

3 February 2006

Sebastian Roberts  
General Manager  
Transition Branch  
Australian Energy Regulator  
GPO Box 520  
Melbourne VIC 3001

By email: [sebastian.roberts@aer.gov.au](mailto:sebastian.roberts@aer.gov.au)

Dear Sebastian,

### **Performance Incentive Scheme Report for 2005 Calendar Year**

I am pleased to submit ElectraNet's annual Performance Incentive (PI) Scheme Report for the 2005 calendar year, which has been prepared in accordance with the AER's Service Standards Guidelines dated August 2005 and ElectraNet's revenue cap decision.

The Guidelines require that ElectraNet report:

- Actual performance against the performance measures decided by the ACCC in ElectraNet's revenue cap decision;
- A list of force majeure events that ElectraNet believes should be excluded from the performance measures, and for each event a description of the event and its impact, quantification of the impact and the reasons for the exclusion request; and
- Calculation of the financial incentive as per the revenue cap decision.

While ElectraNet is required to report within two months after the end of the reporting period the AER has requested an earlier date of 3 February to facilitate the timely conduct of the necessary audits of performance reports.

The PI scheme 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 PI scheme is based on the assumption that performance measurement will be consistent with the way in which historical performance was derived for target setting.

The performance measures implemented for ElectraNet are defined in the attached paper, a copy of which was also provided with the report in previous years. These definitions are consistent with the definitions used for submitting data to the ACCC for target setting.

ElectraNet's annual performance report has been prepared consistent with these definitions as varied by the ACCC's imposition of a 14 day cap<sup>1</sup> on planned transmission line outages for capital works.

### **Exclusion of Force Majeure Event**

ElectraNet is applying for the exclusion of one force majeure event involving the Eyre Peninsula bush fires of 11 January 2005.

The event, while of relatively minor impact on network performance due to the availability of generation support, resulted in the prolonged outage of a radial line and the prolonged running of generation support following the initial restoration of the line.

Details of the event are included in Attachment 2.

### **Extended Transmission line Outages – Major Capital Works**

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 PI scheme. 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.

Consistent with this decision ElectraNet has included but capped the time associated with each of the following two extended capital works outages to 14 days in calculating the 2005 transmission circuit availability figure.

- *Mannum – Mobilong 132 kV Transmission Line Rebuild* – This line was substantially rebuilt in situ in a similar manner to the Para – Waterloo rebuild highlighted in the 2004 report.
- *Le Fevre Substation Extension* – During the period an extensive rebuild and extension of the LeFevre substation required extensive outages to all lines terminating at the substation.

### **Calculation of Incentive**

ElectraNet's actual performance is shown in the attached AER Proforma (Attachment 1) that summarises actual performance against each performance measure, including calculation of the S factors and the revenue bonus/ penalty.

Calculations are presented with and without force majeure exclusions as required by the guideline.

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<sup>1</sup> p10 Audit of ElectraNet SA Service Standards Performance Reporting – SKM ; Application of the performance incentive scheme for 2004 – ACCC 28 April 2005

## **Audit of Performance**

The AER's auditor will be conducting an on site audit on the 15<sup>th</sup> of February and will have full access to all relevant supporting systems, data and reports.

