Empowering Automation

The imperative to create a "Social Licence to Automate"

Australia Presentation 1st Sep 2018
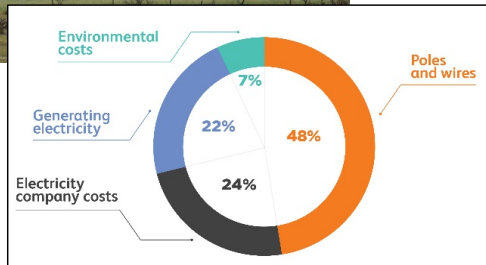
Context

Australian Context

- High prices in the National Electricity Market
- Recent closure of aging coal base load stations
- Broader issues of reliability, system strength
- Blackout in South Australia Sep 2016
- Backlash on large scale renewable energy
- The canary in the coal mine?
- Need for appropriate new non-energy markets

Automating DSM

- The need for rapid response DSM is increasing
- Opportunities for automation will extend
- if implemented poorly, automation can fail to provide whole energy system benefits and can disempower consumers
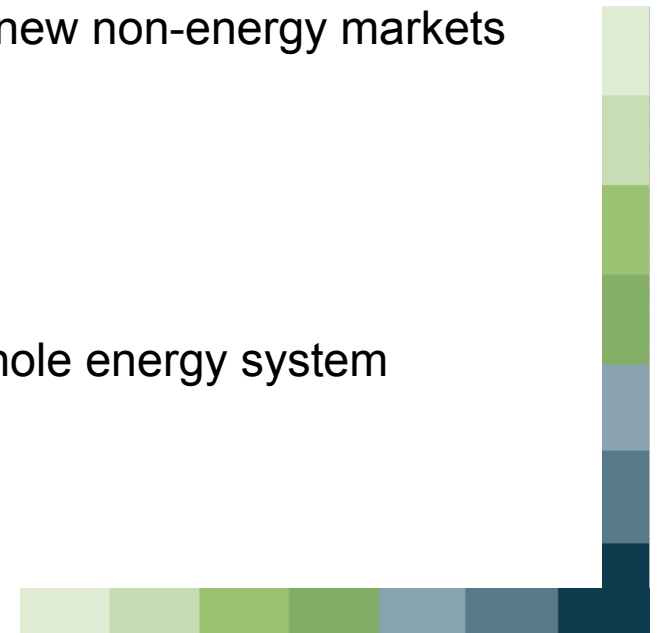
Social Licence to Operate

Lessons from wind and non-conventional gas

- Technical compliance

- Environmental approvals

- Did not have a community acceptance to operate
  - Protests
  - Political Influence
  - Interference in markets and optimal solutions

Did not have a SOCIAL LICENCE TO OPERATE

This "Social Licence to Automate" in the energy sector is an extremely difficult challenge for DSM, requiring the blending of social sciences, technology and policy research and will require insights and lessons from around the world.

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Aims and Objectives (draft only)

- Create country profiles

  - Industry/society readiness for automation of energy flexibility
    - Regulatory, industry and societal context (e.g. profiling of the current state and identify required changes)
    - Existing policy, regulatory or institutional interventions (e.g. contemporary examples)
    - Map major trials in each country (e.g. detailed case studies exploring the internal dynamics of how new practices are being supported, maintained and replicated)

- Energy literacy and engagement

  - Investigate how policy makers, institutions and most importantly customers in various markets understand how energy markets work and how automated "energy flexibility" would be incorporated fairly (safety nets)

- The customer algorithm

  - Map customer needs for DSM automation algorithms
  - Developing customer trust through transparency
  - Other opportunities for using algorithms to exploit value
  - Compare existing tools to customer needs (based on peer-to-peer observatory)
  - Understand how technology can enable the Social Licence to Operate

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Place in the TCP

Good synergy with other tasks

- Business Models (Task 25)
- Peer to peer observatory

Structure of the Task

- In discussion
- Strong participation needed from countries
- Requires industry and consumer (advocacy group) participation

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