

# Devolution and Defection in Energy Networks

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# Why is Australia interesting

- 25% households across Australia have solar PV installed as of 2017
  - 30% in South Australia (SA) and Queensland (QLD)
  - 70% saturation in some areas of SA and QLD
- Figures achieved by initial policy of 2010 coinciding with unforeseen circumstances

# How did it achieve the current position?

## A lack of adaptive governance with external circumstances

### Policy

- Small-scale renewable energy scheme (SRES) started in 2010
  - Similar to the ROC scheme in the UK
- Feed-in-Tariffs starting in 2009
  - 40-60c/kWh either gross (for all generation) or net (for exported generation) dependent on state

### External circumstances

- Rising electricity costs (2010)
  - Rise in network costs
  - Rising gas prices
- Falling costs of solar PV system
- Battery storage costs halved (2016)
- SA blackout (2016)
- SA load shedding event (2017)

# Current position of distributed generation

- 5.7 GW of <10kW solar PV installed, 1.3GW installed in 2017 – record year
- 1 in 8 new PV systems had a battery installed in 2017
- 28,000 battery systems installed in 2017, up from 6750 in 2016
- Larger scale PV systems for small business and commercial now the fastest growing sector.
- Also industrial users now looking at self generation, e.g. refineries, agriculture, mining

**So, the transition to a decentralised electricity system is well underway, but the conversations around how to best manage this for best outcomes for all consumers are the same as we are having in the UK**

- How do we pay for networks when less consumers are paying for electricity?
  - Standing charge?
  - Time of Use tariffs?
  - Capacity charge?
  - DSO to a DSP?
- Role changes for the regulator?
  - More towards consumer protection
  - International standards
- Should regulation be national or regional or linked?
- Visibility for system management
  - SRES show location and density of PV but not storage
- New business models
  - Virtual power plants
  - Standalone systems
  - Microgrids

# What should we learn from this for UK energy policy?

- Serious difficulties for a country and /or state can happen very quickly if technology change and appropriate policy is ignored.
- Incremental, conventional governance change will not sort out the problems with new technologies and with rapid change of new technologies and practices
- In order to have a cost effective solution more adaptive governance and coordination is required alongside policies

# Conclusion

- Difficulty is trying to patch a governance system – the policies, institutions, market and network rules and incentives, and the process/politics behind them – which was designed for a centralised system.
- We need fit-for-purpose governance **NOW** – not just to encourage transformation but to allow for a coordinated approach which will benefit everyone.
- Successful transformation means not only transforming the way we generate our energy but also transformation of the governance surrounding our energy systems.

# References

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