



Network Quality and Reliability of Supply Code

2014/2015 Performance Report

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Horizon Power Service Areas



1. INTRODUCTION

This report has been produced to meet the requirements of the Electricity Industry (Network Quality and Reliability of Supply) Code 2005, Schedule 1 – Information to be published.

To assist in meeting reporting requirements the Economic Regulation Authority Western Australia (ERAWA) publishes the Electricity Distribution Licence Performance Reporting Handbook which specifies measures to be reported. This report is compiled in accordance with ERAWA Electricity Distribution Licence Performance Reporting Handbook – May 2015 however as Horizon Power is a vertically integrated business (responsible for generation, transmission and distribution) reliability data includes generation and transmission outages.

2. AUDIT BY INDEPENDENT EXPERT

Division 3 of the Electricity Industry (Network Quality and Reliability of Supply) Code 2005 requires that Horizon Power arrange for an independent expert to audit, and report on the operation of the systems that Horizon Power has in place for monitoring its compliance with the code.

Horizon Power has appointed Qualeng to perform the audit of its systems for compliance with the code. Qualeng is a locally based engineering consulting group with over 15 years engineering, regulatory and quality assurance expertise throughout various industries. Qualeng has a long and successful trading history and comprises a team of highly experienced consultants with recent, relevant and international expertise in the energy sector.

3. SCHEDULE 1 - INFORMATION TO BE PUBLISHED:

Clause 4 and 10

Clause 4(a) Number of breaches of each provision of the Code:

<i>Quality of Supply</i>	<i>2013/14</i>	<i>2014/15</i>
Voltage fluctuations	0	0
Harmonics	0	0

Clause 4(b) Remedial action taken for each provision:

Voltage Fluctuations

<i>Location</i>	<i>Action Taken</i>
	N/A

Harmonics

<i>Location</i>	<i>Action Taken</i>
	N/A

N/A = Not Applicable.

Continuous monitoring of voltage and frequency fluctuations is done at the substation busbar. Temporary power quality monitoring equipment is installed on the network for specific problem monitoring in response to a customer power quality complaint.

Clause 5 - Significant interruptions to small use customers.

	<i>Clause Description</i>	<i>Total</i>
NQR1	Clause 5(a) Number of premises that experienced interruptions greater than 12 hours continuous.	6,382
NQR2	Clause 5(b) Number of premises that experienced more than 16 interruptions.	106

Detailed analysis of interruptions where duration is greater than 12 hours.

<i>Discrete Area</i>	<i>Duration (Minutes)</i>	<i>Premises</i>	<i>Start Date</i>	<i>Cause Description</i>	<i>Incident Category</i>
Ardyaloon	3,706.65	1	28/12/2014	Vandalism or Willful Damage	No Power
Broome	95,236.58	1	05/07/2014	Equipment Failure	No Power
Broome	85,109.63	1	12/07/2014	Equipment Failure	No Power
Broome	3,042.2	1	24/08/2014	Human Error	Part Power
Broome	2,793	1	03/09/2014	Unnecessary Attendance	No Power
Broome	37,368.43	1	17/09/2014	Unnecessary Attendance	No Power
Broome	6,557.35	1	29/11/2014	Fire (Not Pole Top Fire)	House / Building Fire
Broome	7,100.9	1	19/12/2014	Customer Installation or Appliance	Part Power
Broome	6,374.8	1	26/12/2014	Fire (Not Pole Top Fire)	House / Building Fire
Broome	87,561.87	1	07/01/2015	Unnecessary Attendance	No Power
Broome	40,501.95	1	06/02/2015	Customer Installation or Appliance	Miscellaneous Hazard
Broome	925	51	24/02/2015	Human Error	Planned HVN Incident
Broome	4,505.88	1	03/03/2015	Customer Installation or Appliance	Electric Shock
Broome	926.73	24	08/03/2015	Vehicle	LV Fuse Trip
Broome	4,030.48	1	16/03/2015	Equipment Failure	No Power
Carnarvon	3,035	17	23/07/2014	Plan Outage or Disconnection	Planned HVN Incident
Carnarvon	1,276	1	06/03/2015	Equipment Failure	Reconnection
Carnarvon	9,024.88	22	13/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Carnarvon	7,615	36	13/03/2015	Wind or Wind Bourne Debris	Recloser Trip
Carnarvon	19,425	491	13/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Carnarvon	17,303.57	591	13/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Carnarvon	1,852	829	13/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Carnarvon	7,080.15	228	13/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Carnarvon	3,048	1	13/03/2015	Wind or Wind Bourne Debris	Pole Leaning
Carnarvon	4,341	496	13/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Carnarvon	3,188	1	13/03/2015	Customer Installation or Appliance	Service Wire Down
Carnarvon	2,928	1	13/03/2015	Customer Installation or Appliance	Service Wire Down
Carnarvon	1,627	1	13/03/2015	Customer Installation or Appliance	Street Wire Down

