Exploring the Politics of Low Carbon Transitions

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Background

• Living through series of crises and challenges to existing (pro-market) institutions: focus on climate change
• Transition to a low carbon energy system understood as a large part of the solution but limited progress
• Two primary assumptions:
  – Energy systems are both social and technical in nature
  – Energy policy important to the redesign of energy systems

• This paper seeks a better understanding of low carbon energy transition and the role of policy within it
• Understands transition policies as contingent upon other political institutions and structures
# Beyond Single Theoretical Paradigms

<table>
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<tr>
<th>Socio-technical Transitions (STT)</th>
<th>New Institutionalism (sociological)</th>
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<tr>
<td>Technical systems (i.e. fossil fuel) as fulfilling important social needs</td>
<td>Provides explanations of how political institutions operate and change</td>
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<td>Technologies and infrastructures: social constructs within certain contexts</td>
<td>Political institutions informed, among other things, by frameworks of ideas including about the policy area</td>
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<td>Inter-related areas: infrastructures, technology, the environment, user practices, corporates, institutions, <strong>politics</strong></td>
<td>Policy as constructed of various levels: objectives and instruments</td>
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<td>Transitions as large-scale transformation in which structure fundamentally changes</td>
<td>Profound change can be incremental and/or punctuated by major structural shifts – explains how and why of change</td>
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STT on Low Carbon Transition

• Systems have three levels: landscape, regime and niche

• **Regimes** as mainstream ways of realising social functions: rule sets blind actors to new developments

• Innovations take place at **niche** level - breakthrough to regime when changes in the landscape level destabilise regimes (i.e. new knowledge about climate change)

• Low carbon energy transition as **unprecedented**:
  – Major energy transitions took 150 years (time limited now)
  – Low carbon energy benefits less tangible than previous new services (different drivers)
  – **Niche** innovations need support (innovation chains)

• Policy as vital to transition: supporter, enabler, manager, director – institutions as cites for learning
Where is the Politics of Energy?

- Presents visions of a low carbon energy future as accepted and as relatively uncontested whereas post decades of climate change moving up political agendas fossil fuels remain the dominant technical system

- Little consideration of how existing political (and other) institutions will give way and/or change

- Needs more articulation of why policy should change – i.e. ways in which existing energy regimes are failing

- Low carbon energy policies often proscribed without considering how they relate to wider political contexts
Transition within Broader Paradigms

• Energy transition policies are informed by a range of other institutions and ideas – often subject to general rules of economic management

• i.e. Pro-market paradigm and the ‘compromise of liberal environmentalism’ (post 1980s):
  – Energy transition as an objective but often reliant upon market solutions/instruments to deliver
  – The private sector is now largely responsible for the delivery of energy services and investing in new energy
  – In some countries energy companies are also responsible for delivering climate policies
  – Rules and norms have so far tended to favour established companies and non-disruptive technologies (fossil fuels)
Transition Policy within Energy Policy

• Energy policy has historically emphasised energy’s public good characteristics:
  – As engine of growth; merit good; input to GDP

• Energy policy has as such been set towards achieving other **objectives**: security and social development

• Energy has been singled out for specific treatment:
  – Russian energy re-nationalisation not extended to other sectors; subsidisation of energy in developing countries; EU political support for pipeline infrastructure

• Even within market liberal economies certain goods and services have received support from state bodies (Crouch) and state actors have worked to create markets (Mazzucato) – in the national or collective interest
Competing Narratives of Change

• Alternative ideas can underpin change by highlighting crisis, proving policy failure, and providing solutions.

• New knowledge about climate change has indeed challenged existing market institutions but there are other drivers for change:
  – Growing fears about energy security (2000s) – in some countries this trumps climate objectives
  – Social equity: alleviation of energy poverty

• Climate objectives are constantly being balanced with other forces influencing energy policy change in ways that compromise and constrain transition.

• i.e. security narrative prefers stability whilst climate framing supports the development of new technologies.
Conclusions

• Policy is vital to transition, not least to support new innovations, but the reality of the politics of transition is murky, complex and divided
• Understand complexity by exploring ways in which energy policy for transition is contingent upon other political institutions
• Change is happening but it draws on different policy paradigms with under-explored internal tensions
• Importance of maintaining the link between politics and technologies and infrastructures – change in one area is not enough