



Draft decision

Directlink transmission determination

2015-16 to 2019-20

**Attachment 11: Service target performance
incentive scheme**

November 2014

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Note

This attachment forms part of the AER's draft decision on Directlink's revenue proposal 2015–20. It should be read with 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

Attachment 12 – pricing methodology and negotiated services

Attachment 13 – pass through events

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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
ASRR	aggregate service revenue requirement
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DRP	debt risk premium
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
MAR	maximum allowed revenue
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
NTSC	negotiated transmission service criteria

Shortened form	Extended form
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repx	replacement expenditure
RFM	roll forward model
RIN	regulatory information notice
RPP	revenue pricing principles
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
TUoS	transmission use of system
WACC	weighted average cost of capital

11 Service target performance incentive scheme (STPIS)

The service target performance incentive scheme (STPIS) provides a financial incentive to TNSPs to maintain and improve service performance. The STPIS aims to safeguard service quality for customers that may otherwise be affected as TNSPs seek out cost efficiencies at the expense of service quality.

We create, administer and maintain the STPIS in accordance with the requirements of the National Electricity Rules (NER). The purpose of the STPIS is to provide incentives to TNSPs to improve or maintain a high level of service for the benefit of participants in the National Electricity Market (NEM) and end users of electricity.

From 1 July 2015, Directlink will be subject to the service and market impact components of the STPIS. This is the first time Directlink will be assessed under the STPIS, as it is currently assessed under the ACCC service standards guidelines for the current regulatory period.

In the framework and approach paper, we stated that version 4 of the STPIS should apply to Directlink, i.e. the version that was current at the time. However, we were concerned that application of version 4 of the STPIS to Directlink may produce incentive targets that do not promote the National Electricity Objective. This is because under version 4 of the STPIS, the Market Impact Component (MIC) performance targets are set using the rolling average of three previous calendar years of actual performance data.¹ In this regard, it may not be appropriate to apply Directlink's recent performance data to set its performance targets for the next regulatory control period due to extended outages associated with fire damage to the Directlink facility. We identified that amendments were required to the method for determining MIC targets for Directlink in light of the Mullumbimby fire.

We published version 4.1 of the STPIS in September 2014. Version 4.1 amended the scheme to specifically address Directlink's circumstances, this version replaces the previous version 4. We extended the definition of MIC at section 4.2 of the scheme to exclude Directlink's performance against the market impact parameter for the purpose of setting performance targets for the period starting on 12 August 2012 to the date when Directlink 'returned to normal service'.² The service component and the market impact component of version 4.1 of the STPIS will apply to Directlink for the 2015–20 regulatory control period. The network capability component does not apply to Directlink, as per clause 2.2(a) of the STPIS.

The service component provides a financial incentive for TNSPs to improve and maintain their service performance. This balances the incentive in the regulatory framework for TNSPs to reduce costs at the expense of service performance. A TNSP's performance is compared against the performance target for each parameter under the service component during the regulatory control period. The TNSP may receive a financial bonus for service improvements, or a financial penalty for declines in service performance. The financial bonus (or penalty) is limited to 1 per cent of the TNSP's MAR for the relevant calendar year.

The market impact component provides financial rewards to TNSPs for improvements in their performance measured against a performance target. A TNSP may earn up to 2 per cent of its MAR

¹ AER, *Electricity TNSP, STPIS*, December 2012, clause 4.2(d) and Appendix F.

² AER, *Final decision - electricity transmission network service providers service target performance incentive scheme*, September 2014, p.9.

for the relevant calendar year. Unlike the service component, the market impact component has no financial penalty. The market impact component provides an incentive to TNSPs to minimise the impact of transmission outages that can affect the NEM spot price. The market impact parameter measures the number of dispatch intervals when an outage of a TNSP's network results in a network outage constraint with a marginal value greater than \$10/MWh.³

The market impact parameter performance target is typically an average of the previous three years of performance data. Performance is typically measured as a rolling average of the most recent two years of performance data.⁴ Performance targets are published annually after we have conducted the annual review of a TNSP's STPIS performance.

11.1 Draft decision

We will apply the service component and the market impact component of version 4.1 of the STPIS to Directlink for the 2015–20 regulatory control period. We propose to apply the STPIS to Directlink in accordance with the details set out below.

Service component

We do not accept Directlink's proposed performance targets based on the average performance over the 2008–2012 period because we consider adjustment is required to account for the expected reliability improvement from increase in the volume of capital works planned during the regulatory control period. Adjustment to the proposed performance targets would also result in adjustments to the proposed caps and collars.⁵ Table 11.1 sets out our draft decision on Directlink's service component parameter values.

Table 11.1 AER's draft decision on Directlink's parameter values and weightings for the service component of the STPIS

	Collar	Target	Cap	Weighting (% of MAR)
Average circuit outage rate				
Circuit outage – fault	500.00%	333.00%	167.00%	1.0
Circuit outage – forced outage	383.31%	180%	35.19%	0.0
Proper operation of equipment⁶				
Failure of protection system	8	4	1	0.0
Material failure of SCADA	n/a	n/a	n/a	0.0

³ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, Appendix C.

⁴ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 4.2(d) and Appendix F.