<i>Discrete Area</i>	<i>Duration (Minutes)</i>	<i>Premises</i>	<i>Start Date</i>	<i>Cause Description</i>	<i>Incident Category</i>
Carnarvon	1,498	1	13/03/2015	Customer Installation or Appliance	Service Wire Down
Carnarvon	3,093	1	13/03/2015	Customer Installation or Appliance	Service Wire Down
Carnarvon	3,053	1	13/03/2015	Wind or Wind Bourne Debris	Low Hanging Service Wire
Carnarvon	3,970.85	1	13/03/2015	Customer Installation or Appliance	Low Hanging Service Wire
Carnarvon	3,909	1	13/03/2015	Water Infiltration or Flooded Equipment	Pole Leaning
Carnarvon	2,976	1	13/03/2015	Customer Installation or Appliance	Low Hanging Service Wire
Carnarvon	5,688	1	13/03/2015	Unnecessary Attendance	Service Wire Down
Carnarvon	1,432	1	13/03/2015	Customer Installation or Appliance	Pole Down
Carnarvon	2,964	1	13/03/2015	Customer Installation or Appliance	Low Hanging Street Wire
Carnarvon	1,495	1	13/03/2015	Customer Installation or Appliance	Pole Leaning
Carnarvon	1,354	1	13/03/2015	Customer Installation or Appliance	Street Wire Down
Carnarvon	2,899	1	13/03/2015	Customer Installation or Appliance	Miscellaneous Hazard
Carnarvon	1,116	1	13/03/2015	Customer Installation or Appliance	Service Wire Down
Carnarvon	2,130	1	14/03/2015	Wind or Wind Bourne Debris	Pole Down
Carnarvon	2,407	1	14/03/2015	Customer Installation or Appliance	Low Hanging Service Wire
Carnarvon	1,627	1	14/03/2015	Customer Installation or Appliance	Debris On Service Wire
Carnarvon	2,406	1	14/03/2015	Wind or Wind Bourne Debris	Pole Leaning
Carnarvon	1,419	1	14/03/2015	Wind or Wind Bourne Debris	Pole Leaning
Carnarvon	1,517	1	15/03/2015	Wind or Wind Bourne Debris	Pole Leaning
Carnarvon	892	1	15/03/2015	Customer Installation or Appliance	Debris On Service Wire
Carnarvon	1,629	36	23/03/2015	Lightning	Feeder Trip
Carnarvon	779	1	21/05/2015	Equipment Failure	No Power
Denham	1,067.4	190	13/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Denham	726	153	13/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Derby	7,261	1	21/08/2014	Vandalism or Willful Damage	Electric Shock
Derby	1,341	1	27/08/2014	Vegetation	Debris On Street Wire
Derby	1,151.35	1	18/12/2014	Customer Installation or Appliance	Reconnection
Derby	804.47	3	20/12/2014	Lightning	Protective Device Trip
Derby	2,616.6	1	19/01/2015	Customer Installation or Appliance	Disconnect For Fault
Derby	3,064.53	1	03/02/2015	Unnecessary Attendance	Part Power
Derby	1,642.47	1	04/02/2015	Customer Installation or Appliance	No Power
Derby	1,520	1	10/02/2015	Equipment Failure	No Power
Derby	9,897.18	1	16/02/2015	Customer Installation or Appliance	Low Hanging Service Wire
Derby	24,655.47	1	17/02/2015	Vegetation	Debris On Service Wire
Derby	7,357.72	1	18/02/2015	Unnecessary Attendance	Part Power
Derby	7,344.03	1	18/02/2015	Customer Installation or Appliance	Debris On Service Wire

<i>Discrete Area</i>	<i>Duration (Minutes)</i>	<i>Premises</i>	<i>Start Date</i>	<i>Cause Description</i>	<i>Incident Category</i>
Derby	7,359.82	1	18/02/2015	Unknown	No Power
Derby	11,343.68	1	23/02/2015	Human Error	No Power
Derby	2,903.07	1	04/03/2015	Lightning	Miscellaneous Non Hazard
Derby	1,521.23	1	05/03/2015	Equipment Failure	Part Power
Derby	1,068	1	05/03/2015	Customer Installation or Appliance	Debris On Service Wire
Derby	960	1	23/03/2015	Unknown	Reconnection
Derby	4,128.4	1	24/03/2015	Lightning	Dim Power
Derby	14,569.03	1	30/03/2015	Vandalism or Willful Damage	No Power
Derby	10,125.12	1	04/05/2015	Bird	Part Power
Derby	9,882.8	1	04/05/2015	Unnecessary Attendance	No Power
Derby	994.3	1	07/05/2015	Customer Installation or Appliance	Reconnection
Derby	920	1	30/06/2015	Plan Outage or Disconnection	Reconnection
Djarindjin	24,297.82	1	30/01/2015	Emergency Outage For Hazard	House / Building Fire
Djarindjin	2,603	1	07/04/2015	Vegetation	Low Hanging Service Wire
Djarindjin	1,662.07	1	03/05/2015	Vehicle	Pole Hit
Esperance	1,235	1	29/09/2014	Equipment Failure	No Power
Esperance	785	1	04/10/2014	Equipment Failure	No Power
Esperance	1,704.05	9	20/12/2014	Lightning	Recloser Trip
Esperance	1,150.57	1	20/12/2014	Lightning	No Power
Esperance	1,135	1	20/12/2014	Lightning	No Power
Esperance	1,202	18	20/12/2014	Lightning	Recloser Trip
Esperance	906	1	20/12/2014	Lightning	Pole Broken/Damaged
Esperance	959	17	20/12/2014	Lightning	Recloser Trip
Esperance	1,027	1	20/12/2014	Lightning	No Power
Esperance	1,556	1	21/12/2014	Lightning	Drop Out Fuse Trip
Esperance	1,440	1	06/02/2015	Pollution	Arcing Street Wire
Esperance	805	1	15/03/2015	Lightning	No Power
Esperance	526,740	1	24/05/2015	Unknown	No Power
Esperance	1,169	1	24/05/2015	Bird	Feeder Trip
Esperance	4,151	1	12/06/2015	Equipment Failure	No Power
Esperance	2,590	1	13/06/2015	Customer Installation or Appliance	No Power
Esperance	782	1	26/06/2015	Equipment Failure	No Power
Exmouth	1,021	1	09/07/2014	Equipment Failure	Part Power
Exmouth	827	1	24/09/2014	Customer Installation or Appliance	Part Power
Exmouth	1,399	1	29/09/2014	Equipment Failure	Part Power
Exmouth	1,391	1	29/09/2014	Equipment Failure	Part Power
Exmouth	23,270.3	1	30/12/2014	Customer Installation or Appliance	Disconnect For Fault
Exmouth	1,219.32	1	03/02/2015	Customer Installation or Appliance	Part Power
Exmouth	20,932	197	12/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Exmouth	1,997	211	12/03/2015	Generation Failure	Feeder Trip
Exmouth	14,131.63	3	12/03/2015	Wind or Wind Bourne Debris	Recloser Trip

