Regulatory change in UK renewable energy policies: the role of discourse and ideology

Sarah Lester
Impact and Policy analyst, Grantham Institute for Climate Change, Imperial College London

IGov conference, British Library
April 30th 2013, London
Renewable energy policy in the UK – a discourse approach

**Topic**
- Role of policy choice and regulatory innovation within UK electricity policy for climate change policies
- Ideational, economic and political forces driving regulatory strategy incentivising low-carbon policy changes
- Non-Fossil Fuel Obligation (NFFO), Renewables Obligation (RO), Electricity Market Reforms (EMR)

**Research**
→ What is driving the choice in frameworks and choice of regulatory tools / mechanisms to support renewable energy deployment in the UK policy process?

**Sub-questions**
→ What are the drivers for reforms in electricity market reform and renewable support policies? How to explain current reforms?
→ What are the government rhetorics on support for renewable energy and how does this inform the choice of support mechanism?
→ How do actors (government, business, public, stakeholders) inform the policy process and choice of mechanisms?

**Methodology**
- Discourse analysis of documents and semi-structured interviews with policy makers and academics.
- Examine types of mechanisms and rationale for action: Feed-in tariffs (FiTs), Contracts for Difference (CfDs), emissions performance standard (EMS), and carbon price floor.
UK Renewables policy since 1989

- **Non-Fossil Fuel Obligation (NFFO)**
  - NFFO – contracts that guaranteed prices for electricity produced. Contracts for 15 years into future
  - ROCs – Tradable green certificates programme. Require suppliers to increase proportion of electricity from renewable sources and ROCs issued to accredit generation
  - Last ROCs phased out 2017 to 2020

- **Renewables Obligation (RO/ROCs)**

- **Feed-in Tariff (FiTs) for small-scale generation**
  - Small-scale micro generation
  - FiTs – up to 5Mw
  - Fit licensees to pay a generation tariff to small generators.
  - Generation tariff and export tariff
  - Banded RoCs reform (2009)

- **Electricity Market Reform framework 2011**
  - 4 mechanisms:
    - Feed-in Tariff with Contract for difference (FiT CFD)
    - Capacity Mechanism (CM)
    - Carbon Price Floor (CPF)
    - Emissions Performance Standard (EPS)

**Timeline**

- **1989**
  - 1990 to 2001 Electricity Pool
  - Electricity Act 1989
  - EU Single Electricity Market

- **2000/2001**
  - 2004 Energy Act
  - New Electricity Trading Agreements (NETA) 2001

- **2008**
  - 2008 Energy Act and 2008 Climate Change Act
  - British Electricity Trading Transmission Agreements (BETTA) 2005

- **2010**
  - 2011 Energy Act
  - RIIO transmission regulation (Revenue= Incentives + Innovation+ Output) 2011 and EMR

- **2012**
  - UK renewable energy target 2000
    - 10% renewables by 2010
  - EU Renewable Energy Directive 2009
    - UK - 15% renewable energy consumption by 2020
  - CCC 2011 renewable target
    - UK Climate Change Committee minimum 30% renewables by 2030 and Carbon Budgets
Primary discourses analyzed

<table>
<thead>
<tr>
<th>Initial regulatory drivers and discourses – (doctrinal discourses)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>View of the Environment and nature of environmental problems</strong></td>
</tr>
<tr>
<td><strong>Scientific rationality</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Communicative rationality</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Secondary regulatory drivers – (regulatory discourses)</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Administrative rationalism</strong>&lt;sup&gt;a&lt;/sup&gt; &lt;br&gt;(Environmental problem solving)</td>
</tr>
<tr>
<td><strong>Democratic pragmatism</strong>&lt;sup&gt;b&lt;/sup&gt; &lt;br&gt;(Environmental problem solving)</td>
</tr>
<tr>
<td><strong>Economic rationalism</strong>&lt;sup&gt;b&lt;/sup&gt; &lt;br&gt;(Environmental problem solving)</td>
</tr>
<tr>
<td><strong>Survivalism</strong>&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Sustainability</strong>&lt;sup&gt;b&lt;/sup&gt; &lt;br&gt;(ecological modernisation discourse)</td>
</tr>
<tr>
<td><strong>Green Radicalism</strong>&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Technology-based</strong>&lt;sup&gt;b&lt;/sup&gt; &lt;br&gt;(connection to ecological modernisation)</td>
</tr>
</tbody>
</table>
Overall findings – discourses in renewable energy policy

References to discourses in general policy documents

Doctrinal rationalities:
- Scientific rationality
- Economic rationality
- Communicative rationality
- Administrative rationalism
- Economic rationalism

Secondary regulatory rationalities:
- Technology-based
- Sustainability
- Democratic, pragmatic
- Survivalism
- Green, radicalism

Nature valued less than human needs
Nature valued inherently
Doctrinal findings – primary discourses in renewable energy policy

- Doctrinal rationalities are present to varying extents across all three mechanisms
- Sharp increase in scientific and economic rationalities from the RO period to the EMR
- Scientific rationality appears to be a particularly powerful initial rationale for action
- Economic and market-drivers for regulation strong both textual analysis and interviews
- Lack of communicative rationalities seen in the renewable policy area

→ Doctrinal discourses driven by economic and political factors, and scientific rationality is a key rhetoric in initial motivations for regulation, but reduced role for public voice in UK environmental policymaking
Regulatory findings – secondary discourses in renewable energy policy

