



Aurora Energy Limited

Submission to the Commerce Commission

on its

Update Paper

on

**2010-15 Default Price Quality Path Starting Price Adjustment
and Other Amendments**

16 May 2011

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Executive Summary

Introduction

The Commerce Commission has recently released its Update Paper in relation to the default price-quality path (DPP) that applies to the non-exempt electricity distribution businesses (EDBs).

The commission has sought feedback from interested parties on the issues and views set out in the Update Paper.

The Commission's reset of the default price-quality path has two elements:

- The starting prices for each EDB; and
- The rate of change in prices (relating to the CPI) for each subsequent year of the regulatory period.

In its decision published on 30 November 2009 in relation to the 2010 Reset, the Commission determined that the X-factor (for the CPI-X rate of change in prices) should be zero.

This Update Paper focuses on the Commerce Commission's views, process, methodology and application for the determination of the starting price adjustment (Po).

Commission's Proposed Approach

The Commission's proposed approach and the associated modelling determine what each supplier's revenue would need to be at the start of the regulatory period (for the year 2010/11) such that:

- The supplier will have the opportunity to recover its costs forecast over the regulatory period; and
- The supplier is expected to earn a normal return based on these forecasts.

In effect, the model estimates what price (or revenue) adjustment Po should be made for a supplier at the start of the regulatory period to satisfy the two conditions noted above. The Commission, however, notes that two years of the regulatory period will have already elapsed by the time adjusted starting prices take effect (i.e. 1 April 2012).

The Commission notes that there are at least two options for resetting starting prices. The starting price could be adjusted at the beginning of:

- 2010/11 so that the expected revenue for the entire regulatory period is equivalent in NPV terms to the cost forecast for the entire five-year period. This will mean a clawback of any excess revenue earned over 2010/11 and 2011/12; or
- 2012/13 so that the expected revenue for the three remaining years of the regulatory period is equivalent in NPV terms to the cost forecast for these three years.

The Commission has not stated a definitive position or preference between these options and asked EDBs and other interested parties to give their views.

Assumptions with regard to Key Modelling Inputs

The modelling of starting prices uses two types of inputs. These are:

- Supplier specific information on the initial conditions (including estimated tax asset value, the value of the asset base, and supplier's current level of opex and capex. These are based on the 2009/10 information disclosure data).
- Industry-wide assumptions on real revenue, opex and capex growth. These are based on industry trends and independent forecasts.

In addition, the model uses a forward-looking nominal WACC estimate of 8.77% and 2.3% pa for the CPI.

Key Results from the Model

The Commission has presented the key results from its modelling in three diagrams.

On the basis of the supplier-specific inputs and industry-wide assumptions about future costs and demand, the model calculates a projected 'revenue differential' for each supplier. These arise when the amount of revenue a supplier *requires* differs from that which is *forecast*, where:

- The revenue a supplier *requires* is that which provides a normal return *on* and *of* the assumed costs; and
- The revenue that is *forecast* is that which the supplier would be likely to receive in light of its starting prices.

There is significant variation in the size of the revenue differential across businesses, from a shortfall of \$40 million to a surplus of \$150 million. The projected revenue differential across the industry as a whole is \$29 million.

Key Conclusions and Recommendations

Based on an analysis of the Commission's Update Paper, Aurora's key conclusions and recommendations are:

- The economic foundation of the Commission's proposed methodology for DPP/ CPP Starting Price Regime is sound and Aurora supports the overall approach by the Commission.
- Aurora believes, however, that the application of the methodology, in particular the choice of key parameters and the procedures for determining their values, need to be tested and refined over the next three years. This should be reviewed at the time of regulatory determination for the period 2015 – 2020.
- Aurora supports the Commission's approach for determining ROIs. However, we argue that a margin of 1% above the 75th percentile WACC should be allowed to cater for the uncertainty inherent in forecasting future revenues and costs.

- Aurora does not support a clawback. In other words, Aurora supports a three-year approach (i.e. establishing starting price so that the present value of revenue and forecast costs equal, in NPV terms, over the three-year period starting 1 April 2012).
- Aurora supports the Commission's proposed process for setting alternative rates of change (value of X in CPI-X) given in Table 3, section 6.28 of the Commission's Update Paper.
- Aurora generally supports the set of proposed 'Other Amendments' given in Table 4 of section 8.7 in the Update Paper however it does not agree that the definition of CPI in the DPP should be changed.

