

## 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.

**TransGrid - SERVICE STANDARDS PERFORMANCE**

<i>Performance Inputs</i>							
<i>S</i>	<i>Performance parameter</i>	<i>Collar</i>	<i>Target</i>	<i>Cap</i>	<i>Revenue at Risk</i>	<i>Performance (Without exclusions)</i>	<i>Performance (With exclusions)</i>
S1	<b>Transmission line availability</b>	99.05%	99.26%	99.36%	0.20%	98.604930%	98.760371%
S2	<b>Transformer availability</b>	97.33%	98.61%	98.89%	0.15%	98.367019%	98.382961%
S3	<b>Reactive plant availability</b>	98.65%	99.12%	99.33%	0.10%	95.441836%	95.443239%
S4	<b>Loss of supply event frequency &gt;0.05 system minutes</b>	7	4	2	0.250%	3	3
S5	<b>Loss of supply event frequency &gt;0.25 system minutes</b>	2	1	-	0.100%	1	1
S6	<b>Average outage duration</b>	999	824	649	0.200%	920	861

<i>Revenue Determination Inputs</i>	
<b>TNSP:</b>	TransGrid
<b>STPIS version:</b>	March, 2008
<b>Regulatory Determination</b>	2009/10 - 2013/14
<b>Base Year Allowed Revenue</b>	\$678,400,000
<b>Base Year</b>	2009-10
<b>X-factor</b>	-5.61%
<b>Commencement of regulatory year</b>	1-Jul-09

<i>Other inputs</i>	
<b>Assessment Period</b>	2010
<b>Financial year to affect revenue:</b>	2011/12
<b>Date prepared:</b>	25 January 2011
<b>Revision date:</b>	31 January 2011

<i>Other Inputs</i>						
<i>Annual revenue adjusted for C</i>	<i>Mar-09</i>	<i>Mar-10</i>	<i>Mar-11</i>	<i>Mar-12</i>	<i>Mar-13</i>	<i>Mar-14</i>
CPI	166.2	171.0				

**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.



**TransGrid - S1 - Transmission line availability**

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Transmission line availability	98.90%	99.05%	99.26%	99.36%	99.60%
Weighting	-0.20%	-0.20%	0.00%	0.20%	0.20%

Performance Formulae	Formulae				Conditions	S- Calc 1	S- Calc 2
Performance	=	-0.002000			Availability < 99.05%	-0.002000	-0.002000
	=	0.952381	x	Availability	+ 99.05% ≤ Availability ≤ 99.26%	-0.006239	-0.004758
	=	2.000000	x	Availability	+ 99.26% ≤ Availability ≤ 99.36%	-0.013101	-0.009993
	=	0.002000			99.36% < Availability	0.002000	0.002000

Performance Outcomes	Performance (Without Exclusions)	Performance (Exclusions)
Transmission line availability	= 98.604930%	98.760371%
S-Factor	= -0.200000%	-0.200000%

