HOUSTONKEMP
Economists

IM Review Discussion Forum

Emerging technologies and network regulation

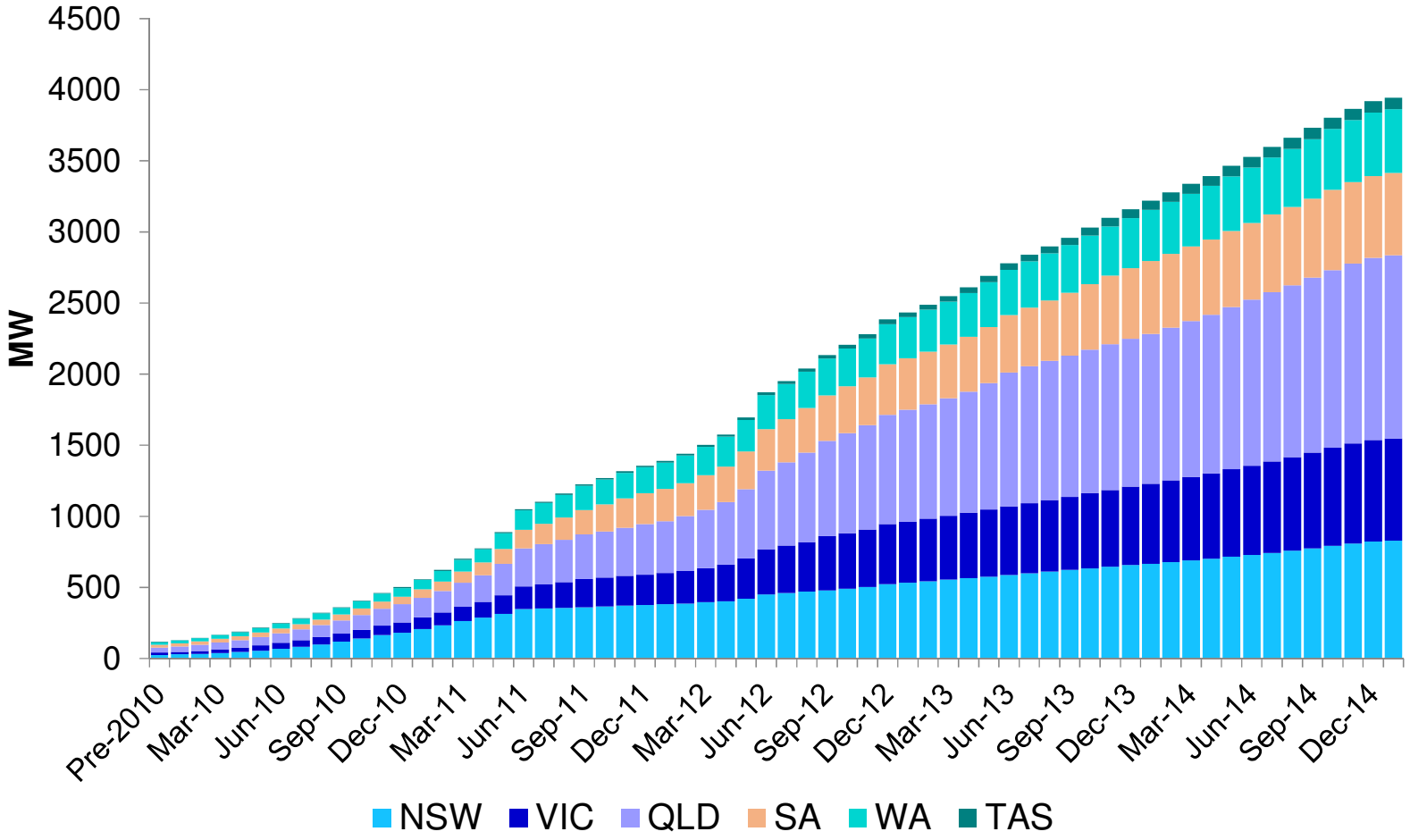