1 Introduction

The Commerce Commission has recently released its Update Paper in relation to the default price-quality path (DPP) that applies to non-exempt electricity distribution businesses (EDBs). This Update Paper focuses on the starting price adjustment for each EDB for the regulatory period from 1 April 2010 to 31 March 2015.

The Commission has sought feedback from interested parties on the issues and views set out in the Update Paper.

2 Structure of the Submission

This submission from Aurora Energy focuses on the issues, process, methodology and application covered in the Update Paper for the determination of the starting price adjustment.

The remainder of this submission sets out:

- **Section 3:** Regulatory framework principles;
- **Section 4:** Commission's proposal for determining the starting price adjustment (Po);
- **Section 5:** Aurora's critique of the Commission's proposal for Po including its strengths and limitations;
- **Section 6:** Aurora's views on other important issues (e.g. clawback, alternative rates of change, etc);
- **Section 7:** Key conclusions and recommendations.

3 Regulatory Framework Principles

In this section, Aurora sets out the statutory framework governing starting price adjustments for the DPP. This provides the context for any regulatory determination by the Commission on the application of starting price adjustments.

3.1 Statutory Provisions Relevant to Starting Price Adjustments

The salient provisions of the Commerce Act 1986 (the Act) that are relevant as follows:

- *The overall (Part 4) purpose statement (s52A of the Act)*

52A Purpose of the Part

(1) The purpose of this Part is to promote the long--term benefit of consumers in markets referred to in section 52 by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services –

- (a) have incentives to innovate and to invest, including in replacement, upgraded and new assets; and*

- (b) *have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and*
 - (c) *share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and*
 - (d) *are limited in their ability to extract excessive profits.*
- *The DPP is intended to be a 'low cost' regulatory instrument (s53K of the Act)*

53K Purpose of default/customised price--quality regulation

The purpose of default/customised price--quality regulation is to provide a relatively low-cost way of setting price--quality paths for suppliers of regulated goods or services, while allowing the opportunity for individual regulated suppliers to have alternative price--quality paths that better meet their particular circumstances.

- *In resetting the DPP the Commission may make starting price adjustments (s53P of the Act)*

53P Resetting starting prices, rates of change, and quality standards

- (1) *Before the end of the first and every subsequent regulatory period, the Commission must amend the section 52P determination by setting out the starting prices (as referred to in section 53O(a)), rates of change (as referred to in section 53O(b)), and quality standards (as referred to in section 53O(c)) that apply for the following regulatory period.*
 - (2) *In resetting starting prices, rates of change, and quality standards, the Commission must consult with interested parties.*
 - (3) *The starting price adjustments must be either –*
 - (a) *the prices that applied at the end of the preceding regulatory period; or*
 - (b) *prices, determined by the Commission, that are based on the current and projected profitability of each supplier.*
 - (4) *Starting prices set in accordance with subsection (3) (b) must not seek to recover any excessive profits made during any earlier period.*
 - ...
 - (10) *The Commission may not, for the purposes of this section, use comparative benchmarking on efficiency in order to set starting prices, rates of change, quality standards or incentives to improve quality of supply.*
- *Starting price adjustments may be deferred until after the determination of input methodologies (s54K of the Act)*

54K Section 52P determinations setting out default price--quality paths applying from 1 April 2010

Before 1 April 2010, the Commission must reset the default price--quality paths for each supplier that apply on and after that date, using the process set out in section 53P.

- (1) *The Commission may reset the default price--quality paths even if all or any of the relevant input methodologies have not been determined.*

- (2) *If an input methodology is published after 1 April 2010 and if, had that methodology applied at the time the default price--quality paths were reset as required by subsection (1), it would have resulted in a materially different path being set, then the Commission may reset the default price-- quality paths in accordance with section 53P and may apply clawback, despite section 53ZB (1).*
- (3) *However, the Commission may not exercise its powers in subsection (3) later than 9 months after the date of publication of the input methodology.*

3.2 Context of the Regulatory Framework

In addition to the provisions noted above, it is important that the starting price adjustments should be seen in the context of:

