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4 February 2013

Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Dear Sir,

Performance Incentive Scheme Report for 2012 Calendar Year

Herewith I submit ElectraNet's annual Service Targets Performance Incentive Scheme (STPIS) report for the 2012 calendar year, which has been prepared in accordance with the applicable guidelines and revenue determination.

ElectraNet is required to report actual performance for the period 1 January to 31 December 2012 against the performance measures determined by the AER in ElectraNet's revenue cap decision 2008-2013 and the subsequent Market Impact Parameter (MIP) decision of December 2010 and to provide:

- A list of events that ElectraNet believes should be excluded from the performance measures for the period, and for each event a description of the event and its impact, quantification of the impact and the reasons for the exclusion request; and

- The calculation of the financial incentive as per the revenue cap decision applying to the period.

These requirements are satisfied in the attached templates.

The STPIS is based on service standard measures that are common to all TNSPs. However, the ACCC recognised in its November 2003 decision on service standards that there must be flexibility in how these performance measures are implemented for each TNSP. In particular, the importance of measuring performance consistently over time was emphasised. The STPIS is based on the assumption that performance measurement will be consistent with the way in which historical performance was derived for target setting.

On 11 March 2010, the Australian Energy Market Commission approved the addition of clause 11.32 of the Electricity Rules which enabled the early application of a MIP.

On 1 October 2010, ElectraNet Pty Ltd (ElectraNet) applied to the AER for the early application of the MIP. Subsequently the AER approved the early application of the MIP to ElectraNet commencing on 1 January 2011 with a target of 1862 dispatch intervals.

Separate templates have been provided with this report covering the service component parameters and the MIP respectively.

Discussion of specific exclusions

Major project outages of more than 14 days

In 2004 ElectraNet applied for the exclusion of major line outages for the rebuilding of the Para - Waterloo 132kV transmission line. The ACCC's auditor Sinclair Knight Merz (SKM) recommended that the ACCC accept ElectraNet's exclusion as it was consistent with the definitions used for target setting for the STPIS. However, the ACCC decided that, as the work was included in the revenue cap it should not be excluded from the performance incentive, but that it would be appropriate that the time associated with the event be capped at 14 days in aggregate in calculating ElectraNet's transmission circuit availability figure. The AER subsequently incorporated this cap into the STPIS that has applied to ElectraNet since 1 July 2008.

During the 2012 ElectraNet managed a number of significant projects which each exceeded the 14 day cap provision. The treatment of these capped exclusions is detailed in the attached template.

Third party events – non customer

In 2009 ElectraNet sought to exclude a number of access related outages requested by third parties to facilitate road widening and high vehicle transport that occurred in the 2008 calendar year. ElectraNet maintained that these outages were clearly of a third party nature and satisfied the exclusion requirement in the definitions. The auditor, Parsons Brinckerhoff (PB), maintained that these outages did not satisfy the definition as the third party concerned was not a customer of ElectraNet subject to a transmission connection agreement (TCA). The AER subsequently granted these exclusions and stated that such outages would be assessed on a case by case basis in the future. ElectraNet has sought no exclusions of this kind for the 2012 calendar year.

Third party events – customer

For the 2009, 2010 and 2011 calendar years ElectraNet sought and received exclusions for a number of transmission line outages that were required to enable access by third parties to the transmission network. These works were:

- Required solely due to the obligations under clauses 5.2.3.(d)(1) and 6A.1.3 of the Rules and clause 4 of the Electricity Transmission Licence for ElectraNet to grant access to third parties to the transmission network;
- Conducted in accordance with TCA's between the customers and ElectraNet which were established following a customer access request;
- Minimised and coordinated in accordance with clauses 3.2 and 3.3 of the Electricity Transmission Code so as to reduce any consequent transmission service interruptions or restrictions.

There were no such outages during the period.

The attachment lists all outages which are excluded by definition from the parameters and which the AER has nonetheless required ElectraNet to report and request exclusions for.

Coordinated generator outages in accordance with Connection Agreements

Between 28 May 2012 and 7 June 2012 the Clements Gap Windfarm was connected to the network via a temporary arrangement to avoid the necessity to constrain the generator to zero output in accordance with its connection agreement during construction works at the Bungama substation.

The temporary arrangement was pursued to enable a level of output to be achieved by the windfarm.

Please refer to the supporting evidence "FW: Endorsement – ElectraNet efforts for transmission availability" in which the customer, Pacific Hydro, expresses its support for ElectraNet's efforts to maximise dispatch during the outage.

As coordinated generator outages are excluded from the scheme ElectraNet seeks the exclusion of the associated dispatch intervals.

Force majeure events

Friday, 30 November 2012 - Davenport – Brinkworth 275kV line

On Friday, 30 November 2012 at 16:53, the Davenport - Brinkworth 275kV line tripped and locked out after an extreme weather event passed through the line. In the aftermath of high winds and storm activity, it was observed that tower numbers 57, 58, 59, 60, 61 and 62 had collapsed and structure 63 remained standing but with visible structural damage. At the other end, tower 56 remained standing with no visible damage. From the recorded weather data and field observations, localised high intensity winds caused the structural damage. Weather station recorded winds in excess of 127km/h, this is exceeded the design parameters that applied when the line was built in 1960.

As discussed with AER staff due to the nature and timing of the event and the subsequent restoration an event investigation report is currently being developed and will be provided in the near future.

The event was unforeseeable and its impact extraordinary. Structure failures in service are rare and, absent negligence on the part of the TNSP, would satisfy any reasonable definition of force majeure.

ElectraNet could not have prevented the event but worked to effectively control the impact of the event and used all available resources to expedite the replacement of the structures.

Monday 5 November 2012 - Templers West 275/132kV transformer

On Monday 5 November 2012 at 18:46 a catastrophic internal failure of the Templers West 275/132kV transformer occurred. This resulted in the Templers - Dorrien 132kV line being de-energised for the duration of the transformer replacement.

The Templers West-Dorrien line connects the low voltage side of Templers West TF2 to Dorrien. This line remained out of service for the duration of the transformer replacement because the transformer is the singular point of connection. The Templers West-Dorrien line was returned to service at 13:07 on 12 December 2012. The replacement Templers West 275/132kV transformer was loaded at 11:10 on 13 Dec 2012. Notwithstanding the

transformer outage the transmission line remained available for return to service at all times.

The failed transformer has been returned to the manufacturer for assessment.

The event was unforeseeable and its impact extraordinary. Catastrophic infantile transformer failures in service are rare and, absent negligence on the part of the TNSP, would satisfy any reasonable definition of force majeure. ElectraNet has not experienced an event of this nature before.

ElectraNet could not have prevented the event but worked to effectively control the impact of the event and used all available resources to expedite the replacement of the transformer.

As discussed with AER staff due to the nature and timing of the event and the subsequent restoration a confidential investigation report is currently being developed. ElectraNet will liaise with AER staff with respect the provision of additional evidence to support this claim of force majeure.

Calculation of Incentive

ElectraNet's actual performance against the conventional STPIS parameters and the MIP respectively are shown in the attached AER Templates (Attachments 1 and 2) that summarise actual performance against each performance measure, including calculation of the S factors and the applicable revenue bonus/ penalty for the 2012 calendar year.

Calculations are presented with and without exclusions as required by the guideline and consistent with previous discussions with AER officers.

Audit of Performance

In its final decision with respect to 2011 calendar performance the AER reiterated the need for supporting evidence to be provided with the annual report. Following discussions with AER staff ElectraNet has endeavoured to provide a reasonable level of supporting information with this submission.

Full access to all relevant systems and reports to support this application will be made available to the auditor if appointed by the AER. In the event that a face to face audit is not progressed the use of ElectraNet's web based video conferencing system is proposed.

Please do not hesitate to contact Bill Jackson on (08) 8404 7969 should you require clarification of any of the information provided in this report.

Yours sincerely,

Simon Appleby
Senior Manager Regulatory Affairs

ATTACHMENT 1 – AER PROFORMA FOR CALCULATION OF S FACTOR AND INCENTIVE CONVENTIONAL PARAMETERS

TEMPLATE EXPLANATION

This template must be used by the TNSP to report service performance information for the previous calendar year.

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

Purple worksheets '**S1' to 'S6'** are the s-factor results based on the performance inputs from the 'Inputs - Performance' worksheet.

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' worksheets.

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

ElectraNet - SERVICE STANDARDS PERFORMANCE

Performance Inputs							
S	**Performance parameter**	**Collar**	**Target**	**Cap**	**Revenue at Risk**	Performance (Without exclusions)	Performance (With exclusions)
S1	***Total transmission circuit availability***	99.10%	99.47%	99.63%	0.30%	97.806323%	98.463696%
S2	***Critical circuit availability – peak***	98.52%	99.24%	99.51%	0.20%	98.820141%	99.621571%
S3	***Critical circuit availability – non-peak (zero weighting)***	98.88%	99.62%	99.95%	0.00%	98.907912%	99.721376%
S4	***Loss of supply event frequency (>0.05 system minutes)***	11	8	6	0.10%	8	6
S5	***Loss of supply event frequency (>0.2 system minutes)***	6	4	2	0.20%	6	5
S6	***Average outage duration (minutes)***	119	78	38	0.20%	431	122

Revenue Determination Inputs	
TNSP:	ElectraNet
STPIS version:	January, 2007
Regulatory Determination	2008/09 - 2012/13
Base Year Allowed Revenue	$ 229,990,000
Base Year	2008–09
X-factor	-5.93%
Commencement of regulatory year	01-Jul-08

Other inputs	
Assessment Period	2012
Financial year to affect revenue:	2013/14
Date prepared:	11 January 2013
Revision date:	

Number of critical circuits	19 April 1900
Number of non-critical circuits	21 January 1900

Other Inputs

Annual revenue adjusted for C	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13
CPI	162.2	166.2	171.0	176.7	179.5	

NOTE:

Pink cells - Performance without exclusions input cells

Orange cells - Performance with exclusions input cells

Green cells - Other inputs

Blue cells - Inputs sourced from the revenue determination

Performance is based on a calendar year or the proportion of a calendar year that applies in each regulatory period.