**NOTE:**

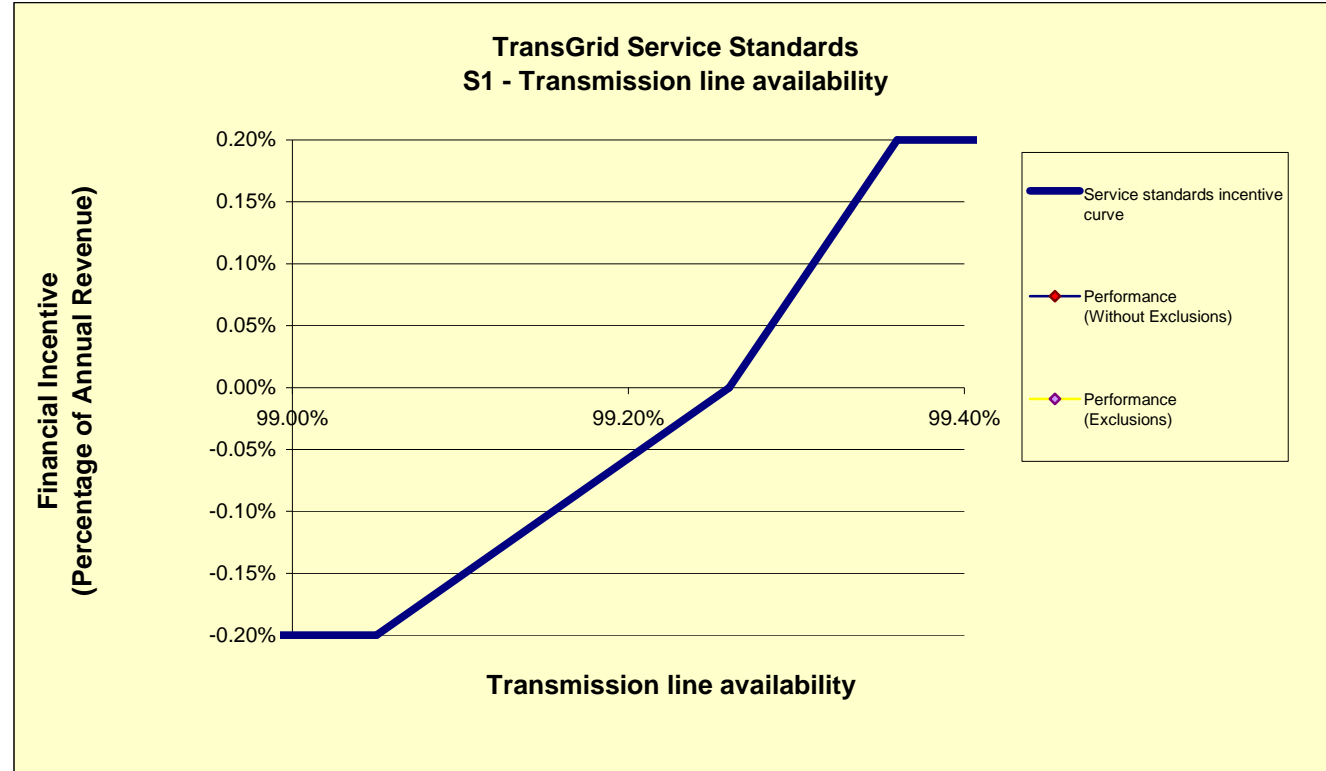
This sheet will automatically update based on data in input sheets

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



## TransGrid - S2 - Transformer availability

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Transformer availability	97.10%	97.33%	98.61%	98.89%	99.10%
Weighting	-0.15%	-0.15%	0.00%	0.15%	0.15%

Performance Formulae	Formulae				Conditions	S- Calc 1	S- Calc 2
Performance	=	-0.001500			When: Availability < 97.33%	-0.001500	-0.001500
	=	0.117188	x	Availability	+ 97.33% ≤ Availability ≤ 98.61%	-0.000285	-0.000266
	=	0.535714	x	Availability	+ 98.61% ≤ Availability ≤ 98.89%	-0.001302	-0.001216
	=	0.001500			98.89% < Availability	0.001500	0.001500

Performance Outcomes	Performance (Without Exclusions)	Performance (Exclusions)
Transformer availability	= 98.367019%	98.382961%
S-Factor	= -0.028474%	-0.026606%

