

Instructions

This template must be used by **AusNet Services** to report service performance information for **2015** (1 Jan - 31 Dec 2015)

Inputs

- Blue, yellow and green worksheets are for inputs, including performance and exclusion information. The TNSP only needs to enter data on these worksheets.
 - To add more rows in the Inputs-exclusions tabs please insert rows after row 4.
- Cells where TNSP input is required are shaded orange:
- Cells where the input is sourced from the revenue proposal are shaded green:

TNSP input required
revenue proposal

Calculations

- Purple worksheets are the s-factor results based on the performance inputs entered by the TNSP. These are automatically calculated.
- cells where a calculation occurs are shaded grey with orange text:

calculation cell

Outcomes

- The red worksheet shows the total performance, s-factor and financial incentive results based on the TNSP's performance inputs.

	Performance				Unit	Number of events pa - 2015				Number of events pa - 2014				Average (2014, 2015)					
	Collar	Target	Cap	Weighting		without exclusions	with exclusions	without exclusions	with exclusions	without exclusions	with exclusions	without exclusions	with exclusions	without exclusions	with exclusions	without exclusions	with exclusions		
s1	Average circuit outage rate (%)				average circuit outage rate (%)	25.2	24.8	24	23	1	121	37	37	0	31	30	1	121	
s2	line outage - fault				average circuit outage rate (%)	31.7	16.1	19	18	1	126	32	29	3	26	24	2	127	
s3	transformer outage - fault				average circuit outage rate (%)	46.4	35.1	24.3	22.1			16	13	3	17	14	2	70	
s4	line outage - forced				average circuit outage rate (%)	17.7	14.9	16.1	15.7			20	19	1	20	19	1	121	
s5	transformer outage - forced				average circuit outage rate (%)	17.6	12.0	11.9	11.5			15	14	1	15	15	1	127	
s6	reactive plant - forced				average circuit outage rate (%)	32.7	15.4	36.4	36.4			24	24	0	26	26	0	70	
s7	Loss of supply event frequency				number of events per annum	6.0	2.0	2	2										
s8	>0.05 system minutes				number of events per annum	2.0	1.0	1	1										
s9	Average outage duration				number of LOS events	293.5	98.0	5	4	1	3	2	1	6	5	1	5	4	1
	Average outage duration				Aggregate LOS minutes			256	157	99	296	195	101	216	119	97	256	157	99
	Proper operation of equipment				Average outage duration			67	61	99	99	98	101	36	24	97	67	61	99
s10	failure of protection system				number of events per annum	N/A	N/A	30											
s11	Material failure of SCADA				number of events per annum	2.0	1.0	0											
s12	Incorrect operational isolation of				number of events per annum	N/A	N/A	5											
TNSP						AusNet													
STPS version						December, 2012													
Regulatory Determination						2014/15 - 2016/17													
Base Year Allowed Revenue						538,100,000													
Base Year						2014-15													
Commencement of regulatory year						1 Apr 2014													
X factor						3.24%													
						2014-15				2015-16				2016-17					
Annual revenue (\$2014-15)						538,100,000				538,100,000				532,695,310					
Annual revenue adjusted for CPI						CPI 104.0				106.4									
Calendar year revenue						Q2-Q4 2014				2015				2016					
Revenue						403,575,000				534,046,482									
Other inputs																			
Assessment Period						2015													
Financial year to affect revenue:						2016/17													
Date prepared:																			
Revision date:																			

