# TEMPLATE EXPLANATION



These templates form part of the information requirements of the AER as part of its annual compliance review against the service standards in Murraylink's revenue cap decision.

Yellow worksheets ('Inputs- Performance' and 'Inputs- Exclusions') are for inputs, including performance and exclusion information. Murraylink only needs to enter data on these sheets.

Purple worksheets 'S1' to 'S3' are the s-factors results based on the performance inputs from 'Inputs - Performance' sheet.

Blue worksheet 'Revenue Calculation' quantifies the appropriate revenue to be applied to the s-factor results adjusted for CPI.

Red worksheet 'Outcomes' shows the total performance, s-factor and financial incentive results based on the TNSP's performance in 'Inputs-Performance' and 'Revenue Calculation.'

Orange worksheet 'Exclusion Definitions' are the defined exclusions for Murraylink which should form the basis of exclusion requests under 'Inputs-Exclusions.'

## **MURRAYLINK - SERVICE STANDARDS PERFORMANCE 2006**

PERFORMANCE MEASURE	s	2006 Performance (Without exclusions)	2006 Performance (With exclusions)
Planned circuit energy availability	S1	98.494280%	99.106730%
Peak forced outage availability	S2	99.472904%	99.762903%
Off- peak forced outage availability	S3	99.847468%	99.905704%

Date prepared:	27 January 2007
Revision date:	27 January 2007

## NOTES:

Performance should be based on 2006 calendar year data.

Pink cells- Input performance without exclusions from performance data

Orange cells- Input performance with exclusions from performance data

Green cell (C13) input date that template data was entered. Enter date of any revisions from original version (C14).

#### **MURRAYLINK - Proposed exclusions**

CIRCUIT AVAILABILITY MEASURES	Event proposed for exclusion	Description of the event and its impact on the network and performance	Cause of the event	Start date	Start time	End date	End time	Circuit affected	Reactive plant or transformer	Quantitative impact	Reasons for exclusion request	Further references
Name of any circuit availability measures applying to Murraylink	Name of the event	A brief outline of the event. Such as: the action of any third parties, the actions of the TNSP, assets damaged or interrupted.	A brief description of the cause of the event	Start date a	and time of	End date a event	and time of	Name of circuit affected	Name of any reactive plant or transformer affected	Number of hours, mins etc interrupted	Reason for excluding this event. Should include a reference to the defined exclusions (see Exclusion definition tab). Eg. Exclusion 1.3 Third party event	A TNSP may provide further details of an exclusion event. TNSP to provide reference.
		Murraylink Red Cliffs: SP AusNet required Murraylink Red Cliffs circuit breaker WT. Q1 open for work on the connection assets at Red Cliffs Terminal Station. Powercore were also doing work at Red Cliffs Terminal Station and had isolated the backup 22kV supply to Murraylink but had not notified us that this was the case. Murraylink blacked out for 14 hours. Murraylink UPS batteries ran flat		1/05/06	07:06:00	2/05/06	00:53:00	Murraylink		17:47:00	Exclusion 1.2 Third Party Event	
		Murraylink Red Cliffs: SP AusNet required Murraylink Red Cliffs circuit breaker WT.Q1 open to close circuit breaker WT.Q1 open to close circuit breaker at Red Cliffs Terminal Station. SP AusNet circuit breaker faulty and Murraylink return to service was delayed until investigations were complete.		2/05/06	18:39:00	2/05/06	20:13:00	Murraylink		01:34:00	Exclusion 1.2 Third Party Event	
		Murraylink Red Cliffs: SP AusNet requested outage for system security.		22/06/06	08:25:00	22/06/06	17:29:00	Murraylink		09:04:00	Exclusion 1.2 Third Party Event	
		Murraylink Red Cliffs: SP AusNet opened both Murraylink bus tie circuit breakers at Red Cliffs Terminal Station.		28/06/06	07:05:00	28/06/06	19:10:00	Murraylink		12:05:00	Exclusion 1.2 Third Party Event	
Planned circuit energy availability		Murraylink Red Cliffs: SP AusNet opened both Murraylink bus tie circuit breakers at Red Cliffs Terminal Station.		10/08/06	06:14:00	10/08/06	18:16:00	Murraylink		12:02:00	Exclusion 1.2 Third Party Event	
		Murraylink Red Cliffs: SP AusNet required Murraylink circuit breaker open to reclose No.1 Bus circuit breaker at Red Cliffs Terminal Station		13/09/06	12:00:00	13/09/06	12:20:00	Murraylink		00:20:00	Exclusion 1.2 Third Party Event	
		Murraylink Red Cliffs: SP AusNet required Murraylink Red Cliffs circuit breaker WT.Q1 open to close circuit breaker at Red Cliffs Terminal Station.		6/11/06	08:45:00	6/11/06	08:48:00	Murraylink		00:03:00	Exclusion 1.2 Third Party Event	
		Murraylink Red Cliffs: SP AusNet required Murraylink Red Cliffs circuit breaker WT.Q1 open to close circuit breaker at Red Cliffs Terminal Station.		19/11/06	17:08:00	19/11/06	17:09:00	Murraylink		00:01:00	Exclusion 1.2 Third Party Event	
		Murraylink Red Cliffs: SP AusNet required Murraylink circuit breaker open to reclose Bus circuit breaker at		20/12/06	17:13:00	20/12/06	17:15:00	Murraylink		00:02:00	Exclusion 1.2 Third Party Event	
		Red Cliffs Terminal Station.  Murraylink Red Cliffs: SP-Ausnet required Murraylink circuit breaker open to reclose No.2 Bus circuit breaker at RCTS. No.2 bus recalled for system security - bushfires in Vic.		8/12/06	19:58:00	8/12/06	20:02:00	Murraylink		00:04:00	Exclusion 1.2 Third Party Event	