ElectraNet - Proposed exclusions

CIRCUIT AVAILABILITY	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	Circuits affected	Reactive plant or transformer		Quantitative impact	Reasons for exclusion request	Further references	Customer Request
Name of any circuit availability parameters	Name of the event	Detail of the event. Such as: the action of any third parties, the actions of the TNSP, assets damaged or interrupted.	A description of the cause of the event	Start date and time of event		End date and time of event		Name of circuits or plant affected	Name of any equipment affected	proposed excluded hrs	Impact of exclusion event on availability sub-parameter	Full details of the reason/s for excluding this event. Should include a reference to the defined exclusions and explain how it meets this exclusion definition (see Exclusion definition tab). Eg. Exclusion 1.2 Third party event.	A TNSP may provide further details of an exclusion event. TNSP to provide reference.	Reference to customer requested outage
	BERRI - NORTH WEST BEND 132KV LINE 1	Outage < 1 minute	Storm/Wind	03/01/2012	10:54:00	03/01/2012	10:54:00	BERRI - NORTH WEST BEND 132KV LINE 1	N/A		0.00	Transient interruptions less than one (1) minute	Successful Reclose due to lightning/storm	
	ANGAS CREEK - MANNUM 132KV LINE	Pump station burst pipe flooded relay room	3rd Party	06/01/2012	01:18:00	15/01/2012	19:46:00	ANGAS CREEK - MANNUM 132KV LINE	N/A		234.47	1.2 Third party outage	SA Water pump station pipe broke filling the control room with water. Restoration time is up to the time that Enet were ready to energise but SA Water were not. SA Water were ready 23/1 1551	2572-Event_Investigation_Technical_Re
	BERRI - NORTH WEST BEND 132KV LINE 1	Outage < 1 minute	Storm/Wind	27/01/2012	19:20:00	27/01/2012	19:20:00	BERRI - NORTH WEST BEND 132KV LINE 1	N/A		0.00	Transient interruptions less than one (1) minute	Successful Reclose due to lightning/storm	
	WATERLOO EAST - WATERLOO WIND FARM 132KV LINE	Isolation for TRU	Customer Request	31/01/2012	08:59:00	31/01/2012	10:50:00	WATERLOO EAST - WATERLOO WIND FARM 132KV LINE	N/A		1.85	1.1 Unregulated Transmission Asset	Maintenance by TRU personnel on Step up transformer 1 at Waterloo Wind Farm	SSP 22844
	PLAYFORD - NORTHERN POWER STATION 132KV LINE	Isolation for Northern Power Station	Customer Request	01/02/2012	12:54:00	01/02/2012	15:49:00	PLAYFORD - NORTHERN POWER STATION 132KV LINE	N/A		2.92	1.1 Unregulated Transmission Asset	Isolation for Augusta Operators	SSP 21152
	PLAYFORD - NORTHERN POWER STATION 132KV LINE	Isolation for Northern Power Station	Customer Request	03/02/2012	13:24:00	03/02/2012	15:42:00	PLAYFORD - NORTHERN POWER STATION 132KV LINE	N/A		2.30	1.1 Unregulated Transmission Asset	Isolation for Augusta Operators	SSP 21152
	PLAYFORD - NORTHERN POWER STATION 132KV LINE	Isolation for Northern Power Station	Customer Request	21/02/2012	08:54:00	21/02/2012	15:16:00	PLAYFORD - NORTHERN POWER STATION 132KV LINE	N/A		6.37	1.1 Unregulated Transmission Asset	Isolation for Augusta Operators	SSP 21152
	PLAYFORD - NORTHERN POWER STATION 132KV LINE	Isolation for Northern Power Station	Customer Request	06/03/2012	10:20:00	08/03/2012	14:41:00	PLAYFORD - NORTHERN POWER STATION 132KV LINE	N/A		52.35	1.1 Unregulated Transmission Asset	Isolation for Augusta Operators	SSP 21152
	CHERRY GARDENS - MT BARKER 132KV LINE	Outage < 1 minute	Lightning	14/03/2012	14:52:00	14/03/2012	14:52:00	CHERRY GARDENS - MT BARKER 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Successful Reclose due to lightning/storm	
	PARA - ROBERTSTOWN 275KV LINE	Outage < 1 minute	Storm/Wind	14/03/2012	17:42:00	14/03/2012	17:42:00	PARA - ROBERTSTOWN 275KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Successful Reclose due to lightning/storm	
	PARA - BUNGAMA 275KV LINE	Outage < 1 minute	Storm/Wind	14/03/2012	17:55:00	14/03/2012	17:55:00	PARA - BUNGAMA 275KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Successful Reclose due to lightning/storm	
	PARA - BUNGAMA 275KV LINE	Outage < 1 minute	Storm/Wind	14/03/2012	17:56:00	14/03/2012	17:56:00	PARA - BUNGAMA 275KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Successful Reclose due to lightning/storm	
	ROBERTSTOWN - NORTH WEST BEND 132KV LINE 1	Outage < 1 minute	Lightning	14/03/2012	23:51:00	14/03/2012	23:51:00	ROBERTSTOWN - NORTH WEST BEND 132KV LINE 1	N/A		0.00	Transient interruptions less than one (1) minute	Successful Reclose due to lightning/storm	
	DAVENPORT - NORTHERN POWER STATION 275KV LINE 2	Isolation for Northern Power Station	Customer Request	19/03/2012	09:45:00	19/03/2012	12:12:00	DAVENPORT - NORTHERN POWER STATION 275KV LINE 2	N/A		2.45	1.1 Unregulated Transmission Asset	Isolation for Augusta Operators	SSP 23284
	DAVENPORT - NORTHERN POWER STATION 275KV LINE 2	Isolation for Northern Power Station	Customer Request	27/03/2012	10:39:00	27/03/2012	14:47:00	DAVENPORT - NORTHERN POWER STATION 275KV LINE 2	N/A		4.13	1.1 Unregulated Transmission Asset	Isolation for Augusta Operators	SSP 23284
	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	Supervisory shutdown / switching for Grayling Personnel	Customer Request	28/03/2012	07:11:00	28/03/2012	18:16:00	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	N/A		11.08	1.1 Unregulated Transmission Asset	Isolation for Grayling Personnel	SSP 8301
	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	Supervisory shutdown / switching for Grayling Personnel	Customer Request	01/04/2012	14:20:00	01/04/2012	19:36:00	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	N/A		5.27	1.1 Unregulated Transmission Asset	Isolation for Grayling Personnel	SSP 8301
	TIPS - TORRENS ISLAND NORTH 66KV LINE 2	Isolation to carry out maintenance on Quarantine Power Station	Customer Request	02/04/2012	09:44:00	05/04/2012	17:44:00	TIPS - TORRENS ISLAND NORTH 66KV LINE 2	N/A		80.00	1.1 Unregulated Transmission Asset	Isolation for Quarantine Personnel	PCN 4419 & SSP 23373
	TORRENS ISLAND NORTH - QPS GT1 - 2 66KV LINE	Isolation to carry out maintenance on Quarantine Power Station	Customer Request	02/04/2012	09:44:00	05/04/2012	17:44:00	TORRENS ISLAND NORTH - QPS GT1 - 2 66KV LINE	N/A		80.00	1.1 Unregulated Transmission Asset	Isolation for Quarantine Personnel	PCN 4419 & SSP 23373
	TORRENS ISLAND NORTH - QPS GT3 - 4 66KV LINE	Isolation to carry out maintenance on Quarantine Power Station	Customer Request	02/04/2012	09:44:00	05/04/2012	17:44:00	TORRENS ISLAND NORTH - QPS GT3 - 4 66KV LINE	N/A		80.00	1.1 Unregulated Transmission Asset	Isolation for Quarantine Personnel	PCN 4419 & SSP 23373
	ROBERTSTOWN - NORTH WEST BEND 132KV LINE 1	Successful reclose for a fault on Robertstown - North West Bend 132kV line 1	Design/Construction	02/04/2012	10:07:00	02/04/2012	10:07:00	ROBERTSTOWN - NORTH WEST BEND 132KV LINE 1	N/A		0.00	Transient interruptions less than one (1) minute	Successful Reclose due to protection malgrade on Robertstown - North West Bend 132kV line 2	
	MONASH - MURRAYLINK BERRI 132KV LINE	Occurred at the same time as the Robertstown - North West Bend 132kV line 1 reclose	Storm/Wind	02/04/2012	10:07:00	02/04/2012	10:28:00	MONASH - MURRAYLINK BERRI 132KV LINE	N/A		0.35	1.1 Unregulated Transmission Asset	Trip coincident with the loss of Robertstown - North West Bend 132kV line 1 trip	
	ROBERTSTOWN - NORTH WEST BEND 132KV LINE 2	Line was already out of service on a planned outage 22884 when lightning struck the line	Lightning	02/04/2012	10:07:00	02/04/2012	13:30:00	ROBERTSTOWN - NORTH WEST BEND 132KV LINE 2	N/A		3.38	Line already out of service	Line was already out of service on a planned outage 22884 when lightning struck the line	
	ROBERTSTOWN - NORTH WEST BEND 132KV LINE 1	Outage < 1 minute	Storm/Wind	02/04/2012	18:08:00	02/04/2012	18:08:00	ROBERTSTOWN - NORTH WEST BEND 132KV LINE 1	N/A		0.00	Transient interruptions less than one (1) minute	Successful Reclose due to protection malgrade on Robertstown - North West Bend 132kV line 2	
	MONASH - MURRAYLINK BERRI 132KV LINE	Occurred at the same time as the Robertstown - North West Bend 132kV line trips	Storm/Wind	02/04/2012	18:13:00	02/04/2012	18:18:00	MONASH - MURRAYLINK BERRI 132KV LINE	N/A		0.08	1.1 Unregulated Transmission Asset	Trip coincident with the loss of Robertstown - North West Bend 132kV line 1 trip	
	TIPS - TORRENS ISLAND NORTH 66KV LINE 1	Isolation to carry out maintenance on Quarantine Power Station	Customer Request	10/04/2012	08:50:00	13/04/2012	16:56:00	TIPS - TORRENS ISLAND NORTH 66KV LINE 1	N/A		80.10	1.1 Unregulated Transmission Asset	Isolation for Quarantine Personnel	PCN 4420 & SSP 23374
	MOKOTA - HALLET HILL WIND FARM 275KV LINE	Isolation line as requested from Windfarm operators	Customer Request	11/04/2012	07:05:00	11/04/2012	16:37:00	MOKOTA - HALLET HILL WIND FARM 275KV LINE	N/A		9.53	1.1 Unregulated Transmission Asset	Isolation for Hallet Hill Wind Farm Operators	SSP 19720
	PELICAN POINT - PELICAN POINT GT12 275KV LINE	Isolatation for International Power	Customer Request	12/04/2012	19:49:00	13/04/2012	15:24:00	PELICAN POINT - PELICAN POINT GT12 275KV LINE	N/A		19.58	1.1 Unregulated Transmission Asset	Isolation for International Power	PCN 4417 & SSP 22488
	PELICAN POINT - PELICAN POINT GT18 275KV LINE	Isolatation for International Power	Customer Request	13/04/2012	18:33:00	15/04/2012	18:25:00	PELICAN POINT - PELICAN POINT GT18 275KV LINE	N/A		47.87	1.1 Unregulated Transmission Asset	Isolation for International Power	PCN 4414 & SSP 22489
	DALRYMPLE - WATTLE POINT 132KV LINE	Isolation to carry out work for AGL	Customer Request	16/04/2012	09:22:00	16/04/2012	15:25:00	DALRYMPLE - WATTLE POINT 132KV LINE	N/A		6.05	1.1 Unregulated Transmission Asset	Isolation for AGL	SSP 22921
	BELALIE - NORTH BROWN HILL WINDFARM 275KV LINE	Isolation request from wind farm operators	Customer Request	19/04/2012	06:12:00	19/04/2012	16:48:00	BELALIE - NORTH BROWN HILL WINDFARM 275KV LINE	N/A		10.60	1.1 Unregulated Transmission Asset	Isolation for North Bronw Hill Wind Farm Operators	SSP19722
	DALRYMPLE - WATTLE POINT 132KV LINE	Isolation for Wattle Point Wind Farm	Customer Request	27/04/2012	12:51:00	27/04/2012	16:48:00	DALRYMPLE - WATTLE POINT 132KV LINE	N/A		3.95	1.1 Unregulated Transmission Asset	Isolation for Wattle Point Wind Farm	SSP 23558
	NEW OSBORNE - OCPL 66KV LINE 2	Isolation for OCPL personnel for line protection maintenance	Customer Request	28/04/2012	07:05:00	28/04/2012	17:18:00	NEW OSBORNE - OCPL 66KV LINE 2	N/A		10.22	1.1 Unregulated Transmission Asset	Isolation for OCPL	SSP 23503
	CANOWIE - HALLET 275KV LINE	Hallet Power Station line exit protection	Protection	28/04/2012	08:40:00	29/04/2012	15:03:00	CANOWIE - HALLET 275KV LINE	N/A		30.38	1.1 Unregulated Transmission Asset	Line exit protection trip signal testing	
	NEW OSBORNE - OCPL 66KV LINE 1	Isolation for OCPL personnel	Customer Request	28/04/2012	08:48:00	30/04/2012	10:16:00	NEW OSBORNE - OCPL 66KV LINE 1	N/A		49.47	1.1 Unregulated Transmission Asset	Isolation for OCPL	SSP 23504
	MAYURRA - LAKE BONNEY WIND FARM STAGE 2B 33KV LINE	Unplanned outage due to a crow	Birds/Animals	30/04/2012	16:47:00	30/04/2012	18:00:00	MAYURRA - LAKE BONNEY WIND FARM STAGE 2B 33KV LINE	N/A		1.22	1.1 Unregulated Transmission Asset	Unplanned outage caused by a crow	
	DALRYMPLE - WATTLE POINT 132KV LINE	Unplanned outage when energising TF1 at Ardrossan West	Design/Construction	10/05/2012	14:38:00	10/05/2012	15:36:00	DALRYMPLE - WATTLE POINT 132KV LINE	N/A		0.97	1.1 Unregulated Transmission Asset	Unplanned outage when energising TF1 at Ardrossan West	
	MAYURRA - LAKE BONNEY WIND FARM STAGE 2B 33KV LINE	Unplanned outage due to Infigen personnel (wind farm operators)	3rd Party	15/05/2012	15:54:00	16/05/2012	13:37:00	MAYURRA - LAKE BONNEY WIND FARM STAGE 2B 33KV LINE	N/A		21.72	1.2 Third party outage	Unplanned outage due to Infigen personnel performing incorrect isolations for the Wind Farm	2609-Event_Investigation_Technical_Report.pdf
	OLYMPIC DAM NORTH - PIMBA 132KV LINE	Unplanned outage on customers asset	3rd Party	16/05/2012	22:02:00	16/05/2012	22:02:00	OLYMPIC DAM NORTH - PIMBA 132KV LINE	N/A		0.00	1.1 Unregulated Transmission Asset	Unplanned outage on customer asset	2610-Event_Investigation_Technical_Report.pdf
	TIPS A - TORRENS ISLAND NORTH 66KV LINE 1	Isolation for Origin Personnel to test modifications for Black Start System	Customer Request	17/05/2012	08:48:00	17/05/2012	14:44:00	TIPS A - TORRENS ISLAND NORTH 66KV LINE 1	N/A		5.93	1.1 Unregulated Transmission Asset	Isolation for Origin Personnel	SSP 23609
	TIPS A - TORRENS ISLAND NORTH 66KV LINE 2	Isolation for Origin Personnel to test modifications for Black Start System	Customer Request	17/05/2012	08:48:00	17/05/2012	14:44:00	TIPS A - TORRENS ISLAND NORTH 66KV LINE 2	N/A		5.93	1.1 Unregulated Transmission Asset	Isolation for Origin Personnel	SSP 23609
	REDHILL - CLEMENTS GAP WF 132KV LINE	Switching to off load Clare North	Project Work	20/05/2012	18:29:00	24/05/2012	18:49:00	REDHILL - CLEMENTS GAP WF 132KV LINE	N/A		96.33	1.1 Unregulated Transmission Asset	Off loading Clare North sub for Project Work at Clare North with NSP 105990	
	PLAYFORD - NORTHERN POWER STATION 132KV LINE	Isolation for Northern Power Station	Customer Request	23/05/2012	08:43:00	23/05/2012	17:02:00	PLAYFORD - NORTHERN POWER STATION 132KV LINE	N/A		8.32	1.1 Unregulated Transmission Asset	Isolation for Augusta Operators	SSP 21152
	OLYMPIC DAM NORTH - PIMBA 132KV LINE	Isolation for BHP Billiton to carry out insulator washing	Customer Request	24/05/2012	09:14:00	28/05/2012	15:18:00	OLYMPIC DAM NORTH - PIMBA 132KV LINE	N/A		102.07	1.1 Unregulated Transmission Asset	Isolation for BHP Billiton	SSP 23642
	PLAYFORD - NORTHERN POWER STATION 132KV LINE	Isolation for Northern Power Station	Customer Request	24/05/2012	09:41:00	24/05/2012	17:11:00	PLAYFORD - NORTHERN POWER STATION 132KV LINE	N/A		7.50	1.1 Unregulated Transmission Asset	Isolation for Augusta Operators	SSP 21152
	DAVENPORT - NORTHERN POWER STATION 275KV LINE 2	Isolation for Northern Power Station trip tests	Customer Request	24/05/2012	20:38:00	24/05/2012	21:41:00	DAVENPORT - NORTHERN POWER STATION 275KV LINE 2	N/A		1.05	1.1 Unregulated Transmission Asset	Isolation for Alinta Energy to perform tests	General Log 1
	PLAYFORD - NORTHERN POWER STATION 132KV LINE	Isolation for Northern Power Station	Customer Request	25/05/2012	06:31:00	25/05/2012	20:25:00	PLAYFORD - NORTHERN POWER STATION 132KV LINE	N/A		13.90	1.1 Unregulated Transmission Asset	Isolation for Augusta Operators	SSP 21152
	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	Supervisory shutdown / switching for Grayling Personnel	Customer Request	29/05/2012	05:45:00	29/05/2012	19:29:00	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	N/A		13.73	1.1 Unregulated Transmission Asset	Isolation for Grayling Personnel	SSP 8301
	REDHILL - CLEMENTS GAP WF 132KV LINE	Inadvertant trip	Design/Construction	01/06/2012	11:58:00	01/06/2012	12:25:00	REDHILL - CLEMENTS GAP WF 132KV LINE	N/A		0.45	1.1 Unregulated Transmission Asset	Incorrect isolation of protection during commissioning	
	MAYURRA - LAKE BONNEY WIND FARM STAGE 1 33KV LINE	Top up SF6 in CB6221	Circuit Breakers	11/06/2012	13:00:00	11/06/2012	13:58:00	MAYURRA - LAKE BONNEY WIND FARM STAGE 1 33KV LINE	N/A		0.97	1.1 Unregulated Transmission Asset	Circuit Breaker maintenance	
	MAYURRA - LAKE BONNEY WIND FARM STAGE 2A 33KV LINE	Top up SF6 in CB6221	Circuit Breakers	11/06/2012	13:00:00	11/06/2012	13:58:00	MAYURRA - LAKE BONNEY WIND FARM STAGE 1 33KV LINE	N/A		0.97	1.1 Unregulated Transmission Asset	Circuit Breaker maintenance	
	BUNGAMA - REDHILL - BRINKWORTH 132KV LINE	Outage < 1 minute	Lightning	13/06/2012	22:39:00	13/06/2012	22:39:00	BUNGAMA - REDHILL - BRINKWORTH 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Line reclose due to Lightning	
	PARA - ROSEWORTHY 132KV LINE	Outage < 1 minute	Lightning	13/06/2012	23:05:00	13/06/2012	23:05:00	PARA - ROSEWORTHY 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Line reclose due to Lightning	
	NEW OSBORNE - TIPS LINE 4	Black start test via Quarantine Power Station	Customer Request	16/06/2012	08:35:00	16/06/2012	12:35:00	NEW OSBORNE - TIPS LINE 4	N/A		4.00	1.2 Third party outage	Isolation for Quarantine Personnel	PCN 4477, PCN 4478, PCN 4479, SSP 23731
	NEW OSBORNE - TIPS LINE 3	Black start test via Quarantine Power Station	Customer Request	16/06/2012	08:36:00	16/06/2012	12:34:00	NEW OSBORNE - TIPS LINE 3	N/A		3.97	1.2 Third party outage	Isolation for Quarantine Personnel	PCN 4477, PCN 4478, PCN 4479, SSP 23731
	OLYMPIC DAM NORTH - PIMBA 132KV LINE	3rd Party event due to an R phase to earth fault occurring on STR-0007	3rd Party	19/06/2012	00:08:00	19/06/2012	00:08:00	OLYMPIC DAM NORTH - PIMBA 132KV LINE	N/A		0.00	1.1 Unregulated Transmission Asset	3rd Party outage	2618-Event_Investigation_Technical_Report.pdf
	OLYMPIC DAM NORTH - PIMBA 132KV LINE	3rd Party event due to an R phase to earth fault occurring near STR-0007	3rd Party	25/06/2012	04:10:00	25/06/2012	04:10:00	OLYMPIC DAM NORTH - PIMBA 132KV LINE	N/A		0.00	1.1 Unregulated Transmission Asset	3rd Party outage	2619-Event_Investigation_Technical_Report.pdf
	TIPS A - TORRENS ISLAND NORTH 66KV LINE 1	3rd Party event due to trip initiation whilst GT5 being run up	3rd Party	02/07/2012	11:40:00	02/07/2012	12:09:00	TIPS A - TORRENS ISLAND NORTH 66KV LINE 1	N/A		0.48	1.1 Unregulated Transmission Asset	3rd Party outage	2623-Event_Investigation_Technical_Report.pdf
	HUMMOCKS - SNOWTOWN - BUNGAMA 132KV LINE	Outage < 1 minute	Overhead Lines / Underground Cables	04/07/2012	05:28:00	04/07/2012	05:28:00	HUMMOCKS - SNOWTOWN - BUNGAMA 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Flashover on STR0236	
	DAVENPORT - NORTHERN POWER STATION 275KV LINE 1	Isolation for Nothern Power Station	Customer Request	06/07/2012	16:56:00	06/07/2012	18:07:00	DAVENPORT - NORTHERN POWER STATION 275KV LINE 1	N/A		1.18	1.2 Third party outage	Allow Augusta Operators to isolate NPS 1 using NL1D	SSP 23887
	CHERRY GARDENS - TIPS B 275KV LINE	Switching to allow Unit B2 at TIPS to syncronise	Customer Request	09/07/2012	12:23:00	09/07/2012	15:49:00	CHERRY GARDENS - TIPS B 275KV LINE	N/A		3.43	1.2 Third party outage	Allow TIPS B Unit B2 to syncronise	ESP1
	DAVENPORT - NORTHERN POWER STATION 275KV LINE 1	Isolation for Alinta Energy to carry out protection manintenance at Northern Power Station	Customer Request	10/07/2012	11:12:00	21/07/2012	16:49:00	DAVENPORT - NORTHERN POWER STATION 275KV LINE 1	N/A		269.62	1.2 Third party outage	Isolation for Alinta Energy to perform maintenance	SSP 23886
	DAVENPORT - NORTHERN POWER STATION 275KV LINE 2	Isolation for Alinta Energy to carry out work on step up transformer	Customer Request	20/07/2012	09:13:00	20/07/2012	16:22:00	DAVENPORT - NORTHERN POWER STATION 275KV LINE 2	N/A		7.15	1.2 Third party outage	Isolation for Alinta Energy to perform maintenance	SSP 23941
	TIPS A - TORRENS ISLAND NORTH 66KV LINE 1	Unplanned outage at Quarantine Power Station	3rd Party	23/07/2012	06:42:00	23/07/2012	12:48:00	TIPS A - TORRENS ISLAND NORTH 66KV LINE 1	N/A		6.10	1.2 Third party outage	Unplanned outage due to fault on Quarantine Power Station protection	2631-Event_Investigation_Technical_Report.pdf
	EAST TERRACE - MAGILL 275KV LINE	Switching for SA Power Networks to repair 66kV cable supports	Customer Request	25/07/2012	20:51:00	26/07/2012	04:30:00	EAST TERRACE - MAGILL 275KV LINE	N/A		7.65	1.2 Third party outage	SA Power Networks outage to repair their 66kv cable supports	SSP 23630
	DAVENPORT - NORTHERN POWER STATION 275KV LINE 1	Isolation for Alinta Energy to carry out protection manintenance at Northern Power Station	Customer Request	27/07/2012	09:13:00	27/07/2012	11:37:00	DAVENPORT - NORTHERN POWER STATION 275KV LINE 1	N/A		2.40	1.2 Third party outage	Isolation for Alinta Energy to perform maintenance	SSP 23886
	TIPS A - TORRENS ISLAND NORTH 66KV LINE 1	Isolation for isolator maintenance	Isolator Maintenance	07/08/2012	09:33:00	10/08/2012	14:01:00	TIPS A - TORRENS ISLAND NORTH 66KV LINE 1	N/A		76.47	1.1 Unregulated Transmission Asset	Isolator Maintenance	
	TORRENS ISLAND NORTH - QPS GT5 66KV LINE	Isolation for isolator maintenance	Isolator Maintenance	07/08/2012	09:35:00	10/08/2012	14:01:00	TORRENS ISLAND NORTH - QPS GT5 66KV LINE	N/A		76.43	1.1 Unregulated Transmission Asset	Isolator Maintenance	
	MAYURRA LAKE BONNEY WIND FARM STAGE 2A 33KV LINE	Outage due to crow causing flashover on A44253	Birds/Animals	09/08/2012	16:23:00	10/08/2012	08:19:00	MAYURRA LAKE BONNEY WIND FARM STAGE 2A 33KV LINE	N/A		15.93	1.1 Unregulated Transmission Asset	Outage due to crow causing flashover on A44253	
	MAYURRA LAKE BONNEY WIND FARM STAGE 1 33KV LINE	Outage due to crow causing flashover on A44253	Birds/Animals	09/08/2012	16:23:00	10/08/2012	08:19:00	MAYURRA LAKE BONNEY WIND FARM STAGE 1 33KV LINE	N/A		15.93	1.1 Unregulated Transmission Asset	Outage due to crow causing flashover on A44253	
	SLEAFORD - PORT LINCOLN TERMINAL 132KV LINE	Unplanned outage due to Storm/Wind	Storm/Wind	16/08/2012	14:11:00	16/08/2012	14:11:00	SLEAFORD - PORT LINCOLN TERMINAL 132KV LINE	N/A		0.00	1.1 Unregulated Transmission Asset	Unplanned outage due to Storm/Wind	
	MONASH - MURRAYLINK BERRI 132KV LINE	Unplanned outage during communications work	Secondary Systems	22/08/2012	10:07:00	22/08/2012	11:30:00	MONASH - MURRAYLINK BERRI 132KV LINE	N/A		1.38	1.1 Unregulated Transmission Asset	Unplanned outage during communications work	
	MAYURRA - LAKE BONNEY WIND FARM STAGE 1 33KV LINE	Unplanned outage dur to crow causing flashover	Birds/Animals	24/08/2012	15:57:00	24/08/2012	17:20:00	MAYURRA - LAKE BONNEY WIND FARM STAGE 1 33KV LINE	N/A		1.38	1.1 Unregulated Transmission Asset	Unplanned outage dur to crow causing flashover	
	MAYURRA - LAKE BONNEY WIND FARM STAGE 2A 33KV LINE	Unplanned outage dur to crow causing flashover	Birds/Animals	24/08/2012	15:57:00	24/08/2012	17:20:00	MAYURRA - LAKE BONNEY WIND FARM STAGE 2A 33KV LINE	N/A		1.38	1.1 Unregulated Transmission Asset	Unplanned outage dur to crow causing flashover	
	SLEAFORD - CATHEDRAL ROCKS 33KV LINE	Servicing isolator and disconnectors	Isolator Maintenance	25/08/2012	05:08:00	25/08/2012	16:10:00	SLEAFORD - CATHEDRAL ROCKS 33KV LINE	N/A		11.03	1.1 Unregulated Transmission Asset	Servicing isolator and disconnectors	
	SLEAFORD - CATHEDRAL ROCKS 33KV LINE	Servicing isolator and disconnectors	Isolator Maintenance	26/08/2012	05:01:00	26/08/2012	16:01:00	SLEAFORD - CATHEDRAL ROCKS 33KV LINE	N/A		11.00	1.1 Unregulated Transmission Asset	Servicing isolator and disconnectors	
	LADBROKE GROVE - PENOLA WEST 132KV LINE	Isolation for Origin Personnel for GT1&2 maintenance	Customer Request	26/08/2012	15:45:00	29/08/2012	16:55:00	LADBROKE GROVE - PENOLA WEST 132KV LINE	N/A		73.17	1.1 Unregulated Transmission Asset	Isolation for Origin Personnel for GT1&2 maintenance	SSP 23985
	DAVENPORT - LEIGH CREEK 132KV LINE	Outage < 1 minute	Overhead Lines / Underground Cables	29/08/2012	07:04:00	29/08/2012	07:04:00	DAVENPORT - LEIGH CREEK 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Line reclose due to plant failure	
	DAVENPORT - NORTHERN POWER STATION 275KV LINE	Isolation for customer	Customer Request	23/09/2012	11:03:00	23/09/2012	15:21:00	DAVENPORT - NORTHERN POWER STATION 275KV LINE	N/A		4.30	1.2 Third party outage	De-energise Davenport - NPS 1 275k kV line to allow Augusta Operators to isolate NPS 1 using NL1D	SSP 23887
	MONASH - MURRAYLINK BERRI 132KV LINE	Inadvertant trip	Communications/Control	26/09/2012	13:43:00	26/09/2012	15:07:00	MONASH - MURRAYLINK BERRI 132KV LINE	N/A		1.40	1.1 Unregulated Transmission Asset	Inadvertant trip whilst undertaking runback scheme work	
	DALRYMPLE - WATTLE POINT 132KV LINE	Direct intertrip from Wattle Point Wind Farm	3rd Party	28/09/2012	15:54:00	01/10/2012	16:35:00	DALRYMPLE - WATTLE POINT 132KV LINE	N/A		72.68	1.1 Unregulated Transmission Asset	Direct trip from customer Wattle Point Wind Farm	2657-Event_Investigation_Technical_Report.pdf
	MONASH - MURRAYLINK BERRI 132KV LINE	Intermittent communications failure	Secondary Systems	04/10/2012	10:39:00	04/10/2012	11:45:00	MONASH - MURRAYLINK BERRI 132KV LINE	N/A		1.10	1.1 Unregulated Transmission Asset	Sever trip initiated by intermittent communications issue	
	MONASH - MURRAYLINK BERRI 132KV LINE	Intermittent communications failure	Secondary Systems	04/10/2012	12:52:00	05/10/2012	21:07:00	MONASH - MURRAYLINK BERRI 132KV LINE	N/A		32.25	1.1 Unregulated Transmission Asset	Sever trip initiated by intermittent communications issue	
	DALRYMPLE - WATTLE POINT 132KV LINE	Outage for project work	Project Work	08/10/2012	10:24:00	16/10/2012	00:25:00	DALRYMPLE - WATTLE POINT 132KV LINE	N/A		182.02	1.1 Unregulated Transmission Asset	outage of unregulated line for project work	
	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	Supervisory shutdown / switching for Grayling Personnel	Customer Request	10/10/2012	13:47:00	12/12/2012	18:44:00	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	N/A		1516.95	1.1 Unregulated Transmission Asset	Isolation for Grayling Personnel	SSP 8301
	DAVENPORT - PLAYFORD A HOUSE 132KV LINE	Allow isolation of T1 House Transformer by Alinta Energy	3rd Party	11/10/2012	07:24:00	11/10/2012	13:36:00	DAVENPORT - PLAYFORD A HOUSE 132KV LINE	N/A		6.47	1.2 Third party outage	Isolation for Alinta Energy	2667-Event_Investigation_Technical_Report.pdf
	MONASH - MURRAYLINK BERRI 132KV LINE	Loss of communications/Control	Communications/Control	16/10/2012	07:55:00	16/10/2012	09:34:00	MONASH - MURRAYLINK BERRI 132KV LINE	N/A		1.65	1.1 Unregulated Transmission Asset	Unplanned event due to communication/control failure	
	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	Supervisory shutdown / switching for Grayling Personnel	Customer Request	16/10/2012	14:12:00	16/10/2012	18:44:00	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	N/A		4.53	1.1 Unregulated Transmission Asset	Isolation for Grayling Personnel	SSP 8301
	HUMMOCKS - KADINA EAST 132KV LINE	Outage < 1 minute	Lightning	20/10/2012	13:52:00	20/10/2012	13:52:00	HUMMOCKS - KADINA EAST 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Transient interruption due to storm/wind	
	BUNGAMA - REDHILL - BRINKWORTH 132KV LINE	Outage < 1 minute	Lightning	20/10/2012	22:16:00	20/10/2012	22:16:00	BUNGAMA - REDHILL - BRINKWORTH 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Transient interruption due to storm/wind	
	REDHILL - CLEMENTS GAP WF 132KV LINE	Outage < 1 minute	Lightning	20/10/2012	22:16:00	20/10/2012	22:16:00	REDHILL - CLEMENTS GAP WF 132KV LINE	N/A		0.00	1.1 Unregulated Transmission Asset	Transient interruption due to storm/wind	
	PELICAN POINT - PELICAN POINT GT12 275KV LINE	Isolation of Pelican Point - Pelican Point Power Station GT12 275kV line for International Power.	Customer Request	31/10/2012	13:49:00	02/11/2012	18:05:00	PELICAN POINT - PELICAN POINT GT12 275KV LINE	N/A		52.27	1.2 Third party outage	Isolation of Pelican Point - Pelican Point Power Station GT12 275kV line for International Power.	SSP 19525
	LADBROKE GROVE - PENOLA WEST 132KV LINE	top up SF6 in CT6158	Instrument T/F	01/11/2012	11:45:00	01/11/2012	12:30:00	LADBROKE GROVE - PENOLA WEST 132KV LINE	N/A		0.75	1.1 Unregulated Transmission Asset	CT top up of SF6 gas	
	PARA - ROSEWORTHY 132KV LINE	Outage < 1 minute	Lightning	04/11/2012	16:16:00	04/11/2012	16:16:00	PARA - ROSEWORTHY 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Transient interruption due to storm/wind	
	REDHILL - CLEMENTS GAP WF 132KV LINE	Unplanned Communications failure	Communications/Control	05/11/2012	13:00:00	05/11/2012	20:20:00	REDHILL - CLEMENTS GAP WF 132KV LINE	N/A		7.33	1.1 Unregulated Transmission Asset	unplanned outage due to communications failure	
	SLEAFORD - PORT LINCOLN TERMINAL 132KV LINE	Unplanned outage due to Storm/Wind	Storm/Wind	05/11/2012	17:08:00	05/11/2012	20:37:00	SLEAFORD - PORT LINCOLN TERMINAL 132KV LINE	N/A		3.48	1.1 Unregulated Transmission Asset	Unplanned outage due to Storm/Wind	
	HUMMOCKS - WATERLOO 132KV LINE	Outage < 1 minute	Storm/Wind	05/11/2012	17:13:00	05/11/2012	17:13:00	HUMMOCKS - WATERLOO 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Transient interruption due to storm/wind	
	DALRYMPLE - WATTLE POINT 132KV LINE	Unplanned outage due to Storm/Wind	Storm/Wind	05/11/2012	17:13:00	06/11/2012	15:01:00	DALRYMPLE - WATTLE POINT 132KV LINE	N/A		21.80	1.1 Unregulated Transmission Asset	Unplanned outage due to Storm/Wind	
	PARA - BUNGAMA 275KV LINE	Outage < 1 minute	Lightning	05/11/2012	18:33:00	05/11/2012	18:33:00	PARA - BUNGAMA 275KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	CLARE NORTH - BRINKWORTH 132KV LINE	Outage < 1 minute	Lightning	05/11/2012	18:34:00	05/11/2012	18:34:00	CLARE NORTH - BRINKWORTH 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	WATERLOO - TEMPLERS 132KV LINE	Outage < 1 minute	Lightning	05/11/2012	18:42:00	05/11/2012	18:42:00	WATERLOO - TEMPLERS 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	PARA - BUNGAMA 275KV LINE	Outage < 1 minute	Lightning	05/11/2012	18:44:00	05/11/2012	18:44:00	PARA - BUNGAMA 275KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	TEMPLERS WEST - DORRIEN 132KV LINE	Delayed restoration of line due to Templers West 275/132/11 KV TF 2 fault.	Forced Majeure	05/11/2012	18:46:00	12/12/2012	13:07:00	TEMPLERS - DORRIEN 132KV LINE	N/A	-0.091%	882.35	1.6 Forced Majeure	Line tripped and reclosed however the Templers West 275/132/11 KV TF 2 fault prevented the line from being restored.	
	CLARE NORTH - BRINKWORTH 132KV LINE	Outage < 1 minute	Storm/Wind	05/11/2012	18:48:00	05/11/2012	18:48:00	CLARE NORTH - BRINKWORTH 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	MINTARO - WATERLOO 132KV LINE	Outage < 1 minute	Lightning	05/11/2012	18:53:00	05/11/2012	18:53:00	MINTARO - WATERLOO 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Lightning	
	MINTARO - WATERLOO 132KV LINE	Outage < 1 minute	Storm/Wind	05/11/2012	18:57:00	05/11/2012	18:57:00	MINTARO - WATERLOO 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	ARDROSSAN WEST - DALRMPLE 132 KV LINE	SA Power Network 33kV feeder fault	3rd Party	05/11/2012	20:18:00	05/11/2012	23:21:00	ARDROSSAN WEST - DALRMPLE 132 KV LINE	N/A		3.05	1.2 Third party outage	SA Power Network 33kV feeder fault	
	HUMMOCKS - KADINA EAST 132KV LINE	Outage < 1 minute	Storm/Wind	05/11/2012	21:06:00	05/11/2012	21:06:00	HUMMOCKS - KADINA EAST 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	DAVENPORT - PIMBA 132KV LINE	Outage < 1 minute	Storm/Wind	05/11/2012	21:28:00	05/11/2012	21:28:00	DAVENPORT - PIMBA 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	PARA - ROSEWORTHY 132KV LINE	Outage < 1 minute	Lightning	05/11/2012	22:48:00	05/11/2012	22:48:00	PARA - ROSEWORTHY 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
S1 Total transmission circuit availability	HEYWOOD - SOUTH EAST 275KV LINE 2	AEMO request line de-energised for 'Voltage Control'	Voltage Control	14/11/2012	09:35:00	14/11/2012	14:20:00	HEYWOOD - SOUTH EAST 275KV LINE 2	N/A		4.75	1.3 Outages to control voltages	AEMO request line de-energised for 'Voltage Control'. NOTE: This is due to M2 transformer at Heywood being off loaded.	
	MONASH - MURRAYLINK BERRI 132KV LINE	Intermittent communications failure	Communications/Control	16/11/2012	02:29:00	16/11/2012	03:04:00	MONASH - MURRAYLINK BERRI 132KV LINE	N/A		0.58	1.1 Unregulated Transmission Asset	unplanned outage due to communications failure	
	PLAYFORD - NORTHERN POWER STATION 132KV LINE	Switching for Augusta Operators	Customer Request	20/11/2012	09:00:00	20/11/2012	09:03:00	PLAYFORD - NORTHERN POWER STATION 132KV LINE	N/A		0.05	1.1 Unregulated Transmission Asset	Isolation for Augusta Operators	SSP 18642
	DAVENPORT - PLAYFORD A HOUSE 132KV LINE	Switching for Augusta Operators	Customer Request	20/11/2012	09:01:00	20/11/2012	09:02:00	DAVENPORT - PLAYFORD A HOUSE 132KV LINE	N/A		0.02	1.2 Third party outage	Isolation for Augusta Operators	SSP 18642
	SLEAFORD - PORT LINCOLN TERMINAL 132KV LINE	Bushfire near the line	Bushfire	20/11/2012	12:17:00	20/11/2012	18:53:00	SLEAFORD - PORT LINCOLN TERMINAL 132KV LINE	N/A		6.60	1.1 Unregulated Transmission Asset	Outage due to bushfire near the line	
	PARA - ROSEWORTHY 132KV LINE	Outage < 1 minute	Storm/Wind	20/11/2012	16:25:00	20/11/2012	16:25:00	PARA - ROSEWORTHY 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	HEYWOOD - SOUTH EAST 275KV LINE 1	AEMO request line de-energised for 'Voltage Control'	Voltage Control	20/11/2012	17:53:00	23/11/2012	15:42:00	HEYWOOD - SOUTH EAST 275KV LINE 2	N/A		69.82	1.3 Outages to control voltages	De-energise South East - Heywood No.1 275kV line for "Voltage Control" as directed by AEMO. (M1 Transformer offloaded due to outage in Victoria region)	
	TAILEM BEND - KEITH 132KV LINE 1	Outage < 1 minute	Storm/Wind	20/11/2012	19:11:00	20/11/2012	19:11:00	TAILEM BEND - KEITH 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	ARDROSSAN WEST - DALRMPLE 132 KV LINE	Outage < 1 minute	Lightning	26/11/2012	16:37:00	26/11/2012	16:37:00	ARDROSSAN WEST - DALRMPLE 132 KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	DALRYMPLE - WATTLE POINT 132KV LINE	Outage < 1 minute	Lightning	26/11/2012	16:37:00	26/11/2012	16:37:00	DALRYMPLE - WATTLE POINT 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	WATERLOO - TEMPLERS 132KV LINE	Outage < 1 minute	Storm/Wind	26/11/2012	20:22:00	26/11/2012	20:22:00	WATERLOO - TEMPLERS 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	WATERLOO - TEMPLERS 132KV LINE	Outage < 1 minute	Storm/Wind	26/11/2012	20:25:00	26/11/2012	20:25:00	WATERLOO - TEMPLERS 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	HUMMOCKS - WATERLOO 132KV LINE	Outage < 1 minute	Lightning	30/11/2012	04:24:00	30/11/2012	04:24:00	HUMMOCKS - WATERLOO 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	PARA - ROSEWORTHY 132KV LINE	Outage < 1 minute	Lightning	30/11/2012	04:39:00	30/11/2012	04:39:00	PARA - ROSEWORTHY 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	HUMMOCKS - SNOWTOWN - BUNGAMA 132KV LINE	Outage < 1 minute	Lightning	30/11/2012	05:57:00	30/11/2012	05:57:00	HUMMOCKS - SNOWTOWN - BUNGAMA 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	MAYURRA - LAKE BONNEY WIND FARM STAGE 2B 33KV LINE	forced outage to bypass disconnector A44252	Isolator Maintenance	30/11/2012	12:46:00	30/11/2012	18:15:00	MAYURRA - LAKE BONNEY WIND FARM STAGE 2B 33KV LINE	N/A		5.48	1.1 Unregulated Transmission Asset	outage to bypass disconnector A44252	
	BUNGAMA - REDHILL - BRINKWORTH 132KV LINE	Outage < 1 minute	Storm/Wind	30/11/2012	16:36:00	30/11/2012	16:36:00	BUNGAMA - REDHILL - BRINKWORTH 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	BRINKWORTH - DAVENPORT 275 KV LINE	Towers 56 to 62 blown down in severs storms	Forced Majeure	30/11/2012	16:53:00	01/01/2013	00:00:00	BRINKWORTH - DAVENPORT 275 KV LINE	N/A	-0.078%	751.12	1.6 Forced Majeure	Severe storms blew over towers 56 to 62	
	WATERLOO EAST - ROBERTSTOWN 132 KV LINE	Outage < 1 minute	Storm/Wind	30/11/2012	18:16:00	30/11/2012	18:16:00	WATERLOO EAST - ROBERTSTOWN 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	PARA - BUNGAMA 275KV LINE	Outage < 1 minute	Storm/Wind	30/11/2012	18:31:00	30/11/2012	18:31:00	PARA - BUNGAMA 275KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	PARA - BUNGAMA 275KV LINE	Outage < 1 minute	Storm/Wind	30/11/2012	18:33:00	30/11/2012	18:33:00	PARA - BUNGAMA 275KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	HUMMOCKS - WATERLOO 132KV LINE	Outage < 1 minute	Secondary Systems	30/11/2012	18:58:00	30/11/2012	18:58:00	HUMMOCKS - WATERLOO 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Protection initiated an incorrect out of sync reclosure	
	DALRYMPLE - WATTLE POINT 132KV LINE	Protection out of sync	Secondary Systems	30/11/2012	18:58:00	01/12/2012	11:27:00	DALRYMPLE - WATTLE POINT 132KV LINE	N/A		16.48	1.1 Unregulated Transmission Asset	Wattle Point did not trip when Yorke peninsular was islanded by Hummocks Waterloo fault.	
	WATERLOO EAST - ROBERTSTOWN 132 KV LINE	Outage < 1 minute	Lightning	30/11/2012	19:01:00	30/11/2012	19:01:00	WATERLOO EAST - ROBERTSTOWN 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	WATERLOO - TEMPLERS 132KV LINE	Outage < 1 minute	Storm/Wind	30/11/2012	19:04:00	30/11/2012	19:04:00	WATERLOO - TEMPLERS 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	PIMBA - WOOMERA 132KV LINE	Outage < 1 minute	Storm/Wind	30/11/2012	19:13:00	30/11/2012	19:13:00	PIMBA - WOOMERA 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	ROBERTSTOWN - NORTH WEST BEND 132KV LINE 2	Outage < 1 minute	Lightning	30/11/2012	19:38:00	30/11/2012	19:38:00	ROBERTSTOWN - NORTH WEST BEND 132KV LINE 2	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	BERRI - NORTH WEST BEND 132KV LINE 1	Outage < 1 minute	Lightning	30/11/2012	20:39:00	30/11/2012	20:39:00	BERRI - NORTH WEST BEND 132KV LINE 1	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	HUMMOCKS - SNOWTOWN - BUNGAMA 132KV LINE	Outage < 1 minute	Lightning	01/12/2012	09:33:00	01/12/2012	09:33:00	HUMMOCKS - SNOWTOWN - BUNGAMA 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	HUMMOCKS - SNOWTOWN - BUNGAMA 132KV LINE	Outage < 1 minute	Lightning	01/12/2012	10:52:00	01/12/2012	10:52:00	HUMMOCKS - SNOWTOWN - BUNGAMA 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	PARA - BUNGAMA 275KV LINE	Outage < 1 minute	Lightning	01/12/2012	12:21:00	01/12/2012	12:21:00	PARA - BUNGAMA 275KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	MINTARO - WATERLOO 132KV LINE	Outage < 1 minute	Lightning	01/12/2012	12:34:00	01/12/2012	12:34:00	MINTARO - WATERLOO 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	MINTARO - WATERLOO 132KV LINE	Outage < 1 minute	Lightning	01/12/2012	12:36:00	01/12/2012	12:36:00	MINTARO - WATERLOO 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	HUMMOCKS - WATERLOO 132KV LINE	Outage < 1 minute	Lightning	01/12/2012	14:15:00	01/12/2012	14:15:00	HUMMOCKS - WATERLOO 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	DALRYMPLE - WATTLE POINT 132KV LINE	Outage < 1 minute	Lightning	01/12/2012	14:15:00	01/12/2012	14:46:00	DALRYMPLE - WATTLE POINT 132KV LINE	N/A		0.52	1.1 Unregulated Transmission Asset	CB6166 tripped when Hummocks - Waterloo line reclosed. Suspect an overload trip as Hummocks was radial from Bungama and Windfarm output was high	
	BUNGAMA - BAROOTA 132KV LINE	Outage < 1 minute	Lightning	01/12/2012	14:42:00	01/12/2012	14:42:00	BUNGAMA - BAROOTA 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to lightning	
	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	Supervisory shutdown / switching for Grayling Personnel	Customer Request	01/12/2012	17:58:00	01/12/2012	19:01:00	MURRAYLINK REDCLIFF C/S - MURRAYLINK BERRI C/S 150KV LINE	N/A		1.05	1.1 Unregulated Transmission Asset	Isolation for Grayling Personnel	SSP 8301
	HEYWOOD - SOUTH EAST 275KV LINE 2	Outage for 'Voltage Control'	Voltage Control	04/12/2012	10:20:00	04/12/2012	14:09:00	HEYWOOD - SOUTH EAST 275KV LINE 2	N/A		3.82	1.3 Outages to control voltages	De-energise South East - Heywood No.2 275kV line for "Voltage Control"	
	TEMPLERS WEST - PARA 275KV LINE	Delayed restoration of line due to Templers West 275/132/11 KV TF 2 fault.	Force Majeure	12/12/2012	10:39:00	13/12/2012	11:10:00	TEMPLERS WEST - PARA 275KV LINE	N/A	-0.003%	24.52	1.6 Forced Majeure	Line tripped and reclosed however the Templers West 275/132/11 KV TF 2 fault prevented the line from being restored.	
	BUNGAMA - REDHILL - BRINKWORTH 132KV LINE	Outage < 1 minute	Storm/Wind	12/12/2012	14:43:00	12/12/2012	14:43:00	BUNGAMA - REDHILL - BRINKWORTH 132KV LINE	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	REDHILL - CLEMENTS GAP WF 132KV LINE	Outage < 1 minute	Storm/Wind	12/12/2012	14:43:00	12/12/2012	14:43:00	REDHILL - CLEMENTS GAP WF 132KV LINE	N/A		0.00	1.1 Unregulated Transmission Asset	Unplanned outage due to Storm/Wind	
	BERRI - NORTH WEST BEND 132KV LINE 1	Outage < 1 minute	Storm/Wind	12/12/2012	18:17:00	12/12/2012	18:17:00	BERRI - NORTH WEST BEND 132KV LINE 1	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	BERRI - NORTH WEST BEND 132KV LINE 2	Outage < 1 minute	Storm/Wind	12/12/2012	18:49:00	12/12/2012	18:49:00	BERRI - NORTH WEST BEND 132KV LINE 2	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	TAILEM BEND - KEITH - 132KV LINE 1	Outage < 1 minute	Storm/Wind	25/12/2012	05:30:00	25/12/2012	05:30:00	TAILEM BEND - KEITH 132KV LINE 1	N/A		0.00	Transient interruptions less than one (1) minute	Unplanned outage due to Storm/Wind	
	BRINKWORTH - DAVENPORT 275 KV LINE	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	13/03/2012	7:36:00	21/03/2012	18:21:00	BRINKWORTH - DAVENPORT 275 KV LINE	N/A	-0.097%	202.75	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	TEMPLERS WEST - BRINKWORTH 275KV LINE	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	27/03/2012	7:42:00	27/03/2012	15:58:00	TEMPLERS WEST - BRINKWORTH 275KV LINE	N/A		8.27	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	BUNGAMA - BRINKWORTH 132KV LINE	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	31/05/2012	9:20:00	04/06/2012	17:03:00	BUNGAMA - BRINKWORTH 132KV LINE	N/A		103.72	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	NORTH WEST BEND - MORGAN WHYALLA PS 132 KV LINE	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	03/09/2012	12:33:00	08/09/2012	17:57:00	NORTH WEST BEND - MORGAN WHYALLA PS 132 KV LINE	N/A		125.40	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	ROBERTSTOWN - NORTH WEST BEND 132 KV LINE 2	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	08/09/2012	17:52:00	08/09/2012	17:57:00	ROBERTSTOWN - NORTH WEST BEND 132 KV LINE 2	N/A		0.08	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	ROBERTSTOWN - NORTH WEST BEND 132 KV LINE 1	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	18/09/2012	7:40:00	27/09/2012	14:43:00	ROBERTSTOWN - NORTH WEST BEND 132 KV LINE 1	N/A		223.05	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	MONASH - NORTH WEST BEND 132KV LINE 1	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	02/10/2012	12:08:00	09/10/2012	15:07:00	MONASH - NORTH WEST BEND 132KV LINE 1	N/A		170.98	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	MONASH - NORTH WEST BEND 132KV LINE 2	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	12/11/2012	12:17:00	16/11/2012	18:05:00	MONASH - NORTH WEST BEND 132KV LINE 2	N/A		101.80	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	TEMPLERS WEST - PARA 275KV LINE	Capital Project Work	275kV East Circuit Insulator Testing and Repair (AP11157)	12/04/2012	7:52:00	15/04/2012	13:42:00	TEMPLERS WEST - PARA 275KV LINE	N/A	-0.008%	77.83	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs	
	TEMPLERS WEST - BRINKWORTH 275KV LINE	Capital Project Work	275kV East Circuit Insulator Testing and Repair (AP11157)	23/04/2012	8:04:00	02/05/2012	10:07:00	TEMPLERS WEST - BRINKWORTH 275KV LINE	N/A		218.05	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs	
	TEMPLERS WEST - BRINKWORTH 275KV LINE	Capital Project Work	275kV East Circuit Insulator Testing and Repair (AP11157)	08/05/2012	8:11:00	13/05/2012	09:20:00	TEMPLERS WEST - BRINKWORTH 275KV LINE	N/A		121.15	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs	
	KINCRAIG - PENOLA WEST 132KV LINE	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	27/03/2012	7:08:00	04/04/2012	15:39:00	KINCRAIG - PENOLA WEST 132KV LINE	N/A	-0.073%	200.52	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	PENOLA WEST - SOUTH EAST 132KV LINE	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	11/04/2012	7:11:00	19/04/2012	14:59:00	PENOLA WEST - SOUTH EAST 132KV LINE	N/A		199.80	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	PENOLA WEST - SOUTH EAST 132KV LINE	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	23/04/2012	13:05:00	26/04/2012	17:07:00	PENOLA WEST - SOUTH EAST 132KV LINE	N/A		76.03	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	MT GAMBIER - SOUTH EAST 132KV LINE	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	27/04/2012	7:27:00	02/05/2012	14:57:00	MT GAMBIER - SOUTH EAST 132KV LINE	N/A		127.50	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	
	KINCRAIG - PENOLA WEST 132KV LINE	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	08/05/2012	8:31:00	09/05/2012	10:40:00	KINCRAIG - PENOLA WEST 132KV LINE	N/A		26.15	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years	

