

# North Island Grid Upgrade Project: Information Request Log

*Additional information requested of Transpower by the Commerce Commission.*

*This log has been provided for external parties to navigate the Commission's information requests in the course of the NIGU Project. This is intended as a guide only. Commission staff will work with interested parties to provide with information relevant to these questions. If you would like access to the responses to any of these questions, please contact:*

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Subject line: Attn NIGU project team

No.	Subject of information request:	Objective of information request:
Q-001	Auckland and Northland region – Transmission limits and observed demand between 2005 and 2013	To help us understand the margin between the observed demand and the transmission limit.
Q-002	Risk and Issues Registers	To understand the risks Transpower identified during the project and how effective Transpower was at managing or addressing matters within its control to ensure the project was delivered in a cost efficient way.
Q-003	Monthly Workstream and Project Reports at the programme level.	To understand how well the project was being monitored, how well informed the programme management team was, and what actions were being taken, and when, to ensure the project was managed in an efficient way.
Q-004	Changes to the value sanctioned for NIGU Project expenditure.	To provide understanding of when, and on what basis, Transpower approved increases in the amount it budgeted for the NIGU Project.
Q-005	Governance structure and delegations	To enable stakeholders to understand how accountability and responsibility was assigned in respect of the NIGU Project within Transpower, and who had authority to make various types of decisions in respect of the NIGU project.
Q-006	N/A – Confidential	
Q-007	Reviews of significant project dates	To assist stakeholders in understanding when and how Transpower reviewed significant project dates (i.e, need date and commissioning dates), and the basis on why changes to project dates were or were not made.
Q-008	Confirmation that all dollar amounts in the application are expressed in 2011 dollars.	To ensure we have a consistent set of financial information from which to assess the application.
Q-009	Adjusted major capex allowance – CPI and FX disparity adjustments	As one point of reference for evaluation of the Transpower amendment application, we wish to understand what the <i>adjusted major capex allowance</i> (as defined in the Capex IM Determination) would currently be for the NIGU

		Project based on the current (i.e, pre-application) <i>major capex allowance</i> . We need this point of reference to be calculated using the Commission's methodology for making the CPI and FX disparity adjustments (i.e, terms <i>p</i> and <i>q</i> respectively in the formula in clause B4 of the Capex IM Determination). We do not require a calculation of the <i>major capex overspend adjustment</i> at this time, as such a calculation would depend on the Commission's final decision on the amendment application itself.
Q-010	Supporting data for the demand forecast and Upper North Island transmission capacity from 2005 to 2012	Enable the Commission to understand the delivery constraints Transpower was under when it was building the 400 kV transmission line.
Q-011	Rework that occurred on the NIGU Project	To understand the extent to which rework occurred on the NIGU project as an indicator of the effectiveness of project management.
Q-012	Scope Changes	To understand the extent to which the NIGU Project scope changed post approval and the process Transpower used to manage scope changes.
Q-013	400 kV line tower specification/standard/policy	To understand what standard/specification was adopted for the 400 kV line towers, why it was adopted and any trade-offs that Transpower considered in adopting the standard/specification.
Q-014	Derivation of the \$18m that Transpower proposes not to recover	To understand the make-up of the \$18m and the factors that led Transpower to consider it should not be recovered from consumers.
Q-015	Periodic audits	To understand any independent periodic audits that Transpower undertook on the NIGU project.
Q-016	Transpower's actual versus intended approach to project management	To understand any differences (if any) between Transpower's stated approach for project management and what actually occurred in delivery.
Q-017	Costs for delivering the Otahuhu-Whakamaru thermal upgrade output	Confirm the total costs for delivering the approved project output.
Q-018	Overhead line construction timetable	<ol style="list-style-type: none"> <li>1. To compare planned construction times with actual construction times and understand where the delivery of the Alliance contract did not go according to plan.</li> <li>2. To determine the latest date the Alliance contract could be signed in order to</li> </ol>

		ensure on time delivery, given the planned construction timetable.
Q-019	Property Easements and Acquisitions	We wish to build an understanding of specific transactions and variations from original forecast, so as to develop a suitable sample of transactions for future case study discussion of strategies, issues and execution.
Q-020	Transpower Project implementation strategy document dated 8 July 2005	Reason – to understand what was Transpower’s strategy and view of risks at the start of the NIGU project
Q-021	Post investment reviews	Reason – to understand what was Transpower’s view of efficiency, potential for improvements and delivery of outputs for the NIGU project
Q-022	Lines cost elements	Reason – to understand if cost elements in the construction of the 400 kV line were minimised and/or avoidable
Q-023	Project management, environmental and investigations	Reason – to understand if cost elements in the project management, environmental and investigations area were minimised and/or avoidable
Q-024	400 kV line construction cost breakdown	To align the cost elements associated with the overhead transmission line with the drivers identified by Transpower, allowing the Commission to assess which are appropriate to share with consumers.

