# DRAFT DECISION
# Murraylink transmission determination
# 2018 to 2023

## Attachment 11 − Service target performance incentive scheme

September 2017

AUSTRALIAN ENERGY REGULATOR

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Tel: (03) 9290 1444
Fax: (03) 9290 1457

Email: AERInquiry@aer.gov.au

# Note

This attachment forms part of the AER's draft decision on Murraylink's transmission determination for 2018–23. It should be read with all other parts of the draft decision.

The draft decision includes the following documents:

Overview

Attachment 1 – Maximum allowed revenue

Attachment 2 – Regulatory asset base

Attachment 3 – Rate of return

Attachment 4 – Value of imputation credits

Attachment 5 – Regulatory depreciation

Attachment 6 – Capital expenditure

Attachment 7 – Operating expenditure

Attachment 8 – Corporate income tax

Attachment 9 – Efficiency benefit sharing scheme

Attachment 10 – Capital expenditure sharing scheme

Attachment 11 – Service target performance incentive scheme

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Attachment 13 – Pass through events

Attachment 14 – Negotiated services

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# Shortened forms

| Shortened form | Extended form |
|---|---|
| AARR | aggregate annual revenue requirement |
| AEMC | Australian Energy Market Commission |
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| capex | capital expenditure |
| CCP | Consumer Challenge Panel |
| CESS | capital expenditure sharing scheme |
| EBSS | efficiency benefit sharing scheme |
| MAR | maximum allowed revenue |
| NEL | national electricity law |
| NEM | national electricity market |
| NEO | national electricity objective |
| NER | national electricity rules |
| NSP | network service provider |
| opex | operating expenditure |
| RIN | regulatory information notice |
| RPP | revenue and pricing principles |
| STPIS | service target performance incentive scheme |
| TNSP | transmission network service provider |

# 11 Service target performance incentive scheme

The service target performance incentive scheme (STPIS) provides a financial incentive to transmission network services providers (TNSPs) to maintain and improve service performance. Most of the current version of the STPIS, version 5, will apply to Murraylink, including two of the three standard components of the STPIS—the service component and the market impact component.[1]

The service component provides a reward/penalty of +/- 1.25 per cent of MAR to improve network reliability, by focussing on unplanned outages. The service component is designed to encourage TNSPs to seek to reduce the number of unplanned network outages and to promptly restore the network in the event of unplanned outages that result in supply interruptions. This component is also designed to indicate potential reliability issues.

The market impact component (MIC) provides an incentive to TNSPs to minimise the impact of transmission outages that can affect wholesale market outcomes. The MIC measures performance against the market impact parameter which is the number of dispatch intervals where an outage on the TNSP's network results in a network outage constraint with a marginal value greater than $10/MWh (MIC count).[2]

Each TNSP's annual MIC count is measured against its target, where the target is calculated by averaging the median five of the last seven years' performance.[3] Further, the dollars per dispatch interval ($/DI) associated with the reward/penalty for each count can be directly calculated for the regulatory control period from the MIC target, and the MAR. Both the target and the $/DI are fixed for the regulatory control period.

TNSPs receive a reward or penalty of up to 1 per cent of MAR for the relevant calendar year. Under clause 4.2(a), a TNSP must submit 7 calendar years of data to calculate the target as noted above.

## 11.1 Draft decision

We will apply the service and market impact components of version 5 of the STPIS to Murraylink for the 2018/19 – 2022/23 regulatory control period. Under this version of the scheme, the Network capability component does not apply to Murraylink.[4]

The draft decision components are outlined in the tables below. Our draft decision is based on the relevant data for 2010–2016. We require Murraylink to submit its 2017 data under version 5 of the STPIS with its revised regulatory proposal for the final decision.

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1 AER, *Final – Service Target Performance Incentive Scheme,* October 2015, cl. 2.2(a)(1–3).

2 AER, *Final – Service Target Performance Incentive Scheme,* October 2015, Appendix C.

3 The target will be calculated from the average of the five values remaining from the last seven years of data excluding the largest and smallest annual values.

4 AER, *Final – Service Target Performance Incentive Scheme,* October 2015, cl. 2.2(d).

## Table 11-1 Draft decision — Service Component Caps, floors and targets for 2018/19 – 2022/23

| Parameter | Floor | Target | Cap |
|---|---|---|---|
| **Unplanned outage circuit event rate:** | | | |
| Circuit event rate – fault | 500.00 | 160.00 | 0.00 |
| Circuit event rate - forced | 800.00 | 380.00 | 100.00 |
| **Proper operation of equipment (number of events):** | | | |
| Failure of protection system [a] | 2.00 | 0.80 | 0.00 |
| Material failure of SCADA [a] | 2.00 | 0.60 | 0.00 |
| Incorrect operational isolation of primary or secondary equipment [a] | 0.00 | 0.00 | 0.00 |

[a] These measures are weighted at zero percent in terms of reward and penalty under STPIS.

