Instructions

This template must be used by **TasNetworks** to report service performance information for **2H 2015** (1 Jul - 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:

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:

Outcomes

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

TNSP input re

revenue prop

**calculation c

Average circuit outage rate (%)

	Collar	Target	Cap	Weighting	Unit	Performance without exclusions	Performance with exclusions	2015 without exclusions	2015 with exclusions	2015 exclusions	No. of defined circuits	2014 without exclusions	2014 with exclusions	2014 exclusions	No. of defined circuits	Average without exclusions	Average with exclusions	Average exclusions	No. of defined circuits
s1 line outage - fault	64.59	31.17	13.39	0.2	average circuit outage rate (%)	20.1	17.8	24	21	3	107	19	17	2	107	22	19	3	107
s2 transformer outage - fault	17.28	11.60	7.03	0.2	average circuit outage rate (%)	7.3	7.3	8	8	0	109	8	8	0	109	8	8	0	109
s3 reactive plant - fault	9.99	3.33	0.17	0.1	average circuit outage rate (%)	20.8	20.8	1	1	0	12	4	4	0	12	3	3	0	12
s4 line outage - forced	17.62	9.99	2.67	0.0	average circuit outage rate (%)	11.2	8.4	10	7	3	107	14	11	3	107	12	9	3	107
s5 transformer outage - forced	4.37	2.82	1.28	0.0	average circuit outage rate (%)	14.2	14.2	14	14	0	109	17	17	0	109	16	16	0	109
s6 reactive plant - forced	32.82	14.00	1.07	0.0	average circuit outage rate (%)	70.8	70.8	3	3	0	12	14	14	0	12	9	9	0	12

Loss of supply event frequency

	Collar	Target	Cap	Weighting	Unit	without exclusions	with exclusions	exclusions
s7 >0.10 system minutes	6	5	4	0.15	number of events per annum	3	3	0
s8 >1.00 system minutes	3	2	0	0.15	number of events per annum	0	0	0

Average outage duration

	Collar	Target	Cap	Weighting		without exclusions	with exclusions		2015 without exclusions	2015 with exclusions	2015 exclusions	2014 without exclusions	2014 with exclusions	2014 exclusions	Average without exclusions	Average with exclusions	Average exclusions
s9 Average outage duration	169.76	111.52	63.99	0.2	number of LOS events	12	12	1	12	12	0	12	11	1	12	12	1
					Aggregate LOS minutes	1,581	1,546	35	883	883	0	2278	2,208	70	1,581	1,546	35
					Average outage duration	132	137	35	74	74	0	190	201	70	132	137	35

Proper operation of equipment

	Collar	Target	Cap	Weighting	Unit	without exclusions	with exclusions	exclusions
s10 failure of protection system	14.0	9.0	5.0	0.0	number of events per annum	4	4	0
s11 Material failure of SCADA	25.0	8.0	0.0	0.0	number of events per annum	2	2	0
s12 Incorrect operational isolation of	8.0	4.0	1.0	0.0	number of events per annum	6	6	0

TNSP	TasNetworks
STPIS version	December, 2012
Regulatory Determination	2014/15 - 2017/18
Base Year Allowed Revenue	186,931,284
Base Year	2014-15
Commencement of regulatory year	1 Jul 2014
X factor	9.81%

	2014–15	2015–16	2016–17	2017-18	2018-19		Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18
Annual revenue ($2014-15)	186,931,284						CPI 104.8	106.6				
Annual revenue adjusted for CPI	186,931,284	171,494,719										
Calendar year revene	2H 2015	2016	2017	2018	1H 2019							
Revenue	85,747,359											

