



cutting through complexity

BIEE 10TH CONFERENCE (OXFORD UNIVERSITY)

**“Are Markets working?
And what do we do if they don’t?”**

Alistair Buchanan

18th September 2014



Who is driving Energy issues today?

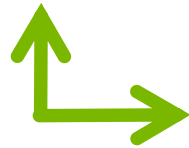
Member – state
Government (i.e. UK)
(local politics and real
politick)



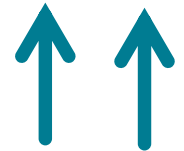
Capital Markets



Brussels



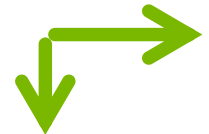
Events

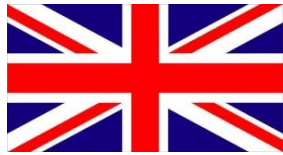


The Companies



Energy Market Forces





MARKETS

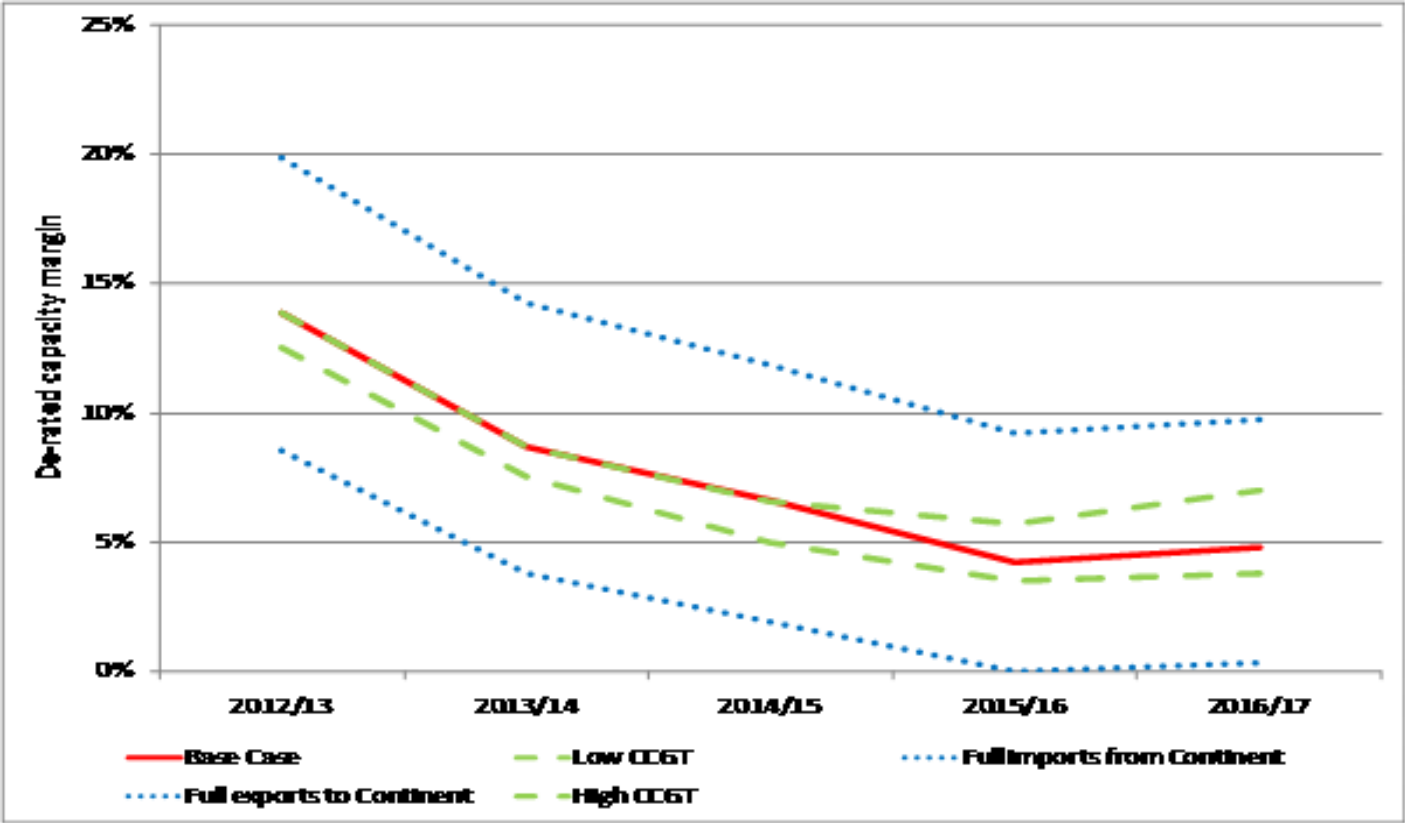
GENERATION

REGULATION



Source: KPMG

UK Example: Capacity Squeeze



Source: Ofgem 2012

Where's the New Plant then?

