

PRELIMINARY DECISION

Energex determination 2015−16 to 2019−20

Attachment 11 − Service target performance incentive scheme

April 2015

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1. Note
2. This attachment forms part of the AER's preliminary decision on Energex's 2015–20 distribution determination. It should be read with all other parts of the preliminary decision.
3. The preliminary decision includes the following documents:
4. Overview
5. Attachment 1 – Annual revenue requirement
6. Attachment 2 – Regulatory asset base
7. Attachment 3 – Rate of return
8. Attachment 4 – Value of imputation credits
9. Attachment 5 – Regulatory depreciation
10. Attachment 6 – Capital expenditure
11. Attachment 7 – Operating expenditure
12. Attachment 8 – Corporate income tax
13. Attachment 9 – Efficiency benefit sharing scheme
14. Attachment 10 – Capital expenditure sharing scheme
15. Attachment 11 – Service target performance incentive scheme
16. Attachment 12 – Demand management incentive scheme
17. Attachment 13 – Classification of services
18. Attachment 14 – Control mechanism
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1. Shortened forms

| Shortened form | Extended form |
| --- | --- |
| AEMC | Australian Energy Market Commission |
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| augex | augmentation expenditure |
| capex | capital expenditure |
| CCP | Consumer Challenge Panel |
| CESS | capital expenditure sharing scheme |
| CPI | consumer price index |
| DRP | debt risk premium |
| DMIA | demand management innovation allowance |
| DMIS | demand management incentive scheme |
| distributor | distribution network service provider |
| DUoS | distribution use of system |
| EBSS | efficiency benefit sharing scheme |
| ERP | equity risk premium |
| Expenditure Assessment Guideline | expenditure forecast assessment Guideline for electricity distribution |
| F&A | framework and approach |
| MRP | market risk premium |
| NEL | national electricity law |
| NEM | national electricity market |
| NEO | national electricity objective |
| NER | national electricity rules |
| NSP | network service provider |
| opex | operating expenditure |
| PPI | partial performance indicators |
| PTRM | post-tax revenue model |
| RAB | regulatory asset base |
| RBA | Reserve Bank of Australia |
| repex | replacement expenditure |
| RFM | roll forward model |
| RIN | regulatory information notice |
| RPP | revenue and pricing principles |
| SAIDI | system average interruption duration index |
| SAIFI | system average interruption frequency index |
| SLCAPM | Sharpe-Lintner capital asset pricing model |
| STPIS | service target performance incentive scheme |
| WACC | weighted average cost of capital |

# Service target performance incentive scheme

We published the current version of our national Service Target Performance Incentive Scheme for electricity distributors (STPIS) in November 2009.[[1]](#footnote-1) The STPIS is intended to balance incentives to reduce expenditure with the need to maintain or improve service quality. It achieves this by providing financial incentives to distributors to maintain and improve service performance where customers are willing to pay for these improvements.

The STPIS operates as part of the building block determination and is applied via the control mechanism. Through the S-factor component of the STPIS, distributors are penalised or rewarded for diminished or improved service performance compared to predetermined targets.

1. Our framework and approach paper for Energex and Ergon Energy proposed to continue to apply the national STPIS to the Queensland distributors. The framework and approach paper also proposed to:
2. apply a ±2 per cent financial reward or penalty based on whether the Queensland distributors meet their STPIS targets, and
3. not to apply the guaranteed service level (GSL) component as the Queensland distributors are subject to a jurisdictional GSL scheme.[[2]](#footnote-2)

## Preliminary decision

Our preliminary decision is to apply the STPIS to Energex for the 2015-20 regulatory control period and it will be to:

* set revenue at risk for Energex at the range ±2 per cent
* segment Energex's network according to feeder categories CBD, urban and rural
* set applicable reliability of supply (system average interruption duration index or SAIDI and system average interruption frequency index or SAIFI) and customer service (telephone answering) parameters
* set performance targets based on the Energex's average performance over the past five regulatory years
* apply the methodology indicated in the national STPIS for excluding specific events from the calculation of annual performance targets
* apply the methodology and value of customer reliability (VCR) values to the calculation of incentive rates using the latest VCR for Queensland.

### Revenue at risk[[3]](#footnote-3)

The maximum level of penalty or reward under the STPIS is calculated as a percentage adjustment to Energex's total revenue (the S-factor adjustment). The
S-factor adjustment is subject to the revenue at risk cap.

