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Commerce Commission
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Electricity Transmission Post Workshop Submission

Transpower appreciates the opportunity to make a submission on the issues discussed at the Workshop on the Commission's Emerging View Papers. We found the discussions at the workshop constructive and were encouraged that there seemed to be a broad consensus, amongst interested parties, on many aspects of the Commission's proposed regulatory arrangements.

Our submission, rather than provide a detailed commentary on all aspects of the Commission's emerging views, firstly sets out an overview of Transpower's preferred regulatory arrangements and how we would see these working in practice. It then comments in more detail on the specific arrangements for establishing appropriate capital and operating expenditure allowances; the proposed quality performance framework and the various safety net provisions which the Commission intends to build into the new framework. The appendix to the submission sets out our responses to the Commission's specific questions.

Overall regulatory framework

We believe that regulatory practice in Australia provides a model that balances regulatory oversight with sufficient management discretion and incentives to drive ongoing operational and investment efficiencies. Consequently, New Zealand should aim to move towards a similar model and in our view doing so will ultimately serve the best interests of consumers.

Consideration of the regulatory processes that will underpin the new framework should strive to:

- recognise the strategic importance to NZ of the effective management of critical national infrastructure;

- provide a stable regulatory framework that encourages new investments, rewards good decision making and minimises regulatory costs and risks;
- ensure that Transpower has the responsibility to balance the competing objectives of cost efficiency with system security and quality of supply, with final accountability clearly with the Board of Transpower.
- provide Transpower with appropriate operational freedom to manage its investment plans and respond in a timely way to changes arising in its business and operational environment. This responsibility has to be matched by requirements on us to be accountable, transparent, and where helpful, subject to high level performance measures;
- ensure that appropriate management tools, such as economic models, are used by Transpower to inform good decisions that reflect technical and wider business considerations such as resource availability, market condition, and strategic direction;
- build on existing processes wherever possible and ensure that any process changes avoid disproportionate complexity and encourage regulatory effectiveness and company efficiency; and
- recognise that regulatory oversight of investment decisions needs to be commensurate with the scale and complexity of a particular investment.

In close alignment with the Commission's emerging views, Transpower's preferred regulatory arrangement is an individual multi-year revenue path (which is expected to be three years initially and possibly five years ultimately), set at the start of the regulatory control period using an ex ante building blocks approach. The revenue path would be based on Transpower's multi-year forecast of operating and capital expenditure, cost of capital, depreciation and taxation, using, as appropriate, the transmission input methodologies determined by the Commerce Commission. Only the revenue associated with very large and uncertain and / or particularly complex capital investments would be outside the ex ante revenue path and these would be considered and approved separately on a case by case basis.

Transpower should be responsible for developing its grid investment and asset management programmes and responsible for applying economic tests to guide its investment decision making. The Commission should be responsible for reviewing a proposed multi-year programme of work and approving a multi-year revenue allowance, based on confirmation that the forecast expenditures are reasonable given the information available to Transpower at the time.

The Commission should review Transpower's performance against the revenue allowance at the end of each regulatory control period. This level of regulatory oversight should create only moderate compliance costs.

Under such a framework Transpower would need to justify its revenue path by linking forecast expenditure to cost drivers, customer preferences, and good electricity industry practice, demonstrating robust controls on capital and operating expenditure and applying appropriate economic or other cost-benefit tests to planned expenditures. Agreed network reliability and other service levels would be established and financial incentives for delivering efficiencies would be built into the revenue allowance.

An overarching quality performance framework, based on an ex post review of performance, is expected to be included as part of the new regulatory arrangements.

It is envisaged that, for the first regulatory control period, the quality performance measures would be for information only, but that for subsequent periods potential penalties or rewards equivalent to a maximum of 1 per cent of total revenue would be linked to quality performance.¹

Overall, the framework should provide Transpower the opportunity to earn a return on investment commensurate with the risks inherent in its business, including the risks associated with an incentive based regulatory regime.

Day-to-day business decisions should be the responsibility of the Transpower Board and management, including how to manage the company's maintenance, replacement and refurbishment of assets and how to identify the need for new capex. The Transpower Board and management would be able to manage the reallocation of resources between years, between capital and operating expenditure and between projects as commercial, security and overall economic circumstances evolved. This recognises the fact that the Transpower Board and management are in possession of the best information to enable them to manage the resources available to the business and that they need to accept responsibility for the decisions they take.

Transparent reporting of progress and performance against plan (and the basis of the revenue allowance) is an essential element of the regime to provide assurance to all Transpower's stakeholders.

¹ Under the AER's Target Performance Incentive Scheme in Australia, the maximum revenue increment or decrement that a transmission company may earn against its agreed performance parameters is 1 per cent of its maximum allowed revenue for the relevant financial year.

The building blocks approach proposed is consistent with, and builds on, the processes used to set the terms of the administrative settlement currently in place between Transpower and the Commerce Commission. It would provide greater certainty for Transpower and its customers with respect to the revenue requirement and transmission prices over the regulatory period. Smoothing price changes over the planning period in this way may also result in greater acceptance of price variations by customers and understanding of the reasons for those variations.

Prior to and during the first regulatory period, Transpower will be developing its forecasting systems and this may result in some additional uncertainty with respect to its efficient capital expenditure profile (and possibly also operating expenditure requirements). To handle this uncertainty, Transpower suggests that the regulator incorporate into the framework “safety net” provisions at least in the first regulatory period, that will allow the Commerce Commission to reset the revenue path during the regulatory control period if there are very substantial variances against forecast expenditures (i.e. significant under expenditure against the capital expenditure allowance).