Parameter	Average circuit outage rate	Event proposed for exclusion	Description of the event and its impact on the network and performance	Cause of the event	Count of circuit events	Circuits affected	Reasons for exclusion request	Further references
S	Name of any average circuit outage rate parameters applying to AusNet services	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	Identify the events that are to be excluded from the performance measure	Name of circuits affected	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. Please provide reference to any attachments submitted.
S1	Lines outage rate - fault	on 01/11/2015 at 2151 hours (market time) HYTS-SESS No 1 330kV Line Tripped at SESS end only.	HYTS No 1 Line 275kV CB (CB 6603) Opened at SESS, No 2 line was out for planned work. Vic-SA interconnector severed.	ElectraNet found that Line 1 tripped at their end only due to an incompatible protection relay configuration at SESS end.		SESS NO.1 275KV 1 LINE AT HYTS	This outage was due to an event on a third party system (Electranet in this instance)	AEMO report about to be published.
S2	Transformers outage rate - fault	RWTS: No3 22kV Bus Tripped on 22/04/2015	At RWTS, at 02:58 hours on 22/04/15 the No3 22 kV Bus tripped via protection operation. Power supply to AusNet and UED customers was interrupted.	A faulty feeder protection relay on a UED feeder was found to have caused this event.		L3 220/22KV 1 TRANS AT RWTS	This outage was due to an event on a third party system (United Energy in this instance)	Refer to attachment "SIR 10443587.pdf"
S3	Reactive Plant outage rate - fault	RWTS: L3 Trans, No2 & No3 22kV Buses tripped on 08/01/2015	Inadequate communication during project work	BUFEF was not disabled by Dist Business while paralleling 22kV feeders. Both CEOT and DB control rooms were not aware that the BUFEF scheme was commissioned.		NO.3 22KV CAPACITOR 1 BANK AT RWTS	This is a 22kV Capacitor bank therefore qualifies for an exclusion as per AER	
S3	Reactive Plant outage rate - fault	RWTS: No3 22kV Bus Tripped	At RWTS, at 02:58 hours on 22/04/15 the No3 22 kV Bus tripped via protection operation. Power supply to AusNet and UED customers was interrupted.	A faulty feeder protection relay on a UED feeder was found to have caused this event.		NO.3 22KV CAPACITOR BANK AT RWTS 1	This is a 22kV Capacitor bank therefore qualifies for an exclusion as per AER	
S3	Reactive Plant outage rate - fault	No 3 220kV Cap Bank Tripped on Close at ROTS on 28/09/2015.	TOC received request to place No 3 220kV Cap Bank from AEMO. Cap Bank tripped within 8 seconds due to high volts resulted due to excessive reactive power.	No 3 220kV Cap Bank Tripped on Close at ROTS on 28/09/2015 due to higher voltage caused from excessive reactive power.		NO.3 220KV CAPACITOR BANK AT ROTS 1	The outage was caused when AEMO directed AusNet to switch in the Cap Bank in service	Refer to attachments "SIR 198.pdf". Audio file available upon request
S4	Lines outage rate - forced outage	HWTS- SMTS NO1 500KV Line outage as directed by AEMO	HWTS SMTS NO1 500KV Line outage as directed by AEMO	AEMO direction		HWTS-SMTS NO1 500KV Line 1	AEMO directed AusNet to switch out the HWTS-SMTS NO1 500KV Line on 06/09/2015	Refer to attachment "HWTS-SMTS outage support.png"
S5	Transformers outage rate - forced outage	on 07/02/2015 M2 transformer at HYTS was switched out when AEMO directed to do so.	M2 transformer at HYTS was switched out when AEMO directed to do so.	AEMO direction		M2 500/275KV TRANS AT HYTS 1	AEMO directed AusNet to switch out the M2 transformer at HYTS on 07/02/2015	Refer to attachment "Outage of M2 at HYTS.pdf"

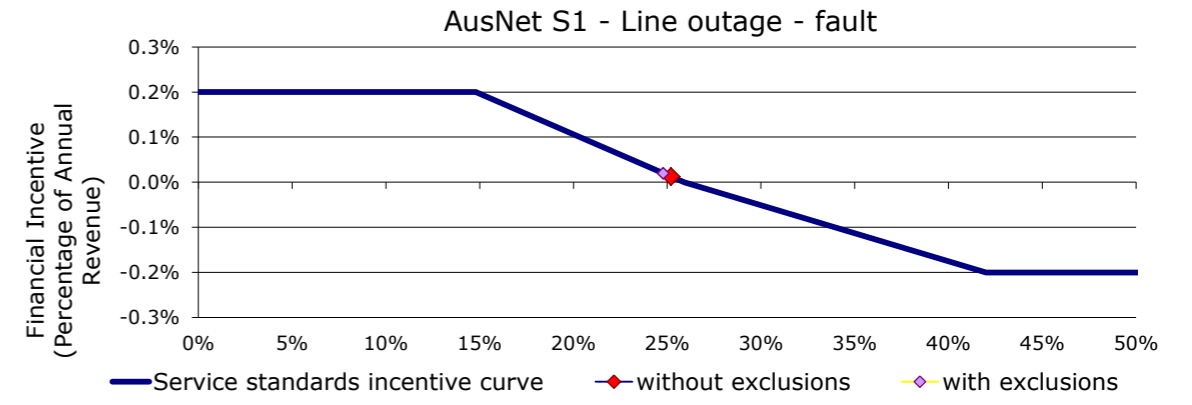
Parameter	LOS event frequency	Event proposed for exclusion	Description of the event and its impact on the network and performance	Cause of the event	Start date	Start time	End date	End time	Quantitative impact	Demand shed and time	Circuits affected	Maximum system demand	Reasons for exclusion request	Further references
	Name of any LOS event parameters applying to AusNet Services	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	dd/mm/yy	hh:mm:ss	dd/mm/yy	hh:mm:ss	Hours+Minutes unavailable (min)	The (MW) demand shed and the duration it was shed for.	Name of circuits or plant affected	The max system demand that occurred up until the time of the event	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. Please provide reference to any attachments submitted.
\$									0:00					
S7									0:00					
S8									0:00					

