

Stakeholder perceptions of energy system models and their role in policymaking

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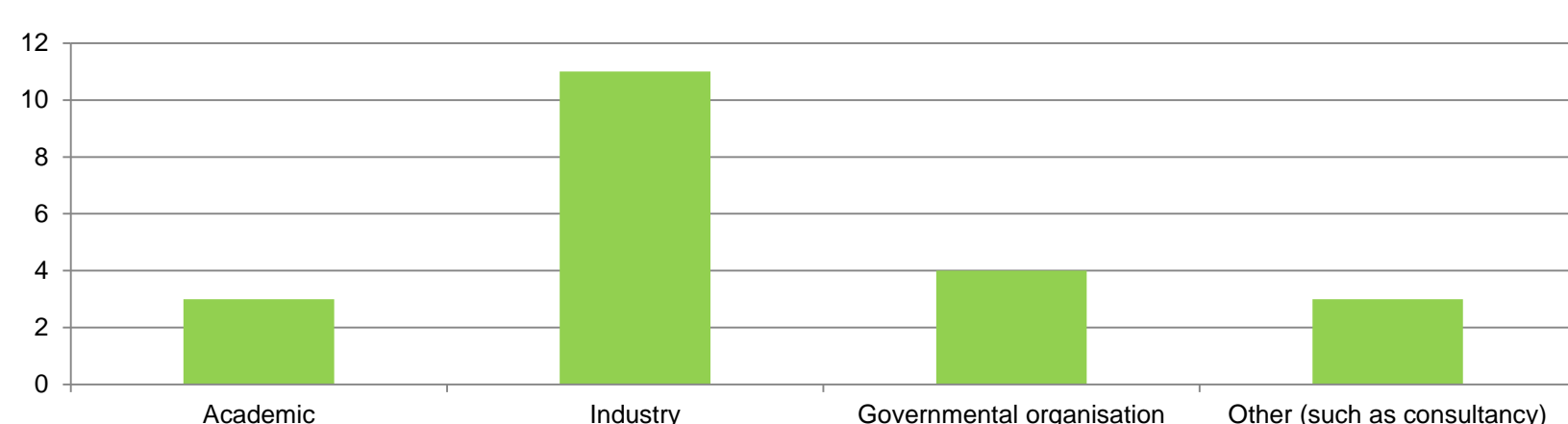
Introduction

Energy companies are exposed to the consequences of government energy policy. Policy changes can affect market conditions for existing and new assets as well as the costs for consumers. Understanding the modelling tools used for the purpose of policy development can help industry better understand both policy direction and their future strategic planning. One research method used to inform this question was to interview key stakeholders across the energy sector about their experiences.

Method

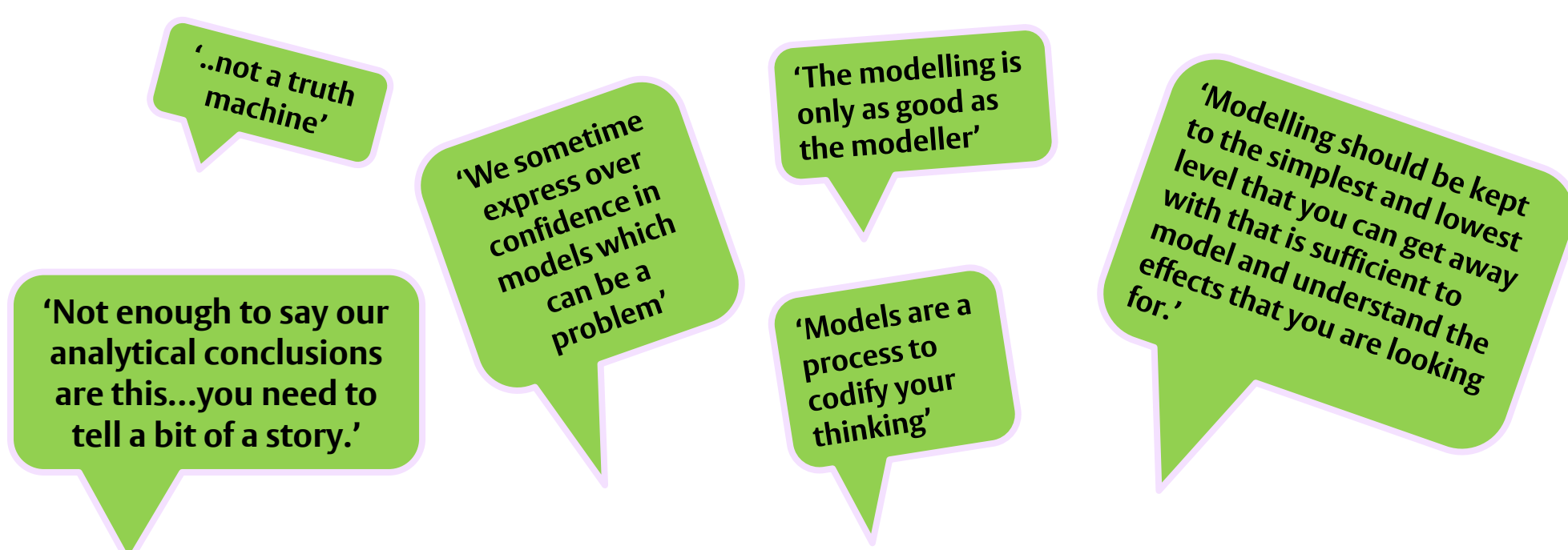
21 participants were interviewed from across the sector about their perceptions of energy system modelling and their usefulness for policy making. A semi-structured interview process was used to investigate opinions and knowledge on different subject areas. These included modelling and data challenges, how to communicate modelling, usefulness of scenarios and their interaction with government energy modelling.

