



Institutional landscape for energy storage deployment in UK's energy system transition

Aim and objectives

- Explore why some local authorities (LAs) are energy leaders with more projects and investment happening than others
- Identify the gaps of policy process across the UK, national (England, Scotland, Wales or Northern Ireland) and local scales
- Analyze whether current UK policy and regulatory framework presents challenges to the transition to a more flexible and decentralized energy system with energy storage, and options for overcoming these barriers

Data and methods

- Updated dataset based on the database of 'Local Engagement in UK Energy Systems' by David Hawkey, Margaret Tingey, and Janette Webb at the School of Social and Political Science, University of Edinburgh
- Explored the funding source for 471 energy-related projects and investment across 333 LAs in the UK
- Took Birmingham as a case study city of Energy Leader, mapped its projects, funding source and stakeholders to understand the network using the Social Network Analysis based on document analysis

Results

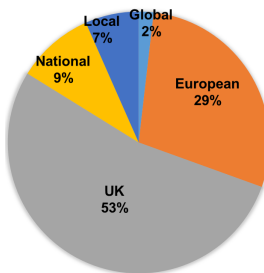


Figure 1. Funding source for the projects of 38 'Energy Leader' LAs

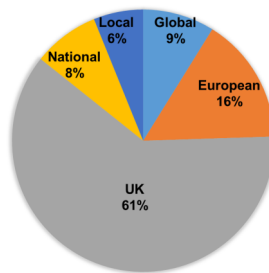


Figure 2. Funding source for the projects of 89 'Running Hard' LAs

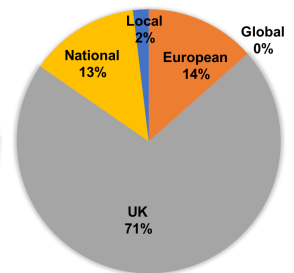


Figure 3. Funding source for the projects of 206 'Starting Blocks' LAs

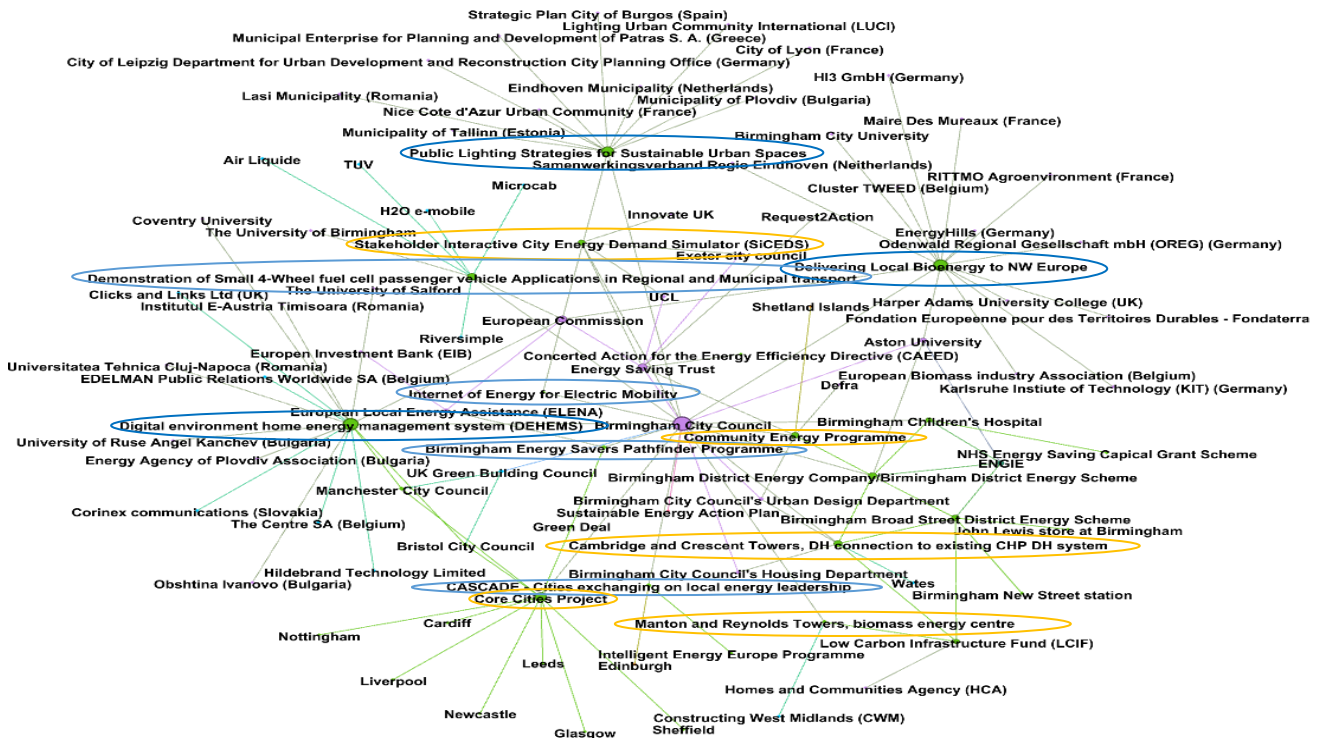


Figure 4. Mapping funding source and stakeholders of energy-related projects and investment of Birmingham (European funded projects are circled in blue, and UK funded ones are circled in yellow; green dots represent projects/investment, and purple dots represent institutions)

Conclusion

- Compared to the other groups, the LAs in 'Energy Leader' group have more projects funded by the European Union (EU)
- The LAs in 'Starting Blocks' group have more projects received UK and national level funding, and fewer projects funded at the local, European or global level compared to the other groups
- All 12 projects in Birmingham received EU or UK funding (7 received EU funding; the other 5 received UK funding)

Next steps

- Choose more LAs in 'Energy Leader' and 'Running Hard' groups, map the funding source and stakeholders of their energy-related projects and investment
- Compare the selected LAs; analyse what barriers exist for some LAs to carry out more energy-related projects and investment
- Identify the challenges and suggest options for LAs to support a more flexible and decentralized energy system with energy storage