### NOTE:

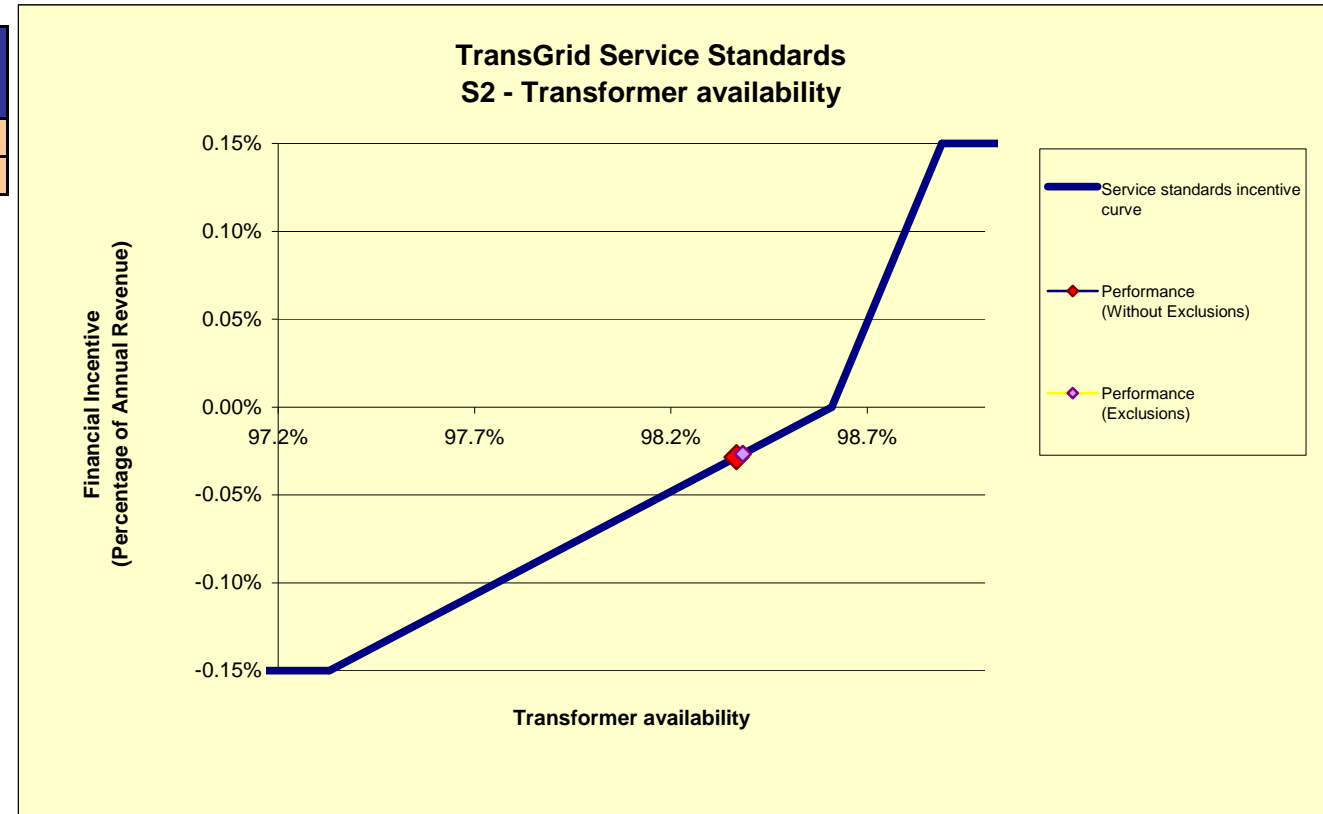
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### TransGrid - S3 - Reactive plant availability

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Reactive plant availability	98.50%	98.65%	99.12%	99.33%	99.50%
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 < 98.65%	-0.001000	-0.001000
	=	0.212766	x	Availability	98.65% ≤ Availability ≤ 99.12%	-0.007826	-0.007823
	=	0.476190	x	Availability	99.12% ≤ Availability ≤ 99.33%	-0.017515	-0.017508
	=	0.001000			99.33% < Availability	0.001000	0.001000

Performance Outcomes	Performance (Without Exclusions)	Performance (Exclusions)
Reactive plant availability	= 95.441836%	95.443239%
S-Factor	= -0.100000%	-0.100000%

**NOTE:**

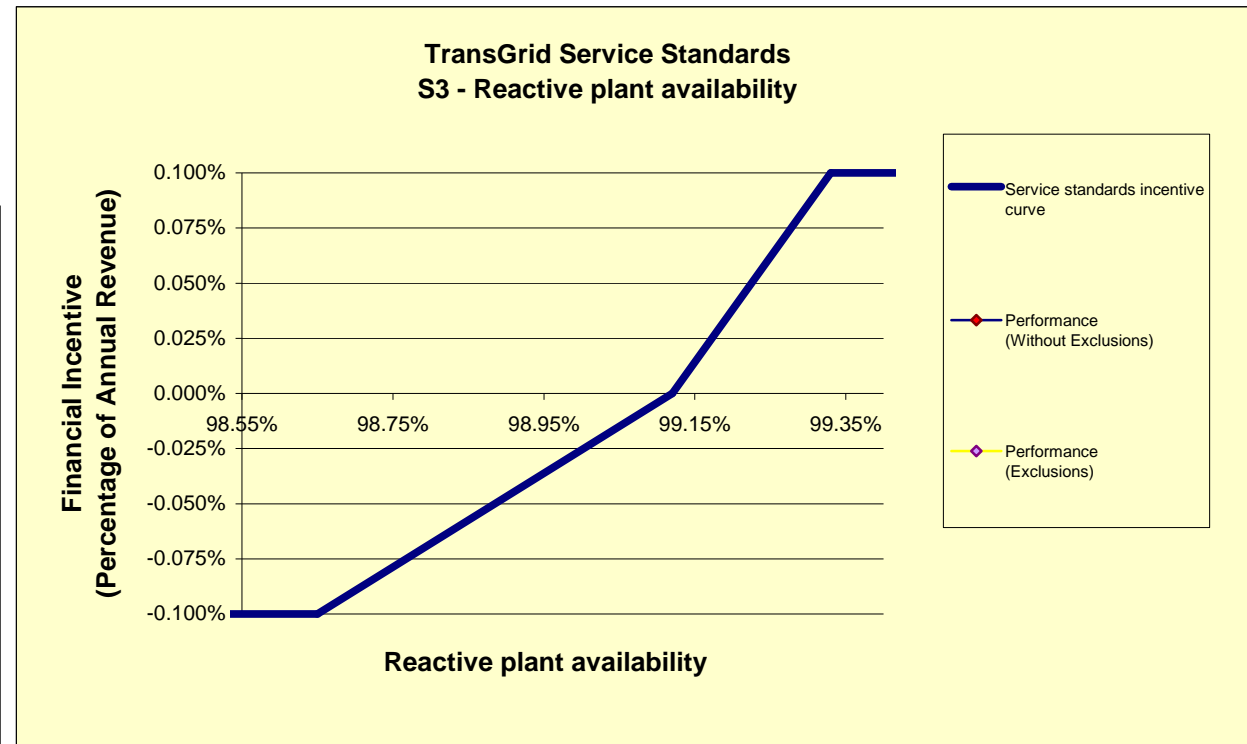
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**TransGrid - S4 - Loss of supply event frequency >0.05 system minutes**