Wellington
29 July 2015

Greg Houston

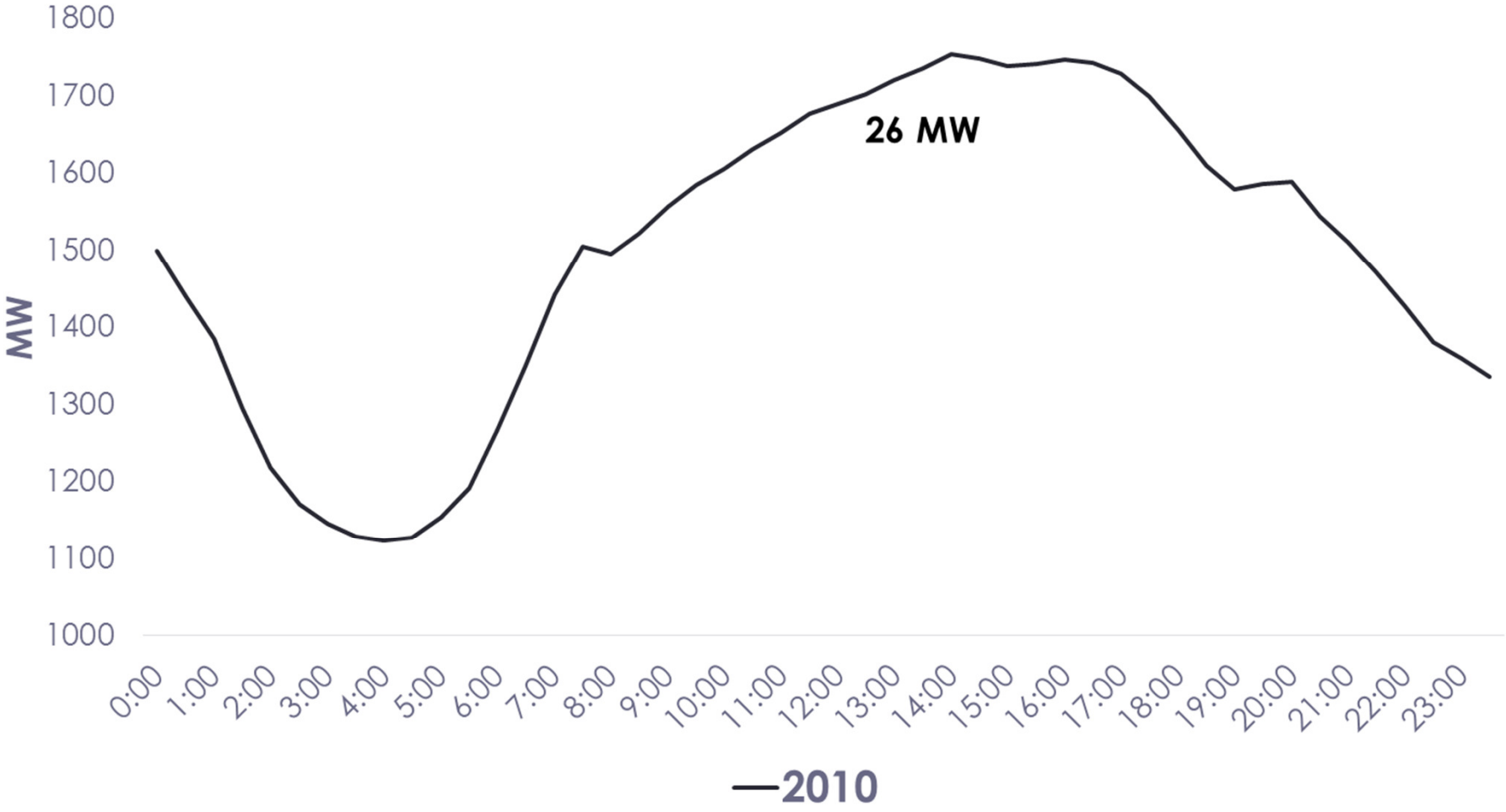
Partner, Sydney

PVs in Australia have arrived 'in force'

