

## 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.

**ElectraNet - SERVICE STANDARDS PERFORMANCE**

<b>Performance Inputs</b>							
S	Performance parameter	Collar	Target	Cap	Revenue at Risk	Performance (Without exclusions)	Performance (With exclusions)
S1	Total transmission circuit availability	99.02%	99.52%	99.68%	0.30%	99.143041%	99.602450%
S2	Critical circuit availability – peak	97.36%	99.12%	99.96%	0.10%	99.221130%	99.555676%
S3	Critical circuit availability – non-peak (zero weighting)	98.25%	99.37%	99.87%	0.00%	99.508289%	99.697604%
S4	Loss of supply event frequency ( >0.05 system minutes )	9	7	4	0.20%	6	4
S5	Loss of supply event frequency ( >0.2 system minutes )	4	2	0	0.20%	1	1
S6	Average outage duration (minutes)	323	203	83	0.20%	181.17	130.71

<b>Revenue Determination Inputs</b>	
TNSP:	ElectraNet
STPIS version:	March, 2011
Regulatory Determination	2013/14 - 2017/18
Base Year Allowed Revenue	\$ 284,000,000
Base Year	2013–14
X-factor	-2.99%
Commencement of regulatory year	1-Jul-13

<b>Other inputs</b>	
Assessment Period	2014
Financial year to affect revenue:	2015/16
Date prepared:	
Revision date:	
<b>Circuit information</b>	
Number of critical circuits	22
Number of non-critical circuits	91
Total circuits	113

<b>Average outage duration information - performance without exclusions</b>	
Number of connection point events	23
Total unplanned outage duration (system minutes)	4167

<b>Average outage duration information - performance with exclusions</b>	
Number of excluded connection point events	6
Total unplanned outage duration (system minutes)	2222
Total number of connection point events	17

<b>Other Inputs</b>						
Annual revenue adjusted for C	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18
CPI	102.4	105.4				





**ElectraNet - Proposed exclusions - Loss of supply events**

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	Supporting Documentation	
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 3099	Bushfire	On Monday 13 January 2014 at 13:19, the Ardrossan West - Dalrymple 132kV line tripped as a bushfire passed under the line. Approximately 4 MW of load was lost at Dalrymple for 96 minutes resulting in a 0.11 SM event. Bushfire events have typically been excluded in the past therefore this event will also seek exclusion.	13/01/2014	13:19	13/01/2014	14:55	Dalrymple	3413	4 for 96 minutes	1	5.6 Force Majeure	Bushfire under the transmission line	3099 Event_Investigation_Technical_Report.pdf
S4		Event 3147	3rd Party	On Friday 14 February 2014 at 18:30, a fault occurred on SAPN's 33kV network. Their protection was too slow in clearing the fault and ElectraNet's protection operated in a backup manner by the operation of two of the three phase fuses. The connection point was still energised via a single phase and majority of the load was still supplied. SAPN isolated the fault and made repairs. Once the repairs were complete SAPN crews contacted SMSC to isolate the Neuroodla transformer and replace fuses. This event has been classified as 3rd Party	14/02/2014	18:30	15/02/2014	13:33	Neuroodla	3413	0.5 for 19hrs	1	3.4 3rd Party Outages	3rd Party	3147 Event_Investigation_Technical_Report.pdf
S4	Loss of supply event frequency (>0.2 system minutes )														
S5															
S5															
S5															
S5															
S5															

**NOTE:**

This worksheet should include a list all events that are proposed for exclusion.