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	Quantitative impact	Capped impact	Circuits affected	Reasons for exclusion request	Further references	
	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	dd/mm/yy	hh:mm:ss	dd/mm/yy	hh:mm:ss	Hours+Minutes unavailable (min)	Impact of exclusion event on AOD Parameter	Impact of capped exclusion event on AOD	Name of circuits or plant affected	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. Please provide reference to any attachments submitted.
S9	RWTS: No3 22kV Bus Tripped on 22/04/2015	At RWTS, at 02:58 hours on 22/04/15 the No3 22 kV Bus tripped via protection operation. Power supply to AusNet and UED customers was interrupted.	A faulty feeder protection relay on a UED feeder was found to have caused this event.	22/04/15	02:58:00	22/04/15	04:39:00	1:41	1	1:41	L3 220/22KV TRANS and 22kV No3 Bus AT RWTS	This outage was due to an event on a third party system (United Energy in this instant)	SIR 10443587 report

AusNet - s1 - line outage - fault

Performance Targets					Performance Outcomes				
	Graph start	Collar	Target	Cap	Graph end			without exclusions	with exclusions
line outage - fault	62.0%	42.0%	25.9%	14.8%	0.0%	line outage - fault	=	25%	25%
Weighting	-0.2000%	-0.2000%	0.0000%	0.2000%	0.2000%	S-Factor	=	0.01%	0.02%

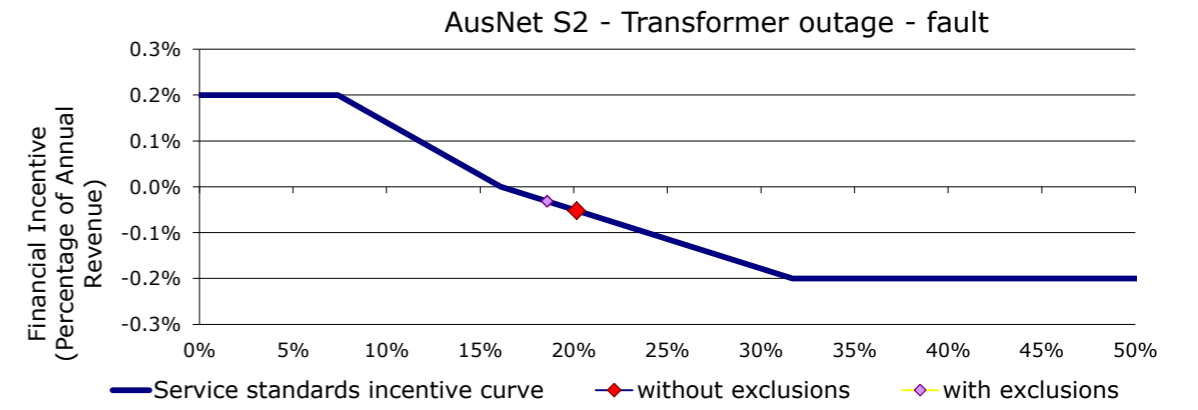
Performance Formulae					Conditions					
	Formulae					Conditions				
Performance	=	-0.0020			42.0% <	line outage		S- Calc 1	S- Calc 2	
	=	-0.0124	x	line outage	+	0.0032	≤	42.0%	-0.0020	-0.0020
	=	-0.0180	x	line outage	+	0.0047	≤	25.9%	0.0001	0.0001
	=	0.0020			14.8% ≤	line outage	≤	25.9%	0.0001	0.0002
					<	14.8%	<	14.8%	0.0020	0.0020



