



Political climate change: The UK road to new build

**World Nuclear Association Symposium
5 September 2008**

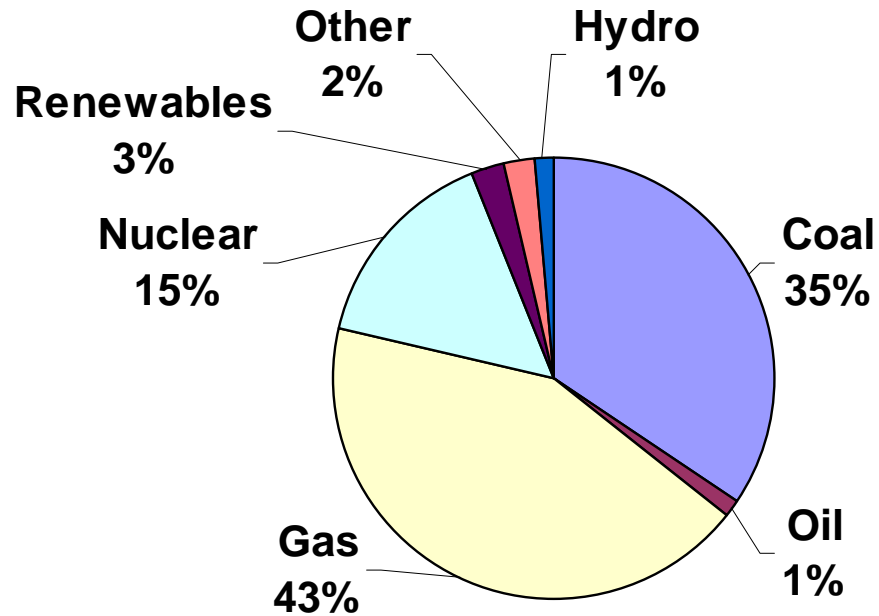
**Simon James
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Nuclear Industry Association**



Charting the change

- Where we are
- Why did policy change
- The new build process
- Public and political opinion
- Future issues

The UK electricity mix



Source: BERR (July 2008)



UK nuclear plants – closure dates

	Commissioning date	Planned closure date
Magnox reactors		
Dungeness A	1965	2006
Oldbury-on-Severn	1968	2008
Sizewell A	1966	2006
Wylfa	1971	2010
AGRs		
Dungeness B	1985	2018
Hartlepool	1984	2014
Heysham 1	1984	2014
Heysham 2	1988	2023
Hinkley Point B	1976	2016
Hunterston B	1977	2016
Torness	1989	2023
PWR		
Sizewell B	1995	2035

**“We do not propose new
nuclear build...”**

February 2003
Energy White Paper



Making the policy case for nuclear

- **Security of supply**
 - Reduce dependency on imported gas
- **Climate change**
 - Low carbon technology
 - 60% CO₂ reduction target by 2050
- **Energy prices**
 - Volatile global fossil fuel prices
 - Contributes to long-run price stability



Times are changing

“By 2025, if current policy is unchanged, there will be a dramatic gap on our targets to reduce CO2 emissions;

...we will become heavily dependent on gas; and at the same time move from being 80/90% self-reliant in gas to 80/90% dependent on foreign imports,

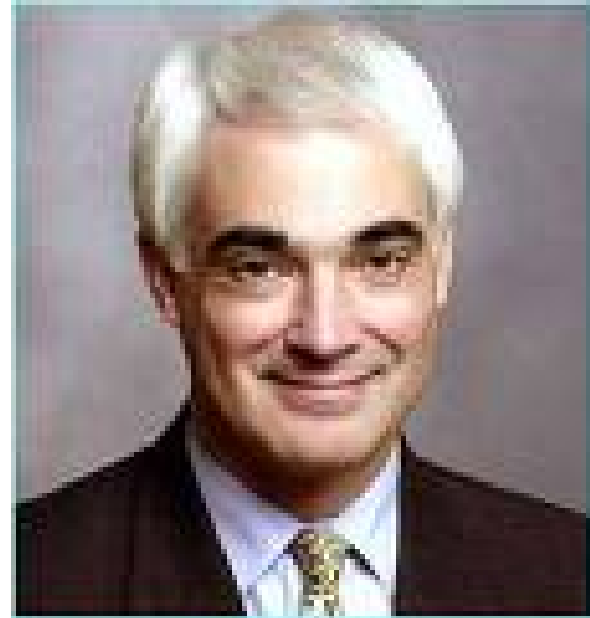
These facts put the replacement of nuclear power stations, a big push on renewables and a step-change on energy efficiency, engaging both business and consumers, back on the agenda with a vengeance.”



