SERVICE STANDARDS

EnergyAustralia argued in its application to ACCC that prior to performance targets being set, an appropriate amount of data should be available upon which to base an estimate of future performance. In the case of measuring Circuit Availability, EnergyAustralia has provided two years of data to the ACCC as part of SKM's review of service standards and as required in the regulatory accounts. EnergyAustralia does not believe that this is sufficient to establish performance targets for a five year period, particularly where penalties and rewards of up to one per cent of revenue are to be applied. In our submission, EnergyAustralia proposed that at least three years of performance data be collected prior to targets being set and revenue implications being applied.

EnergyAustralia uses the following method to calculate Circuit Availability statistics. This method meets the ACCC's current reporting requirements.

Manual process for calculating availability

EnergyAustralia does not have an automated system for tracking the availability of specific transmission or distribution assets. For the last few years EnergyAustralia has implemented a manual system to derive availability figures. This uses existing procedures which have been implemented for planning outages of the network and is explained below.

Our Engineer Transmission in Network Control receives requests for outages of the 132kV System. Due to the critical nature of this network and the potential for one outage to impact another, this person has produced a spreadsheet to track the status of all the 132kV feeders.

Outage request information is manually entered into the outage planning spreadsheet and links are made to indicate other feeders which are impacted by a requested outage. A brief description (5 to 6 words) of the outage detail is included with each entry. This system allows EnergyAustralia to decide at a glance whether a requested outage is acceptable.

To extract our existing availability figures, at the start of each month we use the outage planning spreadsheet to determine if transmission classified feeders have been out of service. Using this as an approximate first cut of detail, we then use our SCADA control system to look at the load on each 132kV feeder. From the SCADA load graph we can determine to within approximately 15 minutes when a particular feeder was de-energised and re-energised. This information is input to another spreadsheet, which calculates the progressive annual availability of the listed feeders.

The process of reviewing the outage planning spreadsheet, searching the SCADA system for load details and manually entering the result in the final spreadsheet for each feeder is time consuming and must be performed monthly. The need to carry out this process monthly is driven by the period the SCADA system retains the load information.

While the above process has been developed for the 132kV feeders classified as transmission assets, the same method is less formally applied for the assets listed as transmission exit points. This is because assets such as 132/11kV transformers have little potential to impact the operation of the transmission system. Additionally the interdependency of these elements

on other outages is generally limited to other transformers at the same installation. Consequently while information is included in the outage planning spreadsheet for this equipment, due to the less formal way the information is obtained it is generally less accurate.

Definition of Circuit Availability

For EnergyAustralia, it is difficult to understand the relevance of reporting on outages of either 132/11kV or 132/33kV transformers at transmission exit points. These transformers provide supply to lower voltage installations and as such they can generally be operated independently of the transmission system with no effect on its successful operation. This is particularly true of the installations at Bunnerong, Canterbury, Charmhaven, Chullora, Drummoyne, Homebush Bay, Lane Cove, Macquarie Park, Marrickville, Mason Park, Meadowbank, Peakhurst, Pyrmont, Rozelle, St Peters and Wyong, as these installations have separate control devices for their 132kV operation which allows them to be switched independently of the 132kV transmission system that supplies them.

The availability of EnergyAustralia's (transmission) transformers and reactive plant at these substations will impact on the availability of the distribution network and will be recorded by service standard measures prescribed for EnergyAustralia by the distribution network regulator, IPART. EnergyAustralia is required to report performance measures including SAIDI, SAIFI and CAIDI, to IPART which takes service standards into account when establishing the required prices and price caps for the forthcoming regulatory period.

In contrast, the availability measure for TNSPs that operate lines at several voltage levels is likely to be materially effected by the availability of transformers and reactive plant in transmission substations as those assets impact on the performance of other parts of the transmission system and its customers.

The other component of the 132kV transmission system which may affect its successful operation would be busbar outages. In general however, busbar outages are accompanied by outages of the 132kV feeder(s) which supplies the busbars. Under these circumstances availability figures reflected by the feeder statistics would also cover the busbar outage and it would not be necessary to list the busbar outage separately.