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

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

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

**ElectraNet - Proposed exclusions - Average outage duration**

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	Supporting Documentation
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	Event 3099	Bushfire	On Monday 13 January 2014 at 1319, the Ardrossan West - Dalrymple 132kV line tripped as a bushfire passed under the line. Approximately 4 MW of load was lost at Dalrymple for 96 minutes resulting in a 0.11 SM event. Bushfire events have typically been excluded in the past therefore this event will also seek exclusion.	13/01/2014	13:19	13/01/2014	14:55	Dalrymple	96.00	1	5.6 Force Majeure	Bushfire under the transmission line	3099 Event_Investigation_Technical_Report.pdf
S6	Event 3111	Storm	On Tuesday 14 January 2014 at 1522, the Angas Creek - Mannum 132kV line tripped as a result of a storm passing over the line. No load was lost at each Mannum-Adelaide #2&3 pump stations as they were not pumping at the time	14/01/2014	15:22	14/01/2014	17:29	Mannum-Adelaide #2 pump	127.00	1	4.7 Pumping station supply interruptions	The pumping station was not pumping at the time of the event.	3111 Event_Investigation_Technical_Report.pdf
S6				14/01/2014	15:22	14/01/2014	17:29	Mannum-Adelaide #3 pump	127.00	1	4.7 Pumping station supply interruptions	The pumping station was not pumping at the time of the event.	
S6	Event 3147	3rd Party	On Friday 14 February 2014 at 1830, a fault occurred on SAPN's 33kV network. Their protection was too slow in clearing the fault and ElectraNet's protection operated in a backup manner by the operation of two of the three phase fuses. The connection point was still energised via a single phase and majority of the load was still supplied. SAPN isolated the fault and made repairs. Once the repairs were complete SAPN crews contacted SMSC to isolate the Neuroodia transformer and replace fuses. This event has been classified as 3rd Party	14/02/2014	18:30	15/02/2014	13:33	Neuroodia	1143.00	1	5.3 3rd Party Outages	3rd Party	3147 Event_Investigation_Technical_Report.pdf
S6	Event 3245	3rd Party	On Friday 12 September 2014 at 2157, the Davenport - Leigh Creek 132kV line tripped due to CB4483 (Alinta asset) failure at Leigh Creek Coalfield. However, the line did not reclose due to Electranet protection failure. Approximately 0.4MW of load lost at Neuroodia and 0.6MW of load lost at Leigh Creek South for 83 minutes resulting in a 0.03SM event.	12/09/2014	21:57	12/09/2014	23:20	Leigh Creek Coalfield	83.00	1	5.3 3rd Party Outages	3rd Party initiating cause, however supporting document explain cause for delay in supply restoration	3245 Event_Investigation_Technical_Report.pdf
S6	Event 3295	Maintenance	On Saturday 6 December 2014 at 0641, the 132/3.3kV TF2 tripped due to low oil. Ganged Interruptor G613 was opened causing the loss of connection point at Mannum -Adelaide Pumping Station No.2 for 6.15 hours. However, this event will be excluded as the pumping station was not pumping at the time of the event.	6/12/2014	6:41	6/12/2014	12:50	Mannum-Adelaide #2 pump	369.00	1	4.7 Pumping station supply interruptions	The pumping station was not pumping at the time of the event.	3295 Event_Investigation_Technical_Report.pdf
S6													

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## ElectraNet - S1 - Total transmission circuit availability

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Total transmission circuit availability	98.80%	99.02%	99.52%	99.68%	99.90%
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 < 99.02%	-0.003000	-0.003000
	=	0.600000	x	Availability + -0.597120	99.02% ≤ Availability ≤ 99.52%	-0.002262	0.000495
	=	1.875000	x	Availability + -1.866000	99.52% ≤ Availability ≤ 99.68%	-0.007068	0.001546
	=	0.003000			99.68% < Availability	0.003000	0.003000

Performance Outcomes		Performance (Without Exclusions)	Performance (Exclusions)
Total transmission circuit availability	=	99.143041%	99.602450%
S-Factor	=	-0.226175%	0.154594%