<i>Discrete Area</i>	<i>Duration (Minutes)</i>	<i>Premises</i>	<i>Start Date</i>	<i>Cause Description</i>	<i>Incident Category</i>
Exmouth	4,001	555	12/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Exmouth	4,021	251	12/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Exmouth	5,079	112	13/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Exmouth	2,067	226	13/03/2015	Wind or Wind Bourne Debris	Feeder Trip
Exmouth	3,389	53	13/03/2015	Wind or Wind Bourne Debris	Switch Isolation
Exmouth	1,812	1	13/03/2015	Wind or Wind Bourne Debris	Pole Broken/Damaged
Exmouth	3,125	1	13/03/2015	Wind or Wind Bourne Debris	Low Hanging Street Wire
Exmouth	2,406	555	15/03/2015	Wind or Wind Bourne Debris	Protective Device Trip
Exmouth	1,673	222	01/05/2015	Wind or Wind Bourne Debris	Protective Device Trip
Exmouth	2,982	546	01/05/2015	Wind or Wind Bourne Debris	Protective Device Trip
Exmouth	2,751	75	01/05/2015	Wind or Wind Bourne Debris	Protective Device Trip
Exmouth	730	1	31/05/2015	Customer Installation or Appliance	No Power
Fitzroy Crossing	1,365	1	25/09/2014	Equipment Failure	Meter Box Damaged
Fitzroy Crossing	1,269	1	31/10/2014	Wind or Wind Bourne Debris	Part Power
Fitzroy Crossing	1,515	1	12/03/2015	Customer Installation or Appliance	Reconnection
Fitzroy Crossing	11,274.45	1	12/03/2015	Unknown	Part Power
Fitzroy Crossing	1,161	1	07/04/2015	Equipment Failure	No Power
Fitzroy Crossing	2,064.05	1	24/05/2015	Vegetation	No Power
Fitzroy Crossing	12,663.88	1	09/06/2015	Customer Installation or Appliance	Electric Shock
Fitzroy Crossing	14,538.57	1	22/06/2015	Bird	No Power
Halls Creek	13,092.08	1	03/03/2015	Lightning	Part Power
Hopetoun	1,855	1	09/11/2014	Equipment Failure	Dim Power
Hopetoun	1,482	1	16/12/2014	Equipment Failure	Miscellaneous Hazard
Hopetoun	1,236.32	5	20/12/2014	Lightning	Drop Out Fuse Trip
Hopetoun	926	1	06/02/2015	Pole Top Fire	No Power
Hopetoun	1,405	1	21/05/2015	Equipment Failure	Part Power
Karratha	6,645.67	1	16/10/2014	Customer Installation or Appliance	Disconnect For Fault
Karratha	739	1	21/10/2014	Unnecessary Attendance	No Power
Karratha	11,101.17	1	30/10/2014	Customer Installation or Appliance	Electric Shock
Karratha	841	1	21/11/2014	Unknown	SFW PQI Low Volts
Karratha	12,658.4	1	24/11/2014	Unknown	Electric Shock
Karratha	11,175.88	1	25/11/2014	Customer Installation or Appliance	Electric Shock
Karratha	4,094	1	05/12/2014	Customer Installation or Appliance	Electric Shock
Karratha	7,554.7	1	09/01/2015	Customer Installation or Appliance	Disconnect For Fault
Karratha	2,773	1	10/02/2015	Equipment Failure	SFW PQI High Volts
Karratha	1,473	15	10/02/2015	Customer Installation or Appliance	LV Fuse Trip
Karratha	936	1	25/02/2015	Unnecessary Attendance	No Power
Karratha	90,561.3	1	20/05/2015	Customer Installation or Appliance	No Power

<i>Discrete Area</i>	<i>Duration (Minutes)</i>	<i>Premises</i>	<i>Start Date</i>	<i>Cause Description</i>	<i>Incident Category</i>
Kununurra	2,474.85	1	17/09/2014	Unnecessary Attendance	No Power
Kununurra	6,671	4	18/01/2015	Unknown	Feeder Trip
Kununurra	3,191.83	1	11/02/2015	Machine or Tool	Pole Hit
Kununurra	39,441.42	1	31/03/2015	Customer Installation or Appliance	Meter Box Damaged
Laverton	1,140	1	11/08/2014	Vandalism or Willful Damage	No Power
Looma	763	1	18/12/2014	Lightning	Part Power
Looma	1,786.27	1	17/06/2015	Equipment Failure	No Power
Marble Bar	32,936	1	25/05/2015	Unknown	No Power
Meekatharra	725	1	05/07/2014	Equipment Failure	Miscellaneous Hazard
Meekatharra	16,090	1	04/03/2015	Lightning	No Power
Norseman	768	1	10/02/2015	Generation Failure	No Power
Norseman	1,440	1	03/03/2015	Unnecessary Attendance	No Power
Nullagine	1,363	1	14/07/2014	Vandalism or Willful Damage	No Power
Nullagine	40,683.45	1	06/02/2015	Customer Installation or Appliance	Electric Shock
Onslow	1,058	1	18/11/2014	Wind or Wind Bourne Debris	Miscellaneous Non Hazard
Port Hedland	1,313	1	06/10/2014	Vehicle	Street Wire Down
Port Hedland	65,969.95	1	05/11/2014	Customer Installation or Appliance	No Power
Port Hedland	1,685	1	03/12/2014	Customer Installation or Appliance	Part Power
Port Hedland	864.18	1	16/02/2015	Equipment Failure	No Power
Port Hedland	1,174	1	11/05/2015	Unknown	Part Power
Port Hedland	37,168	1	29/05/2015	Unnecessary Attendance	No Power
Port Hedland	58,605.43	1	11/06/2015	Unknown	Part Power
Port Hedland	4,273.98	1	15/06/2015	Customer Installation or Appliance	Miscellaneous Non Hazard
Port Hedland	807	1	18/06/2015	Machine or Tool	Underground Dome Damaged
Port Hedland	863	1	29/06/2015	Equipment Failure	Part Power
Sandstone	913	1	12/02/2015	Unknown	Part Power
Warmun	2,804.68	1	28/01/2015	Unknown	Meter Box Damaged
Warmun	4,045.23	1	22/05/2015	Equipment Failure	Meter Box Damaged
Wyndham	2,907.93	1	23/09/2014	Fire (Not Pole Top Fire)	Electric Shock
Wyndham	1,904	1	19/01/2015	Water Infiltration or Flooded Equipment	Reconnection
6,382					