Nuclear

- RWE/EON out of Horizon (delay).
- SSE/IBE out of Nugen (delay).
- Hinkley B running well behind 2017 date in 2010 White Paper.

CCS

- 0/4 success rate in £1bn fast forward scheme.
- Some small scale options.
- Shell/SSE at Peterhead and Drax to get some funding.

Offshore

- Load factor below plan as in ramp up stage.
- Expect delivery of GW at low-end (at least 5GW short).

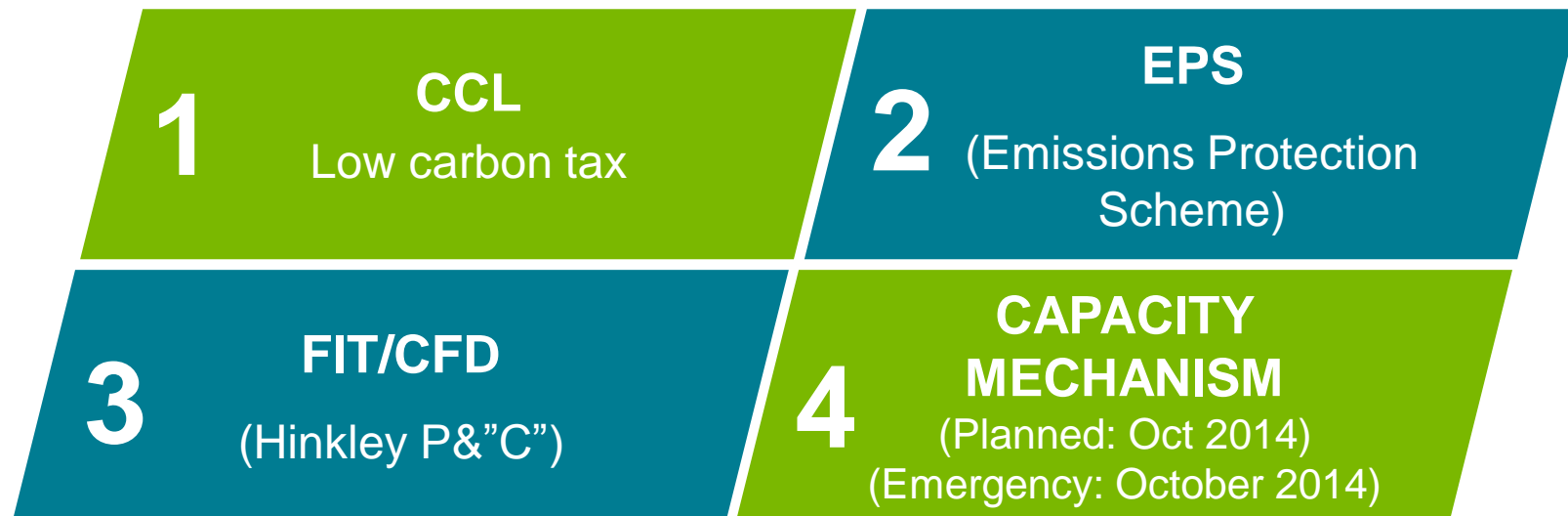
Biomass

- Siemens/Drax mega project on-hold ... RWE at Tilbury out.
- Drax / DECC hitatus.

DELAY DOES NOT MEAN FAILURE

All focused on Electricity

British Government's Answer:



Source: Electricity Act 2013

1. CCGT'S – WATCHING VERY NERVOUSLY 1 AND 3
2. CCL + FIT/CFD = NUC? WILL EPS LINK TO GAS
3. WHAT MESSAGE ON CAPACITY CREDITS?

Let's do a recap

The UK needs Gas for generation 2012-2022 (30% rising to 60-70%).

