Final decision

Murraylink

Transmission determination

2013–14 to 2017–18

April 2013

AUSTRALIAN ENERGY REGULATOR

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Contents

Shortened forms

Shortened form	Full title
AER	Australian Energy Regulator
ABS	Australian Bureau of Statistics
APA	APA Operations (EII) Pty Limited
AWOTE	Average weekly ordinary time earnings
Capex	capital expenditure
CAPM	capital asset pricing model
CGS	Commonwealth government securities
CHC	CHC Associates Pty Ltd
CPI	consumer price index
DRP	debt risk premium
EGWWS	Electricity, Gas, Water and Waste Services
EII	Energy Infrastructure Investments Pty Limited
LPI	Labour Price Index
MAR	maximum allowed revenue
MEU	Major Energy Users Inc
MRP	market risk premium
NEL	National Electricity Rules
NEM	National Electricity Market
NEO	National Electricity Objective
NTSC	negotiating transmission service criteria
Opex	operating expenditure

PTRM	post tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
WACC	weighted average cost of capital

1 Overview

This final decision sets out the revenue the Murraylink Transmission Company Pty Ltd (Murraylink) can recover from customers during the 2013–18 regulatory control period.

We have accepted Murraylink's proposal to adopt a five year regulatory control period commencing 1 July 2013 and concluding 30 June 2018.[1]

What is Murraylink?

Murraylink is an interconnector that provides a path for the flow of electricity to the limit of its 220MW capacity, in both directions, between the South Australian and Victorian transmission networks. In this way, it links the cheapest generation at a point in time with customers.

As a direct current network, Murraylink is comprised of highly specialised, complex and technologically advanced equipment compared to the conventional elements of most alternating current transmission networks in Australia. Murraylink seeks to maintain its assets in working order and replace ancillary equipment that may soon fail to continue providing the market with a high level of interconnector services.

Murraylink is dispatched by the Australian Energy Market Operator (AEMO), in a similar manner to that of a generator, to control electricity flow between South Australia and Victoria. Murraylink is therefore able to help overcome constraints in the National Electricity Market (NEM).

Murraylink's ability to transport electricity is limited by constraints within the adjoining regional transmission networks in South Australia and Victoria, which can reduce its effective capacity to well below its rated maximum capacity of 220MW. We are not required to assess demand forecasts because Murraylink's network expenditure is independent of the levels of, or growth in, peak energy demand.

Murraylink's revised revenue proposal

We have accepted most aspects of Murraylink's revised revenue proposal either because it conforms to our draft decision of November 2012 or we have accepted propositions put to us. These aspects and propositions include:

- the length of the regulatory control period being five years, rather than 10
- real cost escalation
- correcting certain modelling inputs indentified by us in the draft decision, including the non-depreciation on easements and CPI figures
- the cost of capital, updated only for key financial data
- adoption of the Reserve Bank of Australia's inflation forecasts
- removal of proposed capital expenditure for control systems upgrades
- no longer including the proposed contingent project in the determination

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[1] Murraylink, *Revised revenue proposal*, p. 6.

- acceptance of the service target performance incentive scheme parameter values
- acceptance of the pricing methodology and negotiating transmission service criteria
- an update of the forecast for connection costs to account for discrepancies by Murraylink in accounting for this information.

Murraylink contended we should amend our draft decision on two key issues, namely our substitute operating expenditure (opex) and capital expenditure (capex) forecasts.

In relation to opex, Murraylink did not accept our draft decision to apply an opex efficiency adjustment of 2.5 per cent. Additionally, Murraylink proposed an increase in its opex forecast for:

- maintenance opex — increased from $4.5 million to $5.4 million
- connection charges opex — increased from $3.1 million to $5.4 million.

In relation to capex, Murraylink did not accept our draft decision on the capex efficiency factor. In addition, Murraylink proposed an increase in its capex forecast for:

- inclusion of margins — $0.5 million
- system requirements (ancillary services)— $0.4 million
- asset management system— $0.01 million.

Murraylink also did not accept our draft decision on aspects of the opening regulatory asset base (RAB), forecast regulatory depreciation and the estimated cost of corporate income tax.

Final decision

We do not accept Murraylink's revised revenue proposal opex and capex forecasts. We have therefore derived substitute opex and capex forecasts that we consider reflect the requirements of the National Electricity Rules (NER).[2] We have also amended aspects of the opening regulatory asset base (RAB), forecast regulatory depreciation and the estimated cost of corporate income tax. As a consequence, the total revenue requirement has also been amended by us to take account of the substitute forecasts.

Our substitute forecasts result in a total revenue cap of $67.5 million ($ nominal) during the 2013–18 regulatory control period. This is similar to that proposed in Murraylink's revised revenue proposal.

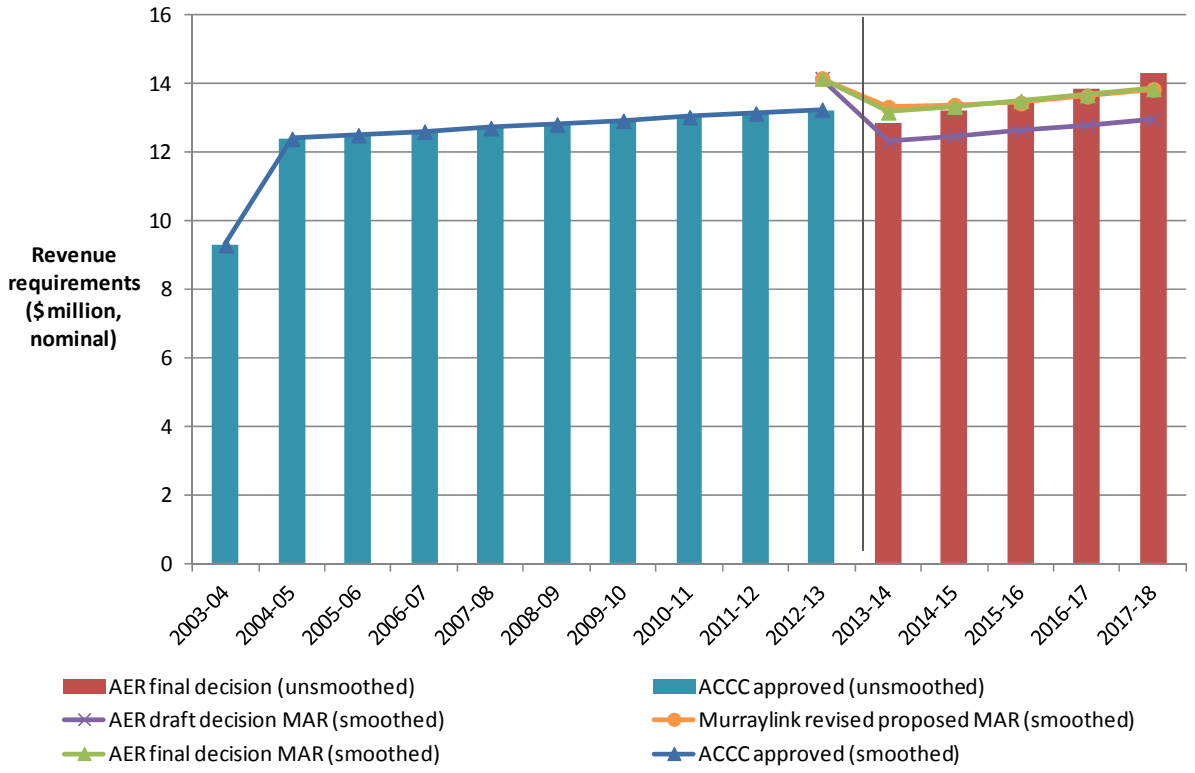
While there is room for improvement in monitoring the condition of its assets (which Murraylink is currently addressing), we consider that Murraylink is generally well governed and that its forecast expenditure is aimed at achieving the capex and opex objectives. Nevertheless, we are not satisfied that the proposed forecast expenditure reasonably reflects the efficient costs of providing prescribed transmission services. We therefore substituted alternative expenditure forecasts that are set out in detail in the following chapters.

Figure 1.1 compares our final decision with Murraylink's revised proposal revenue requirements. We applied the CPI–X formula to smooth the revenue profile over the 2013–18 regulatory control period.

[2] NER, clauses 6A.6.6 and 6A.6.7.

The final decision X–factor of 1.2 per cent means that the smoothed revenues will decline (in real terms) over the regulatory control period. The impact on average transmission prices and final average customer bills in South Australia and Victoria is expected to be negligible.

Figure 1.1 AER's final decision compared with the draft decision, Murraylink's revised proposal revenue requirement and the approved revenue for 2003–13 ($ million, nominal)

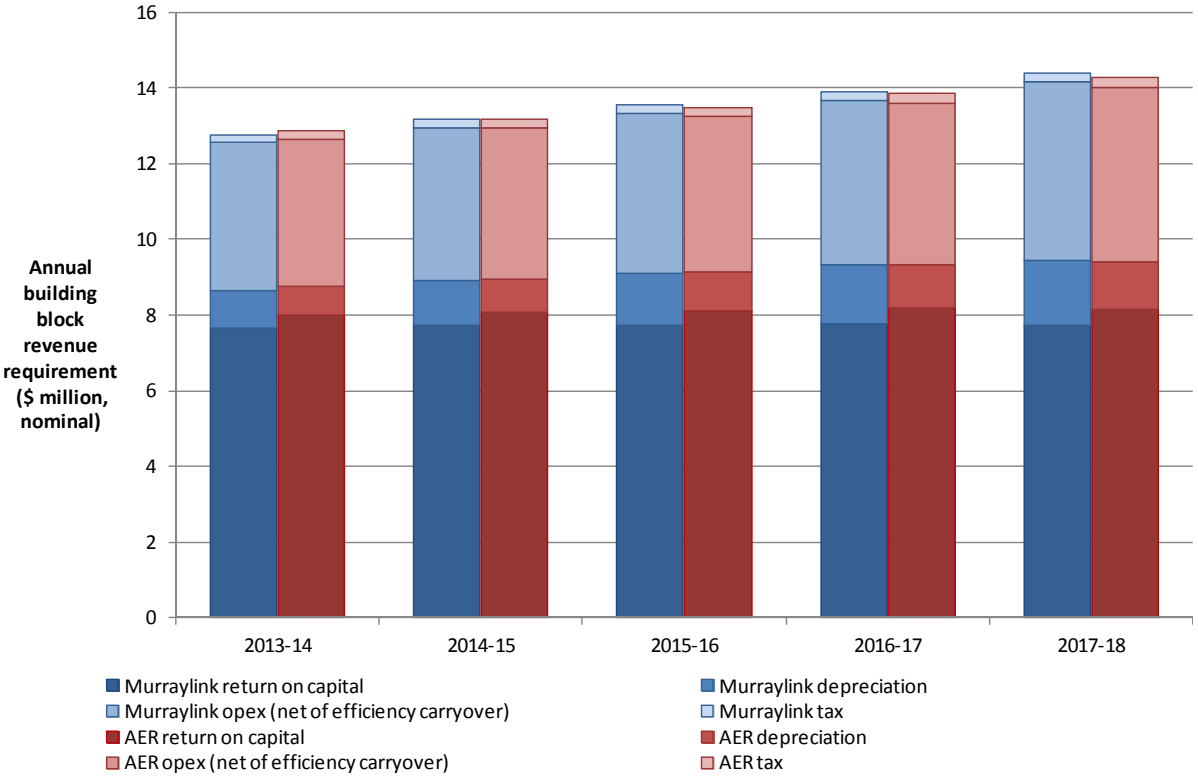


Source: AER analysis.

Note: The 2003–04 regulatory year only consists of three quarters from 1 October 2003 to 30 June 2004.

Figure 1.2 shows the effect of our final decision adjustments on Murraylink's proposed building blocks. This figure shows that our final decision will reduce Murraylink's revised proposals for the regulatory depreciation and opex building blocks.

Figure 1.2 AER's final decision and Murraylink's revised proposal annual building block revenue requirement (unsmoothed) ($ million, nominal)



Source: AER analysis.

Expenditure forecasts

Murraylink's revised revenue proposal contained a forecast capex of $6.30 million ($2012–13) and a forecast opex of $19.9 million ($2012–13). However, upon further engagement with us, Murraylink amended its forecast capex to $5.71 million ($2012–13) and its forecast opex to $19.8 million ($2012–13). We have reviewed Murraylink's amended forecasts and, except for the impact from the update of real cost escalation inputs, we are satisfied they are consistent with the revisions we would have applied to its revised proposal expenditure forecasts.

We note Murraylink accepted our draft decision for real cost escalation. We have updated the relevant inputs for real cost escalation to reflect the most recent data. This update reduces Murraylink's amended total forecast capex by $0.08 million ($2012–13) and opex by $0.5 million ($2012–13). Consequently we have estimated a substitute forecast capex of $5.64 million ($2012–13) and opex of $19.30 million ($2012–13). We are satisfied these substitute forecasts represent the efficient and prudent costs of operating Murraylink's assets.

Regulatory asset base

We have determined Murraylink's opening RAB value at 1 July 2013 to be $106.7 million. This value is $0.9 million (or 0.9 per cent) lower than Murrylink's value of $107.6 million in its revised revenue proposal because we made the following changes to the roll forward of the RAB:

- we reallocated the actual capex associated with the proposed 'Ancillary 15', 'Ancillary 10', 'Ancillary 7', 'Test equipment', 'Other operating assets' and 'Office machines' asset classes to the ACCC approved asset class of 'Switchyard'

- we updated the 2011–12 capex input in the roll forward model (RFM) to reflect Murraylink's actual capex value for this year
- we updated the inflation input for 2012–13 using the actual March 2013 consumer price index (CPI) published by the Australian Bureau of Statistics (ABS).

We forecast Murraylink's RAB to be $107.8 million by 30 June 2018. This forecast represents an increase of $0.1 million (or 0.1 per cent) to Murraylink's revised revenue proposal. The main reason for this increase is the reduction we made to Murraylink's forecast depreciation, as discussed in section 7. Our adjustments on forecast capex (section 3) and the opening RAB as at 1 July 2013 (section 6) also impact on the forecast RAB value.

Regulatory depreciation

We do not accept Murraylink's proposed regulatory depreciation allowance of $6.8 million ($ nominal) for the 2013–18 regulatory control period in its revised proposal. We have determined a regulatory depreciation allowance of $5.1 million ($ nominal) for Murraylink. Our final decision represents a reduction of $1.7 million (or 25.3 per cent) to Murraylink's revised proposal, which we made for the following reasons:

- we do not accept Murraylink's revised depreciation schedules for its asset classes of 'Ancillary 15', 'Ancillary 10', 'Ancillary 7' and 'Test equipment'. This is because the proposed standard asset lives for these new asset classes do not reflect the economic life of the assets for which expenditure is to be allocated to these asset classes. Our final decision on the standard asset lives for these asset classes is set out in section 7.
- in accepting Murraylink's proposed weighted average method to determine the remaining asset lives, we have updated Murraylink's remaining asset lives as at 1 July 2013. This is to reflect our adjustments to the roll forward of the RAB in the RFM.
- our determinations on other components of Murraylink's revised proposal also affect the regulatory depreciation allowance.[3] These include the forecast capex and the opening RAB as at 1 July 2013.

Corporate income tax

We accept Murraylink's estimated cost of corporate income tax allowance of $1.2 million ($ nominal) for the 2013–18 regulatory control period, as set out in its revised proposal. However, we made several adjustments to the inputs used to calculate the corporate income tax allowance in the revised RFM and PTRM. These adjustments did not result in any change in the total corporate income tax allowance. The adjustments we made are as follows:

- we accept the revised total opening TAB as at 1 July 2013 of $82.3 million. However, the individual opening TAB values for each asset class has changed slightly due to the adjustments we made to the actual capex inputs in the RFM as discussed in section 6.
- we do not accept Murraylink's proposed standard tax asset lives for the following tax asset classes: 'Ancillary 15', 'Ancillary 10', ' Ancillary 7' and 'Test equipment'. Our final decision on the standard tax asset lives for these asset classes is set out in section 8.

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[3] NER, clause 6A.6.3(a)(1).

- we accept Murraylink's weighted average method to calculate the remaining tax asset lives of its TAB as at 1 July 2013 in its revised proposal. We accepted this method in the draft decision.[4] For this final decision, we have updated the proposed remaining tax asset lives to reflect our adjustments to Murraylink's actual capex in the RFM.

- our determinations on other building blocks including forecast opex and cost of capital also impact the estimated corporate income tax allowance.[5]

Indicative price impact on customers

Murraylink's revenues are charged to customers in South Australia and in Victoria. Murraylink uses the coordinating network service providers in these states, ElectraNet and AEMO respectively, to pass through its costs.

We have therefore combined the impact of the ElectraNet final decision revenue with that of the Murraylink final decision to estimate the average price impacts in South Australia. Our final decisions for Murraylink and ElectraNet are anticipated to have minimal impact on South Australian average residential electricity bills over 2013–18.

1.1 What the AER considered in reaching its final decision

We made this final decision on Murraylink's revised revenue proposal for the 2013–18 regulatory control period in accordance with the relevant sections of the NEL and NER. We considered whether Murraylink's forecast capex and opex reflect the efficient costs that a prudent operator requires to meet the NER objectives.[6] In forming our views on whether these forecasts were efficient and prudent, we took account of the factors listed in the NER.[7]

In reaching our final decision, we considered and analysed:

- Murraylink's revised revenue proposal, pricing methodology and negotiating framework and other supporting information.

- information provided by Murraylink during the review process

- submissions from ElectraNet, TransGrid and Major Energy Users

- views expressed at the pre–determination conference held 12 December 2012

- advice from our expert consultants.

1.2 National Electricity Rule objectives of capex and opex forecasts

The NER sets out the following objectives for Murraylink's forecasts of total capex and opex:[8]

- meet expected demand

- comply with all applicable regulatory obligations or requirements

- maintain the quality, reliability and security of supply

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4 AER, *Draft decision: Murraylink transmission determination*, November 2012, p. 67.
5 NER, clause 6A.6.4.
6 NER, clauses 6A.6.6(c) and 6A.6.7(c).
7 NER, clauses 6A.6.6(e) and 6A.6.7(e).
8 NER, clauses 6A.6.6(a) and 6A.6.7(a).

- maintain the reliability, safety and security of the transmission system.

We must determine whether Murraylink's forecast capex and opex reflect the efficient and prudent costs of meeting these objectives, based on a realistic expectation of the cost inputs.[9]

[9] NER, clauses 6A.6.6(c) and 6A.6.7(c).

2 Real cost escalation

Real cost escalation is a method for including expected changes in the costs of key factor inputs that, due to market forces, may not increase at the same rate as inflation.

2.1 Final decision

We accept Murraylink's revised proposal on real cost escalators because it applied our draft decision on real cost escalators.[10] We have subsequently updated the relevant inputs in this final decision to reflect the most contemporary data.[11] We consider the final decision real cost escalators presented in table 2.1 reasonably reflect a realistic expectation of the cost inputs required to achieve the opex and capex objectives.[12]

Table 2.1 AER final decision on real cost escalators (per cent, real)

	2013-14	2014-15	2015-16	2016-17	2017-18
Internal labour	0.7	0.5	0.8	0.8	1.0
External	0.6	0.6	0.4	0.3	0.8
Connection charges	1.9	1.9	1.9	1.9	1.9

Source: AER analysis, Deloitte Access Economics, *Forecast growth in labour costs: Victoria and South Australia*—Report prepared for the AER, 25 February 2012.

2.2 Murraylink's revised proposal

Murraylink applied our draft decision real cost escalators in preparing its revised proposal.[13] These real cost escalators are presented in table 2.2.