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,



**RAINER KORTE**  
**NEM DEVELOPMENT AND REGULATION MANAGER**

**Attachment 1 – AER Proforma for Calculation of S factor and Incentive**

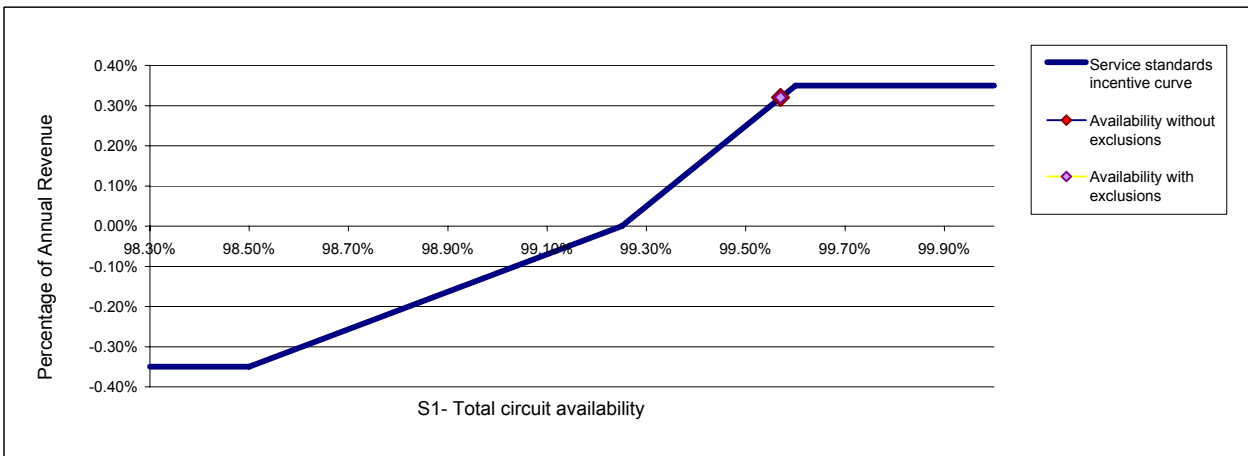
**ELECTRANET**

	Graph start	Collar	Target	Cap	Graph end
Total circuit availability	98.30%	98.50%	99.25%	99.60%	100.00%
S1	-0.35%	-0.35%	0.00%	0.35%	0.35%

Where:						Total circuit availability	
		Total circuit availability	<	98.50%	S1 =	-0.0035	
	98.50%	Total circuit availability	≤	99.25%	S1 =	0.4667 x	Total circuit availability + -0.46317
	99.25%	Total circuit availability	≤	99.60%	S1 =	1.0000 x	Total circuit availability + -0.99250
	99.60%	Total circuit availability	<		S1 =	0.0035	

Without Exclusions		S- Calc
Availability (without exclusions)	=	99.57%
S1 (without exclusions)	=	0.320000%
		-0.0035
		0.0015
		0.0032
		0.0035

With Exclusions		S- Calc
Availability (with exclusions)	=	99.57%
S1 (with exclusions)	=	0.320000%
		-0.0035
		0.0015
		0.0032
		0.0035



**NOTE:**

Yellow cells (C4:E4) are from Appendix 6 (Corrected- 22 January 2003) of ElectraNet's revenue cap decision

Yellow cells (B5:E5) are the weightings assigned to the measure as a percentage of Annual Revenue

Green cells rows (7:11) are the mathematical translation of Appendix 6 of ElectraNet's revenue cap decision

DATA ENTRY INTO ORANGE CELL (C14) without exclusions and (C20) with exclusions

Pink cells (C15) contain s-factor results without exclusions and (C21) contain s-factor results with exclusions

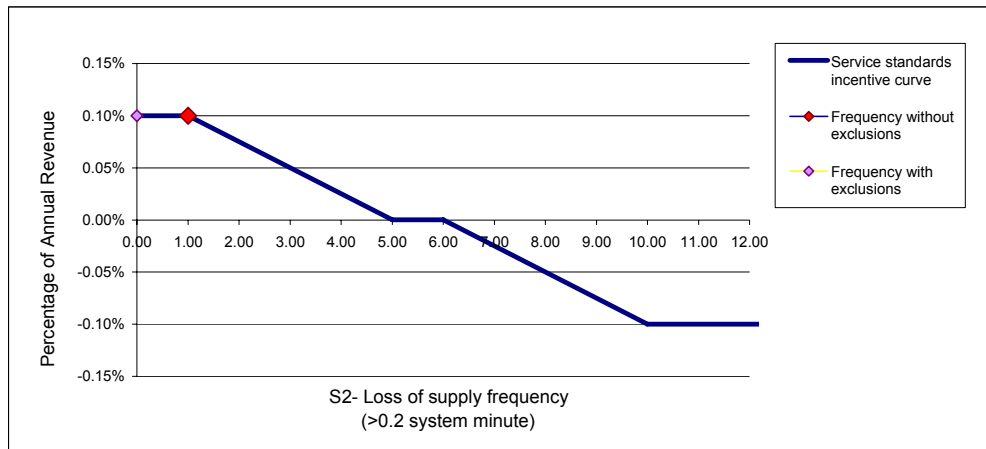
**ELECTRANET**

	Graph start	Collar	Knee Bend	Target	Cap	Graph end
Loss of supply frequency (>0.2 system minute)	15.00		10.00	6.00	5.00	1.00
S2	-0.10%		-0.10%	0.00%	0.00%	0.10%

