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The proposed scope has a supply side focus Generation/distribution. Events in Texas demonstrate a correlated impact of weather on supply and demand at the same time. In California climate could have correlated impact on generation and impact on demand from AC. It is important to consider this effect in modelling worst case scenarios.

The changing nature of demand has not been mentioned in much detail. Demand will become smarter, with demand side response playing a critical role for grid balancing within the next 10 to 20 years. This will form a critical part of grid management.

In considering resilience is also important to consider the communication systems used for network management. This includes communication used for demand side response. Rolling blackouts may impact communication links to areas outside the blackout zone.

Battery energy storage systems, including EV charging with V2X will also impact on resilience. Modelling the impact of this type of system is highly dependent on the assumptions made. For example the ability to support vehicle to home (V2H), vehicle to grid (V2G).

Resilience for a single home can be achieved via V2H, but support small islanded grids could be a major benefit by combining distributed generation with distributed battery storage to provide emergency power to neighbourhoods.

Many thanks for an interesting session.

Regards
Andrew

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