

05 September 2013

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Commerce Commission
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(BY E-MAIL: john.mclaren@comcom.govt.nz)

Dear John,

**EASTLAND NETWORK LIMITED TRANSMISSION SPUR ASSET ACQUISITION –
CAPEX/OPEX FORECASTS, ECONOMIC BENEFITS AND TIMELINE**

Introduction

Thank you again for taking the time to meet with the Eastland Group in early August. The meeting was very constructive and worthwhile. I am writing in response to that meeting and subsequent e-mail correspondence. In particular, this letter expands on Eastland Network Limited's ("ENL") proposed acquisition of the transmission spur assets supplying Eastland's electricity network (the "spur assets"). In respect of the spur assets, this letter covers:

- Transaction and regulatory decision timing;
- The estimate of the purchase price;
- Capex, opex and reliability forecasts (under both Transpower ownership and ENL ownership);
- Analysis of the transaction benefits;
- Estimate of avoided cost of transmission ("ACOT"); and,
- Next steps.

Attached to this letter is a spreadsheet (containing the relevant forecasts and economic analysis) and a number of reports that support our assumptions.

Transaction timing and regulatory certainty

ENL and Transpower have agreed on a settlement date of 31 March 2015. The current timeline we are working towards is shown in Figure 1. The key dates leading up to settlement are:

- Execution of the asset transfer agreement ("ATA"), customer investment contract ("CIC"), Tuai facilities deed and Tuai service agreement – end January 2014;
- Completion of the LINZ offer-back process – mid July 2014;
- Commissioning of new metering arrangements – early March 2015.

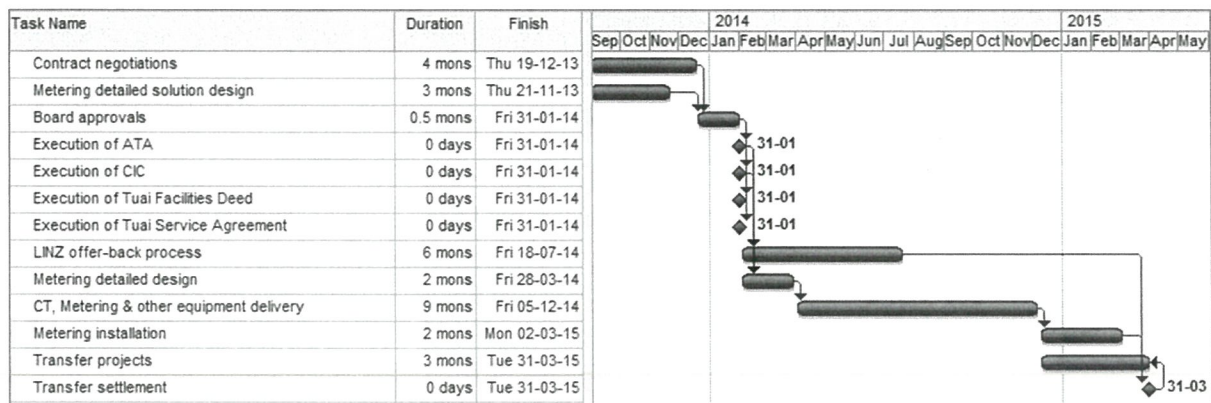


Figure 1: Transaction timeline

Our 'pinch points' for achieving regulatory certainty are: the initiation of the LINZ process; and, the ordering of current transformers ("CTs") for the new metering. The LINZ process (which relates to the offer-back process for the substation land at Wairoa, Gisborne and Tokomaru Bay substations) will be initiated under the ATA, and the ordering of the new CTs will be initiated under the CIC. To further interlink matters, our preference is to execute the Facilities Deed and Service Agreement (which enable us to control the assets we are acquiring at Tuai) at the same time as the ATA and CIC. The Facilities Deed also requires consent from Genesis Energy.

While we could execute the ATA and CIC conditional upon gaining the necessary regulatory certainty, the point in time will arrive where we need to initiate the LINZ process and order the CTs (and these will not be actioned by Transpower with contractual conditions still outstanding). Hence it is necessary to gain regulatory certainty prior to executing the ATA, CIC, Facilities Deed and Service Agreement, so the various processes under those agreements can run their course uninterrupted.