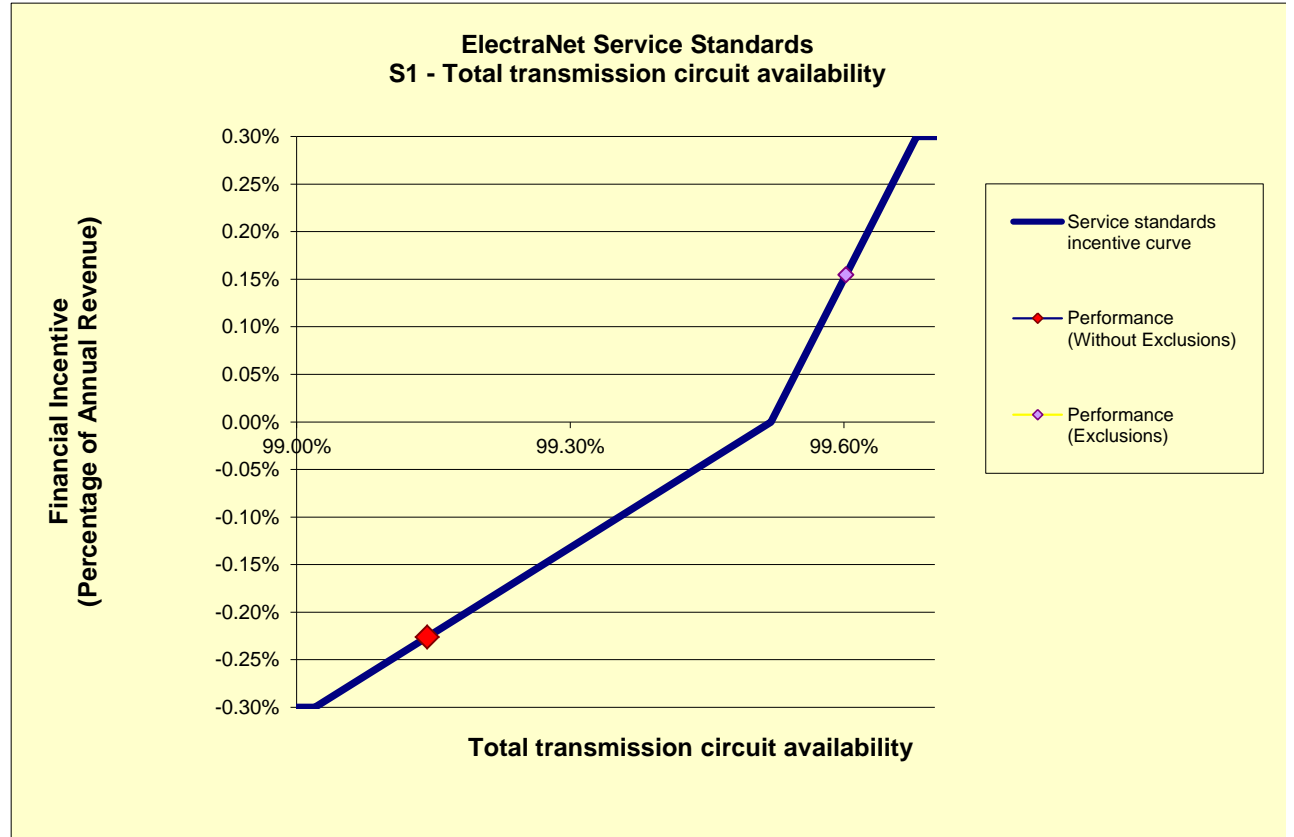
**NOTE: This sheet will automatically update based on data in input sheets**

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
critical circuit availability – peak	97.20%	97.36%	99.12%	99.96%	100.20%
Weighting	-0.10%	-0.10%	0.00%	0.10%	0.10%

Performance Formulae	Formulae			Conditions			S- Calc 1	S- Calc 2					
Performance	=	-0.001000		When:	Availability	<	97.36%	-0.001000	-0.001000				
	=	0.056818	x	Availability	+	-0.056318	97.36%	≤	Availability	≤	99.12%	0.000057	0.000248
	=	0.119048	x	Availability	+	-0.118000	99.12%	≤	Availability	≤	99.96%	0.000120	0.000519
	=	0.001000					99.96%	<	Availability			0.001000	0.001000

