Service Standard Performance Report

1 July 2009 to 30 June 2010

safe reliable efficient

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Original Issue: 1 September 2010
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This Revision: Version 1

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1 Background

In accordance with Section 11.2 of the Electricity Networks Access Code 2004 (Access Code), the Economic Regulation Authority (the Authority) is required to monitor and, at least once each year, publish a service provider's actual service standard performance against the service standard benchmarks that are set out in its' approved access arrangement.

This information presents Western Power's information for the 12 months to 30 June 2010.

2 Reference Services

In accordance with the terms and conditions of the *Electricity Transfer Access Contract*, Western Power provides 11 *reference services* at *network exit points* for *users*, as well as 2 reference services at *network entry points* for *users*. The following terminology applies in this section:

Entry Point
A point on a covered network identified as such in an access contract at which, subject to the access contract, electricity is more likely to be transferred into the network than transferred out of the network.

Entry Service
A covered service provided by a service provider at an entry point under which the user may transfer electricity into the network at the entry point

Exit point.
A point on a covered network identified as such in an access contract at which, subject to the access contract, electricity is more likely to be transferred out of the network than transferred into the network.

Exit service
A covered service provided by a service provider at an exit point under which the user may transfer electricity out of the network at the exit point.

2.1 Reference Services for Network Exit Points

Reference Service		Reference Service Description
A1	Anytime Energy (Residential) Exit Service	An exit service combined with a connection service and a standard metering service at an exit point on the low voltage (415 volts or less) distribution system.
A2	Anytime Energy (Business) Exit Service	An exit service combined with a connection service and a standard metering service at an exit point on the low voltage (415 volts or less) distribution system.
A3	Time of Use Energy (Residential) Exit Service	An exit service combined with a connection service and a standard metering service at an exit point on the low voltage (415 volts or less) distribution system.
A4	Time of Use Energy (Business) Exit Service	An exit service combined with a connection service and a standard metering service at an exit point on the low voltage (415 volts or less) distribution system.
A5	High Voltage Metered Demand Exit Service	An exit service combined with a connection service and a standard metering service at an exit point on the high voltage (6.6 kV or higher) distribution system.
A6	Low Voltage Metered Demand Exit Service	An exit service combined with a connection service and a standard metering service at an exit point on the low voltage (415 volts or less) distribution system.
A7	High Voltage Contract Maximum Demand Exit Service	An exit service combined with a connection service and a standard metering service at an exit point on the high voltage (6.6 kV or higher) distribution system
A8	Low Voltage Contract Maximum Demand Exit Service	An exit service combined with a connection service and a standard metering service at an exit point on the low voltage (415 volts or less) distribution system.
A9	Streetlighting Exit Service	An exit service combined with a connection service at an exit point on the low voltage (415 volts or less) distribution system for the purpose of public street lighting, plus the service of the provision and maintenance of the streetlight.
A10	Un-Metered Supplies Exit Service	An exit service combined with a connection service at an exit point on the low voltage (415 volts or less) distribution system.
A11	Transmission Exit Service	An exit service combined with a connection service and a standard metering service at an exit point on the transmission system.

2.2 Reference Services for Network Entry Points

Reference Service		Reference Service Description
B1	Distribution Entry Service	An entry service combined with a connection service and a standard metering service at an entry point on the distribution system.
B2	Transmission Entry Service	An entry service combined with a connection service and a standard metering service at an entry point on the transmission system.

2.3 Reference Services for Bidirectional Services

Reference Service		Reference Service Description
C1	Time of Use (Residential) – Bidirectional Service	A bidirectional service combined with a connection service and a standard metering service at a bidirectional point on the low voltage (415 volts or less) distribution system.

3 Current Service Standard Benchmarks

3.1 Distribution Service Standards

For the reference services A1 to A10, B1 and C1 the service standard benchmarks are expressed in terms of System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI), which measure the performance of the Distribution Network.

3.1.1 SAIDI

SAIDI is measured over a 12 month period and is the sum of the duration of each customer interruption lasting more than one minute (Customer Minutes Interrupted) attributable solely to the distribution network (after exclusions), divided by the average of the total number of connected consumers at the beginning and end of the period.

