Draft Decision on Initial DPPs for Gas Pipeline Businesses

7 December 2012

1 EXECUTIVE SUMMARY

Powerco agrees with many of the major elements of the *Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services* (Reset Paper), in particular the capex forecast methodology, the X factor of 0, the quality path, the 15 month initial disclosure period, the inclusion of insurance premium step changes in opex, and the use of the historical ICP trend to forecast fixed revenue growth.

However, we believe that better methodologies could have been applied to some parts of the analysis. With respect to the proposed P_0 of +5%, we note that this simply reflects the fact that Powerco has been on an artificially low price path since the 2009 claw back of revenue required by the Gas Authorisation. A commercially appropriate P_0 adjustment is essential if Powerco's gas business is to remain viable.

We recommend the following methodological changes to the financial and projections models:

- In the opex forecast, replacement of the Ofgem 2007 regression model with a similar model developed by Castalia, on behalf of Vector Limited. This model has the advantage of using more recent data (from 2010) for New Zealand and Australian gas distributors.
- The use of five year historical volume growth to forecast the growth in the variable component of constant price revenue growth (CPRG). In our view the draft Concept Consulting study does not adequately consider the growth in the residential and commercial sectors and has consequently produced results that are inconsistent with both the historical trend and current market conditions. If the Commission continues to use the draft Concept Report, we recommend the "tight" scenario be adopted, as this best aligns with Powerco's historical growth.

Decisions on the gas distribution P_0 may also set a precedent for the electricity distribution P_0 reset in 2015. Consequently, in this submission we comment on the applicability of various approaches not just to the next gas reset in 2017, but also the electricity reset in 2015.

Powerco also requests two data changes to improve the accuracy of the Financial Model and the Projections Models:

- that Powerco's tax depreciation rate be adjusted to reflect the fact that Powerco moved from a 10% diminishing value tax depreciation rate to a 7% straight line rate on 1 April 2012; and
- that Powerco's historical ICP trend be adjusted to account for data cleansing in 2008/09 and some minor duplication of ICPs.

Finally, we broadly support a number of aspects of the DPP Determination, although recommend two changes to the pass through costs approach. Firstly, that Powerco is able to recover two years of pass through costs in the first year of the regulatory period to allow catch-up. Secondly that the cost of finance of the lagging of pass through costs by one year is allowed to be earned.

2 INTRODUCTION

Powerco welcomes this opportunity to comment on the Commission's consultation document *Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services*, published on 24 October 2012 (Reset Paper). This submission includes consideration of the full set of models and reports published by the Commission on 24 October 2012, namely:

- *Revised Draft Decision on the Initial Default Price-Quality Paths for Gas Pipeline Services* (Reset Paper);
- *Gas Distribution Default Price-Quality Path Determination: Consultation Draft* (Draft Determination);
- Revised Gas Draft Decision Financial Model (Financial Model);
- Revised Gas Draft Decision Opex and Capex Projections Model (Opex and Capex Projections Model);
- Revised Gas Draft Decision Constant Price Revenue Growth Projections Model (CPRG Projections Model); and
- Revised Gas Draft Decision Constant Price Revenue Growth Supporting Information.

The contact person for this submission is:

Richard Fletcher
General Manager Regulation and Government Relations
Powerco Limited
Tel: 021 730 348
Email: richard.fletcher@powerco.co.nz

3 THE PROJECTIONS AND RESET MODEL

3.1 General comments

In this section of the submission we comment on the Commission's Projections Model and the Reset Model. There are a number of areas where we support the Commission's approach, for example:

- using suppliers' capital expenditure forecasts subject to a 20% cap;
- using a single base year for the operating expenditure forecast;
- setting the partial productivity factor for opex at 0% to reflect the total factor productivity (TFP) findings of Economic Insights;
- including the step change in insurance costs due to natural disasters in the opex forecast;
- using historical ICP growth to forecast growth in fixed revenue; and
- the method used to forecast CPI outside the period of the Reserve Bank's monetary policy statement forecast.

We also support the Commission's decision to hold a modelling question and answer session. This was particularly helpful given the differences between the gas and electricity models caused by the different financial years and different tax approaches.

We also recommend the following improvements to the Commission's analysis and use of data:

- adjusting Powerco's tax depreciation to reflect the fact that Powerco moved from a 10% diminishing value tax depreciation rate to a 7% straight line rate on 1 April 2012;
- using the opex regression model developed by Castalia, on behalf of Vector, to forecast opex, rather than the 2007 Ofgem model;
- adjusting Powerco's ICP trend to account for data errors; and
- using historical volume growth to forecast the variable component of CPRG instead of the figures in the draft Concept Consulting report. However, if the Commission continues to use the Concept report, we recommend that the tight scenario be applied, as this best reflects historical growth and Powerco's expectations of future growth.

3.2 Tax depreciation

The Financial Model assumes that a number of past financial practices will continue. For example, the tax depreciation forecast assumes that suppliers will continue to use the same depreciation approach.

In the Financial Model for Powerco, tax deprecation is based on an average diminishing value rate for 2010/11 of 9.92%. This has been determined by dividing the amount of tax depreciation disclosed in 2010/11 by the opening regulatory tax asset value for 2010/11.

Because Powerco has changed its depreciation method, this approach will significantly overstate the amount of tax depreciation that will be incurred by Powerco over the 2013-17 regulatory period. For the 2010/11 tax year Powerco applied a 10% diminishing value tax depreciation rate to most of its gas assets which is closely replicated by the Financial Model's derived 9.92%.

Powerco can change its depreciation methodologies in accordance with section EE 12 of the Income Tax Act 2007. For business reasons, Powerco moved to the straight line method of tax depreciation from 1 April 2012. The straight line rate that applies to the large majority of Powerco's gas assets is 7%.

Powerco requests that the Commission adjust the amount of tax depreciation calculated in the Financial Model to reflect the 7% straight line rate, rather than a 10% diminishing value rate. If necessary, Powerco can provide a Directors' Certificate stating that the company's policy on depreciation for taxation purposes has changed.

This should be a straightforward adjustment to correctly reflect our current business practice. It is important that companies should continue to have the freedom to change their tax depreciation rates without the risk of being penalised by the regulatory regime.