The revenue at risk for Energex for each regulatory year of the 2015–20 regulatory control period will be capped at ±2.0 per cent. Within this cap, there will be a sub cap of ±1.9 per cent for the reliability component and ±0.10 per cent on the telephone answering parameter for performance.

### Incentive rates[[4]](#footnote-4)

Incentive rates are the penalty or reward that Energex receives for a single unit variation in performance. The incentive rates parameters are calculated with reference to the Value of Customer Reliability (VCR).[[5]](#footnote-5) We consider the most recent VCR rate should be applied in calculating the incentive rates because it better reflects customers' current value for reliability compared to our national STPIS. As such, we will apply the following VCRs:

* Our derived VCR for CBD based on Energex's data.[[6]](#footnote-6)
* AEMO's VCR values for urban and rural because it represented the best available information. AEMO's review process was comprehensive and included survey of Queensland consumers and relies on more recent information compared to our national STPIS on the preferences of Queensland consumers.[[7]](#footnote-7)

Table 11.1 presents our incentive rates to apply to Energex's SAIDI and SAIFI targets. The incentive rate for the telephone answering parameter will be -0.04 per cent per unit of the telephone answering parameter. Table 11.2 outline the VCR values that were used to derive the incentive rates.[[8]](#footnote-8)

Table .: Preliminary decision—incentive rates to apply to Energex's STPIS targets 2015–20

|  |  |  |  |
| --- | --- | --- | --- |
|   | CBD  | Urban  | Rural |
| SAIDI | 0.0026 | 0.0463 | 0.0108 |
| SAIFI | 0.2562 | 3.1615 | 0.9080 |

Source: AER Analysis.

Table 11.2: Value of customer reliability

|  |  |  |  |
| --- | --- | --- | --- |
|   | CBD  | Urban  | Rural |
| VCR | $44,989 | $40,206 | $40,206 |

Source: AER Analysis and AEMO, Value of customer reliability review, final report, September 2014, p. 30. VCR values have been escalated to the March 2015 quarter.

### Performance targets[[9]](#footnote-9)

We will apply the System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) reliability of supply parameters. The targets will be set by reference to Energex's reliability performance in the previous regulatory control period.

We will also apply the telephone answering parameter, but not the STPIS Guaranteed Service Level (GSL) scheme. This is because Energex must comply with the existing jurisdictional GSL scheme.[[10]](#footnote-10)

Our preliminary determination on the performance targets for Energex's STPIS parameters based on our calculation results are presented on Table 11.3.

Table .: Preliminary decision—Energex's SAIDI and SAIFI targets for 2015–20

|  |  |  |
| --- | --- | --- |
|   |  SAIDI (Minutes p.a.)  |  SAIFI (Interruptions p.a.) |
|   | CBD  | Urban  | Rural | CBD  | Urban  | Rural |
| Preliminary decision | 3.90 | 60.12 | 144.47 | 0.035 | 0.908 | 1.875 |

Source: AER analysis.

Telephone answering

We will apply the telephone answering parameter to Energex. We accept Energex's proposed performance target that 85 per cent of calls will be answered within 30 seconds.[[11]](#footnote-11)

Energex's historical performance against the AER's targets

Figure 11.1 shows that Energex's network performance in the current regulatory period has been mostly better than its STPIS targets. The STPIS targets for the next regulatory period have been adjusted to reflect Energex's performance. That is, the STPIS targets have been tightened in accordance with the scheme to reflect Energex's historical performance.[[12]](#footnote-12)

Figure 11.1 Energex's historical outcomes against the performance targets







Source: AER analysis.

## Energex's proposal

Energex's regulatory proposal accepted our framework and approach paper position on the application of STPIS in the forthcoming regulatory control period.[[13]](#footnote-13)

Energex also proposed to set its performance targets based on historical average performance and to adjust it to correct for performance that exceeded the revenue at risk upper limit.[[14]](#footnote-14)

## AER’s assessment approach

We are required to make a decision on how the STPIS is to apply to Energex.[[15]](#footnote-15) When making a distribution determination, the STPIS requires us to determine all performance targets, incentive rates, revenue at risk and other parameters required to apply the scheme.[[16]](#footnote-16)