Unit of measure is System Minutes Per Annum.

The lower the system minutes per annum the higher the service standard is.

The following exclusions apply to SAIDI:

- Major Event Days in accordance with IEEE1366-2003 definitions from the Institute of Electrical and Electronic Engineers, Inc.
- Outages shown to be caused by a fault or other event on the transmission system or a third party system (for instance, without limitation outages caused by an intertrip signal, generator unavailability or a customer installation).
- Planned Outages.
- *Force majeure* events.

The service standard benchmarks expressed in terms of SAIDI for each year of the Access Arrangement 2 period (2010-2012) are shown in the following table:

SAIDI	SWIN total	CBD	Urban	Rural Short	Rural Long
Year ending June 2010	230	38	165	259	612
Year ending June 2011	224	38	162	253	588
Year ending June 2012	213	38	153	244	556

3.1.2 SAIFI

SAIFI is measured over a 12 month period and is the total number of customer interruptions lasting more than one minute attributable solely to the distribution network (after exclusions), divided by the average of the total number of connected consumers at the beginning and end of the period.

Unit of measure is System Interruptions Per Annum.

The lower the supply interruptions per annum the higher the service standard is.

The exclusions for SAIDI discussed above, also apply to SAIFI.

The service standard benchmarks expressed in terms of SAIFI for each year of the Access Arrangement 2 period are shown in the following table:

SAIFI	SWIN total	CBD	Urban	Rural Short	Rural Long
Year ending June 2010	2.50	0.24	1.92	3.12	5.00
Year ending June 2011	2.46	0.24	1.89	3.06	4.85
Year ending June 2012	2.41	0.24	1.83	2.98	4.80

3.1.3 Network Classifications

For the purpose of the *Access Arrangement 2*, the definitions of CBD, Urban, Rural Short and Rural Long distribution network classification are consistent with those applied by the Steering Committee on National Regulatory Reporting Requirements (SCNRRR).

CBD
The predominantly underground distribution network supplying commercial, high rise buildings and contains significant interconnection.

Urban
The distribution network where actual maximum demand over the reporting period per total high voltage feeder route length greater than 0.3 Mega-Volt-Amperes per kilometre (excluding CBD distribution networks).

Rural Short
Those areas supplied by distribution network which are not CBD or Urban networks and a total high voltage route length per feeder is less than 200 km.

Rural Long
The remainder of the distribution network.

3.2 Transmission Service Standards

In respect of the reference services A11 and B2 available to users directly connected to the transmission network, the service standard benchmarks are expressed in terms of:

- Circuit Availability;
- System Minutes Interrupted;
- Loss of Supply Events; and
- Average Outage Duration

These are defined below.

3.2.1 Circuit Availability

Circuit availability is the availability of the transmission network. It's the actual circuit hours available for transmission circuits divided by total possible defined circuit hours available.

Unit of measure is Percentage of total possible hours available.

The following exclusions apply to Circuit Availability:

- Non-transmission primary equipment (primary equipment operating at voltages less than 66 kV, including zone substation power transformers).
- Unregulated transmission assets.
- Outages shown to be caused by a fault or other event on a '3rd party system' e.g. intertrip signal, generator outage, customer installation.
- Force majeure events.
- Duration of planned outages for major construction work, including periods where availability is temporarily restored, is to be capped at 14 days in calculating transmission line availability.

The service standard benchmarks expressed in terms of Circuit Availability for each year of the Access Arrangement period are shown in the following table:

	Year ending June 2010	Year ending June 2011	Year ending June 2012
Circuit Availability	98.0	98.0	98.0

3.2.2 System Minutes Interrupted

System Minutes Interrupted is the summation of Mega Watt (MW) minutes of unserved energy at substations which are connected to the meshed transmission network divided by the system peak MW.

Unit of measure is System Minutes.