Other inputs

Assessment Period	2H 2015
Financial year to affect revenue:	2016/17
Date prepared:	28-Jan-16
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 TasNetworks	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	TLacor-fault	fault outage of WY-CA 220 kV Transmission Circuit 13 Jan 2015	IR1673 WY-CA 220 kV transmission circuit tripped due to intertrip from Hydro.	Intertrip	1	WY-CA 220 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	see incident investigation report exclusion ref E005
S1	TLacor-fault	fault outage of FA-RC 2 220 kV Transmission Circuit 13 March 2015	IR1686 FA-RC 2 220 kV transmission circuit tripped due to third party inter trip.	Intertrip	1	FA-RC 2 220 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	see incident investigation report exclusion ref E008
S1	TLacor-fault	fault outage of GT-TV 1 110 kV Transmission Circuit 15 Dec 2015	IR? GT-TV 1 110 kV transmission circuit tripped during protection testing at AETV.	Intertrip	1	GT-TV 1 110 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	see incident investigation report exclusion ref E004
S2					0			
S3					0			
S4	TLacor-forced	forced outage of FA-MA 110 kV Transmission Circuit 26 Sep 2015	Farrell - Mackintosh 110kV transmission line to be Opened at Farrell and Mackintosh at Hydro request while planned fuel reduction burn by Parks & Wildlife is in progress on Saturday 26/9/2015	Hydro request, fuel reduction burn	1	FA-MA 110 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	Not in Hydro outage record.
S4	TLacor-forced	forced outage of PO-PM 6 220 kV Transmission Circuit 12 Nov 2015	Hydro request for earth fault relay tests at Poatina. Generator out of service.	Hydro request, relay tests	1	PO-PM 6 220 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	See Hydro outage record showing machine OOS
S4	TLacor-forced	forced outage of GT-TV 1 110 kV Transmission Circuit 15-16 Dec 2015	Hydro request.	Hydro request.	1	GT-TV 1 110 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	Not shown in Hydro record for BBT1, but no isolation and available for service. See also exclusion ref E014.
S5					0			
S6					0			

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
S	Name of any LOS event parameters applying to TasNetworks	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 LOS parameter	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	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.	A TNSP may provide further details of an exclusion event. Please provide reference to any attachments submitted.
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	Hours+Minutes unavailable (min)	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	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.
								0:00		0:00			

| 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
	Name of any average circuit outage rate parameters applying to TasNetworks	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.
S								
S1	TLacor-fault	fault outage of PO-PM 3 220 kV Transmission Circuit 14 Jun 2014	IR1632 PO-PM No 3 220 kV transmission line circuit tripped follwing an intertrip received from the generator.	Intertrip	1	PO-PM 3 220 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	see incident investigation report exclusion ref E009
S1	TLacor-fault	fault outage of TU-LE-WA 1 110 kV Transmission Circuit 15 Jul 2014	IR1636 TU-LE-WA 1 110 kV transmission circuit tripped when an intertrip was received from the generator.	Intertrip	1	TU-LE-WA 1 110 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	see incident investigation report exclusion ref E010
S2					0			
S3					0			
S4	TLacor-forced	forced outage of SH-LM 220 kV Transmission Circuit 1 Apr 2014	Sheffield - Lemonthyme T/L outage at Hydro Tasmania request to allow corrective maintenance of motorised disconnector 29 at Lemonthyme.	Hydro request	1	SH-LM 220 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	see Hydro outage list ref E011, restriction number 1000001432
S4	TLacor-forced	forced outage of PO-PM 1 110 kV Transmission Circuit 17 May 2014	Hydro Tasmania requested PO-PM No 1 110kV Transmission Line out of service to conduct work on Poatina T1	Hydro request	1	PO-PM 1 110 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	see Hydro outage list ref E011, restriction number 1000001662
S4	TLacor-forced	forced outage of LI-WY 220 kV Transmission Circuit 27 May 2014	Open LI-WY Transline for Hydro	Hydro request	1	LI-WY 220 kV Transmission Circuit	Defined Exclusion 1.3 Third Party Outage	see Hydro outage list ref E011, restriction number 1000001739 and 1000001752
S5					0			
S6					0			

