

A Reactor Vendor Perspective on Prospects for New UK Nuclear

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Our Business Today: Four Product Lines

Nuclear Services

Focused on operating plant success through reliable operation, maximized power output and better (shorter, more predictable) outages

Nuclear Power Plants

Specializing in the technology of new nuclear power plants and component manufacturing

Nuclear Fuel

A single-source fuel provider for PWR, BWR, VVER, AGR and Magnox reactors worldwide

Nuclear Automation

Instrumentation and control systems to enhance the reliability of nuclear plant control and safety systems

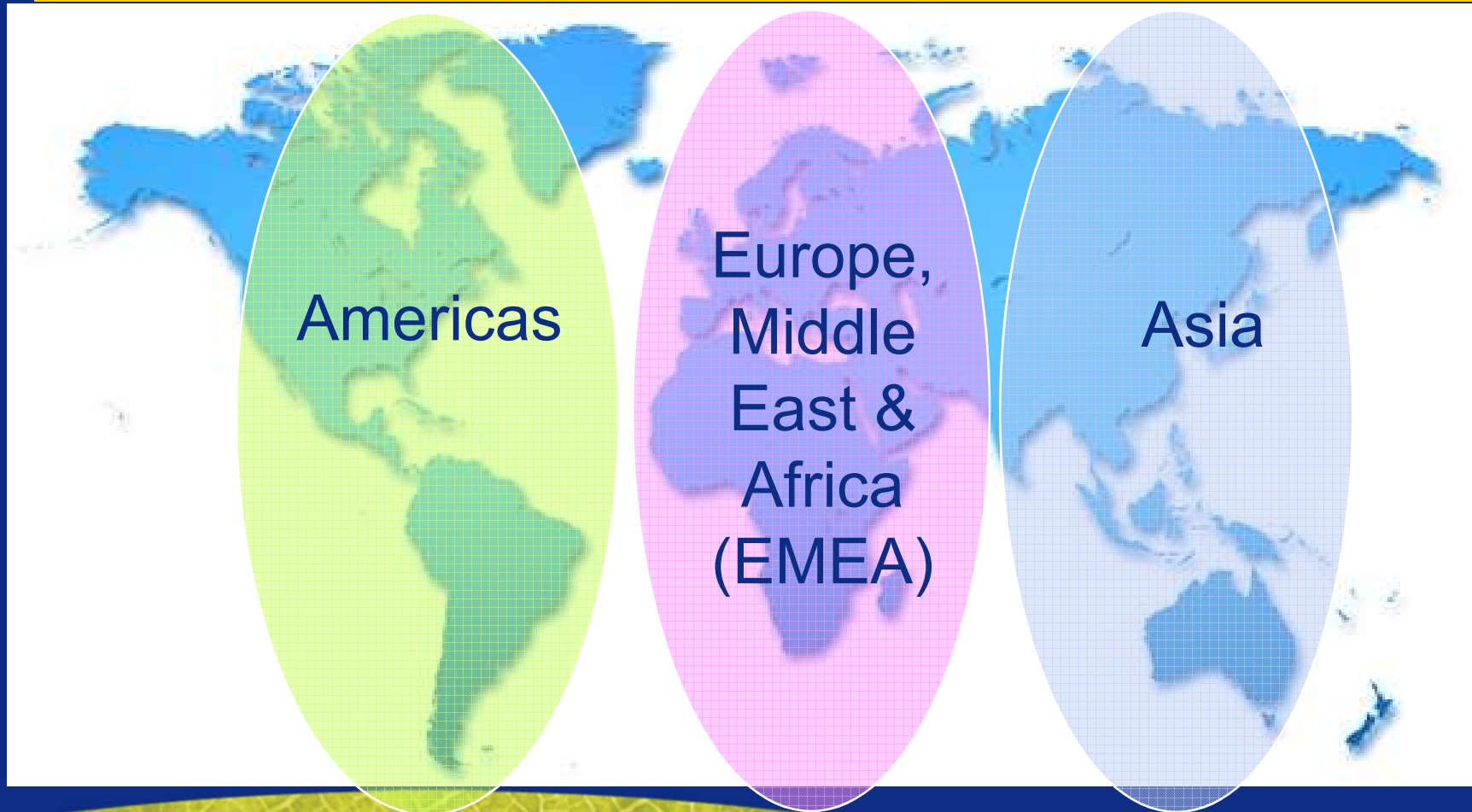


Our Global Presence

More than 15,000 People in 18 Countries Around the World



A New Regional Management Approach



Westinghouse is European

- Westinghouse is the designer / supplier of **26** currently operating nuclear units in Sweden, Spain, Belgium, Switzerland, Slovenia, Finland and the UK
 - Several more plants which have now closed
 - Our technology sits at the heart of well over 50 additional European power plants