The following exclusions apply to System Minutes Interrupted:

- Unregulated transmission assets.
- Outages shown to be caused by a fault or other event on a '3rd party system' e.g. intertrip signal, generator outage, customer installation.
- Force majeure events.

The service standard benchmarks expressed in terms of System Minutes Interrupted for each year of the Access Arrangement 2 period are shown in the following table:

	Year ending June 2010	Year ending June 2011	Year ending June 2012
Meshed Networks	9.3	9.3	9.3
Radial Networks	1.4	1.4	1.4

3.2.3 Loss of Supply Events

Loss of Supply Events is the frequency of events where loss of supply

- Exceeds 0.1 system minutes; and
- Exceeds 1.0 system minutes

Unit of measure is Number of Events Per Annum.

The exclusions applied to system minutes interrupted also apply to Loss of Supply Events, as well as interruptions lasting less than one minute.

The service standard benchmarks expressed in terms of Loss of Supply Events for each year of the Access Arrangement 2 period are shown in the following table:

	Year ending June 2010	Year ending June 2011	Year ending June 2012
Number of events > 0.1 System Minutes	25	25	25
Number of events > 1 System Minutes	2	2	2

3.2.4 Average Outage Duration

Average Outage Duration is total number of minutes during of all unplanned outages on the transmission network divided by the number of unplanned outage events.

Unit of measure is Minutes.

The exclusions applied to Loss of Supply Events also apply to Average Outage Duration. Additionally, any event contributing to Average Outage Duration is capped at 14 days.

The service standard benchmarks expressed in terms of Average Outage Duration for each year of the Access Arrangement 2 period are shown in the following table:

	Year ending June 2010	Year ending June 2011	Year ending June 2012
Average Outage Duration	764	764	764

3.3 Streetlight Repairs

Western Power is responsible for the repair of faulty streetlights, with the following benchmarks applying.

Unit of measure is days.

	Year ending June 2010	Year ending June 2011	Year ending June 2012
Perth Metropolitan area	5 days	5 days	5 days
Major regional towns	5 days	5 days	5 days
Remote and rural towns	9 days	9 days	9 days

4 Actual Service Standard Performance

Overall, Western Power has improved its service standard performance from 2009 and met the majority of 2010 service standard benchmarks as illustrated in the Distribution and Transmission Performance summary tables below. Sections 4.1, 4.3 and 4.5 provide the detail of Western Power's service standard performance against the service standard benchmark.

Distribution Performance Summary				
Service Standard Benchmark	**2009 Actual Performance[1]**	**2010 Benchmark**	**2010 Actual Performance**	**2010 Target Met?**
SAIDI - SWIN Total	225	≤ 230	217	✓
SAIDI - CBD	29	≤ 38	1	✓
SAIDI - Urban	161	≤ 165	156	✓
SAIDI - Rural Short	241	≤ 259	212	✓
SAIDI - Rural Long	589	≤ 612	661	×
SAIFI - SWIN Total	2.21	≤ 2.50	2.00	✓
SAIFI - CBD	0.16	≤ 0.24	0.02	✓
SAIFI - Urban	1.65	≤ 1.92	1.55	✓
SAIFI - Rural Short	2.71	≤ 3.12	2.33	✓
SAIFI - Rural Long	4.32	≤ 5.00	4.17	✓

Transmission Performance Summary				
Service Standard Benchmark	**2009 Actual Performance**	**2010 Benchmark**	**2010 Actual Performance**	**2010 Target Met?**
Circuit availability (% of total time)	98.265%	≥ 98.000%	98.432%	✓
System minutes interrupted (meshed network)	7.628	≤ 9.3	8.944	✓
System minutes interrupted (radial network)	2.017	≤ 1.4	0.750	✓
Loss of Supply Events (>0.1 System minutes	18	≤ 25	27	×
Loss of Supply Events >1 System minutes	3	≤ 2	2	✓
Average Outage Duration	501	≤ 764	679	✓

[1] Single Premise interruptions were not included in published values for 2009, but have been agreed with the ERA to include from AA2 onwards. These values include single premise interruptions to allow direct comparison of 2009 to 2010 figures.