Where:							Loss of supply frequency (>0.2 system minute)
10.00	<	Loss of supply frequency (>0.2 system minute)				S2	= -0.00100
6.00	≤	Loss of supply frequency (>0.2 system minute)	≤	10.00		S2	= -0.00025 x Loss of supply frequency (>0.2 system minute) + 0.0015
5.00	≤	Loss of supply frequency (>0.2 system minute)	≤	6.00		S2	= 0.00000
1.00	≤	Loss of supply frequency (>0.2 system minute)	≤	5.00		S2	= -0.00025 x Loss of supply frequency (>0.2 system minute) + 0.0013
		Loss of supply frequency (>0.2 system minute)	<	1		S2	= 0.00100

Without Exclusions			S- Calc
Frequency (without exclusions)	=	1.00	-0.0010
S2 (without exclusions)	=	0.100000%	0.0013
			0.0000
			0.0010
			0.0010

With Exclusions			S- Calc
Frequency (with exclusions)	=	0.00	-0.0010
S2 (with exclusions)	=	0.100000%	0.0015
			0.0000
			0.0013
			0.0010



**NOTE:**

Yellow cells (C4:F4) are from Appendix 6 (Corrected-22 January 2003) of ElectraNet's revenue cap decision

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DATA ENTRY INTO ORANGE CELL (C15) without exclusions and (C22) with exclusions

Pink cells (C16) contain s-factor results without exclusions and (C23) contain s-factor results with

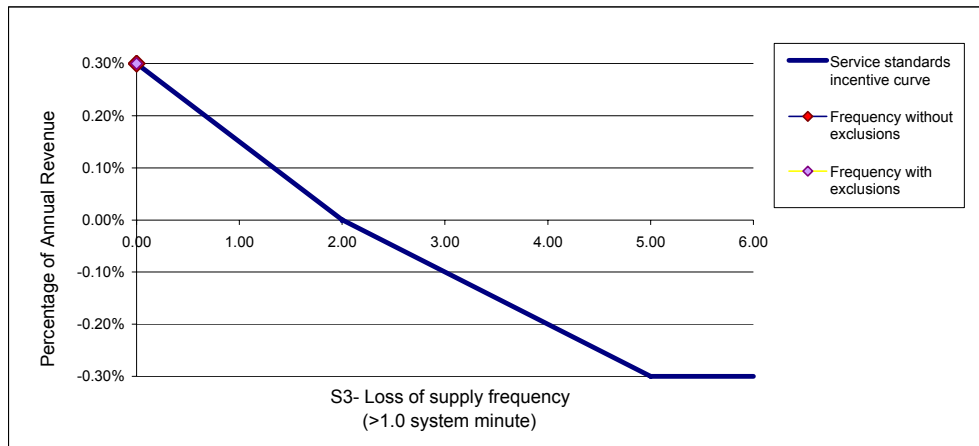
**ELECTRANET**

	Graph start	Collar	Knee Bend	Target	Cap	Graph end
Loss of supply frequency (>1.0 system minute)	6.00		5.00	2.00	2.00	0.00
S3	-0.30%		-0.30%	0.00%	0.00%	0.30%

Where:							Loss of supply frequency (>1.0 system minute)
	5.00	<	Loss of supply frequency (>1.0 system minute)			S3	= -0.00300
	2.00	≤	Loss of supply frequency (>1.0 system minute)	≤	5.00	S3	= -0.00100 x Loss of supply frequency (>1.0 system minute) + 0.0020
	2.00	≤	Loss of supply frequency (>1.0 system minute)	≤	2.00	S3	= 0.00000
	0.00	≤	Loss of supply frequency (>1.0 system minute)	≤	2.00	S3	= -0.00150 x Loss of supply frequency (>1.0 system minute) + 0.0030
			Loss of supply frequency (>1.0 system minute)	<	0	S3	= 0.00300