It is also envisaged that there will be an ex post review of expenditure at the end of the regulatory control period, and a possible “claw back” of revenue if, in the Commission’s opinion, substantial under-spending occurs as a result of inaccurate forecasting and planning leading to work not being done (or substituted) as opposed to being as the result of demonstrable efficiency gains.

Expenditure in excess of the capital expenditure allowance would be allowed to enter the regulatory asset base (effective from the time the relevant assets were commissioned), provided the regulator considered the expenditure to be prudent. Ex post adjustments to the revenue allowance could be made through the EV accounts.

Capital expenditure

We do not agree with the Commission’s emerging view in relation to the proposed process for the treatment and approval of capital expenditures. Specifically, we disagree fundamentally with the proposal that all projects above \$1.5million should be subject to individual project approval with no discretion for Transpower’s management to move resources between projects, and that no movement of resources between what the Commission has termed “aggregated projects” (such as tower painting and various asset replacement strategies) should be permitted.

This proposed approach runs contrary to one of the prime objectives of Transpower's proposed approach, as it takes away from Transpower's board and management any incentive or ability to manage resources to achieve efficiencies as circumstances evolve over time. It also runs contrary to the general scheme of the State Owned Enterprises Act 1986 which requires the Board of each enterprise to be responsible for the operation of the business and to allocate its resources efficiently and appropriately.

Transpower's position was reinforced at the workshop by both the independent experts, John Scott (Kema) and Merryn York (Powerlink), the latter stating that "Under the ex ante framework, Powerlink has full operational discretion to allocate its expenditure allowances as it sees fit. It has an incentive to seek more efficient ways of delivering its services in order to maximise its profits while maintaining the service standards that have been set in the decision."

Categories of capital expenditure

We agree with the Commission's proposal to remove the distinction between capital spent on enhancing the grid and capital spent on maintaining the existing grid (replacement and refurbishment).

This is a somewhat artificial categorisation which reflects the current regulatory arrangements. The level of rigour applied to a decision whether to replace an existing asset or to invest in a new asset to enhance the capability of the grid should be similar and commensurate with the size (value) and complexity of the work in question.

Capital expenditure inside and outside the ex ante "expenditure allowance"

In the Australian framework there are two components to the capex allowances which are approved by the regulator, the AER. One is the main ex ante capex allowance which forms part of the maximum allowed revenue. There is then a separate arrangement for large contingent projects (defined as large value projects where there is some uncertainty about the preferred technical solution, timing or the amount of expenditure required). These contingent projects are outside the revenue envelope and not included in the ex ante approved capital expenditure forecast. Approval of contingent projects occurs at an individual project level at anytime during the regulatory period if predefined "triggers" for investment occur.

The Commission's emerging view also considers that a distinction should be made between projects included in the revenue envelope as part of an overall

capex forecast (defined by the Commission as minor projects) and those subject to more detailed scrutiny, approved and capped on an individual basis outside the envelope (defined as major). The Commission has proposed that the threshold be set at a project value of \$1.5m – above which all proposed projects would be individually approved and expenditure capped. We were encouraged at the workshop that the impracticality of such a proposal was canvassed by several of the participants in addition to Transpower.

Transpower's preferred longer-term approach is to mirror the Australian regime described above, with "contingent" projects limited to large projects for which there is uncertainty over timing or cost and where specific triggers for investment can be identified.

In the first regulatory period, at least, given the relative immaturity of the regulatory arrangements in New Zealand, Transpower considers that certain ("non-contingent") projects should be outside the ex ante revenue allowance where:

- a) the value of project investment is very large; and
- b) multiple investment solutions exist, including non-transmission solutions, or where there are significant market impacts associated with the investment.

When establishing a value threshold level, consideration needs to be given to the regulatory costs and benefits associated with setting the threshold too low. We propose that the threshold should be set at an individual project value of \$50m but with an option for Transpower to seek individual consideration and approval by the Commission below this threshold should the circumstances dictate. The proposed threshold is considered to be pragmatic given the likely number of large projects that will be progressed by Transpower during the first regulatory period. It is noted that in the Australian regime there is no such threshold and all projects, with the exception of truly contingent and uncertain projects, are included in the ex ante allowance. It is also noted that the process for implementation of this approach should be designed to ensure that it remains clear that the final accountability for balancing the competing objectives of cost efficiency with system security and quality of supply should lie with the Board of Transpower. With this in mind, and as discussed further below, the process of consultation on the options and final proposals for these large investments should be Transpower's responsibility (rather than, for example, the responsibility of the Commission).

One of the concerns expressed at the workshop related to the risks associated with setting the “major” project threshold too high and moving away from ex ante individual project approval to a framework based on the approval of an ex ante capital expenditure. There was a view that that could lead to a potential reduction in the rigour that Transpower would be required to apply to the assessment of its project investments and a reduction in the overall level of transparency.

In our view this would not be the case. We believe that a move to the framework we have advocated would in fact result in greater transparency with respect to our decision making processes, as all aspects of Transpower’s governance and planning processes would be subject to independent scrutiny by the Commission and its expert consultants.

During the regulatory period, when both major and minor capex projects are being progressed by Transpower, we would be required (under the rules) to apply an appropriate level of governance, economic analysis and stakeholder consultation to progress projects from inception, through planning and delivery to final commissioning.

Where value judgments are required to be made by Transpower these would need to be fully documented.