Performance Outcomes		Performance (Without Exclusions)	Performance (Exclusions)
critical circuit availability – peak	=	99.221130%	99.555676%
S-Factor	=	0.012039%	0.051866%

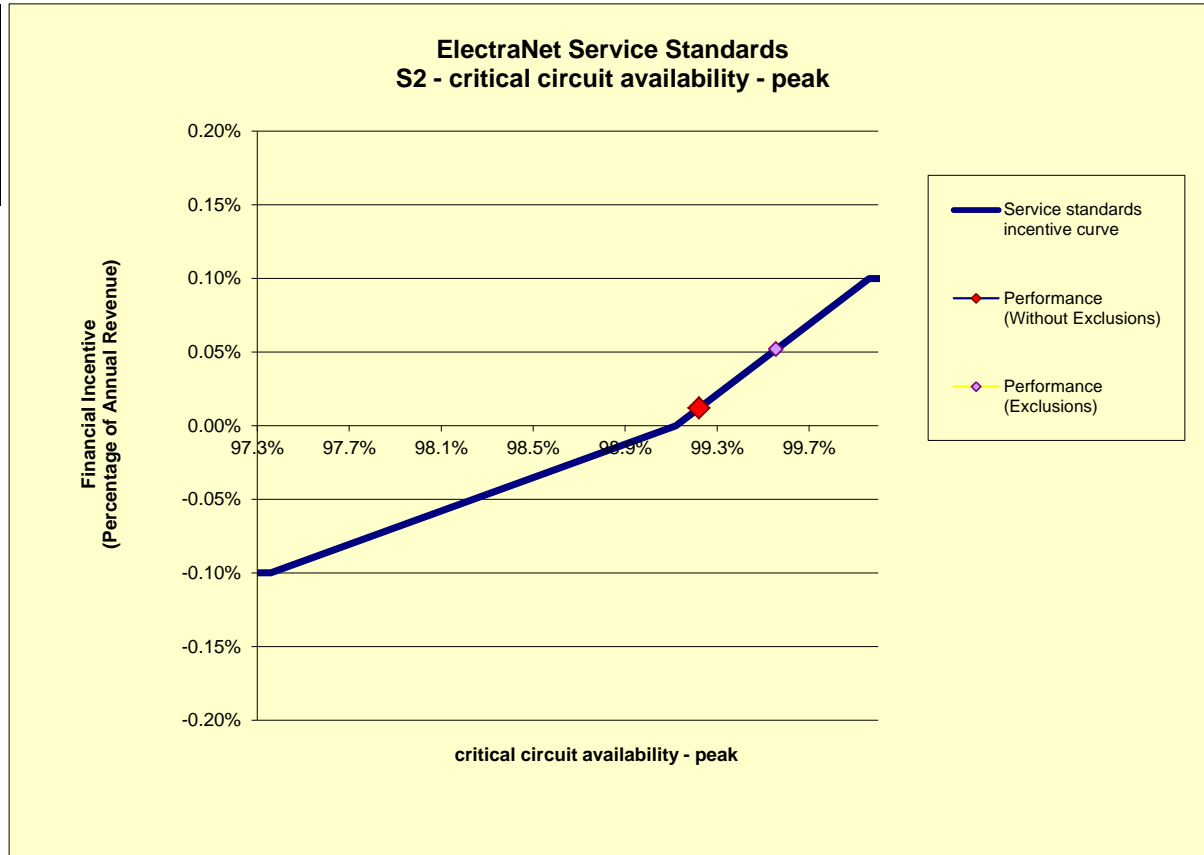
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## ElectraNet - S3 - Critical circuit availability - non-peak (zero weighting)

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Circuit availability – non-peak (zero weighting)	98.10%	98.25%	99.37%	99.87%	100.10%
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 < 98.25%	0.000000	0.000000
	=	0.000000	x	Availability	+	0.000000 98.25% ≤ Availability ≤ 99.37%	0.000000	0.000000
	=	0.000000	x	Availability	+	0.000000 99.37% ≤ Availability ≤ 99.87%	0.000000	0.000000
	=	0.000000				99.87% < Availability	0.000000	0.000000