Table 2.2 Murraylink's revised real cost escalation forecasts (per cent)

	2013-14	2014-15	2015-16	2016-17	2017-18
Internal labour	1.2	0.9	1.0	0.8	1.0
External labour	1.3	0.9	0.5	0.3	0.8
Connection charges	3.0	3.0	3.0	3.0	3.0

Source: Murraylink, *Revised revenue proposal*, p. 18.

2.3 Assessment approach

We updated the relevant inputs to reflect the most contemporary data. This was the only assessment required because Murraylink's revised proposal applied our draft decision on real cost escalators. We

10 Murraylink, *Revised revenue proposal*, pp. 18–9 and 22.
11 AER, *Draft decision: Murraylink transmission determination*, November 2012, p. 1.
12 NER, clauses 6A.6.6(c)(3) and 6A.6.7(c)(3).
13 Murraylink, *Revised revenue proposal*, pp. 18–9 and 22.

consider this update provides forecasts that reasonably reflect a realistic expectation of cost inputs required to achieve the opex and capex objectives.[14]

We assessed Murraylink's initial proposed real cost escalators against NER requirements. Our detailed assessment and reasons are set out in sections 1.3 and 1.4 of our draft decision.[15] In summary, we must accept Murraylink's opex and capex forecasts if satisfied the total forecasts reasonably reflect the opex and capex criteria.[16] To do this we must be satisfied those forecasts reasonably reflect a realistic expectation of cost inputs required to achieve the opex and capex objectives.[17]

We have also taken into consideration submissions from stakeholders in forming our views.

2.4 Reasons for final decision

This final decision reflects the relevant updated inputs of our draft decision.

2.4.1 Labour cost escalation

We accept Murraylink's revised proposal as it applied our draft decision on real labour cost escalators.[18] We engaged Deloitte Access Economics to update the relevant inputs for our final decision to provide a forecast that reasonably reflects a realistic expectation of cost inputs required to achieve the opex and capex objectives.[19] Table 2.1 presents our final decision real labour cost escalators.

BIS Shrapnel prepared Murraylink's initial labour cost forecasts. One of the reasons for not accepting BIS Shrapnel's forecasts and substituting forecasts prepared by Deloitte Access Economics was that the BIS Shrapnel forecast contained an out of date assumption.[20] The BIS Shrapnel forecast was prepared in May 2012 and included wage growth assumptions relating to the significant BHP Olympic Dam mine expansion project.[21] However, in August 2012 BHP announced the indefinite deferral of this project.[22] We considered the Deloitte Access Economics' forecast an appropriate measure as it did not include the expansion of the Olympic Dam mine.

Murraylink's revised proposal accepts that BHP's deferral of its Olympic Dam mine expansion is likely to have an impact on the South Australian labour market.[23] As such, it incorporated our draft decision on real cost escalators in its revised proposal.

2.4.2 Connection charge escalator

Our draft decision accepted Murraylink's proposed connection charge escalator method as it reasonably reflected a realistic expectation of future costs.[24] Consequently we have updated the relevant inputs in our final decision to set a forecast that reasonably reflects a realistic expectation of cost inputs required to achieve the opex and capex objectives.[25] We have applied the X factors

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14 NER, clauses 6A.6.6(c)(3) and 6A.6.7(c)(3).
15 AER, *Draft decision: Murraylink transmission determination*, November 2012, pp. 2–11.
16 NER, clauses 6A.6.6(c) and 6A.6.7(c).
17 NER, clauses 6A.6.6(c)(3) and 6A.6.7(c)(3).
18 Murraylink, *Revised revenue proposal*, pp. 18–9 and 22.
19 NER, clauses 6A.6.6(c)(3) and 6A.6.7(c)(3).
20 AER, *Draft decision: Murraylink transmission determination*, November 2012, p. 10.
21 BIS Shrapnel, *Real Labour Cost Escalation Forecasts to 2023,* May 2012, p. 45.
22 BHP Billiton, Investors and Media, *Latest News: Olympic Dam update*, 22 August 2012.
23 Murraylink, *Revised revenue proposal*, p. 22.
24 NER, clauses 6A.6.6(c)(3) and 6A.6.7(c)(3).
25 NER, clauses 6A.6.6(c)(3) and 6A.6.7(c)(3).

determined in our final decisions for SP AusNet and ElectraNet.[26] Table 2.1 presents our final decision connection charge escalators.

Murraylink proposed to apply the average of ElectraNet's and SP AusNet's X factors to escalate the connection charges it will pay to these businesses over the regulatory control period.[27] These connection charges are a direct on cost to Murraylink and will likely increase annually. This is because part of the change in connection costs is driven by ElectraNet's and SP AusNet's maximum allowable revenues and their respective X factors. Our draft decision considered it reasonable to accept Murraylink's proposal rather than apply an alternative escalator, such as CPI.[28]

2.5 AER decision

Decision 2.1: Table 2.1 sets out the final decision real cost escalators for the 2013–18 regulatory control period.

[26] AER, *Final decision, ElectraNet transmission determination*, April 2013, p. 9; AER, *Final decision, SP AusNet transmission determination*, January 2008, p. 293.
[27] Murraylink, *Revenue proposal*, p. 45.
[28] AER, *Draft decision: Murraylink transmission determination*, November 2012, p. 11.

3 Capital expenditure

This section outlines our final decision, reasoning and approach to assessing Murraylink's revised proposed capital expenditure (capex) and for deriving our substitute forecast for the 2013–18 regulatory control period.

3.1 Final decision

We accept Murraylink's amended revised total forecast capex for the 2013–18 regulatory control period subject to the update of relevant inputs for real cost escalation to reflect the most contemporary data.[29]

Murraylink's revised revenue proposal contained a total forecast capex of $6.302 million ($2012–13).[30] However upon further engagement between Murraylink, CHC Associates Pty Ltd (CHC) and us, Murraylink amended its revised total forecast capex to $5.714 million ($2012–13).[31] We have reviewed Murraylink's amended forecast and we are satisfied it is consistent with the revisions we would have applied to its revised proposed total forecast capex.

As discussed in section 2, Murraylink accepted our draft decision approach for real cost escalation and the update of the relevant cost inputs for our final decision. Thus we have updated the relevant inputs for real cost escalation to reflect the most contemporary data. This update reduces Murraylink's amended revised total forecast capex by $0.078 million ($2012–13). Consequently we have estimated a substitute total forecast capex of $5.636 million ($2012–13) that reasonably reflects the NER requirements.[32] We are satisfied this substitute forecast reasonably reflects the capex criteria.[33]

Table 3.1 summarises the substitute forecast capex to be applied to Murraylink over the 2013–18 regulatory control period. We estimated a total forecast capex of $5.636 million ($2012–13), which reflects the updated real cost escalation applied to Murraylink's amended revised total forecast capex.

Table 3.1 AER's final decision on Murraylink's total forecast capex ($ million, 2012–13)

	Adjustment	Total capex
Murraylink revised forecast capex		5.714
Real cost escalation	-0.078	
AER's final decision forecast capex		5.636

Source: AER analysis.

Notes: Numbers do not add due to rounding. Includes the application of the AER's final decision real cost escalation.

29 NER, clause 6A.14.1(2)(ii).
30 Murraylink, *Revised revenue proposal*, pp. 19–21.
31 Murraylink, *Email response to information request AER.ML/023 - opex/capex questions 22 February 2013*, received 12 March 2013.
32 NER, clause 6A.14.1(2)(ii).
33 NER, clause 6A.6.7(c).

3.2 Murraylink's revised revenue proposal

Murraylink's revised revenue proposal contained a total forecast capex of $6.302 million ($2012–13).[34] Murraylink amended its revised total forecast capex to $5.714 million ($2012–13) in response to our queries.[35] Murraylink's amended revised capex proposal of $5.714 million ($2012–13) is a reduction of $8.122 million ($2012–13) (or 58.7 per cent) on its $13.837 million ($2012–13) initial revenue proposal. This reduction is largely due to the removal of three capital growth projects and Murraylink's revised proposal for a five year regulatory control period.[36] For comparison, the first five years of the initial revenue proposal contained a forecast capex of $11.699 million ($2012–13). Table 3.2 presents Murraylink's amended revised total forecast capex proposal, its initial proposed forecast capex and our draft decision based on a five year regulatory control period.

Table 3.2 Murraylink's updated revised proposed, initial proposed and AER draft decision total forecast capex–by category ($ million, 2012–13)

Capex category	2013–14	2014–15	2015–16	2016–17	2017–18	Total amended revised proposal	Total initial proposal	AER draft decision
Refurbishment	0.732	0.372	0.971	0.412	0.512	2.999	2.759	2.791
Compliance	1.004	0.944	0.715	0.018	0.018	2.700	2.387	2.447
Other	0.008	0.000	0.000	0.000	0.000	0.008	6.553	0.007
Total	1.752	1.316	1.685	0.430	0.531	5.714	11.699	5.246

Source: Murraylink, *Revised capex model V09a*, Murraylink, *Initial revenue proposal*, p.38, AER, *Draft decision, Murraylink transmission determination*, November 2012, p. 13.

Murraylink's revised total forecast capex proposal included increases over the initial capex proposal for the 2013–18 period for the following:[37]

- inclusion of margins—$0.504 million ($2012–13)
- spares requirements (ancillary equipment)—$0.424 million ($2012–13)
- asset management system—$0.008 million ($2012–13).

In addition, Murraylink's revised revenue proposal did not accept our draft decision application of a capex efficiency factor.[38] However, on further consideration Murraylink's amended revised total forecast capex included a reduction in costs to reflect the forecast efficiencies due to the use of in–house labour to displace previous contractor costs.[39] Murraylink also brought forward the timing of its control system—industrial computers capex from 2017–18 to 2015–16.

34 Murraylink, *Revised revenue proposal*, pp. 19–21.
35 Murraylink, *Email response to information request AER.ML/023 - opex/capex questions 22 February 2013*, received 12 March 2013.
36 Murraylink, *Revised revenue proposal*, pp. 20–21.
37 Murraylink, *Revised revenue proposal*, pp. 19–21, *Revised capex model V09a*.
38 Murraylink, *Revised revenue proposal*, pp. 20–21.
39 Murraylink, *Email response to information request AER.ML/023 - opex/capex questions 22 February 2013*, received 12 March 2013.

3.3 Assessment approach

We adopted the same assessment approach as our draft decision to assess Murraylink's revised capex forecast. The following is a summary of our approach. For more details see section 2.3 of our draft decision.[40]

We must either accept Murraylink's proposed forecast capex allowance or determine a substitute forecast.[41] We must accept Murraylink's proposed forecast capex if satisfied it reasonably reflects the capex criteria.[42] The forecast must reflect the efficient costs that a prudent operator in Murraylink's circumstances would need to incur, based on a realistic expectation of the demand forecast and the cost inputs to achieve the capex objectives (capex criteria).[43] In deciding whether Murraylink's proposed forecast capex reasonably reflects the capex criteria, we must have regard to the capex factors.[44] Although we considered each capex factor when assessing Murraylink's proposed total forecast capex, not all factors were relevant to each capex component.

In our assessment we also had regard to the National Electricity Objective (NEO) as well as the revenue and pricing principles in the National Electricity Law (NEL).[45]

We must form a view on the forecast capex as a whole, not as individual projects or programs.[46] However, because Murraylink proposed its total required capex in separate expenditure components, we have assessed these components in making our decision on the total forecast capex amount.

In assessing Murraylink's efficient costs, we considered a mix of top down and bottom up approaches. We assessed Murraylink's:

- key documents, processes and assumptions
- historical expenditure compared to the revised revenue proposal
- projects for more specific analysis.

We engaged CHC Associates Pty Ltd (CHC) to help review Murraylink's forecast capex. We also considered the views of stakeholders expressed in submissions.[47]

3.4 Reasons for final decision

We accept that Murraylink's amended revised total forecast capex with updated real cost escalation to reflect the most recent data satisfies the requirements of the NER and NEO for the reasons outlined in this section.[48] We consider Murraylink's amendments meet the capex criteria.[49]

We consider Murraylink's amended revised total forecast capex is now reflective of the efficiencies it will incur due to its progressive asset management framework. This is consistent with our draft decision application of a capex efficiency factor to capture efficiencies that the new asset management framework should generate.

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40 AER, *Draft decision: Murraylink transmission determination*, November 2012, pp. 14–16.
41 NER, clause 6A.6.7(c) and (d), 6A.14.1(2)(ii).
42 NER, clause 6A.6.7(c).
43 NER, clause 6A.6.7(c). Clause 6A.6.7(a) specifies the capex objectives.
44 NER, clause 6A.6.7(d).
45 NEL, s.7 and s.7A.
46 NER, clause 6A.14.1(2).
47 Major Energy Users Inc., *Submission re: Draft decision on Murraylink application for a revenue reset*, 19 February 2013.
48 NER, clause 6A.14.1(2)(ii), NER, clause 6A.6.7(c), NEL, s.7 and s.7A.
49 NER, clause 6A.6.7(c).

We also note that Murraylink was not provided with a capex allowance for the 2003–13 regulatory control period and consequently the allowance in our final decision will be a step change in comparison. This point is noted by stakeholders.[50] However, as noted in our draft decision, Murraylink did incur capex during the 2003–13 and in our assessment of the forecast allowance for our final decision, we have taken into consideration actual capex Murraylink has incurred.

Our detailed reasons are discussed below.

3.4.1 Margins

We accept Murraylink's application of margins to its total forecast capex for the 2013–18 regulatory control period. We consider it reasonably reflects the efficient costs of achieving the capex objectives.[51]

Murraylink's initial revenue proposal did not include a margin in its total forecast capex. Murraylink stated it inadvertently omitted applying the margin to capex in its initial revenue proposal.[52] Consequently, Murraylink applied the margin to all material and contractor costs in its revised capex proposal. The proposed quantum of the margin represents a percentage of its total forecast capex.

In principle, we accept that margins can be appropriate where they allow a business to access efficiencies and lower costs. However, the quantum of the margin must reflect efficient costs. Murraylink's margin is a payment under a contractual arrangement with APA Operations (EII) Pty Limited (APA) so it can access efficiencies and asset management expertise not available to it on a standalone basis.[53] Murraylink notes:[54]

> These efficiencies are likely to stem from, amongst other things:
>
> ...
>
> the scale of APA's operation, which would enable it to obtain greater discounts when procuring materials and service contracts than would otherwise be available...

We have reviewed Murraylink's contractual arrangements with APA and are satisfied its application of the margin to its forecast capex is consistent with the contract. We also assessed the total of all proposed margins as a proportion of the maximum allowable revenue. This was undertaken on the basis of NERA's benchmarking analysis.[55] While we previously expressed our concerns with the NERA benchmarking analysis, we note Murraylink's total margin sits within the 95 per cent confidence interval for all the benchmark comparisons. This approach is consistent with our draft decision.

However, because we have reduced Murraylink's amended total forecast capex for updated real cost escalation the quantum of the margin has also reduced. We consider this reduction reasonably reflects the efficient costs Murraylink requires for achieving the capex objectives.[56] We expect that the contractual arrangements with APA for which this margin is payable will deliver efficiencies over the 2013–18 regulatory control period and beyond.

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50 Major Energy Users Inc., *Submission re: Draft decision on Murraylink application for a revenue reset*, 19 February 2013, pp. 4–5.
51 NER, clause 6A.6.7(c)(1).
52 Murraylink, *Revised revenue proposal*, p. 19.
53 Energy Infrastructure Investments, *Further submission of the management, operations and maintenance and commercial services agreement*, October 2012, p. 19.
54 Energy Infrastructure Investments, *Further submission of the management, operations and maintenance and commercial services agreement*, October 2012, pp. 11–2.
55 NERA, *Benchmark study of contractor profit margins (2002–2011)*, March 2012.
56 NER, clause 6A.6.7(c).

3.4.2 Ancillary equipment refurbishment

In our draft decision we accepted all of Murraylink's proposed capex for ancillary equipment refurbishment although we had concerns over the level of capex proposed due to the current asset management framework.[57] We accepted this capex to ensure Murraylink could maintain the reliability, safety and security of its network and allow the transitioning to better industry practice asset management methods. We also noted that the application of the capex efficiency factor partly accounted for the uncertainty of these costs over the regulatory control period. Murraylink's revised revenue proposal contains additional ancillary equipment refurbishment capex for spare requirements as this was omitted from its initial capex proposal.[58] Its revised revenue proposal has also brought forward the timing of its control system—industrial computers capex from 2017–18 to 2015–16.[59]

Our assessment of these issues is discussed below.

Spare requirements

We accept Murraylink's revised revenue proposal for spare requirements capex. However, due to the application of the updated real cost escalators we have reduced Murraylink's amended forecast from $0.424 million ($2012–13) to $0.411 million ($2012–13). We consider the $0.411 million ($2012–13) for Murraylink's proposed spare requirements reasonably reflect a realistic expectation of the cost inputs required to achieve the capex objectives.[60]

Murraylink's revised revenue proposal included additional ancillary equipment refurbishment capex for spare requirements as this was omitted from its initial capex proposal.[61] We note that the spare requirements capex was provided to us prior to the publication of our draft decision. However, we advised Murraylink it would not be taken into consideration for the draft decision because submissions had closed.[62] Murraylink has included this information in its revised revenue proposal and we consider this information now as part of our final decision. The proposed spare requirement capex is for:

- insulated gate bipolar transistors (IGBTs)
- motor control components
- replacement control system components.

We accept Murraylink's amended revised proposal for IGBTs spare requirements.[63] Murraylink's revised revenue proposal contained the purchase of 15 spares per annum over the 2013–18 regulatory control period. However, in our assessment we considered this level of spares overstated Murraylink's requirement. In response to our information request, Murraylink's amended revised proposal reduced the annual purchase of spares from 15 down to 11.[64] We consider the purchase of 11 spares per annum is a realistic expectation of the cost inputs Murraylink will require to achieve the

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57 AER, *Draft decision: Murraylink transmission determination*, November 2012, pp. 26–7.
58 Murraylink, *Revised revenue proposal*, p. 20.
59 Murraylink, *Revised capex model*. Provided with Murraylink's revised proposal.
60 NER, clause 6A.6.7(c)(3).
61 Murraylink, *Revised revenue proposal*, p. 20.
62 AER, *Letter to Scott Young, Re: Murraylink transmission determination 2013–23*, 12 November 2012.
63 Murraylink, *Revised capex model V09a*.
64 Murraylink, *Email response to information request AER.ML/023 - opex/capex questions 22 February 2013*, received 12 March 2013.

capex objectives over the 2013–18 regulatory control period.[65] CHC's review supports this consideration.[66]

In relation to the motor control components and replacement control system components, we accept Murraylink's proposal for these spare requirements. We consider Murraylink's amended revised proposal reasonable and we accept this capex to ensure Murraylink can maintain the reliability, safety and security of its network over the 2013–18 regulatory control period.[67]

Control system—industrial computers capex

We do not accept the change in timing of Murraylink's proposed control systems—industrial computers capex. We consider Murraylink has not provided us with sufficient evidence to justify bringing forward this expenditure from 2017–18 to 2015–16. CHC agreed with our considerations and noted:[68]

> It is now proposed to advance the work by three years, which is directly contrary to CHC's recommendation. There is no justification presented for this and CHC cannot support the advancement as proposed.

For our final decision, we maintain our draft decision to accept this capex in Murraylink's proposal to be incurred in 2017–18. We note our final decision does not reduce the total forecast capex overall, only the timing of this expenditure within the regulatory control period.

3.4.3 Asset management framework

Consistent with our draft decision, we considered Murraylink's revised revenue proposal was not fully reflective of its transition to an asset management framework consistent with good industry practice.[69] However, Murraylink's amended revised total forecast capex has somewhat addressed this issue which accounted for the cost impacts of forthcoming changes to its internal/external labour mix and the application of its upgraded asset management system.[70]

Our assessment of these issues is discussed below.