- The overall statutory purpose for regulatory control (i.e. ... *to promote the long term benefit of consumers ... by promoting outcomes that are consistent with outcomes produced in competitive markets...*).
- The likely impact of existing prices and any adjustment and/or current and projected profitability on:
 - investment and innovation;
 - incentives for improved efficiency and quality;
 - the sharing of efficiency gains with consumers; and
 - limiting excessive profits.
- Being forward looking rather than retrospective.
- Providing a low cost regulatory option.
- Certainty for the business operation and, in particular, investment decisions.
- Methodology and its application, including the parameters and their values, should provide robust results. In other words the choice of parameters and procedures for their value determination should provide stability and confidence in the regulatory process.
- Consistency with the best international regulatory practices
- Confidence in the application of regulatory processes because this regulatory process is the first with the use of Input Methodologies and Starting Price Adjustments Process. This regulatory determination by the Commission is fundamentally important because this will potentially have significant and far reaching consequences not only for this regulatory period but beyond this period.

In Section 5, Aurora provides a systematic evaluation of the Commission's proposal against the Regulatory Framework Provisions and Context.

4 Commission's Proposal for the Determination of Starting Prices

4.1 Background

In its Discussion Paper published on 5 April 2010, the Commission outlined a proposed approach for determining the starting price adjustment. Under this proposed approach, each supplier's profitability (specified as a ROI) was to be assessed for the 2009/10 disclosure year. The supplier's prices would not have been adjusted if the supplier's ROI was equal to the 75th percentile WACC, or within a band or margin around the WACC. By contrast, a supplier that had a ROI that was outside the band would have had its prices adjusted to the band limit.

The Commission asked for views of interested parties on its proposed approach for determining starting price adjustment. In brief, suppliers considered that the Commission's approach was backward-looking and placed insufficient emphasis on each supplier's projected level of profitability.

In light of the submissions, further analysis was undertaken by the Commission and, as a result, a new approach was developed. The Commission's new proposed approach, described in its Update Paper, includes explicit consideration of the potential effects of starting price adjustments on the profitability of each supplier over the regulatory period. The Commission believes that in developing its new approach, the Commission has had specific regards to the requirements of sections 53P, 54K (3) and 52A (the Part 4 Purpose) of the Act and the submissions received from the interested parties.

4.2 Commission's Proposed New Approach and Supporting Model

At the core of the Commission's proposed new approach for the determination of Po are the following two equations defined in Input Methodologies:

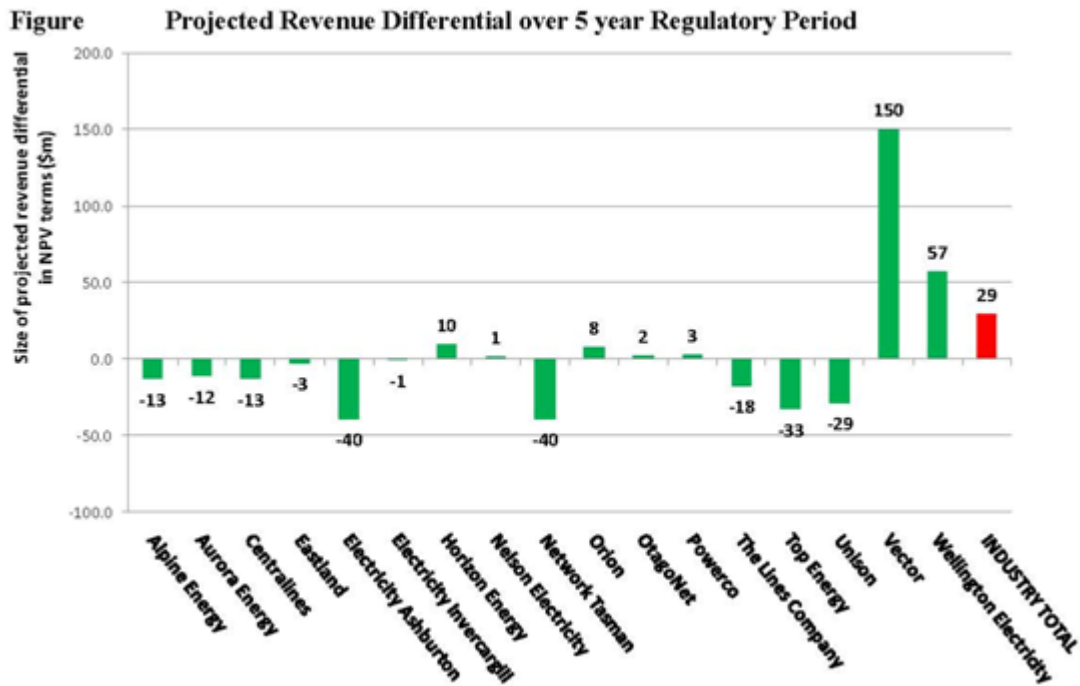
$$\text{ROI} = \frac{\text{Revenue} - \text{Depreciation} - \text{Opex} - \text{Tax} + \text{Revaluations}}{\text{Regulatory Investment Value}}$$

$$\text{Revenue} = \text{Regulatory Investment Value} * \text{WACC} + \text{Depreciation} + \text{Opex} + \text{Tax} - \text{Revaluations}$$

The two equations are essentially identical and express relationships between the key parameters.