- We have significant operations in
 - **Belgium:** Brussels, Nivelles
 - **France:** Orsay, Manosque, Marseille
 - **Germany:** Mannheim, Hamburg
 - **Spain:** Madrid, Tarragona
 - **Sweden:** Västerås
 - **UK:** Chorley, Springfields



Westinghouse in the UK

- **New Power Plants**

- Our AP1000® reactor is one of two designs in the GDA process
- In discussions with utility customers – especially Horizon - about their technology selection

- **Fuel**

- Acquired the Springfields site on a 150 year lease from NDA in April 2010
- Will allow investment in the site to re-establish and grow PWR fuel business

- **Services / Automation**

- We are a partner in Cumbria Nuclear Solutions Ltd, who are bidding to win clean-up and decommissioning work at Sellafield and elsewhere
- We have also done many repair and upgrade jobs for the current UK nuclear reactors



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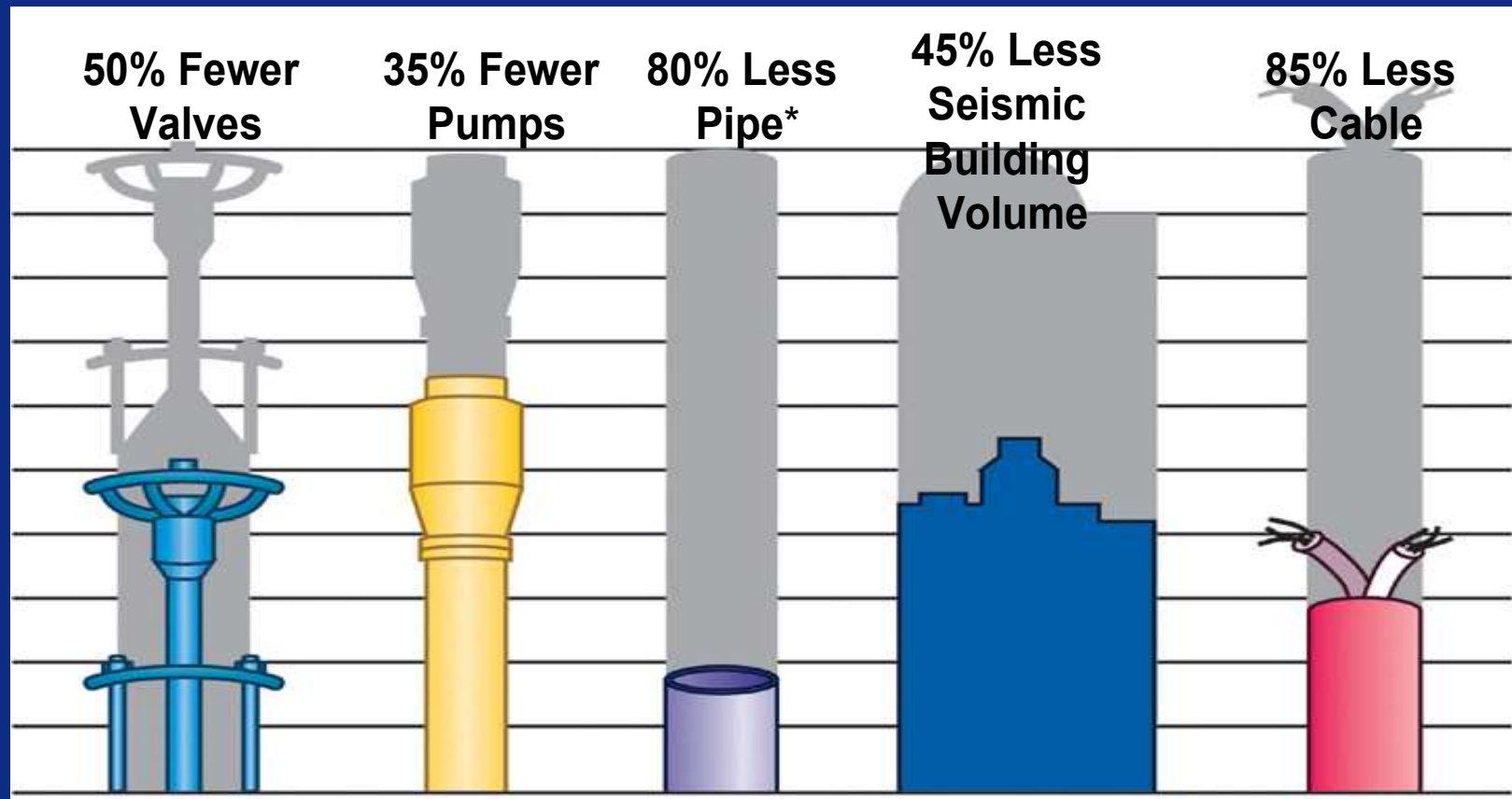
Westinghouse's AP1000

Designed for the energy markets of the 21st Century.