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 dd/mm/yy	Start time hh:mm:ss	End date dd/mm/yy	End time hh:mm:ss	Hours+Minutes unavailable (min)	Quantitative impact — Impact of exclusion event on AOD Parameter	Capped impact — Impact of capped exclusion event on AOD parameter - the impact is capped at seven days	Circuits affected — Name of circuits or plant affected	Reasons for exclusion request — 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	Further references — A TNSP may provide further details of an exclusion event. Please provide reference to any attachments submitted.
	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										
s9	fault outage of QU 22 kV A Bus	IR1655 Que 22 kV bus bar tripped following a customer feeder fault	Inspections found a damaged insulator on the private distribution line supplying the Hellyer and Que River Mines.	24/10/14	12:12:00	24/10/14	13:22:00	1:10	1	1:10	QU 22 kV A Bus	Defined Exclusion 1.3 Third Party Outage	see incident investigation report exclusion ref E012

TasNetworks - s1 - line outage - fault

Performance Targets	Graph start	Collar	Target	Cap	Graph end		Performance Outcomes		without exclusions	with exclusions
line outage - fault	84.6%	64.6%	31.2%	13.4%	-1.4%		line outage - fault	=	20%	18%
Weighting	-0.2000%	-0.2000%	0.0000%	0.2000%	0.2000%		S-Factor	=	0.12%	0.15%

Performance Formulae			Formulae				Conditions			S- Calc 1	S- Calc 2
Performance	=	-0.0020					64.6% < line outage			-0.0020	-0.0020
	=	-0.0060	x	line outage	+	0.0019	31.2% ≤ line outage	≤	64.6%	0.0007	0.0008
	=	-0.0112	x	line outage	+	0.0035	13.4% ≤ line outage	≤	31.2%	0.0012	0.0015
	=	0.0020					line outage	<	13.4%	0.0020	0.0020

TasNetworks S1 - Line outage - fault
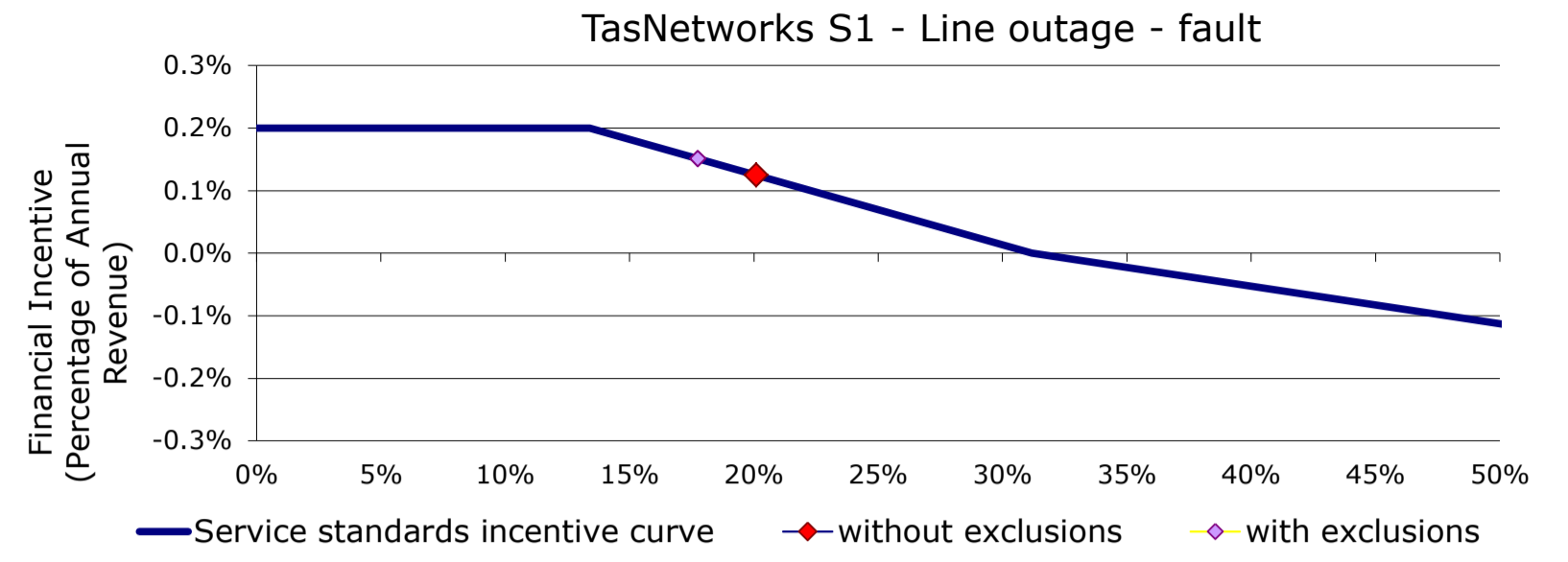
TasNetworks - s2 - transformer outage - fault