*The following questions (Q025 – Q066) were requested of Transpower by Strata – an external consultant hired by the Commission, therefore the format of the requests is slightly different to the Commission’s.*

No.	Topic:	Description of information required:
Q-025	Access to Land	Please provide any audit reports relating to performance of the interface between Transpower and the Alliance regarding provision of land access for construction. The objective is to understand steps taken to mitigate fact that land access was made available to the Alliance in an unstructured way which would have resulted in potentially inefficient deployment of foundation and wiring gangs along the route throughout the duration of the project.
Q-026	Change Control	Change Control Summary Log of key scope/programme changes including cost impact assessment and authorisations received (Variations per NIGUP Project Plan para 4.2)) It is understood this is a work in progress following earlier Com Com request.
Q-027	Change Control	ALT Scope Change Workshop output (admittedly not a successful outcome – Project Closure & PI Report) would provide a useful

		insight into how the partners saw their roles & responsibilities for the management of change in the early days of the relationship.
Q-028	Change Control	A process flowchart for the review and authorisation of scope changes arising from finalising tower types/foundation designs – this would greatly aid understanding of the change management process applied in the Alliance environment It is understood that the original library of designs concept proved largely unworkable due to the ground conditions identified – this reinforces the need to fully understand how the management of change was implemented for such a significant shift in assumptions.
Q-029	Contract Management	Transpower Directions log (per PAA clause 6.24) – if any were given
Q-030	Contract Management	Confirmation of Form of Contract terms applied – NEC, FIDIC, etc. (?)
Q-031	Cost Management	Cost Auditor reports covering cost escalation in areas of tower foundations, stringing, and access constraints.
Q-032	Cost Management	Any examples of cost challenge/efficiency targets applied by TP to the Alliance and associated performance reports provided by Alliance to TP (may not be any specific examples) The objective is to understand whether there was any incentive on the contractor to outperform once the \$1m Gain Share pot was effectively lost. Was there any noticeable change in the behaviours of the Alliance once it became evident that there was no access to Gain Share?
Q-033	Cost Management	Baseline (budget) and outturn costs for re-measurable items (PAA Schedule 7 para 1(d))
Q-034	Delegations of Authority	Copies of any audit reports reviewing application of financial delegations within the project FURTHER CLARIFICATION: Audits of the application of Delegations within TP covering the TP/Alliance interface are requested. (Internal Audits of Alliance processes provided) WS2 response confirmed that only such audits were the 3 off IQANZ audits which reviewed the overall process.
Q-035	Organisational Structure	AMT organogram reflecting key roles in the alliance and clear information about individual employing companies (i.e. Transpower, Balfour Beatty, United, consultant)
Q-036	Project Delivery	Any work suspension or stand-down notices issued by TP to the Alliance including reasons for such action.
Q-037	Project Programme/ Cost Forecasts	Baseline programme/forecast cost at following key stages:- 1) EC project approval 2) Alliance contract award 3) At the point in the project when stringing methodology was changed 4) Project completion Question – what were the key milestones established and

		routinely tracked for the project and were key milestone changes approved by ALT in accordance with PAA?
Q-038	Project Programme/ Cost Forecasts	Project Cost Curves for the duration of the project (Contract Award to Closure) reflecting Approved Budget (TCE), Forecast Cost to Completion, Actual Value of Work Done, Utilisation of Risk Provision <i>NB Para 3.4 of TP Project Closure and PIR report illustrates part of required information but we would like to see the differences between what the Alliance was capturing in its internal cost reporting and what was reflected in the TP reporting.</i>
Q-039	Risk Management	Copy of Risk Register at key milestones: <ol style="list-style-type: none"> <li>1) Alliance contract award</li> <li>2) Shortly after consents secured (BOI)</li> <li>3) Shortly after final land accesses/property acquisition secured</li> </ol> Looking for clear definition (risk/cause/ effect) of key events, likelihood and consequences assessed (pre and post mitigation), mitigation actions and ownership. (Per NIGUP Project Plan para 4.3)
Q-040	Scope of Works	Owner's Engineer Report and sign-off covering final foundation design post-geotechnical surveys
Q-041	Scope of Works	Interim Alliance output document – project scope of works (particular interest is any document outlining tower foundations design assumptions) ADDITIONAL REQUEST – thank you for the design document submitted but I was more looking for the output document that set out the tower/foundation assumptions used in the Alliance bidding. Alternatively, can it be assumed that the tower foundation assumptions contained in the Schedule 8 Attachment 1 of the PAA is the output I am looking for and formed the basis of the Alliance tender? WS1 response confirmed PAA Schedule 8 reflects basis of design assumptions.
Q-042	Scope of Works	A summary report of actual (as installed) tower types versus working assumptions reflected in SWTC para 4.71 (and therefore assumed to be the basis of the Target Outturn Cost model – as specified in PAA Schedule 8 Attachment 1 para (b) Foundation Work Sheet) Seeking to understand the magnitude of design assumptions change between Alliance establishment and project completion and associated cost impact.
Q-043	Subcontractors	Any Audit reports on the effectiveness of the alliance in regard to subcontractor controls covering subcontract awards, change control/variations and cost/progress reporting (assuring compliance with ALT authorisations)
Q-044	Tender Process	E&P report suggests Relationship contracting was well established in NZ. Can Transpower advise how many of the ROI participants and which RFP tenderers had actual experience in

