

# Network Quality and Reliability of Supply Code

## 2021/22 Performance Report

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# Service Area

- Offices
- Current supply 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 (ERA WA) publishes the Electricity Distribution Licence Performance Reporting Handbook, which specifies measures to be reported. The report is prepared in accordance with Schedule 1 of the Code, however as Horizon Power is a vertically integrated business (responsible for generation, transmission and distribution) reliability data includes generation and transmission outages.

## 2. AUDIT REQUIREMENTS

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.

In 2017, the Minister for Energy removed the requirement for licence holders, such as Horizon Power, to annually engage an independent expert to audit and report on the operation of the systems in place for monitoring compliance with legislated electricity quality and reliability standards. The audit period was extended to three yearly. The last audit was undertaken for the 2020 report and the next audit will be performed in 2023.



### 3. Schedule 1 - Information to be published

Clause 3: Stand-alone Power Systems (SPS)

Total Number of Complaints received from customers for each discrete area's SPS:

<i>Discrete Area SPS</i>	2020/21	2021/22
Esperance SPS	0	0
Exmouth SPS	0	0
Hopetoun SPS	0	0
<b>Horizon Power</b>	<b>0</b>	<b>0</b>

Average Length of Interruption of Supply to Customer Premises in Minutes (CAIDI)

System	2018/19	2019/20	2020/21	2021/22	Average
Esperance SPS	N/A	N/A	0.00	286.67	143.33
Exmouth SPS	N/A	N/A	0.00	0.00	0.00
Hopetoun SPS	N/A	N/A	0.00	0.00	0.00
<b>Horizon Power Total</b>	<b>N/A</b>	<b>N/A</b>	<b>0.00</b>	<b>286.67</b>	<b>143.33</b>

Average Number of Interruptions of Supply to Customer Premises (% Availability)

System	2018/19	2019/20	2020/21	2021/22	Average
Esperance SPS	N/A	N/A	100.00	99.95	99.97
Exmouth SPS	N/A	N/A	100.00	100.00	100.00
Hopetoun SPS	N/A	N/A	100.00	100.00	100.00
<b>Horizon Power Total</b>	<b>N/A</b>	<b>N/A</b>	<b>100.00</b>	<b>99.95</b>	<b>99.98</b>

Average Number of Interruptions of Supply to Customer Premises (SAIFI)

System	2018/19	2019/20	2020/21	2021/22	Average
Esperance SPS	N/A	N/A	0.00	0.13	0.06
Exmouth SPS	N/A	N/A	0.00	0.00	0.00
Hopetoun SPS	N/A	N/A	0.00	0.00	0.00
<b>Horizon Power Total</b>	<b>N/A</b>	<b>N/A</b>	<b>0.00</b>	<b>0.12</b>	<b>0.06</b>

Average Total Length of All Interruptions of Supply to Customer Premises in Minutes (SAIDI)

System	2018/19	2019/20	2020/21	2021/22	Average
Esperance SPS	N/A	N/A	0.00	35.83	17.92
Exmouth SPS	N/A	N/A	0.00	0.00	0.00
Hopetoun SPS	N/A	N/A	0.00	0.00	0.00
<b>Horizon Power Total</b>	<b>N/A</b>	<b>N/A</b>	<b>0.00</b>	<b>33.08</b>	<b>16.54</b>

Clause 4 and 10 – Breaches and Remedial Action

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

Quality of Supply	2020/21	2021/22
Voltage fluctuations	0	0
Harmonics	0	0
Failure to Notify Customer of proposed interruption – Sections 9 and 11(b)	0	5

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

*Voltage Fluctuations*

Location	Action Taken
N/A	N/A

*Harmonics*

Location	Action Taken
N/A	N/A

*N/A = Not Available.*

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.