Source: AER analysis

## Table 11-2 Draft decision — MIC parameter values for 2018/19 – 2022/23

| Year | Murraylink RIN submission | AER adjusted | Comment |
|---|---|---|---|
| 2009 | n/a | 911 | Approved in 2008-13 decision |
| 2010 | n/a | 243.5 | Approved in 2008-13 decision |
| 2011 | n/a | 379 | Approved in 2008-13 decision |
| 2012 | n/a | n/a | data does not exist for this period |
| 2013 | 159 (half year) | 420 | Murraylink commenced MIC on 1 July 2013 and its performance for the six months was 159 DIs. AER assessed performance for the calendar year was 420 DIs. |
| 2014 | 179 | 180 | Per annual compliance review outcome 2014 |
| 2015 | 544 | 516 | Per annual compliance review outcome 2015 |
| 2016 | 2956 | 2956 | Per annual compliance review outcome 2016 |
| Target (draft decision, place holder) | | | 557 |
| Dollar per dispatch interval | | | $263/DI |

Source: AER analysis

## 11.2 Murraylink's proposal

Murraylink has proposed a different method for calculating the target and cap for the market impact component from what is prescribed in the STPIS version 5. Based on its calculation, Murraylink proposed a target of 782.3 dispatch intervals (DI's) for the market impact component.

Murraylink's calculation method for the market impact component target was inconsistent with the scheme's requirement. It stated in the proposal that:

> The AER's market impact component is based on unplanned outages. The AER requires the provision of a performance target, unplanned outage event limit and dollar per dispatch interval incentive.[5]

Under version 5 of STPIS, the MIC parameter includes both planned and unplanned outages, however there is an unplanned outage event limit that can be applied.

## 11.3 Assessment approach

A revenue determination for a TNSP is to specify, amongst other things, the annual building block revenue requirement for each regulatory year of the regulatory control period.[6] In turn, the annual building block revenue requirement must be determined using a building blocks approach, under which one of the building blocks is the revenue increments or decrements (if any) for that year arising from the application of any STPIS (and other schemes).[7] We have assessed Murraylink's revenue proposal against the requirements of version 5 of the STPIS.

### 11.3.1 Service component

We assessed whether Murraylink's proposed performance targets, caps and floors comply with the STPIS requirements.

Under the STIPS, we must accept Murraylink's proposed parameter values if they comply with the requirements of the STPIS. We may reject them if they are inconsistent with the objectives of the STPIS.[8] We measure actual performance for the 'average circuit outage rate' and 'average outage duration' parameters on a two calendar year rolling average in accordance with appendix E of the STPIS.

We assessed Murraylink's service component proposal against the requirements of the STPIS—that is, whether:

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5 Murraylink, *Revenue Proposal 2018–23*, January 2017, p. 117.

6 NER, cl. 6A.4.2(a)(2).

7 NER, cll. 6A.5.4(a)(5), 6A.5.4(b)(5) and 6A.7.4.

8 AER, *Final – Service Target Performance Incentive Scheme,* October 2015*,* cl. 3.2.

- Murraylink's data recording systems and processes produce accurate and reliable data and whether the data is recorded consistently based on the parameter definitions under the STPIS[9]
- the proposed performance targets were equal to the average of the most recent five years of performance data[10]
- any adjustments to the proposed targets are warranted and reasonable[11]
- Murraylink applied a sound methodology, with reference to the performance targets, to calculate the proposed caps and floors[12]
- any adjustment to a performance target was applied to the cap and floor of that parameter.[13]

### 11.3.2 Market impact component

We assessed Murraylink's market impact component proposal against the requirements of the STPIS—that is, whether:

- data used to calculate the market impact parameter is accurate and reliable, and consistently recorded based on the parameter definition in Appendix C.[14]
- the proposed performance target was calculated in accordance with the requirements of clause 4.2(f) in version 5 of the STPIS.
- the proposed unplanned outage event limit has been calculated in accordance with the requirements of clause 4.2(h) in version 5 of the STPIS.
- the proposed dollar per dispatch interval has been calculated in accordance with clause 4.2(j) in version 5 of the STPIS.

Where Murraylink's proposed values for the market impact parameter does not comply with the requirements of the STPIS or is otherwise inconsistent with the objectives of the scheme[15], we will reject the proposed values and provide substitute values which comply with the STPIS.