EnergyAustralia therefore proposes that the availability measure be prescribed as an appropriate service standard measure for EnergyAustralia. However, we propose that the measure only measure feeder availability and not encompass other assets classified as transmission exit assets as these have no material impact on feeder availability.

Planned and forced outage rates (and duration)

As discussed above, EnergyAustralia historically has not separated outages into planned and forced groupings. Due to the different methods of recording outage information used previously it is not practical to retrospectively implement this sort of separation. However, by increasing the amount of information recorded in the respective spreadsheets we may be able to provide this higher level of detail in the future.

EnergyAustralia's Overall Availability during the last two years is shown in Table 1. The overall measure is based on the availability of individual 132kV feeders (classified as transmission assets during this regulatory period) which are listed in Table 2.

Table 1 – Overall availability for EnergyAustralia transmission feeders

Overall Availability	2001/2002	2002/2003
	94.6	96.3

Table 2 (below) provides the percentage availability of individual transmission feeders tracked over the preceding two years.

Table 2 – Percentage Availability for EnergyAustralia transmission feeders

Percentage Availability - Nominated 132kV Transmission Feeders					
Feeder	**2001/2002**	**2002/2003**	**Feeder**	**2001/2002**	**2002/2003**
202	100.0	95.4	**91F**	99.75	98.8
203	48.79	99.2	**91J**	99.49	98.6
204	100.0	99.1	**91L**	83.75	80.4
900	66.87	90.9	**91M/1**	96.82	96.5
910	97.15	98.7	**91M/3**	99.68	86.6
911	96.49	92.3	**91X**	98.18	98.8
926	96.97	98.9	**91Y**	97.55	99.4
927	98.61	99.4	**92A**	93.88	99.9
935	99.69	100.0	**92B**	94.51	98.6
908/909	98.66	68.8	**92F**	99.46	99.5
90F	98.52	99.2	**92J**	98.73	99.7
90J	98.20	100.0	**9S6**	96.39	99.4
90W	99.04	91.0	**9S9**	91.41	98.1
90X	100.0	99.4	**97E**	Not commissioned	99.5
91A	96.88	97.2	**99C**	Not commissioned	99.4
91B	97.44	99.4	**98B**	Not commissioned	100.0

Proposed availability measures for EnergyAustralia – 2004-09

EnergyAustralia seeks the ACCC's agreement to provision of Availability data in the current form (ie not including availability of transformer or reactive plant).

Further, we seek confirmation from ACCC as to whether EnergyAustralia will need to provide availability performance data in groups of forced and planned outages for the next period.

EnergyAustralia notes that there is likely to be a material change to the availability measure moving forward, due to the inclusion of a number of assets to EnergyAustralia's transmission asset base (assets that were previously distribution assets). This makes estimation of future service standards complex.

Should ACCC insist on the inclusion of reactive plant and transformer information, EnergyAustralia will need to implement systems and processes to record this data. We believe it to be appropriate that targets be set for this new scope of the availability measure after at least three years data has been collected. In the meantime, the existing target could apply using the availability measures for the current list of feeders. This will allow for a comparison of data between the current period and the next, and also allow new targets to be set mid-period on the basis of (by then) historic data.

Outage duration

As outlined in our submission, EnergyAustralia does not believe that outage duration is a meaningful measure of performance for its transmission network. No target was set for EnergyAustralia in the ACCC's draft decision on the service standard guidelines due to the volatility of the data available.

EnergyAustralia does not believe that outage duration is appropriate due to a number of factors including:

- The repair times for assets such as underground cables can be significant (weeks or months) and can vary substantially depending on the type of cable. EnergyAustralia has a large proportion of underground cable in its network and is not able to easily control the incidence of outages on underground cables through changes to operational and maintenance programs.
- The long duration of repair times could introduce significant volatility in the measurement of outage duration from year to year (ie a single incident could dramatically changed the performance measure).

As requested in our submission on service standards, should the ACCC insist that availability measures be reported, that our proposal for limiting the impact of a single event to 7-days. This will ensure that there is less distortion (due to the difference in repair times) between statistics generated for overhead lines and underground cables.