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Toward fairer distribution of network costs

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Alternative Technology Association
February 2017

Why reflect network costs?

In an energy market framework that seeks equitable cost and service outcomes for consumers ***and embodies the principle that no consumer should forego supply due to inability to pay***, distribution of costs proportionate to how they are incurred promotes equity

- Acute and chronic affordability problems can be addressed in a systematic and targeted way as a shared responsibility of market participants backed up by strong government social policy.

What costs should be reflected?

- What is the biggest driver of network costs?
  - Critical peak demand?
  - General peak demand?
  - Something else?
- What is the purpose of cost-reflectivity?
  - A behaviour-change signal (i.e. to change behaviour and thus reduce future costs)?
  - A cost-distributive tool (i.e. to ensure everyone pays their fair share)?

How should household usage be measured for billing?

- Peak demand during annual critical peaks?
- Weekly, monthly, quarterly peak demand during daily peak periods?
- Average annual or seasonal peak demand during peak periods?
- Is there a fairer way to distribute costs than demand-based charges?

One approach

Centre for Environmental Markets (UNSW), IT Power, Australians PV Institute

- Annual network peaks (critical peaks) the cost driver
- How to current demand tariffs reflect that cost?
- (Not very well, if at all)

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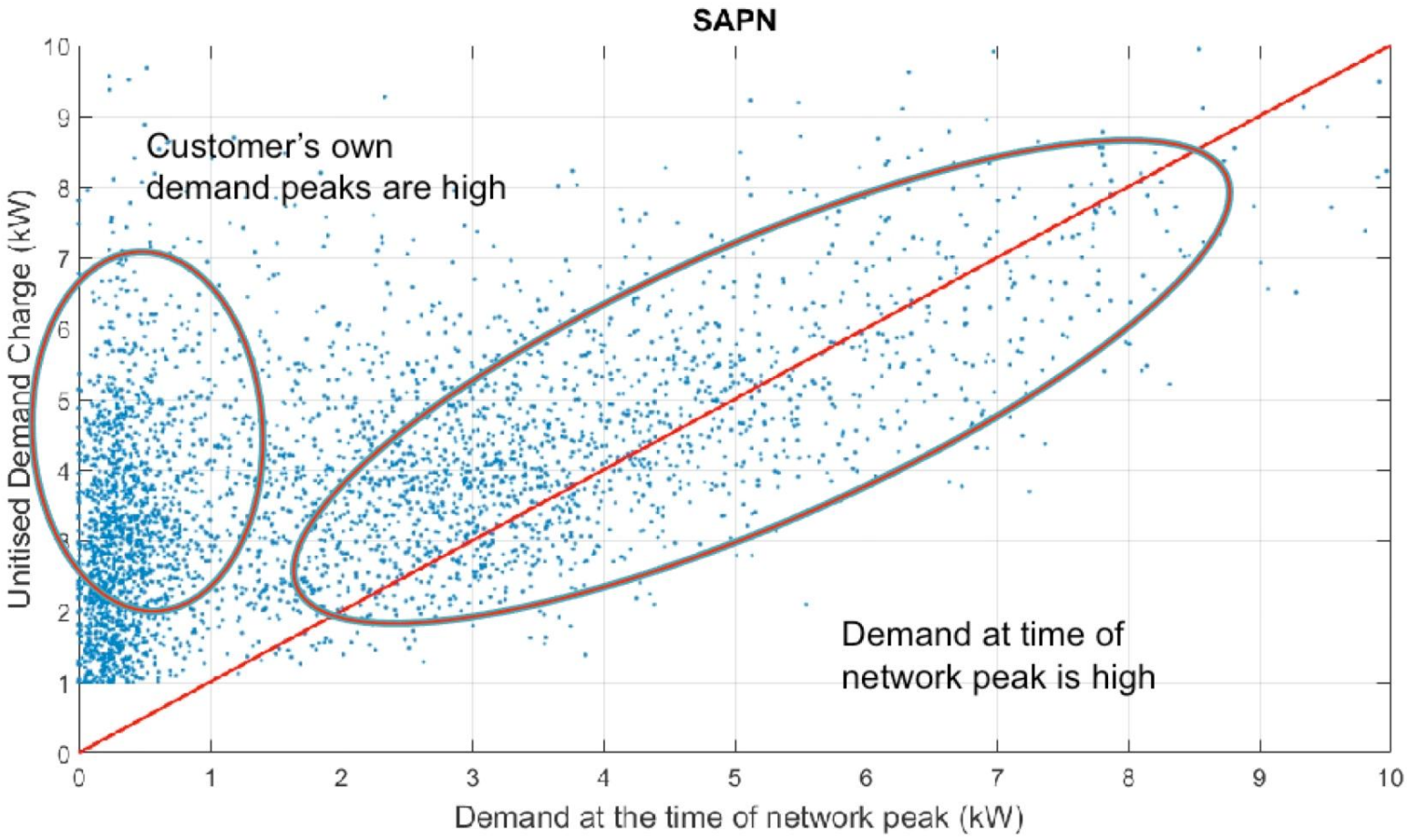
Unitised demand charge



