in place for RCP3, are sufficiently mature to permit an incentives-based approach to regulation. However, there are opportunities to refine some of the information requirements and process interventions applying to base capex.

This review is an opportunity to revisit the incentive arrangements for large projects (listed and major) so that there is increased reliance on financial incentives and less reliance on administrative scrutiny.

We agree with the Commission that scrutiny should be proportionate to the benefits that consumers receive from it. We look forward to the Commission's views on current scrutiny levels (after this submission process). The existing rules contain a level of Commission scrutiny into our business processes that was in response to our commitment in RCP1 to various improvement initiatives.

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[8] Volume targets, caps and collars are described under the IPP for transformers, outdoor-indoor conversions, tower replacement, grillages, insulators, and circuit breakers.

We consider that as the business has matured under the regulatory regime there is less need for emphasis on the scrutiny of policy and processes. We suggest some information requirements could be reduced or removed.

Decisions required to support the RCP3 proposal, and for RCP3

We have started preparing for the RCP3 submission and suggest decisions that affect ex-ante RCP processes would need to be known (if not determined) prior to the first action under RCP3, producing **regulatory templates**, in November 2017.

For RCP3 capex proposal

Our focus is on changes to reduce compliance cost and complexity and to have an appropriate level of scrutiny.

Have incentives act on expenditure, not commissioning: We consider the Capex IM review the right time for making this business efficiency enhancing amendment. Currently, the base capex incentive operates from the value of assets commissioned each year. This arrangement introduces unnecessary complexity into our business processes and volatility into our price path. We consider that changing to a spend-based incentive creates a less volatile pricing outcome and enhances understanding of the incentive regime across the business. We describe in the appendix more detail about the difficulties with the commissioned value incentive (see response to paragraph 103.5). To provide stakeholders with confidence regarding our performance at converting expenditure into functioning assets, we could increase our disclosure of *works under construction*.

Revisit grid output measures and incentive framework: The Capex IM contains several definitions for grid output measures against a symmetric incentive framework (target, cap and collar).

We consider the many definitions create overlap, cause confusion and stifle our ability to evolve performance metrics important to our customers. We propose removing the definitions for asset capability, performance and health. We suggest higher level definitions would allow performance metrics to evolve, including new ways of measuring performance.

The symmetric incentive also does not work effectively for all measures, and we consider different incentive designs be needed for some measures.

For example, we are currently working with the Commerce Commission to develop an alternative approach to reporting on asset health output measures (non-revenue linked) for the remainder of RCP2.[9] Our view is that the measures better reflect the way we use asset health as an input to decision making. We are looking at international experience and refining a methodology to enable us to set appropriate asset health output measures for RCP3. We will consult with our stakeholders later in 2017. We aim to develop these measures and to propose appropriate revenue linked asset health grid output measures as part of our RCP3 submission.

Schedule F5 base capex proposal. We explained above our view on the effectiveness of documenting and describing efficiency. We consider the incentive regime to be the appropriate mechanism to drive efficiencies and could revisit the need for some of the requirements under Schedule F5.

[9] We have an obligation to report annually on non-revenue linked asset health measures as part of our current IPP and these measures are based on changes to average remaining life for selected assets.

For third regulatory control period (RCP3)

Policy for listed projects / major capex: in our submission to the Commission's draft decision for the Central Park – Wilton listed project[10], we described our concern with cost recovery or overpayment risks under the current policy settings and proposed a remedy of a reduced incentive rate.

We consider the Capex IM review should revisit policy both for listed projects and for major capex. Options for consideration could range from amending the current mechanisms, up to a new incentive policy package for listed and major capex together as 'large projects'.

In closing, we support a simplified (less complex and prescriptive) Capex IM that:

- increases flexibility to manage expenditure in a changing energy landscape
- provides balanced incentives between capex and opex that drive efficiency over time and reinforce our strategic objectives, and
- enhances a service focus through network performance incentives.

We look forward to the Commission's consultation on the issues raised through this problem definition stage, and clarification of timelines for the remainder of the review process.