		<p>Relationship contracts?</p> <p>Just one minor point of clarification –what happened to Fulton Hogan in the BB/UG/FH consortium as FH seemed to be the key provider of NZ alliancing experience? Workshop response – FH were never part of the JV but provided input and support during the bidding process.</p>
Q-045	Governance	<p>Please provide a copy of the Transpower ‘Project Governance’ Design Document dated 17 August 2009 and referred to in the NIGU Programme Management Plan 21 Dec 2009 para 7.7.1. The PMP goes on to state</p> <p><i>There is one significant amendment to this, the Programme Owner role is separated into an “Investment Programme Owner” (“IPO”) and an “Executive Programme Owner” (“EPO”) to reflect the dual focus of building the right thing as approved in the GUP (Investment Owner) and building the right way (Executive Owner).</i></p> <p>Please provide the relevant document that explains the concept of IPO and EPO and describes respective accountabilities and responsibilities.</p>
Q-046	Governance	<p>The interface between the Property programme and the OHL Construction programme was highlighted a number of times as being critical, especially once the BOI outcome was delayed and the OHL programme could no longer be delivered sequentially ‘down the line’. Please outline how this interface worked in practice, what reporting was provided at this interface, and how issues between the parties were resolved.</p>
Q-047	Governance	<p>The Project Director had responsibility for “Identifying and managing changes in scope, time and cost” and for “Appraising options and submitting for Project Owner approval”. It is noted that the Project Manager roles &amp; responsibilities does not include anything specific to the management of change.</p> <p>Does data exist regarding the number of submissions of change from the Project Manager (Lines) to the Project Director and from the Project Director to the Programme Owner, the number of approvals given vs number of times the submissions were sent back for reconsideration? (We are looking to better understand the level of challenge and review occurring at the various governance interfaces)</p>
Q-048	Governance	<p>The NIGUP Programme Management Plan includes reference to the IPO being responsible for “Approval of program changes which require further release of funds, or which decrease or increase the scope of the project from Electricity Commission expectations” and has SOLE authority for such changes.</p> <p>Please provide and summary log of submissions to the IPO and approvals received from the IPO.</p>
Q-049	Governance	<p>Due to the fast moving and fluid nature of the OHL delivery programme; scope, cost and programme changes must have</p>

		<p>inevitably been encountered by the AMT and decisions taken in that forum pending approval through ALT and the formal governance channels. We are keen to understand what responsibility client side members of the AMT took in such situations to keep the project on track.</p> <p>Please provide a description of how this process worked in practice, what checks &amp; balances were applied to reduce the risk of the Alliance working 'outside governance' and evidence that Alliance cost estimates for such changes were subjected to robust cost accounting (cost audit) challenge.</p> <p>Please also provide copies of the ALT minutes for the months of April 2011, July 2011 and December 2011</p>
Q-050	Governance	<p>The NIGUP Programme Management Plan refers to the use of regular in-depth project reviews which will be minuted, endorsed and circulated.</p> <p>Please provide examples of the minutes of such a review (ideally from the period April 2011 to March 2012) covering the changes to scope and programme encountered around that time.</p>
Q-051	Governance	<p>Please provide copies of the Board papers that increased the Maximum Approved Cost (MAC) from the \$M823.9 (2009 PMP) to the current forecast outturn project cost of \$M893.8</p>
Q-052	Alliance Culture	<p>The September 2009 IQANZ report identifies that the Project Director was developing a Cultural Development Plan; the Management Response to the audit report also identifies this plan. Please provide a copy of the Cultural Development Plan.</p>
Q-053	Alliance Culture	<p>The September 2009 IQANZ report makes mention of the Alliance Facilitators; please provide a role description and responsibilities of the Alliance Facilitators and identify who they reported to. Please provide examples of any reports or communications produced by the Alliance Facilitators.</p>
Q-054	Alliance Culture	<p>The September 2009 IQANZ report identifies the need to update the Communications Plan: please provide a copy of this revised plan and any subsequent further revisions.</p>
Q-055	Governance	<p>Please provide details of the rotation of the ALT Chair during the course of the project</p>
Q-056	Risk Management	<p>Supplemental to Q-039</p> <p>Thank you for the comprehensive Alliance (AMT) Risk Registers provided. Please also provide an example of the comparative levels of detail as reviewed within the Alliance and as submitted to the client (ALT version?)</p> <p>Post WS2 – samples of ALT level reporting provided</p>
Q-057	Change Control	<p>Supplemental to Q-026</p> <p>Reflecting the Change Summary Log provided against DS-06-0306, please provide details of the final Change Request outcome (addressing the NZ\$63.5M of open Change Events reflected in August 2013 Transmission Line Scope Change Register)</p>