3.3 Capital Expenditure

3.3.1 Support for the proposed approach

Powerco supports using suppliers' capex forecasts, with any increase relative to historical spend capped at 20% (over the regulatory period in real terms) to model capital expenditure. In particular, we agree that suppliers have access to the best information to enable accurate forecasts of future capex.

The Reset Paper asks whether the 20% limit is too high. We support the 20% limit because it represents an appropriate threshold for the use of a CPP as intended by the legislation. Capex changes of less than 20% are within the business as usual range that should be accommodated by the DPP. Another option raised by the Commission would be to remove major projects from suppliers' forecasts, but apply a decreased cap. This approach might be more workable for gas transmission, where investment is generally lumpy and characterised by major projects. Gas distribution capex, on the other hand, generally comprises regular smaller investments. Hence, removing large projects and lowering the cap would be unlikely to work satisfactorily for gas distribution, and may have the perverse effect of requiring some suppliers to apply for a CPP to enable business as usual capex to proceed.

3.3.2 Capex approach could be applied for the 2015 electricity DPP reset

Powerco considers that the Commission's proposed approach to gas capex could also be applied to the 2015 electricity DPP reset. This would provide a solution to the issue that is concerning the Commission in relation to the gas DPP, i.e. possible incentives to bias capex forecasts upwards. Applying the same approach would also have the advantage of regulatory consistency between the gas and electricity DPPs.

If the same approach were to be applied to electricity, the Commission would need to take into account the fact that electricity networks are generally older than gas networks, and therefore electricity distribution capex is likely to increase more significantly relative to historical expenditure. This may warrant a higher cap than 20%.

We also note that Powerco has two major electricity transmission projects that will be completed in the 2015-2020 period. This type of lumpy expenditure may be better treated by a ring-fenced approach as it has a distorting impact on the capex profile.

3.4 Operating Expenditure

3.4.1 Base year

Powerco supports the Commission's proposal to use one year for the base year, rather than an average of three years. We are comfortable with the use of the 2011 year as the base year for the initial reset.

3.4.2 Ofgem Model

The Commission has forecast one part of opex growth using a regression model developed by Ofgem in 2007.[1] The model assumes that opex growth is a function of ICP growth and network length growth (given by a composite scale variable (csv) that is based on a 50% weighting of each metric). We recognise the limitations of the New Zealand data and that there may be valid international models that could be used. However, we note that the Ofgem model is based on data from five years ago, and that gas distribution in the United Kingdom has a number of different characteristics to New Zealand, for example, greater consumer density driven by higher uptake rates.

We note that Castalia, on behalf of Vector Limited, has replicated the 2007 Ofgem model using data from New Zealand and Australian gas pipeline businesses for the 2010 year. This data was produced by Economic Insights in a report to the Australian Energy Regulator in March 2012.[2]

Castalia's model is superior to the Ofgem model in a number of respects. It uses New Zealand data, is a larger sample and has a stronger relationship between network scale and opex than the Ofgem model (an R^2 of 0.96 compared to 0.93). The result is an elasticity of 0.976, compared to the Ofgem model's result of 0.719. Castalia have concluded that this is due to the more extensive coverage of the UK gas network and the resulting low marginal cost to connect new customers. In contrast, the coverage of the New Zealand and Australian gas networks are lower, meaning extending the network does not produce the same scale benefits as in the UK.

Accordingly, Powerco recommends the Commission use the opex regression model developed by Castalia, on behalf of Vector, rather than the 2007 Ofgem model.

3.4.3 Opex partial productivity

The Commission has proposed a 0% change in opex partial productivity for the initial DPP, based on total factor productivity (TFP) analysis (completed by Economic Insights to inform the industry-wide X factor). The Commission has asked for views on the future use of TFP to derive the X factor and its link to the partial productivity part of the opex methodology. Comments on the role of the X factor are provided in section 4 of this submission. This section focuses on the use of a partial productivity factor.

Powerco recommends that the Commission not include a partial productivity factor in the opex forecast. The primary reasons for our view is that the benchmarking analysis required to formulate the factor is too complex, presents numerous data and methodological problems, and, given the intended low cost character of the DPP, is too resource intensive to be justified. Powerco notes the Australian Productivity Commission's draft report on Electricity Network Regulation, which considers in detail the role of benchmarking in the Australian regulatory regime. It concludes that:[3]

[1] Ofgem, *Gas Distribution Price Control Review, Final Proposals Document – Supplementary Appendices*, 3 December 2007, p.42.
[2] Economic Insights, *Benchmarking the Victorian Gas Distribution Businesses' Operating and Capital Costs Using Partial Productivity Indicators*, 26 March 2012.
[3] Australian Productivity Commission, *Electricity Network Regulatory Frameworks*, 18 October 2012, p. 175.

> "benchmarking is a demanding quantitative (and qualitative) task. As in many other cases of firm-based modelling, the results are often fragile to data errors, statistical assumptions and variable choices."

While the Australian Productivity Commission does not rule out the use of benchmarking, it suggests that the level of analysis required to use it appropriately makes it an unsuitable tool for setting a relatively insignificant part of the DPP opex forecast.

We think incentives to achieve efficiencies are too important to be left to devices such as opex partial productivity, which are based on problematic analysis. Instead, the Commission's resources would be better applied to the development of a rolling incentive scheme to include in the DPP. This would incentivise suppliers to pursue efficiencies more effectively than an opex partial productivity factor.

Generally speaking, the forward looking incentive regulation in Part 4 is designed to provide incentives for suppliers to become more efficient across all areas. It aims to align the commercial goals of the business with the goals of society (efficiency, reliability and lower costs of electricity supply). Achieving efficiency gains and the subsequent sharing of those gains is the principal means by which the long term benefit of consumers is promoted. With these considerations in mind, we think it is preferable to rely on "carrots" in an incentive regime to encourage efficiency gains rather than "sticks" (such as opex partial productivity). Firms themselves are best placed to understand the sources of possible efficiencies. Providing broad incentives to achieve potential gains is likely to be the best way to promote dynamic efficiency and the long term interests of consumers.

