Renewable Energy in EWP 2007

- the continuing saga of renewable energy policy failure in the UK……

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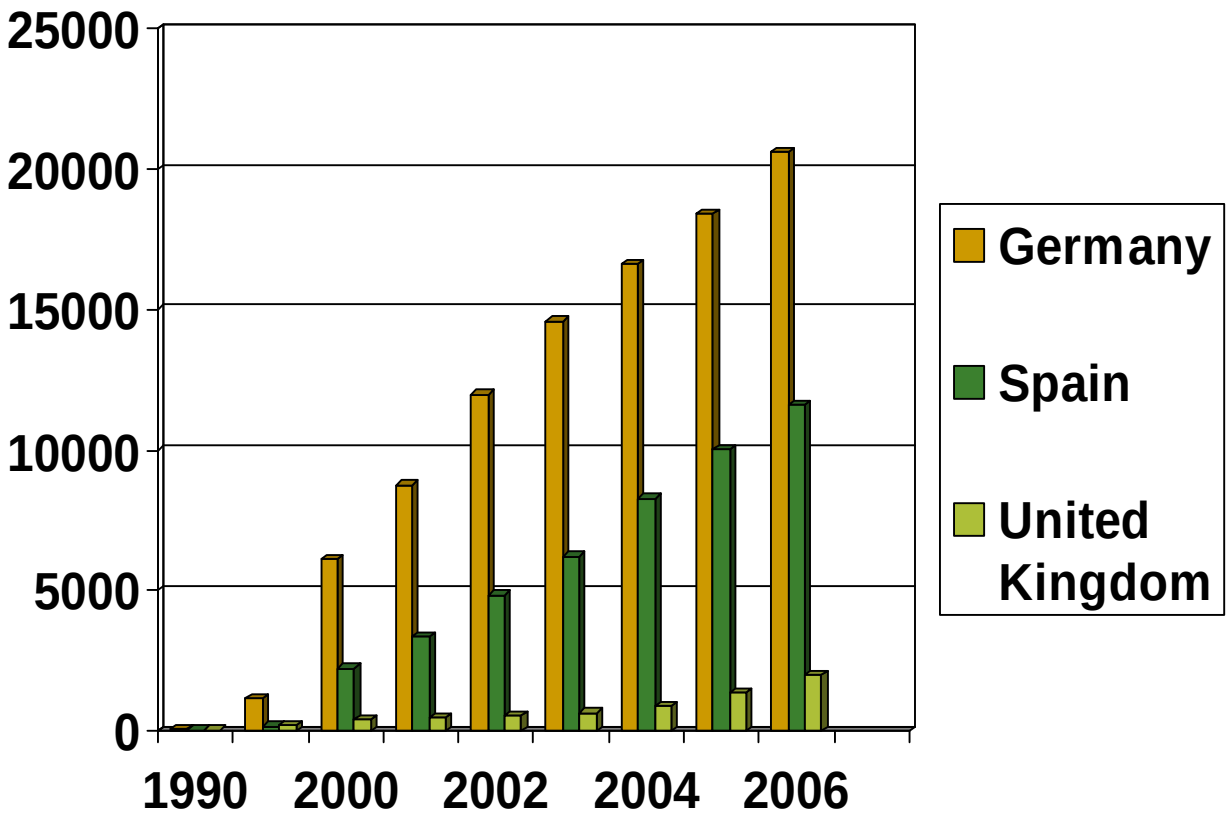
Overview

- How are we doing?
- How do we support renewable energy in GB?
- New policy events:
  - The EU's Proposed Target for Renewable Energy
  - EWP 2007
- What needs to change