⁵ The cap specifies the level of performance that results in a TNSP receiving the maximum financial reward attributed to a parameter; the collar specifies the level for receiving the maximum financial penalty.

⁶ Directlink noted the STPIS applies weight to only the "circuit outage fault" parameter, therefore Directlink only proposed values for the "failure of protection system" sub-parameter under the proper operation of equipment section. It did not have historical data for other "proper operation of equipment" sub-parameters and will commence collecting data to report against those sub-parameters in the future. As the scheme requires the provision of values for parameters unless there is no data, we accept the approach proposed by Directlink.

	Collar	Target	Cap	Weighting (% of MAR)
Incorrect operational isolation of primary or secondary equipment	n/a	n/a	n/a	0.0

Sources: AER analysis.

Market impact component

We have validated and confirmed the relevant market impact performance data which was provided by Directlink subsequent to the submission of its 2015–20 revenue proposal.⁷ As a result of our audit, we made adjustments to the market impact performance values submitted by Directlink. For the year ending 11 August 2010, we adjusted Directlink's performance from 2949 to 2836 dispatch intervals. For the year ending 11 August 2011, we adjusted Directlink's performance from 1030 to 1017 dispatch intervals. For the year ending 11 August 2012, we adjusted Directlink's performance from 365.5 to 375 dispatch intervals. Consequently, Directlink's market impact performance target for 2015 is 1409 dispatch intervals.⁸

11.2 Directlink's proposal

On 10 July 2014, Directlink submitted that our proposed amendment to the STPIS (that is, version 4.1) reasonably accommodated the abnormal operating conditions resulting from the Mullumbimby fire.⁹ As a result, we understand that it agrees that version 4.1 of the STPIS should be applied for the 2015–20 regulatory control period.

Service component

Directlink proposed to set the targets as the 5 year historical average performance from 2008 to 2012. It calculated caps and collars using 1 standard deviation.¹⁰

Table 11.2 sets out Directlink's proposed performance targets, caps and collars for each parameter under the service component of the STPIS. The STPIS prescribes each sub-parameter's revenue weighting.¹¹

Table 11.2 Directlink's proposed parameter values for the service component of the STPIS

	Collar	Target	Cap	Weighting (% of MAR)
Average circuit outage rate				
Circuit outage – fault	816%	687%	557%	1.0
Circuit outage – forced outage	339%	227%	114%	0.0

⁷ AER, Information request Directlink - STPIS 01, 1 August 2014.

⁸ Regarding the performance measure for the last half of 2015, we calculate the performance using the method set out in Appendix F of the STPIS, with the incentive payment pro-rated in accordance with clause 4.2(i) and Appendix D.

⁹ Directlink, *Submission to Directlink interconnector proposed amendments to the STPIS*, 10 July 2014.

¹⁰ Directlink, *Revenue proposal 2015–20*, p.91; Directlink, *13(1)(d) Directlink average circuit outage rate calcs*, 29 May 2014.

¹¹ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.4.

	Collar	Target	Cap	Weighting (% of MAR)
Proper operation of equipment				
Failure of protection system	5.41	4.00	2.59	0.0
Material failure of SCADA	n/a	n/a	n/a	0.0
Incorrect operational isolation of primary or secondary equipment	n/a	n/a	n/a	0.0

Sources: Directlink, *Revenue proposal 2015–20*, p.91; Directlink, *13(1)(d) Directlink average circuit outage rate calcs*, 29 May 2014.

Market impact component

Directlink did not submit market impact performance data in its 2015–20 revenue proposal. Directlink's revenue proposal explained that performance data had not been collated since the market impact component of the STPIS has not historically applied to Directlink.¹²

We provided Directlink with relevant binding constraint data for the 2009–2013 calendar years which we extracted from our own databases (sourced from AEMO).¹³ Directlink used this data to propose the required market impact parameter performance values. For the years ending 11 August 2010, 11 August 2011 and 11 August 2012, Directlink's proposed performance values are 2949, 1030 and 365.5 dispatch intervals respectively.¹⁴ The average of these values is 1448. Directlink did not apply for any exclusions by identifying an exclusion clause, however it provided comments on some of its data suggesting that it did not consider that certain counts should be included.¹⁵

11.3 AER's 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.¹⁶ 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 STIPS (and other schemes).¹⁷ As set out above, we have assessed Directlink's proposal against the requirements of the STIPS version 4.1.

Service component

We assessed whether Directlink's proposed performance targets, caps and collars comply with the STPIS requirements for the:¹⁸

- average circuit outage rate, with two sub parameters,¹⁹ and

¹² Directlink, Revenue Proposal, Attachment 1.1, *Reset Regulatory Information Notice: Compliance Checklist*, May 2014, p. 20.

¹³ AER, Information request Directlink - STPIS 01, 1 August 2014.

¹⁴ Directlink email dated 20 August 2014 in response to AER, Information request Directlink - STPIS 01, 1 August 2014.

¹⁵ For example, by setting the inclusion count weight to zero and providing brief reasoning.

¹⁶ NER, clause 6A.4.2(a)(2).

¹⁷ NER, clauses 6A.5.4(a)(5), 6A.5.4(b)(5) and 6A.7.4.

¹⁸ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2.