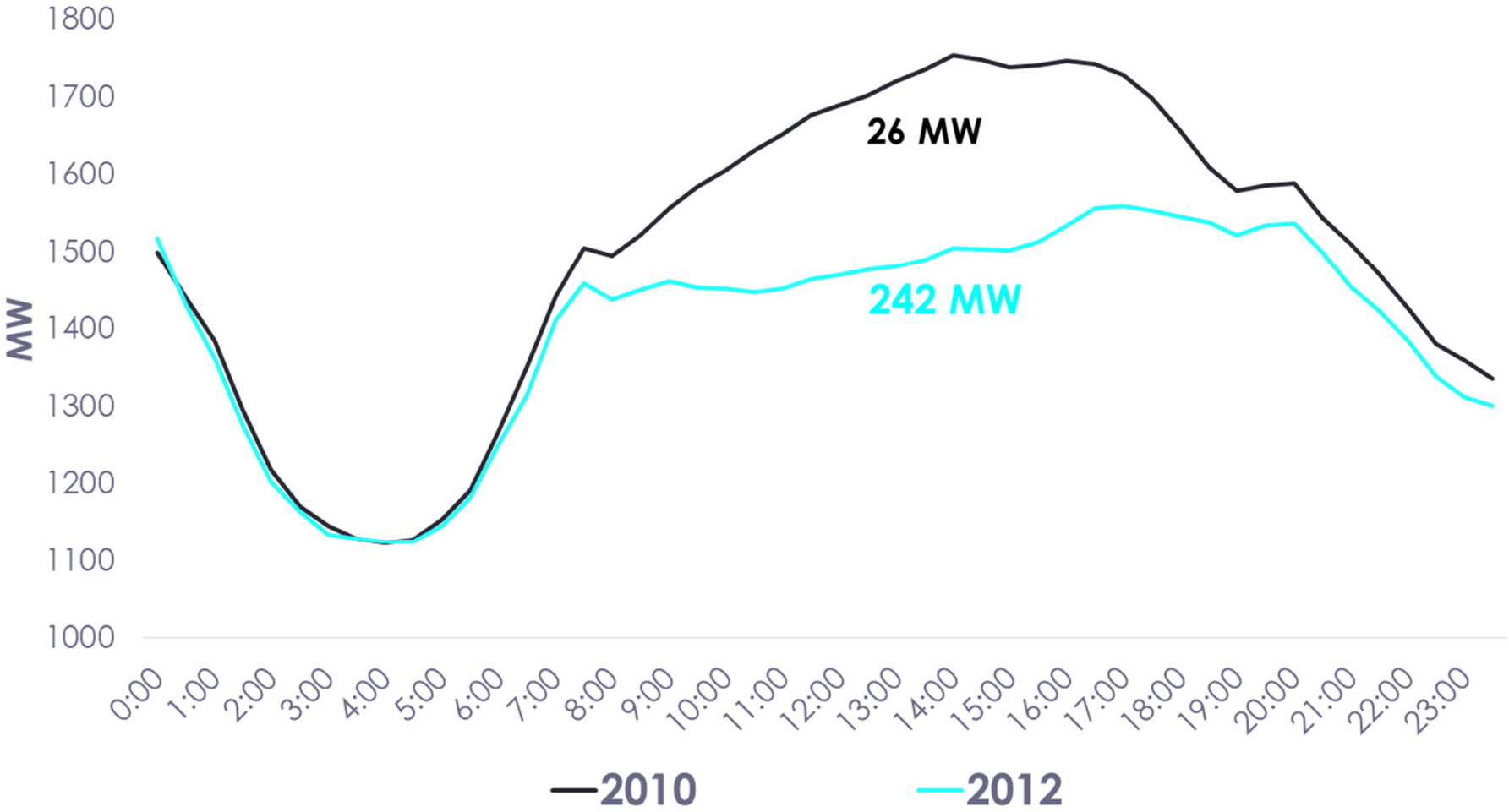
Cumulative installed PV capacity, by state – 2010 to Jan 2015