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Loss of supply event frequency >0.05 system minutes	9	7	4	2	-
Weighting	-0.25%	-0.250%	0.00%	0.250%	0.25%

Performance Formulae	Formulae				Conditions	S- Calc 1	S- Calc 2
Performance	=	-0.002500			7 < No. of events	-0.002500	-0.002500
	=	-0.000833	x	No. of events	4 ≤ No. of events ≤ 7	0.000833	0.000833
	=	-0.001250	x	No. of events	2 ≤ No. of events ≤ 4	0.001250	0.001250
	=	0.002500			No. of events < 2	0.002500	0.002500

Loss of supply event frequency >0.05 system minutes	=	Performance (Without Exclusions)	Performance (Exclusions)
Loss of supply event frequency >0.05 system minutes	=	3	3
S-Factor	=	0.125000%	0.125000%

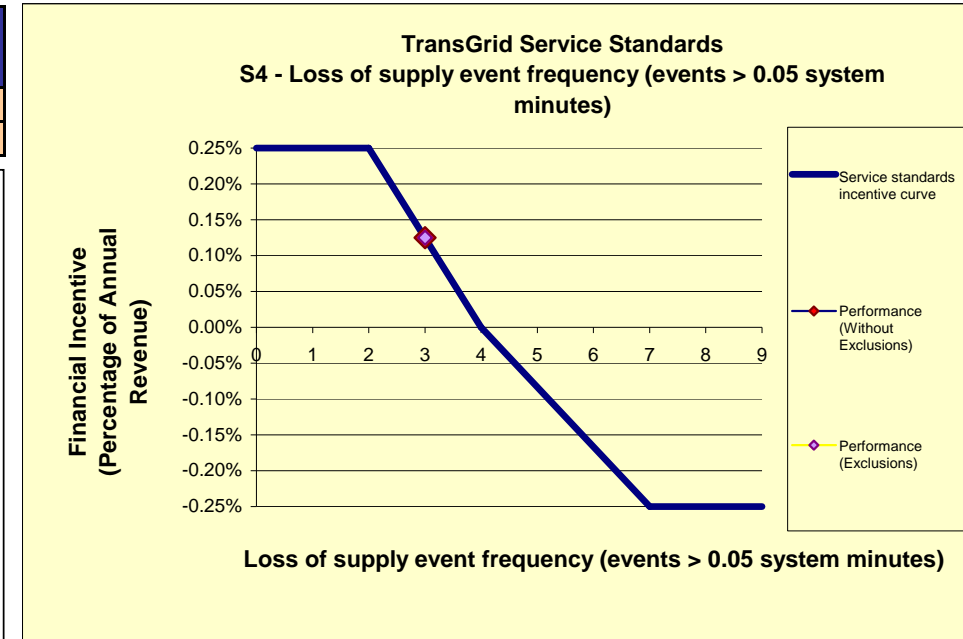
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**TransGrid - S5 - Loss of supply event frequency >0.25 system minutes**