We outlined our proposed approach to, and justification for, the application of the STPIS in our framework and approach paper for Energex and Ergon Energy. Our preliminary decision has adopted the position in the framework and approach paper, unless new information has become available or new arguments have been put forward which warrant a reconsideration of this position. We have considered material submitted to us by Energex and by stakeholders

### Interrelationship

In applying the STPIS we must consider any other incentives available to the distributor under the NER or relevant distribution determination.[[17]](#footnote-17) One of the objectives of the STPIS is to ensure that the incentives are sufficient to offset any financial incentives the distributor may have to reduce costs at the expense of service levels.[[18]](#footnote-18) For the 2015–20 regulatory control period, the STPIS will interact with the Capital Expenditure Sharing Scheme (CESS) and the opex Expenditure Benefit Sharing Scheme (EBSS).

The rewards and penalties amounts under STPIS are determined based on the average customer value for the improvement, or otherwise, to supply reliability
(the VCR). This is aimed at ensuring that the distributor’s operational and investment strategies are consistent with customers’ value for the services that are offered to them.

Our capex and opex allowances are to be set so as to reasonably reflect the expenditures required by a prudent and efficient business to achieve the capex and opex objectives. These include complying with all applicable regulatory obligations and requirements and, in the absence of such obligations, maintaining quality, reliability, and security outcomes.

The STPIS on the other hand provides an incentive for distributors to invest in further reliability improvements (via additional capex or opex) where customers are willing to pay for it. Conversely, the STPIS penalises distributors where they let reliability deteriorate. Importantly, the distributor will only receive a financial reward after actual improvements are delivered to the customers.

In conjunction with CESS and EBSS, the STPIS will ensure that:

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

## Reasons for preliminary decision

The following section sets out our detailed consideration in applying the STPIS to Energex for the 2015–20 regulatory control period.

### Revenue at risk

Energex's revenue at risk for each regulatory year of the 2015–20 regulatory control period will be capped at ±2.0 per cent. Within this there will be a cap of ±1.9 per cent for the reliability of supply component and ±0.1 per cent for the customer service component.

Revenue at risk caps the potential rewards and penalties for Energex under the STPIS. We consider an incentive of two per cent of maximum allowable revenue would balance the risk to both consumers and Energex and thus better meet the objectives of the STPIS. This rate is consistent with our framework and approach paper position.

Revenue at risk for 2015−16 and 2016−17

The STPIS operates as part of the building block determination and is applied via the control mechanism. Through the S-factor component of the STPIS, distributors are penalised or rewarded for diminished or improved service performance compared to predetermined targets. Distributors are either rewarded or penalised via network charges two years after the end of each regulatory year because audited performance data would only be available after the regulatory year is completed––hence, the earliest time the S-factor can apply is the year following performance data availability.

Consequently, the S-factor outcomes of 2013−14 and 2015−14 will apply to prices for the 2015−16 and 2016−17 regulatory years respectively.

As stated above, the revenue at risk caps the risk of the STPIS to Energex at two per cent. However, distributors may exceed this cap where there are increases or decreases to the amount of maximum allowable revenue that they can recover between regulatory control periods. The STPIS scheme accounts for the differences to maximum allowable revenue recoverable between regulatory control periods by making an adjustment to the "raw"[[19]](#footnote-19) S-factor for the last and second last regulatory years of the current regulatory control period (which is applied in the first and second regulatory years of the next regulatory control period) by adjusting the raw S-factor value based on:

the percentage change between the annual revenue requirement in the last regulatory year of the previous regulatory control period and the annual revenue requirement for first regulatory year of the next regulatory control period taken from the post-tax revenue model.[[20]](#footnote-20)

Hence, the revenue at risk cap for the first two years of the next regulatory control period should be adjusted based on the approved revenue at risk cap of the previous regulatory control period.

### Reliability of supply component

Applicable components and parameters

We will apply unplanned SAIDI and unplanned SAIFI parameters under the reliability of supply component to Energex's CBD, urban and rural feeders for the 2015–20 regulatory control period. Unplanned SAIDI measures the sum of the duration of each unplanned sustained customer interruption (in minutes) divided by the total number of distribution customers. Unplanned SAIFI measures the total number of unplanned sustained customer interruptions divided by the total number of distribution customers.