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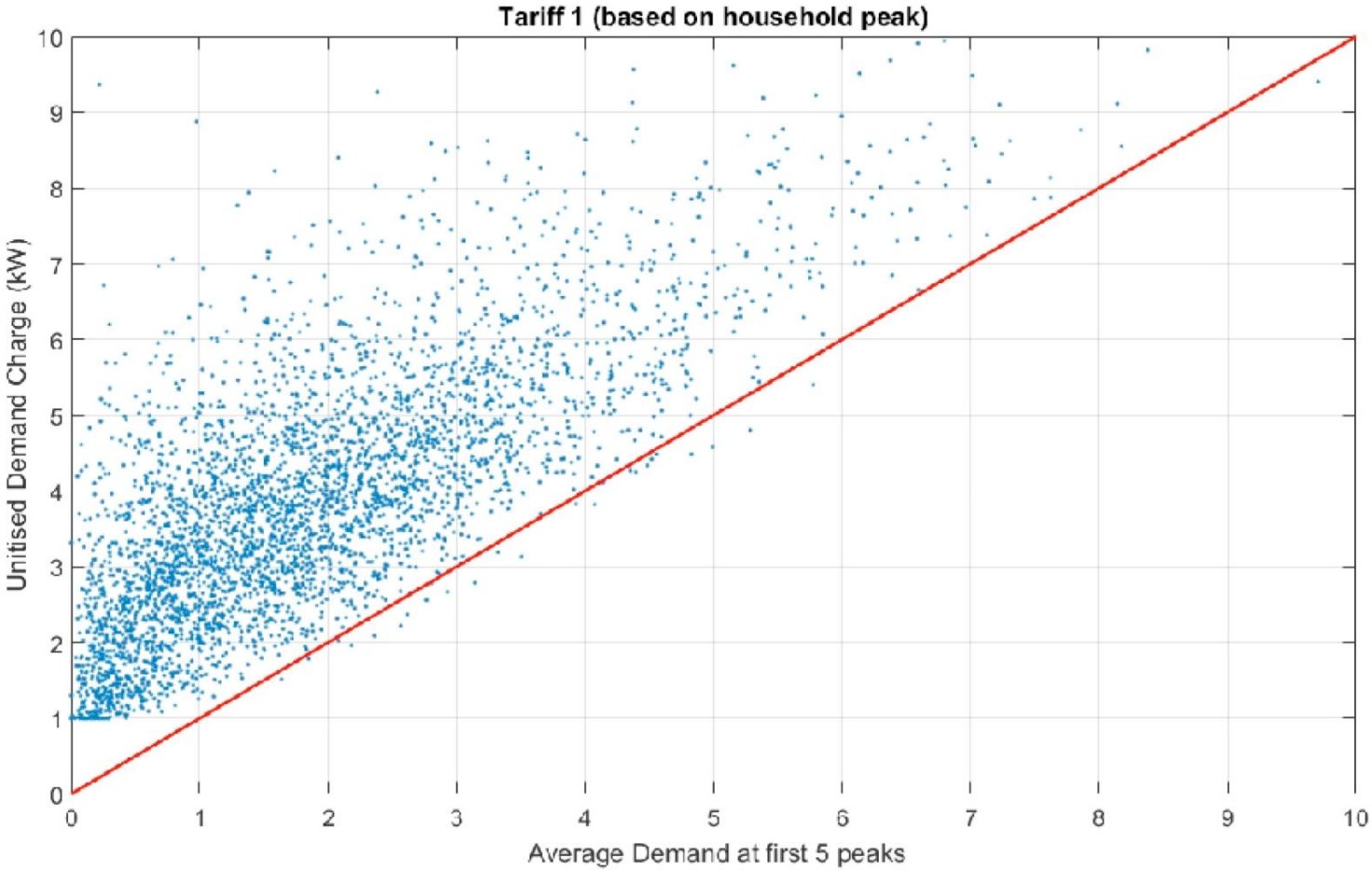
UDC compared to first 5 network peaks