*Failure to Notify Customer of proposed interruption – Sections 9 and 11(b)*

*[21 August 2021] Morgans St, Laverton Planned Outage Failure to Notify*

Five (5) breaches from this one incident for 5 customers on Morgans Street (all forming part of the same strata complex). The premises were incorrectly listed on OCS (Outage Capture System) as being on Bannego Place. This error resulted in Horizon Power failing to provide the occupants of the Properties with any prior notice of the Planned Interruption.

*Remedial Action taken:*

- Horizon Power issued each Account Holder with a \$20 account credit as compensation for its Failure to Notify; and
- Horizon Power has:
  - o updated OCS to correct the defective data which incorrectly listed the five Morgans Street properties on another location;
  - o conducted a 'lessons learned' session with relevant staff in respect of the Morgans Street Outage and Failure to Notify;
  - o taken steps to improve the integrity of Laverton OCS data; and
  - o implemented procedures aimed at reducing the likelihood and impact of similar incidents in future.

## Clause 5 - Significant interruptions to small use customers

Clause Description	2020/21	2021/22
Clause 5(a) Number of premises that experienced interruptions greater than 12 hours continuous	743	522
Clause 5(b) Number of premises that experienced more than 16 interruptions.	46	199

The number of premises experiencing more than 16 interruptions increased mainly in Esperance Rural, Mount Magnet and Carnarvon areas.

Detailed analysis of interruptions where duration is greater than 12 hours (720 minutes) continuously for 2021/22

System	Duration (Minutes)	Premises	Start Date	Cause Description	Incident Category
Bidyadanga	897	17	31/01/2022	Lightning	Feeder Trip
Bidyadanga	1,015	1	31/01/2022	Unknown	No Power
Bidyadanga	1,539	1	23/05/2022	Vandalism or Willful Damage	No Power
Broome	1,023	6	31/01/2022	Lightning	Drop Out Fuse Trip
Carnarvon	3,242	1	6/07/2021	Plan Outage or Disconnection	Switch Isolation
Carnarvon	1,234	1	13/07/2021	Equipment Failure	Part Power
Carnarvon	1,284	1	26/08/2021	Equipment Failure	SFW PQI High Volts
Carnarvon	4,785	3	15/09/2021	Plan Outage or Disconnection	Planned HVN Incident
Carnarvon	1,805	4	30/09/2021	Plan Outage or Disconnection	Planned HVN Incident
Carnarvon	1,836	3	6/10/2021	Plan Outage or Disconnection	Planned HVN Incident
Carnarvon	985	1	16/12/2021	Equipment Failure	Part Power
Carnarvon	725	1	25/01/2022	Equipment Failure	No Power
Carnarvon	4,220	1	10/06/2022	Vandalism or Willful Damage	Debris On Street Wire
Carnarvon	790	1	18/06/2022	Fire (Not Pole Top Fire)	House / Building Fire
Cue	1,368	1	19/01/2022	Vehicle	Street Wire Down
Denham	929	1	2/07/2021	Equipment Failure	No Power
Denham	5,760	1	10/07/2021	Vehicle	Pole Down
Denham	1,008	1	18/08/2021	Animal	Debris On Street Wire
Denham	1,342	1	29/11/2021	Unknown	No Power
Denham	1,247	1	28/12/2021	Unknown	Reconnection
Denham	753	1	12/03/2022	Equipment Failure	Part Power
Denham	969	1	2/04/2022	Equipment Failure	No Power
Denham	2,827	1	12/06/2022	Equipment Failure	Part Power
Derby	1,848	1	27/08/2021	Vehicle	Underground Dome Damaged
Derby	935	1	23/10/2021	Vandalism or Willful Damage	Equipment Fire (Not Pole)