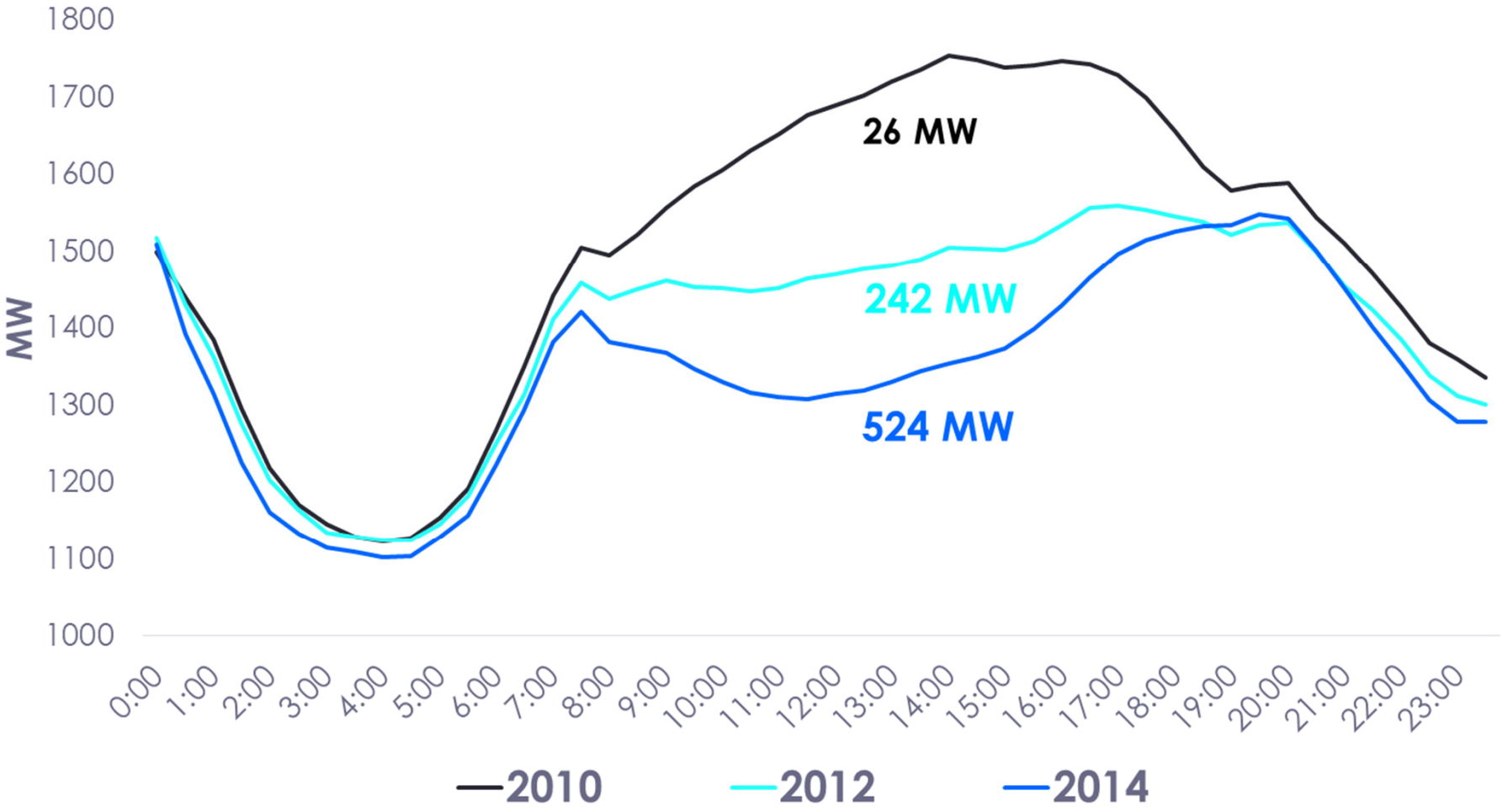
PVs are changing the load profile – South Australia, 2010



