

PUBLIC

Network Quality and Reliability of Supply Code 2023/24 Performance Report

Prepared by: Asset Services



HORIZON
POWER

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Service Area

- Offices
- Current supply areas



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.

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 previous audit was undertaken for the 2023 report and the next audit will be conducted in 2026.

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:

Discrete Area SPS	2022/23	2023/24
Carnarvon SPS	0	0
Esperance SPS	0	0
Exmouth SPS	0	0
Hopetoun SPS	0	0
Horizon Power	0	0

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

System	2020/21	2021/22	2022/23	2023/24	Average
Carnarvon SPS	N/A	N/A	436.00	0.00	218.00
Esperance SPS	0.00	286.67	411.30	1081.16	444.78
Exmouth SPS	0.00	0.00	271.00	0.00	67.75
Hopetoun SPS	0.00	0.00	453.00	740.00	298.25
Horizon Power SPS	0.00	286.67	405.62	1048.67	435.24

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

System	2020/21	2021/22	2022/23	2023/24	Average
Carnarvon SPS	N/A	N/A	1.00	0.00	0.50
Esperance SPS	0.00	0.13	0.20	0.26	0.15
Exmouth SPS	0.00	0.00	0.08	0.00	0.02
Hopetoun SPS	0.00	0.00	0.08	2.00	0.52
Horizon Power SPS	0.00	0.12	0.17	0.28	0.14

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

System	2020/21	2021/22	2022/23	2023/24	Average
Carnarvon SPS	N/A	N/A	99.92	100.00	99.96
Esperance SPS	100.00	99.95	99.92	99.79	99.92
Exmouth SPS	100.00	100.00	99.95	100.00	99.99
Hopetoun SPS	100.00	100.00	99.91	99.86	99.94
Horizon Power SPS	100.00	99.95	99.92	99.80	99.92

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

System	2020/21	2021/22	2022/23	2023/24	Average
Carnarvon SPS	N/A	N/A	436.00	0.00	218.00
Esperance SPS	0.00	35.83	80.65	281.40	99.47
Exmouth SPS	0.00	0.00	22.58	0.00	5.65
Hopetoun SPS	0.00	0.00	37.75	1480.00	379.44
Horizon Power SPS	0.00	33.08	383.21	289.76	176.51

Clause 4 and 10 – Breaches and Remedial Action

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

Quality of Supply	2022/23	2023/24
Voltage fluctuations	0	0
Harmonics	0	0

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 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

Clause Description	2022/23	2023/24
Clause 5(a) Number of premises that experienced interruptions greater than 12 hours continuous	1329	596
Clause 5(b) Number of premises that experienced more than 16 interruptions.	843	375

The number of premises experiencing more than 16 interruptions are mainly in Laverton, Esperance, Halls Creek and Carnarvon.

Detailed information of interruptions where duration is greater than 12 hours (720 minutes) continuously for 2023/24 is outlined in the table below:

System	Duration (Minutes)	Premises	Start Date	Cause Description	Incident Category
Broome	900	1	14/11/2023	Vehicle	Underground Dome Damaged
Broome	1798	53	5/12/2023	Plan Outage or Disconnection	Planned HVN Incident
Broome	1717	1	23/01/2024	Machine or Tool	Miscellaneous Hazard
Broome	1307	1	5/04/2024	Vandalism or Wilful Damage	No Power
Broome	1144	2	29/05/2024	Emergency Outage For Hazard	Switch Isolation
Carnarvon	1329	1	10/07/2023	External Owner Equipment	Underground Cable Damaged
Carnarvon	2307	9	13/11/2023	Lightning	Recloser Trip
Carnarvon	1370	1	15/11/2023	Lightning	No Power
Carnarvon	1170	26	17/04/2024	Equipment Failure	Recloser Trip
Carnarvon	1389	1	16/05/2024	Equipment Failure	Pole Broken/Damaged
Cue	774	1	18/12/2023	Vehicle	No Power
Denham	976	1	25/07/2023	Equipment Failure	Part Power
Denham	916	1	17/04/2024	Human Error	Underground Dome Damaged
Denham	1290	1	13/05/2024	Equipment Failure	Part Power
Derby	1151	55	14/10/2023	Equipment Failure	LV Fuse Trip
Derby	1035	1	25/01/2024	Equipment Failure	No Power
Djarindjin	1336	1	8/11/2023	Vehicle	No Power
Esperance	839	10	25/07/2023	Equipment Failure	Drop Out Fuse Trip
Esperance	1242	2	7/08/2023	Emergency Outage For Hazard	Planned HVN Incident
Esperance	1321	1	7/08/2023	Machine or Tool	Service Wire Down
Esperance	6086	1	31/08/2023	Insect	Miscellaneous Hazard
Esperance	750	19	13/09/2023	Wind or Wind Bourne Debris	Recloser Trip
Esperance	989	1	13/09/2023	Wind or Wind Bourne Debris	Debris On Street Wire
Esperance	1080	1	13/09/2023	Wind or Wind Bourne Debris	No Power

Esperance	1244	15	13/09/2023	Wind or Wind Bourne Debris	Recloser Trip
Esperance	1346	1	13/09/2023	Wind or Wind Bourne Debris	Low Hanging Street Wire
Esperance	1612	1	13/09/2023	Wind or Wind Bourne Debris	Pole Broken/Damaged
Esperance	1614	7	13/09/2023	Wind or Wind Bourne Debris	Switch Isolation
Esperance	1825	1	13/09/2023	Wind or Wind Bourne Debris	Debris On Service Wire
Esperance	1828	83	13/09/2023	Lightning	Drop Out Fuse Trip
Esperance	2679	13	13/09/2023	Wind or Wind Bourne Debris	Feeder Trip
Esperance	4274	15	13/09/2023	Wind or Wind Bourne Debris	Recloser Trip
Esperance	1574	1	9/10/2023	Insect	Miscellaneous Non Hazard
Esperance	1462	1	10/10/2023	Vehicle	Street Wire Down
Esperance	1930	1	16/10/2023	System Generated	No Power
Esperance	4147	1	23/10/2023	Equipment Failure	AMI - No Power
Esperance	1011	1	29/10/2023	Unknown	No Power
Esperance	1132	1	29/10/2023	Unknown	No Power
Esperance	1229	1	31/10/2023	Plan Outage or Disconnection	Drop Out Fuse Trip
Esperance	1261	1	31/10/2023	Vehicle	Service Wire Down
Esperance	1955	1	31/10/2023	Equipment Failure	Pole Broken/Damaged
Esperance	1590	1	16/11/2023	Equipment Failure	Pole Broken/Damaged
Esperance	10625	1	29/11/2023	Unknown	Pole Broken/Damaged
Esperance	731	1	2/12/2023	System Generated	No Power
Esperance	896	13	11/12/2023	Equipment Failure	Drop Out Fuse Trip
Esperance	3658	11	26/12/2023	Fire (Not Pole Top Fire)	Recloser Trip
Esperance	1440	1	27/12/2023	Fire (Not Pole Top Fire)	No Power
Esperance	953	1	31/12/2023	Lightning	AMI - No Power
Esperance	883	1	11/01/2024	Lightning	No Power
Esperance	1557	1	15/01/2024	Equipment Failure	No Power
Esperance	9717	25	7/02/2024	Plan Outage or Disconnection	Planned HVN Incident
Esperance	885	1	20/02/2024	Generation Failure	No Power
Esperance	1000	1	2/05/2024	Unknown	No Power
Esperance	1031	1	2/05/2024	Unknown	No Power
Esperance	1338	1	2/05/2024	Unknown	No Power
Esperance	996	1	13/05/2024	Unknown	No Power
Esperance	1414	6	19/05/2024	Fire (Not Pole Top Fire)	Recloser Trip
Esperance	4438	1	28/06/2024	Generation Failure	No Power
Exmouth	2955	1	29/09/2023	Pollution	Pole Arcing
Exmouth	1169	1	3/11/2023	Bird	No Power