Derby	1,299	1	13/12/2021	Unknown	Part Power
Derby	1,244	1	14/01/2022	Lightning	No Power
Djarindjin	782	1	14/01/2022	Lightning	No Power
Esperance	1,051	18	28/07/2021	Wind or Wind Bourne Debris	Drop Out Fuse Trip
Esperance	1,440	1	19/10/2021	Vehicle	Service Wire Down
Esperance	8,520	1	3/11/2021	Equipment Failure	Miscellaneous Hazard
Esperance	832	15	23/11/2021	System Generated	Protective Device Trip
Esperance	827	1	16/12/2021	Lightning	No Power
Esperance	2,242	1	3/01/2022	Pollution	Pole Arcing
Esperance	3,072	1	3/01/2022	Pollution	Pole Arcing
Esperance	20,798	1	7/01/2022	Equipment Failure	SFW PQI High Volts
Esperance	1,230	1	21/01/2022	Equipment Failure	SFW PQI High Volts
Esperance	765	1	23/01/2022	Pollution	Pole Arcing
Esperance	1,446	1	31/01/2022	Lightning	No Power
Esperance	1,753	2	31/01/2022	Plan Outage or Disconnection	Planned HVN Incident
Esperance	1,589	1	3/02/2022	Machine or Tool	No Power
Esperance	2,674	1	28/02/2022	PQI - Default Code	Miscellaneous Hazard
Esperance	933	1	7/03/2022	Generation Failure	No Power
Esperance	820	11	8/03/2022	Unknown	Drop Out Fuse Trip
Esperance	1,357	1	9/03/2022	Lightning	Miscellaneous Hazard
Esperance	924	1	12/03/2022	Lightning	No Power
Esperance	805	19	11/04/2022	Lightning	Drop Out Fuse Trip
Esperance	863	1	11/04/2022	Lightning	No Power
Esperance	945	8	11/04/2022	Lightning	Drop Out Fuse Trip
Esperance	1,084	1	11/04/2022	Equipment Failure	No Power
Esperance	962	20	12/04/2022	Lightning	Drop Out Fuse Trip
Esperance	875	1	24/04/2022	Bird	No Power
Esperance	4,537	1	26/04/2022	External Owner Equipment	Miscellaneous Hazard
Esperance	3,141	1	2/05/2022	Plan Outage or Disconnection	Planned HVN Incident
Esperance	1,116	1	10/05/2022	External Owner Equipment	Miscellaneous Hazard
Esperance	791	1	18/05/2022	Lightning	No Power
Esperance	940	31	21/05/2022	Lightning	Drop Out Fuse Trip
Esperance	1,486	9	12/06/2022	Equipment Failure	Recloser Trip
Exmouth	1,801	1	17/09/2021	Emergency Outage For Hazard	Underground Dome Damaged
Exmouth	1,834	1	25/10/2021	Machine or Tool	No Power
Exmouth	907	1	27/12/2021	Unknown	Part Power
Exmouth	4,150	1	4/06/2022	Equipment Failure	Miscellaneous Non Hazard
Fitzroy Crossing	992	6	11/12/2021	Unknown	Drop Out Fuse Trip