The Commission’s ex post review (at the end of the regulatory period) would confirm that Transpower’s, independently reviewed, internal processes and policies (for example asset strategies) had been complied with as well as any other specific obligations required under the Commission’s s.52P determination (for example circumstances when an economic test must be applied, requirements for specific stakeholder consultation etc). As noted later under “safety net provisions” the Commission’s sanctions for non-compliance would include revenue claw-back and / or exclusion of specific investments from the regulatory asset base.

We fully support the need for a cost/benefit approach to the evaluation of new investment (and major asset replacements) in the interconnected grid and this should apply commensurately whether the project is above or below the “major” project threshold. Equally, stakeholder consultation is important (and essential) to Transpower and this should not be eroded by the level at which the threshold is set. We would continue to consult on our investment proposals, as is the case currently, but can see considerable benefits both to our customers and to Transpower in our having the ability to determine the level of consultation for non-major projects, by for example consulting periodically on proposed regional

programmes of work and / or on a number of smaller value projects, collectively at the same time, as specific requirements dictate from time to time.

It is also important to acknowledge that regulatory frameworks cannot be entirely rules-based, mechanistic or formulaic. Not all sensible business decisions can be adequately captured by quantified financial assessment tests.

This point was raised at the workshop as part of a discussion on when and where formal cost / benefit analyses should support investment decision making. Some examples relevant to Transpower where factors other than pure financial consideration may need to be considered are:

- Safety standards;
- Environmental objectives;
- Deliverability of solution, e.g. supply chain limitations;
- Resourcing and mobilisation of specialist skills;
- Equipment mal-operation and its increasing likelihood as plant approaches end of life;
- Operability and maintainability;
- Complexity of engineering/technical systems or architectures
- Obsolescence;
- Land access and third party co-operation;
- Circumstances beyond normal operating assumptions;
- Failure modes when operational limits are reached (e.g. cascade risk);
- High impact, low probability event risk mitigation; and
- Corporate social responsibility (CSR) factors.

Ex ante level of certainty required by the Commission

The Commission's emerging view places a significant emphasis on seeking certainty upfront (before the regulatory period commences) in order to set the ex ante revenue allowance. In essence, the Commission's proposed process suggests an expectation that Transpower should have full business cases confirmed for all expected project expenditure four years in advance. In other words all necessary planning, design, consultation and pre-procurement work for each project should be completed before the regulatory period commences. As stated at the workshop we consider that such an expectation does not reflect the real life dynamics of how a business like electricity transmission (and any other business for that matter) operates in practice – where forecasts are routinely updated and projects (and expenditures) are required to be progressed and approved on an ongoing basis. This point was emphasised by Ms York (Powerlink) at the workshop.

Aside from the impracticality of our providing the Commission's required level of project certainty prior to the start of a regulatory period it would also be grossly inefficient. Project business cases prepared three or four years in advance of expected project commencement would inevitably require significant re-work because circumstances can and will change.

It is worth reflecting on the objectives of the revenue envelope approach and the incentives which it aims to place on Transpower's Board and management to manage risk and resources, deliver stated outputs and to achieve efficiencies as circumstances evolve over time.

The framework is designed to enable the regulator to set revenues in advance with a reasonable degree of confidence in the company's forecast expenditures. In mature regulatory environments, such as the UK and Australia, once set the approved revenues are recovered by the company irrespective of actual expenditure incurred during the period.

This "set and forget" approach acknowledges the apportionment of risk between the company and regulator. (The company takes the risk that the forecasts are right and does not recover more if it spends more and the regulator takes the risk that the company could marginally over-recover if the expenditure does not take place.) Either way, the "risk" only applies for the regulatory period before revenues are reset at the next regulatory reset.

Transpower acknowledges that the Commission's desire for project certainty "upfront" may be driven by a lack of confidence in Transpower's ability to forecast costs over the longer term. As noted at the workshop, we are currently investing considerable effort to develop our forecasting systems and until this is achieved there may be some additional uncertainty with respect to its efficient capital expenditure profile. For that reason the Commission has at its disposal safety nets which are not typically available to regulators in other jurisdictions, namely a far reaching ex post review mechanism with the ability to claw back, at the end of the regulatory period, any "excess" revenue which the Commission believes has resulted from error in the initial forecasts. As it stands the Commission's emerging view strives for both ex ante and ex post certainty which is unreasonable and imposes a high delivery burden on the regulated business.

Substitution

The Commission's emerging view seeks to limit the degree to which Transpower should be able to substitute expenditures between different categories of projects. Such an approach seems to be counterintuitive given that some of the implied aims of the framework are to:

- incentivise the Transpower Board to be accountable for and manage risk;
- enable appropriate prioritisation (which will inevitably change)
- encourage the right choices to be made across the whole of Transpower's work programme;
- deliver least "whole of life" cost outcomes; and
- continually strive for innovation.

The Commission's proposed approach to "capex" substitution contrasts markedly with that proposed in relation to "operating" expenditure. In the latter case an allowance is established within which Transpower is appropriately expected to manage and prioritise its resources, whilst the approach to capex is unnecessarily heavily constrained. There appears to be no clear rationale for this difference.

We noted that several of the attendees at the workshop also supported the need for Transpower to have appropriate flexibility to manage its business within an overall envelope of expenditure with substitution constraints only being applied to major projects outside the revenue envelope – with the caveat that appropriate safety net provisions for the Commission are in place to mitigate the risk associated with forecasting error (as described later).