	Murraylink Berri: Runback caused by	19/01/06 07:35:00 19/01/06 08:02:00 Murraylink	00:27:00 Exclusion 1.2 Third
	circuit breaker opening at Monash		Party Event
	Murraylink Red Cliffs: Runback	20/01/06 18:15:00 20/01/06 18:38:00 Murraylink	00:23:00 Exclusion 1.2 Third
	caused by NSW network		Party Event
	Murraylink Red Cliffs: Trip due to fire	23/01/06 03:26:00 23/01/06 19:32:00 Murraylink	12:32:00 Exclusion 1.3 Force
	system operation. Heavy smoke		Majeure
	caused by bush fires.		
	Murraylink Red Cliffs: Runback	3/02/06 11:14:00 3/02/06 11:17:00 Murraylink	00:03:00 Exclusion 1.2 Third
	scheme operation		Party Event
	Murraylink Red Cliffs: Runback	16/02/06 14:45:00 16/02/06 14:48:00 Murraylink	00:03:00 Exclusion 1.2 Third
	scheme operation	10/02/00 14.43.00 10/02/00 14.40.00 Wallayllik	Party Event
	Murraylink Red Cliffs: Runback	18/02/06 07:22:00 18/02/06 08:22:00 Murraylink	01:00:00 Exclusion 1.2 Third
	scheme operation	16/02/06 07.22.00 16/02/06 06.22.00  viultay  lik	Party Event
		200/00/00 45 00 00 00/00/00 45 07 00 4	
	Murraylink Berri: Runback caused by	23/02/06 15:03:00 23/02/06 15:07:00 Murraylink	00:04:00 Exclusion 1.2 Third
	Monash substation bus zone trip.		Party Event
	M "   B   O""   B	26/02/06 16:31:00 26/02/06 16:41:00 Murraylink	00:10:00 Exclusion 1,2 Third
	Murraylink Red Cliffs: Runback	26/02/06 16:31:00 26/02/06 16:41:00 Murraylink	
	scheme operation	10/00/00 11 01 00 10/00 75 11 55 55 11 11	Party Event
	Murraylink Red Cliffs: Runback by	19/03/06 14:34:00 19/03/06 14:58:00 Murraylink	00:24:00 Exclusion 1.2 Third
	Victorian Fast Runback		Party Event
	Murraylink Red Cliffs: Runback by	24/03/06 07:30:00 24/03/06 08:33:00 Murraylink	01:03:00 Exclusion 1.2 Third
	NSW Ruback scheme. Scheme		Party Event
	disabled but power failure in RCTS		
	shut down the backup trip panel		
	triggering the runback.	05/00/00 07 00 00 05/00/00 00 44 0044 ***	00.05.00
	Murraylink Red Cliffs: Runback by	25/03/06 07:06:00 25/03/06 09:11:00 Murraylink	02:05:00 Exclusion 1.2 Third
	Victorian Fast Runback. SP-Ausnet		Party Event
	operator claimed they could not reset		
	the runback. A check of the		
	Murraylink control system revealed that all was ok. SP-Ausnet then reset		
	the runback.		
	Murraylink Red Cliffs: Runback by	10/04/06 16:04:00 10/04/06 16:19:00 Murraylink	00:15:00 Exclusion 1.2 Third
	Victorian Fast Runback. Trip on	10/04/00 10.04.00 10/04/00 10.19.00 Null ayllik	Party Event
	Kerang Line.		Faity Event
	Murraylink Berri: Runback caused by	7/05/06 07:02:00 7/05/06 07:27:00 Murraylink	00:25:00 Exclusion 1.2 Third
	trip at Monash substation.	7700700 07102100 7700700 07127100 marray min	Party Event
	Murraylink Red Cliffs: SP AusNet	21/07/06 19:40:00 21/07/06 22:52:00 Murraylink	02:20:00 Exclusion 1.2 Third
	work on the Victorian Fast Runback	21/0//00 10.40.00 21/0//00 22.02.00 Manayiiik	Party Event
	caused a runback at 16:11:00. The		Tarty Event
	runback was not reset by SP-Ausnet		
	and Murraylink was able to follow		
	dispatch because power flow was SA		
S2 Peak forced outage	to Vic. At 17:40:00 power flow		
availability	changed to Vic to SA and Murraylink		
	was not following dispatch until SP-		
	Ausnet reset the runback at 22:52:00.		
	Murraylink Red Cliffs: Runback by	2/08/06 10:50:00 2/08/06 10:52:00 Murraylink	00:02:00 Exclusion 1.2 Third
	Victorian Fast Runback		Party Event
	Murraylink Red Cliffs: Runback by	16/08/06 14:24:00 16/08/06 15:00:00 Murraylink	00:36:00 Exclusion 1.2 Third
	Vic Slow Runback		Party Event
	Murraylink Red Cliffs: Runback by	6/09/06 14:57:00 6/09/06 14:58:00 Murraylink	00:01:00
	Vic Fast Runback. SP Ausnet		Party Event
	working on comms at RCTS		
	Murraylink Berri: Runback caused by	7/10/06 13:28:00 7/10/06 13:37:00 Murraylink	00:09:00 Exclusion 1.2 Third
	trip at Monash substation breaker		Party Event
	failure protection trip.		
	Murraylink Red Cliffs: Runback	10/10/06 16:20:00 10/10/06 16:45:00 Murraylink	00:25:00 Exclusion 1.2 Third
	caused by failure of battery charger		Party Event
	at RCTS.		
	Murraylink Red Cliffs: Runback by	1/11/06 07:52:00 1/11/06 08:44:00 Murraylink	00:52:00 Exclusion 1.2 Third
	Victorian Fast Runback. Contractor		Party Event
	disturbed connections in control box		
	at RCTS	20/44/06 44/27/00 20/44/06 44/20/00 44/20/00	00,00,00 Fusion 4.2 Third
	Murraylink Berri: Runback by SA	28/11/06 14:27:00 28/11/06 14:33:00 Murraylink	00:06:00 Exclusion 1.2 Third
	runback scheme from 145MW to 117 MW		Party Event
	MWV Murraylink Berri: Runback by SA	30/11/06 15:35:00 30/11/06 15:44:00 Murraylink	00:09:00 Exclusion 1.2 Third
	runback scheme from -114MW to	30/11/00 15.35.00 30/11/00 15:44:00 Murraylink	Party Event
	OMW		I dity Event
	CIVIVY		