AusNet - s2 - transformer outage - fault

Performance Targets					Performance Outcomes				
	Graph start	Collar	Target	Cap	Graph end			without exclusions	with exclusions
transformer outage - fault	51.70%	31.70%	16.10%	7.40%	-12.60%	transformer outage - fault	=	20%	19%
Weighting	-0.2000%	-0.2000%	0.0000%	0.2000%	0.2000%	S-Factor	=	-0.05%	-0.03%

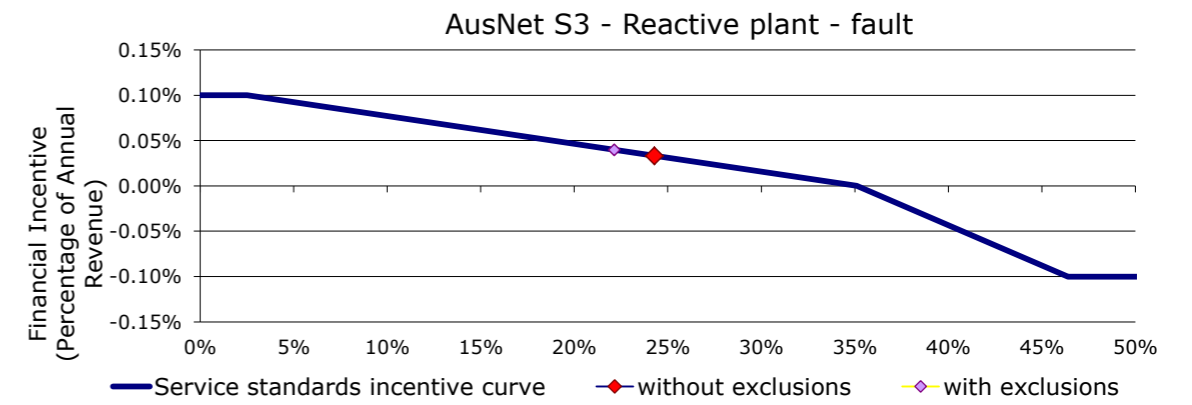
Performance Formulae					Conditions					
	Formulae					Conditions				
Performance	=	-0.0020			31.70% <	transformers outage		S- Calc 1	S- Calc 2	
	=	-0.0128	x	transformers ou	+	0.0021	≤	31.7%	-0.0020	-0.0020
	=	-0.0230	x	transformers ou	+	0.0037	≤	16.1%	-0.0005	-0.0003
	=	0.0020			7.4% ≤	transformers outage	≤	16.1%	-0.0009	-0.0006
					<	7.4%	<	7.4%	0.0020	0.0020



AusNet - s3 - reactive plant - fault

Performance Targets					Performance Outcomes				
	Graph start	Collar	Target	Cap	Graph end			without exclusions	with exclusions
reactive plant - fault	66.40%	46.40%	35.10%	2.50%	0.00%	reactive plant - fault	=	24%	22%
Weighting	-0.10%	-0.10%	0.00%	0.10%	0.10%	S-Factor	=	0.03%	0.04%

Performance Formulae					Conditions					
	Formulae					Conditions				
Performance	=	-0.0010			46.40% ≤	reactive plant outage		S- Calc 1	S- Calc 2	
	=	-0.0088	x	reactive plant	+	0.0031	≤	46.4%	-0.0010	-0.0010
	=	-0.0031	x	reactive plant	+	0.0011	≤	35.1%	0.0010	0.0011
	=	0.0010			2.5% ≤	reactive plant outage	<	35.1%	0.0003	0.0004
					<	2.5%	<	2.5%	0.0010	0.0010



AusNet - s4 - line outage - forced

Performance Targets					Performance Outcomes				
	Graph start	Collar	Target	Cap	Graph end			without exclusions	with exclusions
line outage - forced	17.50%	17.70%	14.90%	12.30%	12.50%	line outage - forced	=	16%	16%
Weighting	0.00%	0.00%	0.00%	0.00%	0.00%	S-Factor	=	0.00%	0.00%

Performance Formulae					Conditions					
	Formulae					Conditions				
Performance	=	0.0000			17.70% ≤	line outage (force)		S- Calc 1	S- Calc 2	
	=	0.0000	x	line outage (fo	+	0.0000	≤	17.7%	0.0000	0.0000
	=	0.0000	x	line outage (fo	+	0.0000	≤	14.9%	0.0000	0.0000
	=	0.0000			<	12.3%	<	12.3%	0.0000	0.0000