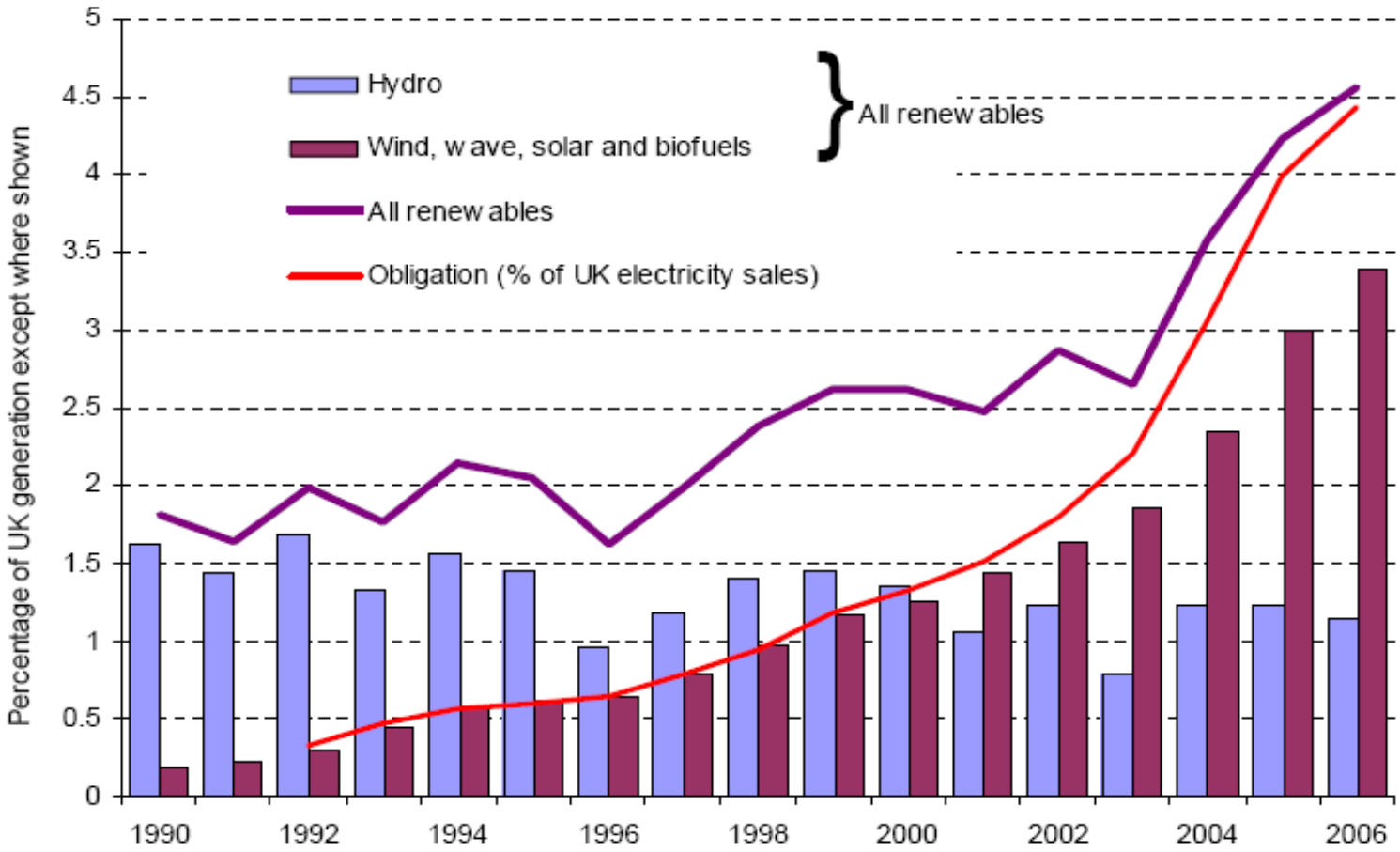
Total Installed Capacity in Wind Power



UK Renewable Energy Policy (not incl 2007 EWP changes)