Presently we are commencing detailed negotiations in respect of the ATA, Facilities Deed and Service Agreement and are endeavouring to have these in an executable form prior to the Christmas break.

Hence, our objective is to gain certainty from the Commission on:

- The treatment of the spur assets' capex forecasts, including the asset purchase;
- The treatment of the spur assets' opex forecasts;
- The increase in ENLs SAIDI forecast; and,
- The level of ACOT that ENL can recover through prices.

From the timeline presented above, we would like to work with the Commerce Commission on the abovementioned matters to gain the necessary certainty (in whatever form that needs to take) by the end of January 2014.

We do have around two months of 'float' within the project timeline, which we feel is appropriate to cater for potential delays in contract negotiations, procurement and construction.

Summary of our economic analysis

We have assessed the economic benefits to consumers of ENL ownership of the spur assets. The value of the benefit was measured as the difference between the cost to consumers under ENL ownership and continuing Transpower ownership.

Our analysis indicated that there is a positive benefit to consumers in ENL undertaking the transaction. We calculated this benefit as \$18 million in present value terms (excluding the charging of ACOT). The benefits arose due to: more efficient use of capital; more efficient opex; and lower costs of non-supply.

We calculated the cost to consumers of ACOT charges at \$14 million in present value terms. Hence, assuming ACOT is fully recovered from consumers, the net benefit in undertaking the transaction is in the order of \$4 million.

We have set out the key assumption in the body of this letter.

Estimated spur assets' value and purchase price

The settlement of the spur assets' purchase is currently planned to occur on 31 March 2015. The purchase price of \$22.0 million (in 2015\$) is made up of:¹

- The existing assets (as at 31 March 2012) at \$15.3 million;²
- The value of Transpower's projects commissioned between FY13 and FY15 at \$4.7 million;³
- The transfer project and contingency of \$1.9 million.⁴

We have included the value of transfer projects and contingency in our estimated purchase price. Approximately 50% of the contingency relates to the transfer projects and approximately 50% relates to the final calculation of the assets' value and Transpower's project costs.

The purchase price is subject to change, and we expect the final ATA to have a post-settlement purchase price wash-up mechanism. The three main areas that could lead to an adjustment in the value of the assets are:

- Differences in the actual CPI indexation and depreciation between 2012 and 2015 from that presently assumed by Transpower;
- Differences in the actual project costs from those currently forecast;
- Transfer project cost overruns.

The value of the spur assets, if retained under Transpower ownership, is \$20.9 million (as at 31 March 2015). This value is lower than the ENL value as it excluded transfer project costs and 50% of the contingency estimate.

¹ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls*, Sheet: 2013 AMP Purchase Price.

² Refer Attachment 01 and 02.

³ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls*, Sheet: 2012 TP AMDB Extract, Projects for FY13 to FY15.

⁴ Refer to Attachment 04 – Report on the SCADA transfer project. The other transfer projects and contingency are initial "ball park" estimates.

Spur assets capex, opex and reliability forecasts – under Transpower ownership

The capex forecasts⁵ under Transpower ownership were taken from Transpower's asset management database ("AMDB")⁶. The projects identified by Transpower were augmented by additional work identified in Transpower's Annual Planning Report⁷. These additional projects are the replacement of the Tuai T15 transformer and the thermal upgrade of the GIS-TUI-A line. A number of project budget estimates were also included.⁸

The opex forecasts⁹ reflect our assessment of Transpower's network opex and non-network opex associated with the spur assets, excluding corporate costs. In this way we have sought to reflect the costs that could be avoided by Transpower following their divestment of the spur assets. The actual savings achieved by Transpower following multiple asset transfers is a matter for the Commerce Commission to take-up with Transpower.

We determined the level of network and non-network opex (excluding corporate costs) from the 2011 Transpower individual price path ("IPP") submission and associated decision papers.¹⁰ The total network and non-network opex (excluding corporate costs) was converted to a cost per km, then multiplied by the length of the spur assets.¹¹

The reliability forecasts¹² associated with the spur assets were based on the average of Transpower's unplanned outages for FY12 and FY13¹³, which excludes any contribution from ENL to minimising the impact of the outage. Planned outages were based on an annual shutdown at Tuai. Our view was that the most recent reliability was a good reflection of the current operating performance by Transpower and the assets.