			Murraylink Berri: tripped due to under	1/12/06	17:50:00	1/12/06	19:15:00	Murraylink	01:25:00	Exclusion 1.2 Third	
			frequency. Circuit breakers opening							Party Event	
			at Monash substation due to								
			triggered by lightning.								
			Murraylink Red Cliffs: Runback from	4/12/06	10:18:00	4/12/06	10:21:00	Murraylink	00:03:00	Exclusion 1.2 Third	
			Victorian fast Runback. SP-Ausnet							Party Event	
			Contractor caused the operation of								
			the runback scheme.								
	7		Murraylink Red Cliffs: Trip due to fire	23/01/06	03:26:00	23/01/06	19:32:00	Murraylink	03:34:00	Exclusion 1.3 Force	
			system operation. Heavy smoke					,		Majeure	
			caused by bush fires.								
			Murraylink Berri: Runback caused by	29/01/06	01:26:00	29/01/06	01:46:00	Murraylink	00:20:00	Exclusion 1.2 Third	
			Monash substation bus zone trip.							Party Event	
			Murraylink Red Cliffs: SP AusNet	21/07/06	19:40:00	21/07/06	22:52:00	Murraylink	00:52:00	Exclusion 1.2 Third	
			work on the Victorian Fast Runback					,		Party Event	
			caused a runback at 16:11:00. The								
			runback was not reset by SP-Ausnet								
			and Murraylink was able to follow								
			dispatch because power flow was SA								
6		Off- peak forced	to Vic. At 17:40:00 power flow								
٦	"  c	outage availability	changed to Vic to SA and Murraylink								
			was not following dispatch until SP-								
			Ausnet reset the runback at 22:52:00.								
			Murraylink Red Cliffs: Runback by	2/08/06	04:30:00	2/08/06	04:46:00	Murraylink	00:16:00	Exclusion 1.2 Third	
			Victorian Fast Runback					•		Party Event	
1											