Asset management system (FRACAS)

We accept Murraylink's proposed capex of $0.008 million ($2012–13) for the costs of implementing its asset management system—FRACAS. We consider the proposed asset management system will assist Murraylink in maintaining the reliability, safety and security of the transmission system.[71] We also consider the 'modest' costs of the asset management system are appropriate, will support Murraylink's asset management framework and assist Murraylink's transition to good industry practice asset management.

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65 NER, clause 6A.6.7(c)(3).
66 CHC, *Murraylink revised proposal January 2013: Report on engineering issues*, 3 April 2013, pp. 9–10.
67 NER, clause 6A.6.7(a)(4).
68 CHC, *Murraylink revised proposal January 2013: Report on engineering issues*, 3 April 2013, p. 11.
69 AER, *Draft decision: Murraylink transmission determination*, November 2012, pp. 20–3.
70 Murraylink, *Email response to information request AER.ML/023 - opex/capex questions 22 February 2013*, received 12 March 2013, *Issues for discussion with Murraylink*, p. 7.
71 NER, clause 6A.6.7(a)(4).

Forecast efficiencies

We consider Murraylink will realise efficiency benefits through implementing its new asset management system. The new system will assist asset managers in making decisions about the economically efficient trade-offs between expenditure and risks based on the condition of the assets. In our draft decision we applied a capex efficiency factor to Murraylink's total capex forecast to capture these benefits.[72] Murraylink's revised revenue proposal did not accept our draft decision application of the capex efficiency factor.

However, we consider Murraylink's amended revised total forecast capex has now accounted for these benefits.[73] Murraylink's update reduced its forecast capex to better reflect the internalisation of previously contracted components of its capex. This reduction also reflects the impact of future monitoring of the condition of assets and the application of FRACAS. [74] Consequently we accept Murraylink's amended revised total forecast capex reflects these forecast efficiencies.

We consider that Murraylink should continuously monitor, quantify and internally report on its asset management improvements. This will provide valuable information for setting expenditure forecasts consistent with the NEO. In 2018, when Murraylink submits it next revenue proposal, we will review Murraylink's improvement initiatives during the 2013–18 regulatory control period and recognise efficiency benefits on an ongoing basis.

3.5 AER decision

Decision 3.1: Make all necessary amendments in table 3.1 to reflect our final decision on capital expenditure for the 2013–18 regulatory control period.

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72 AER, *Draft decision: Murraylink transmission determination*, November 2012, pp. 23–4.

73 Murraylink, *Email response to information request AER.ML/023 - opex/capex questions 22 February 2013*, received 12 March 2013, *Issues for discussion with Murraylink*, p. 7.

74 Murraylink, *Email response to information request AER.ML/023 - opex/capex questions 22 February 2013*, received 12 March 2013, *Issues for discussion with Murraylink*, p. 7.

4 Operating expenditure

This section sets out our final decision, reasoning and approach to assessing Murraylink's revised proposed operating expenditure (opex).

4.1 Final decision

Our decision is to accept Murraylink's revised proposed forecast opex adjusted to $19.3 million ($2012–13) to reflect updated cost inputs and real cost escalators.

Murraylink's revised proposal forecast total opex was $20.2 million ($2012–13).[75] However, upon further engagement between Murraylink, CHC Associates Pty Ltd (CHC) and us, Murrraylink amended its total forecast opex to $19.8 million ($2012–13).[76]

We note Murraylink accepted our draft decision approach for real cost escalation and the update of the relevant cost inputs for our final decision. Thus, we have updated the relevant inputs for real cost escalation to reflect the most contemporary data. This update reduces Murraylink's amended total forecast opex by $0.5 million ($2012–13) to $19.3 million.

We reviewed the amended forecast (that is, Murraylink's forecast but with AER escalators) and are satisfied it is broadly consistent with the revisions we would have applied to its revised proposed total forecasts.

Table 4.1 and Figure 4.2 sets out our final decision on total opex. The AER's decision on opex by category is reflected in Table 4.2.

Table 4.1 AER's final decision total opex, 2013–18 ($ million, 2012–13)

	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Murraylink's proposal	3.9	3.9	4.0	4.0	4.2	19.8
AER's decision	3.8	3.8	3.8	3.9	4.1	19.3
Difference (escalation)	–0.1	–0.1	–0.1	–0.1	–0.2	–0.5

Source: Murraylink's cost information template of 13 March 2013 and AER analysis.

Note: Numbers may not add due to rounding.

[75] Includes debt raising costs (see table 8.3 on page 32 of Murraylink's revenue proposal, January 2013). Unless otherwise stated all prices in this document are in $2012–13 prices, mid-year.

[76] On 13 March 2013.

Figure 4.1 AER final decision on controllable opex ($ million, 2012–13)

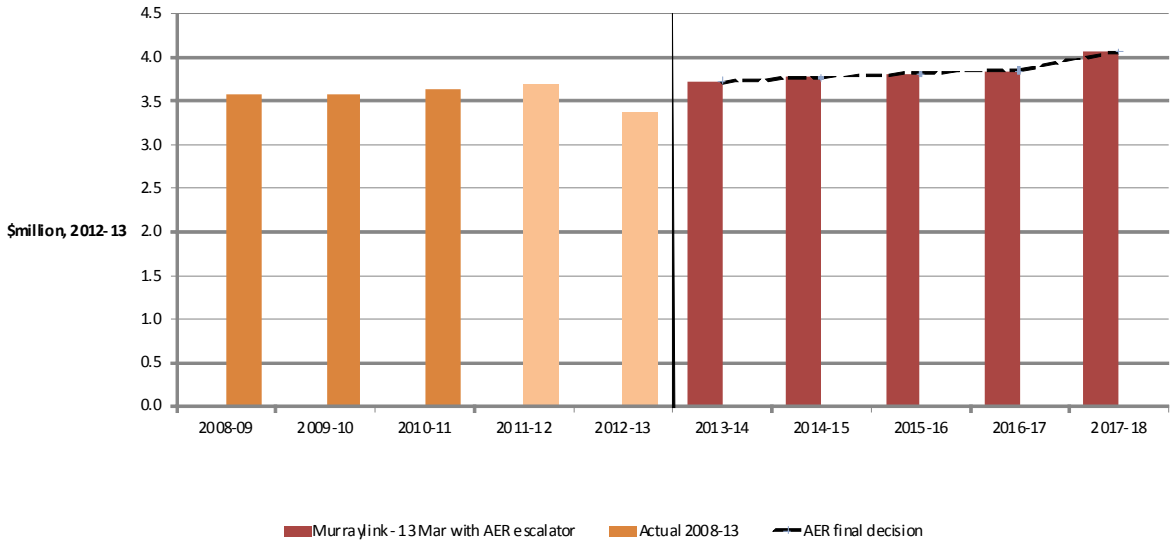
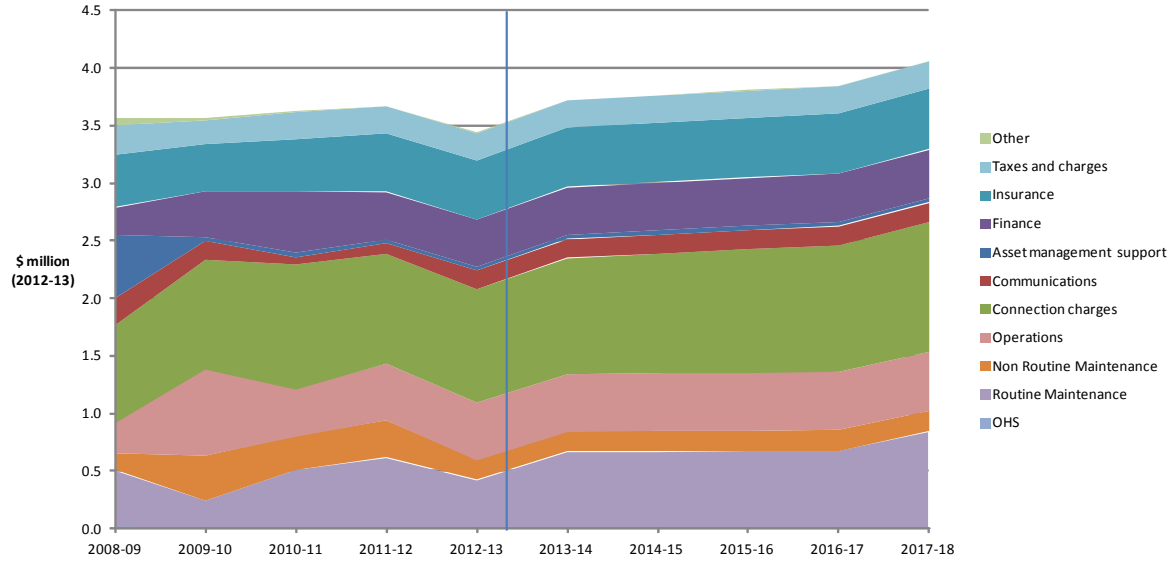


Figure 4.2 Murraylink's controllable opex by cost category: actual/estimated 2008–13 and AER final decision 2013–18 ($ million, 2012–13)



Source: AER analysis.

4.2 Murraylink's revised proposal

Murraylink proposed an amended revised controllable opex forecast of $19.5 million for the five year regulatory control period 2013–18 (Table 4.2), having originally proposed a 10 year period.[77] On a five year basis, its amended revised opex is of a similar magnitude as its initial proposal.[78]

[77] All analysis in this decision is for 2013–18. Where opex in Murraylink's original proposal and AER's draft decision were reported to 2013–23, the first 5 years have been extracted for this analysis.

[78] Murraylink, *Response to AER request AER.ML/009*, 15 August 2012 and *Response to AER request AER.ML/013,* 25 October 2012.

Table 4.2 Total opex for 2013–18 by cost category: Murraylink's amended revised revenue proposal (March 2013), and AER escalators ($ million, 2012–13)

Cost driver	Revised (March 2013)	Revised (with AER escalators) [AER final decision]
Maintenance	5.4	5.2
Asset Management Support	0.2	0.2
Operations	2.6	2.5
OHS	0.0	0.0
Taxes and Charges	1.2	1.2
Connection charges	5.4	5.1
Insurance	2.6	2.6
Total System Recurrent	17.4	16.9
Finance	2.1	2.1
Other	0.0	0.0
Total Non-System	2.1	2.1
CONTROLLABLE OPEX	19.5	19.0
Debt raising costs	0.3	0.3
TOTAL OPEX	19.8	19.3

Source: AER analysis and Murraylink response to AER request AER.ML/023.

Note: Numbers may not add due to rounding.

In summary, Murraylink's revised opex proposal:

- revised its maintenance forecast for 2013–18 based on a new business model which reflects changes in how Murraylink's contractor, APA, performs and manages the Murraylink asset on Murraylink's behalf
- increased forecast connection charges by $1.91 million because it incorrectly categorised a portion of its connection costs as non-system costs (utilities)
- incorporated the real cost escalators from the draft decision, adjusted for the impact of the Olympic Dam project deferral on the South Australian labour market estimates
- did not adopt our draft decision efficiency adjustment of 2.5 per cent ($0.40 million).

In addition, Murraylink's revised proposal includes amendments to its historic data for 2008–09, 2009–10 and 2010–11 for revenue collection charges to be levied by ElectraNet in 2012–13.

Under Murraylink's original revenue proposal (May 2012), Murraylink's sole service provider, APA, sub-contracted most of the opex tasks to Transfield. APA ceased its contract with Transfield on

30 June 2012. Murraylink's revised proposal (January 2013) reflects a new business model under which APA will perform most general maintenance functions in-house and will outsource some specialised functions to sub-contractors.[79]

Under the new business model, APA engaged Chubb to perform fire protection system maintenance[80] and Wilson to perform annual transformer maintenance.[81] Murraylink's revised revenue proposal (January 2013) included the costs to APA of engaging three new staff to perform routine and non-routine maintenance tasks not covered by the Chubb and Wilson contracts. The proposal included provision for two technical operators: one stationed at Berri and one at Red Cliffs and an engineer based in Brisbane.[82] Murraylink's revised revenue proposal also included costs for APA to engage contractors on an as needed basis, including for scheduled annual maintenance tasks.

The new business model is reflected in Table 4.3.

Table 4.3 Murraylink/APA business model – original revenue proposal (May 2012) and revised revenue proposal (January 2013)

Operating task	Original proposal	Revised proposal
Routine maintenance		
▪ Annual routine maintenance	Transfield	Wilson
▪ Fire protection services	Transfield	Chubb
▪ Other routine maintenance	Transfield[83]	APA and specialist contractors.
Non-routine maintenance	Transfield	APA and specialist contractors.

Source: AER analysis.

Murraylink stated that we had advised them that we would not consider additional information Murraylink *'supplied through the information request process*'.[84] The new information Murraylink provided to us related to the additional costs associated with Murraylink's new business model.[85] The information provided was not in direct response to an information request from us and was therefore new information that did not form part of Murraylink's original proposal. The new information significantly revised Murraylink's proposal and was provided after the time frame allowed for submissions on Murraylink's revenue proposal.[86] It was on that basis that we advised Murraylink that we could not have regard to the information for the purposes of our draft decision. However, that information and submissions from stakeholders on Murraylink's revised proposal, including the MEU submission, has been considered by us in this final decision.

79 Murraylink, *Revised revenue proposal, attachment 7.2, Business cases*, p. 3, January 2013.
80 Under a contract with Chubb Fire & Security Pty Ltd.
81 Under a contract with Wilson Transformer Company Pty Ltd.
82 Murraylink subsequently stated that the proposed engineer resource will work only 50 per cent on Murraylink related activities.
83 With the exception of some miscellaneous routine maintenance activities which are carried out by Murraylink/APA. See Murraylink, *Revenue proposal*, p. 41.
84 Murraylink, *Revised revenue proposal*, p. 7.
85 Murraylink, *Revised revenue proposal*, p. 7.
86 Murraylink, *Revised revenue proposal*, p. 23. Murraylink also identified these changes as 'material' changes.

Murraylink's models contained a number of mislabelled information which made analysis of its forecast submissions difficult. In particular, the opex model was submitted seven times[87] to correct errors, but in the process Murraylink also revised the opex forecast.

Pre draft decision submissions[88]

- Murraylink proposed opex of $15.7 million on 31 May 2012 [v1].
- Murraylink amended its proposed controllable opex to $18.1 million on 15 August 2012 [v2] due to timing discrepancies with regulatory accounts citing changed business model as the reason for the update.[89] Murraylink resubmitted same forecast of $18.1 million on 20 September 2012 [v3] as part of changes to the capex model.
- Murraylink amended its proposed controllable opex to $19.3 million on 26 October 2012 [v4] and resubmitted the same opex forecast on 5 November 2012 [v5].[90]

Post draft decision submissions

- Murraylink revised its proposed controllable opex to $19.9 million ($2012-13) on 16 January 2013 [v6].
- Murraylink amended its revised controllable opex proposal to $19.5 ($2012-13) on 13 March 2013 [v7].

4.3 Assessment approach

We adopted the same assessment approach as our draft decision to assess Murraylink's revised opex forecast. That is, we assessed non-controllable opex (debt raising costs) with a desktop review of Murraylink's material and assessed Murraylink's controllable opex forecast using two methods:

- a top-down forecast based on the base-step-trend method
- a bottom-up technical review by our technical consultants.

Our base-step-trend approach involved:

- assessing actual efficient and recurrent costs in a reference year (base year)
- adding step changes for new circumstances not captured in the base year expenditure
- escalating the base costs for real cost escalation.[91]

This is a well established approach to setting regulatory allowances in Australia and is fundamental to the effective operation of the incentive regime; specifically the interaction of the opex forecast and the efficiency benefits sharing scheme (EBSS) (section 11).

In forming our view we considered advice from CHC on Murraylink's revised opex and capex and Deloitte Access Economics on labour cost escalators. We also considered the submission made by

87 Denoted [v1] to [v7].
88 These figures were for the first five years (2013–18) of the ten year (2013–23) proposal.
89 Murraylink changed from preparing its audited accounts on a calendar year basis to a financial year basis.
90 The AER did not accept version 5.
91 Murraylink's network is not growing so economies of scale factors and network growth were not applied.

MEU and note its concerns about Murraylink's 'increasing overheads, management fees and margins'.[92]

Our final decision is based on our assessment of Murraylink's revised proposal total forecast opex as a whole, not individual projects or programs. However, in assessing Murraylink's amended revised total forecast opex we considered the changes to the individual expenditure components in Murraylink's amended revised proposal. We have assessed these components in forming a view about the total opex required to meet the opex objectives.

We sought information from Murraylink regarding the work to be performed by APA, its new staff and APA's subcontractors.[93] Murraylink did not provide sufficient information for us to form a view on the tasks that would be performed by APA's new technical operators and those that would be performed by contractors engaged by APA on an as needed basis.[94] We also sought information on the tasks to be performed by the Brisbane based engineer. [95]

Where we have considered additional material to inform this final decision, this is noted in our reasons for final decision.

4.4 Reasons for final decision

Murraylink's revised proposal included an opex forecast of $20.2 million ($2012–13).[96] However, upon further engagement between Murraylink, CHC and us, Murrraylink amended its forecast opex to $19.8 million ($2012–13).[97] We note Murraylink adopted our draft decision approach for real cost escalation for our final decision. Thus, we updated the relevant inputs for real cost escalation to reflect the most contemporary data. This update reduces Murraylink's amended forecast opex by $0.5 million ($2012–13) to $19.3 million ($2012–13).

We reviewed Murraylink's amended[98] controllable opex forecast of $19.0 million for 2013–18 against our:

- top-down forecast ($19.0 million)
- forecast from the draft decision which used a base-step-trend approach ($18.0 million) and included a step change decrement based on the CHC technical review. This forecast was updated to reflect latest known escalation and cost information.[99]

The difference between these two forecasts is $1.0 million. This represents our estimate of the savings Murraylink should expect to accrue over the 2013–18 period as a result of moving to its new business model. This was our best estimate from our review of the material provided at the draft decision stage. However, this estimate was part of our consideration of the likely savings to accrue over a 10 year regulatory control period. In response to the draft decision and our requests for additional information, Murraylink subsequently submitted business cases which considered the timing of some elements of its maintenance program over the first five years. Given the information Murraylink provided in response to the draft decision, on balance, we are satisfied that the top-down

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92 Major Energy Users Inc., *Submission re: Draft Decision on Murraylink application for a revenue reset,* 19 February 2013, p. 6.
93 AER, *Information request AER.ML/023*, 22 February 2013.
94 These tasks necessarily exclude the tasks to be performed by Chubb and Wilson.
95 Murraylink, *Response to information request AER.ML/023*, 12 March 2013.
96 Not including debt raising costs.
97 13 March 2013.
98 That is, Murraylink's amended revised proposed forecast (of 13 March 2013) with AER escalators.
99 It does not include the 2.5 per cent efficiency adjustment applied in the draft decision.

check forecast represents 'at least' efficient costs (and meets the NER pricing principles). The top-down check forecast is in a similar range as Murraylink's amended controllable opex forecast (with AER escalators). However, we note that Murraylink stated: [100]

> It is anticipated that overall, costs will be reduced compared with continuation of the current regime.

Given this statement, and that the regulatory control period has reduced from 10 years to 5 years, we consider these anticipated cost reductions are likely to be realised in the next five year regulatory control period and therefore a forecast reduction should be contemplated beyond 2013–18.

