

17 August 2007

Mr Steve Edwell
Chairman
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Dear Mr Edwell

ELECTRANET TRANSMISSION REVENUE RESET 2008-2013

ETSA Utilities would like to comment on one matter regarding the ElectraNet Transmission Revenue Reset. That matter relates to the demand forecasts, and the issues in determining a reasonable forecast given volatile weather from year to year. We believe that the forecasts are sound, and should have no impact on the Revenue Reset. However, an understanding on the annual variability of actual demand against forecast demand will add to the confidence in these important forecasts.

Both ElectraNet and ESIPC have commented in their submissions and in their presentations on the apparent reasonableness of the transmission connection point forecasts which rely significantly on ETSA Utilities planning outcomes. ETSA Utilities uses best endeavours to produce a sound connection point demand forecast, however proving the robustness and accuracy of these forecasts can be difficult to establish given the volatility of summer weather. In recent years, the most extreme weather has occurred on weekends and near the Australia Day public holiday. In 2000/01, extreme weather occurred on workdays, so giving a good indication of 10% POE (probability of exceedance) demand.

ETSA Utilities understands the endeavour of ESIPC in attempting to reconcile our connection forecasts back to NEMMCO's Statement of Opportunities forecasts. The ESIPC work recognised the impact of diversity between connection points when considering the coincident demand for generation on the South Australian system, ie that these connection points will peak at different times and on different days compared to the States coincident peak demand. A diversity allowance was used in the ESIPC calculation. Sitting

behind each Connection Point Forecast are a myriad of customers large and small each with another level of diversity to each other.

Of particular influence in determining system peak demand is the diversity between each customer's summer peak demand and their demand at the time of the connection point peak demand. Business customers typically peak around lunchtime and, as a group, have a declining load as some businesses progressively close during the afternoon. Some businesses will peak at different seasonal times within the summer. Residential load steadily increases during the afternoon as the occupancy of the residences increase and the internal house temperature rises, peaking at around 6pm. If the assumed diversity was to reduce in reality (eg by businesses closing later, or residential customers changing behaviour), then the coincident demand would increase despite no change in any individual customer's maximum summer demand.

ETSA Utilities' distribution system has to be sized at each voltage level across the State's locations to meet the local customer's peak demands. This implies a level of demand (after allowing for losses and customer diversity) that is significantly higher than the consolidated connection point forecast. This is not a matter for the ElectraNet Transmission Reset but it does illustrate the impact of losses and customer diversity on the total installed capacities of distributed networks, be they transmission or distribution.

The ElectraNet and ESIPC presentations also commented on the high (but not absolute) level of demand recorded in recent times compared to the Connection Point forecasts. There are two key areas where variations can occur that will produce these variations:

1. The impact of customer load curtailment and embedded generation (including the variable output of wind generators) can have an impact. There is an impact on the reported demand because of wind generation over and above reliable levels, or variable levels of customer response depending on pool prices at that time. Note that extreme weather does not necessarily imply high pool prices so load curtailment will vary on extreme days. ESIPC endeavours to correct for this key area in its planning.
2. The impact of 50% POE weather versus 10% POE weather varies across the State. The simplest example of this is the variation in recorded temperatures at Adelaide Airport and at Kent Town. The Adelaide Airport is more often affected by the cooling effects of sea breezes during 50% POE weather whilst the cooling effect is diminished significantly in a 10% POE day. The variation between 50% POE weather and 10% POE weather at Kent Town is less significant. As a result, coastal demands such as the Southern Suburbs and (to a lesser extent) Western Suburbs will be more volatile from year to year against the demand forecast for that Connection Point compared to the Eastern

Suburbs and the Northern Suburbs Para system. This weather variable is a more difficult factor to adjust for, as the impact on demand is different at every connection point across the possible range of weather.

So, it is reasonable that a 50% POE weather day will result in one connection point reaching perhaps 70% of agreed demand whilst another connection point reaches in excess of 90%. However, in the event of a 10% POE weather day, both connection points will approach 100% of agreed demand, depending on the level of load curtailment and embedded generation that occurs on that day.

These impacts need to be considered when reviewing the level of actual demand at a Connection Point against the forecast demand for reasonableness. The demand forecasts will also vary over time as customer growth and customer behaviour (and diversity) interact with the severity of the summer weather on workdays in each successive year.

If you wish to discuss these matters further, please contact me on 8404 5854. Alternatively, you can contact James Bennett on 8404 5261.

Lew Owens
CHIEF EXECUTIVE OFFICER