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Loss of supply event frequency >0.25 system minutes	4	2	1	0	0
Weighting	-0.10%	-0.100%	0.00%	0.100%	0.10%

Performance Formulae	Formulae				Conditions	S- Calc 1	S- Calc 2
Performance	=	-0.001000			2 < No. of events	-0.001000	-0.001000
	=	-0.001000	x	No. of events	+ 1 ≤ No. of events ≤ 2	0.000000	0.000000
	=	-0.001000	x	No. of events	+ 0 ≤ No. of events ≤ 1	0.000000	0.000000
	=	0.001000			No. of events = 0	0.001000	0.001000

Loss of supply event frequency >0.25 system minutes	=	Performance (Without Exclusions)	Performance (Exclusions)
Loss of supply event frequency >0.25 system minutes	=	1	1
S-Factor		0.000000%	0.000000%

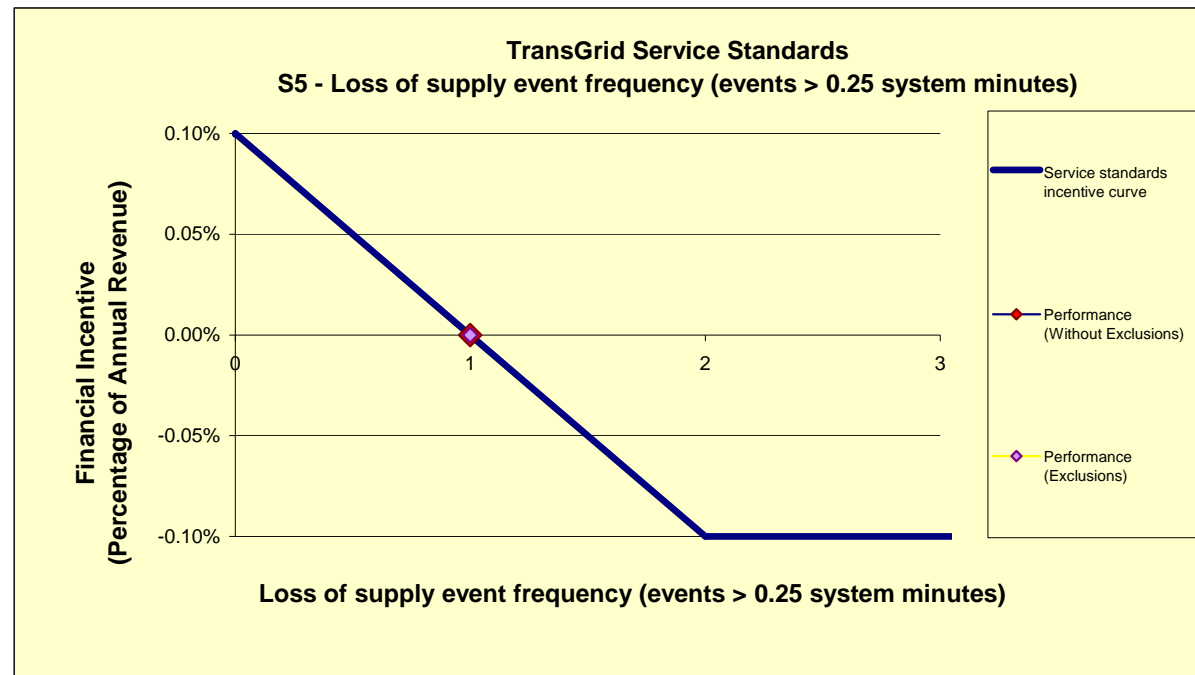
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Orange cells show the TNSP's performance outcomes with events excluded from performance data





**TransGrid - S6 - Average outage duration**

Performance Targets	Graph start	Collar	Target	Cap	Graph end
Average outage duration	1,199	999	824	649	-
Weighting	-0.20%	-0.200%	0.00%	0.200%	0.20%

Performance Formulae	Formulae				Conditions	S- Calc 1	S- Calc 2
Performance	=	-0.002000			999 < Duration	-0.002000	-0.002000
	=	-0.000011	x	Duration	824 ≤ Duration ≤ 999	-0.001098	-0.000426
	=	-0.000011	x	Duration	649 ≤ Duration ≤ 824	-0.001098	-0.000426
	=	0.002000			Duration < 649	0.002000	0.002000