Fitzroy Crossing	1,296	1	13/12/2021	Unknown	Potential Neutral Problem - AMI
Fitzroy Crossing	721	94	19/12/2021	Lightning	Feeder Trip
Fitzroy Crossing	809	1	19/12/2021	Lightning	No Power
Fitzroy Crossing	822	1	19/12/2021	Lightning	Street Wire Down
Fitzroy Crossing	938	1	19/12/2021	Vegetation	Low Hanging Service Wire
Fitzroy Crossing	1,362	30	19/12/2021	Vegetation	Feeder Trip
Fitzroy Crossing	1,474	1	22/12/2021	Equipment Failure	Reconnection
Fitzroy Crossing	1,681	1	27/01/2022	Equipment Failure	No Power
Fitzroy Crossing	919	1	6/02/2022	Unknown	No Power
Fitzroy Crossing	861	75	16/03/2022	Wind or Wind Bourne Debris	Recloser Trip
Fitzroy Crossing	3,674	1	24/04/2022	Bird	No Power
Halls Creek	876	1	20/12/2021	Vegetation	Low Hanging Service Wire
Halls Creek	817	1	7/01/2022	Lightning	Street Wire Down
Hopetoun	2,116	24	11/02/2022	Wind or Wind Bourne Debris	Feeder Trip
Hopetoun	8,192	10	12/02/2022	Fire (Not Pole Top Fire)	LV Fuse Trip
Hopetoun	2,987	1	17/03/2022	Lightning	Reconnection
Hopetoun	779	1	13/04/2022	Machine or Tool	No Power
Kununurra	781	1	29/10/2021	Lightning	LV Fuse Trip
Kununurra	867	1	29/10/2021	Equipment Failure	Part Power
Kununurra	1,307	1	8/11/2021	Vegetation	Reconnection
Leonora	792	1	8/12/2021	Vehicle	Service Wire Down
Meekatharra	1,543	1	28/07/2021	Vehicle	Pole Down
Meekatharra	1,289	1	21/10/2021	Vehicle	Pole Hit
Meekatharra	1,140	1	28/03/2022	Lightning	No Power
Meekatharra	859	1	29/03/2022	Lightning	Part Power
Mount Magnet	1,477	1	4/04/2022	Lightning	Planned HVN Incident
Nullagine	1,080	1	15/01/2022	Wind or Wind Bourne Debris	Arcing Street Wire
NWIS	1,528	4	11/07/2021	Equipment Failure	Feeder Trip
NWIS	3,129	1	26/08/2021	Equipment Failure	No Power
NWIS	880	1	18/10/2021	Insect	Part Power
NWIS	1,868	1	5/11/2021	Equipment Failure	No Power
NWIS	2,208	4	5/11/2021	Equipment Failure	Feeder Trip
NWIS	1,514	2	13/11/2021	Plan Outage or Disconnection	Planned HVN Incident
NWIS	1,460	1	10/12/2021	Vehicle	Underground Dome Damaged

NWIS	1,719	2	13/12/2021	Equipment Failure	Feeder Trip
NWIS	1,440	1	18/12/2021	Vehicle	Miscellaneous Hazard
NWIS	1,672	1	1/02/2022	Equipment Failure	Arcing Street Wire
NWIS	4,815	4	15/02/2022	Plan Outage or Disconnection	Planned HVN Incident
NWIS	1,275	1	16/02/2022	Lightning	No Power
NWIS	1,648	1	1/03/2022	Plan Outage or Disconnection	Planned HVN Incident
NWIS	2,273	23	14/06/2022	Equipment Failure	Feeder Trip
<b>522</b>			<b>Number of Interruptions* = 104</b>		

\*Interruptions listed are beyond the control of the customer.

There were no significant weather events (cyclones, severe storms, fire & floods) affecting Horizon Power systems in 2021/22.

Power System	Significant Event Dates	Event

Clause 6 and 10 - Total number of complaints received

2020/21	2021/22
452	44

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

Discrete Area	2020/21	2020/21
NWIS	15	
Ardyaloon		
Beagle Bay		
Bidyadanga		
Broome		2
Carnarvon	415	1
Coral Bay		
Cue		
Denham		
Derby		
Djarindjin		
Esperance	7	31
Exmouth	1	
Fitzroy Crossing		2
Gascoyne Junction	1	
Halls Creek	10	
Hopetoun		2
Kalumburu		
Kununurra	1	1
Lake Argyle		
Laverton		5
Leonora		
Looma		
Marble Bar		
Meekatharra		
Menzies	1	
Mount Magnet		
Norseman		
Nullagine		
Onslow		
Sandstone		
Warmun		
Wiluna		
Wyndham		
Yalgoo	1	
Yungngora		
<b>Horizon Power Total</b>	<b>452</b>	<b>44</b>

In the 2021/22 period, the complaint for the 5 failure to notify breaches were incorporated into the Laverton figures.