4.1 Distribution

Service Standard Benchmark	2010 Performance		Comments
	Benchmark	Actual	
SAIDI - SWIN total	≤ 230	217	Performance was better than the benchmark and improved from the 2009 performance of 225. There was a reduction in the contribution to SAIDI from faults due to external factors such as strong winds, bushfires, vandalism, vegetation, vehicles, third party machinery, birds, and other animals. The main work programs that contributed to the total SAIDI reduction were power line reinforcements and the installation of automated switchgear. The work programs conducted in the 12 months to 30 June 2010 are expected to result in performance improvements to meet benchmarks for the year ending June 2011, noting there is approximately a 12 month lag in the SAIDI impact of investment in reliability improvement. See Section 4.2 regarding Major Event Days that were excluded from the total SAIDI.
SAIDI - CBD	≤ 38	1	Performance was better than the benchmark and improved from the 2009 performance of 29 due to the reduction in equipment failures in this distribution network. The CBD SAIDI performance indicator is potentially volatile over short periods of time due to the combined effects of small customer numbers and the relatively long repair times in a fully underground network.
SAIDI - Urban	≤ 165	156	Performance was better than the benchmark and improved from the 2009 performance of 161. There was a reduction in the contribution to SAIDI from faults due to external factors such as strong winds, bushfires, vandalism, vegetation, vehicles, third party machinery, birds, and other animals. The main work programs that contributed to the Urban SAIDI reduction were power line reinforcements and the installation of automated switchgear. The work programs conducted in the 12 months to 30 June 2010 are expected to result in performance improvements to meet benchmarks for the year ending June 2011, noting there is approximately a 12 month lag in the SAIDI impact of investment in reliability improvement. See Section 4.2 regarding Major Event Days that were excluded from the Urban SAIDI.

Service Standard Benchmark	2010 Performance		Comments
	Benchmark	Actual	
SAIDI - Rural Short	≤ 259	212	Performance was better than the benchmark and improved from the 2009 performance of 241. There was a reduction in the contribution to SAIDI from faults due to external factors such as strong winds, vandalism, vehicles, and birds. The main work programs that contributed to the Rural Short SAIDI reduction were power line reinforcement and the installation of automated switchgear. The work programs conducted in the 12 months to 30 June 2010 are expected to result in performance improvements to meet benchmarks for the year ending June 2011, noting there is approximately a 12 month lag in the SAIDI impact of investment in reliability improvement. See Section 4.2 regarding Major Event Days that were excluded from the Rural Short SAIDI.
SAIDI - Rural Long	≤ 612	661	Performance was worse than the benchmark and worse than the 2009 performance of 589. Factors that lead to the increased Rural Long SAIDI were faults and damage arising from extensive lightning activity and emergency outages to remove hazards. Targeted maintenance work conducted during 2009/10 and subsequent years, as well as lightning mitigation work in key targeted areas will mitigate the frequency of unplanned interruptions from equipment failure and should result in improved performance in future years. See Section 4.2 regarding Major Event Days that were excluded from the Rural Long SAIDI.
SAIFI - SWIN total	≤ 2.50	2.00	Performance was better than the benchmark and improved from the 2009 performance of 2.21 There was a reduction in the contribution to total SAIFI from faults due to external factors such as strong winds, vandalism, vehicles, and faults arising from birds or other animals. The main work programs that contributed to the total SAIFI improvement were power line reinforcements and the installation of automated switchgear. The work programs conducted in the 12 months to 30 June 2010 are expected to result in performance improvements to meet benchmarks for the year ending June 2011, noting there is approximately a 12 month lag in the SAIFI impact of investment in reliability improvement. See Section 4.2 regarding Major Event Days that were excluded from the SWIN SAIFI.
SAIFI - CBD	≤ 0.24	0.02	Performance was better than the benchmark and improved from the 2009 performance of 0.15 due to reduction in equipment failures in this portion of the distribution network. The CBD SAIFI performance indicator is subject to volatility due to the combined effects of small customer numbers and the relatively long repair times in the fully underground network.