Summary

In summary, Transpower's preferred model for the regulation of capital expenditure under the Part 4 reflects a multi-year revenue reset process which:

- establishes an ex-ante capital expenditure allowance for the period (forming part of the revenue cap) for minor projects (<\$50 million);
- requires major projects (>\$50 million) to be approved individually at any time during the regulatory period and allows for the associated revenue to be recovered (on commissioned assets) as an addition to the ex ante revenue allowance;
- requires annual reporting by Transpower, of performance and outturn against forecasts used to establish the ex ante revenue allowance;
- does not allow for "second chances" for Transpower with respect to the capex allowance, but does allow for substitution at Transpower's discretion;
- recognises that companies re-prioritise investments if something unforeseen occurs;
- includes no expectation that projects are approved before the start of the reset period but bases an assessment of "reasonable forecasts" on Transpower having applied sound governance arrangements, policies and processes to determine expenditure requirements; and

- includes “safety net” provisions for the Commission to make adjustments during (and after) the first regulatory period, in the event that Transpower significantly under-spends against its forecasts.

Operating expenditure

The Commission’s emerging view in relation to the process for setting operating expenditure allowances and the associated efficiency incentive mechanism align closely with Transpower’s view². We envisage that the Commerce Commission will approve forecast operating expenditure for each year of the regulatory control period, based on an ex ante case supporting the need for the expenditure, including the planned incidence of the expenditure, forecast cost escalators and risk premiums.

Controllable operating expenditure would be subject to an efficiency benefit sharing scheme similar to that approved by the Australian Energy Regulator, i.e. under or over expenditure would be disregarded for pricing purposes during the first regulatory control period, but, in the following period, incremental over-runs would count against the allowed revenue and incremental savings would augment the allowed revenue for a period equal to the length of the first regulatory control period plus the year in which the incremental over-run or saving occurred.

This approach provides an incentive for the regulated company to achieve efficiency gains by permitting it to keep the benefit of the efficiency achieved for a period of time, but requiring it eventually to pass that gain on to customers. Ultimately, this should help to ensure that “true costs” are revealed over time.

The Commission’s emerging view in relation to the setting of the operating allowance for the transition year (2011/12) is that it would set an approved allowance by escalating the 2010/11 operating expenditure allowance by CPI=0 and then adjust this as necessary to be consistent with any amendments to the list of pass through costs as established under the appropriate input methodology. At the workshop Transpower made a presentation setting out the drivers and need for increased maintenance requirements and the need for the Commission to revisit the proposed CPI=0 base operating expenditure allowance for 2011/12. The net opex proposed by Transpower for the 2011/12 year is \$234m relative to a base escalated opex of \$221.9m (at forecast CPI) – a required increase in the operating allowance of \$13m (refer also to Transpower’s response to the consultation questions in Appendix 1).

² It is noted that the future treatment of instantaneous reserve availability charges, levied on Transpower, has yet to be determined by the Commerce Commission.

Quality performance

Transpower proposes a quality performance scheme based on the Service Target Performance Incentive Scheme used by the Australian Energy Regulator, modified to suit the New Zealand environment. For the initial regulatory control period, the outputs would be for information only, but, for subsequent regulatory control periods, quality performance would be linked to financial penalties and rewards equivalent to up to 1 per cent of total revenue.

The targets set for expected future performance should be relevant to customers and based on historical performance modified to take account of factors that would reasonably be expected to affect future performance, such as increases or decreases in capital and operating expenditure (including maintenance), ageing of the total asset stock and changes to the regulatory environment.

It is envisaged that the performance incentive scheme to take effect from the start of the second regulatory control period would set performance bands above (cap) and below (collar) the expected target performance levels. Rewards or penalties would be based on a sliding scale dependent on the distance from the target value up to the cap or down to the collar. No further penalty or reward would apply beyond the cap or collar.

Transpower's proposed performance measures are:

- number of loss of supply events above 0.05 system minutes
- number of loss of supply events above 1 system minute
- percentage availability of AC transmission circuits
- percentage availability of the HVDC link

These measures are consistent with Transpower's current internal key performance indicators and correspond to measures used in Australia. The measures may be weighted according to the expected effect on final consumers.

Incentive Framework

One of the objectives of the revenue envelope approach to price-quality regulation is to provide incentives for the regulated company to identify and achieve efficiencies, and, over time, to reveal the actual economic costs of its activities.

To this end, Transpower would be permitted to retain any under spending of its forecast capital expenditure during the regulatory control period, provided this was not due to actual forecasting errors (as determined by the Commerce Commission and subject to the safety net provisions described in the section

below). Over-spending of forecast capital expenditure would be a risk borne by Transpower's shareholder. Actual outcomes would be taken into account when setting the revenue envelope for the next regulatory control period.

Operating expenditure would be subject to the efficiency benefit sharing scheme described in the section above, whereby efficiencies would be retained by Transpower for a period, but ultimately passed on to customers, and over-spending would be treated equivalently.

With respect to quality incentives, from the second regulatory control period onwards it is envisaged that Transpower would be subject to a performance incentive scheme that would place up to 1 per cent of total revenue at risk each year, with an equivalent amount potentially available as a reward for outperformance, as described in the section above.

The Commission's Safety Net Provisions

Safety net provisions are an important part of the proposed framework designed ultimately to protect consumer interests. We anticipate that Transpower's overall individual price-quality path regulatory framework will include some form of "shipwreck clause" provision that will allow the Commerce Commission to reset the revenue path during the regulatory control period if there are very substantial variances against forecasts, such that it is clear, in the opinion of the Commission, that the forecasts were radically wrong and / or Transpower is considered to be materially under-spending against its forecasts.

It is also envisaged that there will be an ex post review of expenditure at the end of the regulatory control period, and a possible "claw back" of revenue if, in the Commission's opinion, substantial under-spending was due to incorrect forecasting and not to efficiency gains.