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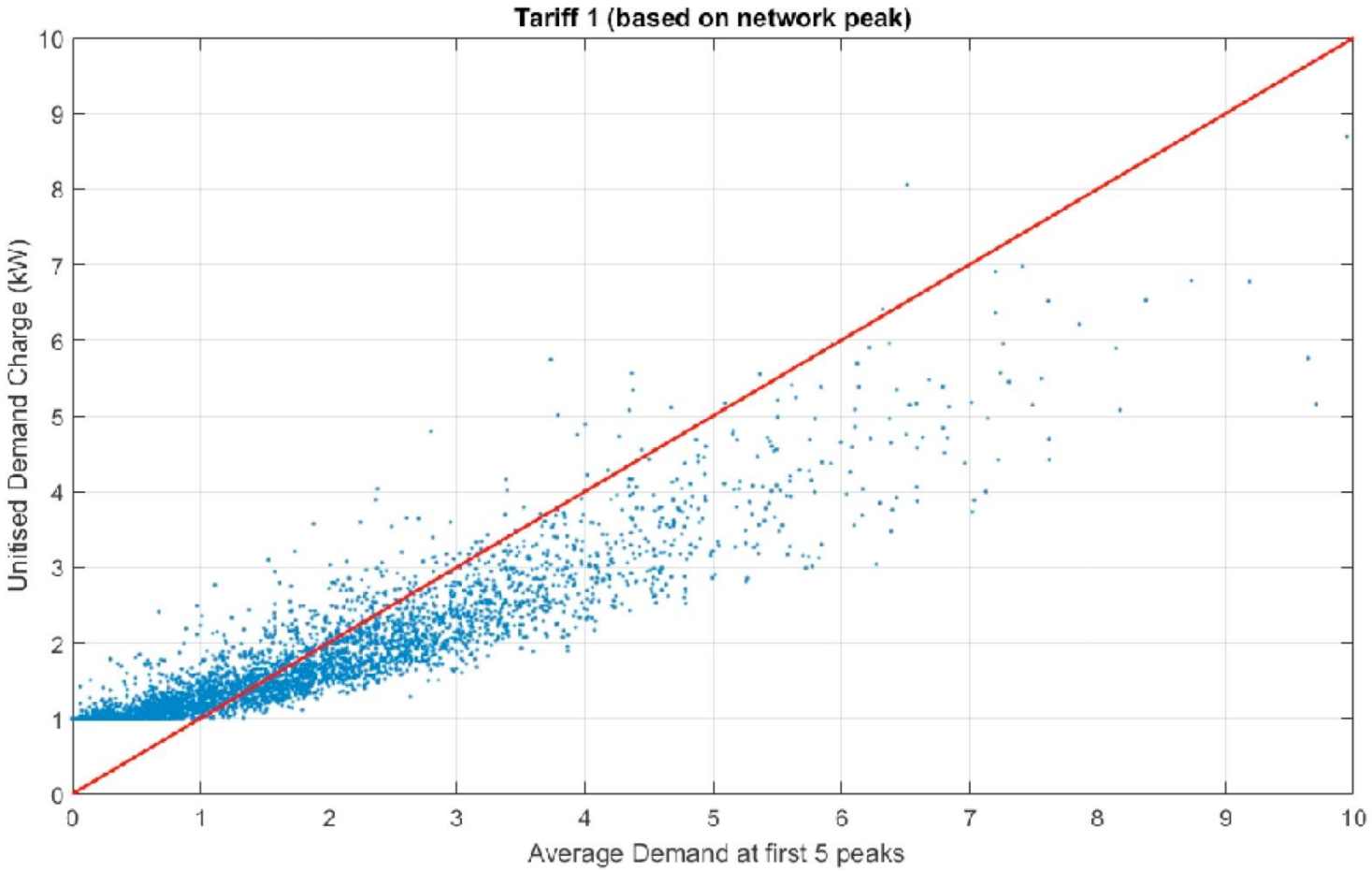
DC applied to coincident demand (all year)



