

Aurora Energy Pty Ltd

AER's Draft Distribution Determination

Aurora Response

Alternative Control Services

Price Path Methodology

2012-17 Regulatory Control Period

Version	Remarks	Date
1	Initial Version	December 2011
2	Revision for submission to AER, Revised Regulatory Proposal	January 2012

Alternative Control Services – Price Path Methodologies

Purpose of this paper

This paper sets out the proposed forms of price control to apply to Aurora's:

- quoted services;
- fee-based services;
- public lighting services; and
- metering services.

For each of the services within these categories, Aurora has proposed price paths to apply to the price of each service throughout the forthcoming *Regulatory Control Period*. With the exception of quoted services, the price paths have been designed to maintain cost-reflectivity and minimise administrative complexity.

Price paths for each fee-based, public lighting and metering service are located within the amended models appended as attachments to Aurora's *Revised Regulatory Proposal*.

Quoted Services – form of control mechanism

Aurora does not propose any changes to the “materials”, “contractor” or “other” cost components of the quoted services as set out by the AER in its *Draft Distribution Determination*. Nor does Aurora propose changes to the cost build-up methodology proposed by the AER in its *Draft Distribution Determination*.

Aurora however proposes the following methodology for establishing the labour rates to apply each year of the forthcoming *Regulatory Control Period*:

1. The labour rates for 2012-13 will be the labour rates calculated by Aurora in response to the AER's *Draft Distribution Determination*, escalated by the appropriate real labour escalators.
2. The labour rates for 2013-14 through 2016-17 will be calculated by multiplying the previous year's labour rate by the appropriate CPI and real labour escalator for that year as follows:

$$\text{Labour Rate}_i = \text{Labour Rate}_{i-1} \times (1 + \text{CPI}_i) \times (1 + \text{Real Labour Escalator}_i)$$

Fee-based services – form of control mechanism

Aurora proposes that a price path be applied to the prices for fee-based services throughout the forthcoming *Regulatory Control Period*. The price path will have regard for cost reflectivity by ensuring that the total forecast revenue to be recovered from the modelled prices (using the methodology approved by the AER in its *Draft Distribution Determination*) are as close as possible in NPV terms to the total forecast revenues to be recovered from the price-path prices.

Aurora therefore proposes the following methodology for establishing the price path for each fee-based service for each year of the forthcoming *Regulatory Control Period*:

1. The modelled prices in nominal dollars for each service will be developed in accordance with the methodology approved by the AER in its *Draft Distribution Determination* for each year from 2012-13 to 2016-17 inclusive. However, real labour cost escalators will be applied to the labour cost components as follows:

- a. For 2012-13 and 2013-14, the real labour cost escalators will be in accordance with the escalators in Aurora's approved enterprise agreement for those years.
- b. For 2014-15 through to 2016-17 inclusive, the real cost escalators will be in accordance with the escalators set out in table 4.5 of the AER's *Draft Distribution Determination*.
2. The total annual revenue in nominal dollars for each year from 2012-13 to 2016-17 inclusive, will be calculated by multiplying the forecast volumes for each year by the number of days in the year, then multiplying the result by the prices calculated in step 1.
3. The NPV of these annual revenue values will be determined, using the pre-tax nominal WACC as the discount rate.
4. Smoothed revenue will be calculated for each year from 2012-13 to 2016-17 inclusive in the same manner as the PTRM for *Standard Control Services*. This will involve goal-seeking the relevant P_0 and X factor values to ensure:
 - a. the NPV of the smoothed revenues equals the NPV of the unsmoothed revenues; and
 - b. the 2016-17 smoothed revenue equals the 2016-17 unsmoothed revenue.
5. The nominal prices for 2012-13 will be calculated by adjusting the modelled 2012-13 prices in step 1 such that the forecast revenue to be recovered will equal the smoothed 2012-13 revenue. The percentage difference between the smoothed and unsmoothed revenues in 2012-13 will be used to perform the adjustment as follows:

$$P_{2012-13 \text{ Adjusted}} = P_{2012-13 \text{ Modelled}} \times \left(\frac{\text{Smoothed Revenue in 2012-13}}{\text{Unsmoothed Revenue in 2012-13}} \right)$$

This adjustment will be applied consistently to all fee-based services.

6. The nominal prices for each year from 2013-14 through to 2016-17 will be calculated by taking the prices for the previous year, multiplying by 1 minus the X factor for that year, then escalating the result by the appropriate CPI escalator and real labour escalator for that year. This can be expressed as follows:

$$P_i = P_{i-1} \times (1 + CPI_i) \times (1 + \text{Real Labour Escalator}_i) \times (1 - X_i)$$

Public lighting services - form of control mechanism

Aurora proposes that a price path be applied to the prices for public lighting services throughout the forthcoming *Regulatory Control Period*. The price path will have regard for cost reflectivity by ensuring that the total forecast revenue to be recovered from the modelled prices (using the methodology approved by the AER in its *Draft Distribution Determination*) are as close as possible in NPV terms to the total forecast revenues to be recovered from the price-path prices.

