Submission to the AER on its Preliminary Determination

Errors in escalation adjustments – SCS capital expenditure

Summary

This document sets out two errors affecting the Australian Energy Regulator's (AER) Preliminary Determination. Both relate to the calculations undertaken by the AER to adjust Ergon Energy's forecast capital expenditure (capex) to:

- **remove any real escalation in the cost of materials**
- **reduce Ergon Energy's proposed escalation in labour costs.**

These errors resulted in reductions in Ergon Energy's forecast capex that far exceed the cuts that should have followed from the proper implementation of the AER's Preliminary Determination.

This submission is concerned only with the errors in calculations undertaken to implement the Preliminary Determination. We have addressed various aspects of the AER's approach to escalation elsewhere.

Contents

1. Introduction

In our October Regulatory Proposal, Ergon Energy included approximately $579 million ($2014-15) in our forecast capital expenditure (capex) to allow for escalation in the cost of labour and materials. The Australian Energy Regulator (AER), in its Preliminary Determination, removed approximately $720 million ($2014-15) as a consequence of its findings on materials and labour cost escalation.

Having carefully reviewed the AER's decision and the accompanying spreadsheets, it is apparent that this outcome is the result of two errors in the attachment to the AER's Preliminary Determination titled *AER - Preliminary decision Ergon Energy - Capex adjusted for real labour and materials cost escalation - April 2015.XLSX (*the *'AER escalation adjustments model'*).

The first error is the result of the AER deducting, from the forecast capex for Standard Control Services (SCS), Ergon Energy's forecast materials and labour cost escalation for all Direct Control Services (i.e. SCS and Alternative Control Services).

The second error is the result of the AER removing, in the *AER escalation adjustments model*, all cost escalation required to convert input date values into nominal values for the regulatory control period (i.e. both forecast Consumer Price Index (CPI) increases and real cost escalation from 2012-13). This means that the AER has removed from Ergon Energy's forecast capex in the Post Tax Revenue Model (PTRM) (which is expressed in 2014-15 dollars) an amount that has been de-escalated to 2012-13 dollars.

Ergon Energy believes the AER's preliminary decision, properly implemented, should have removed approximately $123 million ($2014-15) from Ergon Energy's total forecast capex for SCS in the regulatory control period 2015-20. Correcting this error results in the AER's reduction in total forecast capex in the Preliminary Determination being reduced by almost half.

This document provides further details on the errors Ergon Energy has identified in the *AER escalation adjustments model*. Ergon Energy has attempted to recreate the AER's adjustments in order to clearly understand the basis of the errors identified. This recreation is set out in Section 4.

Our response to the AER on its approach to escalation in general, including its decision to apply a zero per cent real cost material escalation, is not covered in this document.

2. Reference to Ergon Energy's Program Capex rather than SCS capex only

The AER makes common reference to the *Escalations data model*[1] and sources the dollar amount of escalation from this model to derive the amount to be deducted from Ergon Energy's forecast capex for SCS.

However, the information in the *Escalations data model* refers to all capex Ergon Energy had forecast for all of our distribution services, not just the SCS portion. Ergon Energy noted in our October Regulatory Proposal that the TRISH model incorporates calculations at a consolidated level and at a service level:

> "The Consolidated Model is the most comprehensive component of TRISH and contains all of the expenditure and asset data for all forms of control combined. However for the regulatory proposal submission, the outputs of the Standard Control Services Model, Public Lighting Model and the Metering Model are used. This is because of the requirement that separate asset bases and annual revenue requirements be established for SCS, PL and MT (Type 5-6 metering) services."[2]

Because the AER sourced the information for material and labour escalation from the consolidated *Escalations data model*, it deducted the consolidated escalation from the SCS capex forecast. This is demonstrated in the table below.

Table 1: Explanation of the error SCS vs total program capex

$m (nominal)	2015-16	2016-17	2017-18	2018-19	2019-20	Source
AER derived total labour escalation	48.73	66.29	79.38	96.02	113.54	AER escalation row 11
AER derived total materials escalation	50.25	62.94	72.35	85.70	98.01	AER escalation row 30
AER derived materials escalation used for reducing SCS capex	98.99	129.23	151.73	181.71	211.56	sum
Ergon Energy escalation for entire capital program	98.99	129.23	151.73	181.71	211.56	source - Escalations data model - Tab Esc class spend - row 118
Adjusting for error 1 Ergon Energy escalation - SCS capex only	83.59	107.97	123.55	146.31	168.50	source – SCS escalations data model - Tab Esc class spend - row 119

[1] *03.03.01 – Escalations data model.*
[2] *03.02.01 – Regulatory Model Architecture Summary*, p2.

The amount of escalation for the consolidated program from the *Escalations data model* (row 4 – $773 million) reconciles to the amount in the *AER escalations adjustment model* (row 3 – $773 million).

In order to adjust the SCS capex forecast, the AER should have sourced the escalation relevant to SCS capex only. This amount can be found in the *SCEscalations data model*[3] and is represented by row 5 in the above table (total $629 million).