**Prime Minister,
Tony Blair 16 May 2006,
CBI Annual Dinner**

White Paper 23 May 2007

- “We have taken the preliminary view that nuclear power is in the public interest”
- “We could see a decision before the end of the year”



Alistair Darling, Secretary of State for Trade and Industry, on the launch of the Energy White paper



Greenpeace challenge

- 15 February 2007 – High Court rules overturns the nuclear part of the Energy Review
- Judge says consultation "misleading", "seriously flawed" and "procedurally unfair"
- Government vows to re-consult and press on with work on a contingent basis



Nuclear White Paper 2008

Foreword to Meeting the Energy Challenge:

“The Government has today concluded that nuclear should have a role to play in the generation of electricity, alongside other low-carbon technologies.”



Prime Minister,
Gordon Brown
10 January 2008

NiA Private sector ... willing to build

- "We have today launched a process to invite potential partners for new nuclear generation projects in the UK."
- British Energy, 13 February 2007

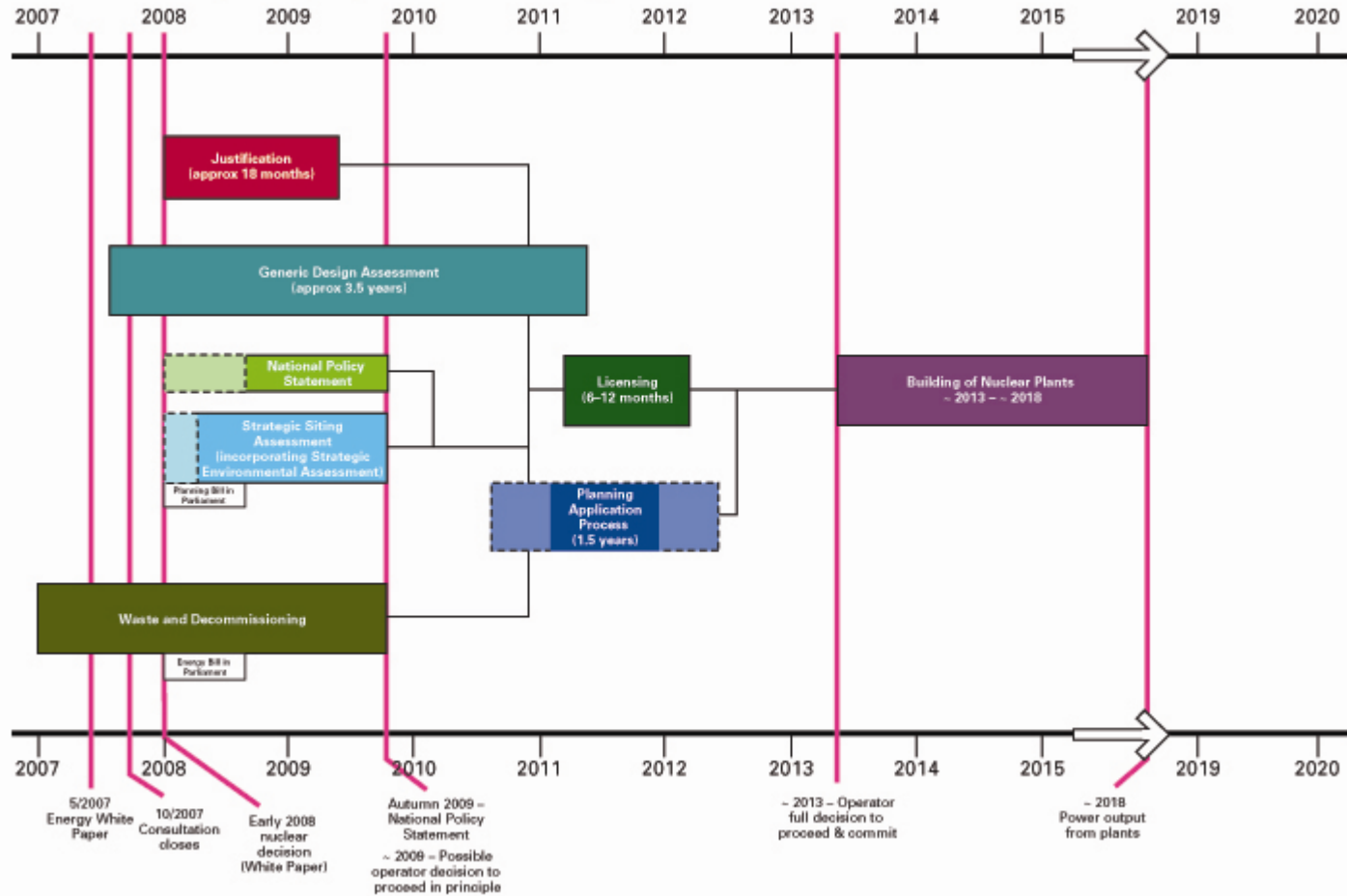
- E.ON UK has confirmed it intends to take a leading role in the next generation of nuclear power stations
- E.ON, 22 May 2007

- EDF will now step up its plans to take part in building a series of four new nuclear plants in the UK
- EDF, 10 January 2008



Timelines for new build

Chart 1: Indicative pathway to possible new nuclear power stations





Processes going forward

- Energy, Planning and Climate Change Bills
- Justification
- Pre-licensing
- Strategic siting
- Funding of decommissioning and waste management

Plus: Waste repository siting...