Without Exclusions		S- Calc
Frequency (without exclusions)	=	0.00
S3 (without exclusions)	=	0.300000%
		-0.0030
		0.0020
		0.0000
		0.0030
		0.0030

With Exclusions		S- Calc
Frequency (with exclusions)	=	0.00
S3 (with exclusions)	=	0.300000%
		-0.0030
		0.0020
		0.0000
		0.0030
		0.0030



**NOTE:**

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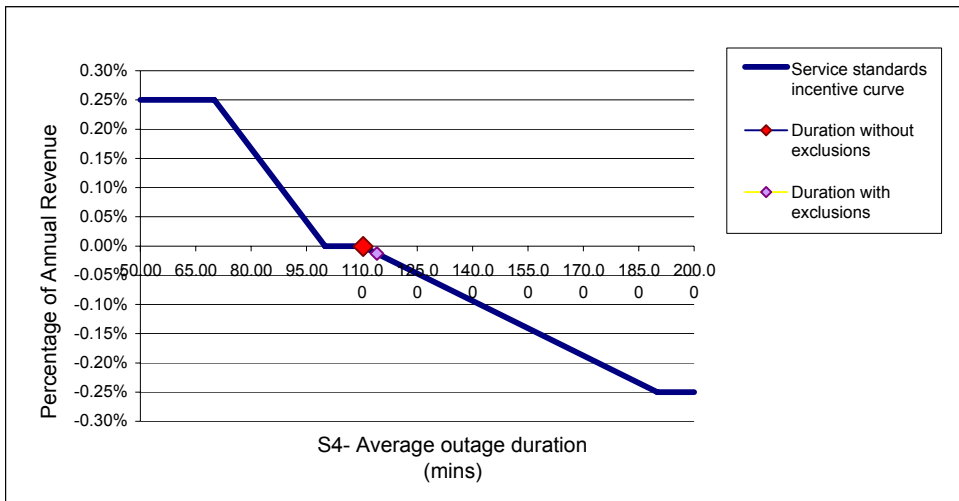
**ELECTRANET**

	Graph start	Collar	Knee Bend 1	Target	Cap	Graph end
Average outage duration (mins)	200.00	190.00	110.00	100.00	70.00	50.00
S4	-0.25%	-0.25%	0.00%	0.00%	0.25%	0.25%

Where:							Average outage duration (mins)
190.00	<	Average outage duration (mins)			S4	=	-0.00250
110.00	≤	Average outage duration (mins)	≤	190.00	S4	=	-0.00003 x Average outage duration (mins) + 0.0034
100.00	≤	Average outage duration (mins)	≤	110.00	S4	=	0.00000
70.00	≤	Average outage duration (mins)	≤	100.00	S4	=	-0.00008 x Average outage duration (mins) + 0.0083
		Average outage duration (mins)	<	70	S4	=	0.00250

Without Exclusions		S- Calc
Duration (without exclusions)	=	110.35
S4 (without exclusions)	=	-0.001094%
		0.0000
		0.0000
		-0.0009
		0.0025

With Exclusions		S- Calc
Duration (with exclusions)	=	114.11
S4 (with exclusions)	=	-0.012844%
		-0.0001
		0.0000
		-0.0012
		0.0025



**NOTE:**

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DATA ENTRY INTO ORANGE CELL (C15) without exclusions and (C22) with exclusions



**ELECTRANET**

**REVENUE CALCULATION**

Year	Decision CPI	Actual CPI	ΔCPI	X-factor	Annual Revenue (Actual)
2003 (Base Year)					<b>148,010,000.00</b>
2004	2.07%	3.44%	1.37%	-1.96%	156,103,394.84
2005	2.07%	1.98%	-0.09%	-1.96%	162,316,994.91
2006	2.07%	2.36%	0.29%	-1.96%	169,403,297.58

