WHICH UK LOCAL AUTHORITIES ARE ACTIVE IN ENERGY DEVELOPMENTS AND WHY?

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UK DISTRICT ENERGY VANGUARDS WORKSHOP: WHAT WORKS FOR DISTRICT ENERGY BUSINESS MODELS IN BRITAIN?
EXETER 5 DECEMBER 2014
THE RESEARCH & METHODOLOGY

QUESTION
- Current scale and scope of UK local authority engagement in energy systems development

METHODOLOGY
- Compiled available data relating to UK local authorities & energy initiatives
- Categorised local authorities in relation to energy planning & investment
- Operationalized as:
  * Strategic energy planning – evidence of Energy & Carbon Management Plan
  * Investment – data from 15 funding programmes & existing government datasets
- Examined distribution of authorities across categories & in relation to characteristics
- Looked at scope and form of engagement for the most active group
CATEGORISING LOCAL AUTHORITY ACTIVITY

Every UK local authority categorized into one of four levels of engagement

Proportions of local authorities (%):
- YJ: 23%
- SB: 47%
- RH: 21%
- EL: 9%

Colours relate to engagement categories: grey=yet to join, orange=starters, yellow=runners, green=energy leaders.
At regional level Yorkshire/Humber and Greater London have higher proportions of energy leaders and lower proportions of yet to join

- London, Scotland and Yorkshire/Humber LAs:
  - 20% (88) of all UK LAs
  - 55% (21) of energy leaders

- Greater London is the only region with over 50% of LAs in the energy leaders and runners categories:
  - 70% (24) in these two groups
SUMMARY

**Energy leaders**
- Authorities from Greater London, Scotland and Yorkshire/Humber
- Metropolitan districts
- Larger authorities (population, estate and energy consumption)

**Runners**
- Authorities from England, Scotland, Greater London
- County councils
- Urban authorities

**Starters**
- No particular trends
- Lower levels of representation among London boroughs
- Fewer have joined EU Covenant of Mayors

**Yet to join**
- Authorities from Northern Ireland, Wales, South East England and West Midlands
- District boroughs
- Smaller authorities
**SCOPE OF ENERGY LEADER ACTIVITIES**

<table>
<thead>
<tr>
<th>Area of activity</th>
<th>Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>energy production and district heating</td>
<td>37</td>
<td>97%</td>
</tr>
<tr>
<td>demand management</td>
<td>33</td>
<td>87%</td>
</tr>
<tr>
<td>demonstration project</td>
<td>23</td>
<td>61%</td>
</tr>
<tr>
<td>international multi-authority energy initiatives</td>
<td>20</td>
<td>53%</td>
</tr>
<tr>
<td>energy investment funds</td>
<td>7</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Energy production and district heating</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHP</td>
<td>30</td>
<td>79%</td>
</tr>
<tr>
<td>district heating</td>
<td>28</td>
<td>74%</td>
</tr>
<tr>
<td>renewable electricity generation (wind, solar, biomass)</td>
<td>26</td>
<td>68%</td>
</tr>
<tr>
<td>energy from waste</td>
<td>14</td>
<td>37%</td>
</tr>
<tr>
<td>3+ CHP, DH, EfW, renewable electricity</td>
<td>21</td>
<td>55%</td>
</tr>
<tr>
<td><strong>Demand management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>domestic EE</td>
<td>30</td>
<td>79%</td>
</tr>
<tr>
<td>public sector buildings EE</td>
<td>15</td>
<td>39%</td>
</tr>
<tr>
<td>local businesses EE</td>
<td>14</td>
<td>37%</td>
</tr>
</tbody>
</table>

• Not restricted to one type of activity
• each engages with the energy system in multiple ways
• and with multiple technologies
• spanning heat and electricity
• *Energy leaders* seek impact beyond their own activities including
  • setting up funding streams for other organisations to access
  • mobilising resources for demonstration projects
DIFFERENT APPROACHES TO ENERGY ACTION

BRISTOL CITY COUNCIL
- carbon reduction
- energy efficiency
- community groups
- generate 77GWh pa
- 140m inward investment
- ELENA
- reducing energy bills
- BRITE
- existing community activities
- regional energy projects
- save 59GWh pa
- housing retrofitting
- local economic growth
- energy security
- fuel poverty
- ESCo

CORNWALL COUNCIL
- LEAP
- working with communities
- Green Cornwall
- low carbon regional economy
- domestic energy efficiency
- carbon neutral by 2025
- local investment funds
- reducing demand

KIRKLEES COUNCIL
- fuel poverty
- insulation
- hard to treat properties
- behaviour change
- boiler upgrades
- 14.9m BIG Energy Upgrade
- whole community approach
- developing local supply chains
- regional partnerships
- stimulating economic growth
- lifetime savings 200000tCO2
- energy efficiency
- domestic sector
Unitary authority, population 430,000, CRC registered
- ECP
- Sustainable Energy Action Plan & joined EU Covenant of Mayors in 2009
- Completed 2 Carbon Trust programmes: Public Sector Carbon Management and Decentralised Energy

City-wide carbon reduction ambitions – 40% by 2020

BRITE - Bristol Retrofitting – Innovative Technologies for Everyone
- ELENA funding €2.6m
- Aims to mobilise investment of £140m
  1. develop a council owned ESCo
  2. 10 sites identified for small scale DH
  3. retrofitting public buildings
  4. retrofitting council owned housing stock - external cladding and heating upgrades
  5. other housing retrofit
- Linking to Green Deal
IN CONCLUSION

Activity is small scale, but ambition indicates significant potential for scaling up
The most active LAs are working on low carbon heating and energy efficiency
And are investing in a range of technologies and projects for energy provision

- A minority have multiple energy investments
- Activity not visible among a quarter of LAs
- Three quarters demonstrate ambition and/or investment
- Study provides baseline data to explore factors interacting with different priorities, levels of activity and business models

Stage 2 research is beginning
STAGE 2 – GOVERNANCE AND BUSINESS MODELS – THE QUESTIONS

• What models are in use, where?
• Why are these structures used? What factors inform local decisions?
• What different approaches to value creation are embedded?
• With what distributions of risk and reward?
• What are the implications for persistence, growth or decline in DE?
• What institutional and regulatory changes are needed to support creation of local value streams
  • And commensurate increase in district energy provision?

• Please help!
THANK YOU!

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