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Unlocking and exploring Australia's energy-use data

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Open data, energy, smart meter, data science

Energy data is critical to both the long-term energy security of Australia and the development of evidence-based policy in the sector. Historically, though, access to energy data has been inhibited by legislative, organisational and commercial complexities. This presentation will explore why energy data matters, the historical barriers to access and the pioneering research that will see an increase in the availability of high-quality energy data sets. The presentation, will particularly highlight the Energy Use Data Model and will focus on the critical outcomes from that ongoing program of work in the open energy data space.

Key research outcomes discussed throughout the presentation will include:

- A new data resource that describes typical half-hourly air-conditioning and heating behaviour across Australia, as estimated at the granularity of zone substations;
- Findings from large-scale pilot surveying activities in Victoria and Western Australia that is focussed on the linkage between longitudinal energy consumption, building characteristics, appliance use, fuel types, household demographics and environment;
- Issues, limitations and opportunities related to privacy management in the energy data space;
- The identification of representative energy behaviours from complex big data through the application of pioneering clustering and data compression algorithms; and
- The development of a new data platform for accessing Australian energy-use data.

The Energy-Use Data Model (EUDM) Program