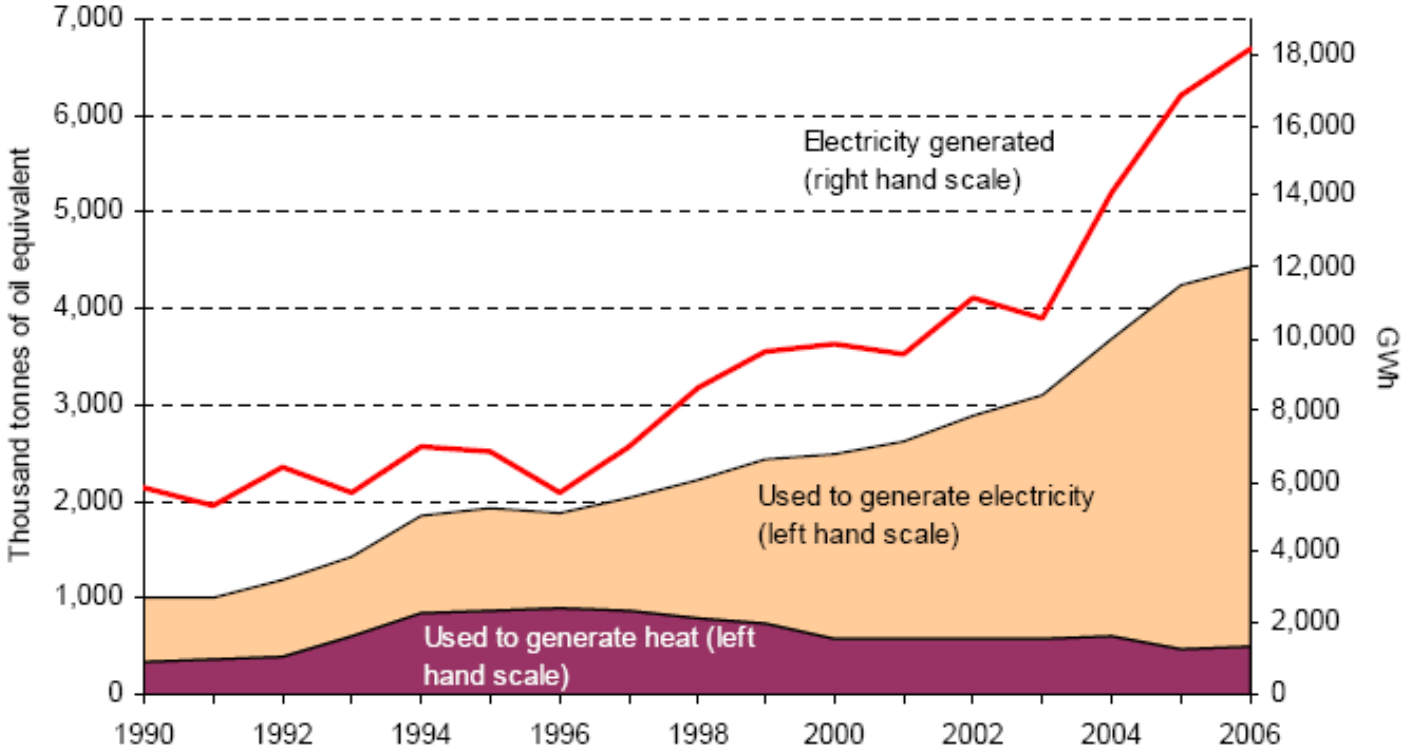
- Primary mechanism is the renewable obligation:
  - An obligation is placed on suppliers to buy a certain percentage of their total supply from renewable electricity
  - Suppliers can either
    - buy from a generator; or
    - purchase a ROC (renewable obligation certificate) where I ROC = I MWh; or
    - 'buy out'
      - Payments recycled back to suppliers providing perverse incentive
- Risky mechanisms as all contractual details agreed between supplier and generator
  - Doesn't encourage new entrants
- Non-banded so supports cheapest technologies

Chart 1: Growth in electricity generation from renewable sources since 1990



Renewable electricity = 4.4% (incl. large hydro) or 3.4% new electricity since 199(

Chart 2: Trends in the use of renewable energy for both heat and electricity



- Renewable heat and electricity 2006 = 1.8% of UK total primary energy

RO Performance 2002-2006 (%)

	Target	Achieved	%
2002	3.0	1.8	60
2003	4.3	2.2	51
2004	4.9	3.1	63
2005	5.5	4.0	73
2006	6.7	4.4	66

2007 Energy White Paper (published May)

- Aspiration for 20% renewable electricity by 2020 on a ‘headroom’ basis
  - Govt admits15% expected, others eg Oxera say less
- No real renewable heat or transport commitments
- Total renewable heat and electricity commitments equivalent to 5% of total energy in 2020
- Banding to provide more diverse support
- Changes to planning regime
- No real infrastructure or microgeneration changes
- No direct intervention in support of renewables in markets or networks