#### NOTES:

This spreadsheet should include a list all events that are proposed for exclusion. This is consistent with the reporting information requirements contained in section 4.2 of the AER's Service Standards Guidelines.

Each proposed exclusion event should include a description of the event, a description of the impact and quantification of the impact on the network and performance. The descriptive elements should also include reasons for the exclusion request making reference to the "Exclusion Definitions" tab.

Each exclusion should be entered onto one row for each measure. Where one exclusion event applies to more than one measure, the relevant details of the event should be entered under each of the measure headings.

The TNSP must provide details for all events requested for exclusion in this template. In the event that the TNSP wishes to provide further details of an exclusion, this should be provided with the TNSP's performance report. The source of information should be referenced in this template.

Green cells - input description impact

Orange cells - input reasons for the exclusion request

## MURRAYLINK- S1 - Planned circuit energy availability

Performance Target	Graph start	Collar	Target	Сар	Graph end
Planned circuit energy availability		99.04%	99.17%	99.38%	99.50%
Measure Weighting		-0.40%	0.00%	0.40%	0.40%

Performance Formulae			Form	ulae			Conditions		S- Calc 1	S- Calc 2
Performance	=	-0.004000					When: Availability < 9	99.04%	-0.004000	-0.004000
	=	3.076923	x	Availability	+	-3.051385	99.04% ≤ Availability ≤ 9	99.17%	-0.020791	-0.001947
	=	1.904762	x	Availability	+	-1.888952	99.17% ≤ Availability ≤ 9	99.38%	-0.012871	-0.001205
	=	0.004000					99.38% < Availability		0.004000	0.004000

Performance Outcomes		Performance (Without Exclusions)	Performance (Exclusions)
Planned circuit energy availability	=	98.494280%	99.106730%
S-Factor	=	-0.400000%	-0.194676%

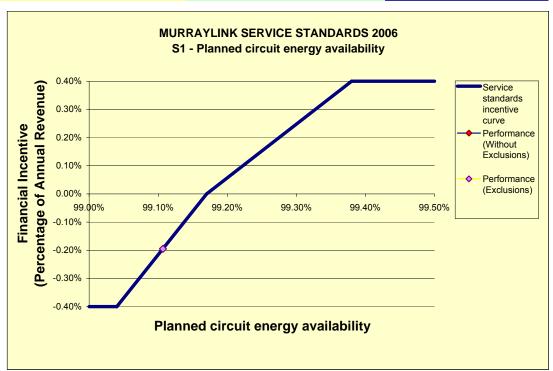
### NOTES:

Blue cells show Murraylink's performance targets (C4:E4) and measure weightings (C5:E5) [See Table 9.4 of revenue cap]

Yellow/Green cells (Rows 8:11) show Murraylink's performance formulae and related formula conditions based on performance targets and measure weightings

Pink cells (C14, C15) show Murraylink's performance outcomes without any events excluded from performance data

Orange cells (D14, D15) show Murraylink's performance outcomes with events excluded from performance data



## MURRAYLINK- S2 - Peak forced outage availability

Performance Targets	Graph start	Collar	Target	Сар	Graph end
Peak forced outage availability		98.90%	99.48%	100.00%	100.00%
Measure Weighting		-0.40%	0.00%	0.40%	0.40%