Performance Targets	Graph start	Collar	Target	Cap	Graph end		Performance Outcomes		without exclusions	with exclusions
transformer outage - fault	37.30%	17.28%	11.60%	7.03%	-13.00%		transformer outage - fault	=	7%	7%
Weighting	-0.2000%	-0.2000%	0.0000%	0.2000%	0.2000%		S-Factor	=	0.19%	0.19%

Performance Formulae			Formulae				Conditions			S- Calc 1	S- Calc 2
Performance	=	-0.0020					17.28% < transformers outage			-0.0020	-0.0020
	=	-0.0352	x	transformers ou	+	0.0041	11.6% ≤ transformers outage	≤	17.3%	0.0015	0.0015
	=	-0.0438	x	transformers ou	+	0.0051	7.0% ≤ transformers outage	≤	11.6%	0.0019	0.0019
	=	0.0020					transformers outage	<	7.0%	0.0020	0.0020

TasNetworks S2 - Transformer outage - fault
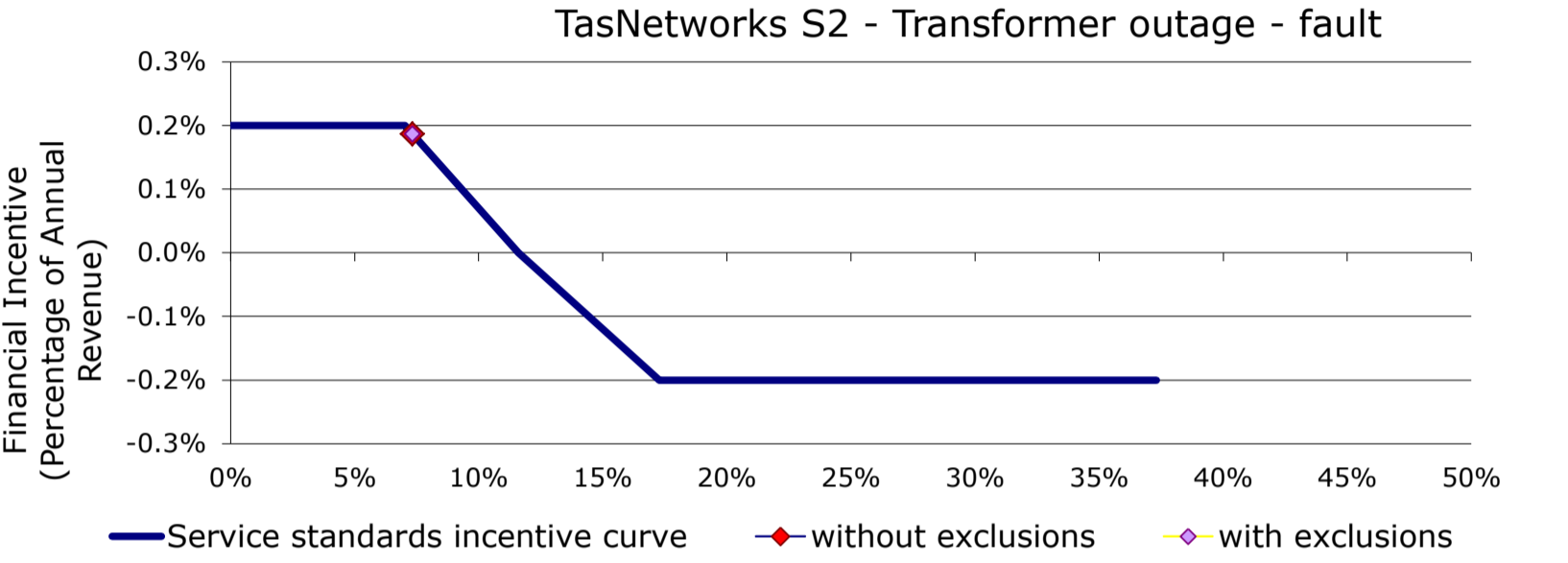
TasNetworks - s3 - reactive plant - fault

