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# ***Supplementary Submission to the Commerce Commission***

on

21 September 2011

2010 – 15 Default Price-Quality Path  
for Electricity Distribution Businesses  
- Draft Decisions

Made on behalf of 19 Electricity  
Distribution Businesses



# ***Supplementary Submission on 2010 -15 Default Price Quality Path Reset - Draft Decisions***

This paper forms our supplementary submission on the Commerce Commission's (Commission's) 2010-15 Default Price-Quality Path (DPP) for Electricity Distribution Businesses (EDBs) Draft Decisions and is in response to the following Consultation Paper:

- Reset of 2010-15 Default Price-Quality Path for Electricity Distribution Businesses – Consultation Paper on Electricity Volume Projections

This submission has been prepared by PricewaterhouseCoopers (PwC) on behalf of the following 19 EDBs:

- Alpine Energy Limited
- Buller Electricity Limited
- Counties Power Limited
- Eastland Network Limited
- Electricity Ashburton Limited
- Electricity Invercargill Limited
- Horizon Energy Distribution Limited
- MainPower New Zealand Limited
- Marlborough Lines Limited
- Nelson Electricity Limited
- Network Tasman Limited
- Network Waitaki Limited
- Northpower Limited
- OtagoNet Joint Venture
- The Lines Company Limited
- The Power Company Limited
- Top Energy Limited
- Waipa Networks Limited
- Westpower Limited.

These businesses together supply 23% of electricity consumers, maintain 41% of total distribution network length and service 73% of the total network supply area in New Zealand. They include both consumer owned and non consumer owned businesses; and urban and rural networks located in both the North and South Islands.

## ***Previous Submission***

1. This submission follows our 24 August 2011 submission on the July 2011 Draft Decisions Paper. In that submission we commented on the proposed approach to forecasting the rate of growth of throughput volumes for each non-exempt EDB. In particular we noted that:
  - There were considerable divergences between the proposed growth rates for each non-exempt EDB assumed for the variable (throughput growth), capacity (GDP growth) and fixed (population growth) components of real revenue growth. In particular we noted that, on average, projected throughput growth rates exceeded GDP growth rates (by at least two times) and population growth rates (by almost four times). We concluded these results were not sensible.

- The forecast throughput growth rates exceeded (for all but two regions) the historical growth rates actually achieved.
  - The throughput forecasts were based on 2009 models and input assumptions which assumed an underlying national GDP forecast of 3.5% per annum for 2010-2015. The more up to date national GDP forecast supplied by NZIER for the capacity revenue growth assumption is 2.0% per annum for the same period.
  - The application of regional forecasts is a significant improvement on the industry wide forecasts which were proposed earlier. However the regional forecast approach can be, and should be further refined. This is because there is considerable diversity in the historical and expected growth rates for EDBs located within the same region.
  - We noted that the Electricity Authority (EA) forecasts are available by GXP and questioned why the GXP level forecasts had not been used.
2. Consistent with the points raised above, we concluded that the Draft Decisions were insufficiently robust due to deficiencies in the information used to project the real revenue growth for each non-exempt EDB. We submitted that the Commission's model must be populated with reasonable information (which is consistent with the low cost objectives of the DPP) and for the reasons set out above we did not believe this was the case in respect of the Draft Decisions. In our view a low cost DPP cannot be one which requires EDBs to apply for a CPP simply to correct forecast error. Accordingly we submitted that the EA's current forecasts are not used in the model to forecast real variable revenue growth. Our recommended solution was to acquire an updated forecast based on GDP and population projections consistent with the NZIER's 2011 forecasts and the MED's energy intensity assumptions. In addition, we submitted GXP level forecasts should be used (after allowing for local embedded generation).

### ***Proposal for Modified Electricity Volume Projections***

3. The Commission has now released a supplementary Consultation Paper on Electricity Volume Projections (EVP Paper) which proposes an alternative source for the throughput projections required for the Commission's reset model. The paper presents draft regional electricity volume forecasts prepared by Transpower New Zealand Limited (Transpower). It is proposed that the final version of those forecasts is used in the Commission's model. The final versions are expected to be available in October, prior to the final decision being made.
4. The forecasts are prepared by Transpower for the purpose of grid investment planning. Transpower's primary interest is in peak demand forecasts and Transpower's consultation is primarily targeted at the demand forecasts. The throughput forecasts are essentially a by product of the demand forecasts and are not included in the draft demand forecast paper (Demand Paper) published by Transpower in May 2011 for consultation purposes.<sup>1</sup>
5. We have concerns regarding the proposals, partly because there is insufficient information available to us from the EVP Paper and the Demand Paper to understand the inputs and assumptions underlying the energy forecasts. In addition the Commission has not provided sufficient detail about how the forecasts are to be applied to each non-exempt EDB.