Average outage duration	=	Performance (Without Exclusions)	Performance (Exclusions)
Average outage duration	=	920.072165	861.244444
S-Factor		-0.109797%	-0.042565%

**NOTE:**

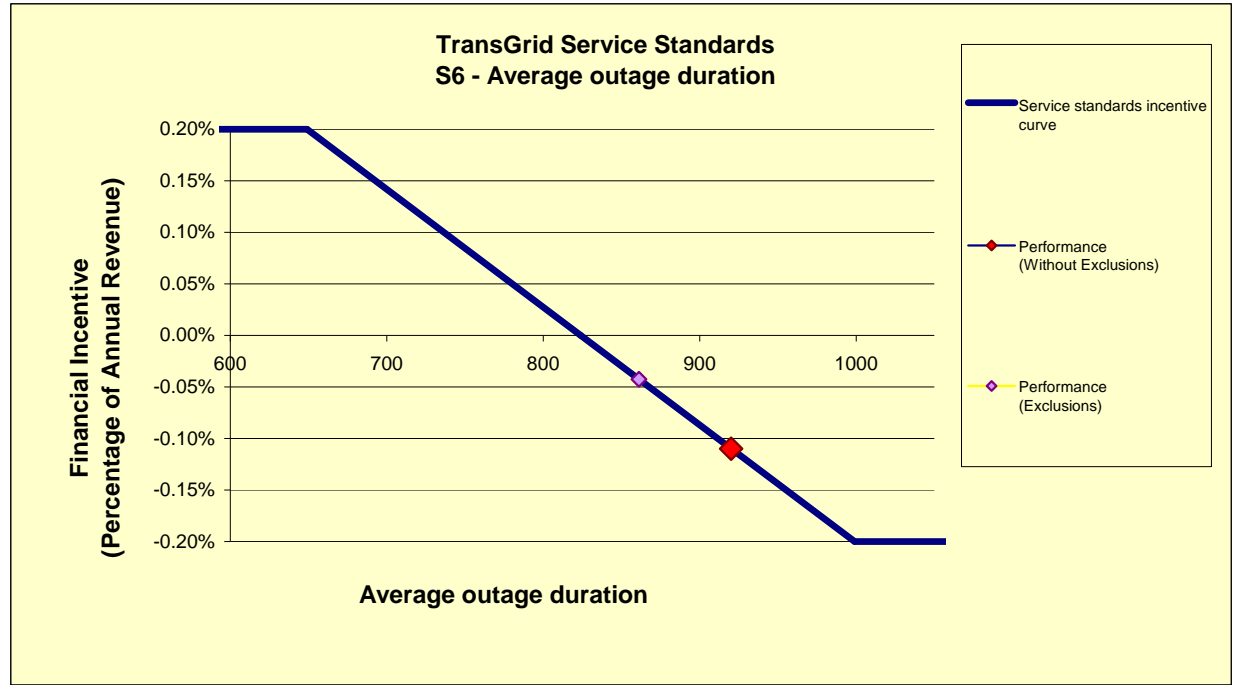
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Yellow/Green cells show the TNSP's performance formulae and related formula conditions based on performance targets and weightings

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



**TransGrid - Revenue Calculation**

<i>Revenue cap information</i>	
Base year allowed revenue	\$678,400,000
Base year	2009-10
X-factor	-5.61%
Commencement of regulatory period	1-Jul-09

<i>Annual revenue adjusted for CPI</i>	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Mar-14
CPI	166.2	171.0	-	-	-	-

Nominal annual revenue	2009-10	2010-11	2011-12	2012-13	2013-14
Allowed Revenue	\$678,400,000	\$737,150,175			

<i>Calendar year revenue</i>	2009	2010	2011	2012	2013	2014
Revenue	\$339,200,000	\$707,775,087				