4.3 Key Results from the Model

The figure below (taken from the Commission's Update Paper) shows the projected revenue differentials for each supplier and the industry as a whole, in the case of no starting price adjustments using the assumptions described above. A positive differential indicates that the supplier is forecast to earn more than it requires, whereas a negative differential indicates that prices were lower than the level that would provide the opportunity to earn a normal return based on the forecast costs.



Starting price increases or decreases can be calculated by expressing the projected revenue differential as a proportion of the revenue that would be expected in the absence of any adjustment.

If the rebalancing was applied over the five-year period, the proposed starting prices range from an increase of an allowable 51% to a mandatory decrease of 12%, with a small reduction across the industry as a whole (1%). These numbers change to a small extent if the rebalancing is spread over the remaining three years of the regulatory period.

5 A Critique of the Commission’s Proposed Approach

This section provides a critique of the Commission’s proposed approach and its application for the setting of the starting price for EDBs. Aurora’s critique is structured in three parts:

- Commission’s methodology and its application
- Choice of parameters and procedures for determining their values
- ROI: basis for determining its value

5.1 Commission’s Methodology and its Application

The following three key criteria were used to evaluate the Commission’s methodology and its application:

- Promote key features of Part 4 of the Commerce Act, in particular:
 - Relatively low cost to implement
 - Consistent with the current and projected profitability of supplier
 - Consistent with the DPP/CPP regulatory regime

- Not allow recovery of excessive profits
 - Promote price stability
 - Not unduly sensitive to parameter choice and procedures for determining their values.
- ii) Consistent with best international practices.
- iii) Both the Commission and the EDBs can have total confidence in the economic foundation and application of the methodology.

Aurora's evaluation is discussed below.

Promote Key Features of Part 4 of the Act

Aurora's analysis suggests that the Commission's methodology and its application are broadly consistent with most aspects of this criterion.

The methodology, in particular, the DPP price setting, promotes a relatively low cost approach compared with those in most overseas jurisdictions where the prevailing methodology - building block approach - is more detailed, EDB specific and significantly more expensive.

The Commission's methodology (as discussed in this Update Paper) is explicitly based on the current and projected profitability of suppliers and is therefore consistent with the requirement of the Act. This indeed was a major weakness in the Commission's previous methodology (described in the Commission's paper of 5 August 2010) which has now been overcome.

The Commission's methodology is based on projected revenue not exceeding costs including cost of capital (based on the 75th percentile WACC), in NPV terms and therefore prevents recovery of excessive profits.

On the questions of the last two features of this criterion, Aurora believes that there is not enough theoretical or empirical evidence, at this stage, to conclude that the Commission's methodology will:

- Promote price stability; and
- Not be unduly sensitive to the choice of parameters and procedures for determining their values.

Consistent with Best International Practices

In the international jurisdictions Aurora has analysed, determination of starting price setting (Po) and rate of change (X) are central and integral to the overall regulatory methodology. In contrast to this practice in other jurisdictions, the Commission's approach for the DPP/CPP starting price setting regime remains outside the Input Methodologies (IM) which form the core of the overall regulatory method

Having made the observation noted above, Aurora is not advocating that the DPP/CPP starting price regime be integrated into the IM at this point in time. As we shall see in latter parts of this section, Aurora has some reservations in the parameter selection and choice of procedures for determining their values.

Aurora believes that the Commission's approach, while appropriate for this regulatory determination, needs to be further reviewed and tested and refined at the next regulatory determination in 2014 before it is firmed up and integrated into the Input Methodologies.

The economic foundation of the DPP/CPP Starting Price Methodology is fundamentally similar to the building block approach used for overall revenue determination, starting price setting (Po) and the rate of price change (X) in most international jurisdictions. The core equations of the DPP/CPP price setting, described in Equations 1 and 3 of Section 2 of the Commission's Update Paper, are essentially the same as the core equation internationally of a building block price approach.