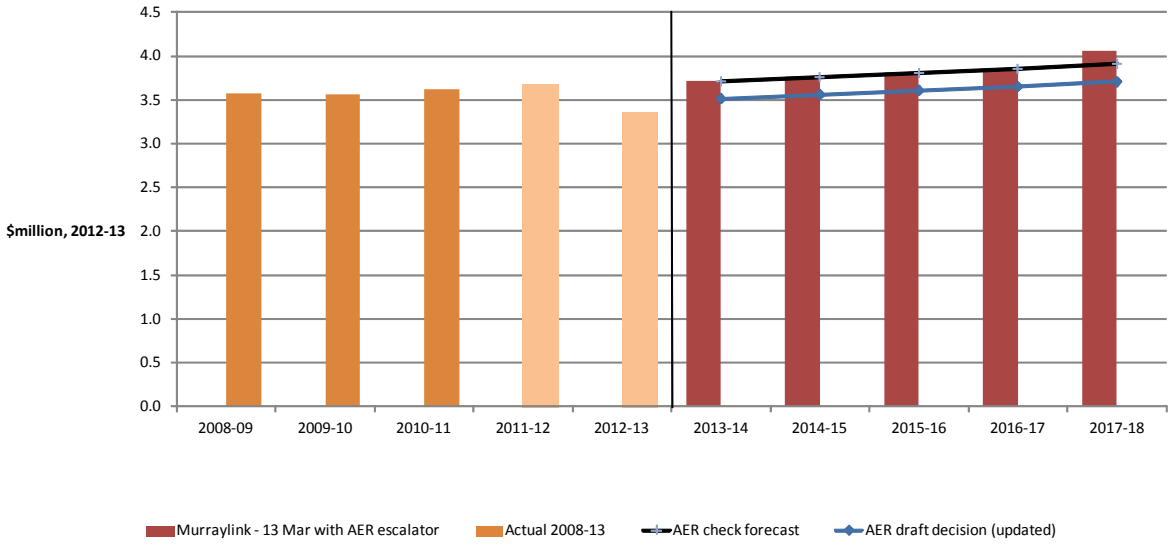
4.4.1 Controllable operating expenditure

We did not accept Murraylink's proposed controllable forecast opex in our draft decision. Murraylink's original revised revenue proposal also included a forecast controllable opex which was above our draft decision. However, in response to requests for further information from us, Murraylink revised down its forecast opex.[101] Consequently, Murraylink's amended revised forecast opex is similar to the forecast derived by us in our top-down assessment check forecast (below). We are satisfied that it reflects the efficient costs that a prudent operator would require.

AER top–down forecast

We used the top-down forecast to arrive at a controllable opex forecast that meets the NER and NEL criteria.[102] This forecast can be thought of as the 'business-as-usual' case because it is based on historic costs (prior to the new business model) and includes no adjustment for the new business model. Figure 4.3 shows Murraylink's amended revised controllable opex forecast for 2013–2018[103] and our top-down forecast in the context of its historical expenditure in 2007–13.[104]

Figure 4.3 Murraylink's controllable opex–actual and amended revised forecast, AER top down forecast and updated draft decision forecast ($ million, 2012–13)



Source: AER analysis.

100 Murraylink, *Revised revenue proposal*, p. 23.
101 Murraylink, *Response to information request AER.ML/023,* Cost information templates, 12 March 2013.
102 NER, clause 6A.6.6 and NEL section 7A.
103 Unless otherwise stated, all of Murraylink's forecasts referred to in this attachment are from its amended revised forecast opex contained in its response to AER.ML/023, 12 March 2013.
104 2011–12 and 2012–13 are estimated.

Our top down forecast was developed from a base-step-trend approach, which is the same methodology as for the forecast developed in our draft decision, except the draft decision forecast included a step-change decrement for the new business model.

Base year

Our forecast in the final decision references Murraylink's audited expenditure in 2010–11 (the base year). The base year differs from our draft decision, which assumed Murraylink's estimated expenditure for 2011–12 as the base year.[105] Typically we select a base year as the most recently available year for which actual expenditure is available. In the draft decision we used the estimated expenditure in 2010–11 as the reference for the base year with the expectation that audited accounts would be available for the final decision. However Murraylink has not submitted its updated audited regulatory accounts for 2011–12 so we used the most recent audited expenditure.

Step changes and adjustments to base year

Having determined the base operating and maintenance expenditure, our assessment approach is to recognise that TNSPs may be subject to changes in regulatory obligations or a change in operating environment not necessarily reflected in the recurrent expenditure. The base operating and maintenance expenditure should therefore be adjusted for costs arising from new (or changed) legislative obligations or a change in operating environment. These are termed 'step changes'. In forming our decision on the amount and form of the step change (if any) required, we considered CHC's technical review of Murraylink's revised submission.

We engaged CHC to advise on Murraylink's controllable opex proposal and on Murraylink's revised proposal. CHC's technical review of Murraylink's original proposal showed that Murraylink's controllable opex forecast, in some areas, was higher than CHC considered reasonable. CHC's recommendations guided our assessment for the amount and form of the step changes (if any) to be added to our base-year-extrapolated forecast which we used to test whether Murraylink's proposed allowance reasonably reflected the NER opex criteria.[106]

Contracted maintenance costs

In our draft decision we applied an adjustment (step change decrement) based on our observation of the revised contracted maintenance costs arrangements which came into effect from July 2012 (after Murraylink submitted its proposal in May 2012). These adjustments impacted Murraylink's routine and non-routine maintenance allowance. We also proportionally reduced its corporate overheads, fees and margins.

An important factor that influenced Murraylink's maintenance forecast is its new business model. In the draft decision we made an adjustment to the base year expenditure for a 'step down' due to the changed business contracting arrangements that became apparent as part of our review. That is, we used the base-year extrapolated approach for controllable operating costs, but with a lower starting base than Murraylink submitted due to an adjustment we made to the base year expenditure. We applied the adjustment because Murraylink's original forecast total opex was costed on the basis of APA's sub-contractor, Transfield, performing all maintenance services. We applied the step change decrement because Murraylink had also proposed internal labour costs for maintenance which appeared to be a duplication of costs. While Murraylink continues to engage APA to operate and

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105 We note that Murraylink used its 2010–11 expenditure to estimate its 2011–12 expenditure (nominal).
106 NER, clause 6A.6.6(c).

manage the Murraylink asset on its behalf, APA has adopted a new business model, the costs of which are reflected in Murraylink's amended revised forecast opex. Murraylink stated: [107]

> It is anticipated that overall, costs will be reduced compared with continuation of the current regime.

We sought further information from Murraylink to explain the basis for this increase.[108] Murraylink subsequently amended its forecast total opex downwards.[109] The amended revised forecast total opex reflected the material adjustments Murraylink made to routine and non-routine maintenance.

Overheads, management fees and margins for contracted services

As in our draft decision, we assessed Murraylink's margins by assessing their quantum as a proportion of maximum allowable revenue and compared the outcome against benchmarks outlined by NERA earlier in this decision. Despite some reservations with the NERA approach, we observed Murraylink's total margin sits within the 95 per cent confidence interval for all the benchmark comparisons made by NERA. We therefore accept that Murraylink's proposed forecast costs associated with payment of a margin to APA during the 2013–18 regulatory control period appear to meet the opex objectives.

Cost classification adjustment

Since filing its revenue proposal in May 2012, Murraylink was notified (by ElectraNet) that it had not been charged for a revenue collection fee since 2009 and therefore its 2010–11 base year was understated by $24,025. We accepted this adjustment to the base year.

Connection charges

We accepted Murraylink's forecast for connection costs for 2013–18 of $3.1 million in our draft decision. Murraylink raised two issues with respect to its connection charges forecast—true-up mechanism and correction of a previous accounting error which resulted in an increase in forecast connection charges but an offsetting decrease in the forecast of non-system costs. We accept the coding error re-calculations, thus revising the forecast connection costs for 2013–18 to $4.8 million. We note that, while the net effect to expenditure in the base-year is zero, there is a net change to the escalation because of the higher marginal rate.

In our draft decision we did not accept Murraylink's proposal for a true-up mechanism for changes in Murraylink's connection costs because there is no mechanism in the NER allowing for its implementation. The connection costs are part of the regulated revenues of ElectraNet and SP AusNet so when those TNSPs' revenues are reset, a corresponding change in their connection charges will result. Murraylink's initial proposal was for a period of 10 years so there would have been four transmission resets in this time, but this revised proposal is for a period of five years. Murraylink notes the five year regulatory control period now proposed will reduce the risk of variation in connection costs.[110]

In response, Murraylink referred to the true-up for DNSP's transmission use of service (TUOS) costs and in effect asked for the same treatment.[111] It appears that Murraylink is referring to NER clause 6.18.7 which requires us to true-up the over and under recovery of TUOS charges in each regulatory

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107 Murraylink, *Revised revenue proposal*, p. 23.
108 AER, *Information request AER.ML/023*, 22 February 2013.
109 Murraylink, *Response to AER.ML/023*, Amended revised regulatory proposal, cost information templates, 12 March 2013.
110 Murraylink, *Revised revenue proposal*, p. 27.
111 Murraylink, *Revised revenue proposal*, p. 27.

year so a DNSP only recovers from retail customers no more and no less than the TUOS charges it incurs.[112] A DNSP's pricing proposal must include tariffs that pass on to retail customers the charges incurred by it for TUOS. Our view is that connection costs are different to TUOS in that TUOS is for the use of the transmission system while a connection costs is a fee for connecting to the network.

Opex efficiency factor

Our draft decision was to apply an opex efficiency factor adjustment of 2.5 per cent to the 2010–11 base year total controllable opex. We then trended this reduced base year amount to establish substitute forecasts for the next regulatory period (with limited step changes and other adjustments).

While we recognise that Murraylink can be reasonably expected to achieve efficiencies against a base-year-extrapolated forecast particularly given it 'anticipated that overall, costs will be reduced compared with continuation of current regime' [113] we will not apply the opex efficiency factor. Our 'Better Regulation' work program is currently considering our regulatory approaches across a number of issues. Given that this work program includes developing guidelines on expenditure forecast assessments and incentives, we will not be applying an efficiency adjustment to Murraylink's opex forecast at this time.

Escalation

As discussed in section 2, Murraylink's revised proposal accepted our draft decision for real cost escalators. We have updated the inputs to reflect the most recent data which impacts our final decision on Murraylink's total forecast opex. Refer to section 2 for more details on cost escalation.

Murraylink set its forecast opex using its costs in 2011–12, which it estimated from its 2010–11 actual costs but our review found that in doing so, Murraylink missed a CPI increase (that is, its costs were reported in $2011–12). In our revised forecast we have allowed 3 per cent for this escalation which is added to our escalation adjustment to Murraylink's forecast.

4.4.2 Non-controllable operating expenditure

Debt raising costs

Our draft decision accepted Murraylink's proposed method for determining its benchmark debt raising costs allowance associated with its forecast opex.[114] We consider this method provides estimates of the debt raising costs that would be incurred by a prudent service provider, acting efficiently. This is because the approach:

- identifies the types of transaction costs that a prudent service provider acting efficiently would incur in raising debt, and
- quantifies the level of these costs (using benchmark assumptions that also takes into account the specific circumstances of the service provider) with reference to market rates for the relevant services.

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112 NER, clause 6.18.7(c)(2).
113 Murraylink, *Revised revenue proposal*, p. 23.
114 AER, *Draft decision: Murraylink transmission determination*, November 2012, pp. 38–9.

We have updated Murraylink's proposed debt raising cost allowance to reflect our final decisions on the opening RAB (debt component) and WACC. Our final decision, therefore, is to provide Murraylink an allowance for debt raising costs of $0.33 million ($2012–13) as shown in Table 4.4.

Table 4.4 AER final decision on debt raising costs ($ million, 2012–13)

Unit rate	2013–14	2014–15	2015–16	2016–17	2017–18	Total
10.9 basis points per year	0.07	0.07	0.07	0.06	0.06	0.33

Source: AER analysis.

4.5 AER decision

Decision 4.1: Murraylink's forecast total opex allowance is set out in Table 4.1

5 Cost of capital

As part of making a determination on the annual building block revenue requirement for a transmission network service provider, we are required to make a decision on the return on capital building block.[115] We calculate this as the product of the cost of capital (or rate of return) and the value of the regulatory asset base.

This section discusses the cost of capital element of the return on capital building block. Consistent with the NER the cost of capital is measured as the return required by investors in a commercial enterprise with a similar nature and degree of non-diversifiable risk as that faced by the transmission business in question.[116]

5.1 Final decision

We accept Murraylink's proposed method for estimating the weighted average cost of capital (WACC). Consistent with this method, we have updated Murraylink's revised proposal WACC to reflect the agreed averaging period.[117] This results in a WACC of 7.50 per cent.

Our final decision on WACC only differs from Murraylink's revised revenue proposal due to the use of different averaging periods for estimating the risk free rate and the debt risk premium (DRP). Specifically, Murraylink's revised WACC was based on market data from September–October 2012. The final decision however is based on market data from February–March 2013. This averaging period was proposed by Murraylink and agreed to by us. For these reasons, we consider a 7.50 per cent rate of return provides Murraylink with a reasonable opportunity to recover at least the efficient costs of capital financing. Consequently, we expect Murraylink will be able to attract funds to support the efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers.

Table 5.1 sets out the individual WACC parameters and subsequent rate of return which we have determined.

115 NER, clause 6A.5.4(a)(2).
116 NER, clause 6A.6.2(b).
117 Murraylink's approved averaging period is the 20 days (on which indicative mid rates are published by the Reserve Bank of Australia) commencing on 27 February 2013.

Table 5.1 AER's final decision on WACC parameters

Parameter	AER draft decision	Murraylink revised proposal	AER final decision
Nominal risk free rate	3.52%	3.52%	3.52%
Equity beta	0.8	0.8	0.8
Market risk premium	6.50%	6.50%	6.50%
Debt risk premium	3.17%	3.17%	3.17%
Gearing level	60%	60%	60%
Inflation forecast	2.5%	2.5%	2.5%
Gamma	0.65	0.65	0.65
Nominal post tax cost of equity	8.72%	8.72%	8.72%
Nominal pre tax cost of debt	6.69%	6.69%	6.69%
Nominal vanilla WACC	7.50%	7.50%	7.50%

Source: AER analysis; Murraylink, *Revised revenue proposal*, p. 37.

Note: Our draft decision, and Murraylink's revised proposal parameters have been updated to reflect the final averaging period, based on the respective methodologies. The parameters published in our draft decision and revised proposal were calculated on an indicative averaging period from September–October 2012. Our final decision reflects data from February–March 2013.

5.2 Assessment approach

We did not change our assessment approach for individual parameters from our draft decision. Section 4.3 of our draft decision details that approach.[118]

5.3 Reasons for final decision

Murraylink's proposed method for determining the WACC adopted the values and credit rating determined in the WACC review—specifically, the equity beta, the MRP, the level of gearing and the value of the assumed utilisation of imputation credits (gamma).[119] Consistent with the NER, in estimating the rate of return we must use the values, and credit rating determined in the WACC review.[120] We therefore accept Murraylink's proposed values for these parameters.

In establishing the WACC, we also accept Murraylink's proposed method for determining the DRP, the nominal risk free rate and inflation forecasts. Consistent with this method, we have updated Murraylink's revised proposal WACC to reflect the agreed averaging period. Our reasons for accepting these methods are consistent with those adopted in the draft decision. Accordingly, this material is not reprinted here. See section 4.4 of the draft decision for this detail.[121]

In forming this final decision, we also considered the submission from the Major Energy Users (MEU). The MEU stated that the DRP estimated by us provides an outcome which is far in excess of the

118 AER, *Draft decision: Murraylink transmission determination*, November 2012, pp.43–45.
119 The assumed utilisation of imputation credits (gamma) affects the corporate income tax building block allowance. Although gamma is not directly included in the determination of the WACC, it was determined in the *Statement of the revised WACC parameters (transmission)*, May 2009.
120 NER, cl. 6A.6.2(h).
121 AER, *Draft decision: Murraylink transmission determination*, November 2012, pp. 45–48.

actual debt risk premium required by a BBB+ rated entity.[122] We stated in our draft decision that we intend to undertake a review into alternatives to the Bloomberg fair value curve. We consider that the current development of the rate of return guidelines represents the most appropriate forum to consider these alternatives.[123]

5.4 AER decision

Decision 5.1: The AER has determined a WACC of 7.50 per cent for Murraylink, as set out in table 5.1.

[122] MEU, *Submission re: Draft Decision on Murraylink application for a revenue reset*, 19 February 2013, p. 8.
[123] AER, Better Regulation, see http://www.aer.gov.au/node/18859.

6 Regulatory asset base

We are required to determine Murraylink's regulatory asset base (RAB) for the 2013–18 regulatory control period.[124] We set the RAB as the foundation for determining Murraylink's revenue requirement, and we use the opening RAB for each regulatory year to determine the return of capital (regulatory depreciation) and return on capital building block allowances. This section presents our final decision on Murraylink's opening RAB as at 1 July 2013 and forecast RAB for the 2013–18 regulatory control period.

6.1 Final decision

We determine Murraylink's opening RAB value at 1 July 2013 to be $106.7 million. This value is $0.9 million (or 0.9 per cent) lower than Murrylink's value of $107.6 million in its revised proposal because we made the following changes to roll forward of the RAB:

- We reallocated the actual capital expenditure (capex) associated with the proposed 'Ancillary 15', 'Ancillary 10', 'Ancillary 7', 'Test equipment', 'Other operating assets' and 'Office machines' asset classes to the ACCC approved asset class of 'Switchyard'.
- We updated the 2011–12 capex input in the roll forward model (RFM) to reflect Murraylink's actual capex value for this year.
- We updated the inflation input for 2012–13 using the actual March 2013 consumer price index (CPI) published by the Australian Bureau of Statistics (ABS).

We forecast Murraylink's RAB to be $107.8 million by 30 June 2018. This forecast represents an increase of $0.1 million (0.1 per cent) to Murraylink's revised revenue proposal. The main reason for this increase is the reduction we made to Murraylink's forecast depreciation, as discussed in section 7. Our adjustments on forecast capex (section 3) and the opening RAB as at 1 July 2013 (section 6.4.1) also impact on the forecast RAB value.

Table 6.1 and Table 6.2 set out our final decision on the roll forward of Murraylink's RAB during the 1 October 2003 to 30 June 2013 regulatory control period and the forecast RAB for the 2013–18 regulatory control period respectively.

[124] NER, clause 6A.6.1.

Table 6.1 AER's final decision on Murraylink's RAB roll forward for the 1 October 2003 to 30 June 2013 regulatory control period ($ million, nominal)

	1 Oct 2003–30 Jun 2004	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13[a]
Opening RAB	103.0	102.7	102.8	103.7	103.8	105.7	105.6	105.9	106.6	105.6
Capex[b]	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.2	1.5
CPI indexation on opening RAB	1.5	2.4	3.1	2.5	4.4	2.6	3.0	3.5	1.7	2.6
Straight-line depreciation[c]	–1.8	–2.4	–2.4	–2.5	–2.6	–2.7	–2.8	–2.8	–2.9	–3.0
Closing RAB as at 30 June	102.7	102.8	103.7	103.8	105.7	105.6	105.9	106.6	105.6	106.7
Opening RAB as at 1 July 2013										106.7

Source: AER analysis.

(a) Based on estimated capex. An update for actual capex will be made at the next reset.

(b) As incurred, net of disposals, and adjusted for actual CPI and weighted average cost of capital (WACC).

(c) Adjusted for actual CPI. Based on as-commissioned capex.

Table 6.2 AER's final decision on Murraylink's forecast RAB for the 2013–18 regulatory control period ($ million, nominal)

	2013–14	2014–15	2015–16	2016–17	2017–18
Opening RAB	106.7	107.7	108.3	109.1	108.4
Capex[a]	1.8	1.4	1.8	0.5	0.6
Inflation indexation on opening RAB	2.7	2.7	2.7	2.7	2.7
Straight-line depreciation[b]	–3.4	–3.6	–3.7	–3.9	–4.0
Closing RAB	107.7	108.3	109.1	108.4	107.8

Source: AER analysis.

