ElectraNet Pty Limited
ABN 41 094 482 416
ACN 094 482 416

PO Box 7096
Hutt Street Post Office
Adelaide 5000 South Australia

T (08) 8404 7966
F (08) 8404 7104

W www.electranet.com.au

2 February 2007

Mike Buckley
General Manager
Networks Regulation North
PO Box 1199
Dickson ACT 2602

Dear Mike,

Performance Incentive Scheme Report for 2006 Calendar Year

I am pleased to submit ElectraNet's annual Performance Incentive (PI) Scheme Report for the 2006 calendar year, which has been prepared in accordance with the AER's Service Standards Guidelines 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 requested an earlier report date to facilitate the timely conduct of the necessary audits of performance.

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 (Attachment 2), 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[1] on planned transmission line outages for capital works.

Exclusion of Force Majeure Events

There were no force majeure events during the period.

Exclusion of 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. The AER subsequently applied the same 14 day cap to outages associated with the Mannum – Mobilong 132 kV transmission line rebuild and the Le Fevre Substation extension in the 2005 performance review. This cap has now been incorporated into the Service Target Performance Incentive Scheme which will apply to ElectraNet in the next revenue control period.

Consistent with these decisions ElectraNet has capped the time associated with the following extended capital works outage to 14 days in calculating the 2006 transmission circuit availability figure.

- *Angas Creek - Mannum 132 kV Transmission Line Rebuild* – This line rebuild is similar in scope to both the Para – Waterloo and Mannum – Angas Creek rebuilds.

Exclusion of Events consistent with Definitions

A number of exclusions are highlighted in the submission template that relate to events specifically excluded by definition from the indicators which the AER has none the less required us to report and request exclusions for. These exclusions relate to third party initiated events and switching for operational control.

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 applicable revenue bonus/ penalty.

Calculations are presented with and without exclusions as required by the guideline and consistent with recent discussions with your officers.

[1] 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 nominated auditor will be conducting an on site audit on 13 February. Full access to all relevant systems and reports will be made available to the auditor.

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

Rainer Korte
NEM DEVELOPMENT AND REGULATION MANAGER

ATTACHMENT 1 – AER PROFORMA FOR CALCULATION OF S FACTOR AND INCENTIVE

ELECTRANET- Performance outcomes 2006

Revenue calendar year 2006 ($)	*$173,639,666*

Performance measure	S	Target	Performance without exclusions			Performance with exclusions			Impact of exclusions
			Performance	S-Factor	Final Incentive	Performance	S-Factor	Final Incentive	
Total circuit availability	S1	99.25%	0.992921	0.000421	$73,101	0.994211	0.001711	$297,083	0.001290
Loss of supply event frequency (>0.2 system minute)	S2	5	4.000000	0.000250	$43,410	4.000000	0.000250	$43,410	0.000000
Loss of supply event frequency (>1.0 system minute)	S3	2	0.000000	0.003000	$520,919	0.000000	0.003000	$520,919	0.000000
Average outage duration (mins)	S4	100	90.875000	0.000760	$132,038	88.461538	0.000962	$166,961	0.000201
TOTALS				0.004431	$769,469		0.005922	$1,028,373	0.001491

NOTE:

THIS PAGE WILL AUTOMATICALLY UPDATE BASED ON DATA IN INPUT WORKSHEETS

Grey cell (C3) show relevant calendar year revenue

Green cells (C7:C12) show performance measure targets

Pink cells (Rows D:F) show performance, s-factor results and financial incentive without exclusions

Orange cells (Rows G:I) show performance, s-factor results and financial incentive with exclusions

Blue cells show the impact of exclusions on revenue

Aggregate outcome 2006	
S-factor	0.005922
Bonus (penalty)	$1,028,373
Financial year to affect revenue	2007-08

ATTACHMENT 2 – SERVICE STANDARDS PERFORMANCE INCENTIVE SCHEME IMPLEMENTATION FOR ELECTRANET

ElectraNet Pty Limited

ABN 41 094 482 416
ACN 094 482 416

PO Box 7096 Hutt Street Post Office, Adelaide, South Australia 5000 Tel (08) 8404 7983 Fax (08) 8404 7294

Service Standards Performance Incentive Scheme Implementation for ElectraNet

1. Purpose

In its December 2002 revenue cap decision for ElectraNet, the Australian Competition and Consumer Commission (ACCC) established a Performance Incentive (PI) scheme to provide ElectraNet with additional incentive to maintain and improve service quality.