Service Standard Benchmark	2010 Performance		Comments
	Benchmark	Actual	
SAIFI - Urban	≤ 1.92	1.55	Performance was better than the benchmark and improved from the 2009 performance of 1.65. There was a reduction in the contribution to SAIFI from faults due to external factors such as strong winds, bushfires, vandalism, vehicles, other third party machinery, birds, or other animals. The main work programs that contributed to the Urban SAIFI reduction were power line reinforcements and the installation of automated switchgear. The work programs conducted in the 12 months to 30 June 2010 are expected to result in performance improvements to meet benchmarks for the year ending June 2011. Note: there is approximately a 12 month lag in the impact of investment in SAIFI reliability improvement. See Section 4.2 regarding Major Event Days that were excluded from the Urban SAIFI.
SAIFI - Rural Short	≤ 3.12	2.33	Performance was better than the benchmark and improved from the 2009 performance of 2.71. There was a reduction in the contribution to SAIFI from faults due to external factors such as strong winds, vandalism, vehicles and faults arising from birds or other animals. The main work programs that contributed to the Rural Short SAIFI reduction were power line reinforcements and the installation of automated switchgear. The work programs conducted in the 12 months to 30 June 2010 are expected to result in performance improvements to meet benchmarks for the year ending June 2011. Note: there is approximately a 12 month lag in the impact of investment in SAIFI reliability improvement. See Section 4.2 regarding Major Event Days that were excluded from the Rural Short SAIFI.
SAIFI - Rural Long	≤ 5.00	4.17	Performance was better than the benchmark and improved from the 2009 performance of 4.32. There was a reduction in the contribution to SAIFI from faults due to external factors such as vegetation, asset damage from third party machinery, and birds. The main work program that contributed to the Rural Long SAIFI reduction was the installation of automated switchgear. The work programs conducted in the 12 months to 30 June 2010 are expected to result in performance improvements to meet benchmarks for the year ending June 2011, noting there is approximately a 12 month lag in the SAIFI impact of investment in reliability improvement. See Section 4.2 regarding Major Event Days that were excluded from the Rural Long SAIFI.

4.2 Exclusions in Distribution Performance Service Standards

The Distribution Performance Service Standards excluded the outages (as per Section 3.1.1) attributed to the following:

4.2.1 Major Event Days (MED)

There were four days during the 12 months to 30 June 2010 which exceeded the daily MED threshold as per IEEE 1366-2003 definitions, which in total attributed to 214 SWIN SAIDI Minutes and 0.47 SWIN SAIFI system interruptions.

4.2.1.1 12 November 2009 (SAIDI = 8.8 minutes)

There was storm activity consisting of lighting and strong winds causing damage to the distribution network. Up to 30,000 customers were affected predominantly around coastal areas stretching from Denmark to Geraldton. Restoration to customers was also affected by the inclement weather during the time.

4.2.1.2 7 February 2010 (SAIDI = 7.1 minutes)

Pole top fire activity and pollution related equipment flashovers, affecting customers predominantly in Perth's Northern Suburbs, Rockingham, and the Harvey area. Approximately 54,000 customers were without power on that day. Perth broke its second longest dry spell on record with 0.2 mm of rain.

4.2.1.3 22 and 23 March 2010 (SAIDI = 168.4 and 30.2 minutes)

There was storm activity consisting of lighting and strong winds causing damage to the distribution network. Approximately 250,000 customers were affected over these two days, with winds were gusting up to and above 100kph.

4.2.2 Transmission System

51 SWIN SAIDI minutes and 0.36 SWIN SAIFI are excluded due to outages attributed to the Transmission system. For details on the performance of the transmission system please refer to Sections 4.3 and 4.4.

4.2.3 Planned Outages

62 SWIN SAIDI minutes and 0.25 SWIN SAIFI system interruptions were caused by outages attributed to planned work on the distribution network, which are conducted to expand and upgrade the distribution network to mitigate unplanned interruptions.