Exmouth	1440	1	27/12/2023	Equipment Failure	Intermittent Power
Exmouth	1861	1	24/02/2024	Equipment Failure	Feeder Trip
Exmouth	3124	1	24/02/2024	Equipment Failure	Part Power
Exmouth	2758	1	26/04/2024	Unknown	Electric Shock
Fitzroy Crossing	1413	1	30/10/2023	Unknown	Reconnection
Fitzroy Crossing	1120	1	8/11/2023	Equipment Failure	No Power
Fitzroy Crossing	8981	1	18/04/2024	Machine or Tool	Meter Box Damaged
Fitzroy Crossing	1259	1	24/04/2024	Machine or Tool	Meter Box Damaged
Fitzroy Crossing	1602	1	4/06/2024	Plan Outage or Disconnection	Planned HVN Incident
Halls Creek	1361	1	6/11/2023	Equipment Failure	Miscellaneous Non Hazard
Hopetoun	928	1	5/11/2023	Lightning	No Power
Hopetoun	1098	1	6/11/2023	Lightning	No Power
Hopetoun	958	1	13/11/2023	Lightning	No Power
Hopetoun	1354	1	28/11/2023	Equipment Failure	Pole Arcing
Hopetoun	2947	1	8/01/2024	Bird	Debris On Service Wire
Hopetoun	1146	1	4/02/2024	Equipment Failure	No Power
Hopetoun	922	1	12/02/2024	Unknown	No Power
Hopetoun	2947	1	26/02/2024	Equipment Failure	Miscellaneous Hazard
Hopetoun	11761	1	29/02/2024	Equipment Failure	Miscellaneous Non Hazard
Hopetoun	4199	18	8/03/2024	Generation Failure	Feeder Trip
Hopetoun	1264	1	16/05/2024	Equipment Failure	No Power
Kalumburu	1389	1	20/11/2023	Water Infiltration or Flooded Equipment	Potential Neutral Problem - AMI
Kalumburu	1308	1	16/02/2024	Equipment Failure	Miscellaneous Hazard
Kununurra	950	1	6/12/2023	Lightning	Switch Isolation
Kununurra	738	1	31/12/2023	Vegetation	Service Wire Down
Kununurra	744	1	31/12/2023	Vegetation	Service Wire Down
Kununurra	963	1	18/02/2024	Vegetation	Recloser Trip
Laverton	1434	1	13/10/2023	Unknown	Underground Dome Damaged
Laverton	1159	1	15/01/2024	Vegetation	Service Wire Down
Laverton	830	36	25/01/2024	Equipment Failure	Feeder Trip
Laverton	4307	4	4/03/2024	Lightning	Recloser Trip
Leonora	761	1	2/09/2023	Vehicle	Low Hanging Service Wire
Leonora	1486	1	25/11/2023	Equipment Failure	No Power
Looma	757	1	1/03/2024	Lightning	SFW PQI Low Volts
Meekatharra	1440	1	27/12/2023	Equipment Failure	Pole Broken/Damaged
Norseman	1196	1	14/09/2023	Equipment Failure	Dim Power

