ESMT MBA
International comparisons of governance and innovations for transformation in electricity systems

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Overview: Governance and Innovation

- What is governance? Why does it matter?
- Phase 1 v Phase 2 countries in relation to transformation
- 3 Examples
  - GB – an example of a country with minimal innovation because of its governance
  - NY REV – an example, of a new system which is directly trying to address Governance issues so that a fundamental shake-up of the energy system can occur
  - Hawaii – wants to restructure, is part driven by its geography, and also driven by its Public Utilities Commission
- Discussion
What is Governance?

Innovation and Governance

- Rules of The Game
  - formal rules
  - informal rules

- What shaped the rules

- Practices and activities

- Outcomes

IGov
Fundamental Issues of Governance - countries which enable transformation need certain characteristics

- Who / what has the ‘influence’ within EP, and its ability to transform?
  - Are there a few powerful players or are there multiple groups involved so overall there is a reasonable balance of influence?
  - Is the EP public interest focused or business focused or a mixture?
- How does the Government treat the ‘losers’
- Does the political process enable diversity of views? Ie FPP / PR / devolved / regional / local power?
- Does the governance inclusion for individuals / communities / new entrants to provide a service, if they can find customers
- Is the governance and decision-making process genuinely transparent and discursive?
- Is the governance ideological or pragmatic (meaning that a solution to a problem is chosen rather than a solution which fits certain ideological concerns)
- Check these against the country case studies below
## Phase 1 versus Phase 2 countries of transformation

### Table 1: Potential success criteria and successful policy strategies in transition phases 1 and 2

<table>
<thead>
<tr>
<th>Success criteria</th>
<th>Successful strategies in transition phase 1</th>
<th>Successful strategies in transition phase 2</th>
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<tbody>
<tr>
<td>Dynamic transition process</td>
<td>Initiate dynamic processes:</td>
<td>Control dynamic processes:</td>
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<tr>
<td></td>
<td>- minimise entry barriers and risks</td>
<td>- focus on predictability and stability</td>
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<td></td>
<td>- reduce private risks</td>
<td>- introduce policy safeguards</td>
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<td></td>
<td>- create an enabling environment</td>
<td>- maintain an enabling environment</td>
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<tr>
<td>Effectiveness (deployment achieved)</td>
<td>Maximum deployment achieved:</td>
<td>Deployment targets exactly achieved:</td>
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<td></td>
<td>- accelerate growth rate</td>
<td>- control growth rate</td>
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<td></td>
<td>- reduce private cost of risk</td>
<td>- control support costs</td>
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<tr>
<td>Efficiency (cost-effective deployment)</td>
<td>- Minimise generation cost</td>
<td>- minimise regulator’s regret</td>
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<td></td>
<td>- minimise regulator’s regret</td>
<td>- keep open options of promising immature technologies</td>
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<tr>
<td>Preparation for phase 2</td>
<td>- Coordinated management of related niches</td>
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<td></td>
<td>- ensure flexibility of the policies to adapt to new challenges</td>
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<tr>
<td>Integration of new technologies into regime</td>
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<tr>
<td></td>
<td>- Exploit synergies from related niches</td>
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<td></td>
<td>- empower new technologies</td>
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<td></td>
<td>- adapt regulations and rules of regime to accommodate new technologies</td>
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<tr>
<td>Technology cost reduction</td>
<td>- Maximise technological learning</td>
<td>- Maximise organisational learning</td>
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<tr>
<td></td>
<td>- accelerate growth rate</td>
<td>- uphold technological learning</td>
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<td></td>
<td>- introduce modest competitive elements</td>
<td>- introduce more competition</td>
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<td>Public acceptance</td>
<td>- Increase equity</td>
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<tr>
<td></td>
<td>- minimise support costs</td>
<td></td>
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<tr>
<td>Preparation for discontinuation of policy support</td>
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<tr>
<td></td>
<td>- Adapt market rules to provide adequate investment incentives</td>
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<td>- Adapt the support policies for slow phase-out</td>
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Great Britain – an example of a country where a few powerful interests predominate + ideological

- Examples of the way governance is undermining innovation and transformation in GB
  - In general, rules which benefit the few (de facto the incumbents) rather than giving access to everyone (ie difference between RO and FIT)
  - Electricity Market rules – the bilateral market, capacity mechanism, balancing system – support the current system
  - Liquidity issues – customers don’t switch and pay for it (CMA says 17% profit for suppliers)
  - Liquidity issues – trading is limited and therefore a particular risk for variables
  - Vertical Integration – CMA says this is not a problem but my view is that it maintains powerful structure in favour of supply; maintains affordability problems; and means that ‘price’ / transparency poor
  - Code Governance – not fit for purpose - nothing can change
  - Supplier hub model - does not recognise embedded benefits so DG is not paid their value

- Need to think about the whole system
  - One of these issues is bad enough but together they become a tightly knit whole which undermines change
• Only good thing in GB at the moment is that 10% of our electricity supply comes from new entrant suppliers – see Ofgem non-traditional business model paper (https://www.ofgem.gov.uk/publications-and-updates/non-traditional-business-models-supporting-transformative-change-energy-market)

• Rhetoric versus reality
  – GB does not follow through on rhetoric when it wants something (ie nuclear or fracking)
  – Generally, pro-market ideology undermines RE and EE, even though Govt (until recently) said they supported them

• Lack of clarity of ‘independent’ regulator’s role relative to Government – which is not the regulator’s ‘fault’
NYC Reforming the Energy Vision

• Much more optimistic
• This is a fundamental rethink of regulating the energy system
  – It is challenging the conventional wisdom that ‘big is beautiful’ and asking what should the role of the regulator, the utility, the consumer, the government be?
  – Very open and transparent process
  – Openly in favour of the public interest
• Look at links for details but the point is that NY has 19 million people; very important to US economy; and is starting from scratch.
• Coming after 10 years of progressive policies – but still a confluence of drivers which enable it to do this now.
• Has political buy-in
New Revenue Model – creating a whole new value proposition – the DSP
References for the Details

• May 2014 – Vision
  http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/26be8a93967e604785257cc40066b91a/$FILE/ATTK0J3L.pdf/Reforming%20The%20Energy%20Vision%20(REV)%20REPORT%204.25.%2014.pdf

• Rich Sedano of RAP for New Revenue Model
  http://raponline.org/document/download/id/7737

• June 2014 IGov blog
  http://projects.exeter.ac.uk/igov/lessons-from-america-new-york-states-reforming-the-energy-vision/

• Aug 2015 blog update –
  http://projects.exeter.ac.uk/igov/new-thinking-reforming-the-energy-vision-an-update/
Hawaii

• Hawaii has a new policy for 100% renewable electricity by 2030 which in many ways suits a DG policy because it is a series of islands previously dependent on fossil fuel imports, and now customers are adopting economic solar / storage units rather than pay the high utility fees.

• However, it is an example of a place that even though transformation is supported (ie all about RE and EE) it is still very unclear what the governance will be

• PUC system in place
  – Is this good or bad for governance?
Hawaii references

- All Jim Lazar of RAP www.raponline.org
- References
  - http://www.raponline.org/document/download/id/7680 Smart Rate Design for a Smart Future
  - www.raponline.org/document/download/id/7424 Grid defection in Hawaii – crisis or opportunity?
Discussion

• Do you agree with the list of fundamental issues I put forward or do you have other ones?
• How important do you think historical, cultural factors of a country are for governance?
• Do you think a CEO type system or a PUC type system is most appropriate for the needs of a 21st century?