

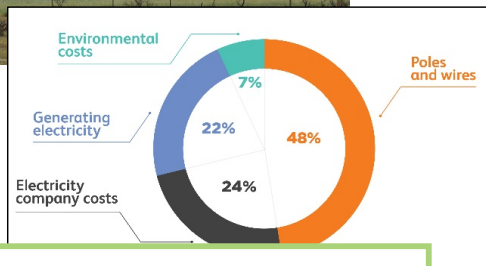


Social License to Automate (DSM)

Task Proposal



Context



Australia:

- Canary in the aging Coal Mine
- Retirement of aging generation
- Increased energy costs
- High penetration of renewables
- Technical and political fallout

Changing Grid

- Decarbonisation accelerates the uptake of distributed energy resources (DER)
- Need for rapid electricity system responsiveness, including increasing need for rapid response DSM
- Will require automation
- But do you “trust” a third party to reach behind the meter to control your power usage
- if implemented poorly, automation can fail to provide whole energy system benefits and can disempower consumers
- We have seen a lack of trust (with customers and across all system participants) before in other industries



Social License to Operate

The DSM TCP (Demand Side Management Technology Collaboration Programme) Social License to Automate will be a task that analyses leading automated DSM projects to understand key social, organizational, economic and regulatory determinants of successful customer engagement, implementation and transitions of institutional regimes.

Participating countries will document how end-user trust between participants (customers and energy industry) and acceptance to automate is built and maintained across different national contexts.





Objectives

- Co-design a template for data collection and analysis regarding trusted automation of DSM, that is, to isolate key variables in how and why a social License for the automation of DSM is granted by users.
- Identify and examine major trials associated with automated DSM in each participating country (e.g. detailed case studies exploring the internal dynamics of how new practices are being supported, maintained and replicated)
- Understand how social value and trust is developed and maintained across the industry, including the utility (demand side operator or retailer), aggregator and customers.
- Understand how energy automation features should be presented to consumers and how much transparency and control should be granted to different groups of customers
- Examine the institutional arrangements (e.g. policy, rules and regulation and governance mechanisms) associated with the trials of DSM practices.





Task Structure

Subtask 1: Common template for social and technical research approach

- Literature review and initial publication
- Define relevant case project parameters
- Develop interview guidelines for country experts
- Contact relevant institutional bodies, policy makers and regulators concerning their needs for evidence
- Conduct a pilot case study analysis with a completed case study to validate categories

Subtask 2: Desktop and Case Study Data Collection and analyses

- Undertake data gathers and interviews in each country
- Use appropriate comparative analysis to collect information





Task Structure

Subtask 3: Understanding Trust to Automate: social, economic, institutional and technical dimensions

- Social and institutional dimensions – why was the project started and by whom? Organized how?
- Economic dimensions – how is the business case developed? What rules were relevant to setting price? Carbon constraints? Changes to tariff rules? What market structure at wholesale and retail level?
- Design practices: how can the user experience be optimized?

Subtask 4: Country profiles and policy relevant body of knowledge

- Individual country profiles which outline the context-specific insights from each country
Developing customer trust through transparency
- Generic, guiding framework that works to identifying the key ingredients required to inform the development of a social license for DSM automation





Task Structure

Subtask 1: Common template for social and technical research approach

Subtask 2: Desktop and Case Study Data Collection and analyses

Subtask 3: Understanding Trust to Automate: social, economic, institutional and technical dimensions

Subtask 4: Country profiles and policy relevant body of knowledge

Timeframe: 2 years

Participation:

- Task share led and funded by Australia
 - Operating Agent from Monash and UNSW
- Experts from participating countries
 - Will include local and regional workshops and case studies
- Involvement from industry and government desired



Next Steps

Pre-launch Workshop

- Experts from Australia, Austria, Netherlands, Sweden and Switzerland
- Clarified framing, expectations of experts and task governance

Endorsement



Australian Case Studies

Figure 1. Sample of household solar and demand management initiatives and announcements in Australia 2016-2018