Customer interruptions greater than 12 hours were largely due to extreme weather events (cyclones, severe storms & floods) that Horizon Power systems experienced in 2014/15.

Notable weather events for 2014/15 were:

- Two tropical cyclones occurred in the WA region during 2014/15:
 - TC Olwyn (Mar 2015) made landfall near Exmouth, where its intensity was a Category 3 system. It tracked through Carnarvon and down to Denham. There were high winds, heavy rains and flooding.
 - TC Quang (May 2015) crossed land near Exmouth as a Category 1 System. Strong winds were the main impact on loss of power supply.

Clause 6 and 10 - Total number of complaints received

	2013/14	2014/15
NQR19	31	32

Clause 7 and 10 - Number of customer complaints in each discrete area:

Discrete Area	2013/14	2014/15
NWIS	6	10
Ardyaloon		
Beagle Bay		
Bidyadanga		
Broome	4	5
Carnarvon		2
Coral Bay		
Cue		
Denham		
Derby	3	1
Djarindjin		
Esperance	2	6
Exmouth	3	4
Fitzroy Crossing		
Gascoyne Junction		
Halls Creek	2	2
Hopetoun	1	1
Kalumburu		
Kununurra	5	1
Lake Argyle	1	
Laverton		
Leonora		
Looma		
Marble Bar		
Meekatharra		
Menzies		
Mount Magnet		
Norseman		
Nullagine		
Onslow		
Sandstone		
Warmun	1	
Wiluna		
Wyndham	1	
Yalgoo		
Yungngora		
Horizon Power	31	32

Clause 8 and 10 - Total amount spent addressing complaints.

	2013/14	2014/15
NQR21	\$385,313	\$1,361,370

Clause 9 and 10 - Payments to customers for failure to meet certain standards

The number and total payments made to customers for failure to give required notice of planned interruption.

	2013/14		2014/15	
	Number	Cost	Number	Cost
NQR40	0	\$0	1	\$20

The number and total payments made to customers for supply interruptions exceeding 12 hours.

	2013/14		2014/15	
	Number	Cost	Number	Cost
NQR41	89	\$7,120	1,618	\$129,440

The majority of payments made for supply interruptions exceeding 12 hours were due to two cyclones: TC Olwyn and TC Quang.

Clause 11, 12 and 13(a) - Average Length of Interruption of Supply to Customer Premises in Minutes (CAIDI)

<i>Discrete Area</i>	<i>2011/12</i>	<i>2012/13</i>	<i>2013/14</i>	<i>2014/15</i>	<i>Average</i>
NWIS	131.59	90.56	164.04	62.99	112.29
Ardayaloon	376.34	80.90	113.00	74.94	161.29
Beagle Bay	0.00	0.00	38.15	20.38	14.63
Bidyadanga	23.44	92.06	52.29	24.54	48.08
Broome	88.98	70.71	52.25	146.23	89.54
Carnarvon	62.72	74.87	35.54	287.83	115.24
Coral Bay	208.00	0.00	0.00	3.30	52.83
Cue	76.20	183.17	32.45	83.28	93.77
Denham	12.47	41.40	26.32	96.58	44.19
Derby	68.31	146.39	54.94	83.10	88.18
Djarindjin	0.00	110.81	0.00	74.34	46.29
Esperance	163.86	149.22	88.41	69.07	117.64
Exmouth	28.19	74.71	74.29	1423.22	400.10
Fitzroy Crossing	91.82	55.14	45.70	200.78	98.36
Gascoyne Junction	0.00	0.00	90.00	29.51	29.88
Halls Creek	43.36	78.31	54.82	248.83	106.33
Hopetoun	71.32	94.70	100.71	104.72	92.86
Kalumburu	N/A	0.00	105.64	55.85	53.83
Kununurra	45.95	38.61	37.97	46.39	42.23
Lake Argyle	91.68	50.59	125.50	0.00	66.94
Laverton	185.11	201.42	132.73	73.90	148.29
Leonora	83.10	99.84	50.55	35.50	67.25
Looma	156.78	159.33	163.34	63.86	135.83
Marble Bar	54.93	92.42	87.91	84.38	79.91
Meekatharra	257.61	139.61	97.50	127.61	155.58
Menzies	46.87	0.00	58.06	0.00	26.23
Mount Magnet	34.98	15.75	24.21	19.56	23.62
Norseman	51.40	152.53	102.46	160.57	116.74
Nullagine	21.80	62.10	111.81	189.95	96.41
Onslow	67.19	96.03	37.59	97.08	74.47
Sandstone	78.57	268.00	12.63	27.22	96.61
Warmun	74.13	101.62	28.72	93.61	74.52
Wiluna	213.95	184.90	125.04	129.45	163.33
Wyndham	70.37	48.70	36.54	122.41	69.50
Yalgoo	254.00	27.83	278.67	17.41	144.48
Yungngora	N/A	225.00	47.31	22.73	98.35
Horizon Power	90.99	77.74	81.90	161.00	102.91