Therefore, at a fundamental level, the economic foundation of the Commission's starting price setting approach is sound.

Confidence in the Economic Foundation and Application of the Methodology

There are important differences in the application of the Commission's approach compared against that used in the building block approach in most overseas jurisdictions. These are:

- There is a much greater rigour and depth in the choice of parameters and procedures for selecting their values in overseas jurisdictions;
- The building block methodology and its application have been tested over many years in many jurisdictions and, therefore, the wealth of experience in their validation is much greater. In comparison, the Commission's DPP/CPP starting price setting regime is at a very early stage in its development and, therefore, lacks the depth and rigour.
- In contrast to the above, the Commission's methodology (in particular, its application) is disjointed, fractious, less rigorous and subject to much uncertainty.
- Commission or EDBs cannot resort to CPP to compensate for the lack of rigour in DPP. This would be a very expensive option and it is important that CPP is not used in this role.

Overall, Aurora believes that the Commission's methodology and application score reasonably well when evaluated against the three criteria in this section. Some of the weaknesses discussed above are integral to the initial stage of development and application of the Commission's Methodology and there is no quick fix available to address them.

5.2 Choice of Parameters and Procedures for Determining their Values

Aurora recognises that there is a fundamental trade-off between the low cost approach used in parameter selection and determination of values in the DPP/CPP Starting Price Regime and the level of certainty and accuracy achieved.

In addition, Aurora also acknowledges that even in the building block approach in overseas jurisdictions, which uses much greater level of rigour and analysis, there is a considerable

uncertainty in preparing and testing the forecast values of key parameters over a five-year regulatory period.

In light of the above, Aurora has the following observations on the choice of key parameters and procedures for determining their values.

- The choice of parameters (estimated tax asset value, the value of its asset base, and its current level of opex and capex) to be based on supplier-specific initial condition is fundamentally sound. The Commission's use of 2009/10 data for initial conditions as the relevant data set is also appropriate. Aurora also agrees with the choice of 2009/10 data for initial conditions regardless of whether a five-year approach or a three-year approach is used for determining Po.
- The Commission has suggested the use of industry-wide data for CPI, real revenue growth, opex and capex.

The use of a CPI number-based on economy-wide historical data is very obvious and Aurora supports the specific procedure suggested by the Commission. However, for the real revenue growth, opex and capex, there is no theoretical justification to use the industry-wide data. Aurora believes that without much increase in costs, the Commission could develop procedures for determining forecasts of supplier-specific opex and capex information based on historical opex and capex data. Similarly supplier-specific revenue information forecast could be developed with the use of EDB-specific historical data for the real revenue growth.

The Commission has expressed concern that suppliers could resort to some degree of 'gaming' in the preparation of historical data for real revenue, opex and capex to promote their individual causes. The Commission believes that this is effectively addressed by using industry-wide information for real revenue, opex and capex.

Aurora believes that this issue needs to be analysed in greater depth at the time of the next regulatory period (2015 - 2020) determination.

The Commission's proposed approach for estimating EDB's forecast revenue and profitability is to set the supplier's forecast profitability - Return on Investment (ROI) at the 75th percentile WACC. The Commission further claims that with the use of this approach, starting price adjustments will be biased in favour of the supplier.

Aurora is aware that a number of EDBs, and in particular ENA, have in the past expressed concern at the use of a 75th percentile WACC, in particular that a likely undesirable resulting impact would be that some EDBs may earn lower profitability below the WACC point estimate.

Aurora believes that the Commission's proposed approach for setting the ROI at the 75th percentile of WACC is reasonable. However, given the level of uncertainty inherent in preparing forecasts of the various parameters for calculating future revenues and costs, we believe that a margin of 1% above the 75th percentile WACC is justified. This will ensure that no EDB is unlikely to earn a ROI lower than what is required to operate the business on sound commercial principles including making appropriate investment decisions. Given the margin above the 75th percentile WACC is only 1%, no EDB will be able to earn excessive profits. Thus, we believe this level of margin is consistent with the Act.

The methodology for determining ROIs should be reviewed for the starting price determination for the next regulatory period based on the actual ROI data for EDBs for the 2012 to 2015 period. If a number of EDBs are shown to earn ROIs which are significantly lower than the 75th percentile WACC, then there will be a justifiable case for examining other methods for setting the forecast ROI, for example, giving a margin above the 75th percentile WACC for determining the forecast ROI.