Performance Formulae			Form	ulae			Conditions	S- Calc 1	S- Calc 2
Performance	=	-0.004000					Availability < 98.90%	-0.004000	-0.004000
	=	0.689655	x	Availability	+	-0.686069	98.90% ≤ Availability ≤ 99.48%	-0.000049	0.001951
	=	0.769231	x	Availability	+	-0.765231	99.48% ≤ Availability ≤ 100.00%	-0.000055	0.002176
	=	0.004000					100.00% < Availability	0.004000	0.004000

Performance Outcomes		Performance (Without Exclusions)	Performance (Exclusions)
Peak forced outage availability	=	99.472904%	99.762903%
S-Factor Result	=	-0.004894%	0.217618%

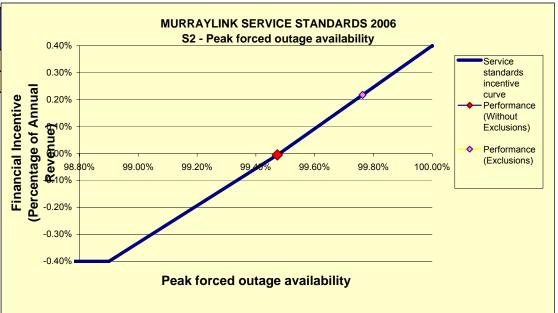
#### NOTES:

Blue cells show Murraylink's performance targets (C4:E4) and measure weightings (C5:E5) [See Table 9.5 of revenue cap]

Yellow/Green cells (Rows 8:11) show Murraylink's performance formulae and related formula conditions based on performance targets and measure weightings

Pink cells (C14, C15) show Murraylink's performance outcomes without any events excluded from performance data

Orange cells (D14, D15) show Murraylink's performance outcomes with events excluded from performance data



## MURRAYLINK- S3 - Off-peak forced outage availability

Performance Targets	Graph start	Collar	Target	Сар	Graph end
Off-peak forced outage availability		98.84%	99.34%	99.94%	100.00%
Measure Weighting		-0.20%	0.00%	0.20%	0.20%

Performance Formulae			Form	ulae				Conditions	S- Calc 1	S- Calc 2
Performance	=	-0.002000				When:		Availability < 98.84%	-0.002000	-0.002000
	=	0.400000	Х	Availability	+	-0.3 <mark>97360</mark> 98.84%	≤	Availability ≤ 99.34%	0.002030	0.002263
	=	0.333333	Х	Availability	+	-0.331133 99.34%	≤	Availability ≤ 99.94%	0.001692	0.001886
	=	0.002000				99.94%	<	Availability	0.002000	0.002000

Performance Outcomes		Performance (Without Exclusions)	Performance (Exclusions)
Off-peak forced outage availability		99.847468%	99.905704%
S-Factor Result	=	0.169156%	0.188568%

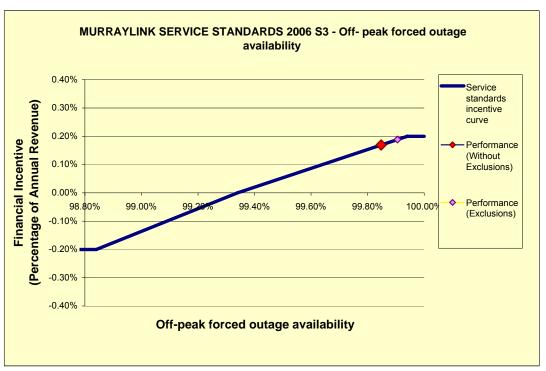
#### NOTES:

Blue cells show Murraylink's performance targets (C4:E4) and measure weightings (C5:E5) [See Table 9.6 of revenue cap]

Yellow/Green cells (Rows 8:11) show Murraylink's performance formulae and related formula conditions based on performance targets and measure weightings

Pink cells (C14, C15) show Murraylink's performance outcomes without any events excluded from performance data

Orange cells (D14, D15) show Murraylink's performance outcomes with events excluded from performance data



## **Murraylink - Revenue Calculation**

Revenue cap information						
Base revenue (AR) - (1 Oct 2003-30 June 2004)	\$8,900,000					
Base year	2003-04					
Commencment of regulatory period	1-Oct-03				_	
Commencement of 2004 calendar year	1-Jan-04		Dec-03	Dec-04	Dec-05	
Commencement of 2004–05 financial year	1-Jul-04		142.8	146.5	150.6	
Revenue cap revocation: 2004–05 Revenue (with 03–04 correction)	\$12,803,000	2003–04	2004–05*	2005–06	2006–07	2
Revenue cap revocation: 2004–05 Revenue (without 03–04 correction)	\$12,403,000	\$8,900,000	\$12,403,000	\$12,571,674	\$12,768,427	\$13,
X-factor	1.20%					