The PI scheme is based on a number of service standard measures, which are common to all TNSPs. However, the ACCC's November 2003 decision establishing Service Standards Guidelines recognises that there must be flexibility in how these performance measures are implemented for each TNSP:

> *"For each revenue cap decision in the future, the standard definitions will be modified to align with appropriate information that the TNSP has been collecting in the past. Performance must be measured consistently over time to preserve the incentive for the TNSP to improve."*

The targets in the PI scheme have been set based on ElectraNet's historical performance data. Therefore, the PI scheme is based on the assumption that performance measurement will be consistent with the way in which the historical performance data was derived.

This paper defines the performance measures implemented for ElectraNet consistent with the definitions used for submitting data to the ACCC for target setting and for calculating performance outcomes. The paper also sets out how ElectraNet intends to satisfy its performance reporting requirements.

2. Performance Measures

2.1 Measure 1 - Transmission Circuit Availability

Definition/Formula

$$1 - \frac{\Sigma \text{ (number of interrupted circuit hours)}}{\text{total possible circuit hours available}}$$

where:

Circuits include regulated overhead lines and underground cables (each with a designated ElectraNet transmission segment identification number). Transformers, reactive plant and other primary plant are excluded from the performance measure because reliable historical data for these items of plant is unavailable.

number of interrupted circuit hours means in relation to each circuit, the number of hours during each reporting period in which that circuit was unavailable to provide transmission services.

total possible circuit hours available is the number of circuits multiplied by 8760 hours.

This definition, while expressed differently, is consistent with the definition/ formula set out in the ACCC's revenue cap decision. No time, plant type or criticality sub measures have been defined.

Inclusions

Subject to the exclusions specified below, outages on all parts of the *regulated* transmission system from all causes including planned, forced and fault events.

Exclusions

- Unregulated transmission assets.
- Any outages caused by a 3rd party such as intertrip signals, generator outage, customer installation, customer request or NEMMCO direction.
- Outages to control voltages within required limits, both as directed by NEMMCO and where NEMMCO does not have direct oversight of the network (in both cases only where the element is available for immediate energisation if required).
- The opening of only one end of a transmission line (e.g. where the transmission line remains energised and available to carry power).
- ~~Transmission lines decommissioned for an extended period of time for major line rebuilding activities, such as restringing, reinsulation or multiple structure replacements.~~
- The number of interrupted hours related to a single transmission line redevelopment project or substation redevelopment project is capped at 336 hours (14 days).
- Force majeure events (including multiple structure failures)

2.2 Measure 2 - Loss of Supply Event Frequency Index

Definition/Formula

Number of events greater than 0.2 *system minutes* per annum.

Number of events greater than 1.0 *system minute* per annum.

System minutes are calculated for each supply interruption by the "Load Integration Method" using the following formula:

$$\Sigma \frac{\text{(MWh unsupplied x 60)}}{\text{MW peak demand}}$$

where:

MWh unsupplied is the energy not supplied as determined by using NEM metering and substation load data. This data is used to estimate the profile of the load over the *Period of the Interruption* by reference to historical load data.

Period of the Interruption starts when a loss of supply occurs and ends when ElectraNet offers supply restoration to the customer.

MW peak demand means the maximum amount of aggregated electricity demand recorded at entry points to the ElectraNet transmission network and interconnector connection points during the financial year in which the event occurs or at any time previously.

Inclusions

Subject to the exclusions specified below, all unplanned customer outages on all parts of the *regulated* transmission system.

Exclusions

- Successful reclose events (less than 1 minute duration).
- Unregulated transmission assets.
- Any outages caused by a 3rd party such as intertrip signals, generator outage, customer installation, customer request or NEMMCO direction.
- Planned outages.
- For supply outages resulting from an interconnector outage, the *Period of the Interruption* is capped at half an hour. This is done to include the impact of automatic under-frequency load shedding, but to exclude the impact of any market failure to respond and restore load within required timeframes (i.e. excluding factors outside of ElectraNet's control).
- Pumping station supply interruptions. These interruptions were excluded from historical data used for target setting due to the highly irregular nature of these loads, which makes accurate estimation of load profiles unreliable.
- Force majeure events.

Notes

The following points further clarify the implementation of the Loss of Supply Frequency Index performance measure:

- The performance measure applies to exit points only.
- An interruption >1.0 system minute also registers as a >0.2 system minute event.

- Where ElectraNet protection operates incorrectly ahead of 3rd party protection, the portion of customer load that would have been lost had ElectraNet protection not operated is removed from the total lost load.

- Where ElectraNet protection operates correctly due to a fault on a 3rd party system no lost load is recorded.

- Interruptions affecting multiple connection points at exactly the same time are aggregated (i.e. system minutes are calculated on the basis of events rather than connection point interruptions).

