

Europe's Energy Future: rejuvenation or decline?

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Agenda

- Europe's assumed future in the 2000's
- 2020 – 20 – 20 and the Internal Energy Market
- The new global context
- Dirty Europe and the dash-for-coal
- Uncompetitive Europe
- Insecurity and the Russian threat
- What next?



Europe's assumed future in 2000

- Assumptions:
 - Oil and gas prices ↑
 - World climate agreement by 2010
 - Renewables become economic by 2020
 - US in deep trouble with expensive fossil fuels
 - New Googles, Microsofts and Apples of the renewables world in Europe
- Expected results:
 - ↑ competitiveness
 - ↓ carbon
 - ↑ security



2020 – 20 – 20 and the Internal Energy Market

- 2020 – 20 – 20 is a short term dash-for-renewables, energy efficiency and biofuels
- IEM assumed to be compatible with renewables

But...

- ↑ Zero MC generation ⇒ ↓ wholesale prices
- ↑ Zero MC generation ⇒ ↓ gas CCGTs

Therefore

- Move from energy markets to fix priced contracts for all new investment



The new global context

...And then along comes shale gas, tight oil, tar sands, coal-bed methane etc etc

US production:

↑ Oil

↑ Gas

⇒ Exports

⇒ Energy independence for North America

And lots of coal exports to Europe....



Dirty Europe and the dash-for-coal

↑ Carbon consumption

↑ Coal burn

- Germany ↑ 45% electricity generation
- UK ↑ 40% electricity generation

↑ New coal

- Germany 7-8 GWs
- Netherlands 4 GWs
- + lots more in Eastern Europe

↑ Lignite

↓ Nuclear

- Germany exits nuclear in favour of coal

↓ Gas



Uncompetitive Europe

- The economic crises, low growth, and ↓ energy demand
- Deindustrialisation continues
- New energy infrastructure investment not in Europe (and NOT measured in carbon leakage numbers)

⇒ US 4 : 1 / 3 : 1 energy cost advantage....

⇒ Lots of unconventionals elsewhere...



Insecurity and the Russian threat

- Meanwhile no serious response to 2006 and 2009 Ukrainian supply cuts
- Failure of Nabucco
- Slow progress on interconnections
- Little by way of emergency planning
- Little engagement with Turkey

And... lots of intermittent electricity generation added
Result... coal adds to security of supply



What's next?

1. Climate change and the 2030 targets

- Target to be set *before* the post-Kyoto conference
- Target to be production *not* consumption
- Renewables EU target + Commission-vetted national renewables plans

⇒ 2020 – 20 – 20 →→→ 2030 – 40 – 27



What's next?

2. The EU security plan

- Each country has a shopping list
- Germany unlikely to allow meaningful challenges to Russia and Gazprom
- Ukraine isolated

SO... unlikely gas strategic storage, unlikely EU grid, little chance of EU central buyer...

Therefore... Russia wins, borders fungible and business-as-usual

What's next?

3. The IEM

- Each country goes its own way on capacity markets
- Central buyers at the national level reappear
- Wholesale markets gradually emaciated
- More and more quasi-regulation of supply

SO... IEM funding implemented as it becomes increasingly meaningless



An alternative future for European energy

1. On climate

- Post-2015 international agreement
 - No more renewables targets
 - Serious R&D program on next generation renewables, batteries and active demand side
 - A reassessment of biomass
-
- And coal → gas



An alternative future for European energy

2. On security

- Apply the IEM and competition law to gas contracts – common terms and prices
- Revisit the Southern Corridor
- Interconnect – Interconnect – Interconnect
- Give security guarantee to any member state at risk
- Build up Norway, North Africa, domestic conventionals and unconventional, Southern Corridor supplies

An alternative future for European energy

3. On competitiveness

- Consider unconventional
 - Stop digging a hole with offshore wind
 - Unify grids and interconnectors
-
- And a serious R&D programme

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THE CARBON CRUNCH

How We're Getting Climate Change Wrong
— and How to Fix It



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