3.4.4 Allowance for higher insurance premiums

The Commission has included an allowance in opex to incorporate the increase in insurance premiums due to recent natural disasters. Powerco supports this approach as this is a cost that affects the entire industry, and one over which suppliers have little control.

3.4.5 Considerations for determining opex forecasts in future resets

The forecast of opex for the initial gas starting price adjustment is limited by the data available. As discussed in Powerco's submission on the electricity P_0 draft decision on 1 October 2012, we are already turning our minds to how to refine the approaches for the electricity reset in 2015 and the gas reset in 2017. Potential areas to consider further for the opex forecast methodology are below:

- What type of models (or mix of models) deliver the highest accuracy of forecasts (for example, time series analysis or Monte Carlo analysis compared to regression models using independent data, or compared to a supplier's own forecasts)?
- Could industry-specific cost indexes be developed that improve the accuracy of the forecasts?
- How should small step changes in opex, caused by factors unrelated to scale, be factored into the forecast? For example, infrastructure companies are facing a range of increasing costs from changes in regulations and the requirements of territorial local authorities. Should mechanisms be developed to factor in these costs if they arise (e.g. a ring fenced process or reopener clause), or should a proxy amount be used (e.g. similar to the 20% cap used in the capex forecast approach)?
- How should suppliers be incentivised to reduce opex?

3.5 Constant Price Revenue Growth

3.5.1 General Comments

The Commission has forecast constant price revenue growth (CPRG) using the historical ICP growth rate and gas quantities modelled in a gas demand study by Concept Consulting[4]. Powerco recognises the challenges of developing a methodology that accurately forecasts CPRG, and we welcome many of the changes that have been made since the last proposal. However, given the sensitivity of the P_0 model to CPRG, it is vital that a robust and realistic methodology be applied and continually refined based on the latest data and analysis. This section provides a number of recommendations to help achieve this.

3.5.2 Forecasting ICP growth

Powerco supports using the historical ICP trend to forecast the fixed cost component of CPRG. In our submission to the Commission on 28 September 2011[5], we outlined a number of reasons which explained that the ICP growth rate is not significantly related to population growth or GDP growth. On this matter we agree with the findings of Concept Consulting, which also came to this conclusion.[6]

While we support the Commission's approach to forecasting ICP growth, we recommend that the Commission make certain adjustments to Powerco's historical ICP growth data in the opex and CPRG models to account for:

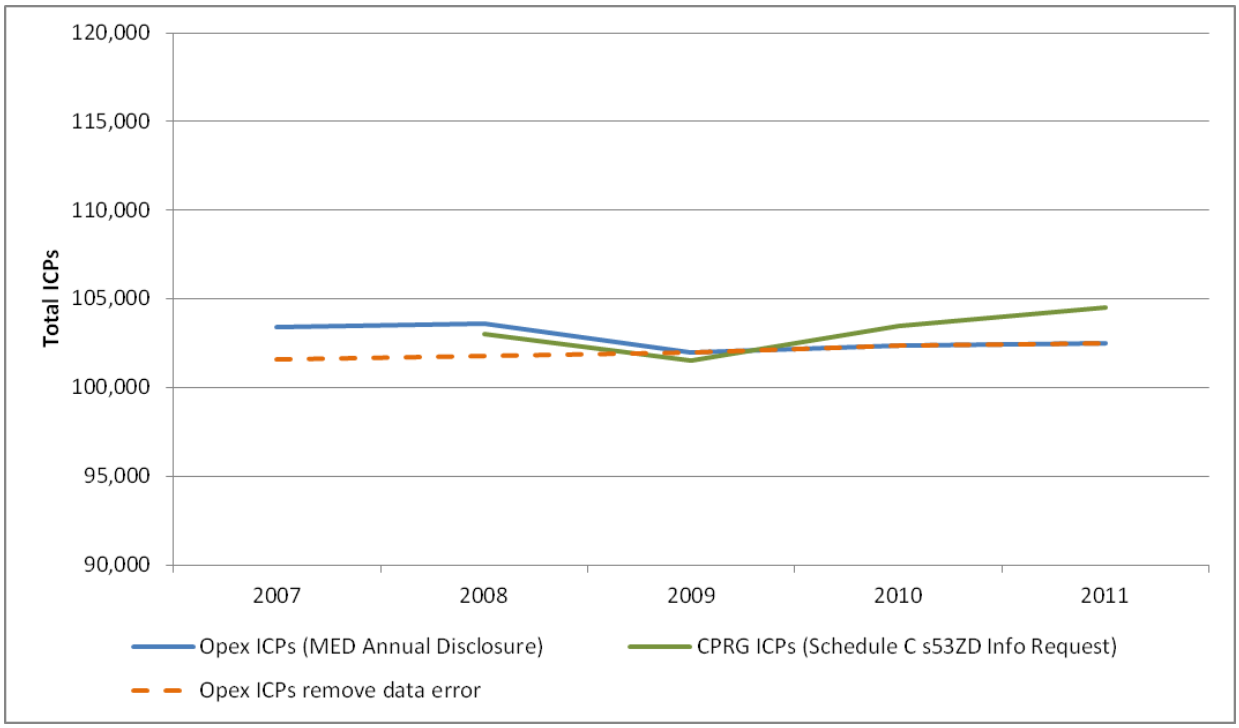
a) the impact of data cleansing following introduction of the gas registry in 2008/09; and

b) some duplication of ICPs in Schedule C of the s53ZD information request, due to practical problems Powerco had reporting by ICP number at the tariff group level.

The blue line in the figure 1 provides ICP numbers disclosed annually under the Gas (Information Disclosure) Regulations 1997 (as used in the Commission's opex modelling). It shows a sharp drop of around 1,500 ICPs in 2009. The main cause of this change was data cleansing carried out as part of the development of the Gas Registry (a national database of ICPs administered by the Gas Industry Company). Consequently, this variation does not represent an actual reduction in the number of ICPs – the ICPs removed did not actually exist.

[4] Concept Consulting Group Limited, *Gas Supply and Demand Scenarios 2012-2027*, August 2012.
[5] Powerco Limited, *Submission on Setting of Starting Prices for Gas Pipeline Businesses under the Initial Default Price-Quality Path Discussion Paper*, 28 September 2011.
[6] As discussed in paragraph F10 of the Reset Paper.