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

Yours sincerely

Catherine Jones

Regulatory Affairs and Pricing Manager

[10] 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/

Appendix A – Responses to Commission's considerations and issues

Focus area 1 Changing landscape in the energy sector

Considerations (refer **paragraph 82)**	Transpower comment
82.1 Whether any changes to our process or analytical approach for assessing Transpower's capex proposals are warranted by the changing landscape in the energy sector.	Yes, changes are warranted. We agree that the changing landscape warrants reconsideration of process and analysis for our capex proposals. In Transmission Tomorrow, we concluded that the grid will continue to provide a valuable role in New Zealand's energy system, but the growth in alternatives to grid delivered electricity means we need to reduce our costs and evolve our services to remain competitive. Our planning trajectory, covering three plausible future states[11], is designed to capture a likely sequence of events and create a 'least regrets' basis for our planning. We propose the Capex IM review should consider a more agile approval regime and a more adaptive investment test. Our view of the possible increase then decrease (wax then wane) of demand for grid supplied electricity means we see value deferring major capex (demand-driven) projects if possible via incremental investment. Major capex projects could have a 'contingent' approval approach (only valid when some event or decision triggers the approval) to reduce transmission build lead times and enable timely response to rapid change in generation or demand.
82.2 The extent to which Transpower is adapting how it assesses its capex proposals to allow for the changing landscape.	We are reflecting uncertainty by taking a more top-down approach for long range planning and being careful not to overprescribe our work plan.
82.3 The extent to which Transpower considers transmission alternatives, and interactions with transmission and nodal prices, so that the best solution is identified and adopted.	We do consider transmission alternatives when we use options analysis in our decision process. In addition to developing demand response capability, we are considering possible roles for generation for voltage support in the Upper North Island.
82.4 Whether the requirement for Transpower to consider transmission alternatives should be extended to base capex and whether any consequential incentive adjustments would be required.	No. We consider there is no need for additional process intervention into our base capex as the totex approach, with balanced incentives for opex and base capex, encourages the consideration of alternatives. More process intervention, which extends regulatory reach, reduces our decision agility.

[11] Transmission Tomorrow pages 16 - 21

82.5 Whether improvements could be made to the investment test.	Yes. We consider the investment test should be a default setting and we recognise the value of certainty that prescription brings. However, in a future context of changing landscapes (our planning trajectory) our investment options analysis could allow for different decision rules. To justify any departure from the default investment test, possible approaches are to allow judgement on a wider range of costs and benefits (for example, our decision-making in dense urban areas is complex), or considering economic analysis under staged approval.

Focus area 2 Proportionate approach to scrutiny?

Considerations (refer paragraph 89)	**Transpower comment**
89. 1 Whether we should revisit the criteria that determine when we will scrutinise different types of projects so that we increase the magnitude of the benefits we generate through more targeted scrutiny. For instance, this could be by changing the $20 million threshold for base capex projects or programmes; changing which types of capex are subject to major capex project approval; introducing discretion for us to decide not to scrutinise a project that exceeds the base capex projects or programmes threshold if we do not consider there to be material benefit in us doing so.	We agree that revisiting the nature of scrutiny and for what types of project is appropriate. Scrutiny levels could be informed by quantifying the proportionate scrutiny principle (if possible). For example, scrutiny could be a 3-tier approach; scrutiny of base capex (as now) and thresholds for light / full scrutiny approaches to high cost individual projects (listed projects or major capex projects)
89.2 Whether the requirement for Transpower to consider options and consult is appropriate for all major capex proposals.	Yes. We consider the obligation aligns with our own best practice to consult on development projects (assumptions, options, and service). However, the level of consultation could be commensurate with the type of the project.
89.3.1 Are the base capex information requirements clear and unambiguous so that we receive accurate and reliable information with which to set the price path?	We think the base capex information requirements, specifically Schedule F, could be improved to reduce complexity and to appropriately raise the level of Commission scrutiny.
89.3.2 Do the base capex incentives provide the right incentives for Transpower to provide us with	Yes, if the (long term) incentive settings are allowed to reveal efficiency over time; the Commission should not have to scrutinise the base capex so deeply for efficiency (refer schedule F, F5) .

accurate forecasts for the setting of the base capex allowances, and not to overstate its base capex expenditure needs?	The evaluation should be focused on whether the funding baseline derived from programme sizing identifies relevant costs and that our escalation assumptions are reasonable.
89.3.3 Should we retain the 'listed projects' mechanism for future regulatory periods after RCP2 to avoid an incentive on Transpower to overstate its expenditure needs when there is base capex project timing and/or scope uncertainty at the time of submitting its base capex proposal?	Yes. We continue to need a mechanism for approving these large reconductoring projects with uncertain costs. We consider the Capex IM review should revisit policy both for listed projects and for major capex. Options for consideration could range from amending the current mechanisms, up to a new incentive policy package for listed and major capex together as 'large projects'.
89.3.4 Do the content requirements for each major capex proposal (MCP) enable us to efficiently evaluate and make a decision on whether to approve a given MCP?	We think the contents requirements should be reviewed for complexity and compliance cost.
89.3.5 Are the verification and certification requirements appropriate so that we can rely on the information provided by Transpower?	Yes.
89.4 Whether the requirements for the ITP are clear and allow stakeholders to gain a transparent picture of Transpower's strategy and expenditure requirements.	We have been evolving the ITP over this RCP. Our first update publication was 2015. In 2016 the update ITP was on business changes with immaterial change to the supporting documents. Our 2017 publication due September will be a larger change including to the supporting documents. For December 2018, our approach will have matured further to give a transparent picture of our expenditure requirements and strategy.