Q-058	Scope of Works	<p>Supplemental to Q-040</p> <p>It is understood that the Owners Engineer appointee transferred into TP employment during the course of the project and brought the role of Design Approval with him; it is further understood that this related to approval that the design process had been correctly applied. It is further understood from the Workshop discussion that typically 10-15% of designs were challenged and sent back for rework. During WS2, TP were requested to provide an example of the monthly formal Design Review meeting minutes at which these challenges were raised.</p>
Q-059	Subcontractors	<p>Supplemental to Q-043</p> <p>Thank you for information provided but the audits provided are more operational than cost focused. I am looking to understand how subcontractor scope change/cost/ programme impact was managed given the fluidity of the programme.</p>
Q-060	Project Programme/ Cost Forecasts	<p>Supplemental to Q-038</p> <p>Thank you for the comprehensive response to the cost profile reporting request and the description regarding the monthly reporting process.</p> <ul style="list-style-type: none"> <li>a) Please explain the management action taken to demonstrate cost control once the Forecast exceeded the TCE (as varied by approved Change Requests)</li> <li>b) Also please provide confirmation that the Alliance was always working under full TP governance covering the Forecast value of the works (as covered by the TP Board provided approvals)</li> <li>c) Also, please advise the basis of TP Board governance (i.e. was it provided simply at a NIGU project level OR was each subproject subject to its own approval level?)</li> </ul>
Q-061	Cost	<p>Supplemental to Q-031 and Q-060</p> <p>A. The Estimated Actual Outturn Cost (AOC) exceeded the TOC in October 2011 and the adjusted TOC (including 'agreed' variations) in January 2012. <i>Under what governance authority from Transpower was work permitted to proceed?</i></p> <p>B. Alliance Cost Valuation Claims were approved up to the value of NZ\$340m as of January 2013 but the adjusted TOC was NZ\$275m</p> <p><i>Under what Transpower governance was the project allowed to report a cost audited valuation which exceeded AOC by NZ\$65M?</i></p>
Q-062	[Unspecified]	Evidence of TP Board Monitoring Requirements



Q-063	[Unspecified]	Provide evidence that the Needs Case was tested and also provide the construction scenarios for stringing.
Q-064	[Unspecified]	Governance Reports flow Diagram
Q-065	[Unspecified]	Who Initiated IQANZ Reports
Q-066	[Unspecified]	How was Accumulation of Scope Changes Reported

*The remaining information requests were asked by the Commission:*

No.	Subject of information request:	Objective of information request:
Q-067	Economic analysis related to changing / not changing the commissioning date	To understand what consideration was given to time as a movable project parameter during the project
Q-068	Tax issue arising from the Calverton report	Understand the extent to which Transpower obtained benefits arising from the NIGU Project, including but not limited to tax deductions
Q-069	Delegations to the CEO in respect of the NIGU project	To provide clarification on the timing and nature of delegations for the NIGU project.
Q-070	Communications to the Commerce Commission about NIGU overspend	To understand how the Board decision of June 2011 was carried out or varied.
Q-071	Communications to Stakeholders about NIGU project overspend	To understand how Transpower considered communications with stakeholders, including the Commerce Commission, on the NIGU overspend throughout the project.
Q-072	Consideration of commitments made by Transpower when additional information was provided to the EC	To understand how Transpower addressed the commitments it undertook during the EC approval process
Q-073	Power flow data on major transmission circuits supplying the Auckland region	To allow us to estimate the benefits of the 400 kV line primarily due to reduction in transmission losses.
Q-074	The difference in views on the system need date.	To help us understand the extent to which Transpower considered using the need date of 2015 when it reviewed the project in 2008.
Q-075	Project roles and responsibilities	To obtain a single document outlining roles and responsibilities throughout the NIGU Project
Q-076	Labour productivity and skilled overseas labour	To help us assess the impact labour productivity had on construction costs.

Q-077	Late access for tower erection	To help us understand why cost overruns due to late access and out of sequence are treated differently.
Q-078	Availability of steel and conductor corrosion	To understand the causes of increased costs related to the unavailability of tower steel and the corrosion of conductor and any actions taken to control or mitigate these costs