AusNet - s5 - transformer outage - forced

Performance Targets						Performance Outcomes		without	with
	Graph start	Collar	Target	Cap	Graph end			exclusions	exclusions
transformer outage - forced	17.40%	17.60%	12.00%	6.20%	6.40%			12%	11%
Weighting	0.00%	0.00%	0.00%	0.00%	0.00%			0.00%	0.00%

Performance Formulae						Conditions		S- Calc 1	S- Calc 2
	Formulae								
Performance	=	0.0000				17.60% ≤ transformers outage (force		0.0000	0.0000
	=	0.0000	x	transformers out	+	12.0% ≤ transformers outage (force ≤	17.6%	0.0000	0.0000
	=	0.0000	x	transformers out	+	6.2% ≤ transformers outage (force ≤	12.0%	0.0000	0.0000
	=	0.0000				transformers outage (force <	6.2%	0.0000	0.0000

AusNet - s6 - reactive plant - forced

Performance Targets						Performance Outcomes		without	with
	Graph start	Collar	Target	Cap	Graph end			exclusions	exclusions
reactive plant - forced	32.50%	32.70%	15.40%	6.20%	6.40%			36%	36%
Weighting	0.00%	0.00%	0.00%	0.00%	0.00%			0.00%	0.00%

Performance Formulae						Conditions		S- Calc 1	S- Calc 2
	Formulae								
Performance	=	0.0000				32.70% ≤ reactive plant outage (force		0.0000	0.0000
	=	0.0000	x	reactive plant	+	15.4% ≤ reactive plant outage (for ≤	32.7%	0.0000	0.0000
	=	0.0000	x	reactive plant	+	6.2% ≤ reactive plant outage (for ≤	15.4%	0.0000	0.0000
	=	0.0000				reactive plant outage (for <	6.2%	0.0000	0.0000

AusNet - s7 - Loss of supply event frequency: >0.05 system minutes

Performance Targets

>0.05 system minutes
Weighting

Graph start	Collar	Target	Cap	Graph end
8	6.0	2.0	0.0	0
-0.00150	-0.00150	0.00000	0.00150	0.00150

Performance Formulae

Performance

Formulae

When:
4.0 <

Performance Outcomes

>0.05 system minutes
S-Factor

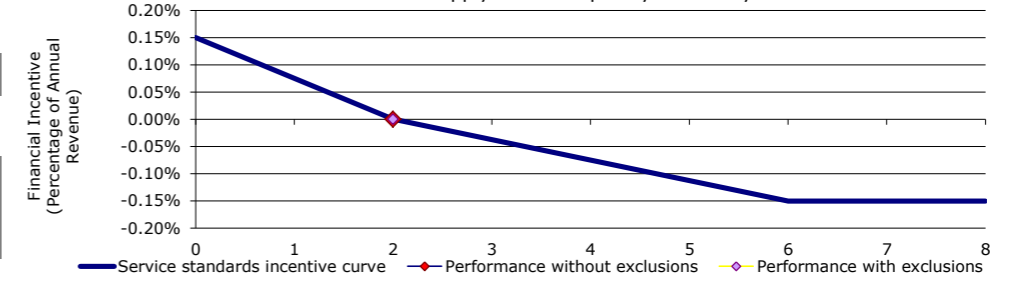
Conditions

No. of events = 3
No. of events = 2
No. of events = 1
No. of events = 0

	without exclusions	with exclusions
=	2	2
=	0.00%	0.00%

	S- Calc 1	S- Calc 2
=	-0.0015	-0.0015
=	-0.0008	-0.0008
=	0.0000	0.0000
=	0.0008	0.0008
=	0.0015	0.0015

AusNet - S7 - Loss of supply event frequency: >0.05 system minutes



AusNet - s8 - Loss of supply event frequency: >0.3 system minutes

Performance Targets

>0.3 system minutes
Weighting

Graph start	Collar	Target	Cap	Graph end
4	2.0	1.0	0.0	0
-0.0015	-0.0015	0.0000	0.0015	0.0015