Performance Outcomes		Performance (Without Exclusions)	Performance (Exclusions)
Circuit availability – non-peak (zero weighting)	=	99.508289%	99.697604%
S-Factor	=	0.000000%	0.000000%

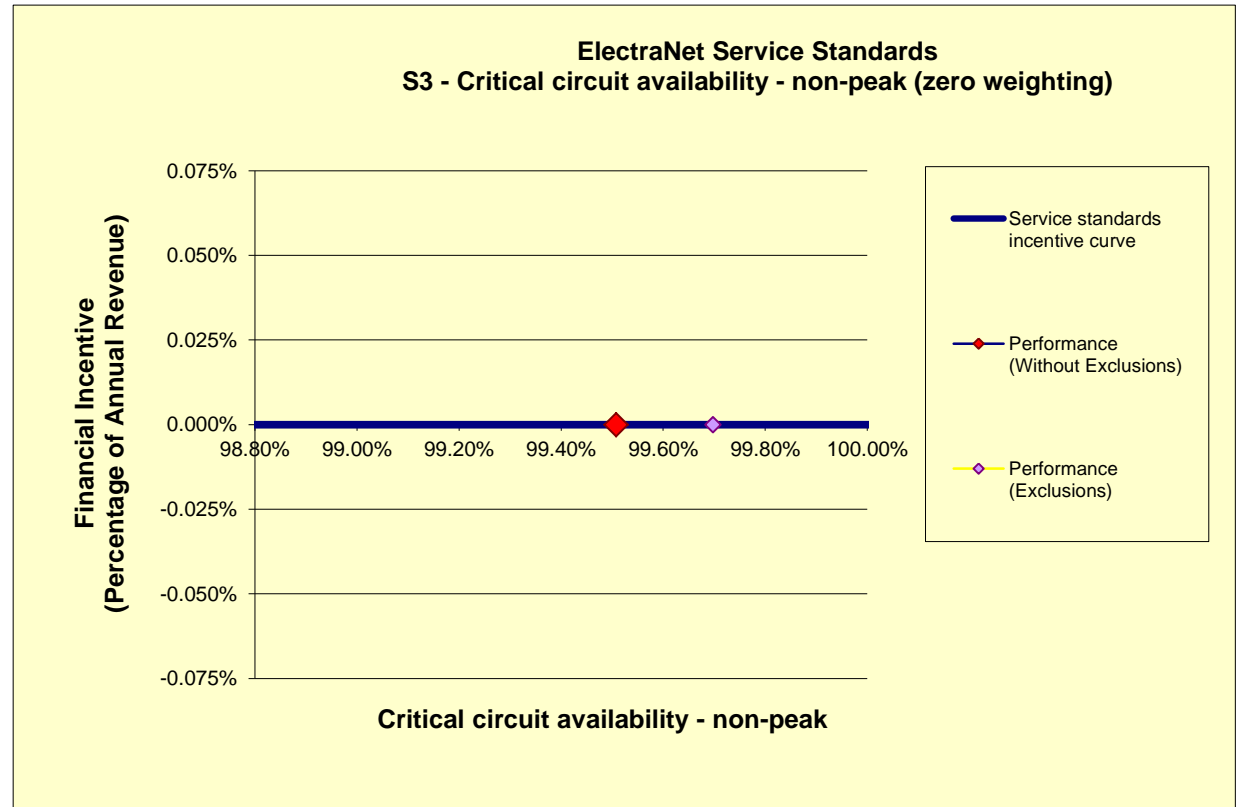
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## ElectraNet - S4 - Loss of supply event frequency ( >0.05 system minutes )

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Loss of supply event frequency ( >0.05 system minutes )	11	9	7	4	-
Weighting	-0.20%	-0.200%	0.00%	0.200%	0.20%