**Actual revenue for calendar year 2005**  
 $[(AR_{04-05} + AR_{05-06})/2]$  **165,860,146.24**

**NOTE:**

Yellow cells (B6:B8) show data from ElectraNet's revenue cap decision

DATA ENTRY ORANGE CELL (F5) enter base year revenue

DATA ENTRY ORANGE CELL (C6:C8) enter actual CPI

DATA ENTRY ORANGE CELLS (E6:E8) from ElectraNet's Revenue Cap decision

Blue cell (D6:D8) shows change in CPI

Blue cell (F6:F7) shows calculation of financial year actual revenue according to Annual Revenue Roll forward formula  $AR_i = AR_{i-1} \times (1 + \Delta CPI_i) \times (1 - X)$

Yellow cell (A12) shows formula for financial component to be applied to S-factor calculation to determine final Financial Incentive for 2005 as in Appendix C of Service standards guidelines.

Pink cell (B12) shows financial component to be applied to S-factor to determine final Financial Incentive for 2005.

ELECTRANET							Revenue 2005 (\$'000s)	165,860,146
Measure	S	2005 Result (without exclusions)	2005 Result (with exclusions)	S-Factor (without exclusions) AR%	S-Factor (with exclusions) AR%	Impact of exclusions	Final Incentive (without exclusions) \$ ('000s)	Final Incentive (with exclusions) \$ ('000s)
Total circuit availability	S1	99.57%	99.57%	0.320000%	0.320000%	0.000000%	530,752	530,752
Loss of supply frequency (>0.2 system minute)	S2	100.00%	0.00%	0.100000%	0.100000%	0.000000%	165,860	165,860
Loss of supply frequency (>1.0 system minute)	S3	0.00	0.00	0.300000%	0.300000%	0.000000%	497,580	497,580
Average outage duration (mins)	S4	110.35	114.11	-0.001094%	-0.012844%	-0.011750%	-1,814	-21,303
<b>TOTALS</b>				0.718906%	0.707156%	-0.011750%	\$ 1,192,379	\$ 1,172,890

**NOTE:**

**THIS PAGE WILL AUTOMATICALLY UPDATE BASED ON DATA IN OTHER WORKSHEETS**

Yellow cells (C7:F7 to C10:F10) show inputs from Worksheet "S1"

Yellow cells (I2) show inputs from Worksheet "Revenue Calculations"

Blue cells show the impact of exclusions and final financial incentive results for each performance measure

Pink cells (F14:J14) show total results for 2005 period

## **Attachment 2 – Force Majeure Exclusion For Eyre Peninsula Bush Fire**

### Description

From the 10<sup>th</sup> to the 12 of January 2005 a major bushfire swept across the southern Eyre Peninsula of South Australia burning under approximately 20 kilometres of 132kV transmission line and resulting in an outage to Port Lincoln.

### Description of the Impact

Damage included:

- 9 deaths
- 50 homes destroyed
- 47,000 livestock (primarily sheep)
- 890,00 hectares of property burnt out
- Extensive damage to infrastructure including water mains, power lines and telephone lines<sup>2</sup>.

### Impact on Network Performance

Specific impact on transmission network performance was limited to one operation on Tuesday 11<sup>th</sup> January 2005 at 12:33 that resulted in the outage of the Yadnarie – Port Lincoln 132kV transmission line for 8.7 hours.

Approximately 28MW of load was lost at Port Lincoln for 39 minutes resulting in a greater than 0.2 System Minute event.

Subsequent aerial and ground inspection revealed:

- 30 structures contained within bushfire burn area
- A structure showed evidence of a flashover
- Heavy carbon deposits on numerous spans and insulators
- A number of line dampers had been melted

The Port Lincoln gas turbines were run for approximately 45 hours after the trip due to the possibility of a latent fire related defect causing the line to again trip resulting in another outage at Port Lincoln.

The extent of the bushfire is highlighted in the following satellite photo with transmission line overlay.

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<sup>2</sup> Details sourced from Emergency Management Australia  
<http://www.ema.gov.au/ema/emadisasters.nsf/0/0a70cf0cdd13e11eca256fa1007ddbdc?OpenDocument>