The table overleaf summarises the protections which would be built into the "ex ante" framework from the perspective of both the Commission and consumers in general.

Safety net provisions built into the “ex ante” framework

Ex ante	Within the period	Ex post
Independent expert review of Transpower’s expenditure proposals including using engineering and other consultants – focus on governance / process / assumptions and application	Commission specification of process requirements “in the rules” <ul style="list-style-type: none"> • cost benefit requirements • consultation requirements • demonstration of GEIP Burden of proof on Transpower to demonstrate at ex post review	Ex post review at the end of the period and clawback if major under spend against forecasts (not related to efficiency gains)
Commission’s discretion to adjust expenditure proposals to reflect independent view of a “reasonable” forecast	Requirement to publish annual regulatory reports setting out performance against ex ante allowances	Disallowance of imprudent expenditure into the regulatory asset base
	Major projects subject to individual scrutiny and approval by the Commission	
	Shipwreck clause allowing Commission to reset the revenue path in the case of material variances against forecasts	

APPENDIX 1

Response to Specific Questions

Question 1

Regarding input costs, Transpower noted in its presentation on grid maintenance expenditure that input costs are increasing. The Commission sought further information that supported this increase. Transpower noted that it was willing to provide current and historical information on tendered maintenance contract labour rates.

Response submitted under separate cover

Question 3

The Commission requested further detail around the Australian Energy Regulator's market constraint mechanism, and the pros and cons of such a regime. The Commission also requested that parties provide views on potential capacity constraint measures (though on the basis that initially such a measure will be reported only, with a view to explore whether it might be usefully included in an incentive regime in future).

Capacity measures for New Zealand

The Australian Energy Regulator's market measures the market price impact of constraints. The approach used is reasonable in the Australian context, where nodal pricing does not apply and where thermal generation dominates heavily, so the marginal cost of generation at any particular time can be fairly readily calculated based on the cost of thermal fuel (coal or gas). In New Zealand, the situation is more complex.

Broadly, the national grid exists to provide transport, security and to support the operation of the market. A measure of its contribution to supporting the operation of the market, if one could be developed, could be worthwhile.

The impact of any outage on New Zealand's nodal market is complex, as participants will change their offer strategies in response to it. The dollar impact of a constraint is a combination of the capacity characteristics of the outage, system conditions at the time, and market behaviour.

Relative to Australia, where generator offers largely reflect the relatively fixed costs of fossil fuels, in New Zealand generator offers vary significantly with the value of water, the opportunity cost of which rises significantly when storage drops (typically in dry years). This means that the value of a constraint directly attributed to an outage is more difficult to measure in New Zealand.

The Australian approach of flagging specific outages that cause constraints through a threshold price increase would not be possible in New Zealand because:

- From late 2010, constraints will be developed automatically, in real time. Constraints will not be mapped to particular outages, and it would be technically and manually complex to 'reverse engineer' a constraint to find whether an outage caused it. (In Australia, every outage has one or more constraints created specifically for it.)
- Prices in New Zealand's nodal market vary significantly across the grid, especially where there are constraints. There is no single measure of price

increase. (In Australia, each region or zone has a single price for all nodes, so it is much easier to measure price increase unambiguously).

Per period measures, such as the total value of the constraint rentals over, say, one year, would avoid some of the above issues. However, while they could theoretically be calculated (by removing the loss rentals from the total market services), it would be impossible to identify those constraints caused by transmission outages and those which are inherent due to the limited capacity of the grid (it being uneconomic to build a totally unconstrained grid for all eventualities), and the measure would thus be of no value.

Question 4

Regarding New Investment Agreements (NIA), Transpower agreed to forward, with its submission, a copy of the new NIA, together with background information, and its view on current and potential barriers to competition in the provision of new grid assets.

A copy of Transpower's new NIA template, termed the Customer Investment Agreement (CIC) was provided to the Commission on 19 March 2010. It is noted that although the contract template and terms have been finalised, and are available for review by customers on their areas of the Transpower web page, the new contract per se is not yet live. Transpower will be following a formal process of customer notification and communication in the early part of April.

Current and potential barriers to competition in the provision of new grid assets

When assessing the barriers to competition in the provision of new grid assets it is important to distinguish between those assets that, for pricing purposes, are defined as connection assets and those that are interconnection assets. Connection assets provide services to usually one and generally no more than three connected customers. Consequently, these assets have the characteristics of private goods.

The barriers to the competitive provision of connection assets are no greater than those that apply to many other capital intensive businesses. The principal barriers are the need to obtain resource consents, easements and access rights, comply with the Connection Code that forms part of the Benchmark Agreement set out in Schedule F2 of the Electricity Governance Rules 2003 (which is based on the requirements of rule 3 of section II of part F of the EGRs) and the relatively high unit costs of some transmission equipment. Hence, it is entirely feasible for distribution companies to install their own equipment in place of what would be connection assets if the equipment concerned formed part of the grid, and this happens in practice from time to time. It is also possible for distribution companies to contract with a third party to provide shared transmission lines that would be connection assets if they formed part of the grid. This has happened, for example, in the case of the line installed by Powerco Transmission Services to connect the Te Rere Hau wind farm in the Manawatu to the grid. Transpower operates an "open access" grid policy and will connect any party that can comply with the Connection Code and satisfy other legal requirements (e.g. the Resource Management Act).