Critical Peak Start

Critical Peak End
Total Circuits
Total Hours
Total Circuit Hours
Total Crit Circuits
Total Crit Hrs
Total Crit Circuit Hrs
Total Non Peak Hrs
Total Non Peak Circuit Hrs

Connection Points
Duration

	SOUTH EAST - TAILEM BEND 275KV LINE 2	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	14/08/2012	7:33:00	15/08/2012	15:00:00	SOUTH EAST - TAILEM BEND 275KV LINE	N/A		31.45	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	SOUTH EAST - TAILEM BEND 275 kV LINE 1	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	30/11/2012	11:46:00	02/12/2012	12:23:00	SOUTH EAST - TAILEM BEND 275 kV LINE 1	N/A		48.62	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	LEEVRE - NEW OSBORNE 66KV LINE 1	Capital Project Work	Techport 66kV Undergrounding (08077)	25/06/2012	8:25:00	23/07/2012	11:17:00	LEEVRE - NEW OSBORNE 66KV LINE 1	N/A	-0.105%	674.87	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	LEEVRE - NEW OSBORNE 66KV LINE 2	Capital Project Work	Techport 66kV Undergrounding (08077)	25/06/2012	8:27:00	23/07/2012	11:17:00	LEEVRE - NEW OSBORNE 66KV LINE 2			674.83	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	TEMPLERS WEST - DORRIEN 132KV LINE	Capital Project Work	Templers 275kV Substation Stage 1 (11204) - 14 day cap applied to previous years	23/07/2012	7:45:00	25/07/2012	16:13:00	TEMPLERS WEST - DORRIEN 132KV LINE	N/A	-0.006%	56.47	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	CLARE NORTH - BRINKWORTH 132KV LINE	Capital Project Work	Clare North New 132_33kV Substation (10370) - 14 day cap applied to previous years	14/05/2012	8:12:00	20/05/2012	18:06:00	CLARE NORTH - BRINKWORTH 132KV LINE	N/A	-0.083%	153.90	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	CLARE NORTH - MINTARO 132KV LINE	Capital Project Work	Clare North New 132_33kV Substation (10370) - 14 day cap applied to previous years	14/05/2012	8:12:00	20/05/2012	18:08:00	CLARE NORTH - MINTARO 132KV LINE	N/A		153.93	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	BUNGAMA - REDHILL - BRINKOWRTH 132KV LINE	Capital Project Work	Clare North New 132_33kV Substation (10370) - 14 day cap applied to previous years	20/05/2012	18:31:00	24/05/2012	17:01:00	BUNGAMA - REDHILL - BRINKWORTH 132KV LINE	N/A		94.50	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	CLARE NORTH - MINTARO 132KV LINE	Capital Project Work	Clare North New 132_33kV Substation (10370) - 14 day cap applied to previous years	20/09/2012	8:45:00	28/09/2012	14:43:00	CLARE NORTH - MINTARO 132KV LINE	N/A		197.97	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	CLARE NORTH - BRINKWORTH 132KV LINE	Capital Project Work	Clare North New 132_33kV Substation (10370) - 14 day cap applied to previous years	20/09/2012	8:46:00	28/09/2012	14:39:00	CLARE NORTH - BRINKWORTH 132KV LINE	N/A		197.88	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	WUDINNA - YADNARIE 132KV LINE	Capital Project Work	Wudinna 2x25MVA 132_66kV Transformer Reinforcement (11102)	16/04/2012	9:07:00	21/04/2012	12:17:00	WUDINNA - YADNARIE 132KV LINE	N/A	-0.013%	123.17	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	TEMPLERS WEST - DORRIEN 132 KV LINE	Capital Project Work	Dorrien 3rd Transformer installation (11203)	02/07/2012	9:34:00	06/07/2012	14:04:00	TEMPLERS WEST - DORRIEN 132 KV LINE	N/A	-0.028%	100.50	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	TEMPLERS WEST - DORRIEN 132 KV LINE	Capital Project Work	Dorrien 3rd Transformer installation (11203)	03/09/2012	9:00:00	14/09/2012	10:50:00	TEMPLERS WEST - DORRIEN 132 KV LINE	N/A		265.83	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	DORRIEN - TEMPLERS 132KV LINE	Capital Project Work	Dorrien 3rd Transformer installation (11203)	17/09/2012	9:16:00	27/09/2012	10:55:00	DORRIEN - TEMPLERS 132KV LINE	N/A		241.65	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	MT BARKER - MOBILONG (NO.3 TO NO.2 MBR-HAHN PUMPS)	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	18/09/2012	8:38:00	18/09/2012	15:57:00	MT BARKER - MOBILONG (NO.3 TO NO.2 MBR-HAHN PUMPS)	N/A	-0.033%	7.32	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	MT BARKER - MOBILONG (MBR-HAHN NO.2 PUMP TO MOBILONG)	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	02/10/2012	13:15:00	06/10/2012	11:32:00	MT BARKER - MOBILONG (MBR-HAHN NO.2 PUMP TO MOBILONG)	N/A		94.28	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	MT BARKER - MOBILONG (MBR-HAHN NO.3)	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	06/10/2012	13:30:00	06/10/2012	15:54:00	MT BARKER - MOBILONG (MBR-HAHN NO.3)	N/A		2.40	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	MT BARKER - MOBILONG (MBR-HAHN NO.3)	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	16/10/2012	7:02:00	24/10/2012	15:40:00	MT BARKER - MOBILONG (MBR-HAHN NO.3)	N/A		200.63	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	MT BARKER SOUTH - TUNGKILLO 275 KV LINE	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	16/10/2012	8:17:00	24/10/2012	16:08:00	MT BARKER SOUTH - TUNGKILLO 275 KV LINE	N/A		199.85	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	CHERRY GARDENS - TAILEM BEND 275KV LINE	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	03/11/2012	13:19:00	05/11/2012	15:27:00	CHERRY GARDENS - TAILEM BEND 275KV LINE	N/A		50.13	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	CHERRY GARDENS - TAILEM BEND 275KV LINE	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	16/11/2012	13:11:00	18/11/2012	15:52:00	CHERRY GARDENS - TAILEM BEND 275KV LINE	N/A		50.68	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	TAILEM BEND - KEITH 132 KV LINE 1	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	16/11/2012	13:19:00	18/11/2012	15:33:00	TAILEM BEND - KEITH 132 KV LINE 1	N/A		50.23	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	KILBURN - NORTHFIELD 275 KV LINE	Capital Project Work	Kilburn 185 MVA Transformer Capacity Increase to 225 MVA (11211)	19/11/2012	9:00:00	01/12/2012	15:44:00	KILBURN - NORTHFIELD 275 KV LINE	N/A	-0.026%	294.73	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	KILBURN - TIPS A 275 KV LINE	Capital Project Work	Kilburn 185 MVA Transformer Capacity Increase to 225 MVA (11211)	19/11/2012	9:01:00	01/12/2012	15:44:00	KILBURN - TIPS A 275 KV LINE	N/A		294.72	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	MAGILL - TIPS A 275KV LINE	Capital Project Work	TIPS A 275kV Secondary Systems Replacement (11303)	24/06/2012	10:07:00	24/06/2012	12:46:00	MAGILL - TIPS A 275KV LINE	N/A	-0.013%	2.65	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	PARA - TIPSA 275 KV LINE	Capital Project Work	TIPS A 275kV Secondary Systems Replacement (11303)	18/09/2012	7:49:00	26/09/2012	19:39:00	PARA - TIPSA 275 KV LINE	N/A		203.83	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	MAGILL - TIPS A 275KV LINE	Capital Project Work	TIPS A 275kV Secondary Systems Replacement (11303)	22/09/2012	7:48:00	23/09/2012	17:40:00	MAGILL - TIPS A 275KV LINE	N/A		33.87	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	MAGILL - TIPS A 275KV LINE	Capital Project Work	TIPS A 275kV Secondary Systems Replacement (11303)	02/10/2012	7:39:00	02/10/2012	16:48:00	MAGILL - TIPS A 275KV LINE	N/A		9.15	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	MAGILL - TIPS A 275KV LINE	Capital Project Work	TIPS A 275kV Secondary Systems Replacement (11303)	24/10/2012	17:09:00	02/11/2012	17:50:00	MAGILL - TIPS A 275KV LINE	N/A		216.68	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
S2 Critical circuit availability – peak	BRINKWORTH - DAVENPORT 275 KV LINE	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	13/03/2012	7:36:00	21/03/2012	18:21:00	BRINKWORTH - DAVENPORT 275 KV LINE	N/A	-0.137%	82.35	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	TEMPLERS WEST - BRINKWORTH 275KV LINE	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	27/03/2012	7:42:00	27/03/2012	15:58:00	TEMPLERS WEST - BRINKWORTH 275KV LINE	N/A		7.97	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	TEMPLERS WEST - PARA 275KV LINE	Capital Project Work	275kV East Circuit Insulator Testing and Repair (AP11157)	12/04/2012	7:52:00	15/04/2012	13:42:00	TEMPLERS WEST - PARA 275KV LINE	N/A	-0.073%	24.00	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs (hrs not included in calculation as 336hrs have not been reached)
	TEMPLERS WEST - BRINKWORTH 275KV LINE	Capital Project Work	275kV East Circuit Insulator Testing and Repair (AP11157)	23/04/2012	8:04:00	02/05/2012	10:07:00	TEMPLERS WEST - BRINKWORTH 275KV LINE	N/A		86.05	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs (hrs not included in calculation as 336hrs have not been reached)
	TEMPLERS WEST - BRINKWORTH 275KV LINE	Capital Project Work	275kV East Circuit Insulator Testing and Repair (AP11157)	08/05/2012	8:11:00	13/05/2012	09:20:00	TEMPLERS WEST - BRINKWORTH 275KV LINE	N/A		47.82	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs (hrs excluded as this is where the project exceeds 336hrs)
	MT BARKER SOUTH - TUNGKILLO 275 KV LINE	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	16/10/2012	8:17:00	24/10/2012	16:08:00	MT BARKER SOUTH - TUNGKILLO 275 KV LINE	N/A	-0.143%	79.85	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	CHERRY GARDENS - TAILEM BEND 275KV LINE	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	03/11/2012	13:19:00	05/11/2012	15:27:00	CHERRY GARDENS - TAILEM BEND 275KV LINE	N/A		7.45	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	CHERRY GARDENS - TAILEM BEND 275KV LINE	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	16/11/2012	13:11:00	18/11/2012	15:52:00	CHERRY GARDENS - TAILEM BEND 275KV LINE	N/A		6.82	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	SOUTH EAST - TAILEM BEND 275KV LINE 2	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	14/08/2012	7:33:00	15/08/2012	15:00:00	SOUTH EAST - TAILEM BEND 275KV LINE	N/A	-0.041%	19.00	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	SOUTH EAST - TAILEM BEND 275 kV LINE 1	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	30/11/2012	11:46:00	02/12/2012	12:23:00	SOUTH EAST - TAILEM BEND 275 kV LINE 1	N/A		8.23	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	BRINKWORTH - DAVENPORT 275 KV LINE	Towers 56 to 62 blown down in severs storms	Forced Majeure	30/11/2012	16:53:00	01/01/2013	00:00:00	BRINKWORTH - DAVENPORT 275 KV LINE	N/A	-0.407%	255.12	1.6 Forced Majeure	Severe storms blew over towers 56 to 62
	TEMPLERS WEST - PARA 275KV LINE	Delayed restoration of line due to Templers West 275/132/11 KV TF 2 fault.	Forced Majeure	12/12/2012	10:39:00	13/12/2012	11:10:00	TEMPLERS WEST - PARA 275KV LINE	N/A		12.52	1.6 Forced Majeure	Catastrophic transformer failure event
S3 Critical circuit availability – non-peak (zero weighting)	BRINKWORTH - DAVENPORT 275 KV LINE	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	13/03/2012	7:36:00	21/03/2012	18:21:00	BRINKWORTH - DAVENPORT 275 KV LINE	N/A	-0.102%	120.40	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	TEMPLERS WEST - BRINKWORTH 275KV LINE	Capital Project Work	Unit Asset Replacement 2008-2013 (11350) - 14 day cap applied to previous years	27/03/2012	7:42:00	27/03/2012	15:58:00	TEMPLERS WEST - BRINKWORTH 275KV LINE	N/A		0.30	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	TEMPLERS WEST - PARA 275KV LINE	Capital Project Work	275kV East Circuit Insulator Testing and Repair (AP11157)	12/04/2012	7:52:00	15/04/2012	13:42:00	TEMPLERS WEST - PARA 275KV LINE	N/A	-0.062%	53.83	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs (hrs not included in calculation as 336hrs have not been reached)
	TEMPLERS WEST - BRINKWORTH 275KV LINE	Capital Project Work	275kV East Circuit Insulator Testing and Repair (AP11157)	23/04/2012	8:04:00	02/05/2012	10:07:00	TEMPLERS WEST - BRINKWORTH 275KV LINE	N/A		132.00	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs (hrs not included in calculation as 336hrs have not been reached)
	TEMPLERS WEST - BRINKWORTH 275KV LINE	Capital Project Work	275kV East Circuit Insulator Testing and Repair (AP11157)	08/05/2012	8:11:00	13/05/2012	09:20:00	TEMPLERS WEST - BRINKWORTH 275KV LINE	N/A		73.33	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs (hrs excluded as this is where the project exceeds 336hrs)
	MT BARKER SOUTH - TUNGKILLO 275 KV LINE	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	16/10/2012	8:17:00	24/10/2012	16:08:00	MT BARKER SOUTH - TUNGKILLO 275 KV LINE	N/A	-0.175%	120.00	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	CHERRY GARDENS - TAILEM BEND 275KV LINE	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	03/11/2012	13:19:00	05/11/2012	15:27:00	CHERRY GARDENS - TAILEM BEND 275KV LINE	N/A		42.68	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	CHERRY GARDENS - TAILEM BEND 275KV LINE	Capital Project Work	South East Backbone Telecoms Stage 2 (11528)	16/11/2012	13:11:00	18/11/2012	15:52:00	CHERRY GARDENS - TAILEM BEND 275KV LINE	N/A		43.87	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs
	SOUTH EAST - TAILEM BEND 275KV LINE 2	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	14/08/2012	7:33:00	15/08/2012	15:00:00	SOUTH EAST - TAILEM BEND 275KV LINE	N/A	-0.045%	12.45	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	SOUTH EAST - TAILEM BEND 275 kV LINE 1	Capital Project Work	South East Dual Path Telecommunications (11216) - 14 day cap applied to previous years	30/11/2012	11:46:00	02/12/2012	12:23:00	SOUTH EAST - TAILEM BEND 275 kV LINE 1	N/A		40.38	1.5 Capped Outages	Capped aggregrate outage duration to 336hrs - 14 day cap applied to previous years
	BRINKWORTH - DAVENPORT 275 KV LINE	Towers 56 to 62 blown down in severs storms	Forced Majeure	30/11/2012	16:53:00	01/01/2013	00:00:00	BRINKWORTH - DAVENPORT 275 KV LINE	N/A	-0.430%	496.00	1.6 Forced Majeure	Severe storms blew over towers 56 to 62
	TEMPLERS WEST - PARA 275KV LINE	Delayed restoration of line due to Templers West 275/132/11 KV TF 2 fault.	Forced Majeure	12/12/2012	10:39:00	13/12/2012	11:10:00	TEMPLERS WEST - PARA 275KV LINE	N/A		12.00	1.6 Forced Majeure	Catastrophic transformer failure event

LOSS OF SUPPLY EVENT FREQUENCY	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	Circuits affected	Maximum system demand		Demand shed and time	Quantitative impact	Reasons for exclusion request	Further references
Name of any loss of supply parameters	Name of the event	Detail of the event. Such as: the action of any third parties, the actions of the TNSP, assets damaged or interrupted.	A description of the cause of the event	Start date and time of event		End date and time of event		Name of circuits or plant affected	The max system demand that occurred up until the time of the event		The (MW) demand shed and the duration it was shed for.	Impact of exclusion event on LOS Parameter	Full details of the reason/s for excluding this event. Should include a reference to the defined exclusions and explain how it meets this exclusion definition (see Exclusion definition tab). Eg. Exclusion 1.2 Third party event	A TNSP may provide further details of an exclusion event. TNSP to provide reference.
S4 Loss of supply event frequency (>0.05 system minutes)	Event 2589 - Tailem Bend 33kV bus	On Wednesday 14 March 2012 at 1846, ETSA's protection failed to clear a 33kV feeder fault and as a result ElectraNet's protection tripped the 33kV bus at Tailem Bend in a back up manner. Approximately 8MW of load was lost for 2hrs resulting in a 0.3SM event. This has been classified as 3rd Party and does not count toward the PI		14/03/2012	18:46	14/03/2012	20:48	Tailem Bend	3413		8MW for 120 minutes	1	3rd Party	ElectraNet's protection operated in a backup manner to clear a SA Power Networks 33kV fault
	Event 2735 - Ardrossan West 132/33/11kV TF 3	On Monday 5 November 2012 at 2018 an overload at Dalrmyple substation on SAPN 33kV network caused Electranet's backup protection to operate disconnecting the 132/33/11kV TF 1 at Dalrymple, 132/33/11kV TF 3 at Ardrossan West and the Ardrossan West - Dalrymple 132kV line. Electranet switching issues resulted in the delayed restoration of TF 3 at Ardrossan West from 2257 to 2322, 25 minutes hence Electranet is claiming this portion of loss of supply for Ardrossan West. Approximately 4MW of load was lost for 25 minutes resulting in a 0.03SM and a reduction in AOD from 129 to 126 minutes. In regards to the Dalrymple load and line outage duration, Wattle point windfarm indicated that they did not want supply restored until the storm had passed and the network was secure and SAPN could not take supply until they rectified the issues with their 33kV network hence the lost energy and outage duration are not included in this event		05/11/2012	20:18	05/11/2012	23:21	Ardrossan West	3413		6MW for 183 minutes	1	3rd Party	ElectraNet's protection operated in a backup manner to clear a SA Power Networks 33kV fault
S5 Loss of supply event frequency (>0.2 system minutes)	Event 2589 - Tailem Bend 33kV bus	On Wednesday 14 March 2012 at 1846, ETSA's protection failed to clear a 33kV feeder fault and as a result ElectraNet's protection tripped the 33kV bus at Tailem Bend in a back up manner. Approximately 8MW of load was lost for 2hrs resulting in a 0.3SM event. This has been classified as 3rd Party and does not count toward the PI		14/03/2012	18:46	14/03/2012	20:48	Tailem Bend	3413		8MW for 120 minutes	1	3rd Party	ElectraNet's protection operated in a backup manner to clear a SA Power Networks 33kV fault

AVERAGE OUTAGE DURATION	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	Circuits affected			Quantitative impact	Capped impact (if applicable)	Reasons for exclusion request	Further references
Name of any average outage duration parameters	Name of the event	Detail of the event. Such as: the action of any third parties, the actions of the TNSP, assets damaged or interrupted.	A description of the cause of the event	Start date and time of event		End date and time of event		Name of circuits or plant affected			Impact of exclusion event on AOD Parameter	Impact of capped exclusion event on AOD parameter	Full details of the reason for excluding this event. Should include a reference to the defined exclusions and explain how it meets this exclusion definition (see Exclusion definition tab). Eg. Exclusion 1.2 Third party event	A TNSP may provide further details of an exclusion event. TNSP to provide reference.
S6 Average outage duration (minutes)	Event 2572- Mannum - Adelaide Pump #3	On Friday 6 January 2012 at 0118 the 3.3kV supply to Mannum - Adelaide #3 pump station tripped after a pipe in the pump house burst and flooded the relay room. The supply was off for approximately 17 days however Electranet were ready to restore on 15/01 at 1946 (approx 10 days). This event has been classified as 3rd Party		06/01/2012	1:18	15/01/2012	19:46	Mannum - Adelaide Pump #3			14068	1	3rd Party	SA Water pump station pipe broke filling the control room with water. Restoration time is up to the time that Enet were ready to energise but SA Water were not. SA Water were ready 23/1 1551
	Event 2589 - Tailem Bend 33kV bus	On Wednesday 14 March 2012 at 1846, ETSA's protection failed to clear a 33kV feeder fault and as a result ElectraNet's protection tripped the 33kV bus at Tailem Bend in a back up manner. Approximately 8MW of load was lost for 2hrs resulting in a 0.3SM event. This has been classified as 3rd Party and does not count toward the PI		14/03/2012	18:46	14/03/2012	20:48	Tailem Bend			122	1	3rd Party	ElectraNet's protection operated in a backup manner to clear a SA Power Networks 33kV fault
	Event 2735 - Dalrymple Transformer overload	On Monday 5 November 2012 at 2018 an overload at Dalrmyple substation on SAPN 33kV network caused Electranet's backup protection to operate disconnecting the 132/33/11kV TF 1 at Dalrymple, 132/33/11kV TF 3 at Ardrossan West and the Ardrossan West - Dalrymple 132kV line. Electranet switching issues resulted in the delayed restoration of TF 3 at Ardrossan West from 2257 to 2322, 25 minutes hence Electranet is claiming this portion of loss of supply for Ardrossan West. Approximately 4MW of load was lost for 25 minutes resulting in a 0.03SM and a reduction in AOD from 130 to 126 minutes. In regards to the Dalrymple load and line outage duration, Wattle point wind farm indicated that they did not want supply restored until the storm had passed and the network was secure and SAPN could not take supply until they rectified the issues with their 33kV network hence the lost energy and outage duration are not included in this event.		05/11/2012	20:18	05/11/2012	23:21	Dalrymple			183	1	3rd Party	ElectraNet's protection operated in a backup manner for an overload on SA Power Networks network
				05/11/2012	20:18	05/11/2012	23:22	Ardrossan West			184	1	3rd Party	ElectraNet's protection operated in a backup manner for an overload on SA Power Networks network
	Event 2745 - 132/33kV TF Trip	On Sunday 18 November 2012 at 1602 the 132/33kV TF1 at Middleback tripped. A dead crow was found at the base of the OneSteel A44304 Isolator with flash marks on the top and bottom of the insulator. Onesteel was not		18/11/2012	16:02	18/11/2012	18:49	Middleback			167	1	3rd Party	Dead crow found on SA Power Networks side of the network
	Event 2801 - Mt Gunson 132/66/33/11kV transformer	On Friday 30 November 2012 at 1952 the Mt Gunson 132/66/33/11 KV TF T601 tripped as a result of a suspected 33kV feeder fault. Approximately 0.04MW of load was lost for 18hrs resulting in a 0.03SM event. This event is		30/11/2012	19:52	01/12/2012	14:33	Mt Gunson			1121	1	3rd Party	SA Power Network 33kV feeder fault

ElectraNet - S1 - Total transmission circuit availability

Performance Targets	Graph start	Collar	Target	Cap	Graph end
al transmission circuit availat	99.00%	99.10%	99.47%	99.63%	99.80%
Weighting	-0.30%	-0.30%	0.00%	0.30%	0.30%

Performance Formulae		Formulae					Conditions					S- Calc 1	S- Calc 2
Performance	=	-0.003000							Availability	<	99.10%	-0.003000	-0.003000
	=	0.810811	x	Availability	+	-0.806514	99.10%	≤	Availability	≤	99.47%	-0.013489	-0.008159
	=	1.875000	x	Availability	+	-1.865063	99.47%	≤	Availability	≤	99.63%	-0.031194	-0.018868
	=	0.003000					99.63%	<	Availability			0.003000	0.003000

Performance Outcomes		Performance (Without Exclusions)	Performance (Exclusions)
al transmission circuit availat	=	97.806323%	98.463696%
S-Factor	=	-0.300000%	-0.300000%

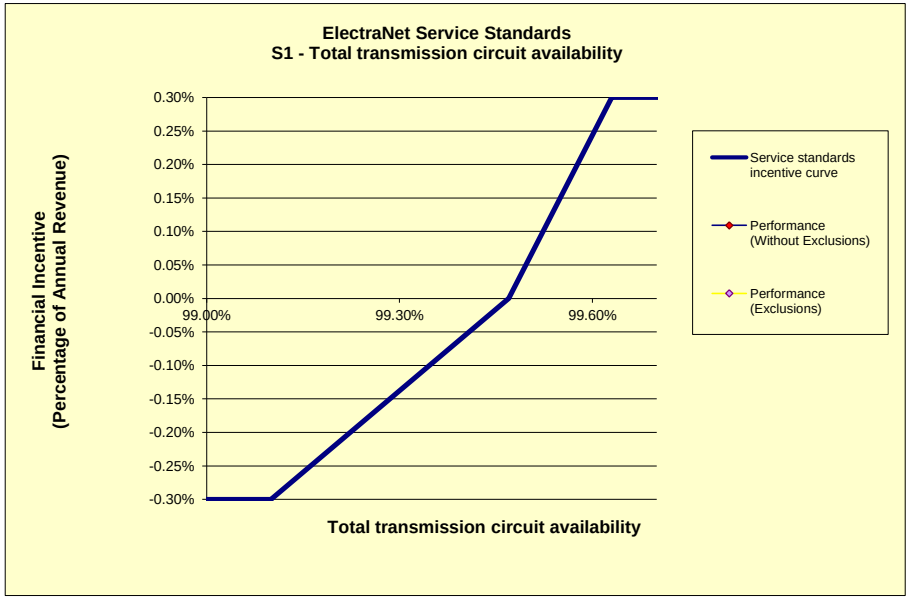
NOTE: This sheet will automatically update based on data in input sheets

Blue cells show the TNSP's performance targets and weightings

Yellow/Green cells show the TNSP's performance formulae and related formula conditions based on performance targets and weightings

Pink cells show the TNSP's performance outcomes without any events excluded from performance data

Orange cells show the TNSP's performance outcomes with events excluded from performance data



ElectraNet - S2 - Critical circuit availability – peak

Performance Targets	Graph start	Collar	Target	Cap	Graph end
ritical circuit availability – pea	99.30%	98.52%	99.24%	99.51%	99.70%
Weighting	-0.20%	-0.20%	0.00%	0.20%	0.20%

Performance Formulae		Formulae					Conditions					S- Calc 1	S- Calc 2
Performance	=	-0.002000					When:		Availability	<	98.52%	-0.002000	-0.002000
	=	0.277778	x	Availability	+	-0.275667	98.52%	≤	Availability	≤	99.24%	-0.001166	0.001060
	=	0.740741	x	Availability	+	-0.735111	99.24%	≤	Availability	≤	99.51%	-0.003110	0.002826
	=	0.002000					99.51%	<	Availability			0.002000	0.002000

Performance Outcomes		Performance (Without Exclusions)	Performance (Exclusions)
ritical circuit availability – pea	=	98.820141%	99.621571%
S-Factor	=	-0.116627%	0.200000%

NOTE: This sheet will automatically update based on data in input sheets

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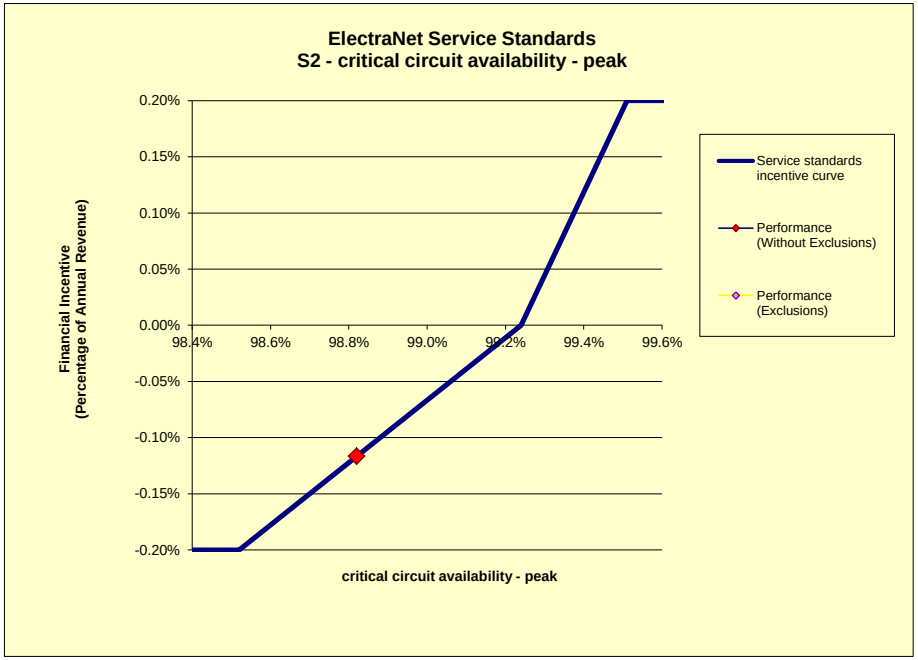
Orange cells show the TNSP's performance outcomes with events excluded from performance data