Generic Design assessment

- Three regulators (NII, OCNS, EA) working together
- Three reactors in the process (AP1000, EPR, ESBWR)
- Site specific issues remain to be resolved
- Government reviewing the work of regulators



New build waste and decommissioning

- Energy Bill establishes the framework
- Decommissioning plan in advance of build
- Funding for decommissioning and waste in life-time
- Fixed cost waste
- Independent scrutiny of plans (NLFAB)
- Deep geological repository – volunteer communities

NIA Radioactive waste in the UK

Volume equivalent

Total waste from existing nuclear programme



5 Albert Halls

ILW



3.6 Albert Halls

Uranium & plutonium



0.8 Albert Halls

LLW (non-Drigg)



0.4 Albert Halls

Spent Fuel & HLW



0.1 Albert Halls

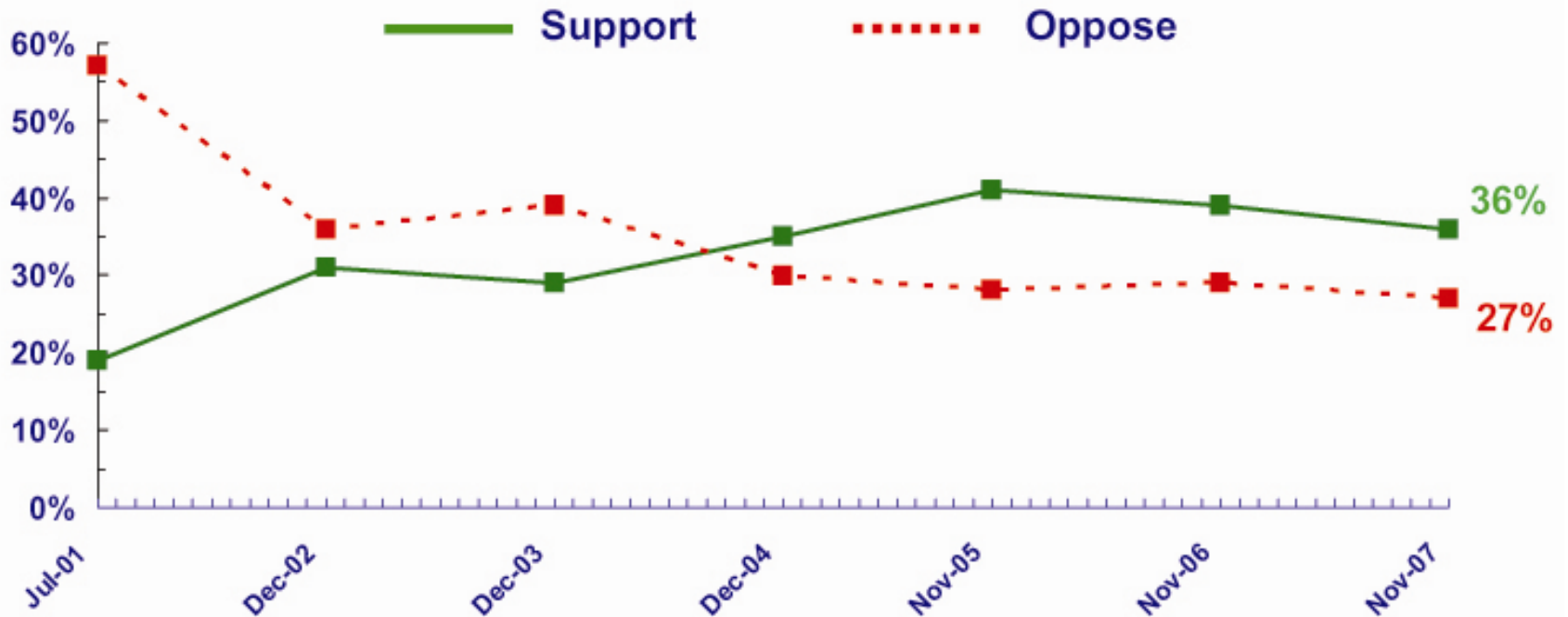
(or 46 semi-detached houses)