By contrast, the barriers to competition in the provision of new interconnection assets are substantial. In the interconnected part of the grid, loop flows and parallel flows are possible (indeed usual). Consequently, it is generally impossible to identify clearly the beneficiaries of any incremental investment in the interconnected grid, which in turn makes it effectively impossible to contract with the beneficiaries to provide those assets. Transmission assets also exhibit very substantial economies of scale and this is particularly evident in the interconnected grid. This makes it inefficient to replicate the grid at the same capacity – the lowest cost way of providing transmission services is invariably single links (with circuits duplicated for security reasons) at the maximum economic capacity. The incumbent grid owner also has an advantage insofar as incremental investment in interconnection assets can leverage off the existing grid.

It is for the reasons described above that the provision of Transpower's interconnection assets is regulated – essentially, this part of the business is a natural monopoly. In principle, it would be possible to have more than one monopoly interconnected network, with the networks themselves interconnected at their boundaries, as happens in some overseas jurisdictions. However, this would not amount to competition, as each network would still be a monopoly in its own region and hence would still require regulatory oversight.

With respect to the concern that, because distribution companies are able to treat transmission costs as “pass through” costs, this may moderate their incentive to negotiate the most cost effective provision of connection assets, Transpower believes, based on its own experience, that distribution companies still have a clear interest in ensuring that their own charges do not increase unnecessarily and almost always strongly query the detail of new investment proposals and suggest alternatives. In addition, rule 5 of section II of Part F of the Electricity Governance Rules requires that any investment agreement that would result in an increase in service levels or the level of reliability must be consulted on with affected designated transmission customers and end use customers and the parties to the proposed agreement must certify that there are no material unresolved issues affecting the interests of those customers (including pricing implications). Further, an agreement that would decrease service levels or the level of reliability requires Electricity Commission approval. Most of the more substantial new investment agreements have implications for service levels, so consultation with affected end use customers is required before they may be entered into.

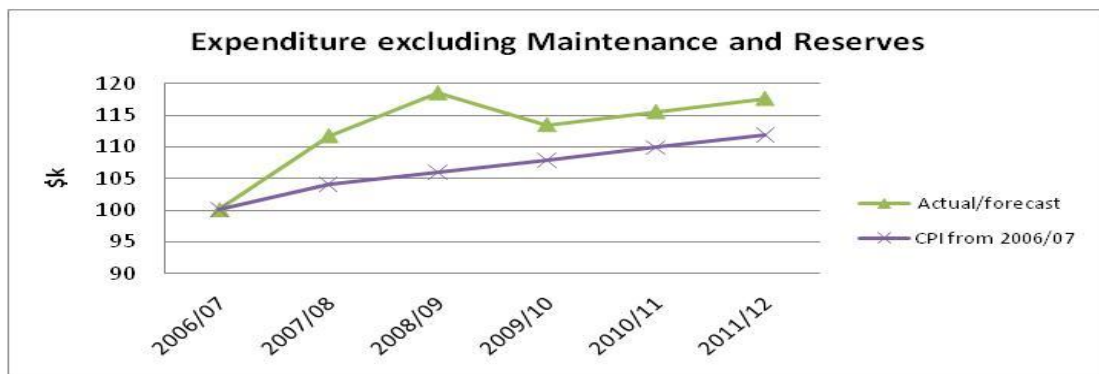
Further evidence that distribution companies act to moderate transmission charges where possible, despite their “pass through” status, is provided by the observation that lines companies are responding to the regional coincident peak demand charging signals for interconnection assets contained in the transmission pricing methodology, by controlling loads during regional peak offtake periods.

Finally, it should be noted that Transpower uses the same competitive procurement processes to obtain and deliver new investment assets that it uses for other capital equipment and these processes are subject to Commerce Commission oversight.

Question 5

Further detail is sought from Transpower on each of the components of its forecast opex requirement for the transition year. This should comprise actual historical and forecast costs for each opex component, plus justifications for the changes in each component.

Operating Expenditure excluding Maintenance and reserves						
	Actual 2006/07	Actual 2007/08	Actual 2008/09	Forecast 2009/10	Forecast 2010/11	Forecast 2011/12
Actual/forecast	100	112	118	113	116	118
CPI from 2006/07	100	104	106	108	110	112
Total Variance		8	12	5	6	6
Main reasons for variance						
IT&T Operations		6	7	4	4	4
Investigations		2	5	3	3	3



Commentary

Total operating expenditure (including maintenance but excluding reserves) over the past four years has been in line with the CPI threshold. For reasons discussed by Transpower at the transmission workshop the maintenance component of operating expenditure has increased at a rate higher than CPI year on year during the settlement period to date and this trend will need to continue.

The key movements in components of expenditure excluding maintenance and reserves are discussed below.

To some extent the pressures created by the increasing scale and complexity of Transpower's business as a result of the upgrade programme and the increased focus on asset maintenance have been offset by greater efficiency and cost reduction exercises and by limiting expenditures in other areas of the cost base.

Departmental costs, which relate mainly to Transpower's staff and business support functions, have been held at a rate below the CPI.