(a) As incurred forecast, and net of disposals. In accordance with the timing assumptions of the PTRM, the capex includes a half-WACC allowance to compensate for the six-month before capex is added to the RAB for revenue modelling purposes.

(b) Based on forecast of as-commissioned capex.

6.2 Murraylink's revised proposal

In its revised revenue proposal, Murraylink proposed an opening RAB as at 1 July 2013 of $107.6 million. Murraylink adopted our draft decision in relation to:[125]

- correcting input errors for the 'Easements' asset class
- correcting the use of actual and forecast CPI input values.

Murraylink did not adopt our draft decision in relation to:[126]

- the reallocation of the actual capex associated with the proposed new asset classes to the 'Switchyard' asset class
- the adjustment for movement in provisions.

Murraylink also made a correction to our RFM to recognise the ACCC's allowance of 3/4 of a year's depreciation and indexation in 2003–04.

Table 6.3 and Table 6.4 summarise Murraylink's revised RAB roll forward during the 1 October 2003 to 30 June 2013 regulatory control period and the RAB forecast for the 2013–18 regulatory control period respectively.

Table 6.3 Murraylink's revised RAB roll forward for the 1 October 2003 to 30 June 2013 regulatory control period ($ million, nominal)

	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13
Opening RAB	103.0	102.7	102.8	103.7	103.8	105.7	105.6	106.0	106.7	106.0
Capex[a]	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.5	1.5
CPI indexation on opening RAB	1.5	2.4	3.1	2.5	4.4	2.6	3.1	3.5	1.7	3.2[c]
Straight-line depreciation[b]	–1.8	–2.4	–2.4	–2.5	–2.6	–2.7	–2.7	–2.8	–2.9	–3.0
Closing RAB	102.7	102.8	103.7	103.8	105.7	105.6	106.0	106.7	106.0	107.6
Closing RAB as at 30 June 2013										107.6

Source: Murraylink, *Revised RFM*, January 2013.

(a) As incurred, net of disposals, and adjusted for actual CPI and WACC.

(b) Adjusted for actual CPI. Based on as-commissioned capex.

(c) Based on forecast CPI.

125 Murraylink, *Revised revenue proposal*, pp. 14–5.
126 Murraylink, *Revised revenue proposal*, pp. 14–5.

Table 6.4 Murraylink's revised RAB forecast for the 2013–18 regulatory control period ($ million, nominal)

	2013–14	2014–15	2015–16	2016–17	2017–18
Opening RAB	107.6	108.7	108.9	109.4	108.5
Capex[a]	2.0	1.4	1.9	0.6	0.9
Inflation indexation on opening RAB	2.7	2.7	2.7	2.7	2.7
Straight-line depreciation[b]	–3.7	–3.9	–4.1	–4.3	–4.4
Closing RAB	108.7	108.9	109.4	108.5	107.7

Source: Murraylink, *Revised PTRM*, January 2013.

(a) As incurred forecast, and net of disposals.

(b) Based on forecast as-commissioned capex.

6.3 Assessment approach

We did not change our assessment approach for the RAB roll forward from our draft decision. Section 5.3 of our draft decision details that approach.

6.4 Reasons for final decision

We determine Murraylink's opening RAB value as at 1 July 2013 to be $106.7 million. This value is $0.9 million (or 0.9 per cent) lower than Murraylink's value of $107.6 million in its revised proposal because we made the following changes to the roll forward of the RAB:

- We do not accept Murraylink's revised proposal of using forecast depreciation amounts for the purposes of rolling forward the RAB during the 1 October 2003 to 30 June 2013 regulatory control period. We also do not accept the proposed six new asset classes included in the revised RFM. We consider that actual depreciation should be calculated and deducted from the RAB roll forward for all actual capex rolled into that RAB, using the rates and methodologies allowed in the ACCC 2003 decision, as required by the NER.[127] Therefore, we reallocated the actual capex associated with the proposed six new asset classes to the ACCC approved asset class of 'Switchyard' in the RFM.
- We updated the 2011–12 capex input in the RFM to reflect Murraylink's actual capex value for this year.
- We updated the inflation input for 2012–13 using the actual March 2013 CPI published by the ABS.

We forecast Murraylink's RAB to be $107.8 million by 30 June 2018. This forecast represents an increase of $0.1 million (or 0.1 per cent) to Murraylink's value of $107.7 million in its revised proposal. The main reason for this increase is the reduction we made to Murraylink's forecast depreciation, as

[127] NER, clause S6A.2.1(f)(5) and clause 6A.6.3(b)(3).

discussed in section 7. Our adjustments on the opening RAB as at 1 July 2013 (section 6.4.1) and forecast capex (section 3) also impacted on the forecast RAB values.

6.4.1 Opening RAB as at 1 July 2013

We do not accept Murraylink's revised opening RAB as at 1 July 2013 of $107.6 million. For this final decision, we determine the value of the opening RAB as at 1 July 2013 to be $106.7 million.

Depreciation of actual capex and new asset classes

We do not accept Murraylink's revised proposal of using forecast depreciation amounts for the purposes of rolling forward the RAB during the 1 October 2003 to 30 June 2013 regulatory control period. We also do not accept the inclusion of the proposed six new asset classes in the revised RFM. This is because the revised approach for calculating depreciation is not consistent with the requirements of NER.[128] We consider the roll forward of the RAB should use actual depreciation based on actual capex incurred during the 1 October 2003 to 30 June 2013 regulatory control period, and using the rates and methodologies allowed in the ACCC 2003 decision.

In the draft decision, we removed Murraylink's proposed new asset classes and associated asset lives from the RFM because these were not approved by the ACCC in its 2003 revenue cap decision.[129] We reallocated the actual capex associated with these proposed new asset classes to the ACCC approved asset class of 'Switchyard'.

In its revised proposal, Murraylink stated that it:[130]

> ... acknowledges that the new asset classes were not specified in the previous transmission determination, and thus to calculate depreciation using the rates applicable to the new asset classes would not be "in accordance with the rates and methodologies allowed in the transmission determination".

Murraylink's revised proposal appears to suggest that our calculation of depreciation for rolling forward the opening RAB as at 1 July 2013 in the draft decision is incorrect because we reduced the RAB by actual depreciation in RFM. Murryalink further suggested that the correct application of S6A.2.1(f)(5) in the RAB roll forward should require using forecast depreciation approved in the 2003 ACCC final decision. It therefore retained the six new asset classes in its revised RFM, but set those asset classes as being non-depreciable for the 1 October 2003 to 30 June 2013 regulatory control period.[131]

We note that clause S6A.2.1(f)(5) of the NER requires:[132]

> The previous value of the regulatory asset base must be reduced by the amount of **actual depreciation** of the regulatory asset base during the previous control period, calculated in accordance with the rates and methodologies allowed in the transmission determination (if any) for that period.

Similarly, clause 6A.6.3(b)(3) requires that:[133]

> the economic life of the relevant assets and the depreciation methodologies and rates underpinning the calculation of **actual depreciation** for a given regulatory control period must be consistent with those determined for the same assets on a prospective basis in the transmission determination for that period.

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128 NER, S6A.2.1(f)(5) and clause 6A.6.3(b)(3).
129 AER, *Draft decision, Murraylink transmission determination, November 2012*, p. 49.
130 Murraylink, *Revised proposal*, p. 14.
131 Murraylink, *Revised proposal*, p. 15.
132 Emphasis added.
133 Emphasis added.

Murraylink's revised approach is inconsistent with the NER. This is because the NER requires actual depreciation to be used when rolling forward the RAB, not forecast depreciation[134] as submitted by Murraylink.

Further, we note that Murraylink applied a hybrid approach for calculating depreciation in its revised RFM. Murraylink included a total of $2.7 million of actual capex in its revised RAB for the 1 October 2003 to 30 June 2013 regulatory control period.[135] It allocated $0.7 million of the actual capex in the 'Switchyard' asset class, and this amount was depreciated using the ACCC approved standard asset life of 40 years. However, it has not depreciated the remaining $2.0 million actual capex in the revised RFM. This suggests that Murraylink has reduced its RAB by the amount of actual depreciation for some, but not all of its proposed actual capex rolled into the RAB.

We consider that actual depreciation should be calculated and deducted from the RAB roll forward for all actual capex rolled into that RAB, using the rates and methodologies allowed in the ACCC 2003 decision, as required by the NER.[136] Therefore, consistent with our draft decision, we removed the proposed new asset classes from the revised RFM and reallocated the actual capex associated with these new asset classes to the approved asset class of 'Switchyard'. This approach calculates the actual depreciation to be deducted from the RAB roll forward for the 1 October 2003 to 30 June 2013 regulatory control period.

Movements in provisions

For this final decision, we accept Murraylink's revised proposal for not adjusting its RAB for movements in capitalised provisions. This is because Murraylink did not have any movements in provisions during the 1 October 2003 to 30 June 2013 regulatory control period.

In the draft decision, we reduced Murraylink's opening RAB as at 1 July 2013 by $0.1 million ($ nominal) to reverse the amount of movements in provisions.[137] Murraylink's revised proposal did not adopt this adjustment. It stated the amount that we removed from the RAB is not a provision, but accruals for operating and capital activities for which expenses have been incurred.[138]

We accept Murraylink's revised proposal that the $0.1 million accrued costs are not provisions for the purposes of making adjustments to the RAB roll forward. We requested Murraylink further clarify the nature of the accrued costs which we used for the purposes of reversing the movements in provisions to the RAB in the draft decision. Murraylink responded that this amount does not include any provisions for leave, environmental allowances, superannuation, or similar. The amount recorded is strictly for works performed that had not been paid at the end of the reporting period, and payment would have been made in the following month.[139] We accept this and we therefore have not adjusted Murraylink's RAB for movements in provisions.

Updates for capex inputs

Murraylink updated its estimated capex for 2011–12 and 2012–13 in its revised RFM.[140] We accept Murraylink's revision of the estimated capex for 2012–13. We consider the estimated capex amount

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134 Allowed in the 2003 decision and recovered through tariffs for the 1 October 2003 to 30 June 2013 regulatory control period.
135 2012–13 capex is an estimated value.
136 NER, clause S6A.2.1(f)(5).
137 AER, *Draft decision: Murraylink transmission determination*, November 2012, p. 49.
138 Murraylink, *Revised revenue proposal*, p. 16.
139 Murraylink, *Email response to information request AER.ML/024*, Movements in provisions, 26 March 2013.
140 Murraylink, *Revised RFM*, January 2013.

for 2012–13 to be reasonable. This amount is slightly higher than that approved in our draft decision and reflects the best forecast available. The financial impact of any difference between actual and estimated capex for 2012–13 will be accounted for at the next reset.[141] However, we updated Murraylink's capex for 2011–12 to reflect Murraylink's actual capex for this regulatory year which has become available subsequent to the lodgement of the revised revenue proposal. Adjustments to depreciation and indexation values for 2003–04.

In its revised RFM, Murraylink adjusted the depreciation and indexation values for 2003–04 to recognise that this regulatory year only consists of three quarters. We accept the adjustments made by Murraylink in the revised RFM to reflect the shorter regulatory year for 2003–04. The ACCC's 2003 revenue cap decision for Murraylink valued the opening RAB part way through 2003–04 on 1 October 2003.

Capex and disposal values in regulatory accounts

In its revised revenue proposal, Murraylink noted that it prepared its regulatory accounts on an as-commissioned basis, and the capex values in the audited regulatory accounts do not reflect the allowed half year return on capex in the year incurred. Murraylink stated it will process an adjustment to its regulatory accounts to reflect our final decision RFM. We consider that there is no need for Murraylink to make such adjustment to capex for the half year return in the regulatory accounts.

We note that a TNSP should report its capex values on both as-incurred and as-commissioned bases. Our RFM requires actual capex reported on these bases to be provided by TNSPs as inputs.[142] Therefore, Murraylink's regulatory accounts going forward should submit as-incurred capex values in addition to as-commissioned capex values. This is because such an approach for recognising capex in our modelling framework is being applied to Murraylink for the 2013–18 regulatory control period. The RFM also adopts a timing assumption that a TNSP's reported annual capex values are in middle of the year terms. Consequently, our RFM incorporates a half nominal WACC adjustment to the capex inputs.[143] Therefore, a TNSP does not need to make the half nominal WACC adjustment when it prepares its regulatory accounts, because this adjustment will be made automatically in the RFM.

6.4.2 Forecast closing RAB as at 30 June 2018

We forecast Murraylink's closing RAB will be $107.8 million by 30 June 2018, which represents a 0.1 per cent increase to Murraylink's revised proposal of $107.7 million.[144] This increase reflects our final decision on the inputs for determining the forecast RAB in the PTRM. To determine the forecast RAB value for ElectraNet, we made the following amendments in the revised PTRM:

- We reduced Murraylink's revised proposed forecast capex by $0.1 million or 1.4 per cent (section 3).
- We reduced Murraylink's revised opening RAB as at 1 July 2013 by $0.9 million or 0.9 per cent (section 6.4.1).

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141 NER, clause S6A.2.1(f)(3).

142 AER, *Final decision, Amendment Electricity transmission network service providers roll forward model handbook*, December 2010, pp. 14–5.

143 AER, *Final decision, Amendment Electricity transmission network service providers roll forward model handbook*, December 2010, pp. 12–3.

144 At the next reset, the RAB roll forward for establishing Murraylink's opening RAB value as at 1 July 2018 will be based on actual capex during the 2013–18 regulatory control period and actual depreciation values calculated for that period.

- We reduced Murraylink's proposed forecast regulatory depreciation allowance by $1.7 million or 24.9 per cent (section 7). This reduction resulted in an increase to the value of the forecast RAB because lower forecast depreciation is removed from the RAB.

6.5 AER decision

Decision 6.1: We determine that Murraylink's opening RAB as at 1 July 2013 is $107.2 million as set out in Table 6.1.

Decision 6.2: We determine that Murraylink's forecast opening RAB for each year of the 2013–18 regulatory control period is as set out in Table 6.2.

7 Regulatory depreciation

We are required to decide on Murraylink's indexation of the regulatory asset base (RAB) and depreciation building blocks over the 2013–18 regulatory control period.[145] We use regulatory depreciation to model the nominal asset values over the regulatory control period, and set the depreciation allowance in the annual building block revenue requirement. The regulatory depreciation allowance (or return of capital) is the net total of the straight-line depreciation (negative) and the indexation of the RAB (positive).

This section sets out our final decision on Murraylink's regulatory depreciation allowance. It also presents our final decision on the proposed depreciation schedule, including an assessment of the issues raised in Murraylink's revised proposal. These include the standard asset lives for ancillary equipment and remaining asset lives used for depreciation purposes over the 2013–18 regulatory control period.

7.1 Final decision

We do not accept Murraylink's proposed regulatory depreciation allowance of $6.8 million ($ nominal) for the 2013–18 regulatory control period in its revised proposal. We determine a regulatory depreciation allowance of $5.1 million ($ nominal) for Murraylink. Our final decision represents a reduction of $1.7 million (or 25.3 per cent) to Murraylink's revised proposal, which we made for the following reasons:

- We do not accept Murraylink's revised depreciation schedules for its asset classes of 'Ancillary 15', 'Ancillary 10', 'Ancillary 7' and 'Test equipment'. This is because the proposed standard asset lives for these new asset classes do not reflect the economic life of the assets for which expenditure is to be allocated to these asset classes. Our final decision on the standard asset lives for these asset classes is set out in Table 7.3.
- In accepting Murraylink's proposed weighted average method to determine the remaining asset lives, we have updated Murraylink's remaining asset lives as at 1 July 2013. This is to reflect our adjustments to the roll forward of the RAB in the roll forward model (RFM), as discussed in section 6.
- Our determinations on other components of Murraylink's revised proposal also affect the regulatory depreciation allowance.[146] Discussed in other sections, these determinations include the forecast capital expenditure (capex) (section 3) and the opening RAB as at 1 July 2013 (section 6).

Table 7.1 sets out our final decision on Murraylink's annual regulatory depreciation allowance for the 2013–18 regulatory control period.

[145] NER, clauses 6A.5.4(a)(1) and (3).
[146] NER, clause 6A.6.3(a)(1).

Table 7.1 AER's final decision on Murraylink's depreciation allowance for the 2013–18 regulatory control period ($ million, nominal)

	2013–14	2014–15	2015–16	2016–17	2017–18	Total
Straight-line depreciation	3.4	3.6	3.7	3.9	4.0	18.6
Less: inflation indexation on opening RAB	2.7	2.7	2.7	2.7	2.7	13.5
Regulatory depreciation	0.8	0.9	1.0	1.2	1.3	5.1

Source: AER analysis.

7.2 Murraylink's revised proposal

Murraylink proposed a revised regulatory depreciation allowance of $6.8 million ($ nominal) over the 2013–18 regulatory control period as shown in Table 7.2.[147] Murraylink has not adopted the standard asset lives for the 'Ancillary', 'Test equipment' and 'Other operation assets' asset classes set out in our draft decision. It submitted that our draft decision effectively assumed that refurbishment capex has the same useful life as the core asset being refurbished. Murraylink stated that this assumption is unreasonable, and has retained the proposed standard (or useful) asset lives of its initial proposal. Murraylink's revised proposal listed a number of asset classes and standard asset lives that are different to those used by Murraylink in its revised post tax revenue model (PTRM). In assessing Murraylink's proposed depreciation schedule, we have assessed Murraylink's proposed standard asset lives as set out in its PTRM.

Table 7.2 Murraylink's revised proposed depreciation allowance ($ million, nominal)

	2013–14	2014–15	2015–16	2016–17	2017–18	Total
Straight-line depreciation	3.7	3.9	4.1	4.3	4.4	20.4
Less: inflation indexation on opening RAB	2.7	2.7	2.7	2.7	2.7	13.6
Regulatory depreciation	1.0	1.2	1.4	1.5	1.7	6.8

Source: Murraylink, *Revised revenue proposal*, p. 35.

7.3 Assessment approach

We did not change our assessment approach for regulatory depreciation from our draft decision. Section 6.3 of our draft decision details that approach.

7.4 Reasons for final decision

Our final decision on Murraylink's regulatory depreciation allowance for the 2013–18 regulatory control period is $5.1 million ($ nominal). This amount represents a reduction of $1.7 million ($ nominal) or 25.3 per cent to Murraylink's regulatory depreciation allowance in its revised proposal. We do not accept Murraylink's revised proposal on the standard asset lives for most of the forecast

147 Murraylink, *Revised revenue proposal*, p. 35.

capex allocated to the 'Ancillary' asset classes.[148] This is because we do not consider the revised standard asset lives would provide depreciation profiles that reflect the nature of the assets over the economic lives of these assets.[149] We also do not accept the proposed standard asset life of 10 years for the 'Test equipment' asset class because there is no forecast capex allocated to this asset class. Also, we updated the revised remaining asset lives to reflect our final decision on the roll forward of the opening RAB (discussed in section 6).

7.4.1 Standard asset lives

We do not accept Murraylink's revised standard asset lives for the asset classes of 'Ancillary 15', 'Ancillary 10', 'Ancillary 7'. This is because the proposed standard asset lives for these asset classes do not provide depreciation profiles that reflect the nature of the assets over the economic lives of these asset categories.[150] Consistent with our draft decision, we consider that most of the capex allocated to these asset classes should have a standard asset life of 30 years for regulatory depreciation purposes. However, we accept that control system, and pressure vessel testing and inspection related capex to be allocated to the 'Ancillary' asset classes should have a standard asset life of 15 years and 7 years respectively as proposed by Murraylink. Table 7.3 sets out our final decision on Murraylink's standard asset lives for the 2013–18 regulatory control period.