Performance Formulae

Performance

Formulae

When:
2.0 <

Performance Outcomes

>0.3 system minutes
S-Factor

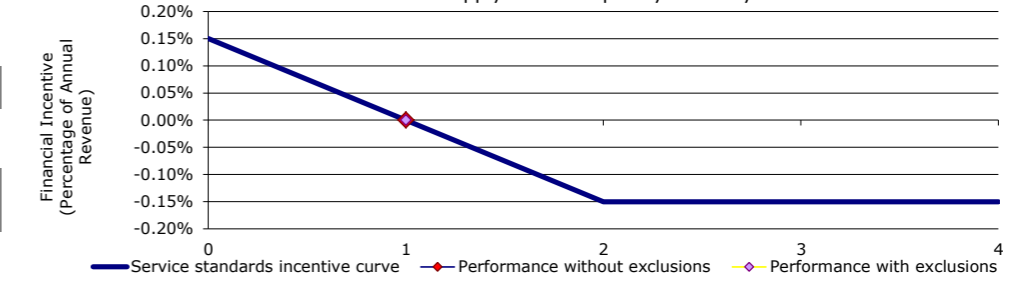
Conditions

No. of events = 1
No. of events = 0

	without exclusions	with exclusions
=	1	1
=	0.00%	0.00%

	S- Calc 1	S- Calc 2
=	-0.0015	-0.0015
=	0.0000	0.0000
=	0.0015	0.0015

AusNet - S8 - Loss of supply event frequency: >0.3 system minutes



AusNet - s9 - Average outage duration

Performance Targets
Average outage duration
Weighting

Graph start	Collar	Target	Cap	Graph end
594	294	98	5	0
-0.00200	-0.00200	0.00000	0.00200	0.00200

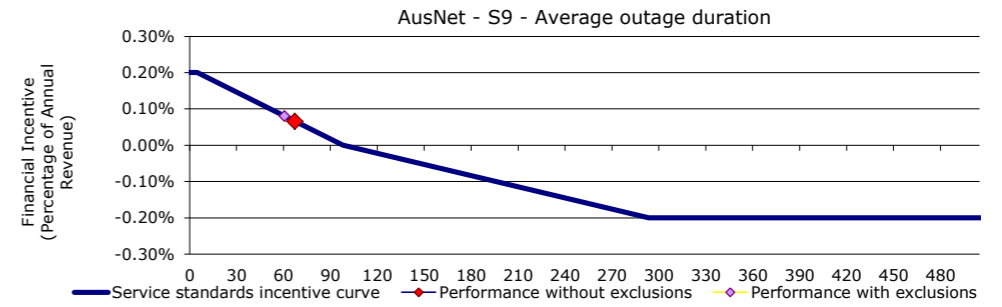
Performance Formulae

Performance	Formulae
=	-0.0020
=	0.0000 x No. of events + 0.0010
=	0.0000 x No. of events + 0.0021
=	0.0020

Performance Outcomes
Average outage duration
S-Factor

When:	Conditions	S- Calc 1	S- Calc 2
294 <	No. of events	-0.0020	-0.0020
98 ≤	No. of events	0.0003	0.0004
5 ≤	No. of events	0.0007	0.0008
	No. of events	0.0020	0.0020

	without exclusions	with exclusions
Average outage duration	67	61
S-Factor	0.07%	0.08%



AusNet - Performance outcomes

Aggregate outcome

S-factor	0.108%
Financial Incentive	\$578,105
Financial year affected by financial incentive	2015-16

S	Performance parameter	Target	Performance without exclusions			Performance with exclusions			Impact of exclusions
			Performance	S-Factor	Final Incentive	Performance	S-Factor	Final Incentive	
s1	line outage - fault	25.90%	25.21%	0.01%	\$66,721	24.79%	0.02%	\$106,483	0.01%
s2	transformer outage - fault	16.10%	20.16%	-0.05%	-\$277,848	18.58%	-0.03%	-\$169,599	0.02%
s3	reactive plant - fault	35.10%	24.29%	0.03%	\$177,157	22.14%	0.04%	\$212,261	0.01%
s4	line outage - forced	14.90%	16.12%	0.00%	\$0	15.70%	0.00%	\$0	0.00%
s5	transformer outage - forced	12.00%	11.86%	0.00%	\$0	11.46%	0.00%	\$0	0.00%
s6	reactive plant - forced	15.40%	36.43%	0.00%	\$0	36.43%	0.00%	\$0	0.00%
s7	LOS >0.05 system minutes	2	2	0.00%	\$0	2	0.00%	\$0	0.00%
s8	LOS >0.3 system minutes	1	1	0.00%	\$0	1	0.00%	\$0	0.00%
s9	Average outage duration	98	67	0.07%	\$352,203	61	0.08%	\$428,960	0.01%
TOTALS				0.06%	\$318,233		0.11%	\$578,105	0.05%

Revenue calendar year: \$534,046,482