4.2.4 Other Third Party Systems

There were 7 SWIN SAIDI minutes and 0.11 SWIN SAIFI system interruptions from outages attributed to generator unavailability or customer equipment. This includes 2 instances of generation failure resulting in the de-energisation of circuits to stabilise the frequency on the transmission network.

4.2.5 Force Majeure

There were no events on the Distribution network that were classified as Force Majeure.

4.3 Transmission

Service Standard Benchmark	2010 Performance		Comments
	Benchmark	Actual	
Circuit availability (% of total time)	≥ 98.000%	98.432%	Performance was better than the benchmark and improved from the 2009 performance of 98.265%. One of the key reasons for the increase in circuit availability is a result of better coordination of works conducted on the transmission system. Western Power continues to enhance its work planning processes to deliver better performance. An improved maintenance coordination initiative that was recently implemented will be expanded in 2010/11 and should result in improved performance in future years, although higher work volumes overall may offset the net benefits.
System minutes interrupted (meshed network)	≤ 9.3	8.944	Performance was better than the benchmark but was worse than the 2009 performance of 7.628. There was an increase in the contribution from substation switchboard fault protection operations – known as "frame leakage protection". The circumstances that lead to the frame leakages have been addressed through a review of construction designs coupled with investigating new proactive systems. Performance in 2010/11 is expected to meet the benchmark. This figure excludes System Minutes Interrupted related to the storm on the 22 and 23 March 2010 (see Section 4.4 for details).
System minutes interrupted (radial network)	≤ 1.4	0.750	Performance was better than the benchmark and improved from 2009 performance of 2.017. There was a reduction in the System Minutes impact arising from equipment flashovers in substations. Performance is expected to continue to meet the benchmark in subsequent years.
Loss of Supply Events (> 0.1 System Minutes)	≤ 25	27	Performance was worse than the benchmark and worse than the 2009 performance 18. The reduction in performance from 2009 is a result of increase in the substation switchboard protection scheme – known as "frame leakage protection". This figure excludes loss of supply events related to the storm on the 22 and 23 March 2010 (see Section 4.4 for details).
Loss of Supply Events (> 1 System Minutes)	≤ 2	2	Performance matches the benchmark and improved from 2009 performance 3 events per annum. There was a reduction in the events greater than 1 system minute attributed to equipment flashovers. Performance is expected to continue to meet the benchmark in subsequent years. This figure excludes loss of supply events related to the storm on the 22 and 23 March 2010 (see Section 4.4 for details).

Service Standard Benchmark	2010 Performance		Comments
	Benchmark	Actual	
Average Outage Duration	≤ 764	679	Performance was better than the benchmark but worse than the 2009 performance of 501 minutes. The reduction in the performance from 2009, was due to an increased number of outages in substations due to equipment fire and flashovers. Western Power's asset management strategies are targeted at addressing these issues. Performance is expected to meet the benchmark in subsequent years. This figure excludes outage duration related to the storm on the 22 and 23 March 2010 (see Section 4.4 for details).

4.4 Force Majeure exclusion in the Transmission Performance Service Standards

The storm event on the 22 to 23 March 2010 (see also 4.2.1.3) resulted in 9.62 System Minutes Interrupted on the Meshed Network, as well as 5 Loss of Supply Events lasting longer than 0.1 minutes and 2 Loss of Supply Events lasting longer than 1 System Minutes.

Western Power's network suffered severe disruptions to its Transmission System on those days as a direct result of the extraordinary weather event.

The storm front passed over Perth's northern suburbs at approximately 1530 hours on Monday, 22 March 2010, bringing heavy rainfall, hail and strong winds up to 120 kilometres per hour. The Bureau of Meteorology reported rainfall up to 45 millimetres in some areas and significant lightning activity. Power supplies for approximately 72,000 customers were affected due to outages on the Transmission system from 22 to 23 March 2010. Initial reports indicated that there was significant damage across the Perth Metropolitan area and also in regional areas including Mandurah, Waroona and Murray.

The Insurance Council of Australia declared the Perth storm an insurance catastrophe. As of 14 April 2010, the general insurance industry had received approximately 120,500 claims from impacted Perth insurance policyholders with an estimated insurable cost of approximately $889 million, making this the most costly (in insurable terms) natural disaster on record in Western Australia.