ElectraNet - S3 - Critical circuit availability – non-peak (zero weighting)

Performance Targets	Graph start	Collar	Target	Cap	Graph end
cuit availability – non-peak (zero	98.70%	98.88%	99.62%	99.95%	100.20%
Weighting	0.00%	0.00%	0.00%	0.00%	0.00%

Performance Formulae		Formulae					Conditions					S- Calc 1	S- Calc 2
Performance	=	0.000000					When:		Availability	<	98.88%	0.000000	0.000000
	=	0.000000	x	Availability	+	0.000000	98.88%	≤	Availability	≤	99.62%	0.000000	0.000000
	=	0.000000	x	Availability	+	0.000000	99.62%	≤	Availability	≤	99.95%	0.000000	0.000000
	=	0.000000					99.95%	<	Availability			0.000000	0.000000

Performance Outcomes		Performance (Without Exclusions)	Performance (Exclusions)
cuit availability – non-peak (zero	=	98.907912%	99.721376%
S-Factor	=	0.000000%	0.000000%

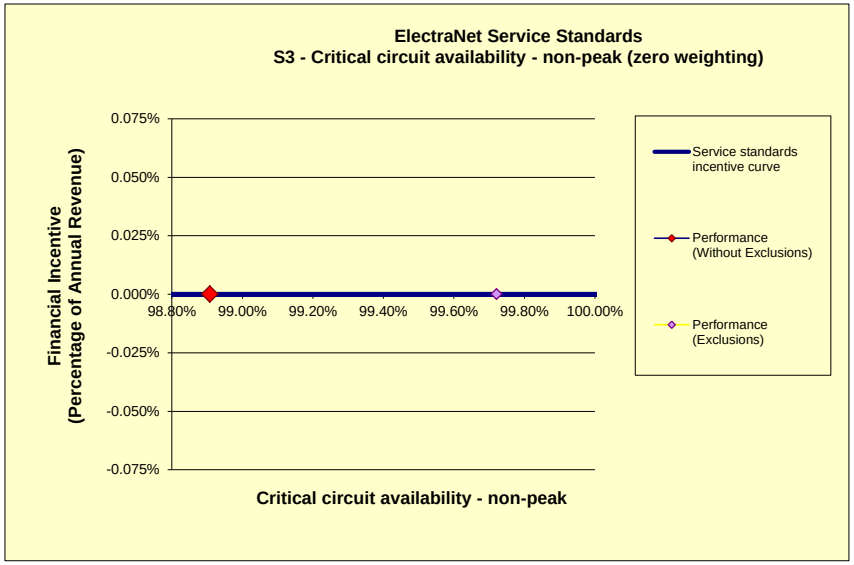
NOTE: This sheet will automatically update based on data in input sheets

Blue cells show the TNSPt's performance targets and weightings

Yellow/Green cells show the TNSP's performance formulae and related formula conditions based on performance targets and weightings

Pink cells show the TNSP's performance outcomes without any events excluded from performance data

Orange cells show the TNSP's performance outcomes with events excluded from performance data



ElectraNet - S4 - Loss of supply event frequency (>0.05 system minutes)

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Loss of supply event frequency (>0.05 system minutes)	13	11	8	6	-
Weighting	-0.10%	-0.100%	0.00%	0.100%	0.10%

Performance Formulae		Formulae					Conditions					S- Calc 1	S- Calc 2
Performance	=	-0.001000					11	<	No. of events			-0.001000	-0.001000
	=	-0.000333	x	No. of events	+	0.002667	8	≤	No. of events	≤	11	0.000000	0.000667
	=	-0.000500	x	No. of events	+	0.004000	6	≤	No. of events	≤	8	0.000000	0.001000
	=	0.001000							No. of events	<	6	0.001000	0.001000

Loss of supply event frequency (>0.05 system minutes)	=	Performance (Without Exclusions)	Performance (Exclusions)
Loss of supply event frequency (>0.05 system minutes)	=	8	6
S-Factor		0.000000%	0.100000%

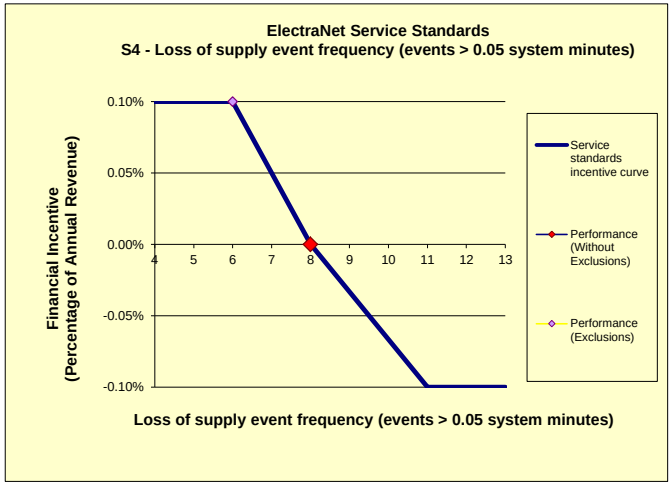
NOTE: This sheet will automatically update based on data in input sheets

Blue cells show the TNSP's performance targets and weightings

Yellow/Green cells show the TNSP's performance formulae and related formula conditions based on performance targets and weightings

Pink cells show the TNSP's performance outcomes without any events excluded from performance data

Orange cells show the TNSP's performance outcomes with events excluded from performance data



ElectraNet - S5 - Loss of supply event frequency (>0.2 system minutes)

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Loss of supply event frequency (>0.2 system minutes)	8	6	4	2	0
Weighting	-0.20%	-0.200%	0.00%	0.200%	0.20%

Performance Formulae		Formulae					Conditions					S- Calc 1	S- Calc 2
Performance	=	-0.002000					6	<	No. of events			-0.002000	-0.002000
	=	-0.001000	x	No. of events	+	0.004000	4	≤	No. of events	≤	6	-0.002000	-0.001000
	=	-0.001000	x	No. of events	+	0.004000	2	≤	No. of events	≤	4	-0.002000	-0.001000
	=	0.002000							No. of events	=	2	0.002000	0.002000

Loss of supply event frequency (>0.2 system minutes)	=	Performance (Without Exclusions)	Performance (Exclusions)
Loss of supply event frequency (>0.2 system minutes)	=	6	5
S-Factor		-0.200000%	-0.100000%

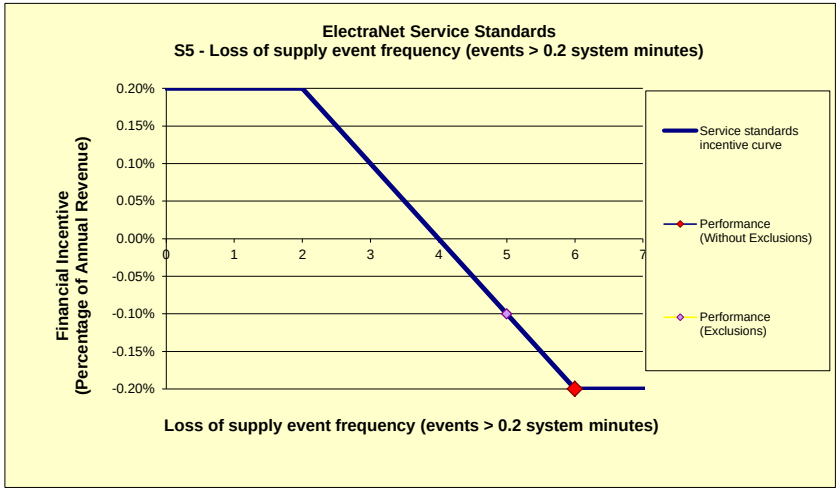
NOTE: This sheet will automatically update based on data in input sheets

Blue cells show the TNSP's performance targets and weightings

Yellow/Green cells show the TNSP's performance formulae and related formula conditions based on performance targets and weightings

Pink cells show the TNSP's performance outcomes without any events excluded from performance data

Orange cells show the TNSP's performance outcomes with events excluded from performance data



ElectraNet - S6 - Average outage duration (minutes)

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Average outage duration (minutes)	319	119	78	38	-
Weighting	-0.20%	-0.200%	0.00%	0.200%	0.20%

Performance Formulae		Formulae					Conditions					S- Calc 1	S- Calc 2
Performance	=	-0.002000					119	<	Duration			-0.002000	-0.002000
	=	-0.000049	x	Duration	+	0.003805	78	≤	Duration	≤	119	-0.017211	-0.002168
	=	-0.000050	x	Duration	+	0.003900	38	≤	Duration	≤	78	-0.017641	-0.002222
	=	0.002000							Duration	<	38	0.002000	0.002000

Average outage duration (minutes)	=	Performance (Without Exclusions)	Performance (Exclusions)
Average outage duration (minutes)	=	430.816327	122.441860
S-Factor		-0.200000%	-0.200000%

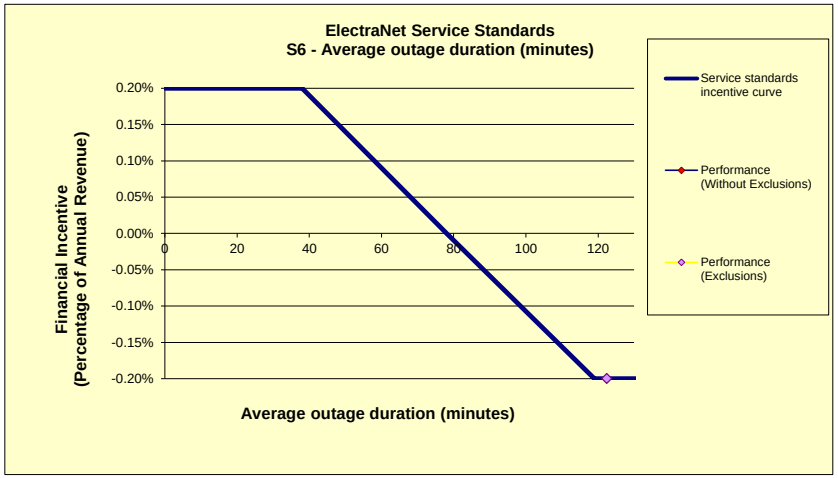
NOTE: This sheet will automatically update based on data in input sheets

Blue cells show the TNSP's performance targets and weightings

Yellow/Green cells show the TNSP's performance formulae and related formula conditions based on performance targets and weightings

Pink cells show the TNSP's performance outcomes without any events excluded from performance data

Orange cells show the TNSP's performance outcomes with events excluded from performance data



ElectraNet - Revenue Calculation

X-factor from AER final decision

Revenue cap information	2008-09 to 2009-10
Base year allowed revenue (2008-09)	$229,990,000
Base year	2008–09
X-factor	-5.93%
Commencement of regulatory period	01-Jul-08

X-factor after approval of Munno Para contingent project

Revenue cap information	2010-11 to 2012-13
Base year allowed revenue (2010-11)	$272,077,206
Base year	2010-11
X-factor	-5.95%
Commencement of regulatory period	01-Jul-08

Annual revenue adjusted for CPI	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13
CPI	162.2	166.2	171.0	176.7	179.5	-

Nominal annual revenue	2008-09	2009-10	2010-11	2011-12	2012-13
Allowed Revenue	$229,990,000	$249,636,506	$272,077,206	$297,818,430	$320,478,165

Calendar year revenue	2008	2009	2010	2011	2012	2013
Revenue	$114,995,000	$239,813,253	$260,856,856	$284,947,818	$309,148,298	

NOTE:

This sheet will automatically update based on data on input sheets.

Grey cells show calendar year revenue

Green cells are for formula

ElectraNet - Performance outcomes

Revenue calendar year	*$309,148,298*

S	*Performance parameter*	Target	Performance without exclusions			Performance with exclusions			Impact of exclusions
			Performance	S-Factor	Final Incentive	Performance	S-Factor	Final Incentive	
S1	Total transmission circuit availability	99.47%	97.806323%	-0.300000%	-$927,445	98.463696%	-0.300000%	-$927,445	0.000000%
S2	Critical circuit availability – peak	99.24%	98.820141%	-0.116627%	-$360,552	99.621571%	0.200000%	$618,297	0.316627%
S3	Critical circuit availability – non-peak (zero weighting)	99.62%	98.907912%	0.000000%	$0	99.721376%	0.000000%	$0	0.000000%
S4	Loss of supply event frequency (>0.05 system minutes)	8	8	0.000000%	$0	6	0.100000%	$309,148	0.100000%
S5	Loss of supply event frequency (>0.2 system minutes)	4	6	-0.200000%	-$618,297	5	-0.100000%	-$309,148	0.100000%
S6	Average outage duration (minutes)	78	431	-0.200000%	-$618,297	122	-0.200000%	-$618,297	0.000000%
	TOTALS			-0.816627%	-$2,524,590		-0.300000%	-$927,445	0.516627%

NOTE:
This sheet will automatically update based on data in input sheets.

Grey cell shows relevant calendar year revenue

Green cells show performance measure targets

Pink cells show performance, s-factor results and financial incentive without exclusions

Orange cells show performance, s-factor results and financial incentive with exclusions

Blue cells show the impact of exclusions on revenue

Aggregate outcome	
S-factor	-0.300000%
Financial Incentive	-$927,445
Financial year affected by financial incentive	2013/14

ElectraNet - Defined exclusions

No.	Parameter 1 - Transmission circuit availability		
	Defined exclusions	**Further description of exclusion**	**Reference**
1.1	Unregulated transmission assets		Appendix C Revenue cap decision
1.2	3rd party outages	Any outages shown to be caused by a 'third party system'—eg. intertrip signals, generator outage, customer installation, customer request or AEMO direction.	Appendix C Revenue cap decision
1.3	Outages to control voltages	Outages to control voltages within required limits, both as directed by AEMO and where AEMO does not have direct oversight of the network (in both cases only where the element is available for immediate energisation if required).	Appendix C Revenue cap decision
1.4	Circuit opening for operational purposes	The opening of only one end of a transmission line where the transmission line remains energised and available to carry power.	Appendix C Revenue cap decision
1.5	Capped outages	The number of interrupted hours related to a single transmission line redevelopment project or substation redevelopment project is capped at 336 hours (14 days).	Appendix C Revenue cap decision
1.6	Force majeure		Appendix D First proposed STPIS

No.	Parameter 2 - Critical circuit availability – peak		
	Defined exclusions	**Further description of exclusion**	**Reference**
2.1	Unregulated transmission assets		Appendix C Revenue cap decision
2.2	3rd party outages	Any outages shown to be caused by a 'third party system'—eg. intertrip signals, generator outage, customer installation, customer request or AEMO direction.	Appendix C Revenue cap decision
2.3	Outages to control voltages	Outages to control voltages within required limits, both as directed by AEMO and where AEMO does not have direct oversight of the network (in both cases only where the element is available for immediate energisation if required).	Appendix C Revenue cap decision
2.4	Circuit opening for operational purposes	The opening of only one end of a transmission line where the transmission line remains energised and available to carry power.	Appendix C Revenue cap decision
2.5	Capped outages	the number of interrupted hours related to a single transmission line redevelopment project or substation redevelopment project is capped at 336 hours (14 days).	Appendix C Revenue cap decision
2.6	Force majeure		Appendix D First proposed STPIS

	Parameter 3 - Loss of supply event frequency (>0.2 system minutes)		
	Defined exclusions	**Further description of exclusion**	**Reference**
3.1	Successful reclose events (<1 min duration)		Appendix C Revenue cap decision
3.2	Unregulated transmission assets		Appendix C Revenue cap decision
3.3	3rd party outages	Any outages shown to be caused by a 'third party system'—e.g. intertrip signals, generator outage, customer installation, customer request or AEMO direction.	Appendix C Revenue cap decision
3.4	Planned outages		Appendix C Revenue cap decision
3.5	Interconnector outages	For supply outages resulting from an interconnector outage, the period of the interruption is capped at half an hour. This is done to include the impact of automatic under-frequency load shedding, but to exclude the impact of any market failure to respond and restore load within required timeframes (ie. excluding factors outside of ElectraNet's control).	Appendix C Revenue cap decision
3.6	Pumping station supply interruptions	Pumping station supply interruptions were excluded from historical data due to the highly irregular nature of these loads, which makes accurate estimation of load profiles unreliable.	Appendix C Revenue cap decision
3.7	Force majeure		Appendix D First proposed STPIS
3.8	ElectraNet protection operates incorrectly ahead of third party protection	Where ElectraNet protection operates incorrectly ahead of third party protection, the portion of customer load that would have been lost had ElectraNet protection not operated is removed from the total lost load.	Appendix C Revenue cap decision
3.9	ElectraNet protection operates correctly due to a fault on a third party system	Where ElectraNet protection operates correctly due to a fault on a third party system no lost load is recorded.	Appendix C Revenue cap decision

	Parameter 4 - Loss of supply event frequency (>1.0 system minutes)		
	Defined exclusions	**Further description of exclusion**	**Reference**
4.1	Successful reclose events (<1 min duration)		Appendix C Revenue cap decision
4.2	Unregulated transmission assets		Appendix C Revenue cap decision
4.3	3rd party outages	Any outages shown to be caused by a 'third party system'—e.g. intertrip signals, generator outage, customer installation, customer request or AEMO direction.	Appendix C Revenue cap decision
4.4	Planned outages		Appendix C Revenue cap decision
4.5	Interconnector outages	For supply outages resulting from an interconnector outage, the period of the interruption is capped at half an hour. This is done to include the impact of automatic under-frequency load shedding, but to exclude the impact of any market failure to respond and restore load within required timeframes (ie. excluding factors outside of ElectraNet's control).	Appendix C Revenue cap decision
4.6	Pumping station supply interruptions	Pumping station supply interruptions were excluded from historical data due to the highly irregular nature of these loads, which makes accurate estimation of load profiles unreliable.	Appendix C Revenue cap decision
4.7	Force majeure		Appendix D First proposed STPIS
4.8	ElectraNet protection operates incorrectly ahead of third party protection	Where ElectraNet protection operates incorrectly ahead of third party protection, the portion of customer load that would have been lost had ElectraNet protection not operated is removed from the total lost load.	Appendix C Revenue cap decision

4.9	ElectraNet protection operates correctly due to a fault on a third party system	Where ElectraNet protection operates correctly due to a fault on a third party system no lost load is recorded.	Appendix C Revenue cap decision

	Parameter 5 - Average outage duration		
	Defined exclusions	**Further description of exclusion**	**Reference**
5.1	Successful reclose events (<1 min duration)		Appendix C Revenue cap decision
5.2	Unregulated transmission assets		Appendix C Revenue cap decision
5.3	3rd party outages	any outages shown to be caused by a 'third party system'—eg intertrip signals, generator outage, customer installation, customer request or AEMO direction	Appendix C Revenue cap decision
5.4	Planned outages		Appendix C Revenue cap decision
5.5	Interconnector outages supply interruptions	For supply outages resulting from an interconnector outage, the duration is capped at half an hour. This is done to include the impact of automatic under-frequency load shedding, but to exclude the impact of any market failure to respond and restore load within required timeframes (i.e. excluding factors outside of ElectraNet's control).	Appendix C Revenue cap decision
5.6	Force majeure		Appendix D First proposed STPIS
5.7	ElectraNet protection operates correctly due to a fault on a third party system	Where ElectraNet protection operates correctly due to a fault on a third party system no lost load is recorded.	Appendix C Revenue cap decision

No.	**Critical circuit availability – non-peak (zero weighting)**		
	Defined exclusions	**Further description of exclusion**	**Reference**
6.1	Unregulated transmission assets		Appendix C Revenue cap decision
6.2	3rd party outages	Any outages shown to be caused by a 'third party system'—eg intertrip signals, generator outage, customer installation, customer request or AEMO direction.	Appendix C Revenue cap decision
6.3	Outages to control voltages	Outages to control voltages within required limits, both as directed by AEMO and where AEMO does not have direct oversight of the network (in both cases only where the element is available for immediate energisation if required).	Appendix C Revenue cap decision
6.4	Circuit opening for operational purposes	The opening of only one end of a transmission line where the transmission line remains energised and available to carry power.	Appendix C Revenue cap decision
6.5	Capped outages	The number of interrupted hours related to a single transmission line redevelopment project or substation redevelopment project is capped at 336 hours (14 days).	Appendix C Revenue cap decision
6.6	Force majeure		Appendix D First proposed STPIS (January 2007)

Service Target Perfomance Incentive Scheme - Definition of Forece Majeure

Definition of Force Majeure	Reference
For the purpose of applying the *service target performance incentive scheme* , force majeure events means any event, act or circumstance or combination of events, acts and circumstances which (despite the observance of good electricity industry practice) is beyond the reasonable control of the part affected by any such event, which may include, without limitation, the following: - fire, lightning, explosion, flood, earthquake, storm, cyclone, action of the elements, riots, civil commotion, malicious damage, natural disaster, sabotage, act of a public enemy, act of God, war (declared or undeclared), blockage, revolution, radioactive contamination, toxic or dangerous chemical contamination or fore of nature. - action or inaction by a court, government agency (including denial, refusal or failure to grant any authorisation, despite timely best endeavour to obtain same) - strikes, lockouts, industrial and/or labour disputes and/or difficulties, work bans, blockades, picketing - acts or omissions (other than failure to pay money) of a party other than the TNSP, which party either is connected to or uses the high voltage grid or is directly connected to or uses a system for the supply of electricity that in turn is connected to the high voltage grid - where those acts or omissions affect the ability of the TNSP to perform its obligation under the service standard by virtue of that direct or indirect connection to or use of the high voltage grid In determining what force majeure events should be excluded the AER will consider the following: - was the event unforeseeable and its impact extraordinary, uncontrollable and not manageable? - does the event occur frequently? If so, how did the impact of the particular event differ? - could the TNSP, in practice, have prevented the impact (not necessarily the event itself)? - could the TNSP have effectively reduced the impact of the event by adopting better practices?	Service Target Performance Incentive Scheme (January 2007) p. 31

ATTACHMENT 2 – AER PROFORMA FOR CALCULATION OF S FACTOR AND INCENTIVE MARKET IMPACT PARAMAETER

EXCEL TEMPLATE EXPLANATION

This reporting template is for each TNSP to report its service performance against the market impact parameter of the service target performance incentive scheme.

It only applies to the TNSP for the calendar year set out in the Input Performance worksheet of the TNSPs current regulatory period. The TNSP will need to submit raw data in a clear layout for validation (either in database or csv).

DATABASE TEMPLATE EXPLANATION

Below is an example of a database table format suitable for verification by the AER.

The table lists ALL binding constraints that are used to manage TNSP's XYZ equipment on a 5 minute resolution. The TNSP is able to enter the exclusion clause number in the 'EXCLUSION CLAUSE' field and provide comment . If the outage should be included in the benchmark, the TNSP simply leave the exclusion field blank.

NOTE: All dispatch intervals with a marginal value greater than $10/MWh, classified as an OUTAGE and has no exlusion clause entered, will be used to calculate the TNSP's Market Impact Parameter.

DATABASE NAME: *TNSP XYZ*
TABLE NAME: *TNSP XYZ Service Performance data*

DATA:

SOURCE	SETTLEMENTDATE	CONSTRAINTID	EQUIPMENTNAME	EFFECTIVEDATE	VERSIONNO	MARGINAL VALUE	CLASSIFICATION	EXCLUSION CLAUSE	COMMENTS
TNSP XYZ	1/01/2007 12:30 PM	X>X-22_LK 1	LINE 22	1/01/2007	1	12	OUTAGE		
TNSP XYZ	1/01/2008 12:35 PM	X>X-NIL_RU		1/01/2006	2	120	SYSTEM NORMAL		
TNSP XYZ	1/01/2008 12:35 PM	X>>X-54	LINE 54	1/01/2004	1	200	OUTAGE	6	Line out of service to provide greater network capacity
TNSP XYZ	1/01/2008 12:55 PM	X>X_NSA_01	LINE 33	1/02/2004	1	5000	OUTAGE	7	Network Support constraint
TNSP XYZ	1/01/2007 12:30 PM	X>Y-22_LK 1	LINE 22	1/01/2007	1	12	OUTAGE		TNSP YYY is also responsible for this outage

ElectraNet - SERVICE STANDARDS PERFORMANCE SUMMARY

SERVICE TARGET PERFORMANCE INCENTIVE SCHEME DATA

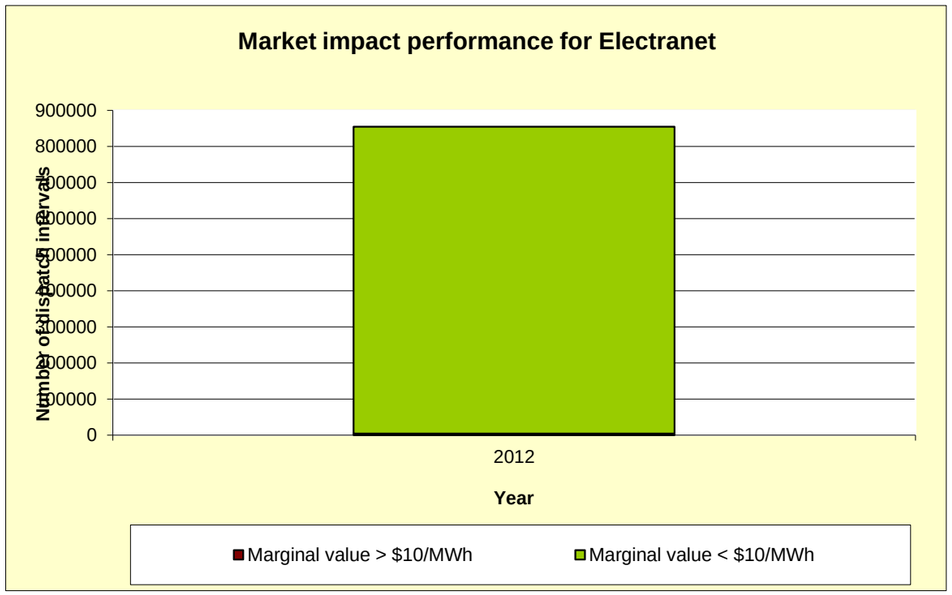
Year	Month	Market impact parameter count (DI) (without exclusions)	Market impact parameter count (DI) (with exclusions)	Non-market impact parameter count (DI)	Market impact paramters (Hrs)	Non-market impact paramters (Hrs)
2012	January	773	0	60762	0.00	5063.50
	February	338	0	54878	0.00	4573.17
	March	1156	29	64929	2.42	5410.75
	April	1738	49	64190	4.08	5349.17
	May	1184	11	64474	0.92	5372.83
	June	1603	279	59979	23.25	4998.25
	July	918	69	55740	5.75	4645.00
	August	2134	583	113706	48.58	9475.50
	September	2634	1072	57482	89.33	4790.17
	October	1804	740	64446	61.67	5370.50
	November	1997	626	66115	52.17	5509.58
	December	1931	1029	123168	85.75	10264.00
Total		**18210**	**4487**	**849869**	**373.92**	**70822.42**

NOTES:
Yellow cells - Enter market impact parameter performance data

Note: Performance is measured on a calendar year basis.

Summary

Date	Marginal value > $10/MWh	Marginal value < $10/MWh	Market impact paramters (Hrs)	Non-market impact paramters (Hrs)
2012	4487	849869	373.92	70822.42



Revenue Determination Inputs	
TNSP:	ElectraNet
STPIS version:	January, 2007
Regulatory Determination	2008/09 - 2012/13
Base Year Allowed Revenue	$ 229,990,000
Base Year	2008–09
X-factor	-5.93%
Commencement of regulatory year	01-Jul-08

Other inputs	
Assessment Period	2012
Financial year to affect revenue:	2012/13
Date prepared:	
Revision date:	
Target	1862

Other Inputs						
Annual reven	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13
CPI	162.2	166.2	171.0	176.7	179.5	

ElectraNet - Market Impact parameter s-factor

Performance Targets	Graph start	Target	Cap	Graph end
market impact parameter	3000	1862	0	0
Parameter weighting	0.00%	0.00%	2.00%	2.00%

Performance Formulae			Formulae				Conditions				S- Calc 1	S- Calc 2
Performance	=	0.000000				When:	1862	<	No of dipatch intervals		0.000000	0.000000
	=	-0.000011	x	no of dispatch intervals	+	0.020000	1862	≤	No of dipatch intervals	< 0	-0.175596	-0.028195
	=	0.020000							No of dipatch intervals	= 0	0.020000	0.020000

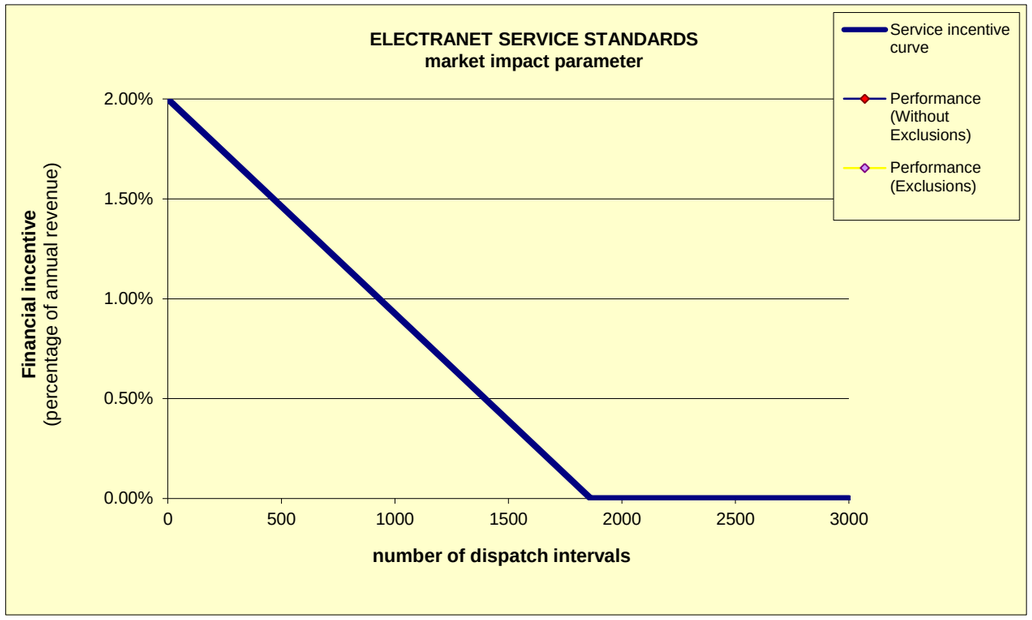
Performance Outcomes		Performance (Without Exclusions)	Performance (Exclusions)
number of dispatch intervals	=	18210	4487
S-Factor	=	0.0000%	0.0000%

NOTES:
Blue cells show Transgrid's performance target and maximum financial incentive.