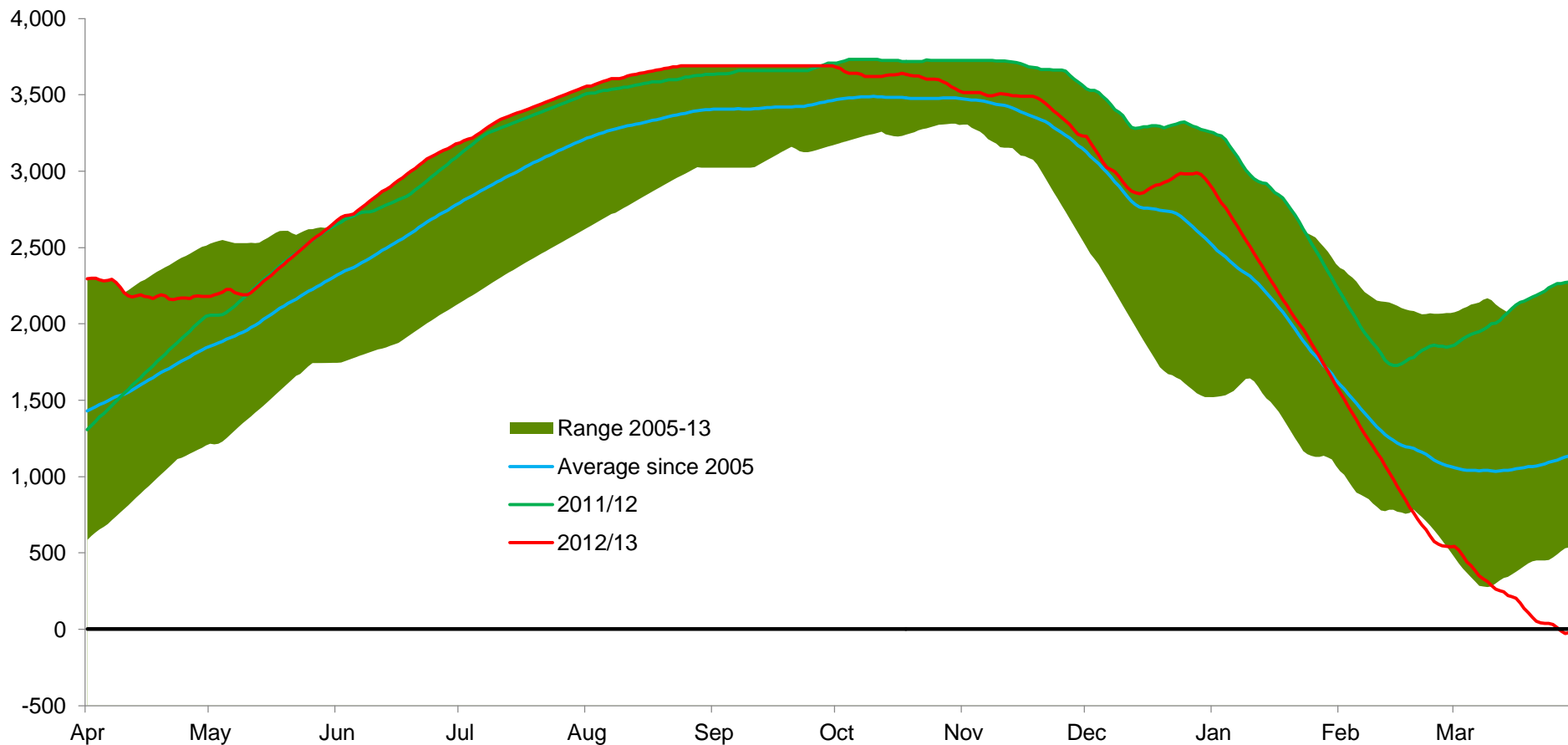
So Gas will come from:

Norway	Yes	US Shale	Minimal
Russia/Stans	Not as much as expected	LNG	<ul style="list-style-type: none">▪ Bottleneck supply▪ Lots of demand▪ Transport demand▪ Lorries demand▪ Shipping shortages▪ New LNG rules
EU Shale	Minimal		
UK Shale	Minimal		

MACRO COULD BE TIGHT FOR A WHILE

UK Gas Stock – Easter 2013

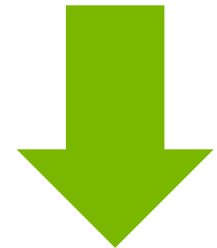
Rough gas stocks (mcm)



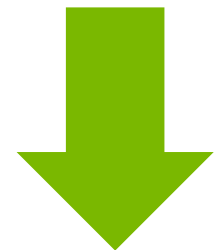
Source: Ofgem 2013

GAS

- 1. Easter 2013**
- I. i/c went down to Norway.
 - II. Fewest ships of LNG in February 2013 since April 2011.
 - III. Dutch i/c took 3/4 days to react.
 - IV. Rough was -1% full!
 - V. All other storage had 1 day average left.