Focus area 3 Once expenditure has been approved, does the capex IM appropriately deal with changing circumstances?

Considerations paragraph 93	**Transpower comment**
93.1 Whether we should have a 'set and forget' approach to some capex.	Yes, although we consider the approach is already in place to some extent. See also our response to 100.5.

93.2 Whether we should introduce a 'staged approval' option for major capex.	Yes. A staged approach could help avoid forcing premature commitment to investments with high regrets potential.
93.3 Whether we, or other parties, should be able to initiate a reassessment of major capex once it has been approved.	No. Pausing a mobilised workforce with committed resources creates a large efficiency cost. We consider staged approvals should mitigate the risk of reassessment need.
93.4 How the capex IM deals with Transpower not spending its base capex allowance for a regulatory period.	The incentive regime means that the base capex approved by the CC should not be thought of as an allowance. To respond to the incentives, we need to move from 'spending its base capex allowance' to alternative language; our preference is for base capex 'baseline'.
93.5 How effectively the capex IM deals with changes in input costs that are outside of Transpower's control (for example, whether Transpower should be exposed to these risks, such as changes in the consumer price index (**CPI**) and foreign exchange (**FX**) rates, and whether any risk faced should be treated on a symmetrical basis	The FX adjustment is relatively meaningful (because we do spend in foreign currency). The accuracy or correctness of the CPI adjustment is more problematic particularly for major capex: • The drivers of costs, metals and labour prices, are not necessarily correlated with CPI. • When we enter a contract, we may not know how the supplier has factored in CPI
93.6 Whether the capex IM should allow Transpower to undertake 'enabling works' in anticipation of major capex projects using the base capex allowance if those works fall under the base capex project threshold (currently $20 million).	In our view, there is not currently any restriction on funding enabling works via our base capex arrangements. However, we have not factored such work into the sizing of the RCP2 base capex funding baseline. This is because the need, timing and cost of such work is uncertain and is better suited to the major capex arrangements – providing for substantial enabling works within our base capex funding baseline could heighten the risk of windfall gains or shortfalls, or large-scale reprioritisation across other investment needs. As such, we consider the more relevant question is whether there could be more explicit provision for the treatment of costs of enabling works for major capex project approvals.

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

Considerations paragraph 99	**Transpower comment**
99.1 Whether the incentive mechanisms described in Attachment A are targeting the right things and whether there is evidence that they	The incentive regime should support good decisions at the time they are being made. As a package of incentives – opex, capex and quality - the incentives could be better targeted. The objective is to create incentives to strive for efficiency improvement, while at the same time delivering network performance that reflects consumer demand.

influence Transpower's behaviour in the ways we intended.	Over the long term the incentives should support our asset management and investment. However, the Schedule B3 grid output measure for asset health (currently volume targets) is too mechanistic to be effective. We are proposing to remove volume-linked output measures (see below for reasoning). We also consider the major capex and listed projects incentives need further development.
99.2 Whether or not these incentive mechanisms, individually or together, have been shown in practice to reward Transpower (or penalise it, if appropriate) for things over which it has control, rather than those things over which Transpower has little or no control.	We agree grid performance can be affected by factors not in Transpower's control. The volume targets for asset health creates the potential for poor decisions. For example, under the IPP we have a volume incentive to deliver 15 outdoor to indoor switchgear conversions (ODID) over RCP2. The conversions have a wide range of costs resulting in an incentive rate of $2.7m risk / reward per conversion. The lowest cost conversion was forecast at $3.3m but after further investigation we found a lower cost solution of ~ $1.3m (which didn't require a conversion at all). Under the base capex incentive, the $2m saving produces an incentive credit of about $0.7m (33% of $2m), but under the grid outputs incentive, completing one less conversion results in an incentive debit of $2.7m. The lower cost solution of $1.3m creates a net $2m debit to Transpower. We have chosen to proceed with the lower cost solution and effectively ignore the incentive. If we must ignore an incentive to make the best decision for the benefit of consumers, then confidence in the incentive regime is undermined.
99.3 Whether the incentive rates are set at an appropriate level.	For base capex portfolios, 33% is effective; the most useful aspect is that it is the same (more-or-less) for both opex and base capex. (At our RCP2 WACC the opex incentive rate is 34%, which equates to retaining savings for 6 years. A rate of 29% would equate to retaining savings for 5 years. Any lower would require fundamental change to the opex incentive (IRIS – Incremental Rolling Incentive Scheme). For listed projects, and potentially for major capex, a lower incentive rate is more appropriate. Large individual projects have a high degree of uncertainty and are very large compared with approved base capex quantum.
99.4 Whether any of the incentives that are currently in the capex IM are ineffective or would be better addressed outside of the capex IM and IPP processes.	The policies and processes incentive could be removed as it is ineffective at assuring internal governance. We agree with the Commission's analysis and conclusion. The major capex efficiency incentive is ineffective (see 100.3 below).
99.5 Whether the capex IM incentives work well with the quality standards that we set in the Transpower IPP Determination and whether any	The opex and capex incentives help the drive for efficiency and cost reductions while the asset health and network performance incentives help ensure that those cost reductions are sustainable and not detrimental to consumers. The network performance incentive and the other (33%-based) incentive work independently.