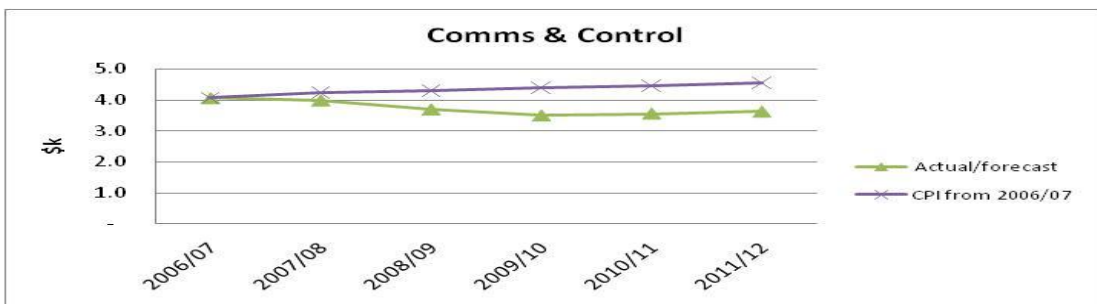
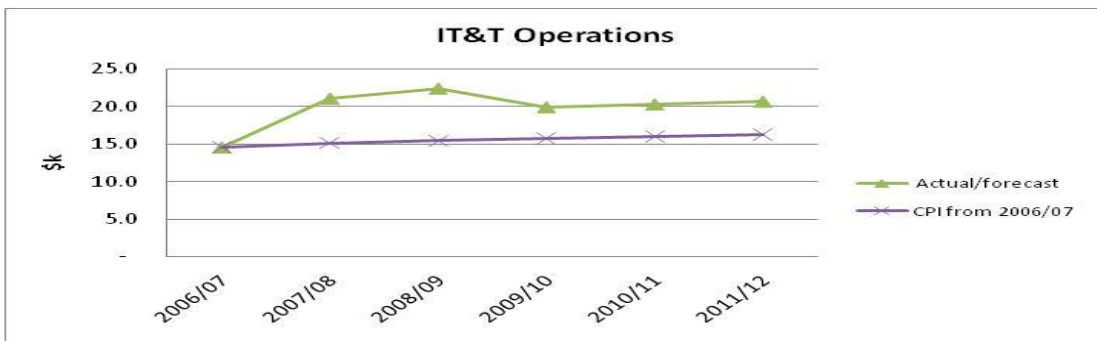
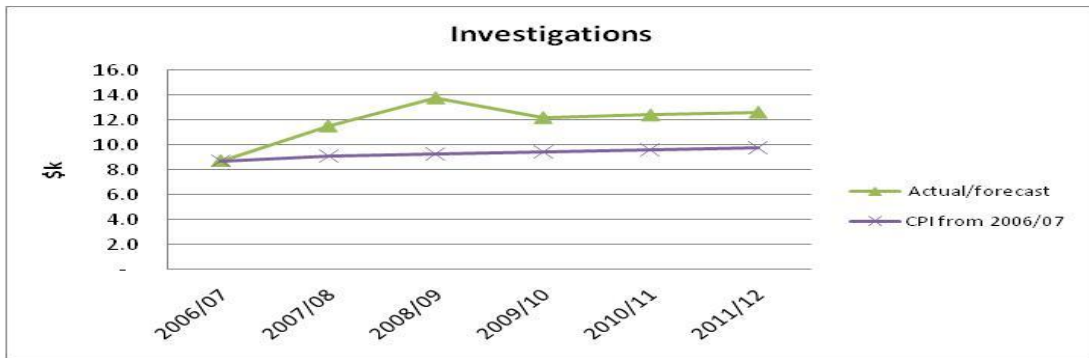
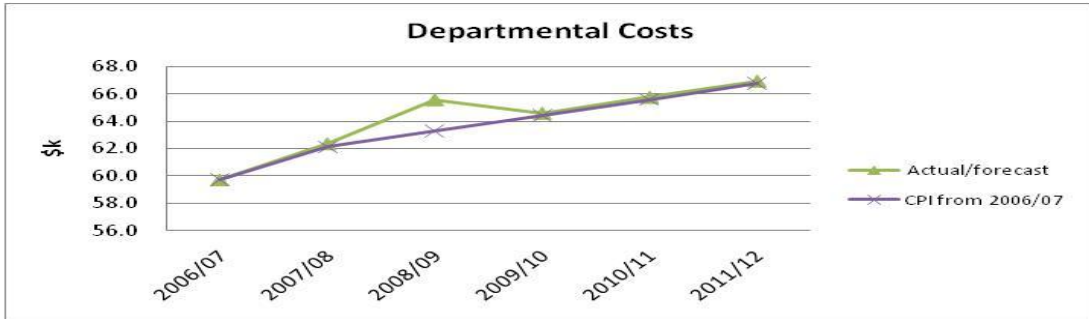
The key reason for the step up in network monitoring (IST Ops) operating expenditure is an increase in telecommunications operating costs. Transpower is moving from a low capacity analogue and digital radio system to a Fibre Optic Transmission System (80% of network) either Transpower owned or leased dark fibre. This essential programme will replace equipment approaching the end of its economic life with a high capacity network to enable the next generation of communication, signalling and operating technologies. The cost is mainly made up of an annual network Operational Maintenance fee (essentially Network Operating Centre costs) and Lifecycle Management fees (repair and replacement of components). These costs (at a similar quantum) are likely to continue into the next regulatory period.