Norseman	1823	1	19/09/2023	Wind or Wind Bourne Debris	Miscellaneous Hazard
Norseman	1195	1	8/11/2023	Equipment Failure	Pole Broken/Damaged
Norseman	3556	44	17/11/2023	Bird	Feeder Trip
Norseman	876	1	8/02/2024	Equipment Failure	No Power
Norseman	985	1	7/04/2024	Equipment Failure	No Power
Nullagine	1497	1	21/11/2023	Equipment Failure	Part Power
NWIS	3329	5	12/07/2023	Plan Outage or Disconnection	Planned HVN Incident
NWIS	2005	4	22/07/2023	Machine or Tool	Feeder Trip
NWIS	3768	1	18/09/2023	Plan Outage or Disconnection	Planned HVN Incident
NWIS	3694	7	2/01/2024	Unknown	Feeder Trip
NWIS	1399	1	16/01/2024	Unknown	Feeder Trip
NWIS	1569	5	31/01/2024	Plan Outage or Disconnection	Planned HVN Incident
NWIS	2004	1	31/01/2024	Unknown	Part Power
NWIS	996	2	9/02/2024	Plan Outage or Disconnection	Planned HVN Incident
NWIS	930	1	7/03/2024	Unknown	No Power
NWIS	3234	1	4/06/2024	Plan Outage or Disconnection	Planned HVN Incident
NWIS	4253	17	12/06/2024	Plan Outage or Disconnection	Planned HVN Incident
Onslow	1006	1	27/10/2023	Human Error	No Power
Warmun	8955	1	18/04/2024	Plan Outage or Disconnection	Reconnection
Wyndham	816	1	20/11/2023	Lightning	Service Wire Down
Wyndham	755	1	4/01/2024	Lightning	AMI - No Power
		596	Number of Interruptions* = 117		

*Interruptions listed are beyond the control of the customer.

Factors in the reduction in the number of premises with over 12 hour outages was in 2022/23, Fitzroy Crossing had a town outage affecting over 500 premises and the Kimberley Floods.

There were no significant weather events (cyclones, severe storms, fire & floods) affecting Horizon Power systems in 2023/24.

Power System	Significant Event Dates	Event

Clause 6 and 10 - Total number of complaints received

2022/23	2023/24
85	45

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

Discrete Area	2022/23	2023/24
NWIS	1	
Ardyaloon		
Beagle Bay		
Bidyadanga	1	
Broome	1	2
Carnarvon	1	1
Coral Bay		
Cue		
Denham	1	
Derby	3	3
Djarindjin	1	
Esperance	32	11
Exmouth	2	1
Fitzroy Crossing	17	1
Gascoyne Junction		
Halls Creek	7	2
Hopetoun	1	8
Kalumburu	2	
Kununurra	3	1
Lake Argyle		
Laverton	9	3
Leonora	1	
Looma	1	
Marble Bar		
Meekatharra		
Menzies		
Mount Magnet		
Norseman		12
Nullagine		
Onslow		
Sandstone		
Warmun		
Wiluna		
Wyndham		
Yalgoo		
Yunggora	1	
Horizon Power Total	85	45

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

2022/23	2023/24
\$1,396,556	\$1,456,527.86

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.

2022/23		2023/24	
Number	Cost	Number	Cost
1	\$20	1	\$20

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

2021/22		2023/24	
Number	Cost	Number	Cost
635	\$76,200	40	\$4,800

In 2022/23, Horizon Power proactively applied \$120 over 12-hour payments (EOPS - Extended Outage Payment Scheme) to 555 accounts following the Minister’s approval for customers impacted by the 15-hour unplanned outage in Fitzroy Crossing on 24 November 2022. In 2023/24 the number has returned to numbers consistent with preceding financial years.

Clause 11(a), 12 and 13 - Average Length of Interruption of Supply to Customer Premises in Minutes²