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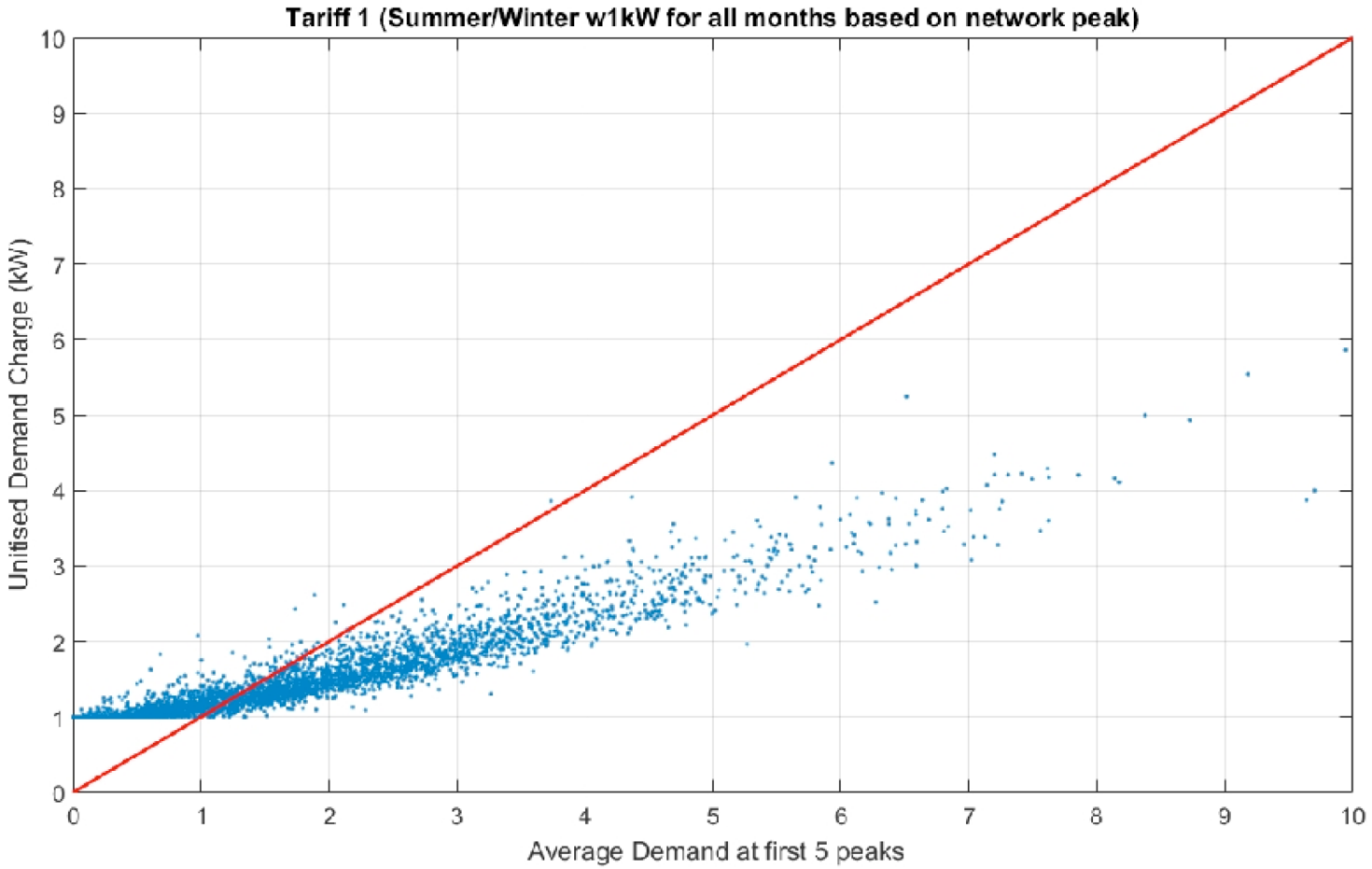
DC applied to coincident dem summer & winter