Clause 11, 12 and 13(b) - Average Number of Interruptions of Supply to Customer Premises (SAIFI)

<i>Discrete Area</i>	<i>2011/12</i>	<i>2012/13</i>	<i>2013/14</i>	<i>2014/15</i>	<i>Average</i>
NWIS	1.98	3.24	3.03	1.20	2.36
Ardyaloon	1.53	2.93	0.61	2.49	1.89
Beagle Bay	0.00	0.00	1.35	1.39	0.68
Bidyadanga	0.91	1.08	2.15	2.41	1.64
Broome	4.08	0.82	1.91	0.29	1.77
Carnarvon	3.77	5.05	6.61	11.15	6.64
Coral Bay	0.11	0.00	0.00	1.00	0.28
Cue	1.70	1.45	2.04	6.01	2.80
Denham	4.54	2.02	3.93	10.91	5.35
Derby	3.96	1.15	5.62	4.37	3.77
Djarindjin	0.00	0.89	0.00	2.88	0.94
Esperance	3.03	2.40	3.40	4.03	3.21
Exmouth	0.84	3.30	2.07	3.44	2.41
Fitzroy Crossing	2.77	1.22	0.41	0.42	1.20
Gascoyne Junction	0.00	0.00	0.15	0.88	0.26
Halls Creek	3.07	3.30	1.40	1.17	2.24
Hopetoun	4.81	5.25	4.55	2.58	4.30
Kalumburu	N/A	0.00	2.08	5.19	2.42
Kununurra	15.73	20.18	17.62	10.75	16.07
Lake Argyle	12.47	1.88	2.03	0.00	4.10
Laverton	5.11	0.49	0.94	0.44	1.75
Leonora	3.78	7.94	2.28	5.93	4.98
Looma	2.22	0.28	2.30	4.32	2.28
Marble Bar	1.28	3.42	1.80	0.95	1.86
Meekatharra	0.34	1.96	3.17	1.71	1.80
Menzies	1.37	0.00	1.79	0.00	0.79
Mount Magnet	3.25	7.03	7.77	1.87	4.98
Norseman	4.14	1.09	2.60	4.13	2.99
Nullagine	0.47	0.52	0.91	0.44	0.58
Onslow	6.33	20.54	8.19	4.71	9.94
Sandstone	4.43	0.06	1.00	1.08	1.64
Warmun	2.88	2.61	0.81	2.75	2.26
Wiluna	1.09	3.35	3.17	1.25	2.21
Wyndham	18.44	20.39	6.26	0.29	11.35
Yalgoo	0.38	1.93	1.50	0.95	1.19
Yungngora	N/A	0.19	11.73	3.99	5.30
Horizon Power	3.72	4.09	4.09	3.11	3.75

Clause 11, 12 and 13(c) - Average Percentage Of Time That Electricity Has Been Supplied To Customer Premises.

Discrete Area %	2011/12	2012/13	2013/14	2014/15	Average
NWIS	99.97	99.98	99.97	99.97	99.99
Ardyaloon	99.93	99.98	99.98	99.98	99.99
Beagle Bay	100.00	100.00	99.99	99.99	100.00
Bidyadanga	100.00	99.98	99.99	99.99	100.00
Broome	99.98	99.99	99.99	99.99	99.97
Carnarvon	99.99	99.99	99.99	99.99	99.95
Coral Bay	99.96	100.00	100.00	100.00	100.00
Cue	99.99	99.97	99.99	99.99	99.98
Denham	100.00	99.99	99.99	99.99	99.98
Derby	99.99	99.97	99.99	99.99	99.98
Djarindjin	100.00	99.98	100.00	100.00	99.99
Esperance	99.97	99.97	99.98	99.98	99.99
Exmouth	99.99	99.99	99.99	99.99	99.73
Fitzroy Crossing	99.98	99.99	99.99	99.99	99.96
Gascoyne Junction	100.00	100.00	99.98	99.98	99.99
Halls Creek	99.99	99.99	99.99	99.99	99.95
Hopetoun	99.99	99.98	99.98	99.98	99.98
Kalumburu	N/A	100.00	99.98	99.98	99.99
Kununurra	99.99	99.99	99.99	99.99	99.99
Lake Argyle	99.98	99.99	99.98	99.98	100.00
Laverton	99.96	99.96	99.97	99.97	99.99
Leonora	99.98	99.98	99.99	99.99	99.99
Looma	99.97	99.97	99.97	99.97	99.99
Marble Bar	99.99	99.98	99.98	99.98	99.98
Meekatharra	99.95	99.97	99.98	99.98	99.98
Menzies	99.99	100.00	99.99	99.99	100.00
Mount Magnet	99.99	100.00	100.00	100.00	100.00
Norseman	99.99	99.97	99.98	99.98	99.97
Nullagine	100.00	99.99	99.98	99.98	99.96
Onslow	99.99	99.98	99.99	99.99	99.98
Sandstone	99.99	99.95	100.00	100.00	99.99
Warmun	99.99	99.98	99.99	99.99	99.98
Wiluna	99.96	99.96	99.98	99.98	99.98
Wyndham	99.99	99.99	99.99	99.99	99.98
Yalgoo	99.95	99.99	99.95	99.95	100.00
Yungngora	N/A	99.96	99.99	99.99	100.00
Horizon Power	99.98	99.99	99.98	99.98	99.97

Clause 11, 12 and 13(d) - Average Total Length of All Interruptions of Supply to Customer Premises in Minutes (SAIDI)