2.3 Measure 3 - Average Outage Duration

Definition/Formula

$$\frac{\text{Aggregate minutes duration of all unplanned outages}}{\text{Number of connection point events}}$$

The cumulative summation of the outage duration time for the period, divided by the number of connection point outage events during the period.

where:

Outage duration time for a connection point starts when a loss of supply occurs and ends when ElectraNet offers supply restoration to the customer.

Inclusions

Subject to the exclusions specified below, customers supply outages on all parts of the *regulated* transmission system.

Exclusions

- Successful reclose events (less than 1 minute duration).

- Unregulated transmission assets.

- Any outages due to a 3rd party such as intertrip signals, generator outage, customer installation, customer request or NEMMCO direction.

- Planned outages.

- For supply outages resulting from an interconnector outage, the duration is capped at half an hour. This is done to include the impact of automatic under-frequency load shedding, but to exclude the impact of any market failure to respond and restore load within required timeframes (i.e. excluding factors outside of ElectraNet's control).

- Force majeure events.

Notes

The following points further clarify the implementation of this performance measure:

- The performance measure applies to exit points only.
- Outage duration extends to the point at which supply restoration is offered to the customer.
- Where ElectraNet protection operates correctly due to a fault on a 3rd party system no outage duration is recorded.

2.4 Measure 4 - Transmission constraints (Intra-regional)

This performance measure has not been implemented at this stage.

2.5 Measure 5 - Transmission constraints (Inter-regional)

This performance measure has not been implemented at this stage.

3. Reporting PI Scheme Performance

The ACCC's Service Standards Guidelines require ElectraNet to report annually on its PI scheme performance, including calculation of the S factor performance outcome.

ElectraNet intends to satisfy its performance reporting obligations as follows:

- All events that fall within the broad definitions of the performance measures as set out in this paper will be reported;
- Force majeure events that ElectraNet believes should be excluded from calculation of the S factor will be identified including the reasons for the exclusion request. The impact of the requested force majeure event on the S factor will be included in the report.

The annual performance report will be submitted to the regulator within two months after the end of the calendar year reporting period, as required by the ACCC guidelines.

4. S Factor Calculation

ElectraNet calculates PI scheme performance in accordance with the S factor equations set out in Appendix 7 of the ACCC's revenue cap decision. These equations are repeated in the following subsections.

The total S factor is equal to the sum of the individual S factors for each performance measure, that is:

$S=S_1+S_2+S_3+S_4$

4.1 Circuit Availability

Total circuit availability (%)								
					Where:			
S_1 =	-0.0035000					Actual availability	<	98.50
S_1 =	0.0046667 x	Actual availability	-	0.46317	98.50 ≤	Actual availability	≤	99.25
S_1 =	0.0000000					Actual availability	=	99.25
S_1 =	0.0100000 x	Actual availability	-	0.99250	99.25 <	Actual availability	≤	99.60
S_1 =	0.0035000				99.60 <	Actual availability		

4.2 Average Outage Duration

Average outage duration (mins)								
					Where:			
S_2 =	-0.00250000				190.00 <	Actual average outage duration		
S_2 =	-0.00003125 x	Actual average outage duration	+	0.003437	110.00 <	Actual average outage duration	≤	190.00
S_2 =	0.00000000				100.00 ≤	Actual average outage duration	≤	110.00
S_2 =	-0.00008333 x	Actual average outage duration	+	0.008333	70.00 ≤	Actual average outage duration	<	100.00
S_2 =	0.00250000					Actual average outage duration	<	70.00

4.3 Loss of Supply Event Frequency Index

Loss of supply event frequency index - >0.2 minutes per annum						
			Where:			
S_3	=	-0.0010	Actual frequency	=		10
S_3	=	-0.0007	Actual frequency	=		9
S_3	=	-0.0003	Actual frequency	=		8
S_3	=	-0.0002	Actual frequency	=		7
S_3	=	0.0000	Actual frequency	=		6
S_3	=	0.0000	Actual frequency	=		5
S_3	=	0.0002	Actual frequency	=		4
S_3	=	0.0003	Actual frequency	=		3
S_3	=	0.0007	Actual frequency	=		2
S_3	=	0.0010	Actual frequency	=		1
S_3	=	0.0010	Actual frequency	=		0

Loss of supply event frequency index - >1.0 minutes per annum						
			Where:			
S_4	=	-0.0030	Actual frequency	=		5
S_4	=	-0.0015	Actual frequency	=		4
S_4	=	-0.0005	Actual frequency	=		3
S_4	=	0.0000	Actual frequency	=		2
S_4	=	0.0008	Actual frequency	=		1
S_4	=	0.0030	Actual frequency	=		0