The comparison between the forecasts under Transpower ownership and ENL ownership are presented later in this letter.

Spur assets' capex, opex and reliability forecasts – under ENL ownership

The capex forecasts¹⁴ for the spur assets under ENL ownership are the same as for Transpower ownership except for:

- The changes in the timing and technique for the refurbishment of the GIS-TUI-A line; and,
- The deferment of the thermal upgrade of the GIS-TUI-A line for five years;

⁵ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: Forecast Summary*.

⁶ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: 2012 TP AMDB Extract*.

⁷ Refer Attachment 08 – Transpower Annual Planning Report 2013.

⁸ A number of projects had \$1 placeholder budget estimate. These were replaced with an initial budget assessment. The replacement budget estimates as highlighted in the *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: 2012 TP AMDB Extract*.

⁹ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: Forecast Summary*.

¹⁰ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: 2011 TP IPP Opex*. The source data for this sheet was obtained from the file *Question 001_v1_Worksheet_Minor Capex and Opex Expenditure Breakdown by Programme_17 March Feb 2011.xlsx* (from the Commerce Commission website). The Transpower forecasts were then adjusted to match the final IPP decision as per Commerce Commission, "Final Decision: Transpower IPP Remainder Period Allowance", 11 August 2011.

¹¹ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: 2011 TP IPP Opex*. We also assessed using the number of substations to allocate the opex, however our view was the length of lines was a better allocator of costs and is more commonly used for cost benchmarking (noting that the difference between allocating opex by either mechanism was not materially different).

¹² Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: Forecast Summary*.

¹³ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: 2012 2013 TP Outages & 2013 TP Reliability*.

¹⁴ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: Forecast Summary*.

Our due diligence investigation into the transmission lines identified that tower and foundation refurbishment should be advanced on the GIS-TUI-A line and that the renewal of a number of bridges and culverts was required on all lines. The due diligence work also identified that a more cost effective grillage refurbishment technique could be used, which represented an overall lower refurbishment cost.¹⁵

A significant benefit of the proposed asset transfer is that ENL will be able to optimise the operation, maintenance and capital spend across the spur transmission assets, distribution assets and generation assets. We believe that the thermal (i.e. capacity) upgrade of the GIS-TUI-A could be deferred for at least five years under the proposed transfer. During the deferment period, ENL would be able to maintain firm capacity into Gisborne via more optimal use of its generation and load control. We have assumed a project cost equal to that of the thermal upgrade, less \$1 million (deferred from FY19 to FY24) as preliminary investigations suggest that an ENL-provided generation solution would be at a lower cost.

The ENL network opex and non-network opex (excluding corporate costs) forecasts¹⁶ were determined from a "bottom-up" assessment of maintenance, system operations and network support costs. Our assessment of the required maintenance was based on Transpower's existing maintenance costs for lines and stations, and included additional costs for access track maintenance, transformer testing and earth testing.¹⁷ We intend to employ two additional engineers to manage the planning and maintenance activities associated with the spur assets. No additional business support costs (i.e. corporate costs) are forecast following the completion of the transfer (noting that there are some business support costs pre-settlement, which are transaction related).

Our review of recent outages suggests that ENL's regional location will improve outage restoration time. We would also expect to make some improvement in the number of outages as we expect to utilise our "on the ground" ability to rectify defects more quickly. Having considered these factors, we are forecasting a 50% improvement in reliability performance¹⁸ under ENL management. This equates to an additional 93.3 minutes per customer increase in the SAIDI target and a 2.0 interruptions per customer increase in SAIFI target.

Economic benefits of the acquisition of the spur assets by ENL

We have modelled the economic benefits to consumers of the proposed asset transfer¹⁹. The benefit was measured as the difference between the cost to consumers under ENL ownership and continuing Transpower ownership.

The analysis indicated that there is a positive benefit to consumers in ENL undertaking the transaction of \$18 million in present value terms (excluding the charging of ACOT).

¹⁵ Refer Attachment 05 – LineTech Lines DD Report, Section 7.

¹⁶ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: Forecast Summary*.

¹⁷ The additional costs are outlined in Attachment 05 – LineTech Lines DD Report, Section 7, and Attachment 07 – LineTech Stations DD Report, Section 15. At this stage we have not assumed any changes to the current Transpower service providers (where this may provide further cost savings in future years).