The public response

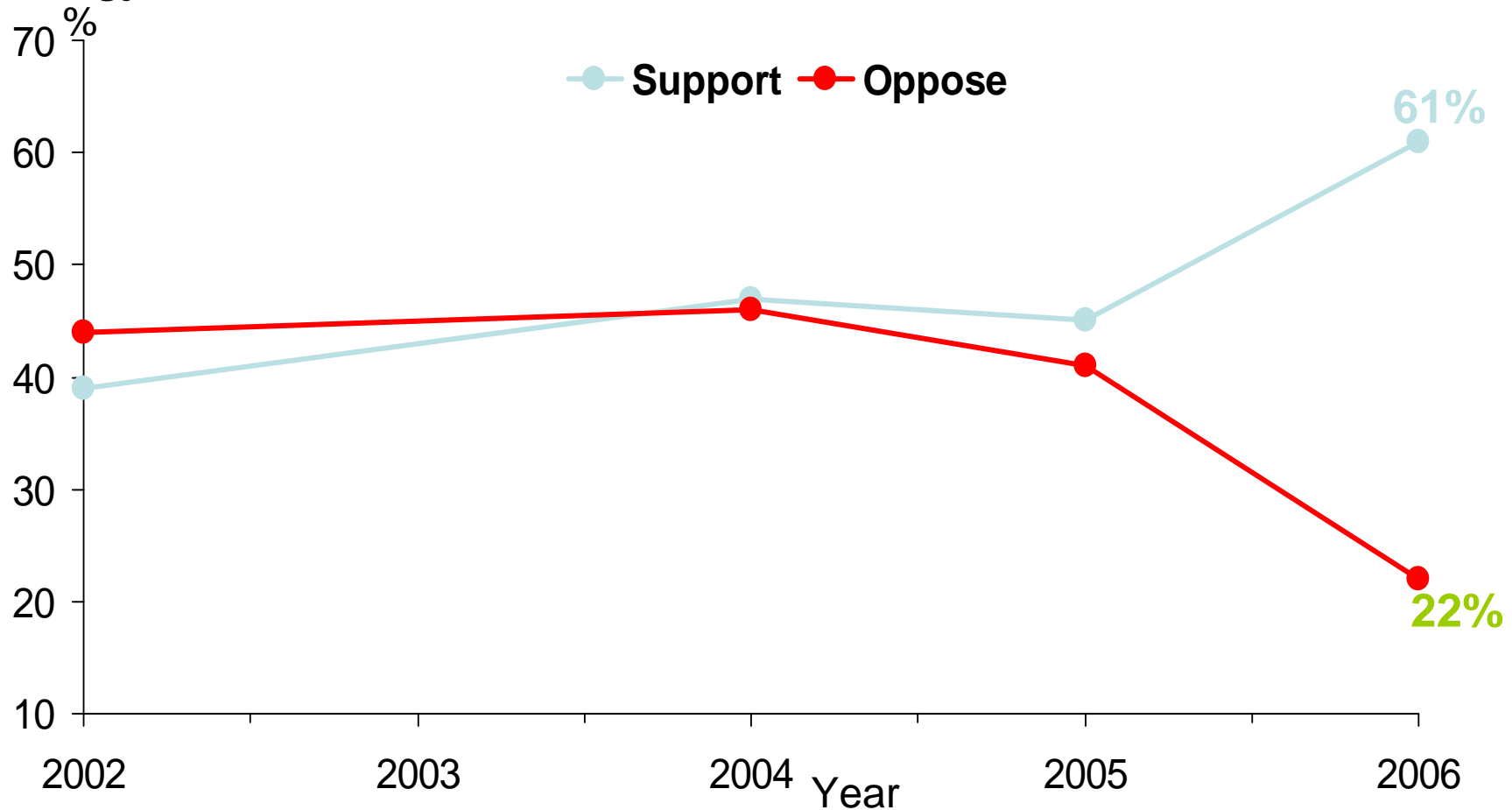
Q To what extent would you support or oppose the building of new nuclear power stations in Britain TO REPLACE those that are being phased out over the next few years? This would ensure the same proportion of nuclear energy is retained.





MPs Attitudes to new build - trend

Q *To what extent do you support or oppose the building of new nuclear power stations in Britain to replace those being phased out over the next few years? This would ensure the same proportion of nuclear energy is retained.*





What happens next ...

Generic Design Assessment:

now – mid 2011

Strategic Site Assessment:

now – late 2009

Planning:

National policy statement, 2008 – 2010

Planning application 2010 – mid 2012

Licensing 2011 – 2012

New build:

2013 – 2018 ?



Construction of Sizewell B



Any questions?

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