Participants interviewed by type



Communication

- Narrative is incredibly important to address the underlying complexity, differences and usefulness of models
- Government modellers need to be more visible to provide increased confidence in model outputs so stakeholders understand how to interpret the outputs



A word of caution about scenarios:

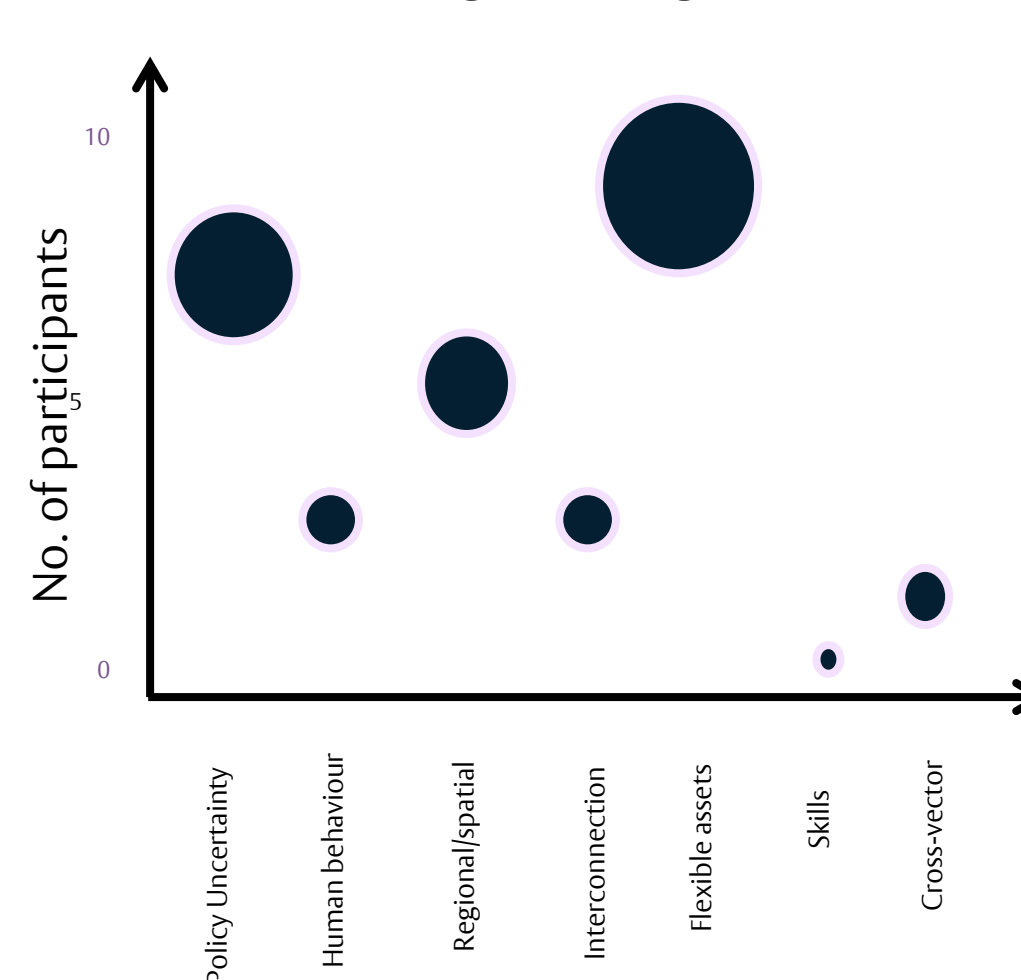
- They are all just 'A' scenario, not a prediction (careful when using as an input)
- What is currently trendy often makes scenarios (EVs/hydrogen)
- Consider what might be politically/behaviourally easier, even if more expensive
- Compare common strands (useful to provide a guide for industry for investment, trajectories 1 participant said)
- Compare range and where there are significant uncertainties