By sourcing the wrong escalation amounts, the AER wrongly concluded that Ergon Energy's SCS escalation, and the starting point for the AER to apply its reductions, is approximately $143 million (nominal) higher than it actually was.

[3] *03.03.45 – SCEscalations Data Model.*

3. Removing all CPI and non-CPI escalation from Ergon Energy's forecasts

We understand that the purpose of the *AER escalation adjustments model* is to remove the effect of Ergon Energy's proposed real (non-CPI) labour and materials escalation, and re-adjust with escalation rates that are consistent with the AER's Preliminary Determination (i.e. revised labour cost escalators only).

The *AER escalation adjustments model* determines the figure to be deducted from Ergon Energy's forecast capex by reference to Ergon Energy's *Escalations data model.* It assumes (at rows 11 and 30) that the labour and materials escalation amounts taken from the *Escalations data model* represent non-CPI escalation expressed in $2014-15. This assumption is critical as Ergon Energy's forecast capex, set out in the PTRM, is expressed in $2014-15.

However, Ergon Energy's *Escalations data model* in fact escalates 2012-13 un-escalated data inputs into nominal values taking into account overhead allocation, CPI escalation and non-CPI escalators. This is explained by Ergon Energy:

> "The Escalations Data Model takes CPI and non-CPI escalation inputs and applies these to the forecast and estimated direct operating expenditure, direct capital expenditure and overhead costs from 2013-14 to 2019-20 inclusive from the Opex Data Model, Capex Data Model and the Overheads Data Model respectively".[4]

Consequently, the output of the *AER escalation adjustments model* was not in fact an amount in $2014-15 which could be used to adjust Ergon Energy's forecast capex, but rather a figure that included all CPI and non-CPI escalation required to convert 2012-13 values into nominal values.

This means that the AER has removed from Ergon Energy's forecast capex in the PTRM (which is expressed in $2014-15) a sum that includes all CPI escalation between 2012-13 and 2019-20, rather than the CPI escalation between 2014-15 and 2019-20. The amount deducted from Ergon Energy's forecast capex was too high.

[4] *03.02.01 – Regulatory Model Architecture Summary*, p2.

4. Restating the AER adjustment after correcting for errors

Ergon Energy has attempted to recreate the AER's adjustments for materials and labour escalation in a way which reflects the AER's Preliminary Determination regarding escalation, but removing the errors in the AER's modelling.

The table and the notes set out below explain how, in Ergon Energy's submission, the AER's decision on materials and labour cost escalators should have been properly applied to Ergon Energy's forecast capex for SCS.

Table 2: Recreation of intended capex forecast adjustment

	$m (nominal)	2015-16	2016-17	2017-18	2018-19	2019-20	Total
1	SCS Capital Expenditure Forecast (nominal)	789.39	792.81	745.96	749.77	753.16	3,831.09
2	SCS Capital Expenditure Forecast (nominal) no escalation	705.81	684.83	622.41	603.46	584.66	3,201.17
3	SCS capital expenditure forecast no real escalation	762.44	758.80	707.36	703.44	699.05	3,631.09
4	CPI and real escalation in Ergon Energy forecast (nominal)	83.59	107.97	123.55	146.31	168.50	629.92
5	CPI escalation in forecast (nominal)	56.64	73.96	84.95	99.99	114.39	429.92
6	real escalation implicit in forecast (nominal)	26.95	34.01	38.60	46.33	54.11	200.00
7	**real escalation in forecast (2014-15)**	**26.28**	**32.33**	**35.77**	**41.86**	**47.67**	**183.90**
8	Less real labour escalation - AER allowed rates	(3.92)	(6.56)	(8.41)	(10.59)	(12.86)	(42.34)
9	**Ergon Energy forecast adjustment**	**22.36**	**25.77**	**27.36**	**31.27**	**34.80**	**141.56**
10	AER scaling adjustment	0.87	0.86	0.88	0.87	0.87	
11	**AER SCS Capex forecast adjustment required with errors removed**	**19.35**	**22.26**	**24.10**	**27.33**	**30.36**	**123.39**
12	Actual AER Adjustment	91.51	119.26	141.84	169.70	197.94	720.25
13	Error that needs to be rectified	(72.16)	(97.00)	(117.75)	(142.37)	(167.58)	(596.87)

Our approach involved:

- calculating the CPI and non CPI escalation attributable to Ergon Energy's capex forecast for SCS (row 4)
- removing any escalation attributable to CPI escalation from 2012-13 to 2014-15 (row 5) to derive the real cost escalation (net of inflation) applied to the Ergon Energy forecast (row 6) in nominal dollars
- adjusting for real escalation from nominal to $2014-15 (row 7)
- adjusting for the AER's determined real labour escalators (row 8), to give the sum, in $2014-15, that should have been deducted from Ergon Energy's SCS capex forecast for materials and labour cost escalators

- applying the ratio of the AER's approved capex forecast to Ergon Energy's proposed capex forecast (row 10) to calculate the required adjustment to Ergon Energy's SCS capex forecast in the PTRM (row 11).

Row 13 calculates the error between the AER applied adjustment and the adjustment that should have been made if all errors are corrected.