Exclusions

The STPIS allows certain events to be excluded from the calculation of the S-factor revenue adjustment. These exclusions include the events that are beyond the control of Energex, such as the effects of transmission network outages and other upstream events. They also exclude the effects of extreme weather events that have the potential to significantly affect Energex's STPIS performance.

Energex proposed to calculate the major event day (MED) thresholds using 2.5 beta method in accordance with appendix D of the STPIS and our framework and approach paper.[[21]](#footnote-21) We will apply the exclusions as proposed by Energex and have incorporated our calculation of exclusions into the setting of STPIS targets for this preliminary decision. Table 11.4 sets out our calculated MED thresholds calculated in accordance with Appendix D of the STPIS.[[22]](#footnote-22)

Table .: Our calculated MED thresholds (TMED)

|  |  |
| --- | --- |
| Regulatory year | TMED |
| 2010−11  | 4.22 |
| 2011−12  | 3.68 |
| 2012−13  | 4.10 |
| 2013−14  | 3.62 |
| 2014−15  | 3.66 |

Source: AER analysis.

### Performance targets

The STPIS specifies that the performance targets should be based on the average performance over the past five regulatory years. It also states that the performance target must be modified for any reliability improvements completed or planned where the planned reliability improvements are:[[23]](#footnote-23)

* included in the expenditure program proposed by the distributor in its regulatory proposal, or
* proposed by the distributor, and the cost of the improvements is allowed by the relevant regulator, in the distributor's previous regulatory proposal or regulatory submission, and
* expected to result in a material improvement in supply reliability.

Energex proposed to set the performance targets based on historical averages as per the scheme guidelines. We accept this approach as the capex allowance under this decision does not result in any material increases in reliability performance.

Funded Reliability Improvements

*Adjustment for historical expenditure*

We consider that any benefits resulting from quality improvement capex undertaken by Energex in the current regulatory control period have either been taken into account in the 2010–15 performance targets and actual performance. As such, modification to the performance targets to take into account current reliability improvements is not required for the next regulatory control period.

In essence, the STPIS is designed so that an improving performance trend will automatically tighten performance targets to ensure continuous reliability improvements. A further adjustment occurs where distributors are funded for reliability improvement capex that would lead to a material outcome in reliability improvement.

*Adjustment for new expenditures*

For the next regulatory control period, this preliminary decision includes $20.6 million capex to improve the reliability of worst performing feeders. We consider the impact on reliability outcome of these activities is small as $20.6 million represents less than 0.2 per cent of Energex's regulatory asset base. The impact of this investment is essentially not material compared to the weather impact on historical performance. As the STPIS only requires the performance targets to be modified by any reliability improvement planned for the next regulatory period where it is expected to result in a material improvement in supply reliability, we also propose to set Energex's performance targets based on average performance over the past five regulatory years without modification.[[24]](#footnote-24)

Our above assessment is consistent with Energex's submission that:[[25]](#footnote-25)

The Queensland businesses must improve these feeders based on a regulatory requirement. Energex must meet Minimum Service Standard (MSS) targets set out in its Distribution Authority (DA). Network performance has improved during the current regulatory control period and performance currently exceeds these targets. There are therefore no new reliability projects planned for 2015-20 aimed at improving the average performance (and hence MSS performance) of the network.

For a number of years, Energex has had a program to monitor worst performing feeders and publically reports on performance in its annual Distribution Annual Planning Report (previously the Network Management Plan). From 1 July 2014 there is now also an obligation under Energex’s DA which requires Energex to put in place a program to improve the reliability of the worst performing 11 kV feeders. Reliability expenditure during the 2015‑20 regulatory control period is targeted at addressing feeders that meet the worst performing feeder criteria set out in the DA.

Planned improvements to worst performing feeders are expected to have no material impact on future MSS performance.

Adjustment for exceeding the revenue at risk cap

We must consider whether a distributor has breached the cap on revenue at risk in the current regulatory control period when establishing performance targets.[[26]](#footnote-26) We consider this adjustment necessary to ensure that a distributor does not experience a penalty, by way of increasingly difficult performance targets, in the next regulatory control period for improved service performance that exceeded the revenue at risk. This equally applies when we make an adjustment to ensure that a distributor does not benefit, by way of easier performance targets, in the next regulatory control period for service performance that fell below the amount of revenue at risk.