¹⁸ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: Forecast Summary*.

¹⁹ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: Economic Model*.

The modelling was undertaken on a discounted cashflow basis over a 20-year period to 31 March 2035. The discount rate applied was the "social opportunity cost of capital" of 10.7% (post-tax nominal)²⁰.

The material benefits arose under the ENL ownership scenario due to:

- More efficient use of capital;
- More efficient opex; and,
- Lower economic costs of non-supply.

From a use of capital perspective, the assets employed to provide the spur transmission service were \$67 million under ENL ownership, compared with \$69 million under Transpower ownership (measured at 31 March 2035). The alternative solution proposed for the GIS-TUI-A thermal upgrade, and slightly lower overall capex (due to the timing and nature of the line refurbishment work) under ENL ownership, provided a benefit to consumers. However, this benefit was partially offset by a lower initial RAB under Transpower ownership (as no transfer costs were incurred under this scenario).

From an opex perspective, ENL's network planning and management is significantly more cost effective than Transpower's. Our analysis has not sought to dissect Transpower's cost structure, but it is reasonably fair to say that Transpower's employee costs, accommodation costs, management overhead costs, and insurance costs are likely to be materially higher than a regionally-based distribution business. For the 20 years between FY16 and FY35, ENL's opex costs are forecast at \$43 million compared to \$71 million for Transpower (excluding corporate overheads). The cost of the additional metering work (as a result of the transfer) has been included as ENL opex (by way of a new investment charge from Transpower²¹).

We have reviewed recent opex benchmarking undertaken by Transpower²², and while there are always unique differences between businesses, Transpower's cost structure does appear to be comparatively high by almost all measures.

Achieving the aforementioned opex benefits relies on Transpower reducing its cost structure as a result of its asset transfer programme and we suggest that this programme could well be a lever to improve efficiency. It is likely that the Commerce Commission is intending to look into this matter during the next reset of Transpower's IPP.

Our analysis suggested that ENL can achieve a 50% improvement in reliability due to the proximity of its staff and operations, the additional access track maintenance work, and the additional asset testing proposed. We believe that having locally based engineering staff, who regularly visit the sites, will result in a greater understanding of the assets, and a more proactive resolution of actual or potential issues. In addition, from a cultural perspective, ENL staff will have greater accountability to local customers, which we believe is a very real performance driver and a something that is not present within Transpower.

²⁰ NZ Treasury estimate. Refer to The Treasury, "Public Sector Discount Rates for Cost Benefit Analysis", July 2008. The post-tax real social discount rate of 8.0% was converted to a post-tax nominal discount rate of 10.7%, as all cashflows were nominal.

²¹ Refer to Attachment 09 and 10 for estimates of the NIC charge.

²² Parsons Brinckerhoff letter to Transpower, "Opex benchmarking review", 10 February 2011 (from the Commerce Commission website).

The improvement in reliability was considered from an economic standpoint based on a value of lost load ("VOLL") of \$20,000 per MWh²³. The economic costs of non-supply under ENL management were \$22 million, compared with \$41 million under Transpower management (for the period FY16 to FY35).

Appendix One provides additional commentary on the economic modelling approach and assumptions.

Economic benefits that have not been valued

Three benefits have not been specifically valued in the economic analysis:

- Improvement in resilience;
- Other capex optimisation or deferral opportunities; and,
- The ability to respond to a step change in demand.

With respect to resilience, ENL's due diligence work revealed a need to improve three key aspects of transmission line resilience - namely improvements to access tracks, advancement of tower and foundation refurbishment work, and provision of spares specific to the line construction and environment.²⁴ The costs associated with these activities has been included in the ENL forecasts, but the beneficial impact of this work in reducing the impact on a major multi-tower (i.e. multi-day) loss event has not been quantified. We believe that these initiatives could reduce the impact of a multi-tower loss event by many hours (or even days), which would have significant economic benefits.

We have not yet devoted significant time to investigating other potential capex optimisation and/or deferral opportunities. It is likely that a number of other opportunities exist to utilise different non-transmission solutions, different refurbishment, or different upgrade techniques. In short, ENL is likely to be more flexible in its approach, and we believe this approach will be more optimal for the localised conditions.