Performance Formulae	Formulae				Conditions	S- Calc 1	S- Calc 2	
Performance	=	-0.002000			9 < No. of events	-0.002000	-0.002000	
	=	-0.001000	x	No. of events	+ 0.007000	7 ≤ No. of events ≤ 9	0.001000	0.003000
	=	-0.000667	x	No. of events	+ 0.004667	4 ≤ No. of events ≤ 7	0.000667	0.002000
	=	0.002000				No. of events < 4	0.002000	0.002000

Loss of supply event frequency ( >0.05 system minutes )	=	Performance (Without Exclusions)	Performance (Exclusions)
Loss of supply event frequency ( >0.05 system minutes )	=	6	4
S-Factor		0.066667%	0.200000%

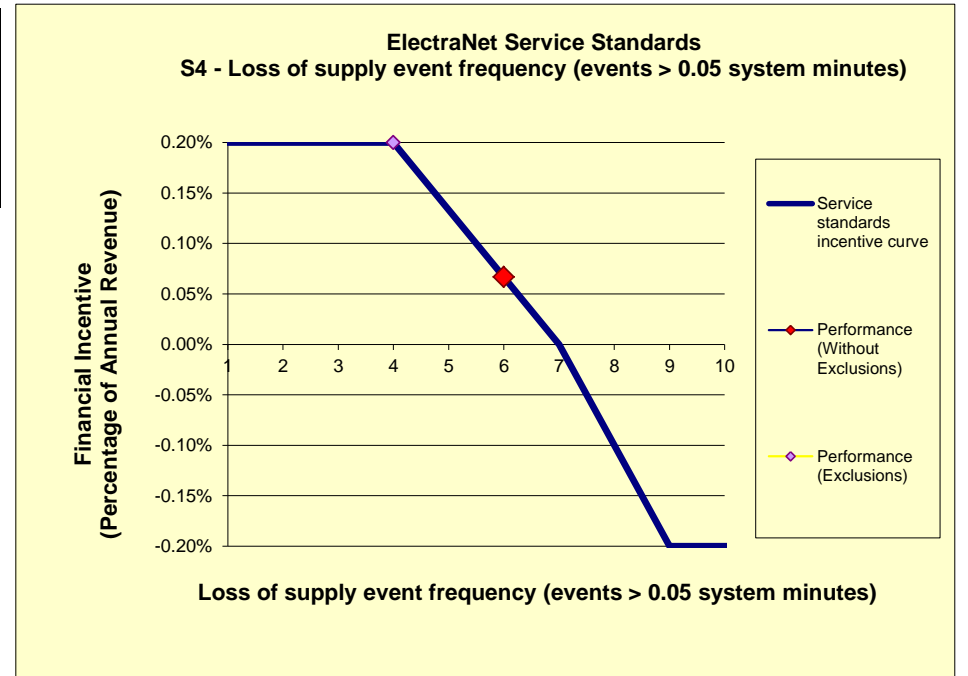
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## ElectraNet - S5 - Loss of supply event frequency ( >0.2 system minutes )

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Loss of supply event frequency ( >0.2 system minutes )	6	4	2	0	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				4	<	No. of events	-0.002000	-0.002000
	=	-0.001000	x	No. of events	+	2	≤	No. of events ≤ 4	0.001000	0.001000
	=	-0.001000	x	No. of events	+	0	≤	No. of events ≤ 2	0.001000	0.001000
	=	0.002000						No. of events = 0	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 )	=	1	1
S-Factor		0.100000%	0.100000%