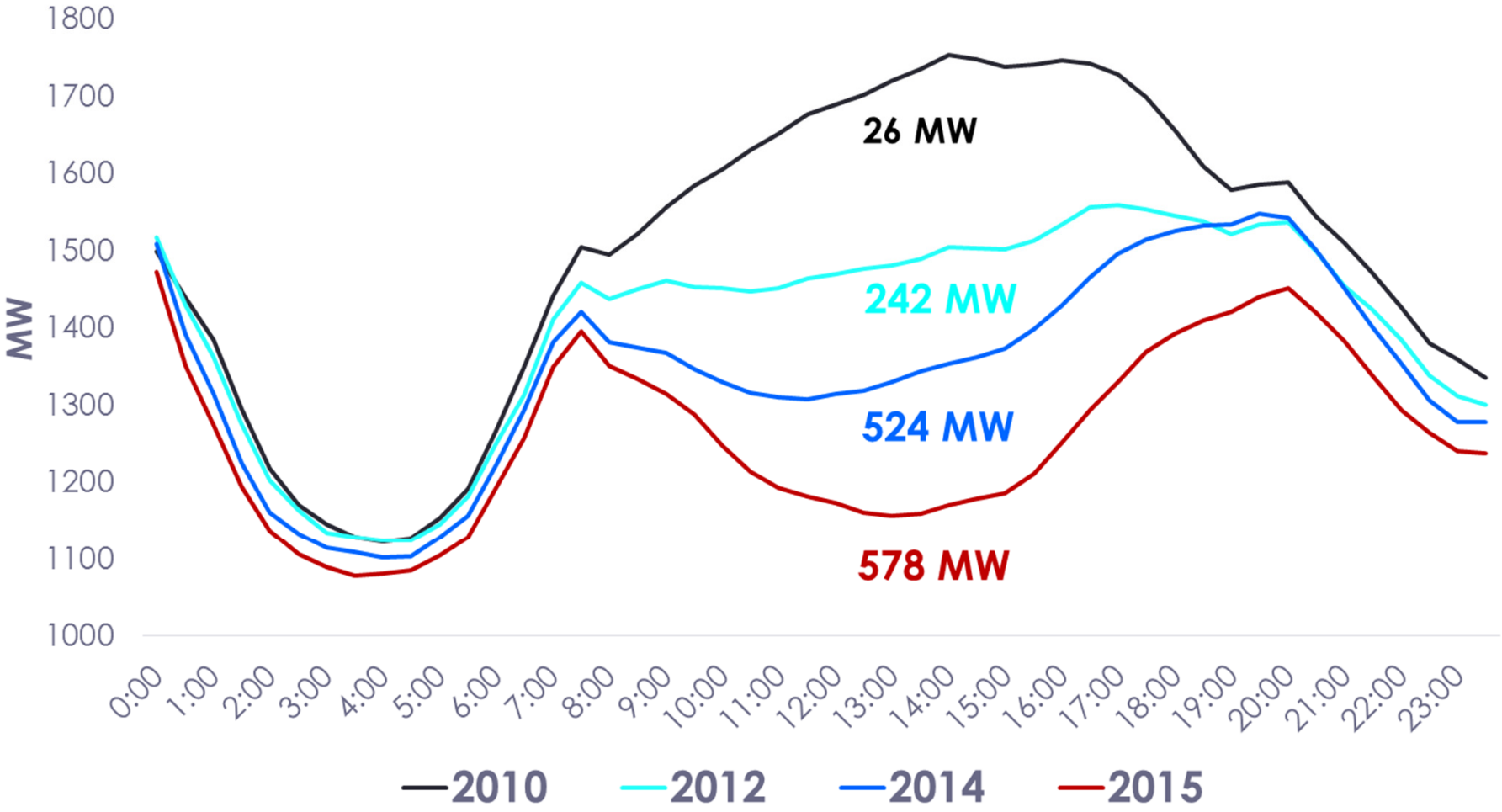
PVs are changing the load profile – South Australia, 2012



PVs are changing the load profile – South Australia, 2014



PVs are changing the load profile – South Australia, 2015



Analysis suggests few will be going 'off-grid'

'Both the cost of the battery and the size of the PV system required to maintain a reliable power course will deter nearly all urban households from going off-grid.'

'The size of the required battery and solar PV system is likely to exceed the dimensions of all but the biggest houses.'

'Households in urban areas will be much better off using the grid as their backup source of power instead of a diesel generator.'