With respect to responding to a step change in demand, the capacity into Gisborne is approaching summer peaks and voltage drop limits. ENL's ability to provide additional capacity (in the order of 6-8 MW in the case of a wood processing plant) by way of a mix of transmission, distribution and generation would reduce the time and cost to provide new capacity. We believe that having this flexibility, and a range of solutions under one company, would be a material factor in encouraging new industrial load to the region (and the associated economic benefits that would bring).

Estimate of avoided cost of transmission, and net benefit to consumers

We calculated the cost to consumers of ACOT charges as \$14 million in present value terms.²⁵ In assessing ACOT we have assumed only CPI price rises in connection charges from 2013.²⁶ We believe that this assessment has been conservative as the 2013 to 2014 connection charge increase was 10%.

²³ As currently used by the Electricity Authority under the Electricity Industry Participation Code (refer <http://www.ea.govt.nz/our-work/programmes/transmission-work/investigation-of-the-value-of-lost-load/>).

²⁴ Refer to Attachment 05, LineTech Transmission Line DD Report, and Attachment 06, LineTech Transmission Line Emergency Preparedness Report.

²⁵ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: ACOT*. The discount rate used was the social opportunity cost of capital of 10.7% (post-tax nominal).

²⁶ Refer to Attachment 11, 12 and 13 for details of Transpower's current charges

Assuming ACOT is fully recovered from consumers, the net benefit in undertaking the transaction is in the order of \$4 million.

Concluding comments and next steps

In summary, we believe there are significant benefits in ENL acquiring the spur assets from Transpower and that these benefits exceed the level of ACOT that ENL is eligible to recover from customers.

The transaction will benefit the economy through more efficient use of capital, more efficient operations and improved reliability performance. The economic analysis errs on the conservative side and we believe the transaction benefits will increase over time.

The transaction presents a number of new risks for the Eastland Group, including an increase in reputation risk, land access compensation risk and greater consequences from natural disasters. However, ENL believes that the benefits to ENL and consumers outweighs these risks. Furthermore, we believe that ENL will be more acutely focused on these assets and their inherent risks, which can only benefit consumers over the long term.

We are now at a point in the transaction process that we need to formally engage with the Commerce Commission to confirm the treatment of the transaction as we approach the 2015 default price path reset.

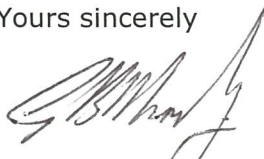
As mentioned earlier in this letter, our request is to gain certainty from the Commission on:

- The treatment of the spur assets' capex forecasts, including the asset purchase;
- The treatment of the spur assets' opex forecasts;
- The increase in ENL's SAIDI forecast; and,
- The level of ACOT that ENL can recover through prices.

We would like to work with the Commerce Commission on the abovementioned matters to gain the necessary certainty (in whatever form that needs to take) by the end of January 2014.

Lastly, this letter has attempted to provide the necessary information for the Commerce Commission to consider the matters mentioned above, however, if you require any additional information, or have any specific queries please do not hesitate to contact me. I look forward to the opportunity to discuss this transaction with you at an appropriate time.

Yours sincerely



Gavin Murphy
General Manager – Business Development

APPENDIX ONE: ADDITIONAL COMMENTARY ON THE FORECASTS AND ECONOMIC MODELLING

This appendix provides additional detail on the forecasting and modelling assumptions:

General assumptions

- The economic analysis used the RAB as the terminal value given the long-life nature of the assets and services being modelled. The terminal value did not reflect the future benefit of lower opex or fewer outages, which is a conservative assumption.
- The timing of cashflows was at the end of the period. No timing factor was applied.
- Different depreciation rates were applied to the existing assets and newly commissioned assets. The depreciation rates reflected the average useful remaining life of the assets.²⁷
- A pre-tax WACC was used to derive the return on capital. The WACC assumptions were as used by the Commission in their most recent cost of capital decisions.²⁸
²⁹ The conversion from post-tax nominal to pre-tax nominal used the corporate tax rate of 28%. The actual tax rate that would be applied in a revenue building block model may be lower than 28%. However, it was considered that the tax assumption used did not have a material impact the economic assessment as the RAB's were very similar in both the ENL and Transpower ownership scenario.³⁰
- The return on capital was calculated using the closing RAB value (not the average RAB for the period). However, it was considered that this assumption did not have a material impact the economic assessment as the RAB's were very similar in both the ENL and Transpower ownership scenario.