- Administrative rationalism and democratic pragmatism - ‘environmental problem solving’ (Dryzek)
- Innovation-technology discourse represented within the documents – linked with costs
- Insignificant number of references to survivalist, green radicalism or sustainability discourses

→ Economic and technical rationales determine the choice of regulatory mechanism. Clear in the inherent use of market-based mechanisms as well as the lack of social engagement discourse
## Policy beliefs in renewable energy policy

<table>
<thead>
<tr>
<th></th>
<th>Deep core</th>
<th>Policy Core</th>
<th>Secondary aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Defining</strong></td>
<td>Fundamental normative and ontological axioms</td>
<td>Fundamental policy positions concerning the basic strategies for achieving core values within the subsystem</td>
<td>Instrumental decisions and information searches necessary to implement policy core</td>
</tr>
<tr>
<td><strong>characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>Across all policy subsystems. Very difficult to change</td>
<td>Specific to a subsystem, difficult to change but can occur if experience reveals serious anomalies</td>
<td>Specific to a subsystem, moderately easy to change. Topic of most administrative policymaking</td>
</tr>
<tr>
<td><strong>Susceptibility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>to change</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Illustrative</strong></td>
<td>Nature of man, priority of various ultimate values: freedom, security, power, etc. Basic criteria of distributive justice – whose welfare counts?</td>
<td>Fundamental normative precepts: identification of groups of whose welfare is of concern, seriousness of problem, distribution of authority, ability of society to solve the problem</td>
<td>Seriousness of specific problems, importance of causal linkages, most decisions on administrative rules and budgetary allocation, performance information specific programmes</td>
</tr>
<tr>
<td><strong>components</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ideational beliefs</strong></td>
<td>- Climate Change requires decarbonisation of the economy. Scientific evidence for climate change is ‘overwhelming’ and requires action</td>
<td>- Science underlies the problem but economics and market-based solutions provide answer. Evidenced-based policy making always used to connect technology costs / economic instruments</td>
<td>- Room for adaptation of scientific discourse – new evidence from international organisations – e.g. 2°C warming target revised to 1.5°C / carbon sink and ocean sources re-evaluation</td>
</tr>
<tr>
<td><strong>with relation to</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>scientific</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>rationalities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ideational beliefs</strong></td>
<td>- Man has dominion over nature. Liberalised private system is inherent and unchangeable, no alternative is considered</td>
<td>- Markets solve problem. Need some financial policy support instruments – NFFO, RO, EMR – but these are market-based, low-cost economic options</td>
<td>- Costs determine technology options. Cheapest option outside high carbon technologies</td>
</tr>
<tr>
<td><strong>with relation to</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>economic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>rationalities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ideational beliefs</strong></td>
<td>- Renewable power will form part of the future, legally binding targets and decarbonisation of the economy</td>
<td>- Renewable energy a good option, but must be cheap. Constant comparison to ‘conventional’ technologies – coal, gas, oil – and ‘alternative’ rhetoric based on relatively new renewables</td>
<td>- Regulation for renewables must not ‘pick winners’. Market-based technology mechanisms and gradual acceptance of technology-specific policy disguised as technology neutral</td>
</tr>
<tr>
<td><strong>with relation to</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>renewable energy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>and technology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ideational beliefs</strong></td>
<td>- Social equity and fairness is inherent to society, distributive justice framed in economic terms</td>
<td>- At risk groups – social affordability of energy, not social acceptance. Social understanding and real conceptions of behavioural change largely ignored</td>
<td>- Mechanism specific rhetoric: fuel poverty, consumer costs, distributed energy and community ownership of renewables</td>
</tr>
<tr>
<td><strong>with relation to</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>social equity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
UK renewables discursive strategies and institutions

Where can external voices can have inputs into the policy process?

Blue arrows - options for input:
- External data into resources pool
- External forcing from international agreements or EU policy changes.
- Negative feedback during the policy review process

Two external inputs may be rejected out-of-hand by policy-makers if they do not confirm with their world-view.

→ Closed-loop regulatory system?
Key Conclusions

- Firstly that environmental problem solving, including administrative rationalism, democratic pragmatism and economic rationalism, has limited explanatory power due to the prominence of economic rationales but only some forms of administrative and democratic engagement.

- Secondly, the other three discourses, survivalism, green radicalism and sustainability, have very little relevance within UK renewables policy outside of the reinforcement of economic rationales.

- Thirdly, ecological modernisation (Hajer1995) which combines elements of economic, technology-based solutions and sustainability, has substantial explanatory power in this area.
Government accountability mechanisms within the regulatory process?
- Processes of accountability for consultations and governmental decision-making
- Role of Ofgem in administering and monitoring consumer feedback
- Is this a closed-loop regulatory system?
- EMR current changes and beyond

Nature of technological risk and regulation in the area
- Cost vs. investment risk and regulatory approaches to addressing
- How in uncertainty functioned into understanding of regulatory regime setting
- Technology portfolio monitoring and pathways to deployment – views from private sector

Network analysis of institutions and governance bodies involved
- Advocacy coalition framework evaluation
- Network analysis of key players and understanding of their role in regulation
- Role of institutions in delivering policy change and regulatory reform

S.Lester@Imperial.ac.uk