Wood, T, Blowers, D, and Chisholm, C, 2015, ***Sundown, sunrise: how Australia can finally get solar power right***, Grattan Institute

Risk management focus: network tariff reform

Typical, present day TOU tariff structure in NSW

- Peak (2pm to 8pm weekdays) 48c/kWh
- Off-peak (10pm to 7am) 12c/kWh
- Shoulder (all other times) 18c/kWh

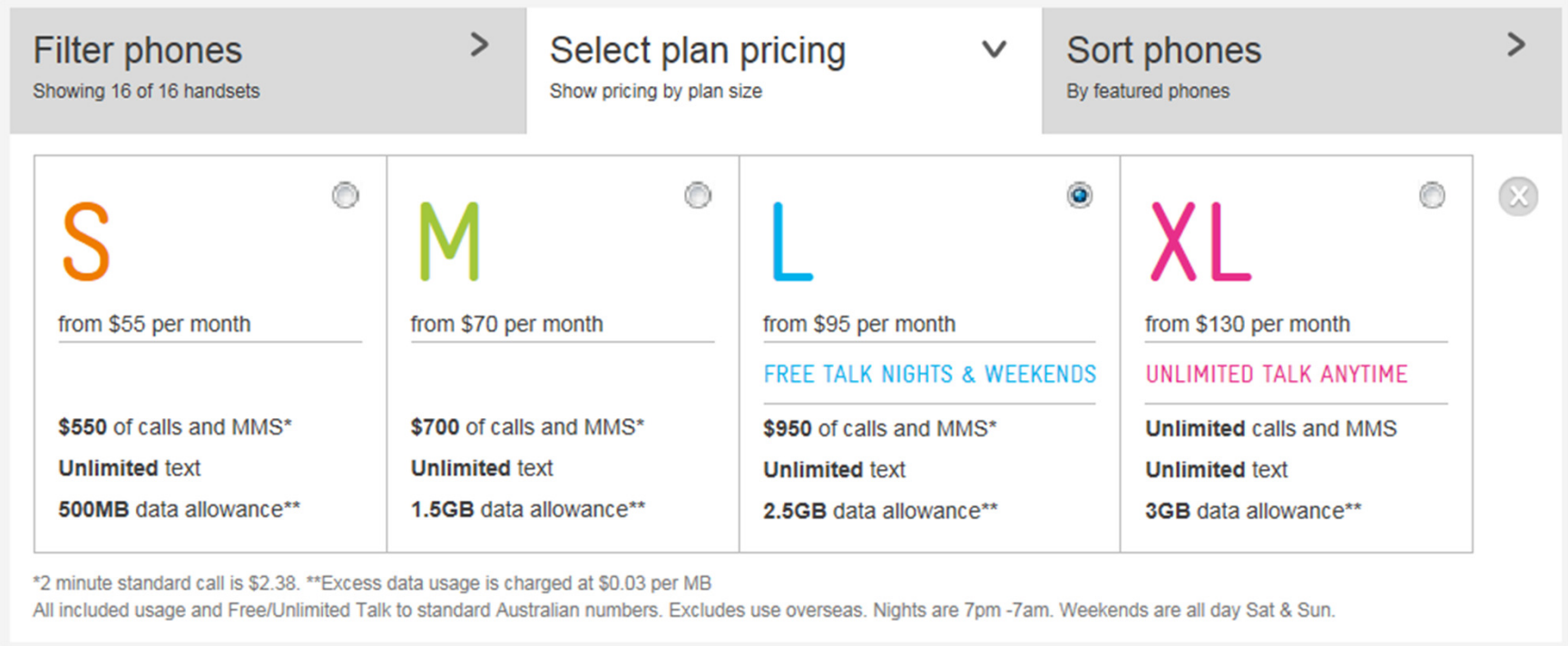
Such tariff structures may be addressing yesterday's problem

- Tesla and other residential battery products represent an exceptional 'arbitrage mechanism'

Demand-focused charges (c/kW/month) would substantially dampen the risk profile

- kW-based charges (say, in graduated bands of S, M, L, XL users) appear not to be inconsistent with the Fixed Tariff Charge Tariff Regulations

Innovative pricing in a similar industry?



HOUSTONKEMP
Economists

Level 40, 161 Castlereagh Street
Sydney NSW 2000

Phone: +61 2 8880 4800

HoustonKemp.com