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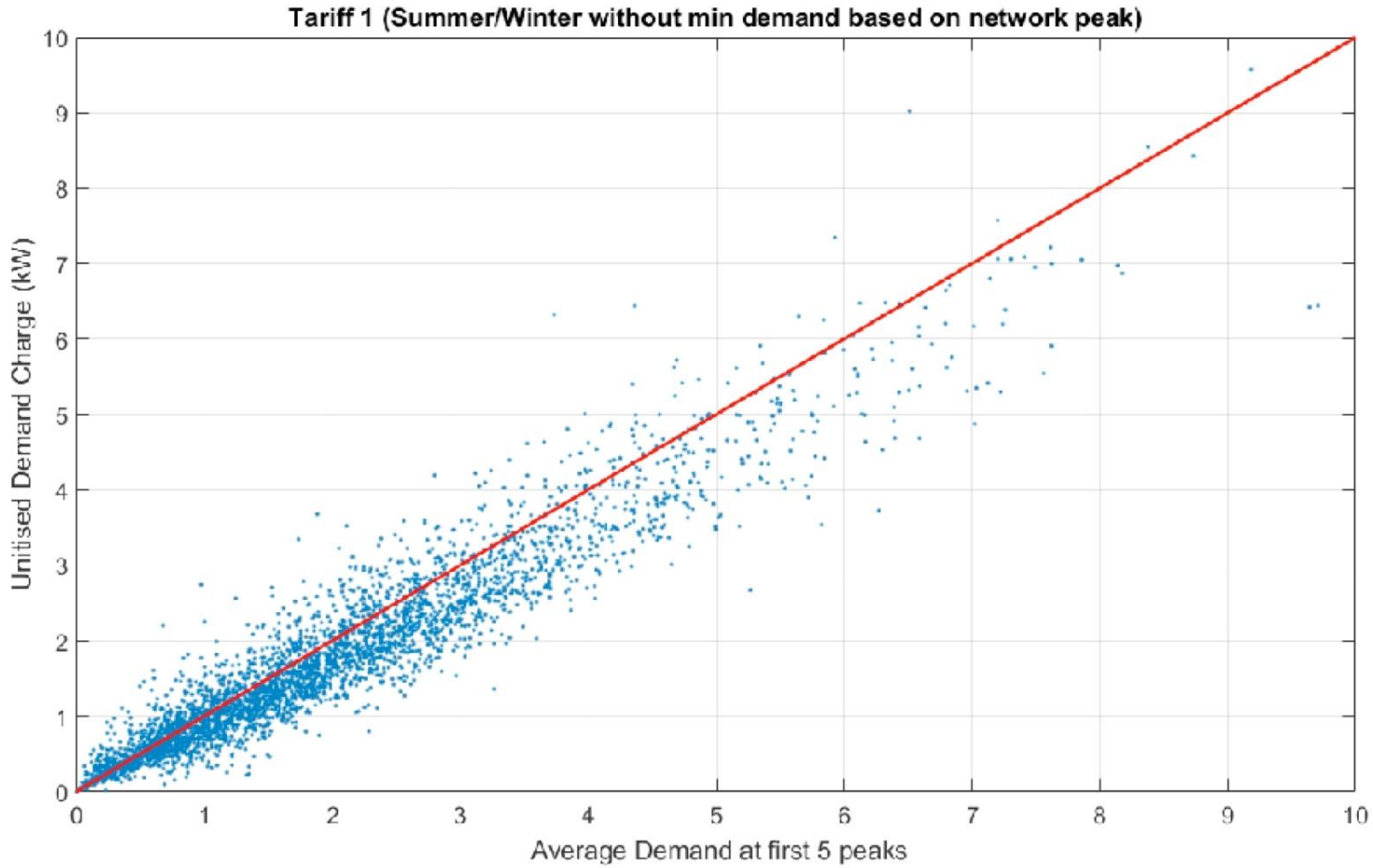
Then no 1kW min charge