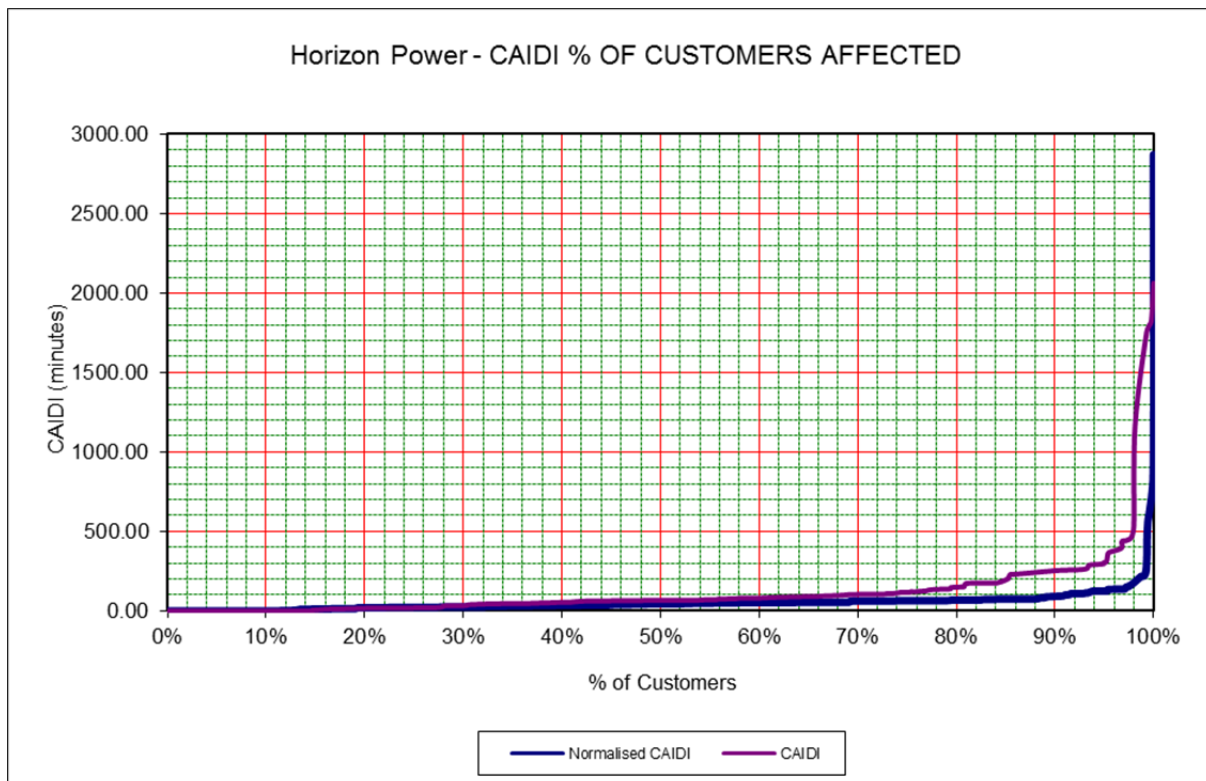
DISCRETE AREA	2011/12	2012/13	2013/14	2014/15	Average
NWIS	261	293	496	76	282
Ardyaloon	577	237	69	186	268
Beagle Bay	0	0	52	28	20
Bidyadanga	21	99	112	59	73
Broome	363	58	100	43	141
Carnarvon	236	378	235	3209	1014
Coral Bay	24	0	0	3	7
Cue	129	265	66	500	240
Denham	57	84	104	1054	324
Derby	270	168	309	363	278
Djarindjin	0	99	0	214	78
Esperance	496	358	300	278	358
Exmouth	24	246	154	4903	1332
Fitzroy Crossing	255	67	19	85	106
Gascoyne Junction	0	0	14	26	10
Halls Creek	133	258	77	292	190
Hopetoun	343	497	458	270	392
Kalumburu	N/A	0	219	290	170
Kununurra	723	779	669	499	667
Lake Argyle	1143	95	255	0	373
Laverton	946	98	125	33	300
Leonora	314	793	115	211	358
Looma	348	44	375	276	261
Marble Bar	70	316	158	80	156
Meekatharra	88	274	309	218	222
Menzies	64	0	104	0	42
Mount Magnet	113	111	188	37	112
Norseman	213	166	267	663	327
Nullagine	10	32	102	84	57
Onslow	425	1973	308	457	791
Sandstone	348	17	13	29	102
Warmun	214	265	23	257	190
Wiluna	233	619	396	162	353
Wyndham	1298	993	229	35	639
Yalgoo	98	54	418	17	146
Yungngora	N/A	42	555	91	229
Horizon Power	339	318	335	501	373

For the period 01/07/2014 to 30/06/2015 SAIDI using the Normalised data sets was **135** minutes.

Clause 14(a) - Horizon Power - Average Length of Interruption - Frequency Distribution

<i>Percentile</i>	<i>Minutes</i>
25 th	18.72
50 th	65.35
75 th	117.13
90 th	252.88
95 th	305.44
98 th	539.52
100 th	2063.25

Clause 15(a) - CAIDI Frequency Graph.