In the draft decision:[151]

- We did not accept Murraylink's proposed standard asset lives for the proposed 'Ancillary' asset classes. We determined a standard asset life of 30 years for most of the forecast capex to be allocated to the proposed 'Ancillary' asset classes, except for capex related to control systems, and pressure vessel testings and inspections. We accepted the proposed 15 years and 7 years for calculating regulatory depreciation associated with control systems, and pressure vessel testing and inspection capex respectively.
- We also did not accept the proposed standard asset lives for the 'Test equipment' and 'Other operating assets' asset classes. This was because Murraylink did not propose any forecast capex that would allocate to these asset classes for calculating regulatory depreciation in the PTRM.
- For modelling purposes, we renamed Murraylink's 'Ancillary' asset classes to reflect the nature of the assets for each of these asset classes. We determined the following asset classes and standard asset lives in the draft decision:
  - Ancillary 30 —with a standard asset life of 30 years[152]
  - Ancillary 15—control systems: with a standard asset life of 15 years
  - Ancillary 7—pressure vessel testing and inspection: with a standard asset life of 7 years.

Ancillary asset classes

In its revised proposal, Murraylink did not adopt our draft decision on the standard asset life of 30 years for the 'Ancillary 30' asset class. Murraylink stated that its proposed standard asset lives for its

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148 We accept the proposed standard asset lives for forecast capex associated with control system, and pressure vessel testing and inspection related expenditures allocated to the 'Ancillary' asset classes.
149 NER, clause 6A.6.3(b)(1).
150 NER, clause 6A.6.3(b)(1).
151 AER, *Draft decision, Murraylink transmission determination, November 2012*, pp. 63–64.
152 Applying to majority of ancillary capex.

'Ancillary' asset classes are in line with its manufacturer's recommended refurbishment intervals of 7 to 15 years.[153] Murraylink stated:[154]

> The appropriate approach in this circumstance is to follow the manufacturer's recommendations on maintenance and replacement, rather than invest in a sophisticated inspection and condition monitoring program to vary and potentially extend some maintenance intervals. This is exactly what Murraylink has done in formulating the capex and opex programs in this proposal.
>
> …
>
> Murraylink acknowledges that reliance on the **manufacturer's replacement recommendations**, **particularly for the refurbishment of ancillary equipment**, may result in earlier maintenance activity and refurbishment of assets than an inspection and condition-based replacement regime.

Murraylink provided copies of relevant maintenance instructions to us. However, we found no reference in these documents to the proposed refurbishment intervals of 7 to 15 year for the ancillary assets.

On 22 February 2013 we sent an information request to Murraylink. In particular, we asked Murraylink to identify where the manufacturer has published the replacement recommendations. However, Murraylink's response did not address this question.[155]

We note that the maintenance instructions from Murraylink's manufacturer (ABB) states that:[156]

> **There are very few apparatus that require scheduled maintenance activities.** Some of these activities can be performed with the apparatus energised (or in operation).
>
> Most of the apparatus in the HVDC Light station **require no scheduled maintenance (nearly free of maintenance).** It means that the **time between maintenance is a recommendation and this interval could be longer.** If it is necessary to de-energise and disconnect the piece of equipment (shut down of the system) before the maintenance activity can start, it is strongly recommended to wait.[157]

From the above statement, it is clear that ABB does not consider scheduled maintenance is a common requirement for the types of equipment that Murraylink operates.

CHC also noted that ABB's maintenance instructions suggested that the equipment supplied by ABB is almost maintenance free. It considered that some assets can be expected to be replaced on a time basis, where it can be established that there is a wearing out process. However, in the power industry generally the approach has been to monitor, test and review asset performance and wear patterns before deciding on an estimated cyclical replacement program. It further considered that Murraylink should develop a program for ancillary plant, based on the principle set out by ABB. This means utilising resident staff to routinely monitor and record performance and maintenance outcomes and to program future activity based on the outcomes of the monitoring. CHC advised the standard asset lives for the 'Ancillary' asset classes should be 40 years.[158] This corresponds to the technical life of the main substation assets.

As discussed in section 3, while we had concerns over the level of proposed capex due to Murraylink's current asset management framework, we accepted all of Murraylink's proposed capex for ancillary equipment refurbishment in the draft decision. We accepted the ancillary equipment

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153 Murraylink, *Revised revenue proposal*, p. 32; emphasis added.
154 Murraylink, *Revised proposal*, p. 31.
155 Murraylink, *Email response to information request AER.ML/023, Issues for discussion with Murraylink*, 12 March 2013, p. 6.
156 Emphasis added.
157 ABB Utilities, *Maintenance instructions, Murraylink Project*, JNL100053-917, p. 5.
158 CHC, *Report to the Australian Energy Regulatory: Murraylink revised proposal January 2013: Report on Engineering issue*s, 3 April 2013, p.13 and pp. 17–20.

refurbishment capex to ensure Murraylink could maintain the reliability, safety and security of its network and allow the transitioning to better industry practice and asset management methods. We also accept Murraylink's proposed capex for the costs of implementing its new asset management system—FRACAS. We consider the new asset management system will support Murraylink's asset management framework and assist in the transition to good industry practice asset management.

For these reasons, we consider that the proposed standard asset lives do not reflect the economic life for most of the ancillary equipment refurbishment capex during the 2013–18 regulatory control period.[159] While the technical life for most of the ancillary assets is 40 years, we consider a standard asset life of 30 years is more appropriate for regulatory depreciation purposes over the 2013–18 regulatory control period. This is because the ancillary assets will have no useful life once Murraylink's substation assets reach the end of their useful life, that is, 30 years remaining asset life as at 1 July 2013.

'Test equipment' and 'Other operating assets' asset classes

We accept Murraylink's proposed standard asset life of 5 years for the 'Other operating assets' asset class. However, we do not accept the proposed standard asset life of 10 years for the 'Test equipment' asset class. We consider it is not necessary to assess this proposed standard asset life, because Murraylink's revised proposal did not allocate any forecast capex to this asset class during the 2013–18 regulatory control period.

Murraylink proposed standard asset lives of 10 and 5 years for the 'Test equipment' and 'Other operating assets' asset classes respectively. In our draft decision, we did not assess the proposed standard asset lives for these asset classes because Murraylink did not allocate any forecast capex to these asset classes in its initial proposed PTRM. Therefore, we did not accept the proposed standard asset lives for these asset classes.

However, we note that Murraylink's revised proposal included $0.008 million in the 'Other operating assets' asset class for its new asset management system—FRACAS. As discussed in section 3, we accept this forecast capex in this final decision. We consider that the proposed standard asset life of 5 years for the 'Other operating assets' asset class is appropriate. The proposed standard asset life is comparable with our approved standard asset life for similar assets in our other recent transmission determinations.

However, we do not accept the proposed standard asset lives for the 'Test equipment' asset class. Consistent with the draft decision, we consider it is not necessary to assess the proposed standard asset life for this asset class. This is because Murraylink has not proposed any forecast capex for allocation to this asset class during the 2013–18 regulatory control period.[160] For modelling purposes, we have changed the standard asset life input for the 'Test equipment' asset class to 'n/a' in the PTRM.

MEU submitted that the depreciation of assets should be based on the expected life of assets which are used to provide the most cost effective solution for the service being provided. We consider that our assessment of Murraylink's proposed depreciation schedules is consistent with the requirements

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159 NER, clause 6A.6.3(b)(1).
160 Murraylink, *Revised PTRM*, January 2013.

of the NER[161] and is reflective of our final decision on the forecast capex for the 2013–18 regulatory control period as discussed in section 2.

7.4.2 Remaining asset lives at 1 July 2013

For this final decision, we have updated the revised remaining asset lives to reflect our adjustments to Murraylink's actual capex inputs for the RFM, as discussed in section 6. This is because the actual capex values are inputs for calculating the weighted average remaining asset lives in the RFM.

In the draft decision, we adjusted Murraylink's proposed inputs to the RFM and accordingly, updated the remaining asset lives at 1 July 2013. Murraylink's revised proposal continued to apply the weighted average method to calculate the remaining economic lives as accepted by us in the draft decision.

Table 7.3 sets out our final decision on Murraylink's remaining asset lives at 1 July 2013 for the 2013–18 regulatory control period.

Table 7.3 Murraylink's revised and AER's final decision on standard asset lives and remaining asset lives as at 1 July 2013 (years)

Asset class— Murraylink revised	Standard asset life— Murraylink revised	Remaining asset life as at 1 July 2013— Murraylink revised	Asset class— AER final decision	Standard asset life— AER final decision	Remaining asset life as at 1 July 2013— AER final decision
Switchyard	40	30.1	Switchyard	40	30.3
Transmission line	40	30.1	Transmission line	40	30.3
Easements	n/a	n/a	Easements	n/a	n/a
Ancillary 15	15	9.0	Ancillary 30	30	n/a
Ancillary 10	10	8.3	Ancillary 15— control systems	15	n/a
Ancillary 7	7	6.7	Ancillary 7— pressure vessel testing and inspection	7	n/a
Test equipment	10	7.0	Test equipment	n/a	n/a
Other operating assets	5	5.0	Other operating assets	5	n/a
Office machines	3	3.0	Office machines	3	n/a

Source: Murraylink, *Revised PTRM*, January 2013.

n/a: Not applicable.

[161] NER, clause 6A.6.3.

7.5 AER decision

Decision 7.1: We determine Murraylink's forecast regulatory depreciation allowance to be $5.1 million ($ nominal) over the 2013–18 regulatory control period, as set out in Table 7.1.

Decision 7.2: We determine Murraylink's standard asset lives and remaining asset lives as at 1 July 2013 to be those as set out in Table 7.3.

8 Corporate income tax

We are required to make a decision on the estimated cost of corporate income tax.[162] Under the post tax framework, a corporate income tax allowance is calculated as part of the building block assessment using our post tax revenue model (PTRM).

This section sets out our final decision on Murraylink's proposed corporate income tax allowance for the 2013–18 regulatory control period. It also presents our assessment of issues raised in Murraylink's revised proposal. These include the proposed tax asset base (TAB), and the standard and remaining tax asset lives used to estimate tax depreciation for the purpose of calculating the estimated cost of corporate income tax allowance.

8.1 Final decision

We accept Murraylink's estimated cost of corporate income tax allowance of $1.2 million ($ nominal) for the 2013–18 regulatory control period, as set out in its revised proposal. However, we made several adjustments to the inputs used to calculate the corporate income tax allowance in the revised revenue proposal roll forward model (RFM) and post tax revenue model (PTRM). These adjustments did not result in any change in the total corporate income tax allowance. The adjustments we made are as follows:

- We accept the revised total opening TAB as at 1 July 2013 of $82.3 million. However, the individual opening TAB values for each asset class has changed slightly due to the adjustments we made to the actual capex inputs in the RFM as discussed in section 6.
- We do not accept Murraylink's proposed standard tax asset lives for the following tax asset classes: 'Ancillary 15', 'Ancillary 10', ' Ancillary 7' and 'Test equipment'. Our final decision on the standard tax asset lives for these asset classes is set out in Table 8.4.
- We accept Murraylink's weighted average method to calculate the remaining tax asset lives of its TAB as at 1 July 2013 in its revised proposal. We accepted this method in the draft decision.[163] For this final decision, we have updated the proposed remaining tax asset lives to reflect our adjustments to Murraylink's actual capex in the RFM.
- Our determinations on other building blocks including forecast opex (section 4) and cost of capital (section 5) also impact the estimated corporate income tax allowance.[164]

Based on the approach to modelling the cash flows in the PTRM, we have derived an effective tax rate of 25.9 per cent for this final decision. Table 8.1 sets out our final decision on Murraylink's estimated corporate income tax allowance over the 2013–18 regulatory control period.

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162 NER, clause 6A.5.4(a)(4).
163 AER, *Draft decision: Murraylink transmission determination*, November 2012, p 67.
164 NER, clause 6A.6.4.

Table 8.1 AER's final decision on Murraylink's corporate income tax allowance ($ million, nominal)

	2013–14	2014–15	2015–16	2016–17	2017–18	Total
Tax payable	0.6	0.7	0.7	0.7	0.8	3.5
Less: value of imputation credits	0.4	0.4	0.5	0.5	0.5	2.3
Net corporate income tax allowance	0.2	0.2	0.2	0.3	0.3	1.2

Source: AER analysis.

8.2 Murraylink's revised proposal

Murraylink proposed a revised corporate income tax allowance of $1.2 million ($ nominal) over the 2013–18 regulatory control period as shown in Table 8.2.[165] Murraylink incorporated the changes outlined in our draft decision, with the exception of the standard tax asset lives for its asset classes.

Table 8.2 Murraylink's revised proposed corporate income tax allowance ($ million, nominal)

	2013–14	2014–15	2015–16	2016–17	2017–18	Total
Tax payable	0.6	0.6	0.7	0.7	0.7	3.4
Less: value of imputation credits	0.4	0.4	0.4	0.5	0.5	2.2
Net corporate income tax allowance	0.2	0.2	0.2	0.2	0.3	1.2

Source: Murraylink, *Revised PTRM*, January 2013.

8.3 Assessment approach

We did not change our assessment approach for corporate income tax from our draft decision. Section 7.3 of our draft decision details that approach.

8.4 Reasons for final decision

We accept Murraylink's estimated cost of corporate income tax allowance of $1.2 million ($ nominal) for the 2013–18 regulatory control period, as set out in its revised proposal. However, we made several adjustments to the inputs used to calculate the corporate income tax allowance in the revised RFM and PTRM, as discussed in this section. These adjustments did not result in any change in the total corporate income tax allowance.

8.4.1 Tax asset base as at 1 July 2013

We accept the revised total opening TAB as at 1 July 2013 of $82.3 million. However, the individual opening TAB values for each asset class has changed slightly due to the adjustments we made to the actual capex inputs in the roll forward model (RFM) as discussed in section 6.

In the draft decision, we accepted Murraylink's proposed method to establish the opening TAB as at 1 July 2013.[166] However, we increased the proposed value of the opening TAB in the draft decision

[165] Murraylink, *Revised revenue proposal*, p. 18.
[166] AER, *Draft decision, Murraylink transmission determination, November 2012*, p. 69.

due to correcting some minor input errors and adjusting Murraylink's actual capex values for movements in provisions in the RFM. Murraylink's revised RFM did not adopt our adjustments for movements in provisions. Murraylink also revised its 2011–12 and 2012–13 estimated capex values in the RFM for its revised proposal.

As discussed in section 6, we did not adjust Murraylink's actual capex in the 1 October 2003 to 30 June 2013 regulatory control period to reverse the movements in provisions. This is because Murraylink has clarified that it did not have movements in provisions during this period. We also changed the capex inputs in the RFM. These adjustments do not impact on the total value of the opening TAB as at 1 July 2013. However, the opening TAB values for each asset class have changed slightly.

Our final decision on Murraylink's TAB roll forward for the 2008–13 regulatory control period is set out in Table 8.3.

Table 8.3 AER's final decision on Murraylink's tax asset base roll forward ($ million, nominal)

	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13
Opening TAB	103.0	100.7	98.4	96.5	94.3	92.0	89.7	87.5	85.3	83.2
Capital expenditure[a]	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.2	1.4[b]
Tax depreciation	–2.3	–2.3	–2.3	–2.3	–2.3	–2.3	–2.3	–2.3	–2.3	–2.3
Closing TAB										82.3

Source: AER analysis.

Note: Totals may not add due to rounding.

(a) As commissioned, net of disposals.

(b) Based on estimated capex.

8.4.2 Standard tax asset lives

We do not accept Murraylink's proposed standard tax asset lives for the following tax asset classes: 'Ancillary 15', 'Ancillary 10', ' Ancillary 7' and 'Test equipment' in the revised proposal.

In the draft decision, we did not accept Murraylink's proposed standard tax asset lives for the proposed new asset classes.[167] This was consistent with our draft decision in relation to the proposed standard asset lives of these asset classes for regulatory depreciation purposes.

In its revised proposal, Murraylink retained the standard tax asset lives set out in their original proposal, which are the same as the standard asset lives proposed for regulatory depreciation purposes.[168]

As discussed in section 7 and consistent with the draft decision, we made several adjustments to the proposed standard asset lives for these asset classes, for regulatory depreciation purposes. We have therefore amended the proposed standard tax asset lives to be consistent with those set out in this

167 AER, *Draft decision, Murraylink transmission determination, November 2012*, p 70.
168 Murraylink, *Revised PTRM*, January 2013.

final decision for the standard asset lives for regulatory depreciation purposes. We consider that the amended standard tax asset lives for these asset classes provide a better estimate of tax depreciation amount for a benchmark efficient TNSP, as required by the NER.[169]

Table 8.4 sets out our final decision on Murraylink's standard tax asset lives for the 2013–18 regulatory control period.

8.4.3 Remaining tax asset lives as at 1 July 2013

Murraylink revised its remaining tax asset lives as at 1 July 2013 using the accepted weighted average method in the draft decision. For this final decision, we have updated the revised remaining tax asset lives to reflect our adjustments to Murraylink's actual capex inputs for the RFM, as discussed in section 6. This is because the actual capex values are inputs for calculating the weighted average remaining tax asset lives in the RFM.

Table 8.4 sets out our final decision on Murraylink's remaining tax asset lives as at 1 July 2013 for the 2013–18 regulatory control period.

Table 8.4 AER's final decision on Murraylink's standard tax asset lives and remaining tax asset lives as at 1 July 2013

Asset Class	Standard tax asset life (years)	Remaining tax asset life as at 1 July 2013 (years)
Switchyard	40	30.4
Transmission line	40	30.4
Easements	n/a	n/a
Ancillary 30	30	n/a
Ancillary 15—control systems	15	n/a
Ancillary 7—pressure vessel testing and inspection	7	n/a
Test equipment	n/a	n/a
Other operating assets	5	n/a
Office machines	3	n/a

n/a: Not applicable.

8.5 AER decision

Decision 8.1: We determine Murraylink's estimated cost of corporate income tax allowance to be $1.2 million ($ nominal) over the 2013–18 regulatory control period, as set out in Table 8.1.

Decision 8.2: We determine Murraylink's total opening TAB as at 1 July 2013 to be $82.3 million ($ nominal), as set out in Table 8.3.

Decision 8.3: We determine Murraylink's standard and remaining tax asset lives at the beginning of the 2013–18 regulatory control period to be those as set out in Table 8.4.

[169] NER, clause 6A.6.4(a)(2).

9 Maximum allowed revenue

This section sets out our final decision on Murraylink's maximum allowed revenue (MAR) for the provision of prescribed transmission services during the 2013–18 regulatory control period. Specifically, the section addresses:[170]

- the annual building block revenue requirement
- the X factor
- the annual expected MAR
- the estimated total revenue cap, which is the sum of the annual expected MAR.

We determine Murraylink's annual building block revenue requirement using a building block approach and the X factors by smoothing the annual building block revenue requirement over the regulatory control period. The X factor is used in the CPI–X methodology to determine the annual expected MAR (smoothed) for each regulatory year of the 2013–18 regulatory control period.

9.1 Final decision

Our determinations on Murraylink's proposed building block components have a consequential impact on the annual building block revenue requirement. We have recalculated the X factor and the annual expected MAR to reflect our final decision on Murraylink's annual building block revenue requirement.

For this final decision, we have approved an estimated total revenue cap[171] of $67.5 million ($ nominal) for Murraylink for the 2013–18 regulatory control period.[172] Our approved X factor is 1.2 per cent per annum from 2014–15 to 2017–18.

Table 9.1 sets out our final decision on Murraylink's annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap for the 2013–18 regulatory control period.