Aurora therefore proposes the following methodology for establishing the price of each public lighting service for each year of the forthcoming *Regulatory Control Period*:

1. The modelled prices in nominal dollars for each service will be developed in accordance with the methodology approved by the AER in its *Draft Distribution Determination* for each year from 2012-13 to 2016-17 inclusive. However, real labour cost escalators will be applied to the labour cost components as follows:
 - a. for 2012-13 and 2013-14, the real labour cost escalators will be in accordance with the escalators in Aurora's approved enterprise bargaining agreement for those years; and
 - b. for 2014-15 through to 2016-17 inclusive, the real cost escalators will in accordance with the escalators set out in table 4.5 of the AER's *Draft Distribution Determination*.
2. The total annual revenue in nominal dollars for each year from 2012-13 to 2016-17 inclusive will be calculated by multiplying the forecast volumes for each year by the number of days in the year, then multiplying the result by the prices calculated in step 1.
3. The NPV of these annual revenue values will be determined, using the pre-tax nominal WACC rate as the discount rate.
4. Smoothed revenues will be calculated for each year from 2012-13 to 2016-17 inclusive in the same manner as the PTRM for standard control services. This will involve goal-seeking the relevant P_0 and X factor values to ensure:
 - a. the NPV of the smoothed revenues equals the NPV of the unsmoothed revenues; and
 - b. the 2016-17 smoothed revenue equals the 2016-17 unsmoothed revenue.
5. The nominal prices for 2012-13 will be calculated by adjusting the modelled 2012-13 prices in step 1 such that the forecast revenue to be recovered will equal the smoothed 2012-13 revenue. The percentage difference between the smoothed and unsmoothed revenues in 2012-13 will be used to perform the adjustment as follows:

$$P_{2012-13 \text{ Adjusted}} = P_{2012-13 \text{ Modelled}} \times \left(\frac{\text{Smoothed Revenue in 2012-13}}{\text{Unsmoothed Revenue in 2012-13}} \right)$$

This adjustment will be applied consistently to all public lighting services.

6. The nominal prices for each year from 2013-14 through to 2016-17 will be calculated by taking the prices for the previous year, multiplying by 1 minus the X Factor for that year, then escalating the result by the appropriate CPI escalator for that year. This can be expressed as follows:

$$P_i = P_{i-1} \times (1 + CPI_i) \times (1 - X_i)$$

Metering services - form of control mechanism

Aurora proposes that a price path be applied to the prices for metering services throughout the forthcoming *Regulatory Control Period*. The price path will have regard for cost reflectivity by ensuring that the total forecast revenue to be recovered from the modelled prices (using the methodology approved by the AER in its *Draft Distribution Determination*) are as close as possible in NPV terms to the total forecast revenues to be recovered from the price-path prices.

Aurora therefore proposes the following methodology for establishing the price of each metering service for each year of the forthcoming *Regulatory Control Period*:

1. The modelled revenue in nominal dollars will be developed in accordance with the methodology approved by the AER in its *Draft Distribution Determination* for each year from 2012-13 to 2016-17 inclusive.
2. The NPV of these annual revenue values will be determined, using the nominal vanilla WACC as the discount rate (consistent with the AER's approved approach in its Draft Determination).
3. Smoothed revenues will be calculated for each year from 2012-13 to 2016-17 inclusive in the same manner as the PTRM for standard control services. This will involve goal-seeking the relevant P_0 and X factor values to ensure:
 - a. the NPV of the smoothed revenues equals the NPV of the unsmoothed revenues; and
 - b. the 2016-17 smoothed revenue equals the 2016-17 unsmoothed revenue.
4. The nominal prices for 2012-13 will be calculated using Aurora's revenue allocation model for metering service.
 - a. Aurora's revenue allocation model allocates the smoothed revenue to all meter types based on a weighted average of total installation costs (electronic and mechanical). The total installation cost includes the meter purchase cost, installation cost and applicable overhead costs.
 - b. Total revenue by allocated meter type is used to determine metering services prices using actual meter volumes. A daily charge is calculated by dividing the annual charge by the number of days.
5. The nominal prices for each year from 2013-14 through to 2016-17 will be calculated by taking the prices for the previous year, multiplying by 1 minus the X Factor for that year, then escalating the result by the appropriate CPI escalator for that year. This can be expressed as follows:

$$P_i = P_{i-1} \times (1 + CPI_i) \times (1 - X_i)$$