Annual revenue adjusted for CPI	Mar-03	Mar-04	Mar-05	Mar-06	Mar-07
CPI	141.3	144.1	147.5	151.9	
	2003–04	2004–05*	2005–06	2006–07	2007–08
Annual Revenue	\$8,900,000	\$12,403,000	\$12,543,298	\$12,762,461	\$0

Calendar year revenue	2003	2004*	2005	2006
Revenue	\$2,243,288	\$10,639,308	\$12,473,149	\$12,652,879

#### NOTES:

Murraylink's revenue cap commenced 1 October 2003. Based on a further application by MTC on 2 February 2004, the Australian Competition and Consumer Commission revoked and substituted Murraylink's revenue cap decision on 31 March 2004. This resulted in a revised revenue path from 2004–05 for the remainder of the regulatory period. Revenue calculations for 2004–05 included a one-off correction for the 2003–04 period.

\* The annual revenue for the 2004–05 year does not include the one-off correction for the 2003–04 period. This to enable a simple escalation of annual revenues from 2004–05 onwards. The 2004 calendar year revenue is indicative only.

Grey cells show calendar year revenue

Green cells are for formula

Blue cells are a drop down menu

## **MURRAYLINK- Performance outcomes 2006**

Revenue calendar year 2006 (\$)

\$12,652,879

	Performance measure		Towns	Perform	ance without ex	clusions	Performance with exclusions			Impact of
	renormance measure	S	Target	Performance	S-Factor	Final Incentive	Performance	S-Factor	Final Incentive	exclusions
Pla	nned circuit energy availability	S1	99.17%	98.494280%	-0.400000%	-\$50,612	99.11%	-0.194676%	-\$24,632	0.205324%
Pea	ak forced outage availability	S2	99.48%	99.472904%	-0.004894%	-\$619	99.76%	0.217618%	\$27,535	0.222512%
Off	- peak forced outage availability	S3	99.34%	99.847468%	0.169156%	\$21,403	99.91%	0.188568%	\$23,859	0.019412%
то	TALS				-0.235738%	-\$29,828		0.211510%	\$26,762	0.447248%

#### NOTE:

# THIS PAGE WILL AUTOMATICALLY UPDATE BASED ON DATA IN INPUT WORKSHEETS

Grey cell (C3) show relevant calendar year revenue

Green cells (C7:C12) show performance measure targets

Pink cells (Rows D:F) show performance, s-factor results and financial incentive without exclusions

Orange cells (Rows G:I) show performance, s-factor results and financial incentive with exclusions

Blue cells show the impact of exclusions on revenue

Performance outcome for 2006 calendar year							
S-factor	0.211510%						
Bonus (penalty)	\$26,762						
Financial year to affect revenue	2007–08						

#### **MURRAYLINK - Defined exclusions**

No.	Measure 1- Planned circuit energy availability			
	Defined exclusions	Further description of exclusion	Reference	
1.1	Unregulated transmission assets		Schedule 1 AER Service Standards Guidelines	
1.2	Third party outage	Any outages caused by a 3rd party such as intertrip signals, generator outage, customer installation, customer request or	Schedule 1 AER Service Standards Guidelines	
1.3	Force majeure	NEMMCO direction.	Appendix H of the MTC Application for Conversion and MAR: Decision	
	Measure 2- Peak forced outage availability			
	Defined exclusions	Further description of exclusion	Reference	
1.1	Unregulated transmission assets		Schedule 1 AER Service Standards Guidelines	
1.2	Third party outage	Any outages caused by a 3rd party such as intertrip signals, generator outage, customer installation, customer request or	Schedule 1 AER Service Standards Guidelines	
1.3	Force majeure	NEMMCO direction.	Appendix H of the MTC Application for Conversion and MAR: Decision	
	Measure 3- Off- peak forced outage availability			
	Defined exclusions	Further description of exclusion	Reference	
1.1	Unregulated transmission assets		Schedule 1 AER Service Standards Guidelines	
1.2	Third party outage	Any outages caused by a 3rd party such as intertrip signals, generator outage, customer installation, customer request or	Schedule 1 AER Service Standards Guidelines	
1.3	Force majeure	NEMMCO direction.	Appendix H of the MTC Application for Conversion and MAR: Decision	