changes need to be made for them to work better together.	We find the network performance incentive to be effective e.g. currently influencing operations, but longer term for building capability and systems for asset health, maintenance, operations, network configuration.
99.6 Whether or not any of the capex IM incentive mechanisms are now redundant and no longer required on their own or in support of other incentive mechanisms.	Policies and processes incentive should be removed as it is ineffective at assuring internal governance. We agree with the Commission's analysis and conclusion. (Capex IM certification process is the driver for compliance behaviour in the business).
99.7 Whether there is a requirement for additional incentive mechanisms to provide support for the existing package of incentives.	Yes. We consider that the package of incentives for large projects (major and listed) could be redesigned to align more closely with the base capex approach, which relies on continuous incentives rather than ex ante and ex post administrative scrutiny. Also, the grid output incentive framework only provides for one style of mechanism at present (cap, collar, target and single incentive rate). We consider there would be benefit in providing for two additional styles: • asymmetric incentive – there would be value in providing for incentives with asymmetric incentive rates (i.e. one rate above the target and a different rate below the target). This would provide more flexibility to design an incentive that captures a realistic uncertainty band. This is particularly useful for incentives such as "HVAC availability" and "number of interruptions at important sites" where the target is close to an absolute upper or lower limit (e.g. 100% availability or 0 interruptions). • non-mechanistic incentive – to successfully implement an asset health incentive without creating perverse incentives we expect it will be necessary to follow the UK's lead in allowing non-mechanistic incentives. This allows judgement to be exercised before the incentive is applied so the supplier is not penalised for "doing the right thing". If this feature is not in place, then the incentive could suppress bad news (e.g. about asset condition, deterioration rates or failure modes) or encourage inefficient interventions (e.g. replacing low-risk assets).
Issues paragraph 100	
100.1 The annual *base capex expenditure adjustment* does not currently take into account whether planned project outputs are delivered… e. Should a more direct annual linkage of the base capex allowance with the grid output mechanism be made?	No. It's unrealistic to lock down projects and outputs up to seven years in advance. We consider both efficiency (static and dynamic) and effectiveness outcomes will be better enabled from viewing the base capex 'allowance' as a fungible *funding level*, not as an allowance to implement a specific plan. Incentives that are well balanced to drive down costs and ensure appropriate levels of asset health and network performance should be the drivers for our business decisions on investment and maintenance plans. Our concern with the 'project outputs' approach across base capex expenditure is that it will constrain innovation in solution

	finding and take us down the path of misplaced efficiency effort. We need to be more – not less – agile and flexible in coming years.
100.2 The *base capex annual policies and processes adjustment* is an asymmetric penalty…. natural incentive on Transpower to minimise the amount that is disclosed as being non-compliant with the policies and processes. How effective is this incentive mechanism?	We agree with the Commission's analysis of the likely effectiveness of the policy. We consider the mechanism is impractical, ineffective and unnecessary. Under effective incentives for investment and efficiency performance, our policies and processes innovation (change) is a major source of business improvement and consumer benefit.
100.3 The *major capex efficiency adjustment* is an asymmetric reward to Transpower following each regulatory period for delivering efficiency savings across its major capex project portfolio…. [] How effective is this incentive mechanism?	We support development of a new major capex efficiency regime. We agree with the Commission's analysis of the likely effectiveness of the policy and consider the incentive mechanism cannot work in its current form. The Commission guidelines to claim for major capex efficiencies in RCP1 were • to provide evidence (emails, projects reports, board reports etc.) that there was intent, implementation and success in reducing costs. • to identify and disclose inefficiencies • to net-off the inefficiencies from the efficiencies Even under a potential efficiency 'prize' the approach was too hard, not intuitive, and very distracting. We abandoned our RCP1 efficiency claim before embarking on inefficiency finding. We are still unsure of how to implement the mechanism and consider the approach counterproductive.
100.4 Is the *major capex overspend* mechanism continuing to perform a useful function and, if so, are drafting changes needed to better reflect the policy intent? [The incentive adjustment may not be effective due to 1. Transpower can apply for increase 2. CC view that it cannot reduce the expenditure allowance below the original approved amount when we consider Transpower's application for an increase; and	We found the overspend process challenging (NIGU experience) and outcomes uncertain (Otahuhu, Wairakei, NIGU). The policy for major capex incentive needs to be redesigned. We consider there are synergies between large reconductoring projects and major capex projects to create a large project efficiency incentive. Moving large projects to incentive based regulation removes reliance on (and cost of) ex-post assessments / adjustments. Depending on potential new approaches to incentivising efficiency in large project delivery (listed and major projects), the overspend adjustment could be reviewed for need.