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170 NER, clauses 6A.4.2(a)(1)–(3) and 6A.6.8.

171 The estimated total revenue cap is equal to the total of the annual expected MAR over the 2013–18 regulatory control period.

172 Our approved total revenue cap is similar to Murraylink's revised total revenue cap of $67.6 million. Although we reduced some components of the building blocks including opex, RAB and regulatory depreciation for our final decision, we determined a higher WACC than that used by Murraylink in its revised proposal. As discussed in section 4, our final decision on the WACC only differs from Murraylink's revised proposal because we have updated Murraylink's revised proposal WACC to reflect the agreed averaging period. Our final decision WACC results in a higher return on capital building block, which offsets the above reductions.

Table 9.1 AER's final decision on Murraylink's annual building block revenue requirement, annual expected MAR, estimated total revenue cap and X factor ($ million, nominal)

	2013–14	2014–15	2015–16	2016–17	2017–18	Total
Return on capital	8.0	8.1	8.1	8.2	8.1	40.5
Regulatory depreciation[a]	0.8	0.9	1.0	1.2	1.3	5.1
Operating expenditure	3.9	4.0	4.1	4.3	4.6	20.8
Efficiency benefit sharing scheme (carryover amounts)	0.0	0.0	0.0	0.0	0.0	0.0
Net tax allowance	0.2	0.2	0.2	0.3	0.3	1.2
Annual building block revenue requirement (unsmoothed)	12.9	13.2	13.5	13.9	14.3	67.7
Annual expected MAR (smoothed)	13.2	13.3	13.5	13.7	13.8	67.5[b]
X factor (%)	n/a[c]	1.2	1.2	1.2	1.2	n/a

Source: AER analysis.

(a) Regulatory depreciation is straight-line depreciation net of the inflation indexation on the opening RAB.

(b) The estimated total revenue cap is equal to the total annual expected MAR.

(c) Murraylink is not required to apply an X factor for 2013–14 because the MAR is set in this final decision. The MAR for 2013–14 is around 9.3 per cent lower than the MAR in the final year of the 2008–13 regulatory control period in real dollar terms ($2012–13), or 7.0 per cent lower in nominal dollar terms.

9.2 Murraylink's revised proposal

Based on its revised building block components, Murraylink proposed a total (smoothed) revenue cap of $67.6 million ($ nominal) for the 2013–18 regulatory control period.

Table 9.2 sets out Murraylink's proposed annual building block revenue requirement, the X factor, the annual expected MAR and the estimated total revenue cap for the 2013–18 regulatory control period.

Table 9.2 Murraylink's revised proposed annual building block requirement, annual expected MAR, estimated total revenue cap and X factor ($ million, nominal)

	2013–14	2014–15	2015–16	2016–17	2017–18	Total
Return on capital	7.7	7.7	7.7	7.8	7.7	38.6
Regulatory depreciation	1.0	1.2	1.4	1.5	1.7	6.8
Operating expenditure	3.9	4.0	4.2	4.3	4.7	21.2
Efficiency benefit sharing scheme (carryover amounts)	0.0	0.0	0.0	0.0	0.0	0.0
Net tax allowance	0.2	0.2	0.2	0.2	0.3	1.2
Annual building block revenue requirement (unsmoothed)	12.8	13.2	13.5	13.9	14.4	67.8
Annual expected MAR (smoothed)	13.3	13.4	13.4	13.6	13.8	67.6
X factor (%)	8.21	2.00	2.00	1.00	1.00	n/a

Source: Murraylink, *Revised revenue proposal*, p. 39

9.3 Assessment approach

We did not change our assessment approach for the MAR from our draft decision. Section 8.3 of our draft decision details that approach.

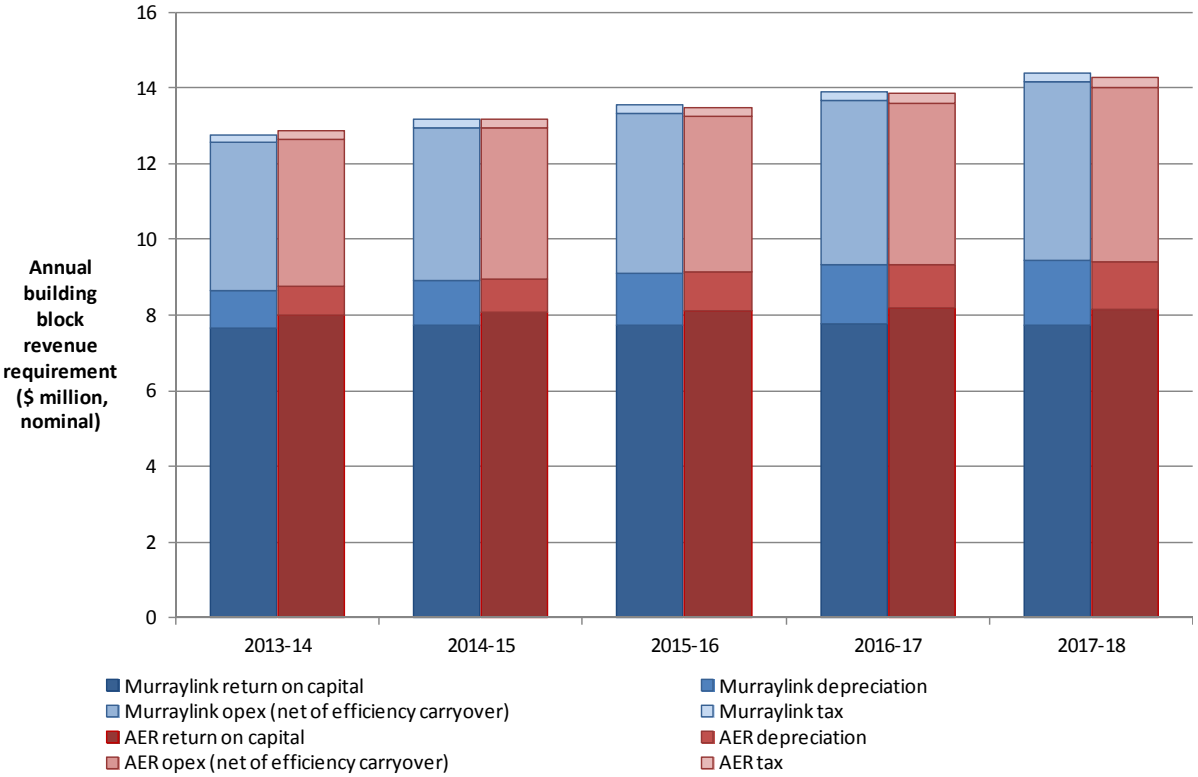
9.4 Reasons for final decision

For this final decision, we determine a total annual building block revenue requirement of $67.7 million ($ nominal) for Murraylink for the 2013–18 regulatory control period. This compares to Murraylink's revised revenue proposal total annual building block revenue requirement of $67.8 million ($ nominal).[173]

Figure 9.1 shows the components from our determination that make up the annual building block revenue requirement for the 2013–18 regulatory control period and the corresponding building blocks components from Murraylink's revised proposal.

[173] Murraylink, *Revised revenue proposal*, p. 39.

Figure 9.1 AER's final decision and Murraylink's revised proposed annual building block revenue requirement ($ million, nominal)



Source: AER analysis.

We have calculated the annual building block revenue requirement for Murraylink based on our final decision on these building block components. The revenues were affected by the changes we made to Murraylink's revised building block components. These changes include:

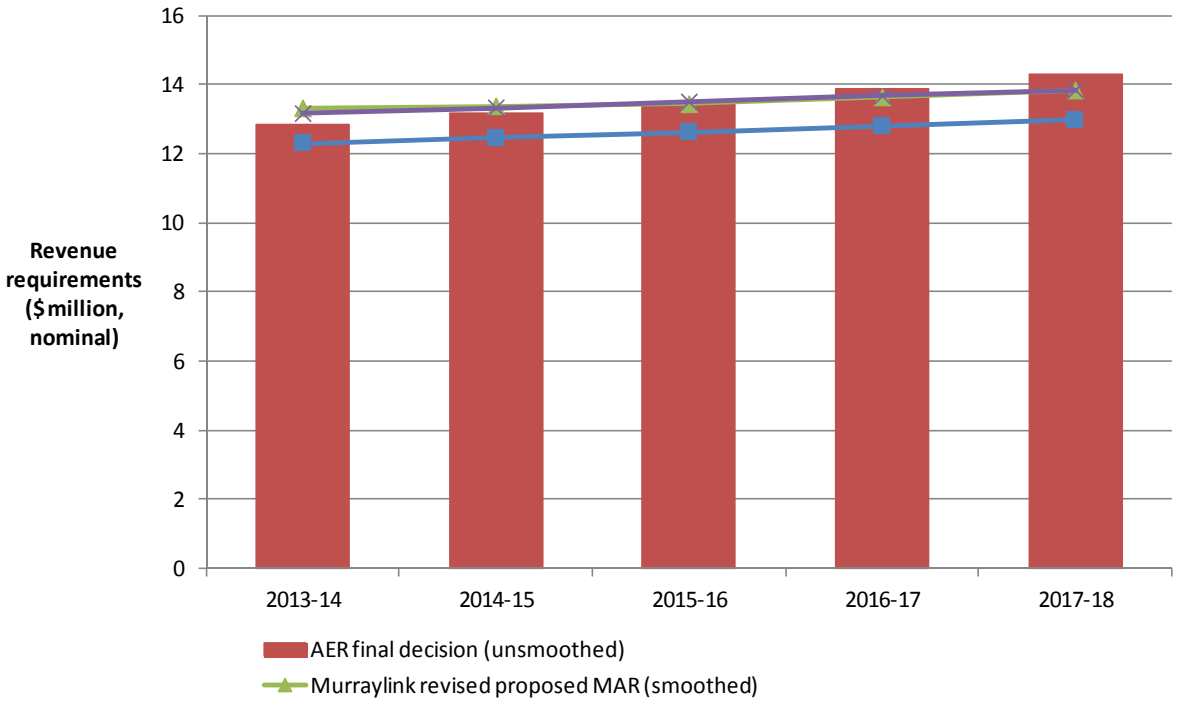
- the opening RABs over the 2013–18 regulatory control period (section 6) and forecast capital expenditure (section 3)
- forecast operating expenditure (section 4)
- the cost of capital (section 5)
- forecast regulatory depreciation (section 7).

9.4.1 X factor, annual expected MAR and estimated total revenue cap

For this final decision, we have determined a revised X factor of 1.2 per cent per annum from 2014–15 to 2017–18. The net present value of the annual building block revenue requirement for the 2013–18 regulatory control period is $54.5 million ($ nominal) as at 1 July 2013. Based on this net present value and applying the CPI–X method, we have determined that Murraylink's annual expected MAR (smoothed) will increase from $13.2 million in 2013–14 to $13.8 million in 2017–18 ($ nominal).

The resulting estimated total revenue cap for Murraylink that we have approved is $67.5 million ($ nominal) for the 2013–18 regulatory control period. Figure 9.2 shows our final decision on Murraylink's annual expected MAR (smoothed revenue) and the annual building block revenue requirement (unsmoothed revenue) for the 2013–18 regulatory control period.

Figure 9.2 AER's final decision on Murraylink's annual expected MAR (smoothed) and annual building block revenue requirement (unsmoothed) ($ million, nominal)



Source: AER analysis.

To determine the expected MAR over the 2013–18 regulatory control period, we have set the MAR for the first regulatory year (2013–14) at $13.2 million ($ nominal). This is higher than the annual building block revenue requirement for 2013–14, which is $12.9 million ($ nominal).[174] We then applied an X factor of 1.2 per cent per annum to determine the expected MAR in subsequent years. We consider that this profile of X factors results in an expected MAR in the last year of the 2013–18 regulatory control period that is as close as reasonably possible to the annual building block revenue requirement for that year as required under the NER.[175]

The average decrease in our approved expected MAR for Murraylink is 0.4 per cent per annum ($ nominal) over the 2013–18 regulatory control period. This consists of an initial decrease of 7.0 per cent from 2012–13 to 2013–14 and a subsequent average annual increase of 1.3 per cent during the remainder of the 2013–18 regulatory control period.[176] Our final decision results in an increase in nominal terms to Murraylink's total MAR for the last five years (2008–2013) of the 1 October 2003 to 30 June 2013 regulatory control period. This increase in revenue is primarily because of:

- increased opex due to increased labour costs; and
- increased regulatory depreciation allowance due to growth in the RAB.

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174 The MAR for the last year of the 1 October 2003 to 30 June 2013 regulatory control period (2012–13) is approximately $14.2 million.

175 NER, clause 6A.6.8(c)(2). We consider a divergence of up to 3 per cent between the expected MAR and annual building block revenue requirement for the last year of the 2013–18 regulatory control period is appropriate, if this can achieve smoother price changes for users over the regulatory control period. In the present circumstances, based on the profile of X factors we determined, this divergence is 3 per cent.

176 In real terms ($2012–13), the average decrease in our approved expected MAR for Murraylink is 2.8 per cent per annum over the 2013–18 regulatory control period. This consists an initial decrease of 9.3 per cent from 2012–13 to 2013–14 and a subsequent average annual decrease of 1.2 per cent during the remainder of the 2013–18 regulatory control period.

9.4.2 Indicative average transmission price impact

The NER does not require us to estimate transmission price changes for a revenue determination of a TNSP. Nonetheless, we typically provide some indicative transmission price impacts flowing from the revenue determination. Although we assess Murraylink's proposed pricing methodology, actual transmission charges established at particular connection points are not approved by us. Murraylink provides prescribed transmission services in two regions—South Australia and Victoria. Murraylink's MAR is portioned across the two regions whereby the coordinating network service providers[177] establish their transmission charges in accordance with the approved pricing methodology and the NER.[178]

We estimate the effect of the final decision for the ElectraNet and Murraylink transmission determinations on forecast average transmission charges in South Australia by:

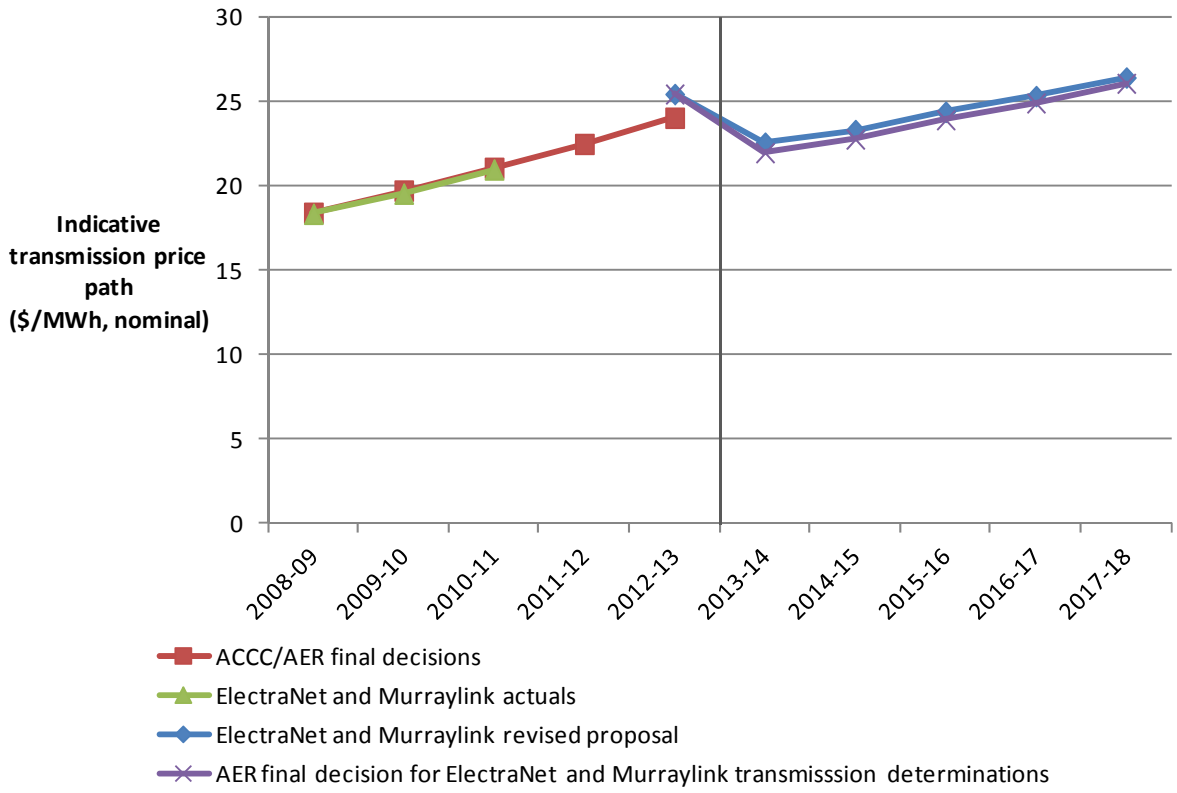
- taking the sum of ElectraNet's annual expected MAR and the proportion of Murraylink's annual expected MAR that is allocated to South Australian customers (45 per cent),[179] and
- dividing it by the forecast annual energy delivered in South Australia.[180]

Based on this approach, we estimate that this final decision will result in a slight increase in average transmission charges of 0.8 per cent per annum ($ nominal) from 2012–13 to 2017–18. This estimated increase in average transmission charges is due to the average increase in our approved MAR being higher than the average increase in forecast annual energy delivered in South Australia over the 2013–18 regulatory control period. The average increase in our approved MAR for South Australia is 1.7 per cent per annum, whereas the average increase in the forecast energy delivered in South Australia is about 0.9 per cent per annum for the 2013–18 regulatory control period.

Figure 9.3 shows the indicative average transmission charges resulting from our final decision for the ElectraNet and Murraylink transmission determinations compared with the average transmission charges from 2008 to 2013 in nominal dollar terms. Nominal average transmission charges are forecast to increase from around $25.4 per MWh in 2012–13 to $26.0 per MWh in 2017–18.

177 The respective coordinating network service providers in South Australia and Victoria are ElectraNet and AEMO.
178 NER, clause 6A.24.1(d).
179 Murraylink, *Pricing methodology v02*, January 2013, p. 3.
180 AEMO, *National electricity forecasting report*, August 2012, table 6-1, Medium (Scenario 3, planning).

Figure 9.3 Indicative transmission price path from 2008–09 to 2017–18 ($ /MWh, nominal)



Source: AER analysis.

We estimate that the final decision will result in lower transmission charges on average over the 2013–18 regulatory control period compared to ElectraNet and Murraylink's revised proposals. The Essential Services Commission of South Australia estimates that transmission charges represent approximately 8 per cent on average of a typical customer's electricity bill in South Australia. If the transmission charges based on our final decision are to pass through to end customers, a typical residential bill could be expected to increase by up to $4 in total ($ nominal) during the 2013–18 regulatory control period.[181] In comparison, ElectraNet's and Murraylink's revised proposals would result in an average residential bill increase of approximately $6 in total.

Similarly, if the transmission charges arising from this final decision are to pass through to end customers, a typical non-residential bill could be expected to increase by up to $7 in total ($ nominal) during the 2013–18 regulatory control period.[182] In comparison, ElectraNet's and Murraylink's revised proposals would result in an average non-residential bill increase of approximately $11 in total.

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181 Based on an average South Australian residential electricity customer bill of $1800 ($ nominal, excluding GST) in 2012–13, which reflect a residential customer consuming approximately 5,000 kWh pa. ESCOSA, *1 July 2012 Electricity standing contract price adjustment*, June 2012, p. 2; ESCOSA, *Email response to information request to the AER, Enquiry regarding average electricity bills*, 17 October 2012.