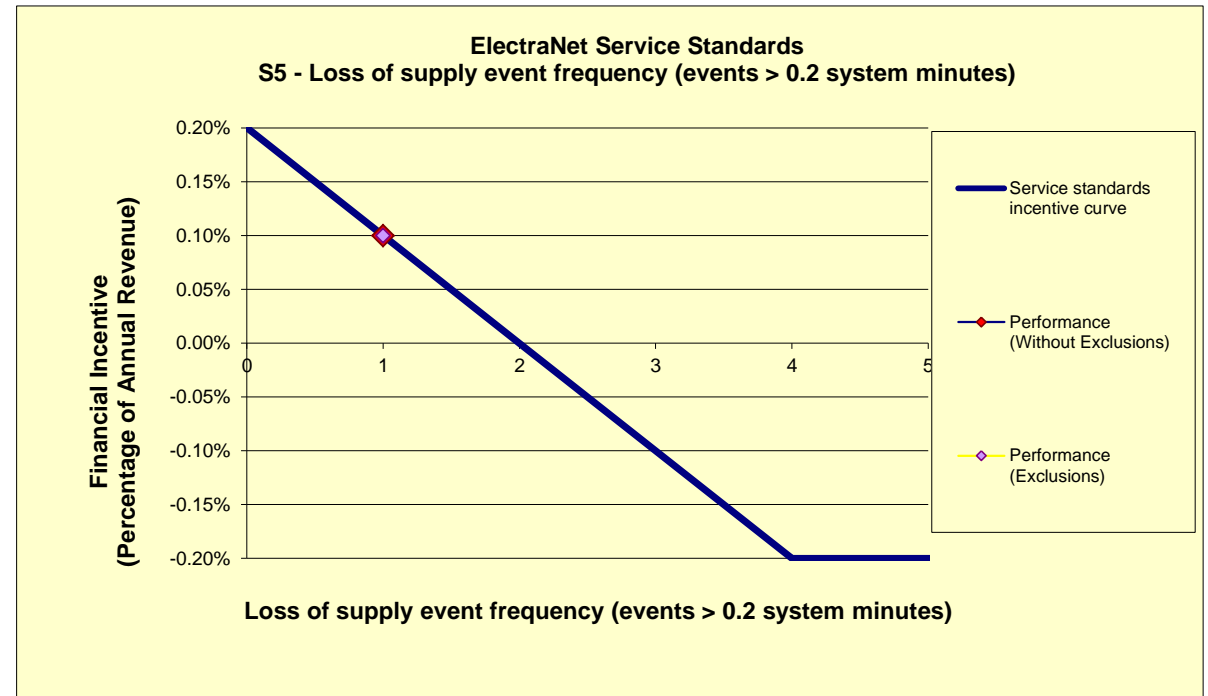
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## ElectraNet - S6 - Average outage duration (minutes)

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Average outage duration (minutes)	523	323	203	83	-
Weighting	-0.20%	-0.200%	0.00%	0.200%	0.20%

Performance Formulae	Formulae						Conditions		S- Calc 1	S- Calc 2			
Performance	=	-0.002000				323	<	Duration	-0.002000	-0.002000			
	=	-0.000017	x	Duration	+	0.003387	203	≤	Duration	≤	323	0.000367	0.001208
	=	-0.000017	x	Duration	+	0.003387	83	≤	Duration	≤	203	0.000367	0.001208
	=	0.002000							Duration	<	83	0.002000	0.002000

Average outage duration (minutes)	=	Performance (Without Exclusions)	Performance (Exclusions)
Average outage duration (minutes)	=	181.173913	130.705882
S-Factor		0.036710%	0.120824%