Clause 8 and 10 - Total amount spent addressing Power Quality and Reliability complaints

2020/21	2021/22
\$536,838	\$584,994

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

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

2020/21		2021/22	
Number	Cost	Number	Cost
15	\$300	4	\$80

The number and total payments made to customers (who applied) for supply interruptions exceeding 12 hours.

2020/21		2021/22	
Number	Cost	Number	Cost
434	\$34,720	34	\$3,720

On 1 Jan 2022, the Extended Outage Payments increased from \$80 to \$120



Clause 11(a), 12 and 13 - Average Length of Interruption of Supply to Customer Premises in Minutes<sup>2</sup>

System	2018/19	2019/20	2020/21	2021/22	Average
NWIS <sup>1</sup>	159.53	251.60	62.65	88.09	140.47
Ardayaloon	0.00	0.00	184.48	7.72	48.05
Beagle Bay	173.30	66.46	0.00	77.72	79.37
Bidyadanga	139.78	53.10	248.56	897.43	334.72
Broome	191.07	35.95	117.94	58.09	100.76
Carnarvon	51.25	64.55	101.93	108.17	81.48
Coral Bay	14.08	70.68	2.89	11.19	24.71
Cue	83.69	47.27	44.25	83.38	64.65
Denham	36.24	11.93	97.66	118.38	66.05
Derby	153.68	233.35	52.53	113.95	138.38
Djarindjin	119.75	25.29	213.01	11.54	92.40
Esperance	114.39	77.84	123.67	92.60	102.13
Exmouth	192.95	159.72	162.05	123.32	159.51
Fitzroy Crossing	190.43	104.30	217.07	272.23	196.01
Gascoyne Junction	207.64	84.60	0.00	91.20	95.86
Halls Creek	233.86	201.36	102.67	54.88	148.19
Hopetoun	136.26	57.31	40.58	217.35	112.88
Kalumburu	27.51	48.22	44.59	104.43	56.19
Kununurra	52.91	48.36	28.56	36.01	41.46
Lake Argyle	106.65	84.00	90.01	38.41	79.77
Laverton	159.62	154.39	103.45	81.08	124.64
Leonora	212.97	199.09	88.88	94.36	148.83
Looma	427.66	168.91	21.69	22.50	160.19
Marble Bar	113.38	0.00	14.44	107.08	58.73
Meekatharra	113.60	94.30	102.90	198.12	127.23
Menzies	106.43	327.93	138.38	117.81	172.64
Mount Magnet	67.84	156.64	76.49	69.57	92.64
Norseman	84.88	307.57	153.25	122.64	167.08
Nullagine	476.27	61.04	77.98	112.82	182.03
Onslow	32.82	116.77	74.60	133.19	89.34
Sandstone	172.33	32.75	464.33	209.22	219.66
Warmun	0.00	1.08	22.23	47.14	17.61
Wiluna	41.14	94.83	127.79	105.91	92.42
Wyndham	45.90	21.03	90.01	35.27	48.05
Yalgoo	69.42	19.41	148.00	105.45	85.57
Yungngora	269.49	16.83	0.00	79.76	91.52
<b>Horizon Power Total</b>	<b>120.50</b>	<b>123.73</b>	<b>89.50</b>	<b>94.20</b>	<b>106.98</b>

<sup>1</sup>NWIS – North West Interconnected System as per Clause 1 – Schedule 1

<sup>2</sup>Corresponds to Customer Average Interruption Duration Index (CAIDI)

Clause 11(b), 12 and 13 - Average Number of Interruptions of Supply to Customer Premises<sup>3</sup>