Yellow/Green cells show Transgrid's performance formula and related formula conditions based on performance targets and the maximum financial incentive

Pink cells show TNSP performance outcomes without any events excluded from performance data

Orange cells show TNSP's performance outcomes with events excluded from performance data



ElectraNet - Revenue calculation

X-factor from AER final decision

Revenue cap information	2008-09 to 2009-10
Base revenue	$229,990,000
Base year	2008–09
X-factor	-5.93%
Commencement of regulatory period	01-Jul-08

X-factor after approval of Munno Para contingent project

Revenue cap information	2010-11 to 2012-13
Base year allowed revenue (2010-11)	$272,077,206
Base year	2010-11
X-factor	-5.95%
Commencement of regulatory period	01-Jul-08

Annual revenue adjusted for CPI	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13
CPI	162.2	166.2	171.0	176.7	179.5	-

	2008-09	2009-10	2010-11	2011-12	2012-13
AR	$229,990,000	$249,636,506	$272,077,206	$297,818,430	$320,478,165

Calendar year revenue	2008	2009	2010	2011	2012	2013
Revenue	$114,995,000	$239,813,253	$260,856,856	$284,947,818	$309,148,298	

NOTES:

Grey cells show calendar year revenue

Green cells are for formula

.

ElectraNet - Market impact parameter performance outcomes

Revenue calendar year	*$309,148,298*

Performance parameter	Target (six months)	Performance without exclusions			Performance with exclusions			Impact of exclusions
		Performance	S-Factor	Final Incentive	Performance	S-Factor	Final Incentive	
Market impact parameter	1,862	18210	0.000000%	$0	4487	0.000000%	$0	0.000000%

NOTE:
This sheet will automatically update based on data in input sheets.

Grey cell shows relevant calendar year revenue

Green cells show performance targets

Pink cells show performance, s-factor results and financial incentive without exclusions

Orange cells show performance, s-factor results and financial incentive with exclusions

Blue cells show the impact of exclusions on revenue

Aggregate outcome	
S-factor	0.000000%
Bonus for market impact parameter	$0
Financial year to affect revenue	2012/13

Exclusions for Service Target Perfomance Incentive Scheme

Exclusion Number	Defined Exclusion	Further description	Reference
1	Force majeure	As defined in the Force Majeure definition worksheet and Appendix E of the Service Target Performance Incentive Scheme (March 2008) p. 51	Service Target Performance Incentive Scheme (March 2008) p. 51
2	Credible contingency events	Any network constraints that are invoked to manage the reclassification of non-credible contingency events to credible contingency events as per clause 4.2.3 (f) of the NER	Service Target Performance Incentive Scheme (March 2008) p. 46
3	3rd party outage	Any outages shown to be caused by a fault or other event on a '3rd party system' e.g. intertrip signal, generator outage, customer installation	Service Target Performance Incentive Scheme (March 2008) p. 46
4	Non-prescribed transmission services	Any outages on assets that are not providing prescribed transmission services	Service Target Performance Incentive Scheme (March 2008) p. 46
5	Safety reasons	Any outages for personal safety that are not related to the activity of owning or operating a transmission network	Service Target Performance Incentive Scheme (March 2008) p. 46
6	Operational sercurity	Any outages that are only for the purpose of assisting with operational sercurity, for example where a lower voltage parallel circuit is taken out of service to assist with transfers across an interconnector	Service Target Performance Incentive Scheme (March 2008) p. 46
7	Network support services	Any network constraints related to network support services in accordance with clause 5.6.2 of the NER	Service Target Performance Incentive Scheme (March 2008) p. 46
8 (a) **8 (b)** **8 (c)** **8 (d)** **8 (e)** **8 (f)**	Others	Dispatch intervals (for a network outage constraint) that are affected by: (a) a manifestly incorrect input to the dispatch algorithm as determined by AEMO under clause 3.9.2B of the NER) (b) a constraint applied by AEMO that does not accurately reflect or is otherwise inconsistent with that network capability that the TNSP advised AEMO (c) a scheduling error (d) mandatory restrictions under clause 3.12A if the NER (e) AEMO declaring the spot market suspended under clause 3.14.3 of the NER, or (f) an administered price cap under clause 3.14.2 of the NER	Service Target Performance Incentive Scheme (March 2008) p. 46

Service Target Perfomance Incentive Scheme - Definition of Forece Majeure

Definition of Force Majeure	Reference
For the purpose of applying the *service target performance incentive scheme* , force majeure events means any event, act or circumstance or combination of events, acts and circumstances which (despite the observance of good electricity industry practice) is beyond the reasonable control of the part affected by any such event, which may include, without limitation, the following: - fire, lightning, explosion, flood, earthquake, storm, cyclone, action of the elements, riots, civil commotion, malicious damage, natural disaster, sabotage, act of a public enemy, act of God, war (declared or undeclared), blockage, revolution, radioactive contamination, toxic or dangerous chemical contamination or fore of nature. - action or inaction by a court, government agency (including denial, refusal or failure to grant any authorisation, despite timely best endeavour to obtain same) - strikes, lockouts, industrial and/or labour disputes and/or difficulties, work bans, blockades, picketing - acts or omissions (other than failure to pay money) of a party other than the TNSP, which party either is connected to or uses the high voltage grid or is directly connected to or uses a system for the supply of electricity that in turn is connected to the high voltage grid - where those acts or omissions affect the ability of the TNSP to perform its obligation under the service standard by virtue of that direct or indirect connection to or use of the high voltage grid In determining what force majeure events should be excluded the AER will consider the following: - was the event unforeseeable and its impact extraordinary, uncontrollable and not manageable? - does the event occur frequently? If so, how did the impact of the particular event differ? - could the TNSP, in practice, have prevented the impact (not necessarily the event itself)? - could the TNSP have effectively reduced the impact of the event by adopting better practices?	Service Target Performance Incentive Scheme (March 2008) p. 51

Month	Marginal Value > $0 (DI)		Marginal Value > $10 (DI)	Inclusion Count (DI)		Exclusion Count (DI)	Market Impact Parameters (Hrs)	Inclusion Count (Hrs)	Excluded Count (Hrs)	OUTAGE EXCLUSIONS	MITC CHECKED DIs
2012-01	60762	59989	773	0		773	2.68	0	2.68	160	773
2012-02	54878	54540	338	0		338	1.17	0	1.17	100	338
2012-03	64929	63773	1156	29		1127	4.01	0.1	3.91	381	1156
2012-04	64190	62452	1738	49		1689	6.03	0.17	5.86	1000	1738
2012-05	64474	63290	1184	11		1173	4.11	0.04	4.07	739	1184
2012-06	59979	58376	1603	279		1324	5.57	0.97	4.6	330	1603
2012-07	55740	54822	918	69		849	3.19	0.24	2.95	92	918
2012-08	113706	111572	2134	583		1551	7.41	2.02	5.39	748	2134
2012-09	57482	54848	2634	1072		1562	9.15	3.72	5.42	102	2634
2012-10	64446	62642	1804	740		958	6.26	2.57	3.33	226	1804
2012-11	66115	64118	1997	626		1371	6.93	2.17	4.76	828	1997
2012-12	123168	121237	1931	1029		902	6.7	3.57	3.13	673	1931
Total	**849869**		**18210**	**4487**		**13617**	**63.21**	**15.57**	**47.27**	**5379**	**18210**

Constraint ID	Constraint Description	Marginal Value > $0 (DI)	Marginal Vlaue > $10	Inclusion Count (DI)	Exclusion Count (DI)	Market Impact Parameters	Inclusion Count (Hrs)	Excluded Count (Hrs)	OUTAGE EXCLUSIONS	MITC CHECKED DIs
#R006175_010_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006175_011_RAMP_F	Hard Ramping constraint for constraint	8	1	0	1	0	0	0	0	1
#R006175_011_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006209_002_RAMP_F	Hard Ramping constraint for constraint	6	3	0	3	0.01	0	0.01	0	3
#R006209_002_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006241_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006241_007_RAMP_F	Hard Ramping constraint for constraint	9	8	0	8	0.03	0	0.03	0	8
#R006241_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006241_013_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006255_005_RAMP_F	Hard Ramping constraint for constraint VS_250,	2	0	0	0	0	0	0	0	0
#R006255_005_RAMP_V	Soft Ramping constraint for constraint VS_250,	1	0	0	0	0	0	0	0	0
#R006257_016_RAMP_F	Hard Ramping constraint for constraint VS_250,	2	0	0	0	0	0	0	0	0
#R006257_016_RAMP_V	Soft Ramping constraint for constraint VS_250,	3	0	0	0	0	0	0	0	0
#R006259_002_RAMP_F	Hard Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006259_002_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006267_006_RAMP_F	Hard Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006267_006_RAMP_V	Soft Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006267_007_RAMP_F	Hard Ramping constraint for constraint	6	4	0	4	0.01	0	0.01	0	4
#R006267_007_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006268_006_RAMP_F	Hard Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006271_006_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006271_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006289_007_RAMP_F	Hard Ramping constraint for constraint	8	3	0	3	0.01	0	0.01	0	3
#R006289_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006289_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006289_013_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006292_004_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006292_004_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006297_002_RAMP_V	Soft Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006298_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006298_011_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006298_011_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006298_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006301_002_RAMP_F	Hard Ramping constraint for constraint	7	3	0	3	0.01	0	0.01	0	3
#R006301_002_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006334_004_RAMP_F	Hard Ramping constraint for constraint	3	2	0	2	0.01	0	0.01	0	2
#R006334_004_RAMP_V	Soft Ramping constraint for constraint	7	2	0	2	0.01	0	0.01	0	2
#R006334_005_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006335_005_RAMP_V	Soft Ramping constraint for constraint	4	1	0	1	0	0	0	0	1

#R006335_006_RAMP_F	Hard Ramping constraint for constraint	8	4	0	4	0.01	0	0.01	0	4
#R006335_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006350_004_RAMP_F	Hard Ramping constraint for constraint	12	12	0	12	0.04	0	0.04	0	12
#R006350_004_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006350_005_RAMP_V	Soft Ramping constraint for constraint	3	3	0	3	0.01	0	0.01	0	3
#R006350_006_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006350_011_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006363_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006363_016_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006363_020_RAMP_F	Hard Ramping constraint for constraint	11	6	0	6	0.02	0	0.02	0	6
#R006363_020_RAMP_V	Soft Ramping constraint for constraint VN::DDMS,	1	0	0	0	0	0	0	0	0
#R006382_012_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006382_013_RAMP_F	Hard Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006384_013_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006384_014_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006386_018_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006386_018_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006386_020_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006386_020_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006391_020_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006391_020_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006395_005_RAMP_V	Soft Ramping constraint for constraint VS_250,	3	0	0	0	0	0	0	0	0
#R006400_007_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006400_008_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006400_013_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006400_014_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006400_015_RAMP_F	Hard Ramping constraint for constraint VS_250,	4	0	0	0	0	0	0	0	0
#R006400_015_RAMP_V	Soft Ramping constraint for constraint VS_250,	4	0	0	0	0	0	0	0	0
#R006413_004_RAMP_F	Hard Ramping constraint for constraint	5	5	0	5	0.02	0	0.02	0	5
#R006413_004_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006413_005_RAMP_F	Hard Ramping constraint for constraint	5	5	0	5	0.02	0	0.02	0	5
#R006413_005_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006413_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006441_004_RAMP_F	Hard Ramping constraint for constraint	7	7	0	7	0.02	0	0.02	0	7
#R006441_004_RAMP_V	Soft Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R006441_005_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006441_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006441_011_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006447_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006447_007_RAMP_F	Hard Ramping constraint for constraint	7	5	0	5	0.02	0	0.02	0	5
#R006447_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006447_008_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006447_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006447_019_RAMP_F	Hard Ramping constraint for constraint VS_250,	1	0	0	0	0	0	0	0	0
#R006447_019_RAMP_V	Soft Ramping constraint for constraint VS_250,	2	0	0	0	0	0	0	0	0
#R006456_017_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006460_007_RAMP_F	Hard Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006460_007_RAMP_V	Soft Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006467_011_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006467_011_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006467_016_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006467_017_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006467_017_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006467_020_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006467_020_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006470_010_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006470_010_RAMP_V	Soft Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006470_011_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0

#R006470_011_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006470_012_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006470_016_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006470_016_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006470_017_RAMP_F	Hard Ramping constraint for constraint	4	3	0	3	0.01	0	0.01	0	3
#R006470_017_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006470_018_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006471_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006471_007_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006471_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006471_012_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006471_013_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006471_014_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006474_001_RAMP_F	Hard Ramping constraint for constraint S_LB3_0,	1	1	0	1	0	0	0	0	1
#R006474_001_RAMP_V	Soft Ramping constraint for constraint S_LB3_0,	8	8	0	8	0.03	0	0.03	0	8
#R006481_010_RAMP_F	Hard Ramping constraint for constraint	5	4	0	4	0.01	0	0.01	0	4
#R006481_010_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006481_011_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006481_012_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006481_016_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006481_016_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006481_017_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006484_001_RAMP_F	Hard Ramping constraint for constraint S_LB3_0,	3	3	0	3	0.01	0	0.01	0	3
#R006484_001_RAMP_V	Soft Ramping constraint for constraint S_LB3_0,	8	8	0	8	0.03	0	0.03	0	8
#R006489_014_RAMP_F	Hard Ramping constraint for constraint	4	2	0	2	0.01	0	0.01	0	2
#R006489_014_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006489_015_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006489_016_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006495_013_RAMP_F	Hard Ramping constraint for constraint	7	7	0	7	0.02	0	0.02	0	7
#R006495_014_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006495_014_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006495_014_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006495_014_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006504_004_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006504_004_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006516_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006516_008_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006516_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006516_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006516_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006516_011_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006516_011_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006516_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006516_014_RAMP_F	Hard Ramping constraint for constraint	5	5	0	5	0.02	0	0.02	0	5
#R006516_014_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006516_016_RAMP_F	Hard Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R006522_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006522_008_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006522_008_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006522_013_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006522_014_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006523_011_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006523_012_RAMP_F	Hard Ramping constraint for constraint	10	3	0	3	0.01	0	0.01	0	3
#R006523_012_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006523_018_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006523_018_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006526_008_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006526_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006526_013_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006526_014_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0

#R006527_011_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006527_012_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006527_012_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006527_018_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006533_007_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006533_007_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006533_008_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006533_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006533_013_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006533_014_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006534_011_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006534_012_RAMP_F	Hard Ramping constraint for constraint	2	1	0	1	0	0	0	0	1
#R006534_012_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006534_017_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006534_018_RAMP_F	Hard Ramping constraint for constraint	5	4	0	4	0.01	0	0.01	0	4
#R006550_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006550_007_RAMP_F	Hard Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R006550_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006550_008_RAMP_F	Hard Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R006551_001_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006551_001_RAMP_V	Soft Ramping constraint for constraint SVML_000,	4	0	0	0	0	0	0	0	0
#R006553_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006553_011_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006553_011_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006553_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006553_017_RAMP_F	Hard Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R006562_007_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006562_007_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006562_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006562_019_RAMP_V	Soft Ramping constraint for constraint VS_250,	3	0	0	0	0	0	0	0	0
#R006563_004_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006563_005_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006563_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006563_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006563_010_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006563_013_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006567_008_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006567_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006567_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006567_013_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006567_014_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006567_014_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006567_015_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006574_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006574_007_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006574_007_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006574_008_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006574_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006575_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006575_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006575_009_RAMP_F	Hard Ramping constraint for constraint	2	1	0	1	0	0	0	0	1
#R006575_011_RAMP_F	Hard Ramping constraint for constraint	5	3	0	3	0.01	0	0.01	0	3
#R006575_012_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006575_012_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006579_010_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006579_011_RAMP_F	Hard Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R006579_011_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006579_015_RAMP_F	Hard Ramping constraint for constraint	5	4	0	4	0.01	0	0.01	0	4

#R006579_015_RAMP_V	Soft Ramping constraint for constraint V::V_EPTT,	1	0	0	0	0	0	0	0	0
#R006580_015_RAMP_F	Hard Ramping constraint for constraint	4	3	0	3	0.01	0	0.01	0	3
#R006580_020_RAMP_F	Hard Ramping constraint for constraint	9	5	0	5	0.02	0	0.02	0	5
#R006580_020_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006585_020_RAMP_F	Hard Ramping constraint for constraint	7	5	0	5	0.02	0	0.02	0	5
#R006585_020_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006586_015_RAMP_F	Hard Ramping constraint for constraint	3	1	0	1	0	0	0	0	1
#R006586_015_RAMP_V	Soft Ramping constraint for constraint V::V_EPTT,	2	0	0	0	0	0	0	0	0
#R006593_009_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006598_009_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006598_009_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006598_010_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006598_015_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006626_008_RAMP_F	Hard Ramping constraint for constraint	9	6	0	6	0.02	0	0.02	0	6
#R006626_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006640_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006652_009_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006652_010_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006652_010_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006652_011_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006665_004_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006665_006_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006665_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006665_010_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006665_012_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006665_013_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006665_014_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006669_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006669_013_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006675_007_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006675_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006679_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006679_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006679_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006679_013_RAMP_F	Hard Ramping constraint for constraint	2	1	0	1	0	0	0	0	1
#R006679_014_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006690_003_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006690_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006690_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006690_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006700_006_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006700_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006700_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006700_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006700_013_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006710_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006710_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006710_013_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006712_021_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006726_004_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006726_004_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006729_002_RAMP_V	Soft Ramping constraint for constraint SV_250,	1	0	0	0	0	0	0	0	0
#R006750_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006750_011_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006750_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006755_001_RAMP_F	Hard Ramping constraint for constraint S_LB3_0,	1	1	0	1	0	0	0	0	1
#R006755_001_RAMP_V	Soft Ramping constraint for constraint S_LB3_0,	4	4	0	4	0.01	0	0.01	0	4
#R006759_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0

#R006759_008_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006762_001_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006762_001_RAMP_V	Soft Ramping constraint for constraint SVML_000,	5	0	0	0	0	0	0	0	0
#R006765_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006769_022_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006769_022_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006769_029_RAMP_F	Hard Ramping constraint for constraint V>>V-	1	0	0	0	0	0	0	0	0
#R006769_029_RAMP_V	Soft Ramping constraint for constraint V>>V-	1	0	0	0	0	0	0	0	0
#R006771_006_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006771_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006771_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006771_012_RAMP_F	Hard Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006771_012_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006780_006_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006780_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006780_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006780_012_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006780_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006780_013_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006787_016_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006802_013_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006811_006_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006811_006_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006811_012_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006812_002_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006817_001_RAMP_F	Hard Ramping constraint for constraint S_LB3_0,	3	3	0	3	0.01	0	0.01	0	3
#R006817_001_RAMP_V	Soft Ramping constraint for constraint S_LB3_0,	5	5	0	5	0.02	0	0.02	0	5
#R006822_009_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006855_012_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006864_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006864_007_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006864_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006864_013_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006864_013_RAMP_V	Soft Ramping constraint for constraint	7	0	0	0	0	0	0	0	0
#R006865_006_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006865_012_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006869_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006869_007_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006869_007_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006869_008_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006869_013_RAMP_F	Hard Ramping constraint for constraint	5	3	0	3	0.01	0	0.01	0	3
#R006869_013_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006869_014_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006870_006_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006870_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006870_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006877_004_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006877_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006877_010_RAMP_F	Hard Ramping constraint for constraint	4	1	0	1	0	0	0	0	1
#R006877_010_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006877_011_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006877_011_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006879_003_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006879_009_RAMP_F	Hard Ramping constraint for constraint	4	3	0	3	0.01	0	0.01	0	3
#R006879_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006879_016_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006879_016_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006879_017_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0

#R006879_017_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006891_007_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006891_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006891_012_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006891_013_RAMP_F	Hard Ramping constraint for constraint	4	2	0	2	0.01	0	0.01	0	2
#R006891_013_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006891_014_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006898_016_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006898_017_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006898_017_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006898_018_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006898_020_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006898_023_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006898_023_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006898_024_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006901_006_RAMP_F	Hard Ramping constraint for constraint	7	0	0	0	0	0	0	0	0
#R006901_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006903_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006903_007_RAMP_F	Hard Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006903_007_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006903_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006903_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006903_013_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006903_013_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006903_014_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006904_002_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006916_017_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006916_017_RAMP_V	Soft Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006916_018_RAMP_F	Hard Ramping constraint for constraint	7	1	0	1	0	0	0	0	1
#R006916_024_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006923_032_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006923_032_RAMP_V	Soft Ramping constraint for constraint	8	0	0	0	0	0	0	0	0
#R006929_007_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006929_007_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006929_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006929_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006929_013_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006929_014_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006931_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006931_007_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006931_007_RAMP_V	Soft Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R006931_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006931_012_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006931_013_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006931_013_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006943_003_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006943_004_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006943_006_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006943_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006943_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006943_010_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006943_012_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006943_013_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006946_002_RAMP_F	Hard Ramping constraint for constraint	2	1	0	1	0	0	0	0	1
#R006946_002_RAMP_V	Soft Ramping constraint for constraint	5	3	0	3	0.01	0	0.01	0	3
#R006947_003_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006947_004_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006947_006_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0

#R006947_006_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006947_007_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006947_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006947_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006947_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006947_013_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006951_007_RAMP_F	Hard Ramping constraint for constraint	2	2	0	2	0.01	0	0.01	0	2
#R006957_008_RAMP_F	Hard Ramping constraint for constraint	13	11	0	11	0.04	0	0.04	0	11
#R006957_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006969_008_RAMP_F	Hard Ramping constraint for constraint	12	3	0	3	0.01	0	0.01	0	3
#R006969_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006976_007_RAMP_F	Hard Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R006992_002_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006992_003_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R006992_003_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006992_004_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006992_008_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006992_009_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006992_009_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R006992_010_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R006996_003_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R006996_003_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007004_002_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007004_002_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007004_003_RAMP_V	Soft Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R007006_001_RAMP_F	Hard Ramping constraint for constraint	7	0	0	0	0	0	0	0	0
#R007018_001_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007018_001_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007020_017_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007020_018_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007020_018_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007027_002_RAMP_F	Hard Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R007027_003_RAMP_F	Hard Ramping constraint for constraint	7	7	0	7	0.02	0	0.02	0	7
#R007034_011_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R007034_011_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007034_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007034_025_RAMP_F	Hard Ramping constraint for constraint	6	5	0	5	0.02	0	0.02	0	5
#R007037_005_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007037_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007037_011_RAMP_F	Hard Ramping constraint for constraint	3	1	0	1	0	0	0	0	1
#R007037_012_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007041_007_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007041_007_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007042_006_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007053_001_RAMP_V	Soft Ramping constraint for constraint SV_250,	1	0	0	0	0	0	0	0	0
#R007060_001_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007091_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007091_009_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007144_016_RAMP_F	Hard Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R007144_016_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007145_016_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007145_016_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007145_017_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007172_019_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007176_004_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007207_015_RAMP_V	Soft Ramping constraint for constraint VS_250,	1	0	0	0	0	0	0	0	0
#R007210_019_RAMP_F	Hard Ramping constraint for constraint	9	0	0	0	0	0	0	0	0
#R007210_019_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0

#R007210_020_RAMP_F	Hard Ramping constraint for constraint VS_250,	1	0	0	0	0	0	0	0	0
#R007210_020_RAMP_V	Soft Ramping constraint for constraint VS_250,	1	0	0	0	0	0	0	0	0
#R007212_004_RAMP_F	Hard Ramping constraint for constraint	5	1	0	1	0	0	0	0	1
#R007212_004_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007215_004_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007246_039_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007246_039_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007248_005_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007248_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007248_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007248_011_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007248_011_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007248_012_RAMP_F	Hard Ramping constraint for constraint	6	2	0	2	0.01	0	0.01	0	2
#R007248_012_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007259_049_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007281_001_RAMP_F	Hard Ramping constraint for constraint S_LB3_0,	3	3	0	3	0.01	0	0.01	0	3
#R007281_001_RAMP_V	Soft Ramping constraint for constraint S_LB3_0,	4	4	0	4	0.01	0	0.01	0	4
#R007282_001_RAMP_F	Hard Ramping constraint for constraint S-LB2_0,	4	4	0	4	0.01	0	0.01	0	4
#R007283_001_RAMP_F	Hard Ramping constraint for constraint S_LB3_0,	1	1	0	1	0	0	0	0	1
#R007283_001_RAMP_V	Soft Ramping constraint for constraint S_LB3_0,	2	2	0	2	0.01	0	0.01	0	2
#R007304_001_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007304_001_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007304_002_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007304_002_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007304_003_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007304_003_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007304_004_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007304_004_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007305_001_RAMP_F	Hard Ramping constraint for constraint SV_250,	13	0	0	0	0	0	0	0	0
#R007305_001_RAMP_V	Soft Ramping constraint for constraint SV_250,	13	0	0	0	0	0	0	0	0
#R007305_002_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007305_001_RAMP_V	Soft Ramping constraint for constraint SV_250,	13	0	0	0	0	0	0	0	0
#R007305_002_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007305_002_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007305_003_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007305_003_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007305_004_RAMP_F	Hard Ramping constraint for constraint VS_250,	13	0	0	0	0	0	0	0	0
#R007305_004_RAMP_V	Soft Ramping constraint for constraint VS_250,	13	0	0	0	0	0	0	0	0
#R007306_001_RAMP_F	Hard Ramping constraint for constraint SV_250,	13	0	0	0	0	0	0	0	0
#R007306_001_RAMP_V	Soft Ramping constraint for constraint SV_250,	13	0	0	0	0	0	0	0	0
#R007306_002_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_002_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_003_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_003_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_004_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_004_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_005_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_005_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_006_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_006_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_007_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_007_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_008_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_008_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_009_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_009_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_010_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_010_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_011_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_011_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0

#R007306_012_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_012_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_013_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_013_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_014_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_014_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_015_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_015_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_016_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_016_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_017_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_017_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_018_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_018_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_019_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_019_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_020_RAMP_F	Hard Ramping constraint for constraint VS_250,	13	0	0	0	0	0	0	0	0
#R007306_020_RAMP_V	Soft Ramping constraint for constraint VS_250,	13	0	0	0	0	0	0	0	0
#R007306_022_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_022_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_024_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_024_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_025_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007306_025_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R007315_007_RAMP_F	Hard Ramping constraint for constraint	5	5	0	5	0.02	0	0.02	0	5
#R007315_007_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007317_006_RAMP_F	Hard Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R007317_006_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007337_009_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007337_009_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007337_020_RAMP_F	Hard Ramping constraint for constraint VS_250,	1	1	0	1	0	0	0	0	1
#R007341_010_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007357_001_RAMP_F	Hard Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R007357_001_RAMP_V	Soft Ramping constraint for constraint	7	7	0	7	0.02	0	0.02	0	7
#R007358_008_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R007358_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007358_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007358_024_RAMP_V	Soft Ramping constraint for constraint	9	4	0	4	0.01	0	0.01	0	4
#R007376_003_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007376_008_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007376_009_RAMP_F	Hard Ramping constraint for constraint	8	1	0	1	0	0	0	0	1
#R007376_009_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007376_010_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007376_018_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007376_018_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007377_019_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007377_019_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007377_020_RAMP_F	Hard Ramping constraint for constraint VS_250,	6	4	0	4	0.01	0	0.01	0	4
#R007377_020_RAMP_V	Soft Ramping constraint for constraint VS_250,	3	0	0	0	0	0	0	0	0
#R007381_001_RAMP_V	Soft Ramping constraint for constraint SV_200,	1	0	0	0	0	0	0	0	0
#R007384_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007384_009_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007384_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007414_001_RAMP_F	Hard Ramping constraint for constraint	5	4	0	4	0.01	0	0.01	0	4
#R007414_001_RAMP_V	Soft Ramping constraint for constraint	8	3	0	3	0.01	0	0.01	0	3
#R007421_009_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007421_017_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007422_009_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0

#R007422_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007422_017_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007422_017_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007430_009_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007430_010_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007430_017_RAMP_F	Hard Ramping constraint for constraint	6	4	0	4	0.01	0	0.01	0	4
#R007430_017_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007430_018_RAMP_V	Soft Ramping constraint for constraint VS_250,	3	0	0	0	0	0	0	0	0
#R007455_020_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007455_020_RAMP_V	Soft Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R007464_008_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007464_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007468_001_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007469_002_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007476_008_RAMP_F	Hard Ramping constraint for constraint	8	6	0	6	0.02	0	0.02	0	6
#R007476_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007521_002_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007521_002_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007533_001_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007533_001_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007536_005_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007539_005_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007539_005_RAMP_V	Soft Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R007547_032_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007547_032_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007557_007_RAMP_V	Soft Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R007561_002_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007561_003_RAMP_F	Hard Ramping constraint for constraint	3	3	0	3	0.01	0	0.01	0	3
#R007561_003_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007561_004_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007561_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007571_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007582_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007607_001_RAMP_F	Hard Ramping constraint for constraint	6	6	0	6	0.02	0	0.02	0	6
#R007607_001_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007607_002_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007607_003_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007607_007_RAMP_F	Hard Ramping constraint for constraint	5	4	0	4	0.01	0	0.01	0	4
#R007607_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007607_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007607_009_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007609_001_RAMP_F	Hard Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R007609_001_RAMP_V	Soft Ramping constraint for constraint	9	9	0	9	0.03	0	0.03	0	9
#R007618_001_RAMP_F	Hard Ramping constraint for constraint	6	0	0	0	0	0	0	0	0
#R007618_001_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007643_001_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007643_007_RAMP_F	Hard Ramping constraint for constraint	8	8	0	8	0.03	0	0.03	0	8
#R007643_008_RAMP_F	Hard Ramping constraint for constraint	2	2	0	2	0.01	0	0.01	0	2
#R007643_008_RAMP_V	Soft Ramping constraint for constraint	1	1	0	1	0	0	0	0	1
#R007643_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007656_001_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007656_002_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007656_007_RAMP_F	Hard Ramping constraint for constraint	8	1	0	1	0	0	0	0	1
#R007656_007_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007656_008_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007656_009_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007660_001_RAMP_F	Hard Ramping constraint for constraint	12	12	0	12	0.04	0	0.04	0	12
#R007660_001_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0