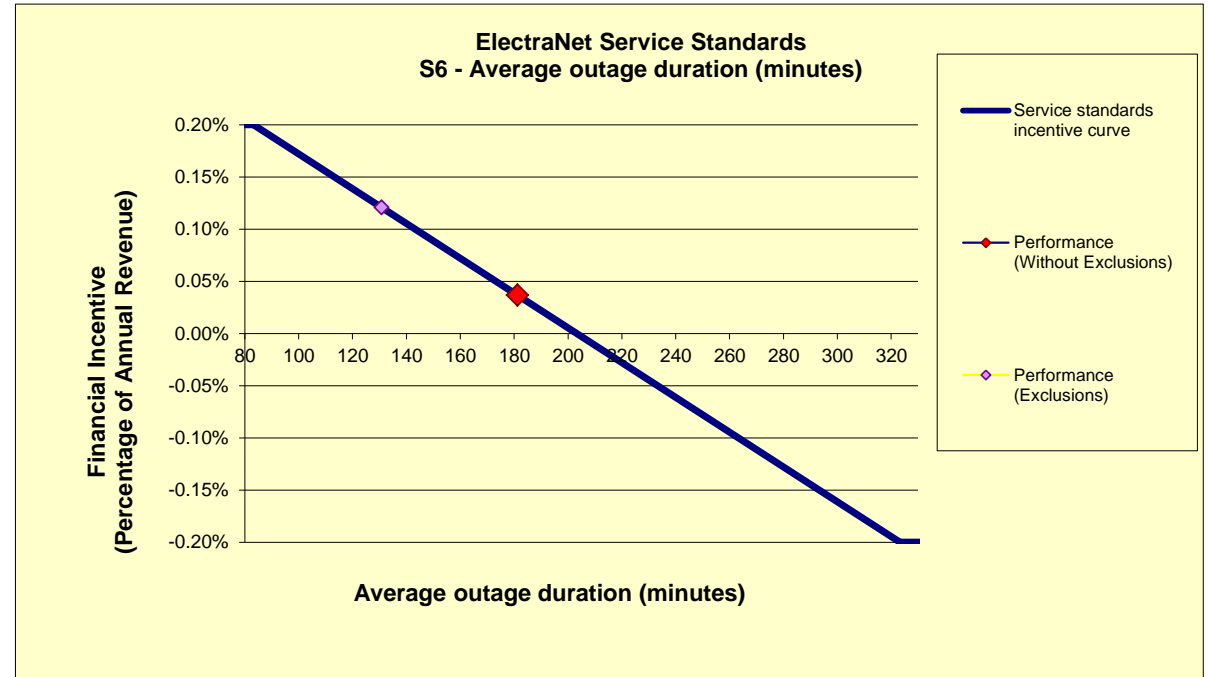
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## ElectraNet - Revenue Calculation

X-factor from AER final decision

<i>Revenue cap information</i>	2008-09 to 2009-10
Base year allowed revenue (2008-09)	\$284,000,000
Base year	2013-14
X-factor	-2.99%
Commencement of regulatory period	1-Jul-13

<i>Annual revenue adjusted for CPI</i>	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18
CPI	102.4	105.4	-	-	-	-

Nominal annual revenue	2013-14	2014-15	2015-16	2016-17	2017-18
Allowed Revenue	\$284,000,000	\$301,060,690			

<i>Calendar year revenue</i>	2H 2013	2014	2015	2016	2017	2018
Revenue	\$142,000,000	\$292,530,345				

### 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

\$292,530,345

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	99.52%	99.143041%	-0.226175%	-\$661,632	99.602450%	0.154594%	\$452,235	0.380770%
S2	Critical circuit availability – peak	99.12%	99.221130%	0.012039%	\$35,219	99.555676%	0.051866%	\$151,724	0.039827%
S3	Critical circuit availability – non-peak (zero weighting)	99.37%	99.508289%	0.000000%	\$0	99.697604%	0.000000%	\$0	0.000000%
S4	Loss of supply event frequency ( >0.05 system minutes )	7	6	0.066667%	\$195,020	4	0.200000%	\$585,061	0.133333%
S5	Loss of supply event frequency ( >0.2 system minutes )	2	1	0.100000%	\$292,530	1	0.100000%	\$292,530	0.000000%
S6	Average outage duration (minutes)	203.2	181	0.036710%	\$107,388	131	0.120824%	\$353,445	0.084113%
<b>TOTALS</b>				-0.010759%	-\$31,474		0.627284%	\$1,834,996	0.638043%

### 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	0.627284%
Financial Incentive	\$1,834,996
Financial year affected by financial incentive	2015/16