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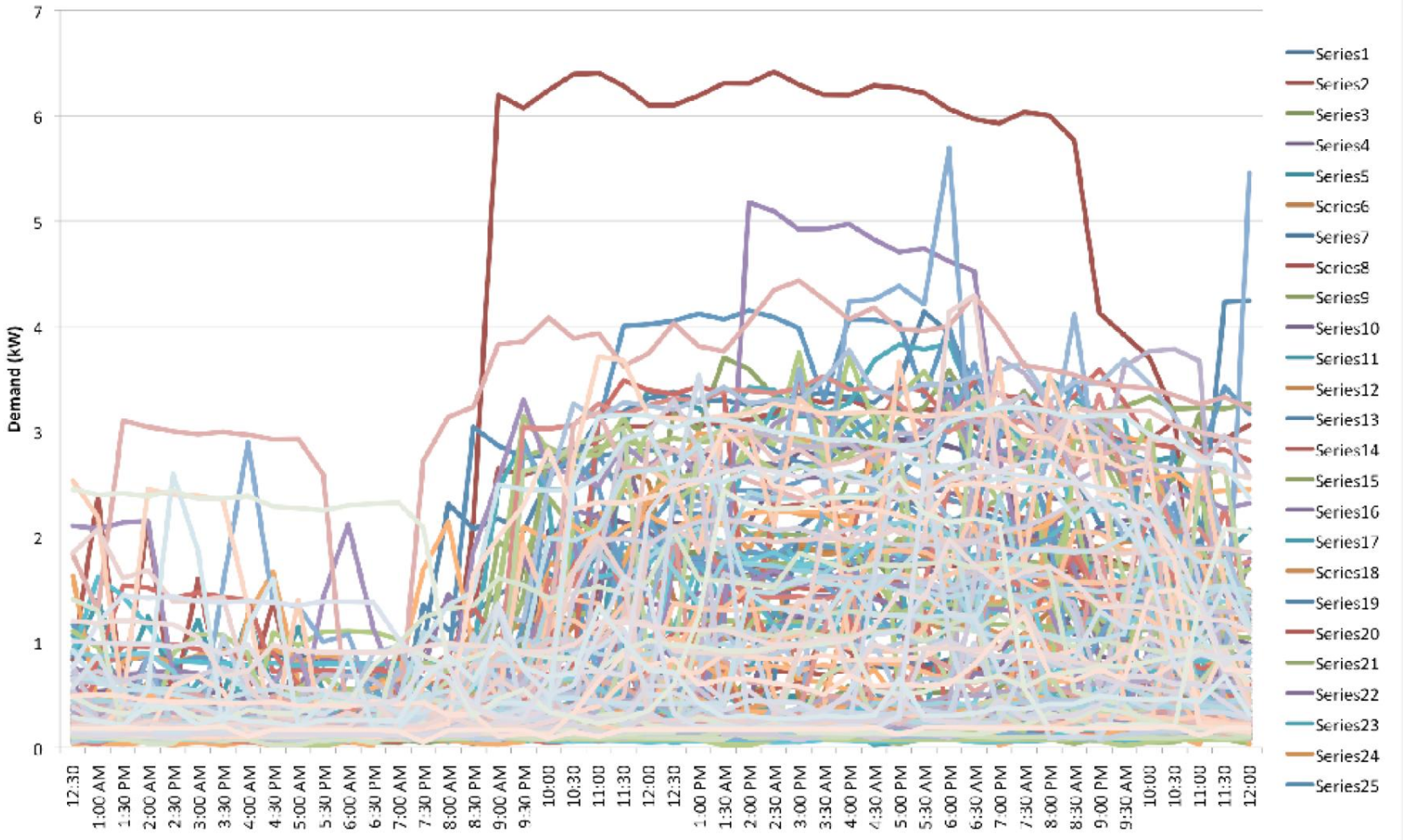
Annual Peak – Separate loads