¹⁹ They are circuit outage rate – fault and circuit outage rate – forced outage

- proper operation of equipment, with three sub-parameters.²⁰

According to the terms of the STPIS itself, we must accept Directlink's proposed parameter values if they comply with the requirements of the STPIS. We may reject them where we form the opinion that they are inconsistent with the objectives of the STPIS.²¹ We measure actual performance for the 'average circuit outage rate' parameters on a two year rolling average basis in accordance with appendix E of the STPIS.

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

- Directlink'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 STPIS²²
- the proposed performance targets equal to the average of the most recent five years of performance data²³
- any adjustments to the proposed targets are warranted and reasonable²⁴
- Directlink used a sound methodology, with reference to the performance target, to calculate the proposed caps and collars²⁵
- any adjustment to the performance target was applied to the cap and collar of that parameter.²⁶

Market impact component

We have audited Directlink's market impact performance data for the period 12 August 2009 to 11 August 2012 using the following approach:

- independently calculating (using AEMO data) the number of dispatch intervals related to binding outage constraints and validating that the outages were attributable to the TNSP
- searching AEMO Market Notices to confirm the validity of the TNSP's classification of constraints as outage related, and
- cross-checking network outage request information provided by AEMO to confirm the classification of constraints as outage related.

11.3.1 Interrelationships

The NER requires the STPIS to take into account any other incentives provided for in the NER that TNSPs have to minimise capital or operating expenditure.²⁷ One of the objectives of the STPIS is to assist in the setting of efficient capital and operating expenditure allowances by balancing the

²⁰ They are failure of protection system, material failure of SCADA system and incorrect operational isolation of primary or secondary equipment.

²¹ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2.

²² AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2(d).

²³ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2(g).

²⁴ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2(k).

²⁵ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2(e).

²⁶ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2(e).

²⁷ NER, cl. 6A.7.4(b)(5).

incentive to reduce actual expenditure with the need to maintain and improve reliability for customers and reduce the market impact of transmission congestion.²⁸

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.²⁹ We consider planned reliability improvement works in setting the performance targets of the service component.

11.4 Reasons for draft decision

The following section sets out our consideration of the application of the STPIS to Directlink for the 2015–20 regulatory control period.

Service component

Directlink is subject to version 4.1 of the STPIS for the 2015–20 regulatory control period. The new version includes a parameter called 'average circuit outage rate' introduced in version 4 of the STPIS. This parameter replaced the 'transmission circuit availability' parameter under previous versions of the STPIS.

Performance targets

Directlink must propose a performance target, a collar and a cap for the parameters applicable to it under the service component in accordance with clause 3.2 of the STPIS. The proposed caps and collars must be calculated by reference to the proposed performance targets and using a sound methodology.³⁰ Clause 3.2(k) of the scheme allows us to make adjustment to the performance targets if there is an increase in the volume of capital works that is expected to affect the reliability performance of Directlink. The scheme also states that adjustments to the proposed performance target may result in adjustment to the proposed caps and collars.³¹

In reviewing Directlink's circuit outage data, we noted Directlink has incorrectly classified some "circuit outage – fault" events as "circuit outage – forced outage" events. We have discussed this issue with Directlink and reclassified those outage events from "forced outage" to "fault" and the revised data was confirmed by Directlink on 11 September 2014. Table 11.3 below sets of the data that formed the basis of our assessment.³²

Table 11.3 Directlink's revised performance data for service component

Parameter	2008	2009	2010	2011	2012
Average circuit outage rate					
circuit outage rate – fault	800.00%	533.33%	733.33%	866.67%	733.33%
circuit outage rate – forced outages	166.67%	33.33%	366.67%	166.67%	166.67%

²⁸ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 1.4.

²⁹ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2(k)

³⁰ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2(e)

³¹ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2(e)

³² Note we consider the data from 2008–2012 is relevant as the 2013 data does not represent Directlink's normal performance as all three cables were out of service from 6 August 2013.

Parameter	2008	2009	2010	2011	2012
Proper operation of equipment					
Failure of protection system	5	3	4	2	6

Source: AER, revised Directlink average circuit outage rate calc.xls, confirmed with Directlink on 11 September 2014