#R007660_002_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007660_007_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007660_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007677_001_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007677_002_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007677_007_RAMP_F	Hard Ramping constraint for constraint	10	9	0	9	0.03	0	0.03	0	9
#R007677_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007684_007_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007684_008_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007720_003_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007735_006_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007735_007_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007735_007_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007735_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007735_012_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007735_012_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007735_013_RAMP_F	Hard Ramping constraint for constraint	4	2	0	2	0.01	0	0.01	0	2
#R007735_013_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007764_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007764_007_RAMP_F	Hard Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R007764_007_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007764_008_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007764_013_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007765_006_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007765_006_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007769_009_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007769_010_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007778_006_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007778_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007778_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007778_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007778_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007778_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007778_013_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007817_004_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007817_010_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007827_001_RAMP_F	Hard Ramping constraint for constraint SV_200,	3	3	0	3	0.01	0	0.01	0	3
#R007871_002_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007871_002_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007890_016_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007890_022_RAMP_F	Hard Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007902_016_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007902_016_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007902_017_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007902_022_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007923_004_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007923_004_RAMP_V	Soft Ramping constraint for constraint	5	0	0	0	0	0	0	0	0
#R007923_005_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007923_005_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007923_010_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007924_006_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007924_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007930_005_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R007930_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R007930_011_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007930_012_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007937_006_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007937_015_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007943_015_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007958_016_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0

#R007958_017_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007968_007_RAMP_F	Hard Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R007968_007_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007970_003_RAMP_F	Hard Ramping constraint for constraint	4	4	0	4	0.01	0	0.01	0	4
#R007989_005_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007989_005_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007989_006_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R007999_001_RAMP_F	Hard Ramping constraint for constraint S-	2	2	0	2	0.01	0	0.01	0	2
#R007999_001_RAMP_V	Soft Ramping constraint for constraint S-	1	1	0	1	0	0	0	0	1
#R008016_005_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R008016_011_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R008016_011_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R008035_001_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008035_001_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008035_007_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008035_007_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_001_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_001_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_002_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_002_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_003_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_003_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_004_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_004_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_005_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_005_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_006_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_006_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_007_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_007_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_008_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008037_008_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_001_RAMP_F	Hard Ramping constraint for constraint SV_250,	13	0	0	0	0	0	0	0	0
#R008039_001_RAMP_V	Soft Ramping constraint for constraint SV_250,	13	0	0	0	0	0	0	0	0
#R008039_002_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_002_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_003_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_003_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_004_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_004_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_005_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_005_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_006_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_006_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_007_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_007_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_008_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_008_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_009_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_009_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_010_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_010_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_011_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_011_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_012_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_012_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_013_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_013_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0

#R008039_014_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_014_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_015_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_015_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_016_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_016_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_017_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_017_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_018_RAMP_F	Hard Ramping constraint for constraint VS_250,	13	0	0	0	0	0	0	0	0
#R008039_018_RAMP_V	Soft Ramping constraint for constraint VS_250,	13	0	0	0	0	0	0	0	0
#R008039_019_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_019_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_020_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008039_020_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_001_RAMP_F	Hard Ramping constraint for constraint SV_200,	13	0	0	0	0	0	0	0	0
#R008040_001_RAMP_V	Soft Ramping constraint for constraint SV_200,	13	0	0	0	0	0	0	0	0
#R008040_002_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_002_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_003_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_003_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_004_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_004_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_005_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_005_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_006_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_006_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_007_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_007_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_008_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_008_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_009_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_009_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_010_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_010_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_011_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_011_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_012_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_012_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_013_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_013_RAMP_V	Soft Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_014_RAMP_F	Hard Ramping constraint for constraint	13	0	0	0	0	0	0	0	0
#R008040_014_RAMP_V	Soft Ramping constraint for constraint V::S_HYSE,	13	0	0	0	0	0	0	0	0
#R008040_015_RAMP_F	Hard Ramping constraint for constraint VS_250,	13	0	0	0	0	0	0	0	0
#R008040_015_RAMP_V	Soft Ramping constraint for constraint VS_250,	13	0	0	0	0	0	0	0	0
#R008044_001_RAMP_V	Soft Ramping constraint for constraint SV_200,	1	0	0	0	0	0	0	0	0
#R008054_002_RAMP_V	Soft Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R008084_010_RAMP_V	Soft Ramping constraint for constraint	10	0	0	0	0	0	0	0	0
#R008090_006_RAMP_F	Hard Ramping constraint for constraint	10	0	0	0	0	0	0	0	0
#R008090_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R008090_010_RAMP_V	Soft Ramping constraint for constraint	2	0	0	0	0	0	0	0	0
#R008091_006_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R008093_006_RAMP_F	Hard Ramping constraint for constraint	1	0	0	0	0	0	0	0	0
#R008093_006_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R008099_006_RAMP_F	Hard Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#R008099_006_RAMP_V	Soft Ramping constraint for constraint	4	0	0	0	0	0	0	0	0
#R008099_010_RAMP_V	Soft Ramping constraint for constraint	3	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(0, InitialFlow - 30) (Wt=20)	1	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(10, InitialFlow - 30) (Wt=20)	4	0	0	0	0	0	0	0	0

#V-SA_RAMP_E_F	V-SA <= MAX(126, InitialFlow - 30) (Wt=20)	5	1	0	1	0	0	0	0	1
#V-SA_RAMP_E_F	V-SA <= MAX(134, InitialFlow - 30) (Wt=20)	3	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(145, InitialFlow - 30) (Wt=20)	3	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(15, InitialFlow - 30) (Wt=20)	4	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(155, InitialFlow - 30) (Wt=20)	10	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(185, InitialFlow - 30) (Wt=20)	10	1	0	1	0	0	0	0	1
#V-SA_RAMP_E_F	V-SA <= MAX(188, InitialFlow - 30) (Wt=20)	3	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(20, InitialFlow - 30) (Wt=20)	4	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(22, InitialFlow - 30) (Wt=20)	2	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(230, InitialFlow - 30) (Wt=20)	2	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(250, InitialFlow - 30) (Wt=20)	8	8	0	8	0.03	0	0.03	0	8
#V-SA_RAMP_E_F	V-SA <= MAX(50, InitialFlow - 30) (Wt=20)	4	0	0	0	0	0	0	0	0
#V-SA_RAMP_E_F	V-SA <= MAX(53, InitialFlow - 30) (Wt=20)	6	2	0	2	0.01	0	0.01	0	2
#V-SA_RAMP_E_F	V-SA >= MIN(165, InitialFlow + 50) (Wt=20)	1	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA <= MAX(-1, InitialFlow - 30) (Wt=20)	3	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA <= MAX(-105, InitialFlow - 30) (Wt=20)	9	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA <= MAX(-33, InitialFlow - 30) (Wt=20)	4	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA <= MAX(-50, InitialFlow - 30) (Wt=20)	3	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA <= MAX(-57, InitialFlow - 30) (Wt=20)	3	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA <= MAX(-80, InitialFlow - 30) (Wt=20)	12	7	0	7	0.02	0	0.02	0	7
#V-SA_RAMP_I_F	V-SA <= MAX(-92, InitialFlow - 30) (Wt=20)	4	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA >= MIN(-10, InitialFlow + 50) (Wt=20)	4	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA >= MIN(-122, InitialFlow + 50) (Wt=20)	5	1	0	1	0	0	0	0	1
#V-SA_RAMP_I_F	V-SA >= MIN(-128, InitialFlow + 50) (Wt=20)	4	3	0	3	0.01	0	0.01	0	3
#V-SA_RAMP_I_F	V-SA >= MIN(-43, InitialFlow + 50) (Wt=20)	5	4	0	4	0.01	0	0.01	0	4
#V-SA_RAMP_I_F	V-SA >= MIN(-61, InitialFlow + 50) (Wt=20)	4	2	0	2	0.01	0	0.01	0	2
#V-SA_RAMP_I_F	V-SA >= MIN(-70, InitialFlow + 50) (Wt=20)	10	6	0	6	0.02	0	0.02	0	6
#V-SA_RAMP_I_F	V-SA >= MIN(-80, InitialFlow + 50) (Wt=20)	6	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA >= MIN(-85, InitialFlow + 50) (Wt=20)	5	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA >= MIN(-86, InitialFlow + 50) (Wt=20)	3	3	0	3	0.01	0	0.01	0	3
#V-SA_RAMP_I_F	V-SA >= MIN(-90, InitialFlow + 50) (Wt=20)	6	0	0	0	0	0	0	0	0
#V-SA_RAMP_I_F	V-SA >= MIN(-91, InitialFlow + 50) (Wt=20)	4	0	0	0	0	0	0	0	0
#V-S-MNSP1_I_E	V-S-MNSP1.ENERGY * -1 = 31 (Wt = 20)	23	0	0	0	0	0	0	0	0
#V-S-MNSP1_I_E	V-S-MNSP1.ENERGY * -1 = 50 (Wt = 20)	9	9	0	9	0.03	0	0.03	9	9
@OSBTOA_3	Eff = 02/11/2012 ; RHS = 380 ; Op = "<=" ; Wt =	26	18	18	0	0.06	0.06	0	0	18
@OSBTOA_3	Eff = 03/11/2012 ; RHS = 380 ; Op = "<=" ; Wt =	245	136	136	0	0.47	0.47	0	0	136
@OSBTOA_3	Eff = 04/11/2012 ; RHS = 425 ; Op = "<=" ; Wt =	9	3	3	0	0.01	0.01	0	0	3
@OSBTOA_3	Eff = 05/11/2012 ; RHS = 380 ; Op = "<=" ; Wt =	258	158	158	0	0.55	0.55	0	0	158
@TIPSA_ET_TRANSF	Eff = 02/11/2012 ; RHS = 450 ; Op = "<=" ; Wt =	10	10	0	10	0.03	0	0.03	10	10
CA_MQS_3FA51EAC_01	Constraint Automation, O/L OSBTOA_3	88	63	0	63	0.22	0	0.22	63	63
CA_MQS_3FAAB8EA_01	Constraint Automation, O/L N_W_B_TRANSF	354	3	0	3	0.01	0	0.01	3	3
CA_MQS_3FC98EBF_01	Constraint Automation, O/L TABKEI_1	6	6	0	6	0.02	0	0.02	0	6
CA_SPS_3EF2F2EF_01	Constraint Automation, O/L DDTS_TRANSF	2	2	0	2	0.01	0	0.01	0	2
DATASNAP	Reference Constraint to check measurement;	576	0	0	0	0	0	0	0	0
DATASNAP_DPTX_1	Compare Armidale, Tamworth Total load and	576	0	0	0	0	0	0	0	0
DATASNAP_NILQ1	Test - NEVER TO BIND. Out = NIL, prevent	465	0	0	0	0	0	0	0	0
DATASNAP_NILQ2	Test - NEVER TO BIND. Out = NIL, prevent	177	0	0	0	0	0	0	0	0
DATASNAP_NILQ2	Test - NEVER TO BIND. Out = NIL, prevent	288	0	0	0	0	0	0	0	0
DATASNAP_NILQ3	Test - NEVER TO BIND. Out = NIL, prevent	288	0	0	0	0	0	0	0	0
DATASNAP_NILQ3	Test - NEVER TO BIND. Out = NIL, prevent	177	0	0	0	0	0	0	0	0
DATASNAP_NILQ4	Test - NEVER TO BIND. Out = NIL, prevent	465	0	0	0	0	0	0	0	0
DATASNAP_NILS1	Test - NEVER TO BIND. Out = NIL, prevent	288	0	0	0	0	0	0	0	0
DATASNAP_NILS1	Test - NEVER TO BIND. Out = NIL, prevent	177	0	0	0	0	0	0	0	0
DATASNAP_NILS2	Test - NEVER TO BIND. Out = NIL, prevent	177	0	0	0	0	0	0	0	0
DATASNAP_NILS2	Test - NEVER TO BIND. Out = NIL, prevent	288	0	0	0	0	0	0	0	0
DATASNAP_NILS3	Test - NEVER TO BIND. Out = NIL, prevent	177	0	0	0	0	0	0	0	0
DATASNAP_NILS4	Test - NEVER TO BIND. Out = NIL, prevent	177	0	0	0	0	0	0	0	0
DATASNAP_NILV1	Test - NEVER TO BIND. Out = NIL, prevent	177	0	0	0	0	0	0	0	0

DATASNAP_NILV1	Test - NEVER TO BIND. Out = NIL, prevent	288	0	0	0	0	0	0	0	0
DATASNAP_NILV2	Test - NEVER TO BIND. Out = NIL, prevent	177	0	0	0	0	0	0	0	0
DATASNAP_NILV2	Test - NEVER TO BIND. Out = NIL, prevent	288	0	0	0	0	0	0	0	0
DATASNAP_NILV3	Test - NEVER TO BIND. Out = NIL, prevent	177	0	0	0	0	0	0	0	0
DATASNAP_NILV4	Test - NEVER TO BIND. Out = NIL, prevent	177	0	0	0	0	0	0	0	0
F_ESTN++HYML_L5	Out = one Heywood to Moorabool (HYTS-MLTS)	1497	0	0	0	0	0	0	0	0
F_ESTN++HYML_L6	Out = one Heywood to Moorabool (HYTS-MLTS)	287	0	0	0	0	0	0	0	0
F_ESTN++HYML_L60	Out = one Heywood to Moorabool (HYTS-MLTS)	1532	0	0	0	0	0	0	0	0
F_ESTN++HYML_R5	Out = one Heywood to Moorabool (HYTS-MLTS)	182	0	0	0	0	0	0	0	0
F_ESTN++HYML_R6	Out = one Heywood to Moorabool (HYTS-MLTS)	182	0	0	0	0	0	0	0	0
F_ESTN++HYML_R60	Out = one Heywood to Moorabool (HYTS-MLTS)	182	0	0	0	0	0	0	0	0
F_ESTN++HYMO_L5	Out = Heywood to Mortlake (HYTS-MOPS) line	606	0	0	0	0	0	0	0	0
F_ESTN++HYMO_L6	Out = Heywood to Mortlake (HYTS-MOPS) line,	93	0	0	0	0	0	0	0	0
F_ESTN++HYMO_L60	Out = Heywood to Mortlake (HYTS-MOPS) line,	838	0	0	0	0	0	0	0	0
F_ESTN++HYMO_R5	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0
F_ESTN++HYMO_R6	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0
F_ESTN++HYMO_R60	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0
F_ESTN++HYSE_L5	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_ESTN++HYSE_L6	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_ESTN++HYSE_L60	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_ESTN++HYSE_R5	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_ESTN++HYSE_R6	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_ESTN++HYSE_R60	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_ESTN++HYTR_L5	Out = Heywood to Tarrone (HYTS-TRTS) line	80	0	0	0	0	0	0	0	0
F_ESTN++HYTR_L60	Out = Heywood to Tarrone (HYTS-TRTS) line,	108	0	0	0	0	0	0	0	0
F_ESTN++MLTR_L5	Out = Moorabool to Tarrone (MLTS-TRTS) line,	115	0	0	0	0	0	0	0	0
F_ESTN++MLTR_L60	Out = Moorabool to Tarrone (MLTS-TRTS) line,	107	0	0	0	0	0	0	0	0
F_I+APHY_L5	Out=Heywood to Alcoa Portland 500kV line, Lower	18061	0	0	0	0	0	0	0	0
F_I+APHY_L6	Out=Heywood to Alcoa Portland 500kV line, Lower	191	0	0	0	0	0	0	0	0
F_I+APHY_L60	Out=Heywood to Alcoa Portland 500kV line, Lower	8805	0	0	0	0	0	0	0	0
F_I+BBGT_BB_TG_R5	Out= One Bell Bay - Georgetown 110 kV line, all	288	0	0	0	0	0	0	0	0
F_I+BBGT_BB_TG_R6	Out= One Bell Bay - Georgetown 110 kV line, all	288	0	0	0	0	0	0	0	0
F_I+BBGT_BB_TG_R60	Out= One Bell Bay - Georgetown 110 kV line, all	288	0	0	0	0	0	0	0	0
F_I+ML_L5_0400	Out = Nil, Lower 5 min requirement for a NEM	72226	0	0	0	0	0	0	0	0
F_I+ML_L5_0500	Out = Nil, Lower 5 min requirement for a NEM	1	0	0	0	0	0	0	0	0
F_I+ML_L5_APD	Out = Nil, Lower 5 min requirement for a NEM	4451	0	0	0	0	0	0	0	0
F_I+ML_L6_0400	Out = Nil, Lower 6 sec requirement for a NEM	23970	0	0	0	0	0	0	0	0
F_I+ML_L6_0500	Out = Nil, Lower 6 sec requirement for a NEM	1	0	0	0	0	0	0	0	0
F_I+ML_L6_APD	Out = Nil, Lower 6 sec requirement for a NEM	2433	0	0	0	0	0	0	0	0
F_I+ML_L60_0400	Out = Nil, Lower 60 sec requirement for a NEM	11735	0	0	0	0	0	0	0	0
F_I+ML_L60_0500	Out = Nil, Lower 60 sec requirement for a NEM	1	0	0	0	0	0	0	0	0
F_I+ML_L60_APD	Out = Nil, Lower 60 sec requirement for a NEM	1747	0	0	0	0	0	0	0	0
F_I+NIL_BB_TG_R5	Out= Nil, Global Raise 5 min requirement for loss	576	0	0	0	0	0	0	0	0
F_I+NIL_BB_TG_R6	Out= Nil, Global Raise 6 sec requirement for loss	576	0	0	0	0	0	0	0	0
F_I+NIL_BB_TG_R60	Out= Nil, Global Raise 60 sec requirement for loss	576	0	0	0	0	0	0	0	0
F_I+NIL_DYN_LREG	NEM Lower Regulation Requirement, Feedback in	79650	19	0	19	0.07	0	0.07	0	19
F_I+NIL_DYN_RREG	NEM Raise Regulation Requirement, Feedback in	19792	3	0	3	0.01	0	0.01	0	3
F_I+NIL_MG_R5	Out = Nil, Raise 5 min requirement for a NEM	90003	0	0	0	0	0	0	0	0
F_I+NIL_MG_R6	Out = Nil, Raise 6 sec requirement for a NEM	76606	1	0	1	0	0	0	0	1
F_I+NIL_MG_R60	Out = Nil, Raise 60 sec requirement for a NEM	75481	0	0	0	0	0	0	0	0
F_I+NIL_WN_TG_R5	Out= Nil, Global Raise 5 min requirement for loss	576	0	0	0	0	0	0	0	0
F_I+NIL_WN_TG_R6	Out= Nil, Global Raise 6 sec requirement for loss	576	0	0	0	0	0	0	0	0
F_I+NIL_WN_TG_R60	Out= Nil, Global Raise 60 sec requirement for loss	576	0	0	0	0	0	0	0	0
F_I+RREG_0300	NEM Raise Regulation Requirement greater than	8	0	0	0	0	0	0	0	0
F_I+RREG_0350	NEM Raise Regulation Requirement greater than	31	12	0	12	0.04	0	0.04	0	12
F_I+TL_L5_0200	Lower 5 min Service Requirement for a NEM	576	0	0	0	0	0	0	0	0
F_I+TL_L5_0450	Lower 5 min Service Requirement for a NEM	6	0	0	0	0	0	0	0	0
F_I+TL_L5_0500	Lower 5 min Service Requirement for a NEM	15	0	0	0	0	0	0	0	0

F_I+TL_L6_0200	Lower 6 sec Service Requirement for a NEM	576	0	0	0	0	0	0	0	0
F_I+TL_L60_0200	Lower 60 sec Service Requirement for a NEM	576	0	0	0	0	0	0	0	0
F_I+TL_L60_0450	Lower 60 sec Service Requirement for a NEM	4	0	0	0	0	0	0	0	0
F_MAIN++APHY_L5	Out=Heywood to Alcoa Portland 500kV line, Lower	6314	277	0	277	0.96	0	0.96	277	277
F_MAIN++APHY_L6	Out=Heywood to Alcoa Portland 500kV line, Lower	191	0	0	0	0	0	0	0	0
F_MAIN++APHY_L60	Out=Heywood to Alcoa Portland 500kV line, Lower	2660	0	0	0	0	0	0	0	0
F_MAIN++ML_L5_0400	Out = Nil, Lower 5 min requirement for a Mainland	20772	189	0	189	0.66	0	0.66	0	189
F_MAIN++ML_L5_0500	Out = Nil, Lower 5 min requirement for a Mainland	1	0	0	0	0	0	0	0	0
F_MAIN++ML_L5_APD	Out = Nil, Lower 5 min requirement for a Mainland	818	0	0	0	0	0	0	0	0
F_MAIN++ML_L6_0400	Out = Nil, Lower 6 sec requirement for a Mainland	16072	0	0	0	0	0	0	0	0
F_MAIN++ML_L6_0500	Out = Nil, Lower 6 sec requirement for a Mainland	1	0	0	0	0	0	0	0	0
F_MAIN++ML_L6_APD	Out = Nil, Lower 6 sec requirement for a Mainland	322	0	0	0	0	0	0	0	0
F_MAIN++ML_L60_0400	Out = Nil, Lower 60 sec requirement for a	3892	0	0	0	0	0	0	0	0
F_MAIN++ML_L60_0500	Out = Nil, Lower 60 sec requirement for a	1	0	0	0	0	0	0	0	0
F_MAIN++ML_L60_APD	Out = Nil, Lower 60 sec requirement for a	643	0	0	0	0	0	0	0	0
F_MAIN++NIL_BL_L5	Mainland Lower 5 min Requirement for loss of	576	0	0	0	0	0	0	0	0
F_MAIN++NIL_BL_L6	Mainland Lower 6 second Requirement for loss of	576	0	0	0	0	0	0	0	0
F_MAIN++NIL_BL_L60	Mainland Lower 60 second Requirement for loss	15694	0	0	0	0	0	0	0	0
F_MAIN++NIL_BL_R5	Mainland Raise 5 min Requirement for loss of	576	0	0	0	0	0	0	0	0
F_MAIN++NIL_BL_R6	Mainland Raise 6 second Requirement for loss of	576	0	0	0	0	0	0	0	0
F_MAIN++NIL_BL_R60	Mainland Raise 60 second Requirement for loss of	579	0	0	0	0	0	0	0	0
F_MAIN++NIL_DYN_LREG	Mainland Lower Regulation Requirement,	2175	23	0	23	0.08	0	0.08	0	23
F_MAIN++NIL_DYN_RREG	Mainland Raise Regulation Requirement,	1036	16	0	16	0.06	0	0.06	0	16
F_MAIN++NIL_MG_R5	Out = Nil, Raise 5 min requirement for a Mainland	21153	39	0	39	0.14	0	0.14	0	39
F_MAIN++NIL_MG_R6	Out = Nil, Raise 6 sec requirement for a Mainland	27466	11	0	11	0.04	0	0.04	0	11
F_MAIN++NIL_MG_R60	Out = Nil, Raise 60 sec requirement for a Mainland	32240	0	0	0	0	0	0	0	0
F_MAIN++RREG_0300	Mainland Raise Regulation Requirement greater	9	0	0	0	0	0	0	0	0
F_MAIN++RREG_0350	Mainland Raise Regulation Requirement greater	6	5	0	5	0.02	0	0.02	0	5
F_MAIN++TL_L5_0450	Out = Nil, Lower 5 min Service Requirement for a	5	0	0	0	0	0	0	0	0
F_MAIN++TL_L60_0450	Out = Nil, Lower 60 sec Service Requirement for a	1	0	0	0	0	0	0	0	0
F_MAIN+APHY_L5	Out=Heywood to Alcoa Portland 500kV line, Lower	1091	0	0	0	0	0	0	0	0
F_MAIN+APHY_L6	Out=Heywood to Alcoa Portland 500kV line, Lower	191	0	0	0	0	0	0	0	0
F_MAIN+APHY_L60	Out=Heywood to Alcoa Portland 500kV line, Lower	1012	0	0	0	0	0	0	0	0
F_MAIN+ML_L5_0400	Out = Nil, Lower 5 min requirement for a Mainland	4031	2	0	2	0.01	0	0.01	0	2
F_MAIN+ML_L5_0500	Out = Nil, Lower 5 min requirement for a Mainland	1	0	0	0	0	0	0	0	0
F_MAIN+ML_L5_APD	Out = Nil, Lower 5 min requirement for a Mainland	337	0	0	0	0	0	0	0	0
F_MAIN+ML_L6_0400	Out = Nil, Lower 6 sec requirement for a Mainland	4681	0	0	0	0	0	0	0	0
F_MAIN+ML_L6_0500	Out = Nil, Lower 6 sec requirement for a Mainland	1	0	0	0	0	0	0	0	0
F_MAIN+ML_L6_APD	Out = Nil, Lower 6 sec requirement for a Mainland	337	0	0	0	0	0	0	0	0
F_MAIN+ML_L60_0400	Out = Nil, Lower 60 sec requirement for a	3676	0	0	0	0	0	0	0	0
F_MAIN+ML_L60_0500	Out = Nil, Lower 60 sec requirement for a	1	0	0	0	0	0	0	0	0
F_MAIN+ML_L60_APD	Out = Nil, Lower 60 sec requirement for a	337	0	0	0	0	0	0	0	0
F_MAIN+NIL_DYN_LREG	Mainland Lower Regulation Requirement,	2434	16	0	16	0.06	0	0.06	0	16
F_MAIN+NIL_DYN_RREG	Mainland Raise Regulation Requirement,	1570	12	0	12	0.04	0	0.04	0	12
F_MAIN+NIL_MG_R5	Out = Nil, Raise 5 min requirement for a Mainland	8961	6	0	6	0.02	0	0.02	0	6
F_MAIN+NIL_MG_R6	Out = Nil, Raise 6 sec requirement for a Mainland	8961	18	0	18	0.06	0	0.06	0	18
F_MAIN+NIL_MG_R60	Out = Nil, Raise 60 sec requirement for a Mainland	8961	1	0	1	0	0	0	0	1
F_NVS++ARTW_R5	Out = Armidale to Tamworth (85 or 86) line, NSW,	19	0	0	0	0	0	0	0	0
F_QNV++HYML_L5	Out = one Heywood to Moorabool (HYTS-MLTS)	734	0	0	0	0	0	0	0	0
F_QNV++HYML_L6	Out = one Heywood to Moorabool (HYTS-MLTS)	225	0	0	0	0	0	0	0	0
F_QNV++HYML_L60	Out = one Heywood to Moorabool (HYTS-MLTS)	813	0	0	0	0	0	0	0	0
F_QNV++HYML_R5	Out = one Heywood to Moorabool (HYTS-MLTS)	182	0	0	0	0	0	0	0	0
F_QNV++HYML_R6	Out = one Heywood to Moorabool (HYTS-MLTS)	182	0	0	0	0	0	0	0	0
F_QNV++HYML_R60	Out = one Heywood to Moorabool (HYTS-MLTS)	182	0	0	0	0	0	0	0	0
F_QNV++HYMO_L5	Out = Heywood to Mortlake (HYTS-MOPS) line,	186	0	0	0	0	0	0	0	0
F_QNV++HYMO_L6	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0
F_QNV++HYMO_L60	Out = Heywood to Mortlake (HYTS-MOPS) line,	212	0	0	0	0	0	0	0	0
F_QNV++HYMO_R5	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0

F_QNV++HYMO_R6	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0
F_QNV++HYMO_R60	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0
F_QNV++HYSE_L5	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV++HYSE_L6	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV++HYSE_L60	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV++HYSE_R5	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV++HYSE_R6	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV++HYSE_R60	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV++HYTR_L60	Out = Heywood to Tarrone (HYTS-TRTS) line,	1	0	0	0	0	0	0	0	0
F_QNV+HYML_L5	Out = one Heywood to Moorabool (HYTS-MLTS)	319	1	0	1	0	0	0	1	1
F_QNV+HYML_L6	Out = one Heywood to Moorabool (HYTS-MLTS)	286	0	0	0	0	0	0	0	0
F_QNV+HYML_L60	Out = one Heywood to Moorabool (HYTS-MLTS)	330	0	0	0	0	0	0	0	0
F_QNV+HYML_R5	Out = one Heywood to Moorabool (HYTS-MLTS)	182	0	0	0	0	0	0	0	0
F_QNV+HYML_R6	Out = one Heywood to Moorabool (HYTS-MLTS)	182	0	0	0	0	0	0	0	0
F_QNV+HYML_R60	Out = one Heywood to Moorabool (HYTS-MLTS)	182	0	0	0	0	0	0	0	0
F_QNV+HYMO_L5	Out = Heywood to Mortlake (HYTS-MOPS) line,	106	0	0	0	0	0	0	0	0
F_QNV+HYMO_L6	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0
F_QNV+HYMO_L60	Out = Heywood to Mortlake (HYTS-MOPS) line,	148	0	0	0	0	0	0	0	0
F_QNV+HYMO_R5	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0
F_QNV+HYMO_R6	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0
F_QNV+HYMO_R60	Out = Heywood to Mortlake (HYTS-MOPS) line,	92	0	0	0	0	0	0	0	0
F_QNV+HYSE_L5	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV+HYSE_L6	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV+HYSE_L60	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV+HYSE_R5	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV+HYSE_R6	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_QNV+HYSE_R60	Out = one Heywood to South East (HYTS-SESS)	92	0	0	0	0	0	0	0	0
F_S++HYML_L5	Out = one Heywood to Moorabool (HYTS-MLTS)	469	10	0	10	0.03	0	0.03	10	10
F_S++HYML_L5	Out = one line between Heywood and Moorabool	289	31	0	31	0.11	0	0.11	31	31
F_S++HYML_L6	Out = one Heywood to Moorabool (HYTS-MLTS)	460	0	0	0	0	0	0	0	0
F_S++HYML_L6	Out = one line between Heywood and Moorabool	317	1	0	1	0	0	0	1	1
F_S++HYML_L60	Out = one Heywood to Moorabool (HYTS-MLTS)	626	87	0	87	0.3	0	0.3	87	87
F_S++HYML_L60	Out = one line between Heywood and Moorabool	522	65	0	65	0.23	0	0.23	65	65
F_S++HYSE_L5	Out = one Heywood to South East (HYTS-SESS)	1144	57	0	57	0.2	0	0.2	57	57
F_S++HYSE_L6	Out = one Heywood to South East (HYTS-SESS)	1236	3	0	3	0.01	0	0.01	3	3
F_S++HYSE_L60	Out = one Heywood to South East (HYTS-SESS)	2869	429	0	429	1.49	0	1.49	429	429
F_S+LREG_0070	SA Lower Regulation Requirement greater than 70	1	1	0	1	0	0	0	0	1
F_S+MG_R5	Raise 5 min Service Requirement for SA	2	2	0	2	0.01	0	0.01	0	2
F_S+MG_R6	Raise 6 sec Service Requirement for SA	2	2	0	2	0.01	0	0.01	0	2
F_S+MG_R60	Raise 60 sec Service Requirement for SA	2	2	0	2	0.01	0	0.01	0	2
F_S+TL_L5_OD	Lower 5 min Service Requirement for SA Network	2	0	0	0	0	0	0	0	0
F_S+TL_L6_OD	Lower 6 sec Service Requirement for SA Network	2	0	0	0	0	0	0	0	0
F_S+TL_L60_OD	Lower 60 sec Service Requirement for SA	2	0	0	0	0	0	0	0	0
F_STHN++ARTW_R5	Out = Armidale to Tamworth (85 or 86) line,	13	0	0	0	0	0	0	0	0
F_STHN++LDTW_L60	Out = Liddell to Tamworth (84) line, Southern	17	0	0	0	0	0	0	0	0
N::V_DDMS	Out=Dederang to Murray (67 or 68) line, NSW to	3	0	0	0	0	0	0	0	0
N^^V_BUDP_2	Out = Buronga to Darlington Point 220 kV line,	47	42	0	42	0.15	0	0.15	42	42
N^^V_EPMB_2	Out = Eildon to Mt Beauty 220kV line, avoid	5	0	0	0	0	0	0	0	0
N^^V_NIL_2	Out = Nil, avoid voltage collapse for loss of a	636	34	0	34	0.12	0	0.12	0	34
N^^V_NIL_2	Outage = Nil, limit Vic interconnectors and Snowy	1	0	0	0	0	0	0	0	0
N>>N_UTYS_AH	Out = Upper Tumut -Yass(2), avoid Upper Tumut	120	0	0	0	0	0	0	0	0
N>>N-NIL_36	Out = Nil, avoid Wagga to Jindera(62) O/L on Nil	576	0	0	0	0	0	0	0	0
N>>N-NIL_996_IN	Out = Nil, avoid Wagga to ANM(996) O/L on	581	3	0	3	0.01	0	0.01	0	3
N>>N-NIL_DPTX	Out=Nil, avoid Darlington Point Tx3 or Tx4 O/L on	577	0	0	0	0	0	0	0	0
N>>N-NIL_H051	Out = Nil, avoid Lower Tumut to Wagga(051) O/L	576	0	0	0	0	0	0	0	0
N>>N-NIL_H060	Out = Nil, avoid Wodonga to Jindera(060) O/L on	576	0	0	0	0	0	0	0	0
N>>N-NIL_HF	Out = Nil, avoid Upper Tumut to Lower Tumut(64)	576	0	0	0	0	0	0	0	0
N>>N-NIL_HI_15M	Out = Nil, avoid Upper Tumut to Canberra (15	576	0	0	0	0	0	0	0	0