System	2020/21	2021/22	2022/23	2023/24	Average
NWIS ¹	62.65	88.09	89.71	161.15	100.40
Ardyaloon	184.48	7.72	10.94	0.00	50.79
Beagle Bay	0.00	77.72	87.25	67.24	58.05
Bidyadanga	248.56	897.43	103.01	189.82	359.71
Broome	117.94	58.09	207.69	101.72	121.36
Carnarvon	101.93	108.17	50.50	45.29	76.47
Coral Bay	2.89	11.19	247.69	15.38	69.29
Cue	44.25	83.38	66.64	78.93	68.30
Denham	97.66	118.38	34.53	18.79	67.34
Derby	52.53	113.95	59.61	145.45	92.89
Djarindjin	213.01	11.54	0.00	0.00	56.14
Esperance	123.67	92.60	58.12	87.99	90.59
Exmouth	162.05	123.32	137.34	82.60	126.33
Fitzroy Crossing	217.07	272.23	239.28	131.34	214.98
Gascoyne Junction	0.00	91.20	179.59	161.23	108.01
Halls Creek	102.67	54.88	46.78	64.77	67.28
Hopetoun	40.58	217.35	96.17	65.44	104.89
Kalumburu	44.59	104.43	24.14	32.22	51.35
Kununurra	28.56	36.01	19.52	42.22	31.58
Lake Argyle	90.01	38.41	213.97	84.80	106.80
Laverton	103.45	81.08	140.60	80.38	101.38
Leonora	88.88	94.36	41.21	82.40	76.72
Looma	21.69	22.50	1297.07	118.95	365.05
Marble Bar	14.44	107.08	121.36	70.30	78.29
Meekatharra	102.90	198.12	127.20	63.84	123.01
Menzies	138.38	117.81	8.32	127.66	98.04
Mount Magnet	76.49	69.57	100.04	30.40	69.13
Norseman	153.25	122.64	105.84	230.36	153.02
Nullagine	77.98	112.82	58.88	80.31	82.50
Onslow	74.60	133.19	26.61	24.25	64.66
Sandstone	464.33	209.22	43.47	213.71	232.68
Warmun	22.23	47.14	262.69	109.61	110.42
Wiluna	127.79	105.91	82.35	111.56	106.90
Wyndham	90.01	35.27	110.89	16.62	63.20
Yalgoo	148.00	105.45	164.94	185.49	150.97
Yungngora	0.00	79.76	15.08	77.18	43.01
Horizon Power Total	89.50	94.20	83.64	79.38	86.68

¹NWIS – North West Interconnected System as per Clause 1 – Schedule 1

²Corresponds to Customer Average Interruption Duration Index (CAIDI)

Clause 11(b), 12 and 13 - Average Number of Interruptions of Supply to Customer Premises³

System	2020/21	2021/22	2022/23	2023/24	Average
NWIS ¹	1.48	0.74	1.22	0.40	0.96
Ardyaloon	0.58	0.84	2.13	0.00	0.89
Beagle Bay	0.00	1.60	0.05	1.84	0.87
Bidyadanga	1.05	0.09	3.30	2.44	1.72
Broome	1.50	1.49	1.98	1.80	1.69
Carnarvon	5.87	3.82	5.84	7.88	5.86
Coral Bay	1.72	0.84	0.04	0.80	0.85
Cue	4.59	1.87	3.06	2.43	2.99
Denham	7.94	4.98	1.01	0.58	3.63
Derby	4.63	1.73	3.82	0.51	2.67
Djarindjin	1.24	1.62	0.00	0.00	0.71
Esperance	2.23	5.44	8.25	3.43	4.84
Exmouth	2.87	3.13	2.22	3.00	2.80
Fitzroy Crossing	1.33	2.03	6.89	6.56	4.20
Gascoyne Junction	0.00	5.74	0.53	5.26	2.88
Halls Creek	3.07	6.78	14.50	5.84	7.55
Hopetoun	2.54	1.60	3.03	7.45	3.66
Kalumburu	1.55	9.51	2.31	0.71	3.52
Kununurra	2.41	2.20	1.87	2.82	2.32
Lake Argyle	5.65	0.94	2.10	0.56	2.31
Laverton	3.08	5.20	4.67	14.54	6.87
Leonora	5.45	5.15	4.76	3.07	4.61
Looma	1.47	1.45	1.13	2.51	1.64
Marble Bar	1.80	8.31	2.45	1.66	3.55
Meekatharra	5.51	3.37	1.76	5.64	4.07
Menzies	1.41	1.93	1.25	1.61	1.55
Mount Magnet	1.79	11.44	6.26	12.28	7.94
Norseman	0.57	4.12	4.61	3.76	3.26
Nullagine	0.16	3.11	2.20	2.70	2.04
Onslow	3.69	6.29	2.89	8.35	5.31
Sandstone	0.27	3.71	3.62	0.31	1.97
Warmun	3.54	0.94	0.42	2.02	1.73
Wiluna	3.35	3.61	3.05	1.03	2.76
Wyndham	1.79	1.79	3.08	2.27	2.23
Yalgoo	0.16	1.16	4.51	1.35	1.79
Yungngora	0.00	4.09	3.38	2.30	2.44
Horizon Power Total	2.28	2.48	3.35	2.46	2.64