The overspend adjustment being asymmetrical in Transpower's favour.]	
100.5 To what extent should quality standards be linked to revenue?	To some extent. We support having some revenue at risk (or reward) for achieving quality outcomes, but we conclude, with evidence, the volume targets are not the best means for incentivising achievement. We support a financial incentive for quality standards because this can balance incentives on efficiency and enables the Commission to have an appropriately 'set and forget' approach focussed on efficiency and outcomes, rather than a less flexible and more intrusive focus on inputs, processes and deliverables. We expect incentive arrangements for quality to mature across the regulatory control periods. Our RCP2 network performance incentives are largely fit for purpose and we are steadily improving how we align business decisions to those incentives. Our RCP2 volume incentives have the advantage of being a simple and objectively measurable complement to network performance incentives, but have the disadvantage of encouraging delivery of a fixed plan (contrary to dynamic efficiency). For RCP3 we are developing a proposal for asset health-based incentives to replace the volume incentives. The proposal has the advantage of being better targeted at what matters and hence supporting more flexibility, but the disadvantage of being less objectively measurable and hence requiring more sophisticated incentive arrangements and mature business processes. Beyond RCP3, we aspire to move from asset health to network risk; closer again to what matters, but even less objectively measurable.

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

Considerations paragraph 103	**Transpower comment**
103.1 Are there opportunities to streamline the process requirements for making and assessing capex proposals? For example, some of the process, information and evaluation requirements, such as Transpower seeking amendments to components, may be able to be simplified.	Yes. Improve clarity of objectives of information requirements for capex, e.g. to confirm that: • The proposal captures our current levels of efficiency and reasonable assumptions for costs escalation • We have sized the base capex 'baseline' appropriately for target outcomes, uncertainty and constraints. The objectives should not include approving policies and processes, assessing potential efficiency improvements, or approving a programme of work.
103.2 Are there opportunities to simplify the incentive mechanisms without reducing their effectiveness?	Yes. We have two, separate comments. First, we agree with the Commission that the incentive was not easy to apply. Having to articulate elements such as evidence of intent, implementation and success at reducing costs; was an impractical mechanism.

The major capex efficiency incentives as specified are not easy to apply. There may be scope to make these more useful, incentivising Transpower to focus on areas that provide highest benefits such as innovation	We consider there are synergies between large reconductoring projects and major capex projects to create a 'large project' efficiency incentive. Moving large projects to incentive based regulation removes reliance on (and cost of) ex-post assessments. Second**,** the base capex incentive operates from the value of assets commissioned each year. The arrangement introduces unnecessary complexity into our business processes and volatility into our price path. We consider that changing to a spend-based incentive creates a less volatile pricing outcome and enhances understanding of the incentive regime across the business. The difficulties with a commissioned value incentive include: • commissioning lags spending and is inherently more difficult to forecast because, rather than accumulating through a project, it is highly dependent on specific project events such as engineering acceptance testing and project close documentation • we cannot accrue commissioned value (an asset is either commissioned, or not) so annual outturn can be disproportionately impacted by single events (e.g. excessive rain in June can delay commissioning of many millions of dollars' worth of assets) • forecasting and reconciling commissioning is an extra task, because forecasting and reconciling spending is required for all financial processes. We would always forecast commissioning for RAB forecasting and price path purposes, but our processes could be less intensive and more fit-for-purpose if not also used for annual incentive calculations; and • at the margin, a commissioning-based incentive deters commissioning (we effectively receive incentive credits for delaying project commissioning).

Appendix B – Transpower's strategy framework