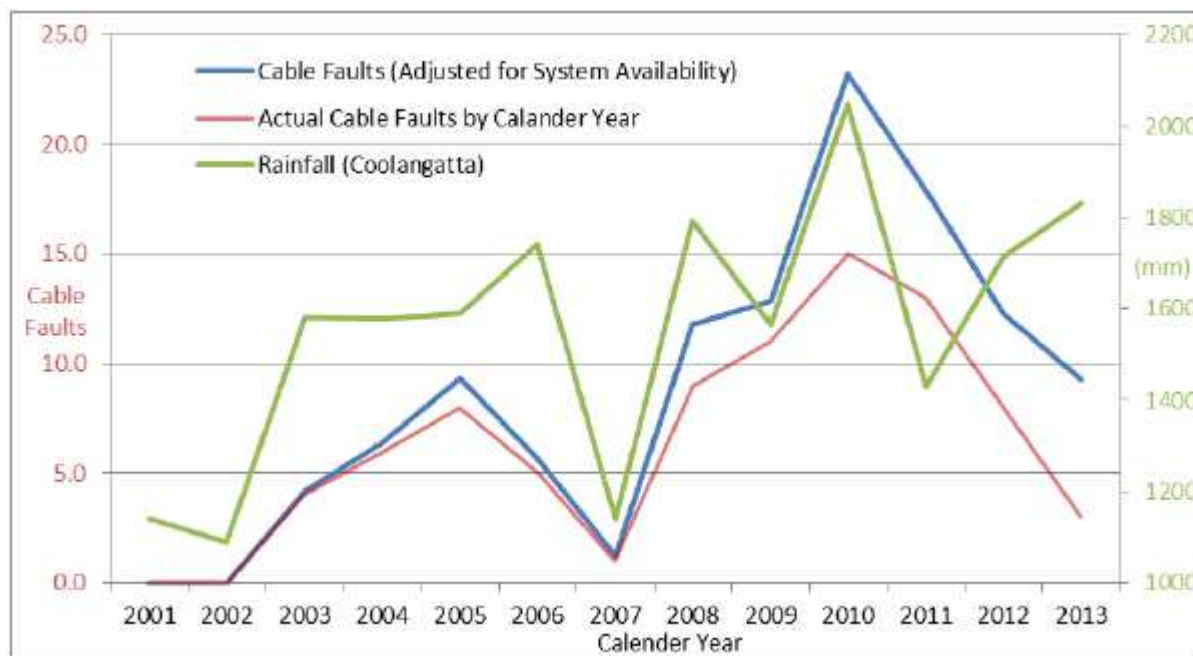
We note that Directlink has proposed substantial increases in operating and capital expenditure for the 2015–20 regulatory control period, with much of this justified on the basis of improved reliability outcomes. We have approved a total capital allowance of \$25.6 million for Directlink, which is a substantial increase in capex compared to the historical levels. Under this circumstance, we do not consider it is reasonable to simply set the performance targets equal to Directlink's average performance history over the past five years without adjustment.

Directlink submitted that there are two different types of faults that would result in reliability reduction, they are:³³

- a cable fault, which can cause a single circuit to be offline for a number of days;
- a fault at a converter station, which could result in a catastrophic failure and result in that circuit (and potentially other circuits) being off line for an extended period.

It also submitted there have been 138 cable faults since its system was commissioned in 2000.³⁴ This is an average of around 10 cable faults per annum, as illustrated in Figure 11.1 below.

Figure 11.1 Directlink's reported historical cable faults



Source: Directlink, Revenue proposal 2015–20, p.31

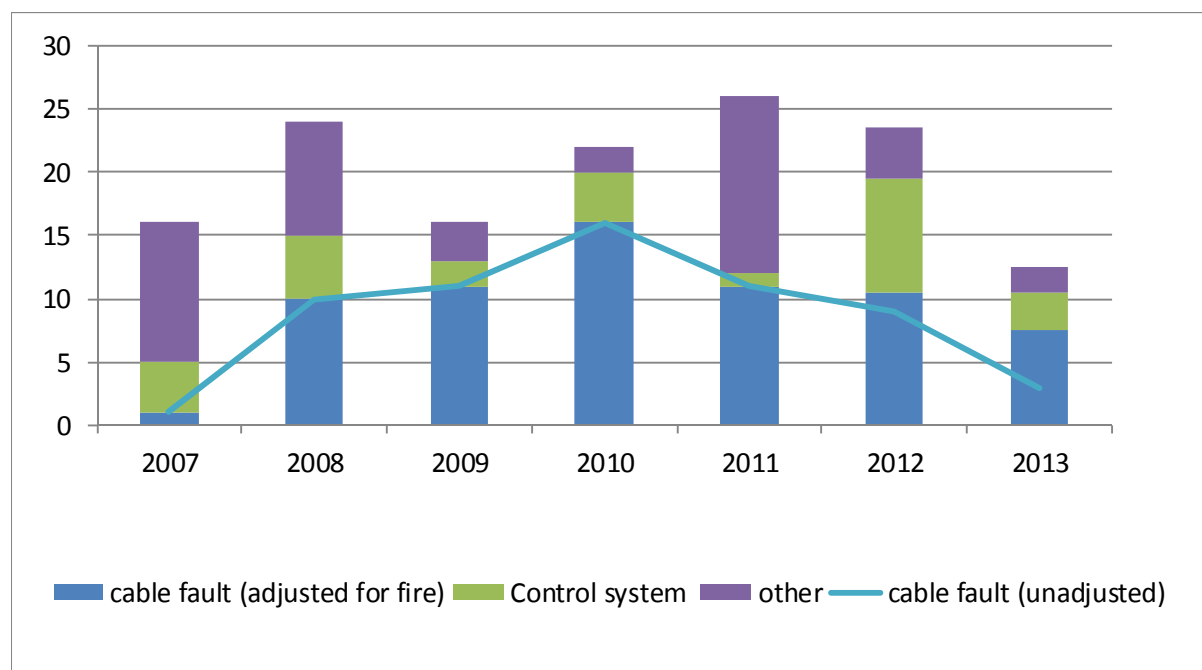
³³ Directlink, Revenue proposal 2015–20, p.30

³⁴ Directlink, Revenue proposal 2015–20, p.31.