We have adjusted Energex's performance targets for the 2015–20 regulatory period because it has exceeded the cap for revenue at risk for the first four years of the current regulatory period. We have also adopted Energex's method to adjust its performance targets because we found it to be robust and reasonable.[[27]](#footnote-27)

Our calculated performance targets for Energex for the 2015–20 regulatory control period are presented in table 11.5.

Table .: Preliminary decision—STPIS targets to apply to Energex for 2015–20

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | 2015−16  | 2016−17  | 2017−18  | 2018−19  | 2019−20  |
| SAIDI |   |   |  |  |  |
| CBD | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 |
| Urban | 60.12 | 60.12 | 60.12 | 60.12 | 60.12 |
| Rural | 144.47 | 144.47 | 144.47 | 144.47 | 144.47 |
| SAFI |  |  |  |  |  |
| CBD | 0.035 | 0.035 | 0.035 | 0.035 | 0.035 |
| Urban | 0.908 | 0.908 | 0.908 | 0.908 | 0.908 |
| Rural | 1.875 | 1.875 | 1.875 | 1.875 | 1.875 |
|  |  |  |  |  |  |

Source: AER Analysis.

## Customer service component

The national STPIS customer service target applicable to Energex is telephone response measured as the number of telephone calls answered within 30 seconds. This measure is referred to as the telephone Grade of Service (GOS).

We accept Energex's customer service targets as it has applied a 5 year's historical average to derived them for the next regulatory control period. This is consistent with our national STPIS.[[28]](#footnote-28)

##  Incentive rates

The incentive rates applicable to Energex for the reliability of supply performance parameters of the STPIS have been calculated in accordance with clause 3.2.2 and using the formulae provided as appendix B of the National STPIS. Our preliminary decision of Energex's incentive rates are at Table 11.6. The incentive rate for the customer service component will be -0.04 per cent per unit of the telephone answering parameter.[[29]](#footnote-29)

Table .: Preliminary decision—incentive rates to apply to Energex's STPIS targets in 2015–20

|  |  |  |  |
| --- | --- | --- | --- |
|   |  CBD | Urban | Rural |
| SAIDI | 0.0026 | 0.0463 | 0.0108 |
| SAIFI | 0.2562 | 3.1615 | 0.9080 |

Source: AER Analysis.

## Stakeholder submissions on the STPIS

The Queensland Council of Social Services (QCOSS) submitted that reliability is currently above the levels that customers are willing to pay for at prevailing tariffs.[[30]](#footnote-30)

QCOSS also submitted that the STPIS could be re-engineered as a penalty scheme for not reducing reliability levels back towards the maximum service levels users are prepared to accept for a given price. It notes however that this suggestion might be outside the expected implementation of the STPIS and thus is not pursuing this position. We note this point and may consider it when we review the scheme design.

QCOSS reviewed Energex's regulatory proposal and submitted that the STPIS targets for Energex should be around the same as at present for 2015−2016 and thereafter fall gradually so that they reflect the declines in reliability forecast by the Department of Energy and Water Supply by 2020.[[31]](#footnote-31)

QCOSS is referring to the deterministic "N-1" planning standard for supply security.[[32]](#footnote-32) The deterministic "N-1" planning standard is no longer enforced and has been replaced with cost/benefit trade-off "probabilistic" planning approach. Both deterministic and probabilistic planning standards mainly address capacity shortfalls rather than reliability outcomes.

The STPIS on the other hand has a different purpose. It is an outcome focused mechanism intended to balance incentives to reduce expenditure with the need to maintain or improve service quality. It achieves this by providing financial incentives to Energex to maintain and improve service performance where customers are willing to pay for these improvements.

Energex was rewarded under the STPIS in the current regulatory control period because it met it reliability targets or the intended outcome which was set above the reliability standard.

We noted QCOSS's comments on willingness to pay matter. As we are applying the latest VCR value published by AEMO, we consider that the scheme should be reflective of customers' values of supply reliability.

The QCOSS submission regarding the performance target adjustment relates to the design of the STPIS scheme and should be considered when we review the scheme.