Performance Targets	Graph start	Collar	Target	Cap	Graph end		Performance Outcomes		without exclusions	with exclusions
reactive plant - fault	30.00%	9.99%	3.33%	0.17%	0.00%		reactive plant - fault	=	21%	21%
Weighting	-0.10%	-0.10%	0.00%	0.10%	0.10%		S-Factor	=	-0.10%	-0.10%

Performance Formulae			Formulae				Conditions			S- Calc 1	S- Calc 2
Performance	=	-0.0010					9.99% ≤ reactive plant outage			-0.0010	-0.0010
	=	-0.0150	x	reactive plant o	+	0.0005	3.3% ≤ reactive plant outage	≤	10.0%	-0.0026	-0.0026
	=	-0.0316	x	reactive plant o	+	0.0011	0.2% ≤ reactive plant outage	≤	3.3%	-0.0055	-0.0055
	=	0.0010					reactive plant outage	<	0.2%	0.0010	0.0010

TasNetworks S3 - Reactive plant - fault
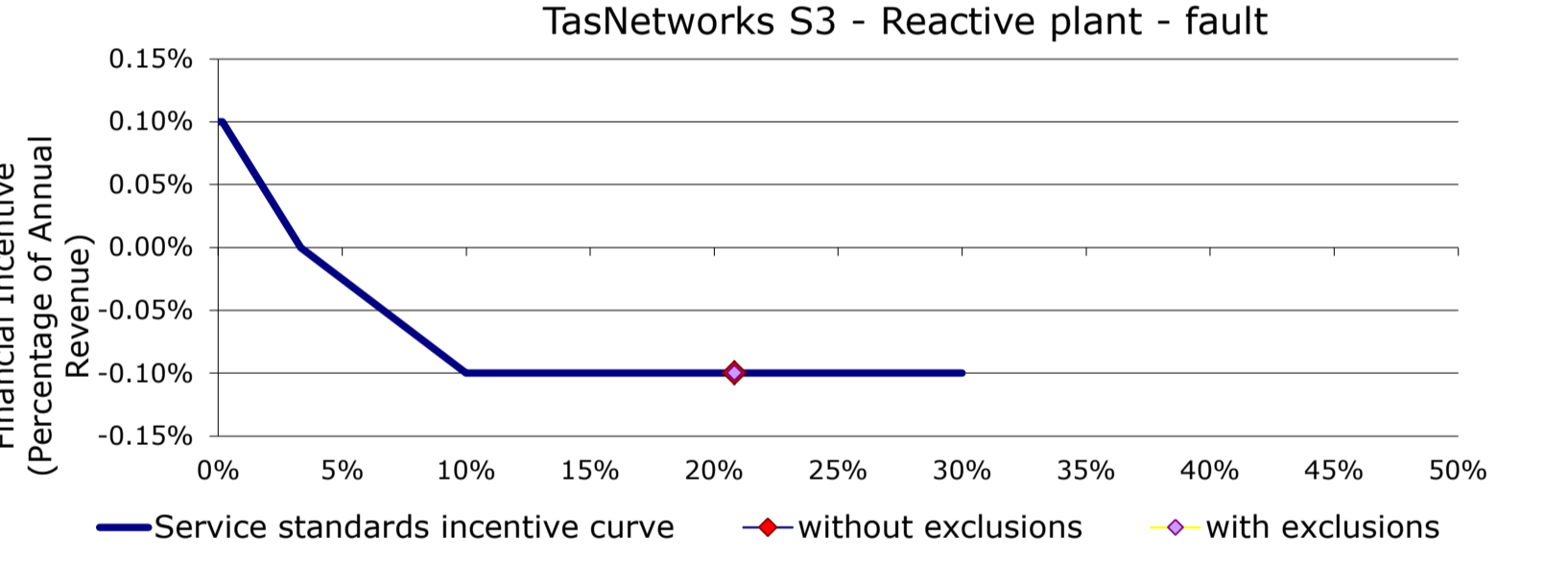
TasNetworks - s4 - line outage - forced