N>>N-NIL_HL	Out = Nil, avoid Lower Tumut to Upper Tumut(64)	576	0	0	0	0	0	0	0	0
N>>N-NIL_HM	Out = Nil, avoid Upper Tumut to Lower Tumut(64)	576	0	0	0	0	0	0	0	0
N>>N-NIL_HU_15M	Out = Nil, avoid Upper Tumut to Canberra (15	576	0	0	0	0	0	0	0	0
N>>V-NIL_HC	Out = Nil, avoid Upper Tumut to Murray(65) O/L on	577	1	0	1	0	0	0	0	1
N>>V-NIL_HD	Out = Nil, avoid Lower Tumut to Murray(66) O/L on	576	0	0	0	0	0	0	0	0
N>>V-NIL_HJ	Out = Nil, avoid Upper Tumut to Murray(65) O/L on	579	1	0	1	0	0	0	0	1
N>>V-NIL_HK	Out = Nil, avoid Lower Tumut to Murray(66) O/L on	576	0	0	0	0	0	0	0	0
NC_S_AGLHAL	Non Conformance Constraint for AGL Hallet	4	0	0	0	0	0	0	0	0
NC_S_LKBONNY3	Non Conformance Constraint for Lake Bonney 3	1	0	0	0	0	0	0	0	0
NC_S_NPS1	Non Conformance Constraint for Northern NPS1	1	0	0	0	0	0	0	0	0
NC_S_NPS2	Non Conformance Constraint for Northern NPS2	4	0	0	0	0	0	0	0	0
NC_S_OSB-AG	Non Conformance Constraint for Osborne Power	33	0	0	0	0	0	0	0	0
NC_S_PLAYB-AG	Non Conformance Constraint for Playford Power	18	0	0	0	0	0	0	0	0
NC_S_PPCCGT	Non Conformance Constraint for Pelican Point	1	0	0	0	0	0	0	0	0
NC_S_TORRA2	Non Conformance Constraint for Torrens A2	3	0	0	0	0	0	0	0	0
NC_S_TORRA3	Non Conformance Constraint for Torrens A3	1	0	0	0	0	0	0	0	0
NC_S_TORRB1	Non Conformance Constraint for Torrens B1	1	0	0	0	0	0	0	0	0
NC_S_TORRB2	Non Conformance Constraint for Torrens B2	3	0	0	0	0	0	0	0	0
NC_S_TORRB4	Non Conformance Constraint for Torrens B4	1	0	0	0	0	0	0	0	0
NRM_SA1_VIC1	Negative Residue Management constraint for SA	576	0	0	0	0	0	0	0	0
NRM_VIC1_SA1	Negative Residue Management constraint for VIC	576	0	0	0	0	0	0	0	0
NSA_S_POR01_40	Port Lincoln >= 40 MW for Network Support	4	0	0	0	0	0	0	0	0
NSA_S_POR01+POR03_10	Port Lincoln >= 10 MW for Network Support	1	0	0	0	0	0	0	0	0
Q:N_NIL_LDNC_B	Outage = Nil, Qld to NSW on QNI Transient	576	0	0	0	0	0	0	0	0
S::PPT233	Pelican Point on a single contingency - limit to <=	25	0	0	0	0	0	0	0	0
S::V_SA_PSS_1	Out= Nil; SA to Vic Oscillatory stability limit based	576	0	0	0	0	0	0	0	0
S::V_SA_PSS_2	Out= Nil; Maintain maximum transfer limit on SA-	576	0	0	0	0	0	0	0	0
S:PPT273	Pelican Point on a single contingency - limit to <=	61	61	0	61	0.21	0	0.21	61	61
S:V_420_OSC_AUTO	Upper transfer limit of 420 MW on SA-VIC and	288	0	0	0	0	0	0	0	0
S:V_580	Maintain maximum transfer limit of 580 MW on SA-	631	26	0	26	0.09	0	0.09	0	26
S:V_SA_PSS	Out= Nil; SA to Vic Oscillatory stability limit based	576	0	0	0	0	0	0	0	0
S^CMWF_30	Out = Brinkworth - Redhill 132 kV line (Redhill -	289	289	0	289	1	0	1	0	289
S^NIL_PL_MAX	Out = Nil, Maximum generation at Port Lincoln	597	21	0	21	0.07	0	0.07	0	21
S^SNWWF_60	Out = Brinkworth - Redhill 132 kV line (Redhill -	262	262	262	0	0.91	0.91	0	0	262
S_CMWF_0	Discretionary upper limit for Clements Gap WF	396	396	0	396	1.38	0	1.38	396	396
S_DCBUS_DC2	Outage of Dry Creek 66kV bus section,	288	0	0	0	0	0	0	0	0
S_HALWF_0	Discretionary upper limit for Hallett Wind Farm	375	375	0	375	1.3	0	1.3	375	375
S_LB2WF_CONF	Out= Nil; Limit Lake Bonney 2 & 3 generation	642	66	0	66	0.23	0	0.23	0	66
S_LB3_0	Discretionary upper limit for Lake Bonney 3	1002	999	232	767	3.47	0.81	2.66	395	999
S_PF_4_UNITS	Out = 4 Playford units. Playford PS output <=	175	175	0	175	0.61	0	0.61	0	175
S_PLN_ISL1	Out = Whyalla to Yadnarie line, Port Lincoln units	112	112	0	112	0.39	0	0.39	112	112
S_PLN_ISL2	Out = Yadnarie to Port Lincoln line, Port Lincoln	257	257	0	257	0.89	0	0.89	257	257
S_PLN_ISL31	Out = Whyalla to Yadnarie line, Port Lincoln unit	97	97	0	97	0.34	0	0.34	97	97
S_PLN_ISL32	Out = Yadnarie to Port Lincoln line, Port Lincoln	241	241	0	241	0.84	0	0.84	121	241
S>>V_BGPA_RBTU_N-2_1	Out= Bungama - Para 275 kV line, avoid O/L	11	10	0	10	0.03	0	0.03	10	10
S>>V_CGTB_TUTB_MOTB	Out= Cherry Gardens -Tailem Bend 275 line, avoid	256	53	53	0	0.18	0.18	0	0	53
S>>V_DB_RBTU-2_RBTX1	Out= Davenport - Brinkworth line; avoid O/L	163	107	0	107	0.37	0	0.37	107	107
S>>V_KHKN_SETX_SETX	Out = Keith - Kincraig 132 kV line, avoid O/L the	61	61	61	0	0.21	0.21	0	0	61
S>>V_KHSG_SETX_SETX	Out = Keith - Kincraig 132 kV line, avoid O/L the	4	4	4	0	0.01	0.01	0	0	4
S>>V_KNPW_SETX_SETX	Out= Kincraig - Penola West 132 kV line, avoid	25	20	20	0	0.07	0.07	0	0	20
S>>V_NIL_CGTX_ACMP3	Out= Nil, avoid O/L Angas Creek to Mannum 3 (1)	576	0	0	0	0	0	0	0	0
S>>V_NIL_CGTX_MP2MA	Out= Nil, avoid O/L Mannum 2 to Mannum (1) on	576	0	0	0	0	0	0	0	0
S>>V_NIL_CGTX_PAAC	Out= Nil, avoid O/L Para 132 to Milbrook 132 (1)	576	0	0	0	0	0	0	0	0
S>>V_NIL_DVBG_STBG	Out= Nil, avoid O/L Snowtown 132 to Bungama	576	0	0	0	0	0	0	0	0
S>>V_NIL_KHTB1_KHTB2	Out = Nil, avoid O/L Tailumbend-Keith #2 132kV	288	0	0	0	0	0	0	0	0
S>>V_NIL_KHTB2_KHTB1	Out= Nil, avoid O/L Tailembend-Keith #1 132kV on	289	1	0	1	0	0	0	0	1
S>>V_NIL_NIL_HUWT	Out = Nil; Avoid O/L Hummocks to Waterloo 132	600	22	0	22	0.08	0	0.08	0	22
S>>V_NIL_NIL_KHSGC	Out= Nil, avoid O/L Keith to Snuggery 132 kV line	576	0	0	0	0	0	0	0	0

S>>V_NIL_NIL_MNWT	Out= Nil, avoid O/L Mintaro to Waterloo (1)	576	0	0	0	0	0	0	0	0
S>>V_NIL_NIL_MW4RB	Out= Nil, avoid O/L Morgan Whyalla 4 to	576	0	0	0	0	0	0	0	0
S>>V_NIL_PWSE_KHSG	Out= Nil, avoid O/L Keith - Snuggery 132 kV line	576	0	0	0	0	0	0	0	0
S>>V_NIL_RBTX_MW4RB	Out= Nil, avoid O/L Morgan Whyalla 4 to	576	0	0	0	0	0	0	0	0
S>>V_NIL_RBTXW_RBTX1	Out=Nil: limit SA to Vic on Murraylink and SA	66	9	0	9	0.03	0	0.03	0	9
S>>V_NIL_RBTXW_RBTX1	Out=Nil: limit SA to Vic on Murraylink and SA	1088	205	0	205	0.71	0	0.71	0	205
S>>V_NIL_RBTXW_RBTX2	Out=Nil: limit SA to Vic on Murraylink and SA	580	4	0	4	0.01	0	0.01	0	4
S>>V_NIL_SETX_SETX	Out= Nil, avoid overloading a South East 275/132	5902	4187	0	4187	14.54	0	14.54	0	4187
S>>V_NIL_TBSE_KHSG	Out= Nil, avoid O/L Keith - Snuggery 132 kV line	576	0	0	0	0	0	0	0	0
S>>V_NIL_WTTP_WEMW4	Out= Nil, avoid O/L Waterloo East to Morgan	577	1	0	1	0	0	0	0	1
S>>V_RBTU_N-2_RBTX1	Out= Nil; avoid O/L Robertstown transformer #1	45	11	0	11	0.04	0	0.04	0	11
S>>V_RBTX_DRTW_WEMW4	Out= One Robertstown 275/132kV transformer	1	1	0	1	0	0	0	1	1
S>>V_SETB_N-2_TBKH2	Prior outage= Nil; avoid O/L Keith to Tailem Bend	18	0	0	0	0	0	0	0	0
S>>V_SETB_SETB_TBKH1	Out= one South East to Tailem Bend 275kV line,	2	2	2	0	0.01	0.01	0	0	2
S>>V_SETX_SGKH_SETX	Out = South East one transformer; Prevent	5	4	4	0	0.01	0.01	0	0	4
S>>V_TBTU_N-2_MOTB	Prior Outage= Nil; Avoid O/L Mobilong - Tailem	1	0	0	0	0	0	0	0	0
S>>V_TU_W_BUS_TUTB_3	Out= Tungkillo 275kV west bus (i.e.	203	0	0	0	0	0	0	0	0
S>>V_TU_W_BUS_TUTB_4	Out= Tungkillo 275kV west bus (i.e.	203	0	0	0	0	0	0	0	0
S>>V_TU_W_BUS_TUTB_5	Out= Tungkillo 275kV west bus (i.e.	203	0	0	0	0	0	0	0	0
S>BGCB6243_BGPT_HUWT	Out = Bungama 132 kV circuit breaker CB6243; to	92	92	0	92	0.32	0	0.32	92	92
S>BRDV_BRTW_MNWT	Out= Brinkworth - Davenport 275 kV line, avoid	288	0	0	0	0	0	0	0	0
S>MYTX2_MYTX1	Out = Mayura 132/33 kV transformer #2 with the	49	49	0	49	0.17	0	0.17	49	49
S>NIL_BGPA_BRTW	Out= Nil, avoid O/L Brinkworth 275 to Templers	576	0	0	0	0	0	0	0	0
S>NIL_BRTW_MNWT	Out= Nil, avoid O/L Mintaro to Waterloo (1) on trip	576	0	0	0	0	0	0	0	0
S>NIL_CGTB_TUTB	Out= Nil, avoid O/L Tungkillo to Tailem Bend 275	607	17	0	17	0.06	0	0.06	0	17
S>NIL_DVBG_BRTW	Out= Nil, avoid O/L Brinkworth 275 to Templers	576	0	0	0	0	0	0	0	0
S>NIL_HUWT_STBG	Out = Nil; Limit Snowtown WF generation to avoid	659	83	0	83	0.29	0	0.29	0	83
S>NIL_NIL_MYSG-T	Out = NIL; Limit LB2 and LB3 generation to avoid	730	130	0	130	0.45	0	0.45	0	130
S>NIL_NIL_STST-T	Out = Nil; Limit Snowtown WF generation to avoid	576	0	0	0	0	0	0	0	0
S>NIL_NOTI_NOTI	Out = NIL; Limit generation to avoid OL Torrens	586	9	0	9	0.03	0	0.03	0	9
S>NIL_PL_GENMAX	Out = Nil, Maximum generation at Port Lincoln	576	0	0	0	0	0	0	0	0
S>NIL_PL_GENMAX_YDMD	Out = Nil, Maximum generation at Port Lincoln	576	0	0	0	0	0	0	0	0
S>NIL_TBSE_TBKH1	Out= Nil, avoid O/L Tailem Bend 132 to Keith 132	582	1	0	1	0	0	0	0	1
S>S_6162_MTSE_SGKH	Out = South East CB6162; avoid O/L of Snuggery-	16	16	16	0	0.06	0.06	0	0	16
S>S_SNTX3A	Out=Snuggery #3 132/33 kV transformer, prevent	39	39	0	39	0.14	0	0.14	39	39
S>S_SNTX3B	Out=Snuggery #3 132/33 kV transformer, prevent	13	13	0	13	0.05	0	0.05	13	13
S>SE132CB_SETX_SGKH	Out= South East 132 kV CB6160 or CB6162,	265	265	0	265	0.92	0	0.92	265	265
S>SETX_SETX_SGKH	Out= One South East 275/132kV transformer,	719	719	701	18	2.5	2.43	0.06	18	719
S>V_CB6021+6225_TX1	Out= North West Bend_CB6021 and CB6225; limit	436	91	91	0	0.32	0.32	0	0	91
S>V_CB6021+6225_TX1	Out= North West Bend_CB6021 and CB6225; limit	156	0	0	0	0	0	0	0	0
S>V_CB6024+6023_TX2	Out= North West Bend_CB6024 and CB6023; limit	1534	646	646	0	2.24	2.24	0	0	646
S>V_NIL_HYTX_HYTX	Out= Nil, limit SA to Vic to avoid OL the remaining	675	19	0	19	0.07	0	0.07	0	19
S>V_NIL_NIL_HYTX1	Out= Nil, limit SA to Vic to avoid OL Heywood	578	0	0	0	0	0	0	0	0
S>V_NIL_NIL_HYTX2	Out= Nil, limit SA to Vic to avoid OL Heywood	576	0	0	0	0	0	0	0	0
S>V_NIL_NIL_RBNW	Out = Nil, avoid overloading North West Bend to	1408	184	0	184	0.64	0	0.64	0	184
S>V_NWRB_RBMWP3	Out=NWB - Robertstown 132kV line, Limit	53	16	16	0	0.06	0.06	0	0	16
S>V_NWRB2_RBNW1	Out = North West Bend to Robertstown No2 line,	184	35	35	0	0.12	0.12	0	0	35
S>V_X_6021+6022_TX2	Out= North West Bend CB6021 & CB6022; limit	2204	433	433	0	1.5	1.5	0	0	433
S>VML_NWCB6023_TX2	Out= North West Bend_CB6023; limit SA to	40	36	0	36	0.13	0	0.13	36	36
S>VML_NWCB6024+25	Out= North West Bend_CBs 6024 and 6025; limit	159	45	45	0	0.16	0.16	0	0	45
S>VML_NWCB6033_TX2	Out= North West Bend_CB6033; limit SA to	2484	413	413	0	1.43	1.43	0	0	413
S>VML_NWCB6225_TX1	Out= North West Bend_CB6225; limit SA to	3	0	0	0	0	0	0	0	0
S>VMLMHNW2	Out=MNSH_NW # 2, SA-V on ML, avoid overload	145	27	27	0	0.09	0.09	0	0	27
S>X_BRMN_DRTP_1	Out= Brinkworth to Clare North to Mintaro 132kV	32	32	0	32	0.11	0	0.11	32	32
SA_HYSE1	SA / Eastern separation between Heywood and	2	2	0	2	0.01	0	0.01	2	2
S-LB2_0	Discretionary upper limit for Lake Bonney 2	17	17	0	17	0.06	0	0.06	15	17
S-SG_0	Snuggery 132KV Turbine Bus out of service.	1	1	0	1	0	0	0	1	1
S-SNWWF_0	Discretionary upper limit for Snowtown WF	470	470	78	392	1.63	0.27	1.36	392	470

SV_200	SA to Victoria on VicSA upper transfer limit of 200	92	0	0	0	0	0	0	0	0
SV_250	SA to Victoria on Heywood upper transfer limit of	274	0	0	0	0	0	0	0	0
SV_300	SA to Victoria on VicSA upper transfer limit of 300	22	0	0	0	0	0	0	0	0
SVML_000	SA to Vic on ML upper transfer limit of 0 MW	3431	435	214	115	1.51	0.74	0.4	115	435
SVML_220	SA to Vic on ML upper transfer limit of 220 MW	576	0	0	0	0	0	0	0	0
V::N_BAHOQD_R	Outage = Ballarat to Horsham 220kV line, limit Vic	3	0	0	0	0	0	0	0	0
V::N_BAHOQE_R	Out = Ballarat to Horsham 220kV line, avoid	1	0	0	0	0	0	0	0	0
V::N_BAHOQE_R	Outage = Ballarat to Horsham 220kV line, limit Vic	20	0	0	0	0	0	0	0	0
V::N_BAHOQF_R	Out = Ballarat to Horsham 220kV line, avoid	3	0	0	0	0	0	0	0	0
V::N_BAHOQF_R	Outage = Ballarat to Horsham 220kV line, limit Vic	30	0	0	0	0	0	0	0	0
V::N_BAHOVD_R	Outage = Ballarat to Horsham 220kV line, limit Vic	16	0	0	0	0	0	0	0	0
V::N_DDMSQB_R	Out = Dederang to Murray 330kV line, avoid	36	0	0	0	0	0	0	0	0
V::N_DDMSQC_R	Out = Dederang to Murray 330kV line, avoid	6	0	0	0	0	0	0	0	0
V::N_DDMSQD_R	Out = Dederang to Murray 330kV line, avoid	14	0	0	0	0	0	0	0	0
V::N_DDMSQE_R	Out = Dederang to Murray 330kV line, avoid	42	1	0	1	0	0	0	1	1
V::N_DDMSQE_R	Outage = Dederang to Murray 330kV line, limit Vic	7	0	0	0	0	0	0	0	0
V::N_DDMSQF_R	Out = Dederang to Murray 330kV line, avoid	35	0	0	0	0	0	0	0	0
V::N_DDMSVB_R	Out = Dederang to Murray 330kV line, avoid	2	0	0	0	0	0	0	0	0
V::N_DDMSVD_R	Out = Dederang to Murray 330kV line, avoid	19	0	0	0	0	0	0	0	0
V::N_DDMSVE_R	Outage = Dederang to Murray 330kV line, limit Vic	1	0	0	0	0	0	0	0	0
V::N_DDMSVF_R	Outage = Dederang to Murray 330kV line, limit Vic	2	0	0	0	0	0	0	0	0
V::N_DDSM2	Out = Dederang to South Morang 330kV line,	127	56	0	56	0.19	0	0.19	56	56
V::N_EPMBQD_R	Out = Eildon to Mt Beauty 220kV line, avoid	1	0	0	0	0	0	0	0	0
V::N_EPMBQE_R	Out = Eildon to Mt Beauty 220kV line, avoid	1	0	0	0	0	0	0	0	0
V::N_EPMBQF_R	Out = Eildon to Mt Beauty 220kV line, avoid	1	0	0	0	0	0	0	0	0
V::N_EPTTQA_R	Out = Eildon to Thomastown 220kV line, avoid	6	0	0	0	0	0	0	0	0
V::N_EPTTQB_R	Out = Eildon to Thomastown 220kV line, avoid	59	1	0	1	0	0	0	1	1
V::N_EPTTQC_R	Out = Eildon to Thomastown 220kV line, avoid	34	0	0	0	0	0	0	0	0
V::N_EPTTQD_R	Out = Eildon to Thomastown 220kV line, avoid	1	0	0	0	0	0	0	0	0
V::N_EPTTQE_R	Out = Eildon to Thomastown 220kV line, avoid	24	0	0	0	0	0	0	0	0
V::N_EPTTQF_R	Out = Eildon to Thomastown 220kV line, avoid	24	0	0	0	0	0	0	0	0
V::N_EPTTVB_R	Out = Eildon to Thomastown 220kV line, avoid	4	0	0	0	0	0	0	0	0
V::N_EPTTVE_R	Out = Eildon to Thomastown 220kV line, avoid	6	0	0	0	0	0	0	0	0
V::N_HWSMQA_R	Out = Hazelwood to South Morang or Hazelwood	1	0	0	0	0	0	0	0	0
V::N_HWSMQD_R	Out = Hazelwood to South Morang 500 kV line,	12	4	0	4	0.01	0	0.01	4	4
V::N_HWSMQD_R	Out = Hazelwood to South Morang or Hazelwood	48	0	0	0	0	0	0	0	0
V::N_HWSMQE_R	Out = Hazelwood to South Morang 500 kV line,	7	1	0	1	0	0	0	1	1
V::N_HWSMQE_R	Out = Hazelwood to South Morang or Hazelwood	19	1	0	1	0	0	0	1	1
V::N_HWSMQF_R	Out = Hazelwood to South Morang 500 kV line,	16	5	0	5	0.02	0	0.02	5	5
V::N_HWSMVA_R	Out = Hazelwood to South Morang or Hazelwood	221	88	0	88	0.31	0	0.31	88	88
V::N_HWSMVB_R	Out = Hazelwood to South Morang 500 kV line,	1	1	0	1	0	0	0	1	1
V::N_HWSMVB_R	Out = Hazelwood to South Morang or Hazelwood	81	31	0	31	0.11	0	0.11	31	31
V::N_HWSMVC_R	Out = Hazelwood to South Morang or Hazelwood	4	3	0	3	0.01	0	0.01	3	3
V::N_HWSMVD_R	Out = Hazelwood to South Morang 500 kV line,	9	0	0	0	0	0	0	0	0
V::N_HWSMVD_R	Out = Hazelwood to South Morang or Hazelwood	38	0	0	0	0	0	0	0	0
V::N_HWSMVE_R	Out = Hazelwood to South Morang 500 kV line,	55	36	0	36	0.13	0	0.13	36	36
V::N_HWSMVE_R	Out = Hazelwood to South Morang or Hazelwood	50	15	0	15	0.05	0	0.05	15	15
V::N_HWSMVF_R	Out = Hazelwood to South Morang 500 kV line,	5	0	0	0	0	0	0	0	0
V::N_HWSMVF_R	Out = Hazelwood to South Morang or Hazelwood	9	2	0	2	0.01	0	0.01	2	2
V::N_HYMLQA_R	Out = Heywood to Moorabool 500kV line, avoid	99	0	0	0	0	0	0	0	0
V::N_HYMLQA_R	Out = one 500 kV line between Heywood and	98	0	0	0	0	0	0	0	0
V::N_HYMLQB_R	Out = Heywood to Moorabool 500kV line, avoid	99	0	0	0	0	0	0	0	0
V::N_HYMLQB_R	Out = one 500 kV line between Heywood and	92	0	0	0	0	0	0	0	0
V::N_HYMLQC_R	Out = Heywood to Moorabool 500kV line, avoid	99	0	0	0	0	0	0	0	0
V::N_HYMLQC_R	Out = one 500 kV line between Heywood and	92	0	0	0	0	0	0	0	0
V::N_HYMLQD_R	Out = Heywood to Moorabool 500kV line, avoid	99	0	0	0	0	0	0	0	0
V::N_HYMLQD_R	Out = one 500 kV line between Heywood and	92	0	0	0	0	0	0	0	0
V::N_HYMLQE_R	Out = Heywood to Moorabool 500kV line, avoid	99	0	0	0	0	0	0	0	0

V::N_HYMLQE_R	Out = one 500 kV line between Heywood and	92	0	0	0	0	0	0	0	0
V::N_HYMLQF_R	Out = Heywood to Moorabool 500kV line, avoid	99	0	0	0	0	0	0	0	0
V::N_HYMLQF_R	Out = one 500 kV line between Heywood and	92	0	0	0	0	0	0	0	0
V::N_HYMLVA_R	Out = Heywood to Moorabool 500kV line, avoid	101	0	0	0	0	0	0	0	0
V::N_HYMLVA_R	Out = one 500 kV line between Heywood and	95	0	0	0	0	0	0	0	0
V::N_HYMLVB_R	Out = Heywood to Moorabool 500kV line, avoid	100	0	0	0	0	0	0	0	0
V::N_HYMLVB_R	Out = one 500 kV line between Heywood and	113	0	0	0	0	0	0	0	0
V::N_HYMLVC_R	Out = Heywood to Moorabool 500kV line, avoid	99	0	0	0	0	0	0	0	0
V::N_HYMLVC_R	Out = one 500 kV line between Heywood and	92	0	0	0	0	0	0	0	0
V::N_HYMLVD_R	Out = Heywood to Moorabool 500kV line, avoid	109	0	0	0	0	0	0	0	0
V::N_HYMLVD_R	Out = one 500 kV line between Heywood and	92	0	0	0	0	0	0	0	0
V::N_HYMLVE_R	Out = Heywood to Moorabool 500kV line, avoid	103	0	0	0	0	0	0	0	0
V::N_HYMLVE_R	Out = one 500 kV line between Heywood and	92	0	0	0	0	0	0	0	0
V::N_HYMLVF_R	Out = Heywood to Moorabool 500kV line, avoid	99	0	0	0	0	0	0	0	0
V::N_HYMLVF_R	Out = one 500 kV line between Heywood and	92	0	0	0	0	0	0	0	0
V::N_HYSEQA_R	Out = Heywood to South East 275kV line, avoid	101	0	0	0	0	0	0	0	0
V::N_HYSEQB_R	Out = Heywood to South East 275kV line, avoid	197	19	0	19	0.07	0	0.07	19	19
V::N_HYSEQC_R	Out = Heywood to South East 275kV line, avoid	92	0	0	0	0	0	0	0	0
V::N_HYSEQD_R	Out = Heywood to South East 275kV line, avoid	175	4	0	4	0.01	0	0.01	4	4
V::N_HYSEQE_R	Out = Heywood to South East 275kV line, avoid	313	25	0	25	0.09	0	0.09	25	25
V::N_HYSEQE_R	Outage = Heywood to South East 275kV line, limit	2	0	0	0	0	0	0	0	0
V::N_HYSEQF_R	Out = Heywood to South East 275kV line, avoid	92	0	0	0	0	0	0	0	0
V::N_HYSEVA_R	Out = Heywood to South East 275kV line, avoid	95	0	0	0	0	0	0	0	0
V::N_HYSEVB_R	Out = Heywood to South East 275kV line, avoid	155	11	11	0	0.04	0.04	0	0	11
V::N_HYSEVC_R	Out = Heywood to South East 275kV line, avoid	92	0	0	0	0	0	0	0	0
V::N_HYSEVD_R	Out = Heywood to South East 275kV line, avoid	108	0	0	0	0	0	0	0	0
V::N_HYSEVE_R	Out = Heywood to South East 275kV line, avoid	93	0	0	0	0	0	0	0	0
V::N_HYSEVF_R	Out = Heywood to South East 275kV line, avoid	92	0	0	0	0	0	0	0	0
V::N_JNWOQB_R	Out = Jindera to Wodonga 330kV line, avoid	9	0	0	0	0	0	0	0	0
V::N_JNWOQC_R	Out = Jindera to Wodonga 330kV line, avoid	12	0	0	0	0	0	0	0	0
V::N_JNWOQE_R	Out = Jindera to Wodonga 330kV line, avoid	5	0	0	0	0	0	0	0	0
V::N_JNWOVB_R	Out = Jindera to Wodonga 330kV line, avoid	3	0	0	0	0	0	0	0	0
V::N_JNWOVC_R	Out = Jindera to Wodonga 330kV line, avoid	16	0	0	0	0	0	0	0	0
V::N_JNWOVE_R	Out = Jindera to Wodonga 330kV line, avoid	2	0	0	0	0	0	0	0	0
V::N_LTMSQB_R	Out = Lower Tumut to Murray 330kV line, avoid	18	0	0	0	0	0	0	0	0
V::N_LTMSQC_R	Out = Lower Tumut to Murray 330kV line, avoid	2	0	0	0	0	0	0	0	0
V::N_LTMSQE_R	Out = Lower Tumut to Murray 330kV line, avoid	51	4	0	4	0.01	0	0.01	4	4
V::N_LTMSQF_R	Out = Lower Tumut to Murray 330kV line, avoid	13	0	0	0	0	0	0	0	0
V::N_LTMSVB_R	Out = Lower Tumut to Murray 330kV line, avoid	12	0	0	0	0	0	0	0	0
V::N_LTMSVC_R	Out = Lower Tumut to Murray 330kV line, avoid	5	0	0	0	0	0	0	0	0
V::N_LTMSVE_R	Out = Lower Tumut to Murray 330kV line, avoid	2	0	0	0	0	0	0	0	0
V::N_LTMSVF_R	Out = Lower Tumut to Murray 330kV line, avoid	8	0	0	0	0	0	0	0	0
V::N_MSUTQB_R	Out = Upper Tumut to Murray 330kV line, avoid	2	0	0	0	0	0	0	0	0
V::N_MSUTQC_R	Out = Upper Tumut to Murray 330kV line, avoid	73	0	0	0	0	0	0	0	0
V::N_MSUTQD_R	Out = Upper Tumut to Murray 330kV line, avoid	4	2	0	2	0.01	0	0.01	2	2
V::N_MSUTQE_R	Out = Upper Tumut to Murray 330kV line, avoid	36	2	0	2	0.01	0	0.01	2	2
V::N_MSUTQF_R	Out = Upper Tumut to Murray 330kV line, avoid	32	0	0	0	0	0	0	0	0
V::N_MSUTVB_R	Out = Upper Tumut to Murray 330kV line, avoid	1	0	0	0	0	0	0	0	0
V::N_MSUTVC_R	Out = Upper Tumut to Murray 330kV line, avoid	63	0	0	0	0	0	0	0	0
V::N_MSUTVE_R	Out = Upper Tumut to Murray 330kV line, avoid	36	0	0	0	0	0	0	0	0
V::N_MSUTVF_R	Out = Upper Tumut to Murray 330kV line, avoid	3	0	0	0	0	0	0	0	0
V::N_NIL_Q1	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NIL_Q2	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NIL_Q3	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NIL_Q4	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NIL_S1	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NIL_S2	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NIL_S3	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0

