

AEMC Reliability Frameworks Review

The document is too vague in its use of the term “reliability.” “Reliability” to a consumer also includes consumer ability to reduce demand – optional consumption has a lower level of need than that of minimum consumption. Consumers are all variable. The reliability framework has not included and discussion of consumers having variable consumption need. The marginal need declines as the level of consumption increases. Reliable energy must be tied to the level of need. Reliable energy for unlimited availability of energy would be ridiculous.

The concept of reliability must be interrelated with price. Reliability comes at a price. The price a consumer is prepared to pay must include an element of reliability. The framework review has not included price aspects.

Reliability must also be defined in terms of response times and frequency, voltage and phase in the network. Consumer equipment can become non-operational when energy supply falls outside specific parameters. The consumer can counter the magnitude of these variations by installing equipment to correct network output to prevent equipment failures. “Reliability” to this consumer has a different meaning.

The energy network is little different to the potable water supply network. Once, home owners were banned from having water tanks. The rise in household water tanks has reduced water demand from large producers. The parallel with PVs and battery storage systems is obvious.

The framework review appears to focus on generation and does not include distribution. Consumers are end users and are not interested in where the energy is generated. A distributed energy generation system has significant benefits over a highly concentrated energy generation system.

The concept of “strategic reserve” needs to be formulated more broadly around load shedding and distributed distribution instead of the 20th century concept of some physical generation plant sitting idle waiting for an emergency to occur. Dynamic control systems and technology offer a much lower cost option for managing system failures.

My concern is that the concept of “reliability” as alluded to in the draft is meaningless. The scope of the review has been poorly formulated. Poor scoping will deliver poor outcomes.