Performance Targets	Graph start	Collar	Target	Cap	Graph end		Performance Outcomes		without exclusions	with exclusions
line outage - forced	17.40%	17.62%	9.99%	2.67%	2.90%		line outage - forced	=	11%	8%
Weighting	0.00%	0.00%	0.00%	0.00%	0.00%		S-Factor	=	0.00%	0.00%

Performance Formulae			Formulae				Conditions			S- Calc 1	S- Calc 2
Performance	=	0.0000					17.62% ≤ line outage (force)			0.0000	0.0000
	=	0.0000	x	line outage (fo	+	0.0000	10.0% ≤ line outage (force)	≤	17.6%	0.0000	0.0000
	=	0.0000	x	line outage (fo	+	0.0000	2.7% ≤ line outage (force)	≤	10.0%	0.0000	0.0000
	=	0.0000					line outage (force)	<	2.7%	0.0000	0.0000

TasNetworks - s5 - transformer outage - forced

Performance Targets	Graph start	Collar	Target	Cap	Graph end		Performance Outcomes		without exclusions	with exclusions
transformer outage - force	4.20%	4.37%	2.82%	1.28%	1.50%		transformer outage - forced	=	14%	14%
Weighting	0.00%	0.00%	0.00%	0.00%	0.00%		S-Factor	=	0.00%	0.00%

Performance Formulae		Formulae					Conditions		S- Calc 1	S- Calc 2
Performance	=	0.0000					4.37% ≤ transformers outage (force)		0.0000	0.0000
	=	0.0000	x	transformers ou	+	0.0000	2.8% ≤ transformers outage (force ≤ 4.4%		0.0000	0.0000
	=	0.0000	x	transformers ou	+	0.0000	1.3% ≤ transformers outage (force ≤ 2.8%		0.0000	0.0000
	=	0.0000					transformers outage (force < 1.3%		0.0000	0.0000

TasNetworks - s6 - reactive plant - forced

Performance Targets	Graph start	Collar	Target	Cap	Graph end		Performance Outcomes		without exclusions	with exclusions
reactive plant - forced	32.60%	32.82%	14.00%	1.07%	1.30%		reactive plant - forced	=	71%	71%
Weighting	0.00%	0.00%	0.00%	0.00%	0.00%		S-Factor	=	0.00%	0.00%

Performance Formulae		Formulae					Conditions		S- Calc 1	S- Calc 2
Performance	=	0.0000					32.82% ≤ reactive plant outage (force)		0.0000	0.0000
	=	0.0000	x	reactive plant	+	0.0000	14.0% ≤ reactive plant outage (for ≤ 32.8%		0.0000	0.0000
	=	0.0000	x	reactive plant	+	0.0000	1.1% ≤ reactive plant outage (for ≤ 14.0%		0.0000	0.0000
	=	0.0000					reactive plant outage (for < 1.1%		0.0000	0.0000

TasNetworks - s7 - Loss of supply event frequency: >0.10 system minutes

Performance Targets	Graph start	Collar	Target	Cap	Graph end
>0.10 system minutes	8	6.0	5.0	4.0	0
Weighting	-0.00150	-0.00150	0.00000	0.00150	0.00150

Performance Outcomes		without exclusions	with exclusions
>0.10 system minutes	=	3	3
S-Factor	=	0.15%	0.15%