## 11.4 Interrelationships

The STPIS takes into account any other incentives provided for in the NER that TNSPs have to minimise capital or operating expenditure. One of the objectives of the STPIS is to assist in the setting of efficient capital and operating expenditure allowances by balancing the incentive to reduce actual expenditure with the need to maintain and

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9 AER, *Final – Service Target Performance Incentive Scheme, October* 2015, cl. 3.2(d).
10 AER, *Final – Service Target Performance Incentive Scheme, October* 2015, cl. 3.2(g).
11 AER, *Final – Service Target Performance Incentive Scheme*, October 2015, cl. 3.2(j).
12 AER, *Final – Service Target Performance Incentive Scheme, October* 2015, cl. 3.2(e).
13 AER, *Final – Service Target Performance Incentive Scheme, October* 2015, cl. 3.2(e).
14 AER, *Final – Service Target Performance Incentive Scheme, October* 2015, clause 4.2(c).
15 AER, *Final – Service Target Performance Incentive Scheme, October* 2015, cl 4.2(d).

improve reliability for customers and reduce the market impact of transmission congestion.

The STPIS will interact with the Capital Expenditure Sharing Scheme (CESS) and the opex Efficiency Benefit Sharing Scheme (EBSS). The STPIS allows us to adjust the performance targets of the service component for the expected effects on the TNSP's performance from any increases or decreases in the volume of capital works planned during the regulatory control period. In conjunction with CESS and EBSS, the STPIS will ensure that:

- any additional investments to improve service quality are based on prudent economic decisions
- reductions in capex and opex are achieved efficiently, rather than at the expense of service levels to the network users.

## 11.5 Reasons for draft decision

We will apply version 5 of the STPIS to Murraylink and the reasons for our draft decision are outlined below.

The final performance targets for the next regulatory control period will require 2017 data which is currently not available and will be decided in our final decision. We require Murraylink to submit its 2017 data with its revised revenue proposal for our assessment of the service and MIC component for the final decision.

### 11.5.1 Service component

Performance targets must equal the TNSP's average performance history over the past five years unless they are subject to adjustment under clause 3.2(i) or (j) of the STPIS.[16] We generally approve performance targets that are the arithmetic mean of the past five years' performance data.

We accept Murraylink's proposed placeholder performance targets for the next regulatory control period as it is consistent with the methodology outlined in version 5 of the STPIS.[17] The placeholder performance targets are shown in Table 11-1.

#### Caps and floors

Proposed caps and floors must be calculated with reference to the proposed performance targets using a sound methodology.[18]

We assessed Murraylink's cap and floor values using our @risk model. We do not accept Murraylink's proposed cap and floor values because they are inconsistent with our calculation. Our approach used five years of performance data to determine a

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16 AER, *Final – Service Target Performance Incentive Scheme,* October 2015, cl. 3.2.

17 Murraylink Transmission Company, *Revenue Proposal, Effective July 2018 to June 2023*, January 2017, p. 116.

18 AER, *Final – Service Target Performance Incentive Scheme,* October 2015, cl. 3.2(e).

statistical distribution that best fits that data—with the caps and floors set at two standard deviations either side of the mean (using a normal distribution); or at the 5th and 95th percentiles (if using a distribution other than the normal distribution). This is consistent with our other transmission determinations.

Our approved cap and floor values for Murraylink are set out in Table 11-3.

### Table 11-3 Draft decision — Caps and floors and targets for 2018/19 – 2022/23

| Parameter | Distribution | Floor (5th percentile) | Cap (95th percentile) |
|---|---|---|---|
| **Average circuit outage rate** | | | |
| Lines event rate – fault | Poisson | 500 | 0.00 |
| Lines outage rate - forced | Poisson | 800 | 1.00 |

Source: AER analysis

## 11.5.2 Market impact component

### Performance target

We do not accept Murraylink's proposed performance target for the market impact parameter. Instead, our draft decision is to substitute the proposed value of 783 dispatch intervals with 557 dispatch intervals.

As version 5 of the STPIS is being applied to Murraylink for the first time, the performance target is to be calculated in accordance with clause 4.2(f) of version 5 of the STPIS. Under this methodology, the performance target is calculated by:

- calculating the raw performance target which is equal to Murraylink's average annual performance history against the market impact parameter for the median five out of seven preceding calendar years
- calculating 17 per cent of the raw performance target
- adjusting the annual performance history of Murraylink for the seven preceding calendar years by limiting the impact of market impact parameter counts associated with unplanned outages to 17 per cent of the raw performance target
- using the adjusted performance history to calculate the performance target, which is the average adjusted annual performance history of the median five out of seven preceding calendar years.

In accordance with this methodology, and the raw data that Murraylink submitted in its revenue proposal, Murraylink proposed a performance target of 783 dispatch intervals based on its 2010–16 performance history.[19]

However, our assessment of the Murraylink's 2010–16 performance history data submission found that a number of the performance history counts were not consistent with the requirements of the STPIS. To account for this, we have made these adjustments to Murraylink's performance history set out in Table 11-2.

Based on the adjustments shown in Table 11-2, we calculated the MIC target as 557 DIs and incentive rate per DI based on our calculated target is $236/DI.

[19] Murraylink, *Revenue Proposal 2018–23*, January 2017, p. 117.