¹NWIS – North West Interconnected System as per Clause 1 – Schedule 1

³Corresponds 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 %	2020/21	2021/22	2022/23	2023/24	Average
NWIS ¹	99.99	99.98	99.98	99.97	99.98
Ardyaloon	99.96	100.00	100.00	100.00	99.99
Beagle Bay	100.00	99.99	99.98	99.99	99.99
Bidyadanga	99.95	99.83	99.98	99.96	99.93
Broome	99.98	99.99	99.96	99.98	99.98
Carnarvon	99.98	99.98	99.99	99.99	99.99
Coral Bay	100.00	100.00	99.95	100.00	99.99
Cue	99.99	99.98	99.99	99.98	99.99
Denham	99.98	99.98	99.99	100.00	99.99
Derby	99.99	99.98	99.99	99.97	99.98
Djarindjin	99.96	100.00	100.00	100.00	99.99
Esperance	99.98	99.98	99.99	99.98	99.98
Exmouth	99.97	99.98	99.97	99.98	99.98
Fitzroy Crossing	99.96	99.95	99.95	99.98	99.96
Gascoyne Junction	100.00	99.98	99.97	99.97	99.98
Halls Creek	99.98	99.99	99.99	99.99	99.99
Hopetoun	99.99	99.96	99.98	99.99	99.98
Kalumburu	99.99	99.98	100.00	99.99	99.99
Kununurra	99.99	99.99	100.00	99.99	99.99
Lake Argyle	99.98	99.99	99.96	99.98	99.98
Laverton	99.98	99.98	99.97	99.98	99.98
Leonora	99.98	99.98	99.99	99.98	99.99
Looma	100.00	100.00	99.75	99.98	99.93
Marble Bar	100.00	99.98	99.98	99.99	99.99
Meekatharra	99.98	99.96	99.98	99.99	99.98
Menzies	99.97	99.98	100.00	99.98	99.98
Mount Magnet	99.99	99.99	99.98	99.99	99.99
Norseman	99.97	99.98	99.98	99.96	99.97
Nullagine	99.99	99.98	99.99	99.98	99.98
Onslow	99.99	99.97	99.99	100.00	99.99
Sandstone	99.91	99.96	99.99	99.96	99.96
Warmun	100.00	99.99	99.95	99.98	99.98
Wiluna	99.98	99.98	99.98	99.98	99.98
Wyndham	99.98	99.99	99.98	100.00	99.99
Yalgoo	99.97	99.98	99.97	99.96	99.97
Yungngora	100.00	99.98	100.00	99.99	99.99
Horizon Power Total	99.98	99.98	99.98	99.98	99.98