#### **Inconsistent Assumptions**

6. Our earlier concerns included the notable inconsistency between the GDP and population forecasts the Commission is to apply to capacity and fixed real revenue growth and those which had been used in the 2009 EA throughput forecasts. Although the Demand Paper mentions GDP and population forecasts sourced from NZIER and Statistics New Zealand, the assumptions are not presented in the paper and we do not know when they were prepared (other than a comment to the effect that the GDP forecasts were 'taken from December 2010'). Most importantly we do not know whether they are consistent with the regional GDP and population forecasts the Commission intends to use elsewhere in its model. Given this was one of

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<sup>1</sup> Transpower, Draft demand forecast, May 2011

the concerns we raised in regard to the EA forecasts we are disappointed the EVP Paper has not considered this consistency issue.

#### Data to be Fit for Purpose

7. In this respect we note one of our earlier suggestions was for the Commission to seek updated EA forecasts (by GXP) using GDP and population projection assumptions which were consistent with the up to date assumptions applied elsewhere in the Commission's model. The EVP Paper indicates that the Commission has discussed this proposal with the EA who have advised they currently have no plans to update their models and forecasts. While that may be the case, we are disappointed that updated forecasts have not been commissioned. We believe that good regulatory practice requires the Commission to populate its models with information which is fit for purpose. This may involve, as it has in the past, the commissioning of data or analysis from external parties. We had understood the Memorandum of Understanding between the EA and the Commission was intended to facilitate the two bodies working together on issues of common interest. We are disappointed this has not been the case in this instance.

#### Regional Forecasts Too Crude

8. The EVP Paper suggests the Transpower regional energy forecasts are to be assigned to EDBs' areas using weights calculated from historical GXP level electricity volumes from the EA centralised dataset. It is not clear to us what this means in practice. Another of our earlier concerns was that the application of regional throughput forecasts to EDBs was too crude as it did not reflect the diversity of economic activity and thus energy demand within a region. Some non-exempt EDBs are unfairly disadvantaged by having the relatively high growth characteristics of their neighbours assigned to them. This occurs particularly for rural networks without major urban loads. Two of the networks (Eastland Network and Horizon Energy Distribution) which, if the Draft Decisions were to apply, would be required to reduce their allowable revenue, are adversely affected by this approach. Others (for example Top Energy) which are able to increase their allowable revenue (if the Draft Decisions were to apply) are also adversely affected due to this regional approach.
9. It is no surprise that these outcomes are harmful to the networks with the lowest historical growth. The approach is biased against them and accordingly we have submitted previously that growth forecasts applicable to each network are required to implement the Commission's model. We have previously noted that the EA forecasts include forecasts by GXP. It is not clear whether Transpower's energy forecasts will also include information by GXP. The reference in the EVP Paper to weights from the EA centralised dataset suggest they may not. We are wary of a 'weighting' approach without understanding how it is to be applied in practice. If it is able to be applied in a manner which reflects the different propensity for growth within a region (which is best illustrated with historical trend data) then there may be some value in the approach. If it does not, then we do not support it for the reasons set out above.

#### Draft Outputs Not Reasonable

10. Our most significant concern however is with the proposed regional growth trends themselves. The EVP Paper explains that Transpower's energy forecasts are produced for calendar years, and the Commission plans to convert these to regulatory years (ie: March year). The accompanying spreadsheet shows that this conversion is to be implemented with a simple 25%/75% ratio. The EVP Paper notes that 'for some regions we observe that in the transition from actual (2010 calendar year) to forecast (2011 forecast year) electricity volumes change by up to 10%. The EVP Paper then states that 'such changes are not unexpected'.
11. The conversion from calendar to March years is not the primary issue with the growth rate outputs. The growth rate trend itself, which ultimately is the information which is to be applied to each non-exempt EDB in order to determine their allowable revenues, is not reasonable for a number of regions. We dispute the Commission's claim that changes in electricity volumes by 10% per annum are not unexpected. For electricity distribution networks, changes in throughput of 10% or more are certainly unexpected.<sup>2</sup> The following chart shows the regional energy growth rates for the calendar years 2007 – 2015 sourced from Transpower's models. The abnormal step change between actual and forecast at 2010 – 2011 is evident for most regions.

<sup>2</sup> Other than for small networks which from time to time may be heavily influenced by a change in demand from a new or existing large customer. This impact is generally not experienced by the larger networks.

