New Nuclear Build and Public Opinion: A UK case study

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Chief Executive
Nuclear Industry Association
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About the NIA

- The voice of the UK civil nuclear Industry
- 275 members across whole nuclear sector
- Members range from utilities to small enterprises
- 60,000 UK nuclear workers

www.niauk.org
UK Nuclear Industry

- Pioneer in nuclear generation
- Full fuel cycle capability
- Highly skilled workforce
- Mature and flexible supply chain
- World leader in decommissioning nuclear reactors and associated facilities
- At forefront of global nuclear renaissance
The UK electricity mix

- Coal – 28.5%
- Oil – 1.3%
- Nuclear – 16.4%
- Gas – 46.3%
- Renewable – 6.1%
- Hydro - 1%
- Other – 0.4%

Source: DECC, 2011 Digest of UK Energy Statistics
Closure dates for AGR and PWR fleet

- **Hartlepool**: 2019
- **Sizewell B**: 2018
- **Dungeness B**: 2016
- **Hinkley Point B**: 2016
- **Heysham 1**: 2019
- **Heysham 2**: 2023
- **Hunterston B**: 2016
- **Torness**: 2023
Decision Time

“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.”

Former Prime Minister,
Tony Blair 16 May 2006,
CBI Annual Dinner
New Build Key events …..

July 2006: UK Government Energy Review “Government believes that nuclear has a role to play in the future UK generating mix alongside other low carbon generating options”

May 07: Energy White Paper
“the provisional view that nuclear could be in the public interest” - Alistair Darling

Jan 08: Nuclear White Paper
“go-ahead that new nuclear should play a role” - John Hutton
UK government consultation 2006/2007

- Regional Stakeholder meetings
- Deliberative consultation events
- 4,000 consultation responses
• **Justification:** Completed October 2010

• **GDA:** Conclusions, end 2011

• **National Policy Statements:** Approved July 2011

• **Electricity Market Reform:**
  Energy Bill, 9 May 2012

• **Investment approval for first plant:** end 2012
New Build Plans for UK

**EDF Energy UK**
(EDF Energy/Centrica Joint Venture)
2 x 1600 MW EPRs for Hinkley
2 x 1600 MW EPRs for Sizewell
4 operating by 2025

**Horizon Nuclear Power Ltd**
(RWE/EoN Joint Venture)
6000 MW operating by 2025
at Wylfa and Oldbury
Technology to be decided

**NuGeneration Ltd**
(Iberdrola/GDF Suez Joint Venture)
Up to 3600MW operating by 2023 at Moorside
Technology to be decided

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Horizon Nuclear Power

• 29 March 2012 - RWE npower and E.ON UK announce that they would no longer be proceeding with developing new nuclear generation in the UK

• It is expected that a new company or consortia will opt to purchase Horizon Nuclear Power and there has been wide international interest
Emergency

- 11 March, major earthquake and tsunami hit north east Japan

- After initial shutdown, tsunami overwhelms emergency back-up at Fukushima

- Major nuclear accident attracts dramatic worldwide media attention
Chief Nuclear Inspector, Dr. Mike Weightman:

“I remain confident that our UK nuclear facilities have no fundamental safety weaknesses. No matter how high our standards, the quest for improvement must never stop.

“We will ensure lessons are learned from Fukushima. Action has already been taken in many cases, with work under way to further enhance safety at UK sites.”
Government Commitment

Minister of State for Energy and Climate Change, Charles Hendry MP, NNB 2011

“Nuclear is the cheapest low-carbon source of electricity around, so it can keep bills down and the lights on.

… around 5,000 jobs could be on offer at each of the eight sites we listed as suitable for development… all parts of the country could gain from a nuclear resurgence.

We must go forward with new nuclear. We will be a darker, less prosperous nation without it.”
Third party collaboration is crucial... in a crisis
Trend shows favourable opinion back to highest ever

Ipsos MORI poll. Base: All adults aged 16+ (1,000 – 2,000). Fieldwork December 2011
Shifting opinions

Agree: Nuclear Power is relatively safe/important electricity source/should build new plants

Source: BBC World Service/Globe Scan, November 2011.
New Nuclear Build – Opportunities and benefits

- 30 - 40,000 high quality jobs generated
- 500 graduates required each year to 2025
- Major supply chain opportunities
- Regional regeneration
- Stability of electricity prices
- Boost for UK manufacturing
- Large scale CO₂ avoidance
- Training & career opportunities:
  - engineering
  - construction
  - regulation
  - operations
  - maintenance
UK Supply Chain opportunities

- 70% of new nuclear plant British-made
- Investment in skills & facilities
- Investment in people…
- Industrial & Academic collaboration
- Nuclear Supply Chain development programme *SC@nuclear*
- Supported by utilities, major engineering companies & reactor vendors
Robust and clear messages

UK New Nuclear Build = The Olympics x 5

- 30 - 40,000 high quality jobs
- Major supply chain opportunities
- Secure UK-based power supply
- Regional regeneration
- Stability of electricity prices
- Boost for UK manufacturing
- Large scale CO₂ avoidance
In conclusion

A phased programme of new nuclear power station construction will provide:

• Large scale CO$_2$ avoidance
• Security of supply
• Cost competitive electricity
• Substantial numbers of high quality jobs
• Global opportunities for industry
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