Figure 1: Corrected Powerco ICP numbers



In addition, the ICP information used for CPRG includes some duplication due to problems associated with reporting ICPs at the tariff group level. We were not able to remove this duplication for 2010 and 2011 in the time allowed by the 29 August 29012 s53ZD request, and advised this in our cover letter to the Commission:

> Powerco has previously disclosed ICP numbers annually under the Gas (Information Disclosure) Regulations 1997. Schedule C requests ICP numbers, but by tariff group. Powerco's billing system is able to provide ICP numbers by tariff group, but includes some "non material" duplication of ICPs due to the way our system records the retailer switching process.[7]

The duplication is represented by the higher green line above the blue line. The dotted orange line provides a more realistic trend of actual ICP growth on Powerco's network – it adjusts for the drop of ICPs in 2008/9 and removes duplication of data. Powerco recommends that the Commission use the dotted orange line trend of ICP numbers for both the opex and CPRG models. The corrected ICP numbers are provided in the table below.

Year	Opex ICPs	CPRG ICPs	Corrected ICP trend
2007	103,404		101,603
2008	103,602	103,028	101,807
2009	102,011	101,555	102,011
2010	102,346	103,482	102,346
2011	102,482	104,534	102,482

[7] To report ICP data by tariff group requires Powerco to use submission files sent to us by retailers. If an ICP switches retailer during the month, the ICP will be included in both retailers' submission files. Removing this duplication on a month by month basis is not straight-forward as each monthly submission file has over 250,000 lines of data. To compile an annual number therefore requires removing the duplication from 3 million lines of data. To provide this data for five years, as required by the Schedule C notice was too time intensive to complete in the time allowed.

3.5.3 Forecasting volume growth

Powerco supports the Commission's decision to examine alternatives to GDP and population forecasts to estimate volume growth. We consider that historical growth in gas consumption is likely to be a better predictor of future volume growth than the modelling completed in the draft Concept Consulting study. Using the historical growth would also be a limited risk given that the draft Concept report notes that no major change in wholesale gas prices that would materially affect gas volume is likely to happen over the regulatory period.

However, if the Commission decides to continue to use the draft Concept report, we recommend that the "tight" scenario be used, as it is closest to the observed historical growth trend.

The draft Concept report identifies some key factors that affect gas supply and demand in New Zealand and provides some high level information that aids understanding of overall volume growth nationally. However, the study has a number of deficiencies that detract from its ability to determine a robust demand forecast for GDBs for the next five years.

The draft Concept report is more focused on supply, meaning less analysis has been completed on the demand side. This is particularly true for the residential and commercial gas sectors, which are such a small proportion of total gas use in New Zealand.

The Concept report does not try to model demand growth directly, but instead "takes the approach of developing gas demand projections informed by high-level analysis of the economics of the main uses for gas relative to the main competing fuels/ technologies".[8] Concept acknowledges the limitations of its analysis with respect to residential and commercial consumers, noting that a full and detailed analysis is beyond the scope of the study. The Report states,

> With respect to space and water heating, the analysis of the relative economics of the different energy end-use options becomes even more complicated in that it also requires consideration of different technologies (for example heat pumps) with their very different appliance costs and efficiencies, as well as consideration of fuel and transport / network costs. It also requires consideration of the different sizes of annual consumption, as fixed charges and capital costs can become material factors determining the best heating technology for the different sized mass-market consumers.
>
> A full and detailed analysis of these issues is beyond the scope of this study. However, a previous study undertaken for Gas Industry Company indicated that instant gas hot water was likely to be the most competitive energy end-use option for water heating in most situations (plus it also delivers an advantage compared to cylinder options of never running out of hot water), but that for space heating gas would face stiffer competition from heat pumps. It also indicated that, in most cases, the relatively high capital costs of non-industrial heating requirements would mean that it was not generally cost effective to switch away from an existing heating option. Furthermore, the best fuel option could vary significantly with customer circumstance – particularly the size of the heating load.
>
> Initial indications from an update to this study are that these conclusions remain valid, and that these are consistent with observed outcomes in the marketplace. (For example, discussions with gas network companies indicate that gas is losing space heating market share, but remains competitive for water heating).

[8] Concept Consulting Group Limited, *Gas Supply and Demand Scenarios 2012-2027*, August 2012, p.67.

Data from the MBIE Energy Data File shown in Figure 49 indicates that gas consumption for the commercial and residential sectors (whose use is dominated by space and water heating) has been dropping in recent years. This tends to support the above conclusions that gas is slowly losing market share for space heating.

On balance, it was considered that there would be likely to be some continued growth in demand for gas for water heating, but relatively flat demand (possibly declining in some scenarios) for gas for space heating.[9]

This leads Concept to conclude the following growth scenarios:

Table 3: Projected annual gas demand growth rates for gas supply scenarios

	Projected annual growth rates for gas supply scenarios									Load splits		
	Space heating			Water heating			Process heat					
Sector	Plentiful	Moderate	Tight	Plentiful	Moderate	Tight	Plentiful	Moderate	Tight	Space heating	Water heating	Process heat
Non	0.25%	-0.50%	-2.00%	4.00%	2.00%	0.00%	3.00%	1.50%	0.00%	55%	40%	5%
ToU	0.25%	-0.50%	-2.00%	4.00%	2.00%	0.00%	3.00%	1.50%	0.00%	10%	5%	85%
Dairy							0.50%	0.00%	-0.75%			100%
Paper							0.00%	-2.00%	-4.00%			100%
Meat							2.00%	1.00%	0.00%			100%
Refining							2.00%	1.00%	0.00%			100%
Steel							0.50%	0.00%	-0.50%			100%