Challenges

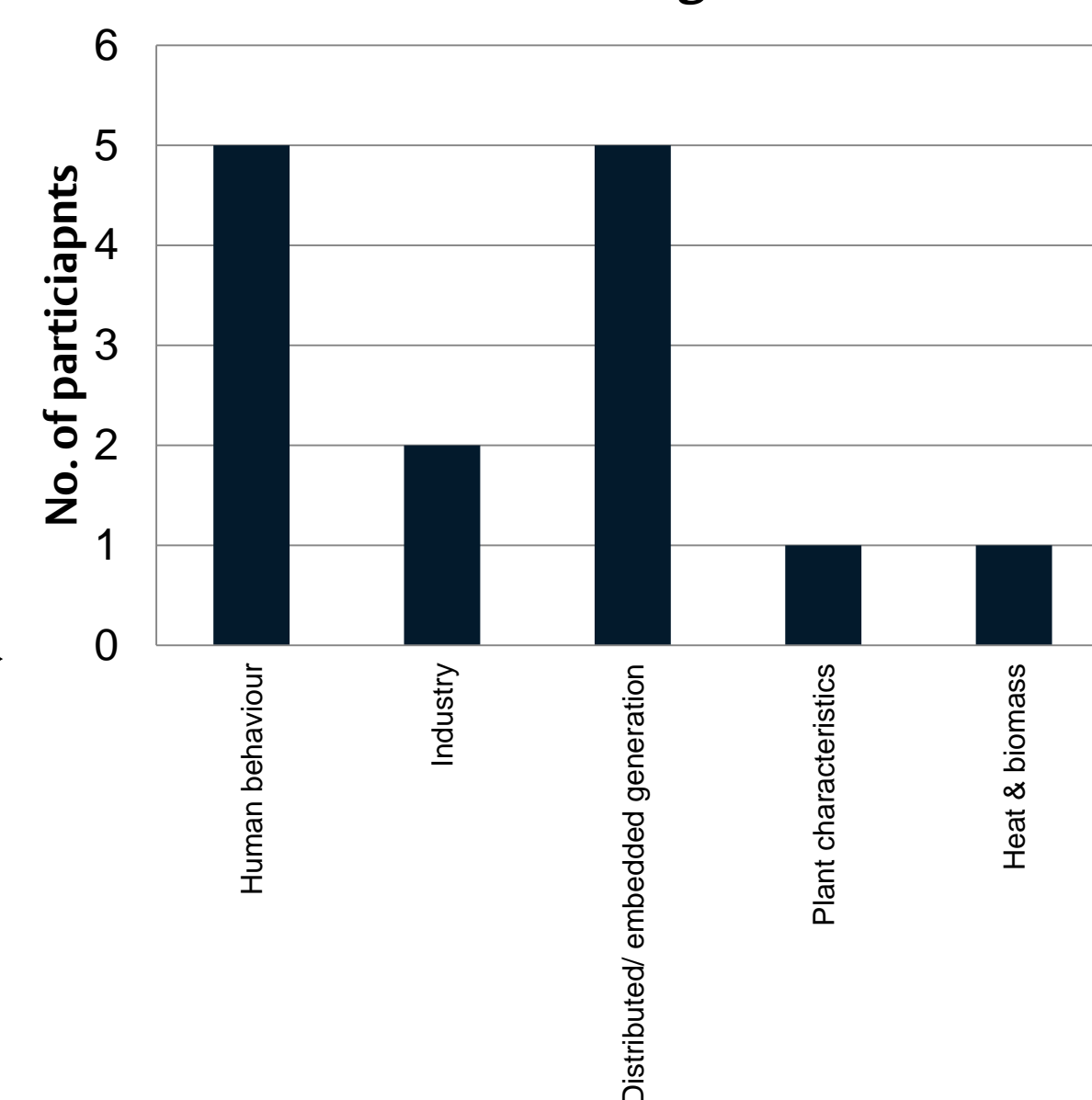
Modelling

- How we live including our social practices, behaviour and specifically how we use energy is extremely data poor.
- Game changing technologies are a huge uncertainty and futures will be highly sensitive to them (EVs, Artificial Intelligence etc.)
- Embedded generation data is unknown. How these and other flexible assets will be treated is hard to model.
- Policy uncertainty a risk in all areas
- Gaps in cross-vector modelling

Modelling challenges



Data challenges



Policy interaction

- It was believed that modelling does have an impact on some of the finer policy details. Less so on big strategic decisions such as CCS/Hinkley.
- At some point need to make a decision!
- It was agreed that government is poor at joining up strategies and implementation. Institutional memory and political timelines considered to be a big factor.

Initial findings:

- Many of the finding on the outset seem straight forward but important to remember as easily forgotten.
- A big challenge for modellers is that 'everyone has an opinion on energy'
- Main areas of disagreement were the usefulness of simplistic models, the development and use of scenarios and whether models should be fully open source.

Acknowledgements

- This project is funded by EPSRC and SSE

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