¹NWIS – 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 Minutes⁴

System	2020/21	2021/22	2022/23	2023/24	Average
NWIS ¹	93	65	110	65	83
Ardyaloon	108	6	23	0	34
Beagle Bay	0	124	5	124	63
Bidyadanga	261	83	340	464	287
Broome	177	87	411	183	214
Carnarvon	599	414	295	357	416
Coral Bay	5	9	9	12	9
Cue	203	156	204	192	189
Denham	776	589	35	11	353
Derby	243	197	227	74	185
Djarindjin	264	19	0	0	71
Esperance	276	504	480	302	390
Exmouth	464	386	305	248	351
Fitzroy Crossing	289	552	1649	862	838
Gascoyne Junction	0	524	96	848	367
Halls Creek	315	372	678	378	436
Hopetoun	103	349	291	487	308
Kalumburu	69	993	56	23	285
Kununurra	69	79	36	119	76
Lake Argyle	508	36	449	48	260
Laverton	318	422	656	1169	641
Leonora	484	486	196	253	355
Looma	32	33	1463	299	456
Marble Bar	26	889	298	116	332
Meekatharra	567	667	223	360	454
Menzies	195	227	10	205	159
Mount Magnet	137	796	626	373	483
Norseman	87	505	488	865	486
Nullagine	12	351	130	217	177
Onslow	275	838	77	202	348
Sandstone	124	776	157	66	281
Warmun	79	44	111	221	114
Wiluna	428	383	251	115	294
Wyndham	161	63	342	38	151
Yalgoo	23	123	743	250	285
Yungngora	0	326	51	177	139
Horizon Power Total	204	234	280	195	228

¹NWIS – North West Interconnected System as per Clause 1 - Schedule 1

⁴Corresponds to System Average Interruption Duration Index (SAIDI)

Clause 14 – 15 - Deleted

Deleted from information to be published since 2021/22

4. MAJOR EVENT DAYS

In the period 01/07/2023 to 30/06/2024 there were no systems impacted by significant weather events for which Major Event Days were recorded.

System	Major Event Days	Event

5. Appendix A

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.

6. APPENDIX B

NWIS Substation Reliability

Average Length of Interruption of Supply to Customer Premises in Minutes²

System	Region	Town/Area	Substation	2023/24
NWIS	East Pilbara	Port Hedland	Anderson Street	60
NWIS	East Pilbara	South Hedland	Murdoch Drive	143
NWIS	East Pilbara	Wedgefield	Wedgefield	320
NWIS	West Pilbara	Karratha East	Bulgarra	310
NWIS	West Pilbara	Karratha West	Pegs Creek	191
NWIS	West Pilbara	Dampier	Dampier	254
NWIS	West Pilbara	Point Samson	Cape Lambert	147
NWIS	West Pilbara	Roebourne	Roebourne	195

Average Number of Interruptions of Supply to Customer Premises³

System	Region	Town/Area	Substation	2023/24
NWIS	East Pilbara	Port Hedland	Anderson Street	0.71
NWIS	East Pilbara	South Hedland	Murdoch Drive	0.11
NWIS	East Pilbara	Wedgefield	Wedgefield	0.14
NWIS	West Pilbara	Karratha East	Bulgarra	0.03
NWIS	West Pilbara	Karratha West	Pegs Creek	0.36
NWIS	West Pilbara	Dampier	Dampier	9.78
NWIS	West Pilbara	Point Samson	Cape Lambert	2.87
NWIS	West Pilbara	Roebourne	Roebourne	3.56

Average Total Length of All Interruptions of Supply to Customer Premises in Minutes⁴

System	Region	Town/Area	Substation	2023/24
NWIS	East Pilbara	Port Hedland	Anderson Street	43
NWIS	East Pilbara	South Hedland	Murdoch Drive	16
NWIS	East Pilbara	Wedgefield	Wedgefield	44
NWIS	West Pilbara	Karratha East	Bulgarra	11
NWIS	West Pilbara	Karratha West	Pegs Creek	68
NWIS	West Pilbara	Dampier	Dampier	2482
NWIS	West Pilbara	Point Samson	Cape Lambert	421
NWIS	West Pilbara	Roebourne	Roebourne	695

¹NWIS – North West Interconnected System as per Clause 1 – Schedule 1

² Corresponds to Customer Average Interruption Duration Index (CAIDI)

³ Corresponds to System Average Interruption Frequency Index (SAIFI)

⁴ Corresponds to System Average Interruption Duration Index (SAIDI)