System	2018/19	2019/20	2020/21	2021/22	Average
NWIS <sup>1</sup>	0.68	1.55	1.48	0.74	1.11
Ardyaloon	0.00	0.00	0.58	0.84	0.36
Beagle Bay	3.37	1.60	0.00	1.60	1.64
Bidyadanga	0.34	2.83	1.05	0.09	1.08
Broome	1.58	0.61	1.50	1.49	1.29
Carnarvon	4.71	5.36	5.87	3.82	4.94
Coral Bay	5.82	3.33	1.72	0.84	2.93
Cue	1.12	2.13	4.59	1.87	2.43
Denham	3.55	2.64	7.94	4.98	4.78
Derby	2.29	2.72	4.63	1.73	2.84
Djarindjin	2.05	1.11	1.24	1.62	1.50
Esperance	2.91	4.65	2.23	5.44	3.81
Exmouth	1.45	0.69	2.87	3.13	2.03
Fitzroy Crossing	1.53	1.94	1.33	2.03	1.71
Gascoyne Junction	0.84	5.86	0.00	5.74	3.11
Halls Creek	0.82	0.69	3.07	6.78	2.84
Hopetoun	3.64	3.11	2.54	1.60	2.72
Kalumburu	2.63	0.90	1.55	9.51	3.65
Kununurra	3.10	5.74	2.41	2.20	3.36
Lake Argyle	6.44	0.94	5.65	0.94	3.49
Laverton	3.47	4.08	3.08	5.20	3.96
Leonora	7.44	9.62	5.45	5.15	6.92
Looma	3.28	1.02	1.47	1.45	1.81
Marble Bar	1.40	0.00	1.80	8.31	2.88
Meekatharra	1.16	1.88	5.51	3.37	2.98
Menzies	4.65	1.08	1.41	1.93	2.27
Mount Magnet	3.21	4.24	1.79	11.44	5.17
Norseman	4.14	2.76	0.57	4.12	2.90
Nullagine	0.63	0.58	0.16	3.11	1.12
Onslow	2.64	2.10	3.69	6.29	3.68
Sandstone	0.17	3.15	0.27	3.71	1.83
Warmun	0.00	0.30	3.54	0.94	1.19
Wiluna	7.71	4.48	3.35	3.61	4.79
Wyndham	1.51	2.16	1.79	1.79	1.81
Yalgoo	1.80	1.84	0.16	1.16	1.24
Yungngora	2.41	1.80	0.00	4.09	2.08
<b>Horizon Power Total</b>	<b>1.94</b>	<b>2.54</b>	<b>2.28</b>	<b>2.48</b>	<b>2.31</b>

<sup>1</sup>NWIS – North West Interconnected System as per Clause 1 – Schedule 1

<sup>3</sup> Corresponds to System Average Interruption Frequency Index (SAIFI)

Clause 11(c), 12 and 13 - Average Percentage of Time that Electricity has been Supplied to Customer Premises