Directlink noted its historical cable repair strategy was focused on a short section of the cable surrounding a fault and experience has shown that another fault often occurs nearby. Directlink has now developed a new strategy to replace longer segments of cable during cable repair operations which requires additional operating and capital expenditure. As shown in Figure 11.1 above, this strategy appears to be delivering positive outcomes.³⁵

We have analysed the historical circuit outages by their major cause—that is by cable fault, control system fault and other cause. Figure 11.2 indicates cable faults and control system failures are the key causes of Directlink's circuit outages. We have also observed a clear reducing trend in cable faults since 2010, which is likely to be the result of Directlink's new cable repair strategy.

Figure 11.2 Directlink's annual circuit outages by major cause (number of outages)



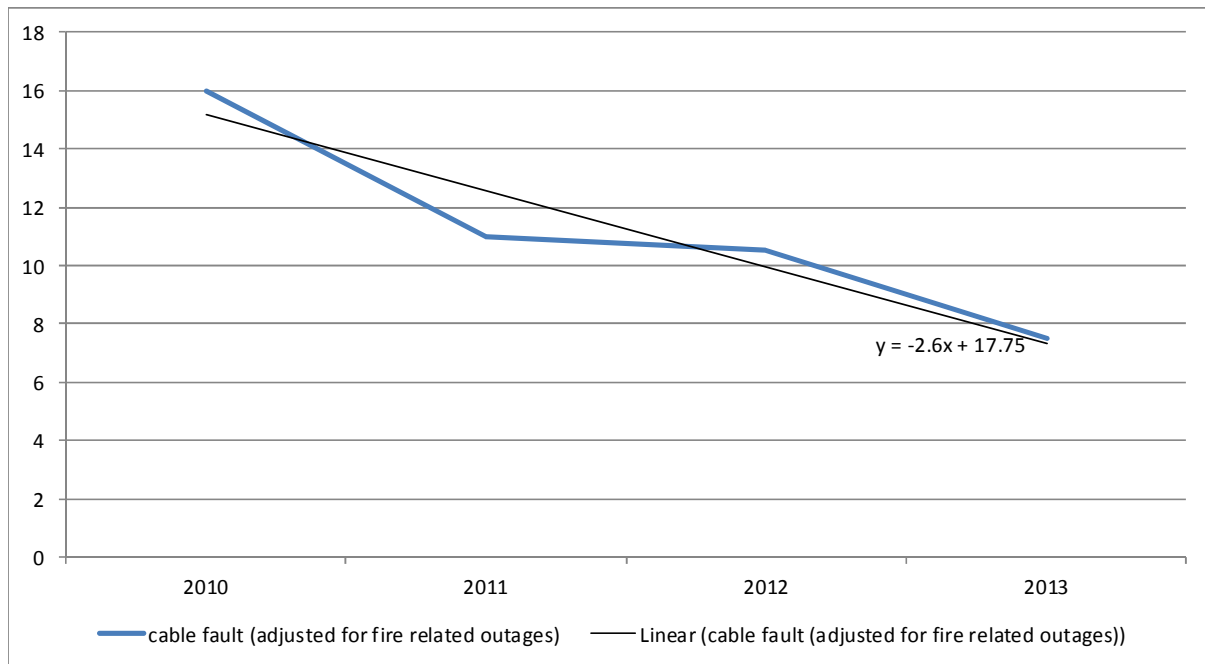
Source: AER analysis

The historical trend in Figure 11.3 shows a decreasing prevalence of cable faults, even after adjusting for the reduced availability in 2012 and 2013.³⁶ We expect cable faults to decrease further as a result of this improved cable repair strategy and increased capex allowance. We have applied this trend to the start of next regulatory control period and estimated 2.15 cable faults per annum in 2015.

³⁵ Directlink, *Revenue proposal 2015–20*, p.31.

³⁶ We examined the data for the 2010 to 2013 period as it reflects the improvement that Directlink has achieved from implementing its new cable repair strategy. It is not possible to have a cable fault if the cable is out of service, so the outage rates of cable are increased in proportion to the time that the cables were out of service. Only the unusually long outages following the fire are included in the adjustment. In 2012 all 3 cables were out of service during 14-23 August 2012, and then one was out of service to the end of year. In 2013 one cable was out of service all year and all 3 cables were out of service from 6 August 2013 to the end of year.