Performance Formulae	Formulae
Performance	

Conditions			S- Calc 1	S- Calc 2
When:				
6.0 <	No. of events		-0.0015	-0.0015
	No. of events	= 5	0.0000	0.0000
	No. of events	= 4	0.0015	0.0015

TasNetworks - S7 - Loss of supply event frequency: >0.10 system minutes
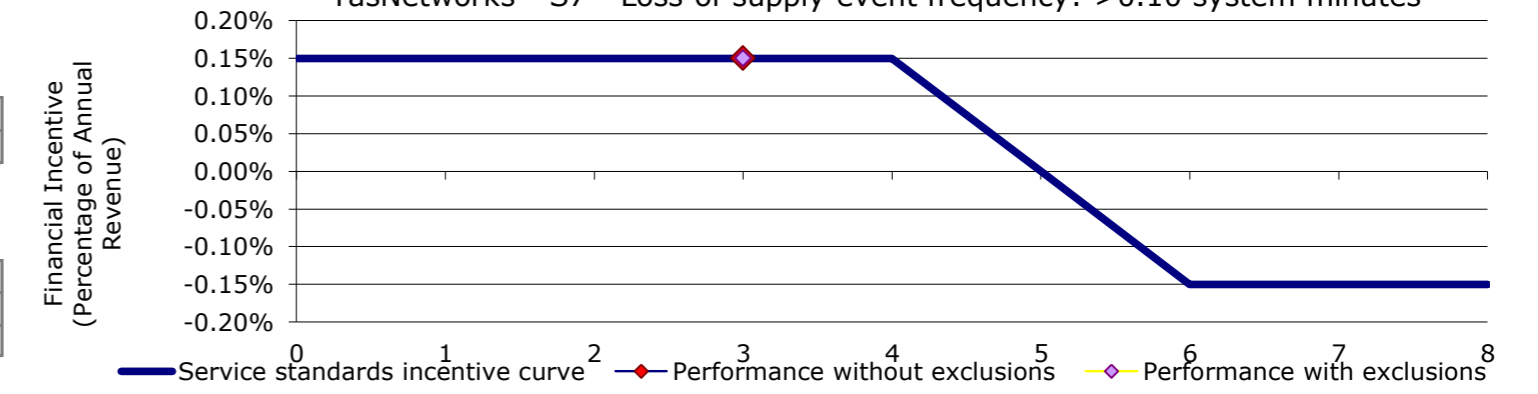
TasNetworks - s8 - Loss of supply event frequency: >1.00 system minutes

Performance Targets	Graph start	Collar	Target	Cap	Graph end
>1.00 system minutes	4	3.0	2.0	0.0	0
Weighting	-0.0015	-0.0015	0.0000	0.0015	0.0015

Performance Outcomes		without exclusions	with exclusions
>1.00 system minutes	=	0	0
S-Factor	=	0.15%	0.15%

Performance Formulae	Formulae
Performance	

Conditions			S- Calc 1	S- Calc 2
When:				
2.0 <	No. of events		-0.0015	-0.0015
	No. of events	= 1	0.0000	0.0000
	No. of events	= 0	0.0015	0.0015

TasNetwworks - S8 - Loss of supply event frequency: > 1.00 system minutes

TasNetworks - s9 - Average outage duration

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Average outage duration	300	170	112	64	0
Weighting	-0.00200	-0.00200	0.00000	0.00200	0.00200

Performance Outcomes		without exclusions	with exclusions
Average outage duration	=	132	137
S-Factor	=	-0.07%	-0.09%

Performance Formulae		Formulae					Conditions				S- Calc 1	S- Calc 2
						When:						
Performance	=	-0.0020				170	<	No. of events			-0.0020	-0.0020
	=	0.0000	x	No. of events	+	0.0038	111.52	≤	No. of events	≤ 170	-0.0007	-0.0009
	=	0.0000	x	No. of events	+	0.0047	63.99	≤	No. of events	≤ 112	-0.0008	-0.0011
	=	0.0020						No. of events	=	64	0.0020	0.0020

AusNet - S9 - Average outage duration

Financial Incentive (Percentage of Annual Revenue)