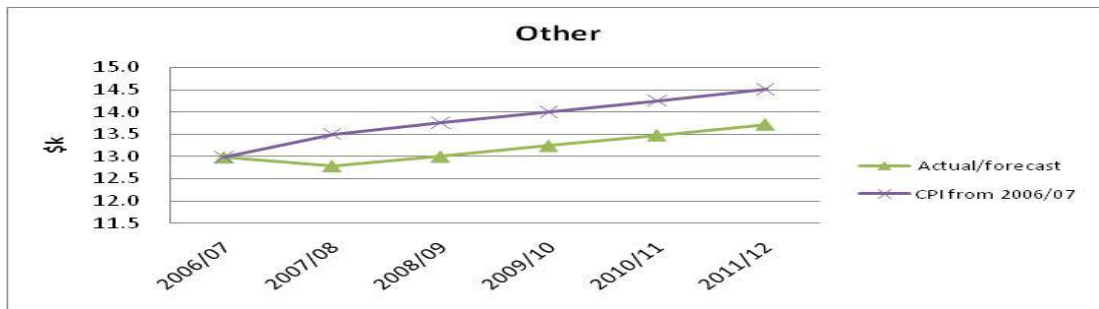
Investigation expenditure has also tracked at an expenditure rate above CPI over the past 4 years. Investigation work is mainly undertaken by Transpower's Grid and IST Divisions prior to the start of a capital project. As can be seen over the last few years, the level of investigations has risen, reflecting the increase in overall capital expenditure. The majority of the increase relates to grid investment. To an extent, the level of future investigation spend and its timing will be dependent on the Commission's requirements for establishing the capital investment allowance under Part 4 (if ex ante project certainty is required then investigation expenditure over the next few years would inevitably rise considerably).

Going forward, there will continue to be a number of upward cost pressures on non-maintenance operating expenditure, reflecting the increasing work which is happening on the grid. We envisage that under the new Part 4 arrangements the Commission will be undertaking an assessment to validate these cost drivers prior to determining the ex ante operating expenditure allowance for the period 2012/13 to 2014/15. Transpower has signalled its agreement to constrain the non-maintenance operating cost components at a CPI index for the transition year (2011/12) pending this more substantive review being undertaken by the Commission.

The Commission has requested further details from Transpower on its forecast opex requirements for the transition year. This is provided in the attached figures which together summarise the historical trend and forecast for each of the major non maintenance operating expenditure components (excluding HVDC Reserves). Maintenance has been excluded from this analysis as this has been previously discussed.

Trend Analysis: Non-Maintenance Operating Expenditure Components



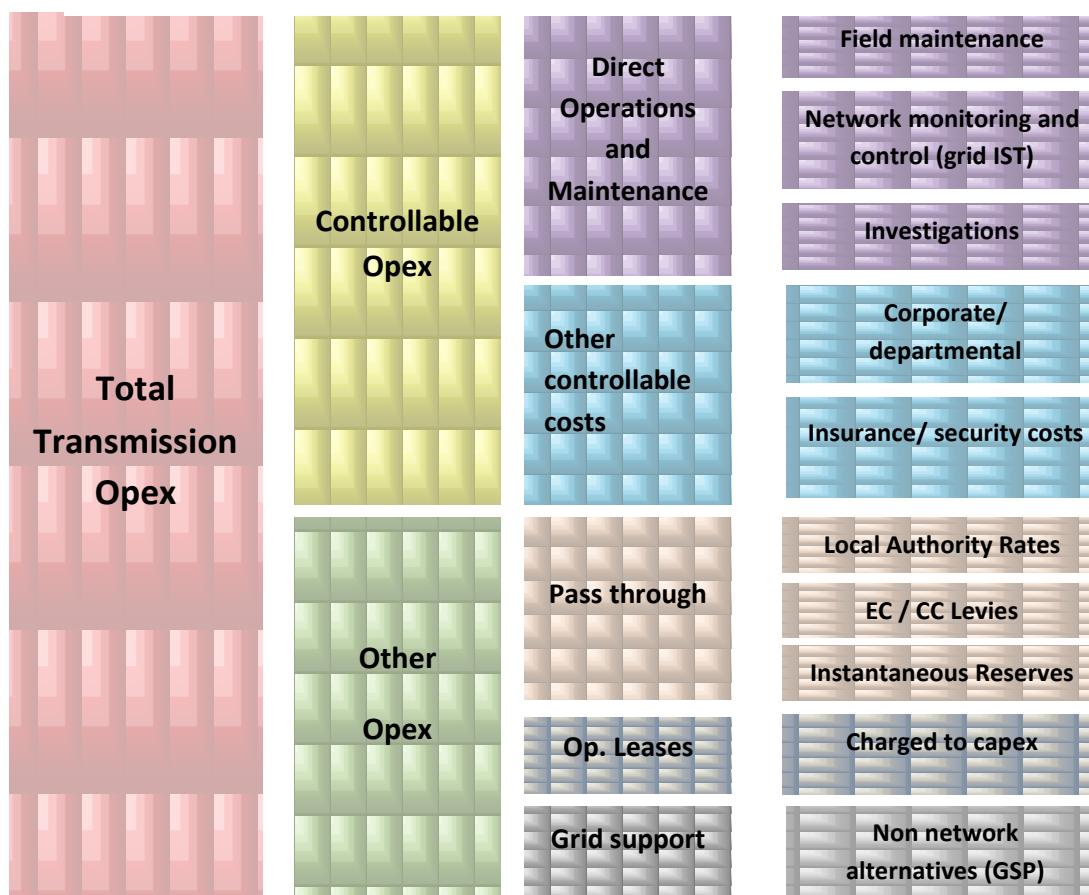


Question 7

With respect to the carry forward model, the Commission asked Transpower for its views on whether there should be any opex elements excluded from that model. Transpower proposed that the model relate to controllable costs only, and that pass through costs should be excluded. Does Transpower have any specific further comments on costs that should be excluded from this incentive mechanism?

Transpower considers that the focus of the Commission’s proposed efficiency benefits sharing (carryover) scheme should be on controllable costs. It would seem appropriate for the scheme to incentivise only efficiencies that can result from proactive business initiatives and decisions made by Transpower. The table shows a breakdown of Transpower’s “controllable” and “uncontrollable” transmission operating expenditure by major cost category.

Controllable operating expenditure – subject to carry forward model



Note: Not to scale