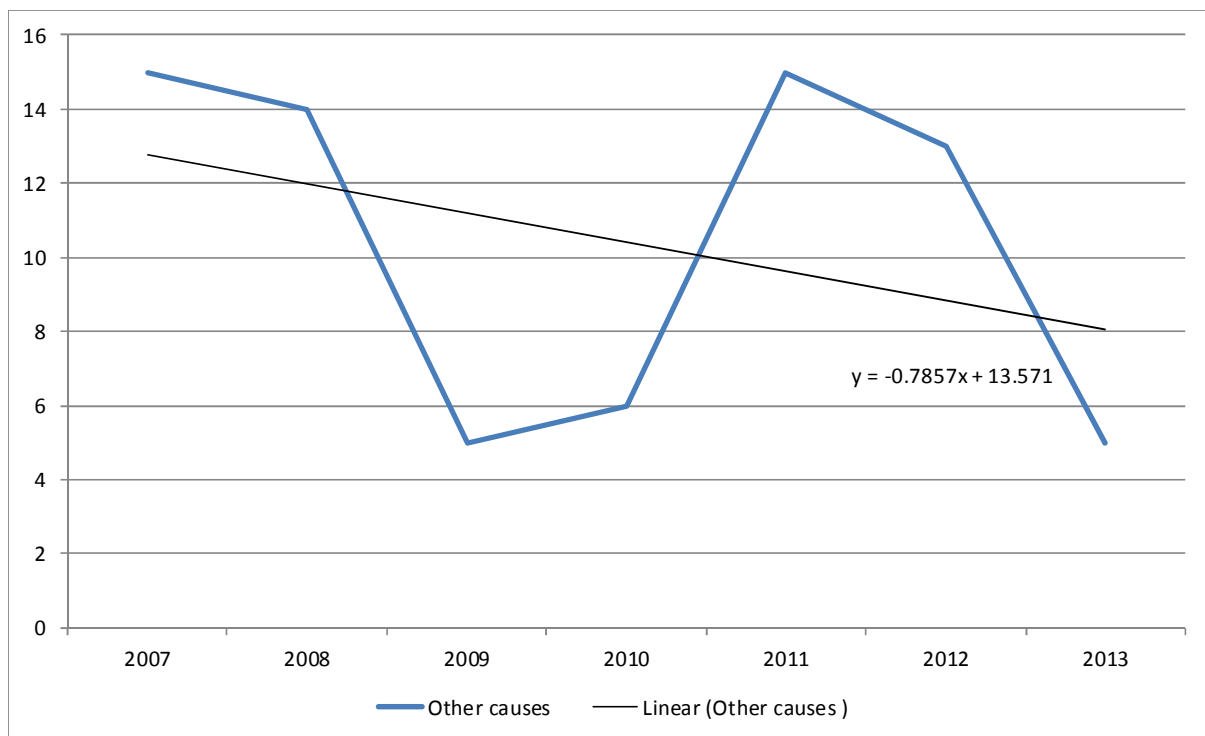
Figure 11.3 Observed cable faults trend for Directlink (number of cable faults)



Source: AER analysis

We also observe a decreasing trend for other faults as illustrated in Figure 11.4. This is likely to be a result of Directlink's improved maintenance practices. Similar to the cable faults, we have applied this trend to the start of next regulatory control period and estimated 6.50 other fault outages per annum in 2015.

Figure 11.4 Observed other fault outages trend for Directlink

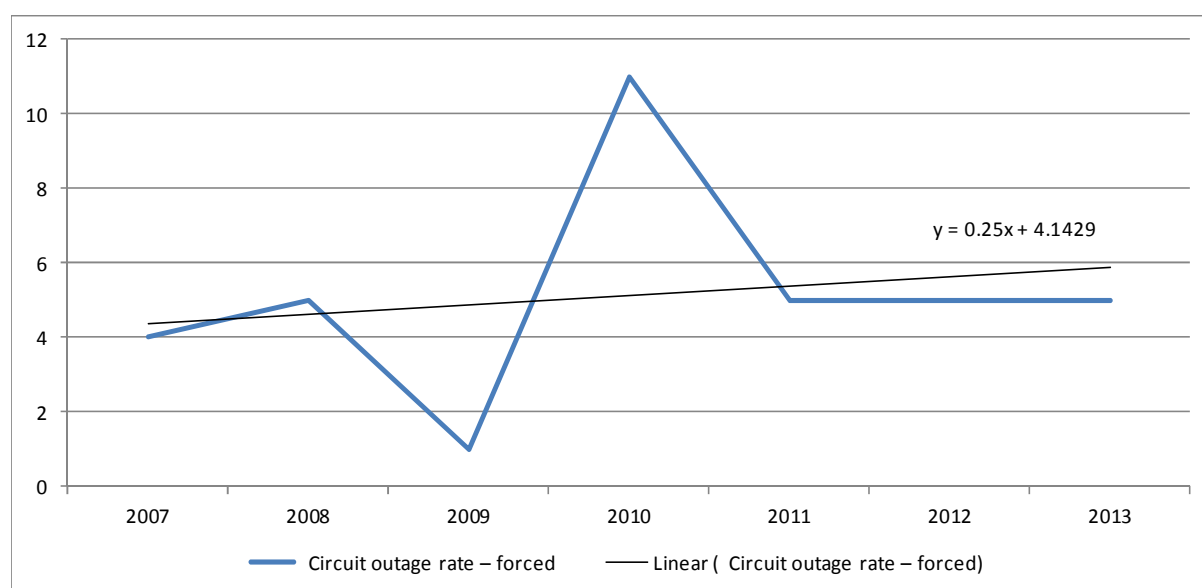


Source: AER analysis

We have rounded up the above estimated outages and consider a reasonable target for "circuit outage – fault", after taking into account Directlink's historical performance and increased allowed capex in the 2015–20 regulatory control period, is a total of 10 circuit outages per annum. As Directlink has a total of three cables, this equates to a "circuit outage rate – fault" of 333.33 per cent.