**NOTE:**

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

Grey cells show calendar year revenue

Green cells are for formula

## TransGrid - Performance outcomes

Revenue calendar year

\$707,775,087

S	Performance parameter	Target	Performance without exclusions			Performance with exclusions			Impact of exclusions
			Performance	S-Factor	Final Incentive	Performance	S-Factor	Final Incentive	
S1	Transmission line availability	99.26%	98.604930%	-0.200000%	-\$1,415,550	98.760371%	-0.200000%	-\$1,415,550	0.000000%
S2	Transformer availability	98.61%	98.367019%	-0.028474%	-\$201,534	98.382961%	-0.026606%	-\$188,312	0.001868%
S3	Reactive plant availability	99.12%	95.441836%	-0.100000%	-\$707,775	95.443239%	-0.100000%	-\$707,775	0.000000%
S4	Loss of supply event frequency >0.05 system minutes	4	3	0.125000%	\$884,719	3	0.125000%	\$884,719	0.000000%
S5	Loss of supply event frequency >0.25 system minutes	1	1	0.000000%	\$0	1	0.000000%	\$0	0.000000%
S6	Average outage duration	824	920	-0.109797%	-\$777,114	861	-0.042565%	-\$301,265	0.067232%
<b>TOTALS</b>				-0.313271%	-\$2,217,254		-0.244171%	-\$1,728,183	0.069100%

### 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

Aggregate outcome	
S-factor	-0.244171%
Financial Incentive	-\$1,728,183
Financial year affected by financial incentive	2011/12

**TransGrid - Defined exclusions**

<b>Parameter 1- Transmission Line Availability</b>		
<b>Defined exclusions</b>	<b>Further description of exclusion</b>	<b>Reference</b>
1.1 Outages on assets that are not providing prescribed transmission services.		Service Target Performance Incentive Scheme (March 2008) p. 32
1.2 3rd party outage	Any outages shown to be caused by a fault or other event on a 'third party system' e.g. intertrip signal, generator outage, customer installation (TNSP to provide list).	Service Target Performance Incentive Scheme (March 2008) p. 32
1.3 Outages to control fault levels	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)	Service Target Performance Incentive Scheme (March 2008) p. 32
1.4 Force majeure events	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. 32
1.5 Transient interruptions less than one (1) minute		Service Target Performance Incentive Scheme (March 2008) p. 32
1.6 The opening of one end of a transmission circuit	The opening of only one end of a transmission circuit (eg where the transmission circuit remains energised and available to carry power with immediate manual or automatic return to service)	Service Target Performance Incentive Scheme (March 2008) p. 33
1.7 Underground cable damaged by an external party	Outages for remedial repairs to an underground power cable damaged by an external party are capped at 14 days if: - the external party did not enquire with 'dial before you dig' or - the external party enquired, received accurate information and did not follow this information.	Service Target Performance Incentive Scheme (March 2008) p. 33
<b>Parameter 2- Transformer Availability</b>		
<b>Defined exclusions</b>	<b>Further description of exclusion</b>	<b>Reference</b>
2.1 Outages on assets that are not providing prescribed transmission services.		Service Target Performance Incentive Scheme (March 2008) p. 32
2.2 3rd party outage	Any outages shown to be caused by a fault or other event on a 'third party system' e.g. intertrip signal, generator outage, customer installation (TNSP to provide list).	Service Target Performance Incentive Scheme (March 2008) p. 32
2.3 Outages to control fault levels	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)	Service Target Performance Incentive Scheme (March 2008) p. 32
2.4 Force majeure events	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. 32
2.5 Transient interruptions less than one (1) minute		Service Target Performance Incentive Scheme (March 2008) p. 32
2.6 Auxiliary transformers		
2.7 Static VAR compensator transformers (which are counted as part of the SVC)		Service Target Performance Incentive Scheme (March 2008) p. 33
2.8 The opening of one end of a transmission circuit	The opening of only one or both sides of a transformer for operational purposes, such as to control losses, fault levels, incompatibility of tap changes etc but where the transformer remains available to carry power on immediate manual or automatic return to service	Service Target Performance Incentive Scheme (March 2008) p. 33
2.9 The period where a transformer is made available for service, but not switched in, at the end of each day of a multi-day planned outage		Service Target Performance Incentive Scheme (March 2008) p. 33
<b>Parameter 3- Reactive Plant Availability</b>		
<b>Defined exclusions</b>	<b>Further description of exclusion</b>	<b>Reference</b>
3.1 Outages on assets that are not providing prescribed transmission services.		Service Target Performance Incentive Scheme (March 2008) p. 32
3.2 3rd party outage	Any outages shown to be caused by a fault or other event on a 'third party system' e.g. intertrip signal, generator outage, customer installation (TNSP to provide list).	Service Target Performance Incentive Scheme (March 2008) p. 32
3.3 Outages to control fault levels	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)	Service Target Performance Incentive Scheme (March 2008) p. 32
3.4 Force majeure events	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. 32
3.5 Transient interruptions less than one (1) minute		Service Target Performance Incentive Scheme (March 2008) p. 32
3.6 Capacitor banks and reactors operating less than 66kV		Service Target Performance Incentive Scheme (March 2008) p. 33
3.7 reactive plant switched out by System Operations, or left out after repairs that make it available for service for operational purposes		Service Target Performance Incentive Scheme (March 2008) p. 33