182 Based on an average South Australian non-residential customer bill of $3457 ($ nominal, excluding GST) in 2012–13, which reflect a small business customer consuming approximately 10,000 kWh pa. ESCOSA, *1 July 2012 Electricity standing contract price adjustment*, June 2012, p. 2; ESCOSA, *Email response to information request to the AER, Enquiry regarding average electricity bills*, 17 October 2012.

9.5 AER decision

Decision 9.1: We determine Murraylink's annual building block revenue requirement, X factor, annual expected MAR and the estimated total revenue cap over the 2013–18 regulatory control period to be as set out in Table 9.1.

Decision 9.2: We determine Murraylink's annual adjustment process for the MAR over the 2013–18 regulatory control period to be as set out in the transmission determination for Murraylink for the 2013–18 regulatory control period.

10 Service target performance incentive scheme

This section sets out our final decision on Murraylink's proposed parameter values and weightings for the service target performance incentive scheme (STPIS).[183] The STPIS is comprised of two components: a service component and a market impact component. This section deals with each component separately.

10.1 Final decision

Service component

We accept Murraylink's proposed STPIS parameter weightings and values. Table 10.1 shows our final decision on Murraylink's service component parameters

Table 10.1 AER final decision on Murraylink's parameter values and weightings for the STPIS – service component

Parameter	Collar	Target	Cap	Weighting (% of MAR)
Planned circuit availability (%)	99.04	99.17	99.38	0.4
Forced peak circuit availability (%)	98.90	99.48	100.0	0.4
Forced off–peak circuit availability (%)	98.84	99.34	99.94	0.2

Market impact component

Murraylink did not propose market impact parameter values in its revenue proposal. However, we decided to apply the market impact component in its draft decision. Table 10.2 shows our final decision on Murraylink's market impact component.

Table 10.2 AER final decision on Murraylink's parameter values and weightings for the STPIS – market impact component

Parameter	Target	Cap	Weighting (% of MAR)
Market impact parameter	782.3	0	2.0

10.2 Murraylink's revised proposal

Service component

Muraylink did not propose any amendments to our draft decision on the service component.[184]

183 The STPIS is established by clause 6A.7.4 of the NER.
184 Murraylink, *Revised revenue proposal*, p. 42.

Market impact component

Murraylink did not adopt our benchmark value of 782.3 dispatch intervals as set out in our draft decision.[185] Instead, Murraylink noted that its 'planned circuit availability' sub–parameter target corresponded to a target of 72 hours. Murraylink therefore proposed that the market impact component benchmark should be consistent with this duration, and therefore proposed a benchmark of 864 dispatch intervals, rather than our benchmark of 782.3 dispatch intervals.[186] Table 10.3 shows how Murraylink calculated its proposed benchmark of 864 dispatch intervals.

Table 10.3 Calculation of Murraylink's proposed benchmark of 864 dispatch intervals

Value	Calculation
Planned circuit availability (%)	99.17
Planned circuit 'unavailability' (%)	100 – 99.17 = 0.83
Unofficial planned circuit 'unavailability' (minutes)	No. minutes in a year x 0.83% = 525 600 x 0.83% = 4 320 minutes
No. of 5 minute dispatch intervals	4 320 minutes / 5 minutes = 864 dispatch intervals

Source: Murraylink, *Revised revenue proposal*, p. 42 and AER analysis.

10.3 Assessment approach

We have assessed whether Murraylink's proposed performance targets, caps, collars and weightings comply with the STPIS requirements for:

- transmission circuit availability (with three availability sub–parameters)
  - planned circuit availability
  - forced peak circuit availability
  - forced off–peak circuit availability
- market impact component

For details of our assessment approach, see section 9.3 of the draft decision.[187]

10.4 Reasons for final decision

Market impact component

We do not agree that the market impact component benchmark should be consistent with the target for the 'planned circuit availability' sub–parameter. The STPIS prescribes how the market impact component is calculated. We followed this method in the draft decision to calculate Murraylink's market impact component benchmark of 782.3 dispatch intervals. Murraylink has not provided any evidence or reasons that would persuade us to depart from that approach.

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185 Murraylink, *Revised revenue proposal*, p. 42.
186 Murraylink, *Revised revenue proposal*, p. 42.
187 AER, *Draft decision: Murraylink transmission determination*, November 2012, pp. 84–86.

There are two problems with Murraylink's proposal to make the market impact component benchmark consistent with the 'planned circuit availability' sub–parameter target. Firstly, the 'planned circuit availability' sub–parameter only captures planned outages. The market impact component, on the other hand, captures both planned and unplanned outages. The two measures are not directly comparable and cannot be used to derive targets for each other.

Secondly, the method prescribed in the STPIS for calculating the market impact benchmark sums the number of network outage constraints with a marginal value of greater than $10/MWh. This method counts multiple constraints that may occur during a five minute dispatch interval. This can result in a dispatch interval having a market impact count of greater than one. However, using the 'planned circuit availability' sub–parameter target to derive a market impact benchmark implicitly assumes that there is only one market impact count per dispatch interval. It does not account for the possibility of multiple constraints occurring during a dispatch interval.

For these reasons, it is inappropriate to use the 'planned circuit availability' sub–parameter target to calculate the market impact component benchmark. We maintain our draft decision market impact component benchmark of 782.3.

10.5 AER decision

Decision 10.1: Table 10.1 sets out the AER's final decision on the service component.

Decision 10.2: We do not accept Murraylink's proposal to make the market impact component benchmark consistent with the 'planned circuit availability' sub–parameter performance target. Table 10.2 sets out our final decision on Murraylink's market impact component benchmark.

11 Efficiency benefit sharing scheme

The NER requires us to specify how we will apply the efficiency benefit sharing scheme (EBSS) to Murraylink. The EBSS provides transmission network service providers (TNSPs) a continuous incentive to reduce operating expenditure (opex). It provides this continuous incentive by allowing a TNSP to retain efficiency gains for five years before passing them on to consumers. It also removes the incentive to overspend in the opex base year to receive a higher opex allowance in the following regulatory control period.

Murraylink did not operate under an EBSS during the 2003–13 regulatory control period. However, we consider that the EBSS should apply to Murraylink for the 2013–18 regulatory control period.

11.1 Final decision

Murraylink will be subject to the EBSS in the 2013–18 regulatory period. The carryover period will be five years, and not ten years as approved in the draft decision. This is consistent with a five year regulatory control period.

We will not adjust the forecast opex used to calculate the EBSS carryover amounts for changes in demand over the 2013–18 regulatory control period. This is because there is no explicit relationship between growth and expenditure in the method used to establish forecast total opex.

We will exclude the following cost categories from forecast and actual opex for the calculation of EBSS carryover amounts:

- debt raising costs
- connection charges.

Table 11.1 shows the total controllable opex forecasts we will use to calculate efficiency gains and losses for the 2013–18 regulatory control period, subject to adjustments required by the EBSS.

Table 11.1 Murraylink forecast controllable opex for EBSS purposes ($ million, 2012–13)

	2013-14	2014-15	2015-16	2016-17	2017-18
Total forecast opex	3.8	3.8	3.8	3.9	4.1
Excluded costs	–1.1	–1.1	–1.1	–1.1	–1.1
Forecast opex for EBSS	2.7	2.7	2.7	2.7	2.9

Source: AER analysis.

Note: Numbers may not add due to rounding.

11.2 Murraylink's revised proposal

The only remaining issue to be settled regarding the application of the EBSS is the length of the carryover period. Murraylink said that a five year carryover period should be adopted to provide

incentives that match those of all other NSPs.[188] Murraylink's revised proposal is for a five year regulatory control period and not a ten year period as originally proposed.

11.3 Assessment approach

We have adopted the assessment approach for the EBSS set out in section 10.3 of our draft decision.[189]

11.4 Reasons for final decision

This section provides the reasons for our final decision regarding the application of the EBSS to Murraylink for the 2013–18 regulatory period, namely:

- the carryover period will be five years
- we will not adjust the forecast opex used to calculate the EBSS carryover amounts for changes in demand over the 2013–18 regulatory control period
- we will exclude debt raising costs and connection charges from forecast and actual opex for the calculation of EBSS carryover amounts.

Carryover period

We agree with Murraylink that the length of the carryover period should be five years. The EBSS specifies that, except where we have approved a longer regulatory control period, the EBSS carryover period will be five years.[190] We revised our decision about the length of the regulatory control period between the draft and the final decision from ten years to five years. Accordingly, we will adopt a carryover period of five years for the application of the EBSS.

Demand growth adjustment

We will not adjust the forecast opex amounts used to calculate EBSS carryover amounts for any changes in demand over the 2013–18 regulatory control period. Murraylink did not forecast demand in its revenue proposal because it is a single transmission link of fixed capacity. Although the EBSS specifies that we must adjust forecast opex if actual demand is significantly different to forecast demand, adjustments must only be applied to those components of opex that have a direct relationship to growth.[191] Because Murraylink's forecast opex does not have a direct relationship to demand growth, no adjustment is required.

Excluded cost categories

The EBSS allows a TNSP to propose uncontrollable cost categories to be excluded from its operation so the TNSP is not rewarded (or penalised) for cost decreases (or increases) over which it has limited control.

We will exclude the following cost categories from the EBSS for the purposes of calculating EBSS carryovers, consistent with our draft decision:

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188 Murraylink, *Revised revenue proposal,* p. 45.
189 AER, *Draft decision: Murraylink transmission determination*, November 2012, p. 91.
190 AER, *Final Electricity transmission network service providers Efficiency benefit sharing scheme*, September 2007, p. 8.
191 AER, *Electricity TNSPs efficiency benefit sharing scheme*, September 2007, section 2.4.2, p 7.

- debt raising costs
- connection charges.

Excluding debt raising costs from the EBSS provides a continuous incentive because actual debt raising costs in the base year are not used to set opex forecasts, which is assumed by the EBSS. Murraylink's debt raising costs are forecast based on a benchmark efficient firm rather than historic costs. Connection charges are excluded because they are uncontrollable costs levied by the adjacent TNSPs, SP AusNet and ElectraNet.

11.5 AER decision

Decision 11.1: An EBSS will apply to Murraylink for the 2013–18 regulatory control period with a five year carryover period.

Decision 11.2: When we calculate the carryover amounts for the 2013–18 regulatory control period we will not adjust forecast opex for changes in demand and we will exclude the following cost categories:

- debt raising costs
- connection charges

Decision 11.3: Table 11.1 shows the forecast opex that will be used to calculate the efficiency gains and losses for Murraylink in the 2013–18 regulatory control period.

12 Contingent projects

Contingent projects are capex projects that are significant, may arise in the relevant regulatory control period but are not yet committed and are not provided for in the capex forecast. Such projects are linked to unique investment drivers (rather than general investment drivers such as expectations of load growth within a region) and commence where a defined 'trigger event' occurs. The occurrence of the trigger event must be probable during the relevant regulatory control period.[192]

12.1 Final decision

Murraylink's revised revenue proposal did not include this contingent project or any other proposed contingent projects. Consequently, we have not included any contingent projects in our final decision.

12.2 Murraylink's revised proposal

Murraylink considered its proposed contingent project is unlikely to be required in the 2013–18 regulatory control period.[193] Murraylink proposed a 5 year regulatory control period (2013–18) instead of a 10 year regulatory control period (2013–23) as proposed in its revenue proposal. Murraylink therefore did not include this proposed contingent project nor any others in its revised revenue proposal.

12.3 Assessment approach

Our assessment considered whether:

- proposed contingent projects are reasonably required to achieve the capex objectives
- the contingent capex and trigger events are appropriate and satisfy the NER
- any capex is more appropriately considered as a contingent project.[194]

12.4 Reasons for final decision

We accept Murraylink's revised revenue proposal which does not include any proposed contingent projects for the 2013–18 regulatory control period.

Murraylink's initial revenue proposal included one proposed contingent project. This contingent project consisted of three components which would reinforce the South Australian and Victorian regional networks and increase Murraylink's interconnection capacity. We did not accept this proposed contingent project in its draft decision which included its reasoning.[195]

Murraylink's revised revenue proposal considered its initial proposed contingent project is unlikely to be required in the 2013–18 regulatory control period.[196] Murraylink's revised revenue proposal did not provide any further analysis in support of the proposed contingent project.

In our assessment of Murraylink's revised revenue proposal we do not consider that any proposed capex is more appropriately considered as a contingent project.

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192 NER, clause 6A.8.1(c)(5).
193 Murraylink, *Revised revenue proposal*, p. 21.
194 NER, clause 6A.6.7(e)(10).
195 AER, *Draft decision: Murraylink transmission determination*, November 2012, pp. 93–94.
196 Murraylink, *Revised revenue proposal*, p. 21.

12.5 AER decision

Decision 12.1: We accept Murraylink's revised revenue proposal to not include any contingent projects in the 2013-18 regulatory control period.

13 Pricing methodology and negotiated services

A pricing methodology establishes a tariff structure and describes how a transmission network service provider (TNSP) allocates its revenues to its prescribed transmission services and connection points.[197] A pricing methodology does not, however, apply to a TNSP's negotiated services. Their terms and conditions are negotiated with a service applicant, or alternatively through arbitration and dispute resolution by a commercial arbitrator. To facilitate these processes the National Electricity Rules (NER) requires us to approve a negotiating framework and determine a TNSP's negotiated transmission service criteria (NTSC).

13.1 Final decision

We confirm our draft decision approving Murraylink's proposed pricing methodology and proposed negotiating framework. We also consider that the NTSC specified in our draft decision (reproduced at section 13.5) reflect the requirements in the NER.[198]

Therefore Murraylink's proposed pricing methodology and negotiating framework together with the NTSC specified in our draft decision will take effect from the commencement of the 2013–18 regulatory control period.

13.2 Murraylink's revised proposal

Murraylink proposed to amend its pricing methodology so that its period of operation would be reduced from 10 years to five.[199] It did not propose amendments to the negotiating framework approved in our draft decision.[200]

13.3 Assessment approach

We considered Murraylink's proposed pricing methodology and negotiating framework using the assessment approach outlined in our draft decision.[201] In addition, we assessed whether the criteria and the NTSC were still met in light of Murraylink's proposal to change the end-date of its pricing methodology from 2022–23 to 2017–18, thereby reducing the period of its operation to five years.

No submissions from stakeholders were received on these matters.

13.4 Reasons for final decision

The proposed pricing methodology is approved since it gives effect to the pricing principles and complies with the information requirements in the pricing methodology guidelines.[202] The only amendment Murraylink made in its revised revenue proposal was to apply the criteria for five years, rather than ten.[203] This is appropriate since the amended end-date, 2017–18, aligns with our decision to allow Murraylink to move to a five year regulatory control period.

It should be noted Murraylink was invited to resubmit its proposed pricing methodology before we made our draft decision.[204] This was because it did not specify whether Murraylink had appointed a

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197 NER, clause 6A.24.1(b)(1) and (2).
198 NER, clause 6A.9.1.
199 Murraylink, *Revised revenue proposal*, p. 43
200 Murraylink, *Revised revenue proposal*, p. 43
201 NER, clauses 6A.14.3(g)(1) and (2)
202 NER, clauses 6A.14.3(g)(1) and (2)
203 Murraylink, *Revised Proposed Pricing Methodology*, 16 January 2013, p. 6
204 AER, *Draft decision: Murraylink transmission determination*, November 2012, p. 109.

coordinating network service provider in the regions where it provides prescribed transmission services, a requirement of the pricing methodology guidelines.[205]

Murraylink subsequently resubmitted its proposed pricing methodology in May 2012.[206] This specified that Murraylink had appointed ElectraNet as the coordinating network service provider for the South Australian region and AEMO in the Victorian region.[207] Coordinating network service providers are responsible for allocating the portion of Murraylink's aggregated annual revenue requirement (AARR) recoverable in their respective region of the NEM.[208] These details were provided in the proposed pricing methodology accompanying Murraylink's revised revenue proposal and therefore it is approved.[209]

We approve Murraylink's proposed negotiating framework because it specifies all the requirements in clause 6A.9.5(c) of the NER.[210]

With respect to the NTSC, the criteria specified in our draft decision (reproduced at section 13.5) reflect the Negotiated Transmission Service Principles and therefore they meet the requirements of the NER.[211] This final decision therefore approves that NTSC.

13.5 Negotiated transmission service criteria

This section reproduces the NTSC specified in our draft decision. In accordance with this final decision, it is the NTSC that will apply to Murraylink for the 2013–18 regulatory control period.

13.5.1 National Electricity Objective

The terms and conditions of access for a negotiated transmission service, including the price that is to be charged for the provision of that service and any access charges, should promote the achievement of the national electricity objective.

Criteria for terms and conditions of access

Terms and conditions of access

The terms and conditions of access for a negotiated transmission service must be fair, reasonable, and consistent with the safe and reliable operation of the power system in accordance with the NER.

The terms and conditions of access for negotiated transmission services, particularly any exclusions and limitations of liability and indemnities, must not be unreasonably onerous. Relevant considerations include the allocation of risk between the TNSP and the other party, the price for the negotiated transmission service and the cost to the TNSP of providing the negotiated service.

The terms and conditions of access for a negotiated transmission service must take into account the need for the service to be provided in a manner that does not adversely affect the safe and reliable operation of the power system in accordance with the NER.

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205 AER, *Pricing Methodology Guidelines*, October 2007, 2.1(b).
206 Murraylink, *Revised revenue proposal*, p. 43.
207 Murraylink, *Initial Proposed Pricing Methodology*, 31 May 2012, p. 3.
208 NER, clause 6A.29.1.
209 Murraylink, *Revised Proposed Pricing Methodology*, 16 January 2013, p. 3.
210 NER, clause 6A.9.5(b)(2).
211 NER, clause 6A.9.4(b).

Price of services

The price of a negotiated transmission service must reflect the cost that the TNSP has incurred or incurs in providing that service, and must be determined in accordance with the principles and policies set out in the Cost Allocation Methodology.

Subject to criteria 7 and 8, the price for a negotiated transmission service must be at least equal to the avoided cost of providing that service but no more than the cost of providing it on a stand alone basis.

If the negotiated transmission service is a shared transmission service that:

exceeds any network performance requirements which it is required to meet under any relevant electricity legislation; or

exceeds the network performance requirements set out in schedule 5.1a and 5.1 of the NER

> then the difference between the price for that service and the price for the shared transmission service which meets network performance requirements must reflect the TNSP's incremental cost of providing that service (as appropriate).

For shared transmission services, the difference in price between a negotiated transmission service that does not meet or exceed network performance requirements and a service that meets those requirements should reflect the TNSP's avoided costs. Schedule 5.1a and 5.1 of the NER or any relevant electricity legislation must be considered in determining whether any network service performance requirements have not been met or exceeded.

The price for a negotiated transmission service must be the same for all Transmission Network Users. The exception is if there is a material difference in the costs of providing the negotiated transmission service to different Transmission Network Users or classes of Transmission Network Users.

The price for a negotiated transmission service must be subject to adjustment over time to the extent that the assets used to provide that service are subsequently used to provide services to another person. In such cases the adjustment must reflect the extent to which the costs of that asset are being recovered through charges to that other person.

The price for a negotiated transmission service must be such as to enable the TNSP to recover the efficient costs of complying with all regulatory obligations associated with the provision of the negotiated transmission service.

13.5.2 Criteria for access charges

Access charges

Any access charges must be based on the costs reasonably incurred by the TNSP in providing transmission network user access. This includes the compensation for foregone revenue referred to in clause 5.4A(h) to (j) of the NER and the costs that are likely to be incurred by a person referred to in clause 5.4A(h).

Appendix A – List of submissions

Table A.1 List of submissions on AER draft decision and Murraylink's revised revenue proposal

Submission	Date received
Major Energy Users Inc (MEU)	19 February 2013