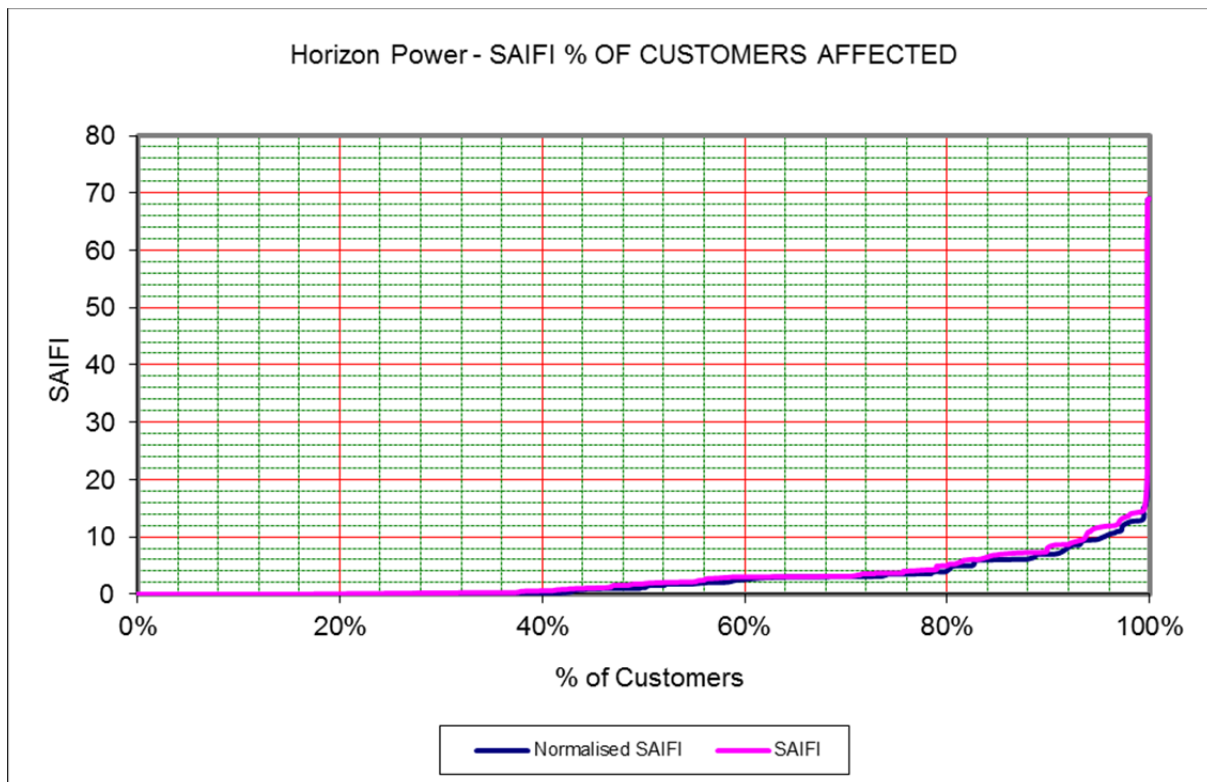


During the period 01/07/2014 to 30/06/2015 of those customers who experienced an interruption, approximately 40% had an interruption of less than 60 minutes.

Clause 14(b) - Horizon Power - Number of Interruptions - Frequency Distribution

<i>Percentile</i>	<i>Interruptions</i>
25 th	0.15
50 th	1.83
75 th	3.71
90 th	8.16
95 th	11.62
98 th	13.76
100 th	68.98

Clause 15(b) - SAIFI Frequency Graph.