- 2. Implications**
- I. Storage savings are dramatic depending on early winter.
 - II. Usually we export gas in summer but this year we import? Belgium?
 - III. Must start winter full-up.
 - IV. Storage only has 6p differential winter/summer so why build any?
 - V. Boats arrived in April and May but:
 - 9 ships 1272 mcm 2013
 - 15 ships 3288 mcm 2012



Source: Ofgem, NG, Newspapers

UK GOVERNMENT SAYS GAS MARKETS WILL WORK

MARKETS

INTERCONNECTION

REGULATION

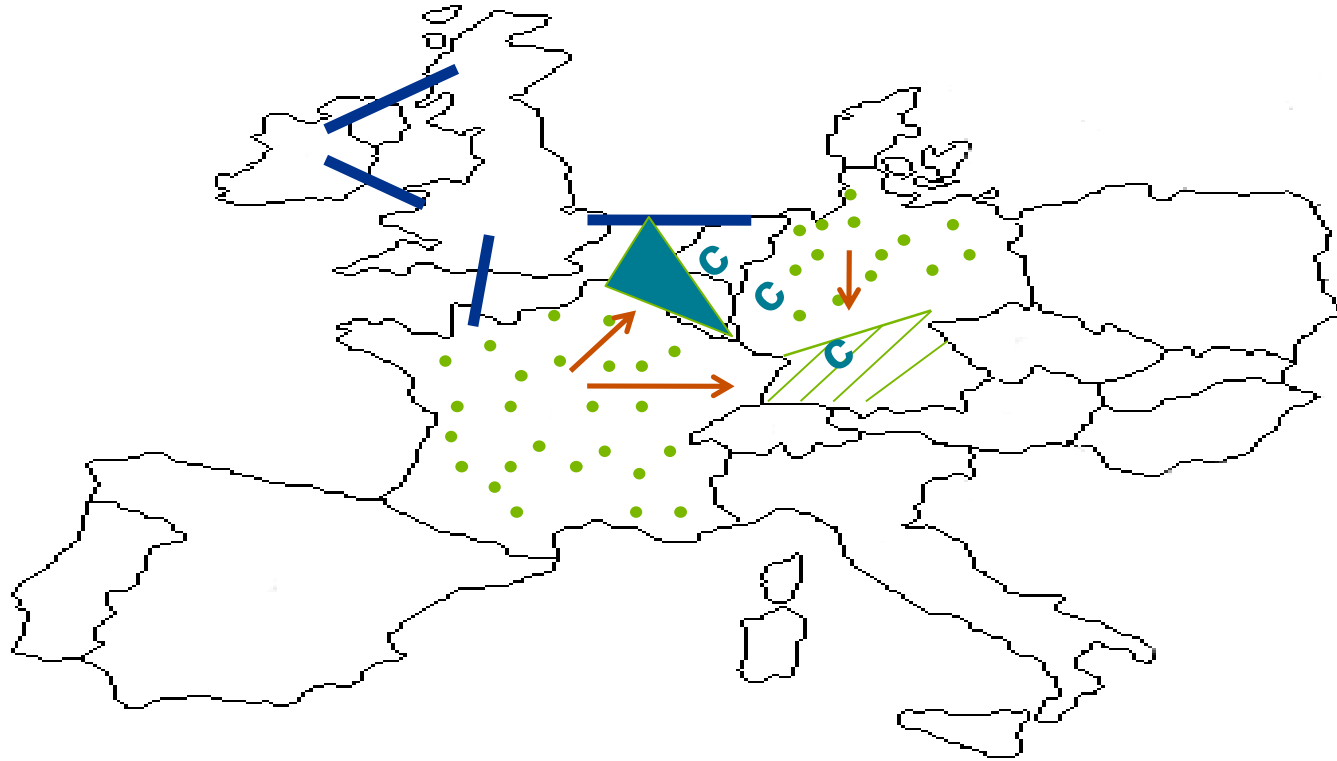
2000 UK

CONFUSED 2014

2000 EU



An example of EU connectivity



Source: Ofgem 2013

Do they have spare?