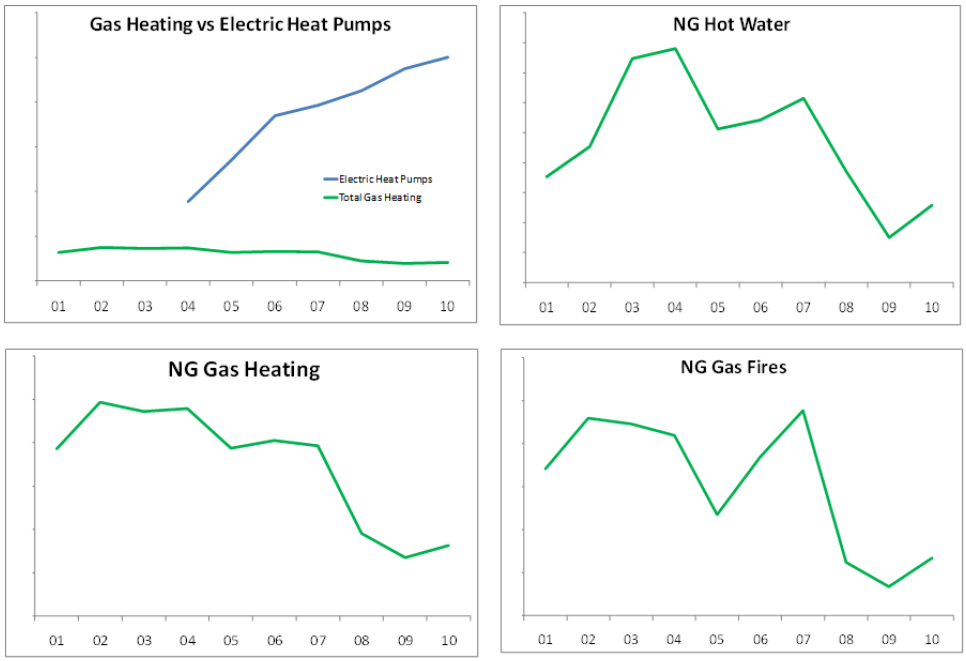
Source: Concept estimates

In Powerco's 28 September 2011 submission to the Commission we included the graphs below, showing trends in sales of gas appliances by Rinnai New Zealand over the last ten years. They demonstrate a very challenging market, particularly against the rapid growth of heat pumps, as recognised by Concept. These graphs, and Powerco's experience, suggest that a strong negative growth in space heating is a realistic estimate of future growth. The graphs align with the tight scenario forecasting a -2% volume change in natural gas space heating.[10]

While the Concept report states that natural gas hot water is a competitive option, the Rinnai sales, shown in the "NG Hot Water" graph, suggest a much more difficult picture. There was some growth in the early 2000s, but this has declined. Therefore, we are very doubtful that gas water heating will grow by 4% per year (the figure in the "plentiful" Concept scenario) – a flat or very low growth is more realistic. Again, the 0% growth in the tight scenario is realistic.

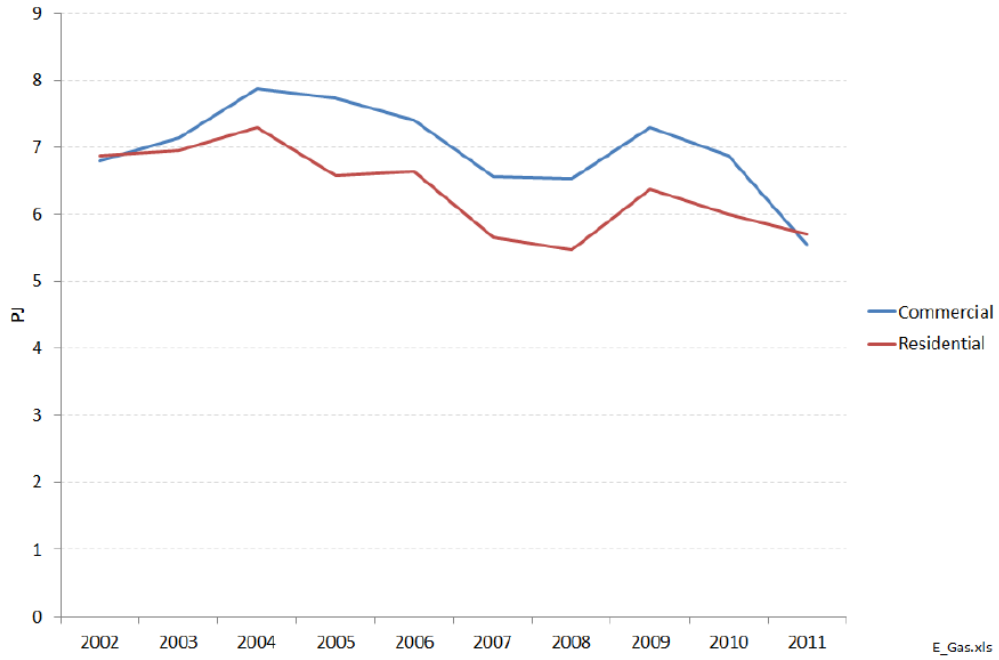
[9] Concept Consulting Group Limited, *Gas Supply and Demand Scenarios 2012-2027*, August 2012, p.76.
[10] We also note that space heating is sensitive to the temperature during the year. However, given predicting annual temperature with some degree of accuracy is deemed impossible, this analysis assumes temperature follows a normal distribution and the average is used.

Figure 2: Rinnai New Zealand Sales Figures



The growth rates derived in the Concept report also do not match the historical trend, which Concept itself provides in figure 3 below, which shows a decline in historical gas consumption for commercial and residential customers. The Rinnai sales graphs do not suggest that this trend is likely to be reversed in the next five years.