Our analysis of forced outages shows a slight increasing trend over the 2007–2013 period, as illustrated in Figure 11.5. However, we note the majority of forced outages are associated with faulty IGBTs. Directlink expected its IGBT failure rate will improve following the planned capital works and through its management strategy for these devices. Therefore we set the performance target for "circuit outage rate – forced outage" at 180.00 per cent based on the average performance over the 2008–2012 period without adjustment. Similarly, we set the performance target for "failure of protection system" at 4 based on the average performance over the 2008–2012 period without adjustment.

Figure 11.5 Observed forced outages trend for Directlink (number of outages)



Source: AER analysis

Caps and collars

Proposed caps and collars must be calculated with reference to the proposed performance targets using a sound methodology.³⁷ In the past, we have generally accepted approaches that use five years of performance data to derive a statistical distribution, with the caps and collars set at two standard deviations either side of the mean (if using a normal distribution), or at the 5th and 95th percentiles (if using a distribution other than the normal distribution).

The statistical distribution type selected to calculate the caps and collars for a particular parameter must be conceptually sound. Consistent with the approach that we have applied in the past decisions, the following principles should be applied when selecting a distribution to calculate caps and collars:³⁸

- the chosen distribution should reflect any inherent skewness of the performance data.

³⁷ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 3.2(e).

³⁸ We have applied this approach consistently in the past decisions. See: AER, *Final decision SP AusNet transmission determination 2014–15 to 2016–17*, January 2014, p.161-162

- the distribution should not imply that impossible values are reasonably likely. For example, the distribution for an average circuit outage rate sub-parameter should not imply that values below zero per cent are reasonably likely.
- discrete distributions should be used to represent discrete data. For example, a discrete distribution such as the Poisson distribution should be used when calculating caps and collars for loss of supply sub-parameters. Continuous distributions should not be used.

Using standard deviations to set caps and collars is appropriate when a normal distribution is selected. However, when a normal distribution is not selected, the better measure to use is the percentiles. This is consistent with the EMCa's advice for the 2013 SP AusNet transmission decision.³⁹

Directlink has not attempted to fit a statistical distribution to five years of performance data. It calculated standard deviation from the five data points and derived caps and collars using one standard deviation.⁴⁰

We do not consider the caps and collars calculated based on this approach is sound. Table 11.4 sets out the caps and collars derived from our principle based approach as discussed above for the "circuit outage rate – forced outages" and "failure of protection system" sub-parameters.

Table 11.4 Caps and collars derived from our preferred method

Parameter	Distribution	Cap (5th percentile)	Collar (95th percentile)
Average circuit outage rate			
circuit outage rate – forced outages	Weibull	35.19%	383.31%
Proper operation of equipment			
Failure of protection system	Poisson	1	8

Source: AER analysis

As we have adjusted the proposed performance target for the "circuit outage rate – fault" sub-parameter, we cannot apply our principle based approach to calculate the cap and collar for that sub-parameter. Our proposed target for this sub-parameter is 10 faults per annum and we consider it is reasonable to apply a symmetrical incentive of 5 faults per annum above and below the proposed target. This leads to a cap of 166.67 per cent and a collar of 500.00 per cent.

Market impact component

Our amendments to the STPIS in September 2014, as foreshadowed in our Framework and Approach Paper, acknowledge that Directlink's performance during the period of the Mullumbimby fire may not allow an appropriate benchmark for setting its performance targets.⁴¹

The AER reviewed the applicability of Version 4 to Directlink, in light of exceptional outages of its equipment in 2012. Consequently we recognised that an amendment to the scheme was warranted to specifically address the Directlink situation. In 2012, fire at the Mullumbimby end of Directlink caused

³⁹ EMCa, *SP AusNet technical review*, August 2013, p. 107, paragraph 396–8.

⁴⁰ Directlink, *Directlink average circuit outage rate calcs.xlsx*, May 2014.

⁴¹ AER, *Final framework and approach paper for Directlink*, January 2014, p. 13.

extensive equipment damage resulting in a material long term reduction in its operational capability. The service component of the scheme includes clauses that enable the AER to adjust both the period over which performance is calculated and make adjustments for statistical outliers that may occur as a result of circumstances such as these when setting performance targets.

However, the market impact component had no such clauses. To promote consistency and avoid potential unintended consequences the AER amended the STPIS. Ordinarily, the rolling target ensures the benchmark for setting performance targets is relevant to the TNSP's current maintenance and construction activities. The amendment realigns the period over which Directlink's targets and measures are calculated to avoid distortions from Directlink's recent historical performance which may distort the quality and reliability incentives for Directlink for the next regulatory control period.

To minimise the distortion of the quality and reliability incentives for Directlink during the 2015–20 regulatory control period, version 4.1 of the STPIS excludes Directlink's performance against the market impact parameter for the period beginning the day of the Mullumbimby fire on 12 August 2012 to the date when Directlink returns to normal service (referred to as the "Directlink fire excluded period").⁴² The date that Directlink returns to normal service is the date set by the AER that it considers Directlink is reasonably capable of sustaining reliability performance similar or better than the reliability performance exhibited prior to the fire, which will be no later than 31 December 2015.⁴³

Typically, for the purposes of setting a market impact parameter performance target for 2015, we would validate performance data for the preceding three years and average that performance to calculate the 2015 performance target. However, given that the Directlink fire excluded period interrupts the three years preceding 2015, version 4.1 of the STPIS provides that the period immediately prior to the Directlink fire excluded period is included for the purposes of calculating the performance target.⁴⁴ Therefore, in order to calculate Directlink's 2015 market impact parameter performance target, we validated and confirmed market impact performance data for the period 12 August 2009 to 11 August 2012.