System %	2018/19	2019/20	2020/21	2021/22	Average
NWIS <sup>1</sup>	99.97	99.95	99.99	99.98	99.97
Ardyaloon	100.00	100.00	99.96	100.00	99.99
Beagle Bay	99.97	99.99	100.00	99.99	99.98
Bidyadanga	99.97	99.99	99.95	99.83	99.94
Broome	99.96	99.99	99.98	99.99	99.98
Carnarvon	99.99	99.99	99.98	99.98	99.98
Coral Bay	100.00	99.99	100.00	100.00	100.00
Cue	99.98	99.99	99.99	99.98	99.99
Denham	99.99	100.00	99.98	99.98	99.99
Derby	99.97	99.96	99.99	99.98	99.97
Djarindjin	99.98	100.00	99.96	100.00	99.98
Esperance	99.98	99.99	99.98	99.98	99.98
Exmouth	99.96	99.97	99.97	99.98	99.97
Fitzroy Crossing	99.96	99.98	99.96	99.95	99.96
Gascoyne Junction	99.96	99.98	100.00	99.98	99.98
Halls Creek	99.96	99.96	99.98	99.99	99.97
Hopetoun	99.97	99.99	99.99	99.96	99.98
Kalumburu	99.99	99.99	99.99	99.98	99.99
Kununurra	99.99	99.99	99.99	99.99	99.99
Lake Argyle	99.98	99.98	99.98	99.99	99.98
Laverton	99.97	99.97	99.98	99.98	99.98
Leonora	99.96	99.96	99.98	99.98	99.97
Looma	99.92	99.97	100.00	100.00	99.97
Marble Bar	99.98	100.00	100.00	99.98	99.99
Meekatharra	99.98	99.98	99.98	99.96	99.98
Menzies	99.98	99.94	99.97	99.98	99.97
Mount Magnet	99.99	99.97	99.99	99.99	99.98
Norseman	99.98	99.94	99.97	99.98	99.97
Nullagine	99.91	99.99	99.99	99.98	99.97
Onslow	99.99	99.98	99.99	99.97	99.98
Sandstone	99.97	99.99	99.91	99.96	99.96
Warmun	100.00	100.00	100.00	99.99	100.00
Wiluna	99.99	99.98	99.98	99.98	99.98
Wyndham	99.99	100.00	99.98	99.99	99.99
Yalgoo	99.99	100.00	99.97	99.98	99.98
Yungngora	99.95	100.00	100.00	99.98	99.98
<b>Horizon Power Total</b>	<b>99.98</b>	<b>99.98</b>	<b>99.98</b>	<b>99.98</b>	<b>99.98</b>

<sup>1</sup>NWIS – North West Interconnected System as per Clause 1 – Schedule 1

Clause 11(d), 12 and 13 - Average Total Length of All Interruptions of Supply to Customer Premises in Minutes<sup>4</sup>

System	2018/19	2019/20	2020/21	2021/22	Average
NWIS <sup>1</sup>	108	391	93	65	164
Ardyaloon	0	0	108	6	29
Beagle Bay	583	106	0	124	203
Bidyadanga	48	150	261	83	136
Broome	302	22	177	87	147
Carnarvon	241	346	599	414	400
Coral Bay	82	236	5	9	83
Cue	93	101	203	156	138
Denham	129	32	776	589	381
Derby	352	635	243	197	357
Djarindjin	245	28	264	19	139
Esperance	333	362	276	504	369
Exmouth	280	110	464	386	310
Fitzroy Crossing	290	203	289	552	334
Gascoyne Junction	174	496	0	524	298
Halls Creek	191	139	315	372	255
Hopetoun	496	178	103	349	282
Kalumburu	72	43	69	993	295
Kununurra	164	277	69	79	147
Lake Argyle	687	79	508	36	327
Laverton	554	630	318	422	481
Leonora	1586	1916	484	486	1118
Looma	1404	172	32	33	410
Marble Bar	159	0	26	889	269
Meekatharra	132	178	567	667	386
Menzies	494	356	195	227	318
Mount Magnet	218	664	137	796	454
Norseman	351	848	87	505	448
Nullagine	298	35	12	351	174
Onslow	87	245	275	838	361
Sandstone	30	103	124	776	258
Warmun	0	0	79	44	31
Wiluna	317	424	428	383	388
Wyndham	69	45	161	63	85
Yalgoo	125	36	23	123	77
Yungngora	650	30	0	326	252
<b>Horizon Power Total</b>	<b>234</b>	<b>315</b>	<b>204</b>	<b>234</b>	<b>246</b>

<sup>1</sup>NWIS – North West Interconnected System as per Clause 1 - Schedule 1

<sup>4</sup>Corresponds to System Average Interruption Duration Index (SAIDI)

Clause 14 – 15 - Deleted

Deleted from 2021/22 information to be published

#### 4. MAJOR EVENT DAYS

In the period 01/07/2021 to 30/06/2022 there was no systems impacted by significant weather events for which Major Event Days were recorded.

System	Major Event Days	Event



## 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, fires 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 Set - Unplanned

Horizon Power uses Normalised data set 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's Normalised Data excludes interruptions 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, fires and floods.

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