Figure 3: Historical gas consumption in the commercial and residential sectors



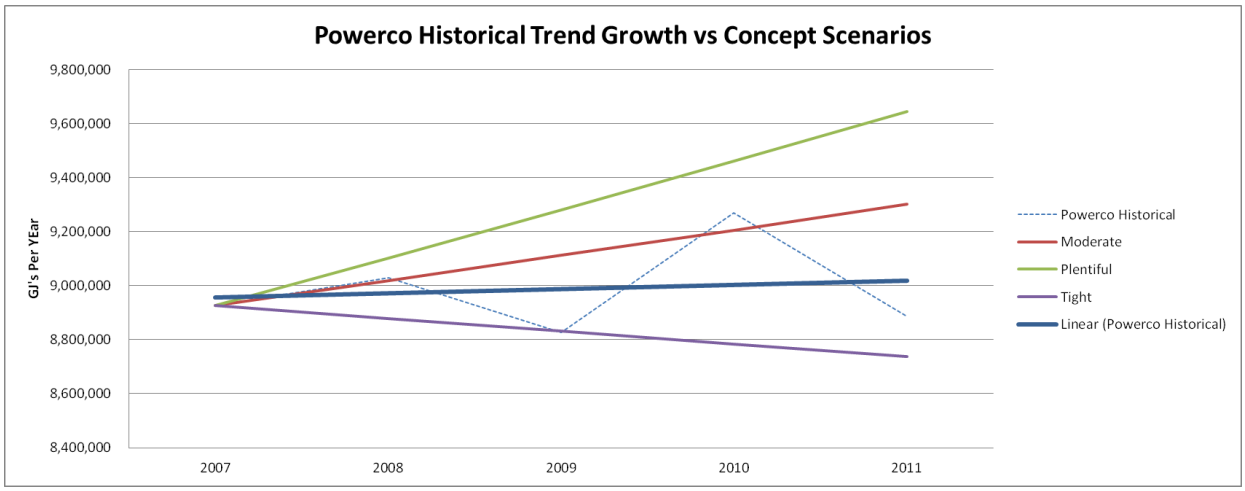
Source: Concept analysis using MBIE 2012 Energy Data File data

We are also concerned about the misalignment between the Commission's ICP growth rate forecasts (which are based on historical trends) and the GJ growth rate forecasts (which are based on the Concept report) for the industrial group. The historical ICP growth rate forecasts indicate that industrial consumers will decline by -6.1%, but volume growth from this group is forecast to increase by 1.3%.

In addition, the draft Concept study was completed at a national level, meaning regional trends were not included. This is a different approach to that for CPRG for electricity, where regional data was available and could be used.

Figure 4 illustrates the accuracy of the three Concept scenarios ("tight", "moderate" and "plentiful") if they were applied in 2007[11]. This shows that the actual growth on Powerco's network between 2007 and 2011 was between the "tight" and "moderate" scenarios.

Figure 4: Powerco historical trend compared to Concept Scenarios



We consider that the consumption trend in 2013-2017 will be similar, if not more challenging than 2007-2011, given the number of challenges that continue to exist. For example, gas heating still faces significant competition from heat pumps, as recognised by the Concept report, which notes that "in the mass-market sector, it is understood that gas has been losing market share to electricity for space heating, as heat pumps have gained market share over the last decade". Building consent applications continue to be very low and the economy continues to experience a slow recovery from the global financial crisis.

In conclusion, Powerco recommends that the Commission use the five year historical growth to forecast the variable component of CPRG. If the Commission continues to use the Concept Report, Powerco recommends the "tight" scenario be adopted.

3.6 Start date of the Gas DPP

Powerco supports the Commission's proposal that the first regulatory period commence on 1 July 2013. The benefit to consumers of gas price control will begin to accrue once prices

[11] This data has already been audited, certified by Directors and supplied to the Commission as part of Provisional and Final Authorisation Compliance Statements.

and revenue reflect the current and projected profitability of each supplier. This is a particularly important consideration, given that GDBs have not yet been subject to a DPP.

3.7 Incentive mechanisms

In Powerco's submission on the Revised Draft Reset of the Electricity 2010-15 DPP, we stated:[12]

> "The Reset Paper raises the possibility of the Commission amending the rules and processes IM to include an 'incremental rolling incentive scheme' (IRIS). Powerco supports the inclusion of some form of rolling incentive scheme and would welcome the Commission dedicating some resource to the matter."

In the Gas Reset Paper, the Commission has similarly raised the possibility of amending the rules and process IM to include an IRIS. Consistent with our position on the electricity DPP, Powerco strongly recommends that the Commission begin work on incorporating a rolling incentive scheme into the DPP as soon as practicable.

Powerco also raised in its submission on the Revised Draft Reset of the Electricity 2010-15 DPP the possible development of an incentive mechanism for capex. We continue to believe a capex incentive mechanism would be a substantial improvement to both the electricity and gas DPP regimes and encourage the Commission to begin work on this.

3.8 Role of the X factor

In the Commission's discussion on the role of the X factor, it notes that, even if the X factor were set different to zero in a future reset, it would be unlikely to further affect the present value of the revenue expected by suppliers within the regulatory period. The Commission then asks for views on the role of the X factor under the DPP in relation to both the price path and partial productivity assumptions used in forecasting operating expenditure. Powerco's views on the partial productivity factor are discussed in section 3.4.

3.8.1 Role of X factor in relation to productivity assumptions

Powerco agrees with the Commission that the X factor is now unlikely to affect the present value of revenue expected by suppliers over the regulatory period, given it is only used to smooth the revenue path once allowable revenue is determined. The Commission's partial building blocks approach to the DPP P_0, under which capex and opex are forecast, has largely made the total factor productivity (TFP) role for the X factor irrelevant.

Removing the TFP role from the X factor makes sense in light of the difficulties associated with the TFP studies to date for gas and electricity. Those studies show relatively large margins for error and differing results. The tables below (from the 2010 *Electricity DPP Reasons Paper*) show the results derived by Economic Insights (on behalf of the Commission) and Pacific Economics Group (on behalf of EDBs). The X factors range from -0.63% to +0.27%.

[12] Powerco Limited, *Submission on Revised Draft Reset of the 2010-15 DPP,* 1 October 2012, p. 22.

Table 3 Summary of Economic Insights' Recommendations

	Derived Pre-tax	Derived Post-tax	Recommended
TFP Growth Differential	-0.05%	0.06%	0%
Input Price Differential	-0.32%	-0.16%	0%
X-Factor	0.27%	0.21%	0%

Table 4 PEG's X-Factor Options[157]

Option	TFP Industry	TFP Economy	TFP Differential	Input Price Differential	X-Factor
i	1.21%	1.09%	0.12%	0.07%	0.19%
ii	1.21%	1.09%	0.12%	0%	0.12%
iii	-0.08%	0.55%	-0.63%	0%	-0.63%

There does not appear to be any significant value in either the Commission or suppliers commissioning a limited pool of consultants to produce research of questionable value (and which is invariably contentious), given that the X factor does not influence allowable revenues.