Capex forecasting assumptions

- The cost estimates provided by Transpower in the AMDB were in 2012\$. These were not CPI inflated to 2013\$ in our assessment. The absence of the CPI adjustment was not considered to be material.
- The post-FY23 Transpower capex forecast were derived from the average of capex for FY20 to FY23 inflated by CPI. The period was selected to avoid including the large one-off capex that is planned prior to FY20. Our view is that the post-FY23 capex is likely to be understated, however we did not consider this to be material, as the same forecasting approach was also used to determine the post-FY23 capex under ENL ownership.
- The post-FY23 ENL capex forecasts were derived from the average of the capex for FY18 to FY23 inflated by CPI. The period was selected to avoid including the large one-off capex that are planned in FY16 and FY17. Our view is that the post-FY23 capex is likely to be understated, however we did not consider this to be material, as the same forecasting approach was also used to determine the post-FY23 capex for the spur assets under Transpower ownership.

²⁷ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: Economic Model, Row 192*.

²⁸ Commerce Commission, "Cost of capital determination for information disclosure year 2014 for specified airport services (March year-end) and electricity distribution services [2013] NZCC 10", 29 April 2013.

²⁹ Commerce Commission, "Cost of capital determination for information disclosure year 2014 for Transpower, gas pipeline businesses and specified airport services (March year-end) [2013] NZCC 12", 31 July 2013.

³⁰ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: ENL WACC Estimate and TP WACC Estimate*.

- Finance during construction was applied at 1.4% for both ENL and Transpower. This is the average level of FDC used by ENL in its most recent information disclosure.
- The value of commissioned assets was calculated assuming 26% of projects were commissioned in the following year. 26% carry-over is the level currently achieved by ENL. This was applied to both Transpower and ENL capex (excluding the asset acquisition).

Opex forecasting assumptions

- The pre-transaction business support opex was not considered in the economic analysis as these additional costs are not reflected in charges to customers under the existing DPP.
- The Transpower opex forecasts for FY14 to FY23 were based on the prior year escalated using CPI, less an efficiency factor.
- The Transpower opex forecasts post-FY23 were escalated by CPI.
- The ENL opex forecasts post-FY23 were based on the preceding year's forecast plus CPI.

Reliability assumptions

- The VOLL of \$20,000 per MWh was not inflated in future years.³¹ This assumption was conservative and would likely understate the benefits of fewer outages in later year.
- The average load impacted by outages was applied at 1.37 kW per customer.
- No growth in customer number was assumed.³² This assumption was conservative and would likely understate the benefits of fewer outages in later year.

³¹ Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: Economic Model, Row 178*.

³² Refer to *ENL Tx Acquisition Forecasts 30-Aug-13.xls, Sheet: Economic Model, Row 169 and Row 185*.

APPENDIX TWO: LIST OF ATTACHMENT

Below is a list of attachments referenced in this letter and in the accompanying spreadsheet. We will provide these to the Commission Commission by courier.

- ENL Tx Acquisition Forecasts 30-Aug-13.xls
- Attachment 01 – Transpower Preliminary Assessment 28-Mar-12.pdf
- Attachment 02 – Remaining NPVs Eastland 21-May-12.pdf
- Attachment 03 – GIS Transfer NIC Buy-out Charge.pdf
- Attachment 04 – SCADA and Comms Transfer Plan v1.0.pdf
- Attachment 05 – LineTech Transmission Line DD Report - Report Issue 1 .pdf
- Attachment 06 – LineTech Transmission Line Emergency Preparedness Issue 1 .pdf
- Attachment 07 – LineTech Stations DD Report 26-Aug-13.pdf
- Attachment 08 – Annual Planning Report 2013.pdf
- Attachment 09 – HLR TUI Metering Installation Cost Estimate.pdf
- Attachment 10 – Metering Installation Annual Charge Estimate.pdf
- Attachment 11 – Transpower Price Notification 2013-14.pdf
- Attachment 12 – Transpower 2012-2013 Transmission Charges (NIC Letter).pdf
- Attachment 13 – Transpower 2012-2013 Transmission Charges.pdf
- Attachment 14 – ENL - Transpower Agreed Timeline.pdf