Similarly, for the purposes of calculating Directlink's market impact parameter performance targets for 2016, 2017 and 2018 and its calendar year performance for 2015 and 2016, if the Directlink fire excluded period interrupts the relevant measurement period for either the performance target or calendar year performance, the period immediately prior to the Directlink fire excluded period is included to make up the balance.⁴⁵ Accordingly, no financial incentive will apply to Directlink during the Directlink fire excluded period.⁴⁶ Directlink's market impact parameter performance targets that will apply within the remainder of the 2015–20 regulatory control period will be published annually as part of our service standards compliance reporting process.⁴⁷

Our audit of Directlink's market impact performance data for the period 12 August 2009 to 11 August 2012 resulted in a number of adjustments. These adjustments are shown in Table 11.5

⁴² AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 4.2(e).

⁴³ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 4.2(f).

⁴⁴ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 4.2(g) and Appendix F.

⁴⁵ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clauses 4.2(g) and (h) and Appendix F.

⁴⁶ AER, *Final – Service Target Performance Incentive Scheme*, September 2014, clause 4.2(i).

⁴⁷ Our annual service standards compliance reports are available at <http://www.aer.gov.au/node/484>.

Table 11.5 AER adjustments to Directlink's market impact component performance data

Constraint	Adjustment	Reason
N>Q-FDNA	+9 counts	1/11/2009 Directlink Flow Direction Signalling Not Available.
NQTE_030	+14 counts	21/8/2009 There is a short notice outage of the Directlink Emergency Tripping Scheme in the NSW Region so this is included in the scheme.
N>>N-DTSS_20	+15 counts	9/11/2012 Essential Energy requested outage for TNA-BLA line protection work. Planned outage requested by third parties are included in the scheme.
NQTE_020	+4 counts	17/02/2012 Constraint is an inability to control Directlink.
N_X_MBTE_3A	+2.5 counts	23-24/7/2012 Outage for Essential Energy protection work at Mullumbimby. Planned outage requested by third party is an inclusion in the scheme. Directlink applied a 50% weight.
N_X_MBTE_3B	+28.5 counts	22/07/2010 Country Energy Requested Outage - Terranora Bus zone breakers, which is a planned outage requested by third party. This is an inclusion for TNSP count. Increase weight to 1.
	-5 counts	9/08/2010 Auxiliary power failure from the Country Energy distribution network implies an unplanned outage caused by third party system, therefore exclusion clause 3 .
	+21.5 counts	10–11/8/2010 County Energy Requested outage for work at Terranora. Planned outage requested by third parties are included in the scheme.
	+17 counts	14–15/8/2010 County Energy Requested outage for work at Terranora. Comment implies planned outage requested by third party. This is an inclusion for TNSP count.
	+19.5 counts	8–9/11/2011 Essential Energy requested outage for TNA-BLA line protection work. Planned outage requested by third party. This is an inclusion for TNSP count.
	+4 counts	6/6/2012 Outage for Essential Energy protection work at Mullumbimby. Comment implies planned outage requested by third party.
	+16 counts	18/7/2012 Outage for Essential Energy protection work at Mullumbimby. Planned outage requested by third party is included in the scheme.
	+9.5 counts	23/7/2012 Outage for Essential Energy protection work at Mullumbimby. Planned outage requested by third party is included in the scheme.

Constraint	Adjustment	Reason
#N-Q-MNSP1_RAMP_I_F	-52 counts	AER did not accept 52 counts for RAMP constraints (6 in year ending 12/8/2010, 38 in year ending 12/8/2011, 8 in year ending 12/8/2012): Ramping constraints are not in the scheme.
#N-Q-MNSP1_I_E	-220 counts	AER changed inclusion weight to zero (156 in year ending 12/8/2010, 11 in year ending 12/8/2011, 53 in year ending 12/8/2012): AEMO market notices suggest these counts were associated with managing negative settlement residues, which are not in the scope of STPIS.

Source: Directlink email dated 20 August 2014 in response to AER, Information request Directlink - STPIS 01, 1 August 2014.

Given the above adjustments, we revised Directlink's performance for the year ending 11 August 2010 from 2949 to 2836 dispatch intervals, its performance for the year ending 11 August 2011 from 1030 to 1017 dispatch intervals and its performance for the year ending 11 August 2012 from 365.5 to 375 dispatch intervals.

Consequently, Directlink's market impact parameter performance target for 2015 is revised downwards from 1448 dispatch intervals (proposed) to 1409 dispatch intervals. When determining Directlink's performance measure for the last half of 2015, we will calculate its performance using the method set out in Appendix F of the STPIS, with the incentive payment pro-rated in accordance with clause 4.2(i) and Appendix D.

In arriving at this revision, we offered Directlink the opportunity to provide feedback and comment on the analysis and proposed adjustments.⁴⁸

⁴⁸ Directlink email dated 29 September 2014 in response to AER email dated 25 September 2014.