West Australian Premier Colin Barnett designated the storm to be a natural disaster, enabling funding assistance to go to communities to clean up and rebuild.

Consistent with industry practice, the quantitative method used to calculate Distribution Service Standard Performance in accordance IEEE1366 as approved under Western Power's Access Arrangement, adequately captures the effect of the storm and excludes it from the determination of Western Power's Distribution Service Standard Performance (see 4.2.1.3). However, the definitions of Transmission Service Standard Benchmarks in the Access Arrangement do not utilise the quantitative method for excluding Force Majeure events since it is not applicable in the case of Transmission. It is consequently necessary to manually identify Force Majeure events and exclude them manually from the calculations for Transmission Service Standard Performance.

In calculating Transmission Service Standard Performance for the 12 months to 30 June 2010 Western Power has assumed the events of 22 and 23 of March 2010 to be Force Majeure (as defined in the Electricity Networks Access Code 2004).

4.5 Streetlights

Service Standard Benchmark	2010 Performance		Comments
	Benchmark	Actual	
Streetlight Repairs Perth Metropolitan Area	≤ 5 days	1.98	The service standard reported for Perth Metropolitan Area and Major Regional towns has been combined for the 12 months to 30 June 2010. Performance was better than the benchmark. The improvement in performance is due to the introduction a range of improvement initiatives in 2008/2009 and 2009/2010. Initiatives are planned to continue implementation in 2011.
Streetlight Repairs Major Regional towns	≤ 5 days		
Streetlight Repairs Remote and Rural Towns	≤ 9 days	1.70	Performance was better than the benchmark. The improvement in performance is due to the introduction a range of improvement initiatives in 2008/2009 and 2009/2010. Initiatives are planned to continue implementation in 2011.

5 Service Standard Adjustment Mechanism

The Authority applies a financial reward or penalty to Western Power in relation to the actual performance in respect to SAIDI, SAIFI, Circuit Availability and System Minutes Interrupted.

The reward or penalty is calculated using the following equations.

$$SSD_{2009/10} = (SSB_{2009/10} - SSA_{2009/10})$$

$$SSD_{2010/11} = (SSB_{2010/11} - SSA_{2010/11}) - (SSB_{2009/10} - SSA_{2009/10})$$

$$SSD_{2011/12} = (SSB_{2011/12} - SSA_{2011/12}) - (SSB_{2010/11} - SSA_{2010/11})$$

Where:

SSD_t is the service standard difference in year t;

SSB_t is the service standard benchmark in year t; and

SSA_t is the actual service performance in year t.

The following table shows the results of the service standard adjustment reporting mechanism for the performance for the 12 months to 30 June 2010 in real dollars as of 30 June 2009.

Service Standard Benchmark		Unit of Measure	Incentive Rate ($ per unit)	2010 Performance			Penalty (-) or Reward (+)
				SSB	SSA	SSD	
SAIDI	CBD	Minutes	$ 220,000	38	1	37	$ 8,140,000
	Urban		$ 220,000	165	156	9	$ 1,980,000
	Rural Short		$ 8,200	259	212	47	$ 385,400
	Rural Long		$ 8,200	612	661	-49	-$ 401,800
SAIFI	CBD	Events	$ 10,300,000	0.24	0.02	0.22	$ 2,266,000
	Urban		$ 10,300,000	1.92	1.55	0.37	$ 3,811,000
	Rural Short		$ 450,000	3.12	2.33	0.79	$ 355,500
	Rural Long		$ 450,000	5.00	4.17	0.83	$ 373,500
Circuit availability		%	-$ 375,000 per 0.1%	98.000	98.432	-0.432	$ 1,620,000
System minutes interrupted	Meshed	Minutes	$ 75,000 per 0.1 minute	9.3	8.944	0.356	$ 267,000
	Radial		$ 25,000 per 0.1 minute	1.4	0.75	0.65	$ 162,500
TOTAL							**$ 18,959,100**