Can it flow to us?

Will they let us have it?

In summary

EU State Aid Issues



Emergency Arrangements



Capacity Market



MARKETS

**GENERATION
OFFSHORE**

REGULATION

2010

2014

AUCTION BASIS

CFD



MARKETS

**TRANSMISSION
(RIIO)**

REGULATION

**VERY LIMITED COMPETITION
BUT OPTION (RIIO)**

2014

2000



MARKETS

**DISTRIBUTION
(RIIO)**

REGULATION

**LOCAL GENERATION
2014**

2000



EU focus on networks vital

Oettinger and Lowe
pragmatism and
infrastructure focus,
but a slow timetable.

Regulators have
genuine independence
under 3 Directive and
networks is their
domain.

Networks are under attack or failing to deliver

1

Poor rate of return (Gas Unie in April 2013).

2

Major political interference (Hungary, Portugal.)

3

Imbalances either side of border – worries of loop flow.

4

Key decision makers find networks dull!

A new solution: Let's move to "RIIO"

1

Capital markets have clarity and acceptable return.

2

L/T stability – leave companies alone.

3

Adds market forces to monopoly.

4

Encourages innovation (sustainable).

5

Rewards by incentives.

REQUIREMENTS FOR NETWORKS MET

Member States could use or adapt RIIO to their needs

R

Returns regulated over 8 years and capex rewarded up front (ex ante).

I

Incentives allow 13% RORE for best and failure >7%.

I

Innovation rewarded via competition on projects.

O

Outputs (performance indicators) shown to consumers.

Source: Ofgem

MOVE TO RIIO

Regulatory purpose of RIIO?

But first, let's remind ourselves of RIIO features:

- Ex ante (i.e. You know you have that money to invest up front).
- Inflation (RPI) cost base protected.
- Promotes sustainable networks.
- No “black box” in decisions (as per RPI-X).
- Eight years – not five.
- Revenue drivers are automatic.
- Uncertainty mechanisms.
- Fast track possible (save a year).

Source: Ofgem

COMBINED THIS PACKAGE IS HIGHLY ATTRACTIVE

RIO – What it means

- 1 Plugs new sources of power.
- 2 Promotes R&D and incentivises good management.
- 3 Attracts investors – stable and clear and they can follow outputs.
- 4 Bills go up but consumers have voice.
- 5 Adds to security of supply of country.
- 6 Politicians like: jobs, infrastructure, R&D and can blame regulators for bills!

IT LINKS WITH DG ENERGY

UK Experience: Well reviewed

Suppliers like RIIO.

Capital markets support RIIO.

Consumers welcome “O”.

Government likes the “I” and “I”.

Companies welcome relevant price control.

What did they say about RIIO?

Supplier + Consumer

We believe RIIO balances a fair balance between the interests of customers and the networks ([major supply Co, 2012](#)).

Investor

“Our analysis of RIIO price controls leads us to believe that NG can achieve adequate credit ratios and maintain dividend base ([Credit Suisse March 2013](#))”.

Ratings

“The move to RIIO is broadly supportive of our AAA assessment of the stability and predictability of GB regulatory framework ([Moody’s March 2013](#))”.

Company

“Never had better clarity for the medium term. RIIO provides a very clear framework to focus on delivery of investment, customer services and returns” ([NG May 2013](#)).

THIS IS IMPORTANT WHEN DISCUSSING THIS MODEL

UK Experience: Networks lead

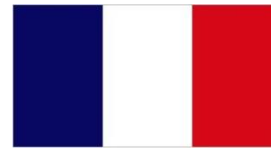
£50bn authorised already from 1st April 2013 – another £30-35bn next year. Work underway. This is massive increase in spend – in transmission alone National Grid +100%, Scottish Power +200% and SSE £500mRAV to possibly £5 billion!

British Government still trying to identify, incentivise and attract £110bn for generation.

Source: Ofgem/DECC

NETWORKS CRITICAL IN ACHIEVING THE UK'S £200BN

And finally - Supply



2008
2010
PROBES



RETAIL
MARKET
REFORM?



“AUSTRIAN
SCHOOL”

“ALL FORDS ARE
BLACK” THINKING

OPENING THE WAY FOR NEW MODELS

New Models/New Start/Fresh Thinking

KPMG member firms are advising clients on new models.

Please join us on **7th October 2014 in London** when we will be discussing “new models and market designs” at **KPMG’s Global Power & Utilities Conference**.

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