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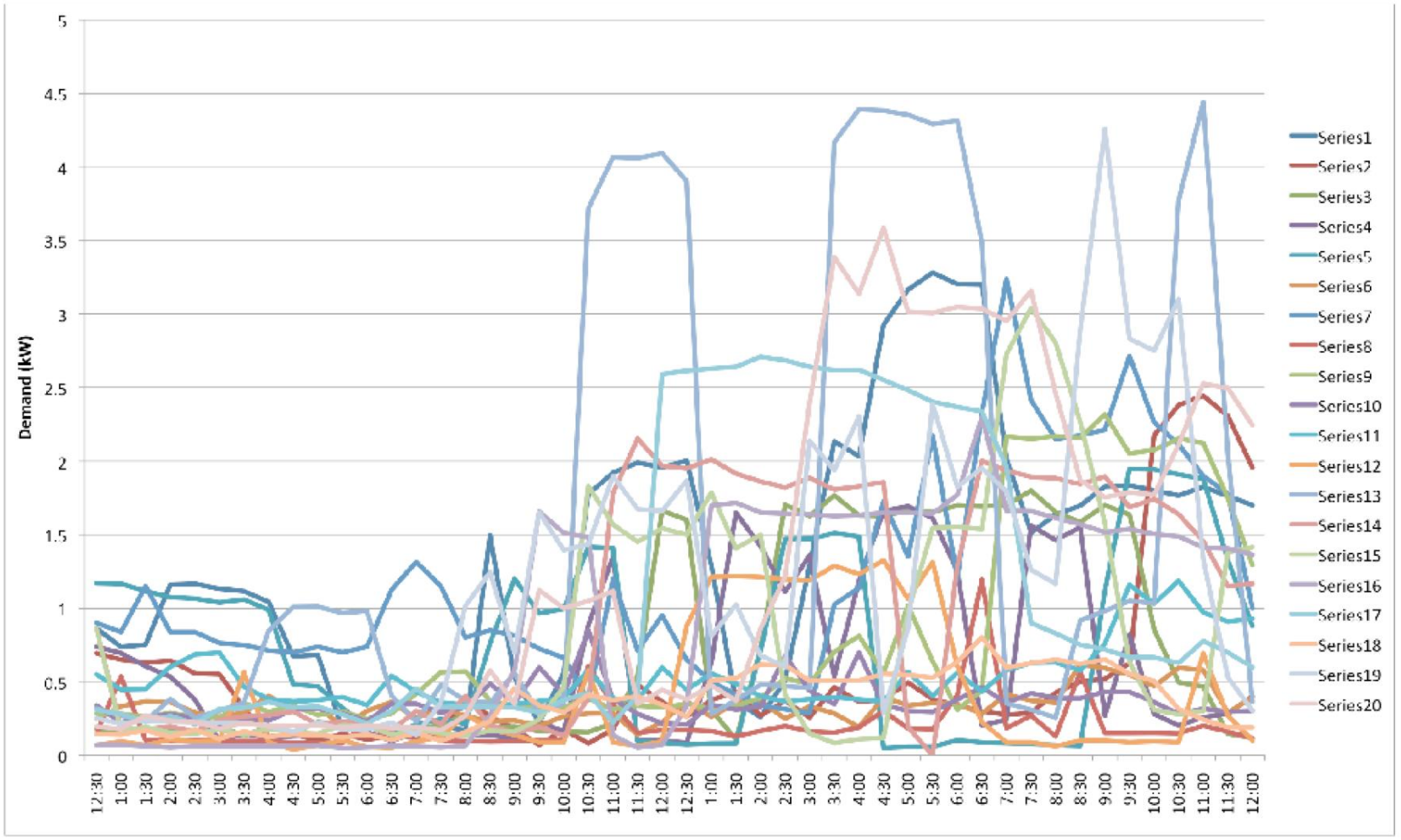
Annual Peak – 20 houses



Our project

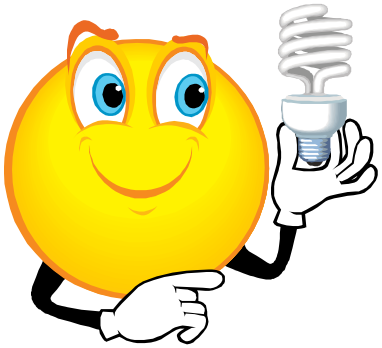
Looking at impact of proposed cost-reflective tariffs on household loads typical of different types of households

For all except the largest users (65kWh/day), annual peak demand was between 2.5 and 6 times average daily peak demand. ***Under most of the networks' demand tariffs, households are being charged according to their outlier peaks on a handful of days per year, instead of their typical peaks.***

What we need to see

- Clarification of the purpose of cost-reflective tariffs
  - Behaviour change?
  - Cost-distribution?
- Clear info showing the relative contribution to network costs of annual and daily peak demand
- Tariffs that reflect those costs
  - This could totally be average demand-based tariffs with critical peaks price/rebate aspect
- Granular analysis of customer impacts including identification of systemic impacts and strategies for dealing with issues

Thanks



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This project was funded by Energy Consumers Australia (www.energyconsumersaustralia.com.au) as part of its grants process for consumer advocacy projects and research projects for the benefit of consumers of electricity and natural gas. The views expressed in this document do not necessarily reflect the views of Energy Consumers Australia.