6 Other Important Issues and Amendments

In this section we comment on the application of:

- Clawback
- Alternative rates of change
- Other amendments to the 2010 – 15 DPP.

6.1 Application of a Clawback

Aurora notes that the circumstances for the determination of Po in this Update Paper are quite unique. The clawback noted in the Update Paper is not a ‘clawback’ in the traditional sense of the term. The clawback in a regulatory determination is generally used for situations where revenue or costs for a previous regulatory period are adjusted in future regulatory periods.

In this Update Paper, because a price reset determination will be implemented part way through the regulatory period, the Commission has suggested two possible options.

The Commission can establish starting revenue under the DPP such that the preset value of forecast revenues equals the preset value of forecast costs including the cost of capital:

- Either over the entire five-year period (i.e. 1 April 2010 to 31 March 2015); or
- Over the remaining three years of the regulatory period only (i.e. 1 April 2012 to 31 March 2015).

Aurora believes that while there are valid arguments for either option, in essence the latter option (i.e. establishing starting price so that the preset value of forecast revenues and costs are equal over the three-year period) is preferable for the following reasons:

- Given that economic decision-making about EDB investment and operations is forward-looking, a three-year NPV equivalent approach would help to ensure that EDBs incentives for future performance are not negatively influenced by past circumstances.
- As the Commission notes in its Update Paper, given the possible magnitude of starting price adjustments, there could also be some practical problems with implementing clawback which will need to be spread forward over many years.
- In the current circumstances, the application of clawback is not mandatory under Part 4 of the Commerce Act. In addition, there are no established criteria either in the legislation or by the Commission.

6.2 Alternative Rates of Change

The Commission in its determination published on 30 November 2009 established that the annual rate of change in prices (i.e. X factor in CPI-X) be set at zero for the entire regulatory period for all EDBs.

Section 53P (8) (a) allows the Commission to set an alternative rate of change (i.e. a different value of X) for an EDB when it is necessary or desirable to minimise undue financial hardship to the EDB or to minimise a price shock to consumers.

The Commission further states that a business could be considered to be in financial hardship where it is unable to:

- Obtain finance to prudently manage its efficient investment requirements on reasonable terms; and/or,
- Meet its debt repayments as they fall due.

The Commission has proposed a process for setting alternative rates of change for Starting Price adjustments. This is given in Table 3, section 6.28 of the Commission's Update Paper.

Aurora believes that the Commission's proposed approach is reasonable and supports it.

6.3 Other Amendments

The Commission has outlined a set of Proposed Amendments in Table 4 of section 8.7 in its Update Paper. The majority of the Amendments relate to external costs that are classified as either Pass Through Costs or Recoverable Costs.

In addition, other amendments include proposals for ensuring compliance by EDBs where mergers/analysis takes place.

Aurora has reviewed Commission's proposed changes and is broadly in agreement with them however Aurora disagrees with the Commission 'normalising' for the GST impact on CPI in October 2010. In Aurora's view, this is fundamentally unsound.

7 Key Conclusions and Recommendations

Based on an analysis of the Commission's Update Paper, Aurora's key conclusions and recommendations are:

- The economic foundation of the Commission's proposed methodology for DPP/CPP Starting Price Regime is sound and Aurora supports the overall approach by the Commission.
- Aurora believes, however, that the application of the methodology, in particular the choice of key parameters and the procedures for determining their values, need to be tested and refined over the next three years. This should be reviewed at the time of regulatory determination for the period 2015 – 2020.
- Aurora supports the Commission's approach for determining ROIs. However, we argue that a margin of 1% above the 75th percentile WACC should be allowed to cater for the uncertainty inherent in forecasting future revenues and costs.
- Aurora does not support a clawback. In other words, Aurora supports a three-year approach (i.e. establishing starting price so that the present value of revenue and forecast costs equal, in NPV terms, over the three-year period starting 1 April 2012).
- Aurora supports the Commission's proposed process for setting alternative rates of change (value of X in CPI-X) given in Table 3, section 6.28 of the Commission's Update Paper.
- Aurora generally supports the set of proposed 'Other Amendments' given in Table 4 of section 8.7 in the Update Paper however it does not agree that the definition of CPI in the DPP should be changed.