V::N_NIL_S4	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NIL_SH	VIC to NSW Transient Limit for loss of both	99	0	0	0	0	0	0	0	0
V::N_NIL_SL	VIC to NSW Transient Limit for loss of both	99	0	0	0	0	0	0	0	0
V::N_NIL_V1	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NIL_V2	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NIL_V3	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NIL_V4	Out = NIL, prevent transient instability for fault and	288	0	0	0	0	0	0	0	0
V::N_NILQA_BL_R	Out = Nil, avoid transient instability for fault and trip	288	0	0	0	0	0	0	0	0
V::N_NILQB_BL_R	Out = Nil, avoid transient instability for fault and trip	457	7	0	7	0.02	0	0.02	0	7
V::N_NILQC_BL_R	Out = Nil, avoid transient instability for fault and trip	706	75	0	75	0.26	0	0.26	0	75
V::N_NILQC_BL_R	Outage = Nil, Basslink import from Tas, limit Vic	5	0	0	0	0	0	0	0	0
V::N_NILQD_BL_R	Out = Nil, avoid transient instability for fault and trip	614	13	0	13	0.05	0	0.05	0	13
V::N_NILQD_BL_R	Outage = Nil, Basslink export to Tas, limit Vic	10	0	0	0	0	0	0	0	0
V::N_NILQD_BL_R-50	Out = NIL, avoid transient instability for fault and	8	0	0	0	0	0	0	0	0
V::N_NILQE_BL_R	Out = Nil, avoid transient instability for fault and trip	1715	118	0	118	0.41	0	0.41	0	118
V::N_NILQE_BL_R	Outage = Nil, Basslink export to Tas, limit Vic	85	0	0	0	0	0	0	0	0
V::N_NILQE_BL_R-50	Out = NIL, avoid transient instability for fault and	3	0	0	0	0	0	0	0	0
V::N_NILQF_BL_R	Out = Nil, avoid transient instability for fault and trip	895	55	0	55	0.19	0	0.19	0	55
V::N_NILQF_BL_R	Outage = Nil, Basslink export to Tas, limit Vic	85	1	0	1	0	0	0	0	1
V::N_NILVA_BL_R	Out = Nil, avoid transient instability for fault and trip	304	1	0	1	0	0	0	0	1
V::N_NILVB_BL_R	Out = Nil, avoid transient instability for fault and trip	475	13	0	13	0.05	0	0.05	0	13
V::N_NILVB_BL_R	Outage = Nil, Basslink import from Tas, limit Vic	4	0	0	0	0	0	0	0	0
V::N_NILVC_BL_R	Out = Nil, avoid transient instability for fault and trip	516	23	0	23	0.08	0	0.08	0	23
V::N_NILVD_BL_R	Out = Nil, avoid transient instability for fault and trip	526	7	0	7	0.02	0	0.02	0	7
V::N_NILVD_BL_R	Outage = Nil, Basslink export to Tas, limit Vic	30	1	0	1	0	0	0	0	1
V::N_NILVD_BL_R-50	Out = NIL, avoid transient instability for fault and	1	0	0	0	0	0	0	0	0
V::N_NILVE_BL_R	Out = Nil, avoid transient instability for fault and trip	949	21	0	21	0.07	0	0.07	0	21
V::N_NILVE_BL_R	Outage = Nil, Basslink export to Tas, limit Vic	262	0	0	0	0	0	0	0	0
V::N_NILVE_BL_R-100	Out = NIL, avoid transient instability for fault and	23	8	0	8	0.03	0	0.03	0	8
V::N_NILVE_BL_R-50	Out = NIL, avoid transient instability for fault and	26	4	0	4	0.01	0	0.01	0	4
V::N_NILVF_BL_R	Out = Nil, avoid transient instability for fault and trip	474	8	0	8	0.03	0	0.03	0	8
V::N_NILVF_BL_R	Outage = Nil, Basslink export to Tas, limit Vic	30	0	0	0	0	0	0	0	0
V::N_SMCSQF_R	Out = South Morang 330kV series capacitor, avoid	14	0	0	0	0	0	0	0	0
V::N_SMCSVF_R	Out = South Morang 330kV series capacitor, avoid	19	0	0	0	0	0	0	0	0
V::N_X_EPMBQA_R	Out = Both Eildon to Mt Beauty 220kV lines, avoid	1	0	0	0	0	0	0	0	0
V::N_X_EPMBQB_R	Out = Both Eildon to Mt Beauty 220kV lines, avoid	19	0	0	0	0	0	0	0	0
V::N_X_EPMBQC_R	Out = Both Eildon to Mt Beauty 220kV lines, avoid	1	0	0	0	0	0	0	0	0
V::N_X_EPMBQE_R	Out = Both Eildon to Mt Beauty 220kV lines, avoid	1	0	0	0	0	0	0	0	0
V::N_X_EPMBVB_R	Out = Both Eildon to Mt Beauty 220kV lines, avoid	5	0	0	0	0	0	0	0	0
V::N_X_EPMBVC_R	Out = Both Eildon to Mt Beauty 220kV lines, avoid	1	0	0	0	0	0	0	0	0
V::S_HYSE	Out = One South East - Heywood 275 kV line; Vic	96	0	0	0	0	0	0	0	0
V::S_NIL_MAXG_AUTO	Out = Nil; Vic to SA Transient Stability limit for loss	628	1	0	1	0	0	0	0	1
V::S_NIL_MAXG_SECP	Out = Nil; Vic to SA transient stability limit (South	576	0	0	0	0	0	0	0	0
V::S_SETB_SETB	Out= South East - Tailem Bend 275 kV line; Vic to	1028	335	335	0	1.16	1.16	0	0	335
V::V_DDSM	Out = Dederang to South Morang 330kV line,	61	15	0	15	0.05	0	0.05	15	15
V::V_EPTT	Out = Eildon to Thomastown 220kV line, avoid	7	4	0	4	0.01	0	0.01	4	4
V:S_SA_PSS	Out= Nil; Vic to SA Oscillatory stability limit based	576	0	0	0	0	0	0	0	0
V^^S_ACMA_MAXG	Out = Angas Creek-Mannum 132kV line; Vic to SA	45	0	0	0	0	0	0	0	0
V^^S_ACPA_MAXG	Out = Angas Creek - Para 132kV line; Vic to SA	1	0	0	0	0	0	0	0	0
V^^S_BNMT_MAXG	Out = Blanche - Mount Gambier 132 kV line; Vic to	64	0	0	0	0	0	0	0	0
V^^S_BNSG_MAXG	Out= Blanche - Snuggery 132 kV line; Vic to SA	4	0	0	0	0	0	0	0	0
V^^S_KHKN_MAXG	Out= Keith - Kincraig 132 kV line; Vic to SA Long	71	23	23	0	0.08	0.08	0	0	23
V^^S_KNPW_MAXG	Out= Kincraig - Penola West 132 kV line 132 kV	372	7	7	0	0.02	0.02	0	0	7
V^^S_MBMO_MAXG	Out= Any one of the line segments Mt Baker-	175	3	3	0	0.01	0.01	0	0	3
V^^S_MTSE_MAXG	Out = Mount Gambier - South East 132 kV line;	14	0	0	0	0	0	0	0	0
V^^S_NIL_MAXG_AUTO	Out = Nil; Vic to SA Long Term Voltage Stability	3446	239	0	239	0.83	0	0.83	0	239
V^^S_NIL_MAXG_SECP	Out = Nil; Vic to SA Long Term Voltage Stability	581	0	0	0	0	0	0	0	0
V^^S_NIL_MAXG-30MW	System normal limit -30 MW offset; Vic to SA Long	50	0	0	0	0	0	0	0	0

V^^S_PACP_MAXG	Out = Para capacitor bank; Vic to SA Long Term	43	6	0	6	0.02	0	0.02	6	6
V^^S_PAVC_MAXG	Out= Para one SVC; Vic to SA Long Term Voltage	174	69	69	0	0.24	0.24	0	0	69
V^^S_PWSE_MAXG	Out= Penola West - South East 132 kV line; Vic to	25	0	0	0	0	0	0	0	0
V^^S_SETX_MAXG	Out = One South East 275/132 kV transformer; Vic	142	38	38	0	0.13	0.13	0	0	38
V^^S_SEVC_MAXG	Out= South East one SVC; Vic to SA Long Term	50	0	0	0	0	0	0	0	0
V^^S_X_MSTU_MBMO	Out= Mt Barker South-Tungkillo 275kV line and Mt	30	4	4	0	0.01	0.01	0	0	4
V^S_HYCP	Outage = Nil, limit Vic to SA to avoid voltage	576	0	0	0	0	0	0	0	0
V^SML_NIL_3	Out = Nil, avoid voltage collapse for loss of	577	0	0	0	0	0	0	0	0
V^SML_NIL_3	Outage = Nil, limit Vic to SA on Murraylink to avoid	1	1	0	1	0	0	0	0	1
V^SML_NSWRB_2	Out = NSW Murraylink runback scheme, avoid	632	48	0	48	0.17	0	0.17	48	48
V^SML_NSWRB_2	Outage = NSW Murraylink runback scheme, limit	83	45	0	45	0.16	0	0.16	45	45
V_HYML1_2	Out = Heywood to Moorabool No. 1 500 kV line,	100	1	0	1	0	0	0	1	1
V_HYML1_4	Out = Heywood to Moorabool No. 1 500 kV line,	103	4	0	4	0.01	0	0.01	4	4
V_HYML1_5	Out = Heywood to Moorabool No. 1 500 kV line,	99	0	0	0	0	0	0	0	0
V_HYMO2_1	Out = Heywood to Mortlake No. 2 500 kV line, limit	125	29	0	29	0.1	0	0.1	29	29
V_HYMO2_2	Out = Heywood to Mortlake No. 2 500 kV line, limit	92	0	0	0	0	0	0	0	0
V>>N_DDMS_2	Out = Dederang to Murray 330 kV line, avoid O/L	77	15	0	15	0.05	0	0.05	15	15
V>>N_SMHTX_1	Out = South Morang H1 or H2 330/220 kV txfmr,	128	6	0	6	0.02	0	0.02	6	6
V>>N_SMTXF2	Outage = South Morang 500/330kV (F2)	7	0	0	0	0	0	0	0	0
V>>N_SMTXF2A	Outage = South Morang 500/330kV (F2)	1	1	0	1	0	0	0	1	1
V>>N_UTYS_BH_15M	Out = Upper Tumut -Yass(2), avoid Murray to	120	0	0	0	0	0	0	0	0
V>>N-LTMS_1	Out= Lower Tumut-Murray(66), avoid Murray to	18	15	0	15	0.05	0	0.05	15	15
V>>N-LTMS_4	Out= LowerTumut-Murray(66), avoid Murray to	1	1	0	1	0	0	0	1	1
V>>N-NIL_HA	Out = Nil, avoid Murray to Upper Tumut(65) O/L on	687	37	0	37	0.13	0	0.13	0	37
V>>N-NIL_HB	Out = Nil, avoid Murray to Lower Tumut(66) O/L on	576	0	0	0	0	0	0	0	0
V>>N-NIL_HG	Out = Nil, avoid Murray to Upper Tumut(65) O/L on	591	11	0	11	0.04	0	0.04	0	11
V>>N-NIL_HH	Out = Nil, avoid Murray to Lower Tumut(66) O/L on	576	0	0	0	0	0	0	0	0
V>>S_APDHY2_1	Out = Heywood to APD No. 2 500 kV line section,	8	0	0	0	0	0	0	0	0
V>>S_APDHY2_3	Out = Heywood to APD No. 2 500 kV line section	1	1	0	1	0	0	0	1	1
V>>S_BGPA_RBTU_N-2_1	Out= Bungama - Para 275 kV line, avoid O/L	3	1	0	1	0	0	0	1	1
V>>S_BGPA_RBTU_N-2_3	Out= Bungama-Para 275kV line; avoid O/L	1	1	0	1	0	0	0	1	1
V>>S_BP_RBTU-2_WEWT	Out= Brinkworth - Templers West line; avoid O/L	4	3	0	3	0.01	0	0.01	3	3
V>>S_BP_RBTU-2_WTTP	Out= Brinkworth - Templers West line; avoid O/L	3	3	0	3	0.01	0	0.01	3	3
V>>S_CGTB_TBTU_TBMO	Out= Cherry Gardens - Tailem Bend 275 kV line,	280	79	79	0	0.27	0.27	0	0	79
V>>S_CGTB_TBTU_TBMO	Prior Outage = Cherry Gardens - Tailem Bend 275	15	0	0	0	0	0	0	0	0
V>>S_DB_RBTU-2_WEWT	Out= Davenport - Brinkworth line; avoid O/L	100	90	0	90	0.31	0	0.31	90	90
V>>S_HYML_1	Out = Heywood - Moorabool - APD 500 kV line,	1231	41	0	41	0.14	0	0.14	41	41
V>>S_HYML_1	Out = One Heywood 500/275 kV txfmr in service	239	1	0	1	0	0	0	1	1
V>>S_HYML_2	Out = Heywood - Moorabool - APD 500 kV line,	525	2	0	2	0.01	0	0.01	2	2
V>>S_HYML_2	Out = One Heywood 500/275 kV txfmr in service	302	78	0	78	0.27	0	0.27	78	78
V>>S_HYML_3	Out = One Heywood 500/275 kV txfmr in service	191	0	0	0	0	0	0	0	0
V>>S_HYML_4	Out = One Heywood 500/275 kV txfmr in service	833	203	0	203	0.7	0	0.7	203	203
V>>S_KHKN_SETB_SGKH	Out = Keith - Kincraig 132 kV line; avoid Snuggery -	358	185	185	0	0.64	0.64	0	0	185
V>>S_KNPW_NIL_SGKH	Out = Kincraig - Penola West 132 kV line; avoid	2	0	0	0	0	0	0	0	0
V>>S_KNPW_SETB_SGKH	Out = Kincraig - Penola West 132 kV line; avoid	20	0	0	0	0	0	0	0	0
V>>S_NIL_DVBG_DVBR	Out= Nil, avoid O/L Davenport 275 to Brinkworth	576	0	0	0	0	0	0	0	0
V>>S_NIL_KHTB1_KHTB2	Out = Nil. Prevent Keith - Tailem Bend #2 line OL	678	52	0	52	0.18	0	0.18	0	52
V>>S_NIL_KHTB2_KHTB1	Out = Nil. Prevent Keith - Tailem Bend #1 line OL	627	6	0	6	0.02	0	0.02	0	6
V>>S_NIL_NIL_KHTB1	Out = Nil. Prevent Keith - Tailem Bend #1 line OL	576	0	0	0	0	0	0	0	0
V>>S_NIL_NIL_SGKHC	Out= Nil, Limit all other generators except LB3 to	754	67	0	67	0.23	0	0.23	0	67
V>>S_NIL_PWKN_SGKH	Out= Nil, avoid O/L Snuggery - Keith 132 kV line	576	0	0	0	0	0	0	0	0
V>>S_NIL_SETB_KHTB	Out = Nil; Prevent Keith - Tailem Bend #1 line OL	738	45	0	45	0.16	0	0.16	0	45
V>>S_NIL_SETB_PWKN	Out = Nil; Prevent Penola West - Kincraig OL for	576	0	0	0	0	0	0	0	0
V>>S_NIL_SETB_SGKH	Out= Nil, avoid O/L Snuggery - Keith 132 kV line	576	0	0	0	0	0	0	0	0
V>>S_NIL_SGBL_SGKH	Out= Nil, avoid O/L Snuggery Keith 132 kV line on	576	0	0	0	0	0	0	0	0
V>>S_RBTU_N-2_WEWT	Out= Nil; avoid O/L Waterloo East-Waterloo	63	27	0	27	0.09	0	0.09	0	27
V>>S_SETX_NPS_SETX	Out = One South East Transformer. Prevent	57	52	52	0	0.18	0.18	0	0	52
V>>S_TU_W_BUS_TURB_1	Out= Tungkillo 275kV west bus (i.e.	203	0	0	0	0	0	0	0	0

V>>S_TU_W_BUS_TURB_2	Out= Tungkillo 275kV west bus (i.e.	203	0	0	0	0	0	0	0	0
V>>S_TU_W_BUS_TUTB_6	Out= Tungkillo 275kV west bus (i.e.	203	0	0	0	0	0	0	0	0
V>>S_TU_W_BUS_TUTB_7	Out= Tungkillo 275kV west bus (i.e.	203	0	0	0	0	0	0	0	0
V>>S_TU_W_BUS_TUTB_8	Out= Tungkillo 275kV west bus (i.e.	203	0	0	0	0	0	0	0	0
V>>S_TX1_SGBL_SGTX4	Out= Snuggery T1 transformer , avoid O/L	4	0	0	0	0	0	0	0	0
V>>S_X_CGTB_TBKH1_3	Out= Cherry Gardens - Tailem Bend 275 kV line	169	6	6	0	0.02	0.02	0	0	6
V>>SML_BAML1_4	Out = Moorabool to Ballarat No. 1 220 kV line,	23	22	0	22	0.08	0	0.08	22	22
V>>SML_BESH_1	Out = Bendigo to Shepparton 220 kV line, avoid	8	7	0	7	0.02	0	0.02	7	7
V>>SML_BESH_2	Out = Bendigo to Shepparton 220 kV line, avoid	2	1	0	1	0	0	0	1	1
V>>SML_DDGN	Out = Dederang to Glenrowan No.1 or No.3 220kV	288	0	0	0	0	0	0	0	0
V>>SML_NIL_1	Out = Nil, avoid O/L Ballarat to Moorabool No.1	311	18	0	18	0.06	0	0.06	0	18
V>>SML_NIL_1	Out = Nil, avoid O/L Ballarat to Moorabool No.1	298	3	0	3	0.01	0	0.01	0	3
V>>SML_NIL_1	Out = Nil, avoid O/L Ballarat to Moorabool No.1	7	7	0	7	0.02	0	0.02	0	7
V>>SML_NIL_1_5M	Out = Nil, avoid O/L Ballarat to Moorabool No.1	288	0	0	0	0	0	0	0	0
V>>SML_NIL_2	Out = Nil, avoid pre-contingent O/L of the	576	0	0	0	0	0	0	0	0
V>>SML_NIL_3	Out = Nil, avoid O/L the Bendigo to Fosterville to	576	0	0	0	0	0	0	0	0
V>>SML_NIL_7A	Out = Nil, avoid O/L Ballarat North to Buangor	660	40	0	40	0.14	0	0.14	0	40
V>>SML_NIL_7A	Out = Nil, avoid O/L on the Ballarat North to	79	10	0	10	0.03	0	0.03	0	10
V>>SML_NIL_7B	Out = Nil, avoid O/L Buangor to Arrarat 66kV line	577	1	0	1	0	0	0	0	1
V>>SML_NIL_7B	Out = Nil, avoid O/L on the Buangor to Arrarat	32	0	0	0	0	0	0	0	0
V>>SML_NIL_7C	Out = Nil, avoid O/L Arrarat to Stawell 66kV line for	576	0	0	0	0	0	0	0	0
V>>SML_NIL_8	Out = Nil, avoid O/L Ballarat to Bendigo 220 kV	291	0	0	0	0	0	0	0	0
V>>SML_NIL_8	Out = Nil, avoid O/L Ballarat to Bendigo 220 kV	288	0	0	0	0	0	0	0	0
V>>SML_NIL_8_5M	Out = Nil, avoid O/L Ballarat to Bendigo 220 kV	288	0	0	0	0	0	0	0	0
V>>S-SEVC_SETB_SETX	Prior Outage = South East SVC with bus tie CB;	2	0	0	0	0	0	0	0	0
V>>V_CBTS_TX_2B_R	Outage = Cranbourne 500/220kV transformer, limit	41	0	0	0	0	0	0	0	0
V>>V_DDTX_A	Out = Dederang H2 or H3 330/220kV txfmr, avoid	23	6	0	6	0.02	0	0.02	6	6
V>>V_HWTS_TX3_3-5MOD	Out = Hazelwood #3 or #4 500/220kV transformer,	60	12	0	12	0.04	0	0.04	12	12
V>>V_KTS_TX_A2_2B_R	Out = Keilor A2 or A4 500/220 kV txfmr, avoid pre-	2	0	0	0	0	0	0	0	0
V>>V_LTMS_1	Out= LowerTumut-Murray(66), avoid Dederang to	81	19	0	19	0.07	0	0.07	19	19
V>>V_MLSY1_1A	Out = Either Sydenham-Moorabool 500 kV line,	182	0	0	0	0	0	0	0	0
V>>V_MLSY1_1B	Out = Either Sydenham-Moorabool 500 kV line,	182	0	0	0	0	0	0	0	0
V>>V_MLTS_TX_2_P	Out = Moorabool A1 or A2 500/220kV transformer,	104	0	0	0	0	0	0	0	0
V>>V_NIL_1A	Out = Nil, avoid O/L Dederang to Murray No.1	576	0	0	0	0	0	0	0	0
V>>V_NIL_1B	Out = Nil, avoid O/L Dederang to Murray No.2	664	73	0	73	0.25	0	0.25	0	73
V>>V_NIL_2_P	Out = Nil, avoid pre-contingent O/L of the South	116	0	0	0	0	0	0	0	0
V>>V_NIL_2A_R	Out = Nil, avoid pre-contingent O/L of South	1063	4	0	4	0.01	0	0.01	0	4
V>>V_NIL_2A_R	Out = Nil, avoid pre-contingent O/L of the South	249	0	0	0	0	0	0	0	0
V>>V_NIL_2B_R	Out = Nil, avoid pre-contingent O/L of South	1675	11	0	11	0.04	0	0.04	0	11
V>>V_NIL_2B_R	Out = Nil, avoid pre-contingent O/L of the South	17	0	0	0	0	0	0	0	0
V>>V_NIL_3	Out = Nil, avoid O/L either Dederang to South	580	4	0	4	0.01	0	0.01	0	4
V>>V_NIL_4A	Out = Nil, avoid pre-contingent O/L of the	577	1	0	1	0	0	0	0	1
V>>V_NIL_4B	Out = Nil, avoid pre-contingent O/L of the	576	0	0	0	0	0	0	0	0
V>>V_NIL_4C	Out = Nil, avoid pre-contingent O/L of the	576	0	0	0	0	0	0	0	0
V>>V_NIL_5	Out = Nil, avoid O/L either Dederang to Mount	661	44	0	44	0.15	0	0.15	0	44
V>>V_NIL_6A_R	Out = Nil, avoid O/L South Morang F2 500/330 kV	576	0	0	0	0	0	0	0	0
V>>V_NIL_6B_R	Out = Nil, avoid O/L South Morang F2 500/330 kV	576	0	0	0	0	0	0	0	0
V>>V_NIL1A_R	Out = Nil, avoid O/L a Dederang to South Morang	79	0	0	0	0	0	0	0	0
V>>V_NIL1A_R	Out = Nil, avoid O/L either Dederang to South	1059	17	0	17	0.06	0	0.06	0	17
V>>V_ROTS_TX_2B_R	Out= Rowville A1 or A2 500/220 kV txfmr, avoid	18	0	0	0	0	0	0	0	0
V>>V_ROTS_TX_2B_R	Outage = Rowville 500/220kV transformer, limit	86	0	0	0	0	0	0	0	0
V>>V_ROTT_R_1B	Out= Rowville to Thomastown 220 kV line, avoid	89	84	0	84	0.29	0	0.29	84	84
V>>V_SMSY_KTSM_1A_R	Outage = One South Morang-Sydenham line;	182	0	0	0	0	0	0	0	0
V>>V_SMSY_KTSM_1B_R	Outage = One South Morang-Sydenham line;	196	19	0	19	0.07	0	0.07	19	19
V>>V_SMSY_SMSY_1A_R	Outage = Either South Morang-Sydenham line;	182	0	0	0	0	0	0	0	0
V>>V_SMSY_SMSY_1B_R	Outage = Either South Morang-Sydenham line;	182	0	0	0	0	0	0	0	0
V>>V_SMTT1_2	Out = South Morang to Thomastown No. 1 220 kV	9	0	0	0	0	0	0	0	0
V>>V_SMTT1_2	Out= South Morang to Thomastown No. 1 220 kV	107	20	0	20	0.07	0	0.07	20	20

V>>V_SMTT2_2	Out = South Morang to Thomastown No. 2 220 kV	5	0	0	0	0	0	0	0	0
V>>V_SMTT2_2	Out= South Morang to Thomastown No. 2 220 kV	114	33	0	33	0.11	0	0.11	33	33
V>S_460	VIC to SA on Heywood upper transfer limit of 460	754	5	0	5	0.02	0	0.02	0	5
V>S_NIL_HYTX_HYTX	Out = NIL, limit VIC to SA on Heywood to avoid OL	1145	45	0	45	0.16	0	0.16	0	45
V>S_NIL_NIL_HYTX1	Out = Nil, avoid O/L Heywood M1 500/275 kV	582	0	0	0	0	0	0	0	0
V>S_NIL_NIL_HYTX2	Out = Nil, avoid O/L Heywood M2 500/275 kV	940	3	0	3	0.01	0	0.01	0	3
V>SML_BUDP_2	Out = Buronga to Balranald to Darlington Pt. (X5)	378	101	0	101	0.35	0	0.35	101	101
V>SML_BUDP_3	Out = Buronga to Balranald to Darlington Pt. (X5)	2	2	0	2	0.01	0	0.01	2	2
V>SML_NIL_8	Outage = Nil, limit Vic to SA on Murraylink to avoid	1	1	0	1	0	0	0	0	1
V>SML_NSWRB_10	Out = NSW Murraylink runback scheme, avoid O/L	576	0	0	0	0	0	0	0	0
V>SML_NSWRB_9	Out = NSW Murraylink runback scheme, avoid O/L	576	0	0	0	0	0	0	0	0
V>SML_NWCB6024+25	Out= North West Bend_CBs 6024 and 6025; limit	4	3	3	0	0.01	0.01	0	0	3
V>SML_NWCB6033_TX2	Out= North West Bend_CB6033; limit Victoria to	1	0	0	0	0	0	0	0	0
V>SML_NWCB6225_TX1	Out= North West Bend_CB6225; limit Victoria to	1	0	0	0	0	0	0	0	0
V>SMLBAHO1	Out = Ballarat to Horsham, or Bendigo to Kerang	55	11	0	11	0.04	0	0.04	11	11
V>SMLBAHO4	Out = Ballarat to Horsham or Bendigo to Kerang	2	0	0	0	0	0	0	0	0
V>SMLBAHO4	Out = Ballarat to Horsham or Bendigo to Kerang	141	7	0	7	0.02	0	0.02	7	7
V>SMLKGRC1	Out = Kerang to Redcliffs 220kV line, avoid	1	0	0	0	0	0	0	0	0
V>SMLMHNW1	Out = Monash to North West Bend # 1 132kV line,	6	0	0	0	0	0	0	0	0
VN::DDMS	Out = Dederang to Murray 330kV line, avoid	8	0	0	0	0	0	0	0	0
VS_250	Victoria to SA on Heywood upper transfer limit of	732	23	0	23	0.08	0	0.08	23	23
VS_420	Victoria to SA on VicSA upper transfer limit of 420	53	26	0	26	0.09	0	0.09	0	26
VS_HYTS_TX	Victoria to SA on VicSA upper transfer limit based	1206	305	0	305	1.06	0	1.06	0	305
VSML_000	Vic to SA on ML upper transfer limit of 0 MW	360	12	4	8	0.04	0.01	0.03	8	12
VSML_220	Vic to SA on ML upper transfer limit of 220 MW	637	19	0	19	0.07	0	0.07	0	19
VSML_VFRB_OFF	Out=Nil, Vic to SA on Murraylink <=10 for	576	0	0	0	0	0	0	0	0
		849869	**18210**	**4487**	**13617**	**62.98**	**15.54**	**47.06**	**5379**	**18210**