1. AER, Electricity distribution network service providers—service target performance incentive scheme, 1 November 2009. (AER, STPIS, November 2009). [↑](#footnote-ref-1)
2. AER, Final Framework and approach for Energex an Ergon Energy Regulatory control period commencing 1 July 2015, April 2014, p. 70-71. [↑](#footnote-ref-2)
3. AER, STPIS, November 2009, cl. 2.1(d)(2). [↑](#footnote-ref-3)
4. AER, STPIS, November 2009, cl. 2.1(d)(3). [↑](#footnote-ref-4)
5. The VCR represents, in dollar terms, the willingness of customers to pay for the reliable supply of electricity. The values produced are used as a proxy in this way, and can be applied for use in revenue regulation, planning and operational purposes in the NEM. In network planning, the VCR is used by AEMO to assess the economic merits of carrying out additional investment in the electricity network. It is therefore important the VCR figures accurately reflect the value of reliability across a range of customers. [↑](#footnote-ref-5)
6. The historical Regulatory Information Notice only required information on energy consumption to be based on "residential" and "non-residential" classifications. Energex was unable accurately distinguish “business” into commercial, industrial and agriculture categories, the load types categories used by AEMO to calculate VCR values. We calculated the VCR for CBD feeder based on the assumption that most of the non-residential users are under the commercial category. We expect that the calculation result will have adequate accuracy. [↑](#footnote-ref-6)
7. AEMO, Value of customer reliability review final report, September 2014. [↑](#footnote-ref-7)
8. AER, STPIS, November 2009, cl. 5.3.2(a). [↑](#footnote-ref-8)
9. AER, STPIS, November 2009, cl. 2.1(d)(4). [↑](#footnote-ref-9)
10. Energex, Regulatory Proposal: Appendix 47 STPIS Reliability of Supply Target Setting Methodology, October 2014, p. 3. [↑](#footnote-ref-10)
11. Energex, Regulatory Proposal, October 2014, p. 198. [↑](#footnote-ref-11)
12. AER, STPIS, November 2009, cl. 3.2.1(a). [↑](#footnote-ref-12)
13. Energex, Regulatory Proposal, October 2014, p.193. [↑](#footnote-ref-13)
14. AER, STPIS, November 2099 cl. 3.2.1(a)(1B). [↑](#footnote-ref-14)
15. NER, cl. 6.12.1(a). [↑](#footnote-ref-15)
16. AER, STPIS, November 2009, cl. 2.1(d). [↑](#footnote-ref-16)
17. NER, cl. 6.6.2(b)(3)(iv). [↑](#footnote-ref-17)
18. AER, STPIS, November 2009, cl. 1.5(b)(5). [↑](#footnote-ref-18)
19. "Raw" refers to the S-factor prior to any adjustments. [↑](#footnote-ref-19)
20. AER, STPIS, November 2009, Appendix C, pp. 33–34. [↑](#footnote-ref-20)
21. Energex, Regulatory Proposal, October 2014, p. 196. [↑](#footnote-ref-21)
22. AER, STPIS, November 2009, Appendix D. [↑](#footnote-ref-22)
23. AER, STPIS, November 2009, cl. 3.2.1. [↑](#footnote-ref-23)
24. AER, STPIS, November 2009, cl. 3.2.1(a)(1A). [↑](#footnote-ref-24)
25. Energex, AER EGX 051 – Reliability, March 2015, p. 1. [↑](#footnote-ref-25)
26. AER, STPIS, November 2009, cl. 3.2.1(a)(1b). That is, the STPIS require an adjustment be made to correct for the revenue at risk to the extent that it does not lie between the upper limit and the lower limit. [↑](#footnote-ref-26)
27. The STPIS does not outline a method for the adjustment; Energex, Regulatory Proposal: Appendix 47 STPIS Reliability of Supply Target Setting Methodology, October 2014, pp. 6–7. [↑](#footnote-ref-27)
28. AER, STPIS, November 2009, cl. 5.3.1(a). [↑](#footnote-ref-28)
29. AER, STPIS, November 2009, cl. 5.3.2(a). [↑](#footnote-ref-29)
30. Queensland Council of Social Services, Submission to the AER’s Queensland electricity distribution determination 2015-2020, 30 January 2015, p. 95. [↑](#footnote-ref-30)
31. Queensland Council of Social Services, Submission to the AER’s Queensland electricity distribution determination 2015-2020, 30 January 2015, p. 96. [↑](#footnote-ref-31)
32. Department of Energy and Water Supply, Changes to electricity network reliability standards facts, at https://www.dews.qld.gov.au/policies-initiatives/electricity-sector-reform/supply/electricity-network-reliability-standards/facts, accessed 27 January 2015. [↑](#footnote-ref-32)