3.8.2 Role of X factor in relation to the price path

It would be more practical to use the X factor as a mechanism to manage P_0 changes in a way that reflects the needs of consumers and suppliers. Powerco's experience is that retailers and consumers prefer a smoother price path, rather than one with large movements. Investors in regulated businesses are also likely to prefer smooth and consistent cash flows. The Commerce Act envisaged that the X factor may be used to smooth price paths, as it provides for the Commission to set different rates of change to avoid financial hardship for consumers and suppliers (and the Commission has done this in a number of cases for electricity).

The large proposed starting price adjustments for some EDBs and GDBs may be unique to the beginning of the regulatory regime, where prices are based on the current and projected profitability of suppliers for the first time. However, we also note that movements in the WACC (and a range of other inputs) can have large impacts on the P_0. It is therefore possible that significant P_0 adjustments could occur in future resets given the Financial Model's sensitivity to different factors and the five year timeframe of the regulatory period. Consequently, we recommend that the Commission consider using the X factor more directly as a smoothing mechanism for the benefit of suppliers and consumers (subject to wider consultation with the industry and consumers).

3.9 Claw back

Powerco has demonstrated compliance with s 55F(2) of the Commerce Act (the Act) up to 30 September 2012 and expects to be compliant for the period 1 October 2012 to 28 February 2013 as well. Consequently, we do not expect claw back to apply to us.

Powerco notes that the Commission proposes to apply claw back to GasNet. As with some of the other claw back provisions in Part 4 of the Act (for example, s 54K(3)), we find the section that permits the claw back to be less than clear. Given that claw back is, by definition, retrospective in its application, this is not ideal.

Section 55F(2) is probably the most ambiguous of the claw back provisions, but also the provision with the most obvious retrospective effect (as it applies back to 1 January 2008, before the Commerce Amendment Act was passed). The Commission has taken the view that the over-recovery referred to in s 55F(2) is to be calculated as the difference between permitted revenue during the period and the actual revenue required. The Commission calculates permitted revenue as 2008 actual revenue adjusted for changes in actual CPI and quantities.

Another possible view is that the calculation of over-recovery is not in fact linked to the test of revenue exceeding 2008 revenue plus CPI, but must be calculated independently of that test based on the costs of the supplier during that period. On this view, the trigger for the permitted application of claw back would be exceeding 2008 revenues plus CPI, but the substantive test of over recovery would be against the costs of the supplier. This view is supported by the consideration that, while the revenues of the supplier may have exceeded 2008 revenues plus CPI, the revenues may still have been lower than the costs of the supplier.

3.10 Role of a CPP

The role of a CPP has assumed real significance since consultation began on the DPP resets for electricity and gas. The reason for this is that a proper understanding of the role of a CPP is key to framing a DPP which will allow most or all suppliers to remain on it and earn at least a normal return. The Supreme Court acknowledged this issue in its recent judgment on whether an SPA IM is required, although it did not offer its own view.

The Commission has taken a different general view to suppliers about the role of a CPP. However, Powerco has identified some common ground in the Reset Paper. First, the approach to forecasting capex represents, in our view, a correct understanding of the respective roles of the DPP and CPP. This is because it permits business as usual increases in capex which should be accommodated in the DPP.

Second, Powerco agrees that the DPP should not “provide headroom for large scale investments”. We have always held the view that this is precisely what the CPP is there for – to provide for an alternative price-quality path to meet the particular circumstances of a supplier, e.g. a step change in capex or unusual operating conditions.

However, Powerco continues to disagree with the Commission’s fundamental view that a CPP can act as some sort of “error correction” mechanism. A CPP is available where the DPP does not meet the particular circumstances of a supplier, and the clear focus is on the unique circumstances of the supplier. An error in forecasts is not a particular circumstance of a supplier, and is not what the CPP is intended to correct for.

4 DEFAULT PRICE-QUALITY PATH DETERMINATION

This section of the submission comments on the Draft DPP Determination. In summary, it supports:

- a 15 month initial disclosure period, but recommends that annual compliance statements be required by 31 January each year;
- the price path formula, and the inclusion of a revenue differential term, although the approach to pass through costs need to be clarified and an error corrected in the inflation calculation; and

- the quality path proposal, particularly the inclusion of an exemption mechanism if there is an event beyond a supplier's control.

4.1 Compliance reporting

The Commission has proposed an annual compliance reporting date of 30 November each year, where compliance with the price path is forward looking and compliance with the quality path is backward looking.

Powerco supports having one annual compliance statement per year that reports compliance with the price path and quality path at the same time. This would reduce audit and administration costs.

We are, however, concerned that a date of 30 November provides only two months after the end of the assessment period to collect the quality path information, complete the audit and receive Director certification. While the calculation of the quality path is fairly straightforward, if Powerco were to breach, much more work would need to be completed. It is also important that the DPP annual compliance statements be considered at Powerco's Board meetings, the dates of which are determined by Directors' availability, rather than the Commission's deadlines.

Powerco recommends that the annual compliance statement disclosure date be changed to the end of January. We cannot see how shifting the date by two months would create any significant difficulties, as it would not affect the price path compliance information.

As stated in our previous submissions, Powerco is comfortable with ex ante pricing reporting. Our pricing compliance is effectively ready to be audited and approved when final prices are sent to retailers in July each year.

4.2 Price Path

4.2.1 Price path compliance formula and components

The Commission has proposed an industry-wide X factor of 0. Powerco supports this decision.

The Commission has based the price path on an allowable notional revenue and notional revenue approach. Powerco supports this and agrees with the formulae provided in boxes L6 and L7. However, we note that the definition of CPI in Box L1 has some errors in the time references for December, referring to Dec $_{t-1}$, when it should be Dec_{t-2}, and referring to Dec_{t-2}, when it should be Dec_{t-3}.

We also support the inclusion of the revenue differential term, consistent with the current approach in the electricity default price path formula.

