

Reliability Criteria

The use of a simple reserve margin above maximum demand is easily understandable by a layperson and may well have been chosen for that reason. Its major shortcoming, however, is that it provides no measure for how long any shortfall could last and it may therefore drive generation investment that does not reflect the value that the community may place on reliability. The move to using loss of load hours (LOLH) as a reliability target is sound as this provides a more nuanced measure of system performance.

The paper discusses various LOLH targets used on other systems as well as some attempts to develop a WA target from existing system rules. The State Energy Commission, SECWA, and the integrated Western Power used the figure of 5-8 LOLH per year in its long-term generation planning which is similar to the international figures quoted.

A detailed assessment of LOLH could be made based on an estimate of the value that customers place on reliability but that, in itself, is a highly subjective figure. It depends on duration of any outage, time of day, time since the last interruption and other factors. The market is probably better served adopting a measure based on other utilities' experience.

Perth Energy considers that an appropriate LOLH target should be developed by Energy Policy WA with appropriate consultation.

Modelling a time of system stress

The report notes that the WEM has excess capacity in place and has rarely experienced a 1 in 10 year demand event. This means that the capacity value of intermittent generators will, in most years, be inherently low. However, we consider that their value does need to be determined on the basis that in any year going forward we could experience a genuine peak demand. For this reason, we consider that mod