<b>Parameter 4- Loss of supply event frequency &gt; 0.05 system minutes (No.)</b>		
<b>Defined exclusions</b>	<b>Further description of exclusion</b>	<b>Reference</b>
4.1 Outages on assets that are not providing prescribed transmission services (e.g. some connection assets)		Service Target Performance Incentive Scheme (March 2008) p. 34
4.2 Successful reclose events (less than one minute duration)		Service Target Performance Incentive Scheme (March 2008) p. 34
4.3 Any outages shown to be caused by a fault or other event on a 'third party system'-e.g. intertrip signal, generator outage, customer installation		Service Target Performance Incentive Scheme (March 2008) p. 34
4.4 Planned outages		Service Target Performance Incentive Scheme (March 2008) p. 34
4.5 Force majeure events	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. 34
4.6 Where TransGrid protection operates correctly due to a fault on a customer's or a third party system		Service Target Performance Incentive Scheme (March 2008) p. 34
4.7 Pumping station supply interruption		Service Target Performance Incentive Scheme (March 2008) p. 34
4.8 Outage caused by customer's own control system during a transient voltage fluctuation		Service Target Performance Incentive Scheme (March 2008) p. 34

<b>Parameter 5 - Loss of supply event frequency &gt; 0.25 system minutes (No.)</b>		
<b>Defined exclusions</b>	<b>Further description of exclusion</b>	<b>Reference</b>
5.1 Outages on assets that are not providing prescribed transmission services (e.g. some connection assets)		Service Target Performance Incentive Scheme (March 2008) p. 34
5.2 Successful reclose events (less than one minute duration)		Service Target Performance Incentive Scheme (March 2008) p. 34
5.3 Any outages shown to be caused by a fault or other event on a 'third party system'-e.g. intertrip signal, generator outage, customer installation		Service Target Performance Incentive Scheme (March 2008) p. 34
5.4 Planned outages		Service Target Performance Incentive Scheme (March 2008) p. 34
5.5 Force majeure events	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. 34
5.6 Where TransGrid protection operates correctly due to a fault on a customer's or a third party system		Service Target Performance Incentive Scheme (March 2008) p. 34
5.7 Pumping station supply interruption		Service Target Performance Incentive Scheme (March 2008) p. 34
5.8 Outage caused by customer's own control system during a transient voltage fluctuation		Service Target Performance Incentive Scheme (March 2008) p. 34

<b>Parameter 6 - Average Outage Duration</b>		
<b>Defined exclusions</b>	<b>Further description of exclusion</b>	<b>Reference</b>
6.1 Planned outages		Service Target Performance Incentive Scheme (March 2008) p. 35
6.2 Momentary interruptions (less than one minute)		Service Target Performance Incentive Scheme (March 2008) p. 35
6.3 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. 35
6.4 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, customer request or AEMO direction		Service Target Performance Incentive Scheme (March 2008) p. 35
6.5 Outages for capacitor banks and reactors operating at less than 66kV		Service Target Performance Incentive Scheme (March 2008) p. 35

## Service Target Performance Incentive Scheme - Definition of Force Majeure

Definition of Force Majeure	Reference
<p>For the purpose of applying the <i>service target performance incentive scheme</i>, 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:</p> <ul style="list-style-type: none"> <li>- 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 force of nature.</li> <li>- action or inaction by a court, government agency (including denial, refusal or failure to grant any authorisation, despite timely best endeavour to obtain same)</li> <li>- strikes, lockouts, industrial and/or labour disputes and/or difficulties, work bans, blockades, picketing</li> <li>- 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</li> <li>- 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</li> </ul> <p>In determining what force majeure events should be excluded the AER will consider the following:</p> <ul style="list-style-type: none"> <li>- was the event unforeseeable and its impact extraordinary, uncontrollable and not manageable?</li> <li>- does the event occur frequently? If so, how did the impact of the particular event differ?</li> <li>- could the TNSP, in practice, have prevented the impact (not necessarily the event itself)?</li> <li>- could the TNSP have effectively reduced the impact of the event by adopting better practices?</li> </ul>	<p>Service Target Performance Incentive Scheme (January 2007) p. 31</p>