— Service standards incentive curve —♦— Performance without exclusions —◇— Performance with exclusions
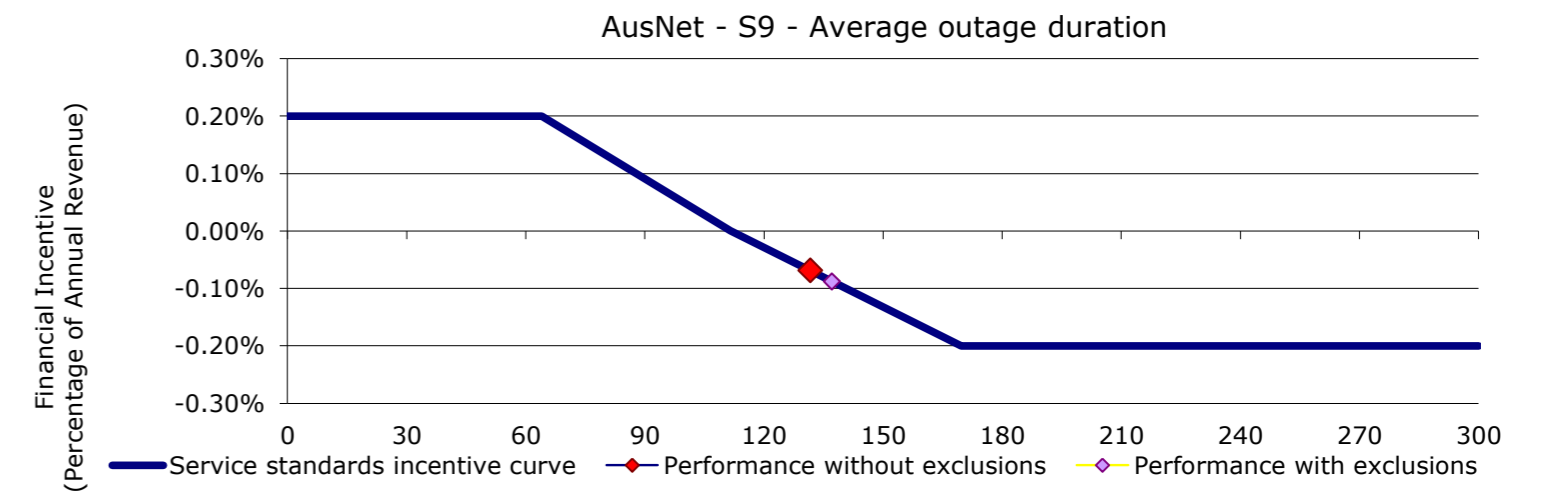
TasNetworks - Performance outcomes

Aggregate outcome

S-factor	0.449%
Financial Incentive	$385,264
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	31.17%	20.09%	0.12%	$106,837	17.76%	0.15%	$129,373	0.03%
s2	transformer outage - fault	11.60%	7.34%	0.19%	$159,882	7.34%	0.19%	$159,882	0.00%
s3	reactive plant - fault	3.33%	20.83%	-0.10%	-$85,747	20.83%	-0.10%	-$85,747	0.00%
s4	line outage - forced	9.99%	11.21%	0.00%	$0	8.41%	0.00%	$0	0.00%
s5	transformer outage - forced	2.82%	14.22%	0.00%	$0	14.22%	0.00%	$0	0.00%
s6	reactive plant - forced	14.00%	70.83%	0.00%	$0	70.83%	0.00%	$0	0.00%
s7	LOS >0.10 system minutes	5	3	0.15%	$128,621	3	0.15%	$128,621	0.00%
s8	LOS >1.00 system minutes	2	0	0.15%	$128,621	0	0.15%	$128,621	0.00%
s9	Average outage duration	111.52	132	-0.07%	-$59,447	137	-0.09%	-$75,486	-0.02%
	TOTALS			**0.44%**	**$378,767**		**0.45%**	**$385,264**	**0.01%**

Revenue calendar year: $85,747,359