Growth Rate	Calendar year	North Isthmus	Auckland	Waikato	Bay of Plenty	Hawkes Bay	Taranaki	Central Districts	Wellington	NI
Actual	2007	-0.5%	1.6%	1.4%	-1.3%	3.4%	1.7%	-4.5%	-0.7%	0.3%
Actual	2008	-0.3%	-0.1%	-1.4%	-1.7%	-1.7%	1.0%	2.3%	0.4%	-0.4%
Actual	2009	-1.2%	-0.1%	4.3%	1.0%	5.9%	-1.7%	2.6%	2.5%	1.1%
Actual	2010	-1.0%	0.2%	1.1%	0.7%	-1.7%	0.1%	-9.3%	-1.4%	-0.7%
<b>Forecast</b>	<b>2011</b>	<b>7.6%</b>	<b>9.0%</b>	<b>-3.9%</b>	<b>-6.7%</b>	<b>-0.5%</b>	<b>11.6%</b>	<b>13.9%</b>	<b>5.8%</b>	<b>4.5%</b>
Forecast	2012	1.6%	1.8%	-2.2%	1.6%	1.1%	4.0%	0.1%	1.9%	1.3%
Forecast	2013	2.0%	1.9%	3.9%	1.0%	1.4%	2.6%	2.3%	1.8%	2.0%
Forecast	2014	1.6%	1.2%	3.6%	0.5%	0.4%	1.0%	0.9%	1.3%	1.3%
Forecast	2015	1.5%	1.8%	1.8%	-0.2%	1.0%	0.6%	1.6%	1.4%	1.3%

Growth Rate	Calendar year	West Coast	Nelson Marlborough	South Canterbury	Canterbury	Otago Southland	SI	NZ
Actual	2007	6.4%	3.0%	4.8%	0.9%	2.6%	2.3%	1.0%
Actual	2008	13.8%	-1.0%	8.9%	4.6%	-7.6%	-2.0%	-1.0%
Actual	2009	5.3%	1.0%	-2.2%	-0.1%	-7.6%	-3.9%	-0.7%
Actual	2010	7.4%	-0.3%	5.3%	2.2%	14.7%	8.5%	2.6%
<b>Forecast</b>	<b>2011</b>	<b>-6.9%</b>	<b>6.8%</b>	<b>2.1%</b>	<b>-5.8%</b>	<b>3.7%</b>	<b>0.7%</b>	<b>3.0%</b>
Forecast	2012	0.9%	1.9%	3.6%	3.7%	-0.3%	1.4%	1.3%
Forecast	2013	2.9%	2.0%	4.2%	3.8%	0.5%	1.9%	2.0%
Forecast	2014	0.0%	1.2%	4.9%	3.2%	0.9%	1.9%	1.5%
Forecast	2015	4.0%	1.3%	5.2%	3.2%	1.2%	2.2%	1.6%

12. We note that the historical trend rates are more stable for most regions. We believe that the Transpower projections are likely to include the impact of their direct customers, which should be excluded from the information. These are large customers, and year on year changes in their demand will have a significant impact on a region. This potential source of variance is not relevant to distribution network growth.
13. Transpower is primarily interested in a long term trend for grid planning purposes, and thus the short term step change from actual to forecast may be acceptable to them. However, we suggest it is not credible to include unexplained step changes from actual to forecast in the data to be used to populate the real revenue projections for EDBs for 2011 – 2015. The Commission’s models are too sensitive to the short term real growth assumptions.
14. Accordingly we submit that the Commission has two options available to it at this time:
  - Ignore the 2011 year growth rate and derive an annual average from the last four years (2012-15) to be used for all years of the forecast; or
  - Abandon the Transpower forecasts and extrapolate from historical actual data from each EDB.
15. Given our concerns about the use of regional data we do not support the first option. We believe the proposed data and approach is not fit for purpose and that, given the impending deadline, the Commission would be best to revert to historical trend data for each non-exempt EDB for the purpose of determining throughput forecasts. EDBs should have an opportunity to comment on any unusual trends evident within their historical information.
16. In our previous submission we also suggested that if more credible throughput forecasts were not available a combination of population and GDP forecasts can be applied to project variable revenue growth, with population growth rates applied to small consumers and GDP to medium and large consumers. However, if the Commission has not seriously considered this option at this stage, we suggest it may be too late to implement it now.

### **Peak Demand by GXP**

17. The EVP Paper notes the possibility of using Transpower's peak demand growth rate forecasts by GXP (which are to be available in early October). The Commission considers the relationship between peak and throughput is not sufficiently stable to provide reliable electricity volume forecasts. It is not possible to comment on this without understanding how the peak and throughput forecasts are derived for each GXP. We note EDBs are able to influence peak demand by applying load control. Incentives for load control have changed over time, for example via the transmission pricing methodology. The use of load control may also change in the future, for example as new technologies become viable.
18. The Demand Paper does not explain the derivation of the GXP level demand forecasts as these had not been undertaken at the time the paper was published. The EVP Paper provides no additional information in this respect. As stated above, we do not believe the regional throughput forecasts are particularly stable either (for the 2011 – 2015 period) and therefore we do not support the use of them for the purpose of the DPP reset modelling.

### **Recommendation**

19. We recommend that the Commission reverts to historical trend throughput data in order to generate its real (variable) revenue growth assumptions, in the absence of a reasonable alternative forecast at this time. EDBs should have an opportunity to comment on any unusual trends evident within their historical information.

### **General**

20. We trust this submission provides useful input for the Commission in finalising its DPP Reset Determination. We would be happy to answer any questions you may have regarding this paper.

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