Banding

Band	Technologies	ROC Level
Established	Landfill/biomass co-firing	0.25/MWh
Reference – relative mature	Onshore wind, energy from waste/CHP, co-firing of energy crops, tidal barrage and lagoons	1 / MWh
Post-demonstration	Offshore-wind, dedicated biomass	1.5 / MWh
Emerging	Wave and tidal stream, AD, pyrolysis and gasification	2 / MWh

Conclusion on Banding Changes

- Banding makes a complex system which is not working, more complex
  - To the extent it provides a bigger incentive should get some more renewable electricity built
  - All depends on getting the ROC values correct
    - Ofgem think Post-demonstration too much and Emerging too little
    - Complex issues related to co-firing
  - Government will review in 2013
  - Still have problem of inherent risk, lack of new entrants, perverse recycling buy-out incentive

England, Wales and Scotland

- The devolved administration are putting in place additional measures
- Eg Scottish Marine Renewable Obligation
  - Scotland would prefer GB legislation to do this but may well do it themselves in addition, if GB policy is not considered supportive enough
- Issues for English versus Scottish competitiveness, eg wave development in South West

Infrastructure

- Infrastructure is a major problem for renewable electricity in the UK because:
  - **It has such a long life and current design and operation of network does not 'fit' with new technologies**
  - RO gives incentive for renewables to go to best resource, which is often Scotland
  - Ofgem has been very slow in agreeing rules and incentives for access and connection
    - Onshore transmission
      - Exacerbated by GB (or BETTA) Queue
      - 12.3 GW onshore wind wants to connect to Scottish system
    - 7 years of discussions for offshore transmission, gone around in circles and still not there
    - A lot of effort been put into distribution but limited success
  - Need:
    - To agree to 'connect and manage' (effectively priority access)
  - A Feed-in with priority access to a large extent bypasses the problems

EU Energy Action Plan

- March 2007 (German) Presidency Conclusions:
  - “the European Council endorses an EU objective of a 30 % reduction in greenhouse gas emissions by 2020 compared to 1990” (depending on action in other countries)
  - “the EU makes a firm independent commitment to achieve at least a 20 % reduction of greenhouse gas emissions by 2020 compared to 1990”
  - Adopted the Commission’s Action Plan:
    - “saving 20 % of the EU's energy consumption compared to projections for 2020”
    - “a binding target of a 20 % share of renewable energies in overall EU energy consumption by 2020”
    - “a 10 % binding minimum target to be achieved by all Member States for the share of biofuels in overall EU transport petrol and diesel consumption by 2020, to be introduced in a cost-efficient way”
- Burden sharing currently under discussion: UK could be asked for 9 – 16% (NB GB = 1.8%).

EWP failure:

- Real failure of EWP in not incorporating the EU Action Plan
  - Needs a new EWP!
- Leaked BERR Document Concerning the EU Targets
  - Public statement: “we will bring forward the appropriate measures, beyond those set out in this White Paper, to make our contribution to meeting these targets”
  - Leaked document: “a challenging (but achievable?) renewable energy target of delivering around 9% renewable energy use in the UK by 2020 …”

Central failure: lack of long-term strategy

- Government has a vision – ie the 60% cut by 2050
- If everything worked in the EWP would meet the 26-32% cut by 2020 of Climate Change Bill
- EWP doesn't go beyond 2020 because there isn't a strategy
- Need a strategy because energy systems are so long-term that you need to know, at least as a framework, where you are going 40 years ahead

In conclusion:

- Lack of long-term strategy
  - Does not deal with urgency of CC
- Missed opportunity
  - Scandalous lack of commitment to EU Action Plan
  - Need new WP for the Action Plan – already
- Limited interconnectedness between electricity, heat and transport
- Limited system view
  - Eg Renewables requires policy, institutional, market, infrastructure and planning to be supportive together
- RO now even more complex
  - Banding will do little
- Potential problems for English developers as devolved administrations add extra support

What to do?

- **Just do it**