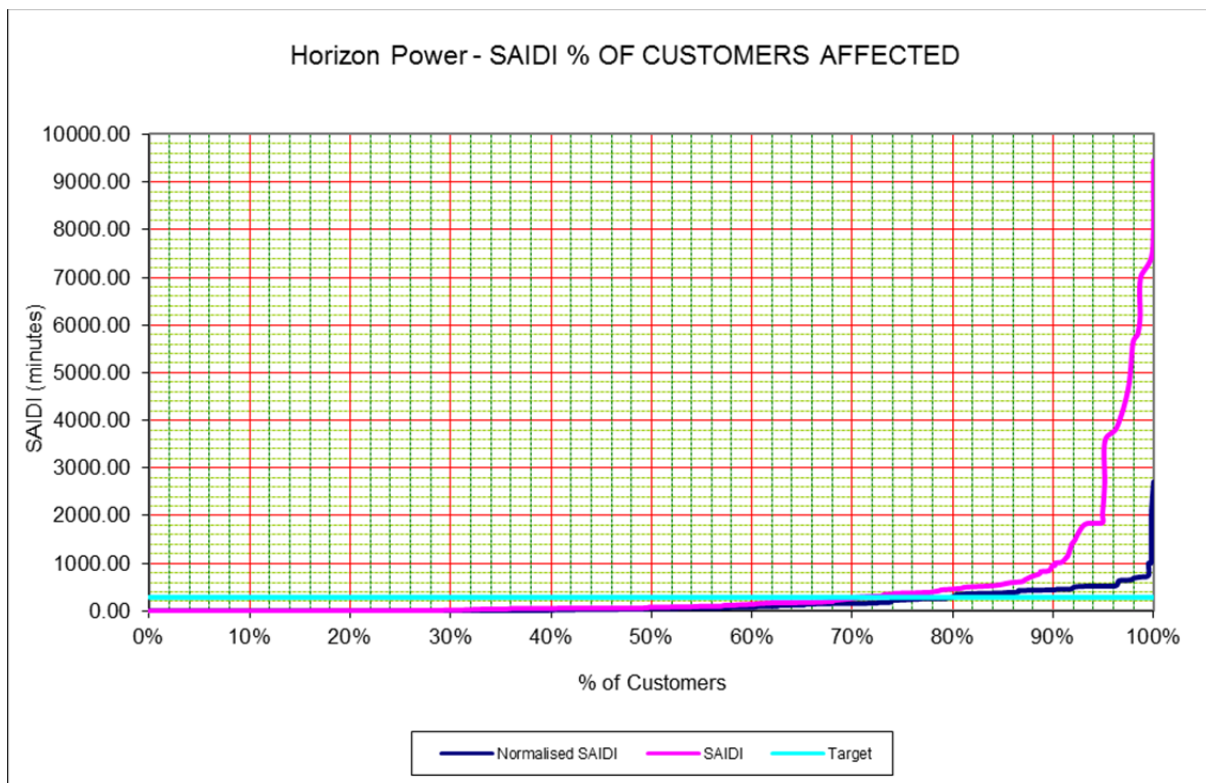


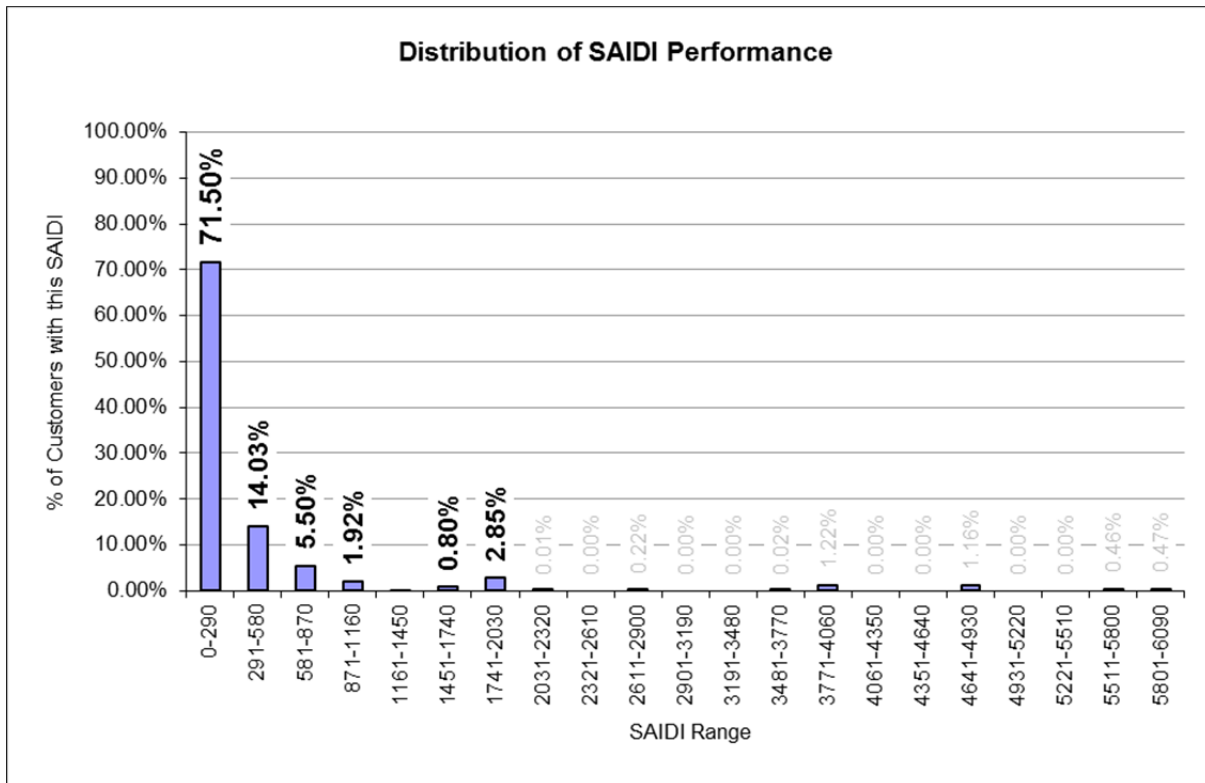
During the period 01/07/2014 to 30/06/2015, 99.6% of customers experienced an average of fewer than 16 outages.

Clause 14(c) - Horizon Power - Total Length of all Interruptions - Frequency Distribution

<i>Percentile</i>	<i>Minutes</i>
25 th	7.44
50 th	78.71
75 th	373.97
90 th	954.49
95 th	2294.04
98 th	5656.43
100 th	9449.15

Clause 15(c) - SAIDI Frequency Graph





During the period 01/07/2014 to 30/06/2015, 70% of customers experienced outages with durations of less than 290 minutes. Using a normalised data set this is increased to 79%.

4. MAJOR EVENT DAYS

In the period 01/07/2014 to 30/06/2015 there were two significant weather events for which Major Event Days were recorded.

Power System	Major Event Day Dates	Event
Carnarvon	12 – 17 Mar 2015	TC Olwyn
Exmouth	12 – 17 Mar 2015	TC Olwyn
Coral Bay	12 – 17 Mar 2015	TC Olwyn
Denham	12 – 17 Mar 2015	TC Olwyn
Onslow	12 – 17 Mar 2015	TC Olwyn
Exmouth	1 – 3 May 2015	TC Quang

5. APPENDIX

Major Event Days

Major event days are days in which interruptions affect the delivery of supply in a system and are not reasonably practicable to control such as extreme weather events (cyclones and floods). These days are excluded from Sustained Interruptions used for reliability measurement and reporting.

This report makes reference to the impact of major event days where they have had a significant impact on the statistics.

Major Event Day Classification

The classification of Major Event Days is to allow major events to be studied separately from daily operation, and in the process, to better reveal trends in daily operation that would be hidden by the large statistical effect of major events.

A Major Event Day is a day in which interruptions affect the delivery of supply in a system that is not reasonably practicable to control. All indices are calculated based on removal of the identified Major Event Days.

Interruptions that span multiple days are accrued to the day on which the interruption begins.

Normalised Data Sets - Unplanned

Horizon Power uses Normalised data sets to measure the management of incidents that are within the business' control.

Sustained Interruptions in Horizon Powers systems are those interruptions that result in a loss of electricity to customers for more than one minute in duration.

Horizon Power excludes interruptions from its Normalised data set where the interruption is not reasonably practicable to control such as:

- Customer installations/ appliances
- Planned outages/ disconnections
- Vehicle, machine or tool damage
- Wilful damage
- Damage due to events that Horizon Power cannot, so far as is reasonably practicable, control such as cyclones and floods.

As Horizon Power is a vertically integrated business (responsible for generation, transmission and distribution) reliability data includes generation and transmission outages.

Normalised data sets exclude incidents that aren't reasonably practicable to control by Horizon Power.

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