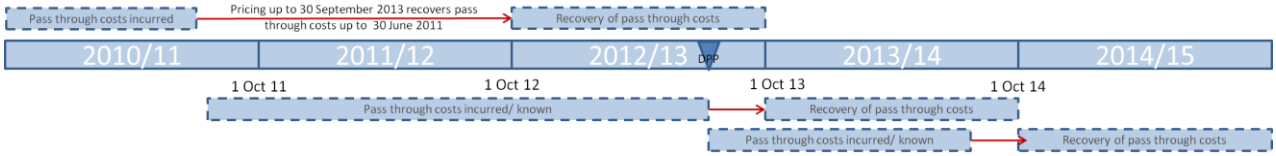
4.2.2 Pass through costs and recoverable costs

Schedule 6 in the Draft Determination outlines the process to calculate pass through costs and recoverable costs to be included in the price path. Powerco agrees with the majority of the clauses, specifically that:

- the pass through costs and recoverable costs amounts should be the most recent annual costs that are known when the GDB sets its prices;
- where it is necessary to use lagged pass-through cost and/or recoverable cost amounts, the extent of the lag should be as short as possible and consistent for each assessment period;
- the individual pass-through or recoverable costs must not have already been passed through to consumers by the supplier. Therefore, GDBs are allowed to pass-through or recover costs that were incurred prior to the regulatory period to the extent that the costs have not already been passed through to, or recovered from, consumers.

We note that the Commission states pass-through or recoverable costs must correspond to the same length of time as the assessment period; e.g., if the assessment period is 12 months in duration, the pass-through costs or recoverable costs will be for a 12 month period. We agree with this approach, with the exception of the first pricing year of the regulatory period. Powerco's prices up to 30 September 2013 will recover pass through costs paid by Powerco up to 30 June 2011. This is shown in figure 5. Therefore, Powerco currently operates under a lag of two years and three months.

Figure 5: Timeline showing recovery of pass through costs



When Powerco changes prices on 1 October 2013 and begins the DPP, the final decision on the level of prices will be made by management around June 2013. At this time local authority rates and Commerce Commission levies up to 30 June 2013 will be known – these comprise the bulk of Powerco's pass through costs. Consequently, for the pricing year beginning on 1 October 2013, it would make sense to allow the inclusion of two years of pass through costs. This would allow catch-up, and for only a year and three months lag of pass through costs to be needed in subsequent pricing years.[13]

Powerco recommends that, for the first pricing year of the DPP, Powerco be allowed to recover two years of pass through costs. For the remaining regulatory period, the cost recovery can correspond to the assessment period.

Powerco also recommends that the cost of finance of lagging pass through costs and recoverable costs be allowed to be recovered. In the Gas Authorisation, the cost of financing was allowed at the regulated rate of return. As Powerco's pass through costs are around $1.5m per year, not allowing a cost of finance would not allow a fair return to suppliers.

4.2.3 Further information requests

The Commission notes that it has only assessed compliance with s 55F(2) of the Act for the period up to 30 September 2012. The Commission expects to issue further information requests relating to weighted average price information for the period 1 October 2012 to 28 February 2013.

[13] The catch-up is because of two rules of the Gas Authorisation. Firstly, the pass through costs had to have been paid before being allowed in pricing, and secondly, prices were set several months earlier to meet a 1 May reporting date.

Powerco has not increased prices above CPI between 1 October 2012 and 28 February 2013 and plans to provide this information to the Commission using the price path formulae of the Gas Authorisation (i.e. with X being equal to 0).

We assume this information will require an audit opinion and Director certification. We would appreciate confirmation by the Commission of its deadline and requirements for the provision of this information as soon as possible. The deadline would need to be after 28 February, with any claw back being recovered in the pricing year beginning 1 October 2014. Reporting information by 28 February is very difficult given the limited availability of Powerco's auditors in December and January and the Christmas break.[14]

4.3 Quality Path

The Commission has generally retained the quality path proposed in the November 2011 draft decision, i.e. that more than 80% of emergencies must be responded to within 60 minutes, and all emergencies must be responded to in less than three hours. The main change is the addition of an exemption mechanism, where suppliers may apply to the Commission for an exemption for a circumstance beyond the supplier's control. Powerco welcomes this addition, as it applies a common sense approach and ensures service crew do not take unnecessary health and safety risks.

For the 2017 reset, the Commission states in paragraph 5.5 that its preferred option for the quality path is to establish quality standards based on the appropriate level of reliability over time. Powerco outlined concerns about using reliability measures for the quality path in our submission to the Commission of 14 May 2010.[15] In summary, our concerns were:

- while SAIDI and SAIFI are customer-focused measures, there is quite a weak relationship between them and the amount of investment in the gas network. One reason for this is that the reliability measures are often strongly driven by third party damage to pipelines (e.g. a digger hitting a pipeline), where Powerco has limited control;
- given the very low levels of SAIDI and SAIFI, the volatility of the measures is much higher than for electricity. Until a long time series of data is available, it is difficult to assess whether a normalised approach would be realistic or meaningful; and
- given gas consumers experience very few interruptions, other aspects of quality may be more important to them. For example, the ease by which a new customer can connect to the network, the level of pressure and the safety of gas supply.

We look forward to working with the Commission, before the next reset, to establish an enduring quality path for gas distribution that is meaningful to consumers, statistically robust and linked to levels of expenditure on the network.

In footnote 68 of the Reset Paper, the Commission also comments that, while it is possible that performance against the quality standards could be linked to revenue, this will only be

[14] Auditors are very busy in December and January each year due to the large number of annual financial statements and half-annual financial statements being completed. The need for Powerco to complete the 2012 electricity information disclosure by 31 December 2012 has also required Powerco's auditors to shift other work into this time period, meaning their availability is further restricted.

[15] Powerco Limited, *Submission on the Issues Paper: Initial Default Price-Quality Path for Gas Pipeline Businesses*, 14 May 2010.

possible once the Commission has confidence in the quality path targets. Powerco supports the concept of incentive mechanisms for quality, but the targets that form the bases for any such mechanism must be objectively justified. The current “stick” approach, which only relates to breaches, is a blunt instrument that, in our view, is unlikely to be the best way to promote the objectives of the Act.