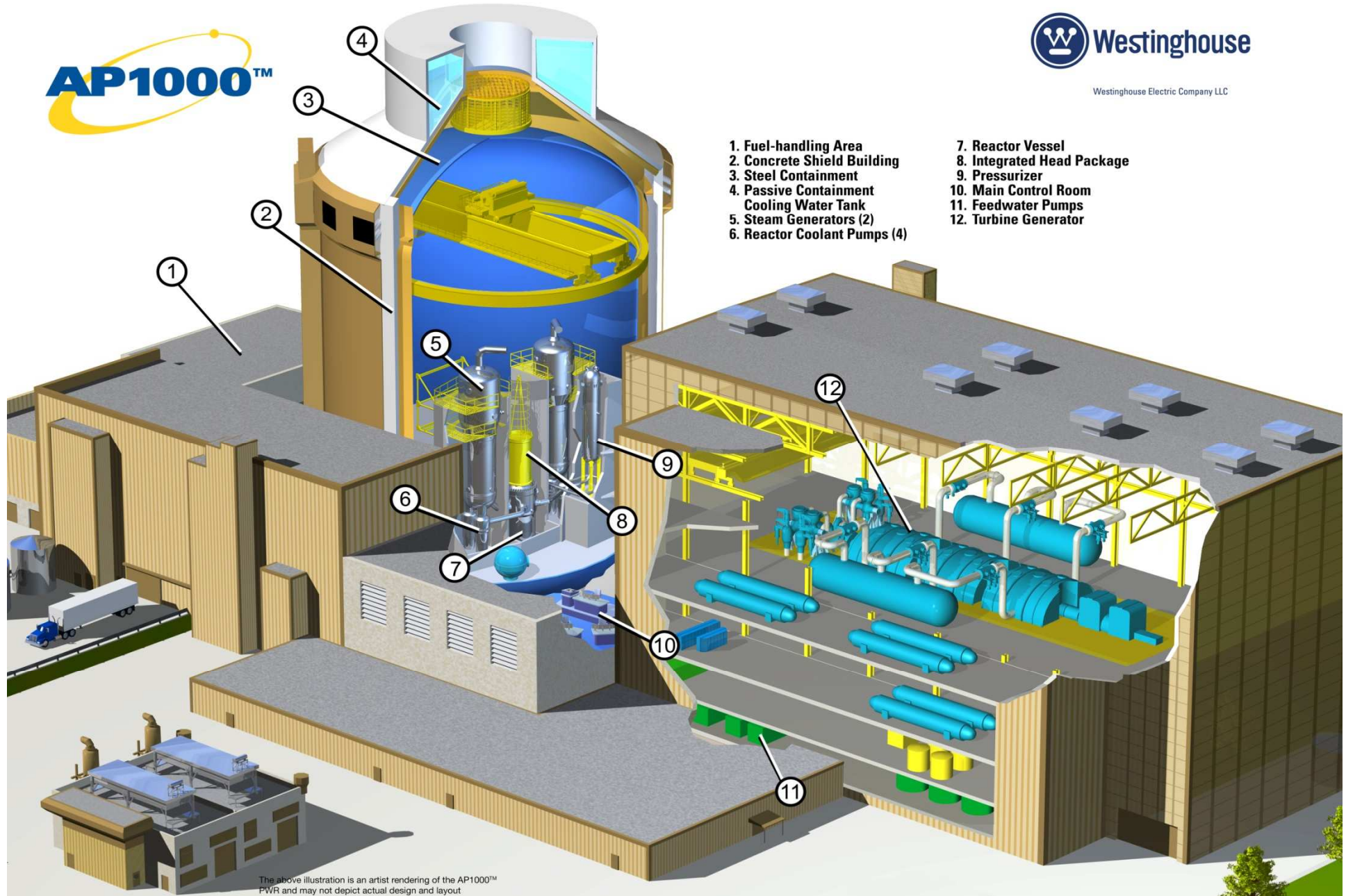
- Safe
 - Passive systems improve safety
- Simple
 - Passive safety simplifies design, operation and maintenance
- Economic
 - AP1000 competitive with gas
- Uses proven components already in operation



AP1000 has Fewer Components than Conventional PWRs



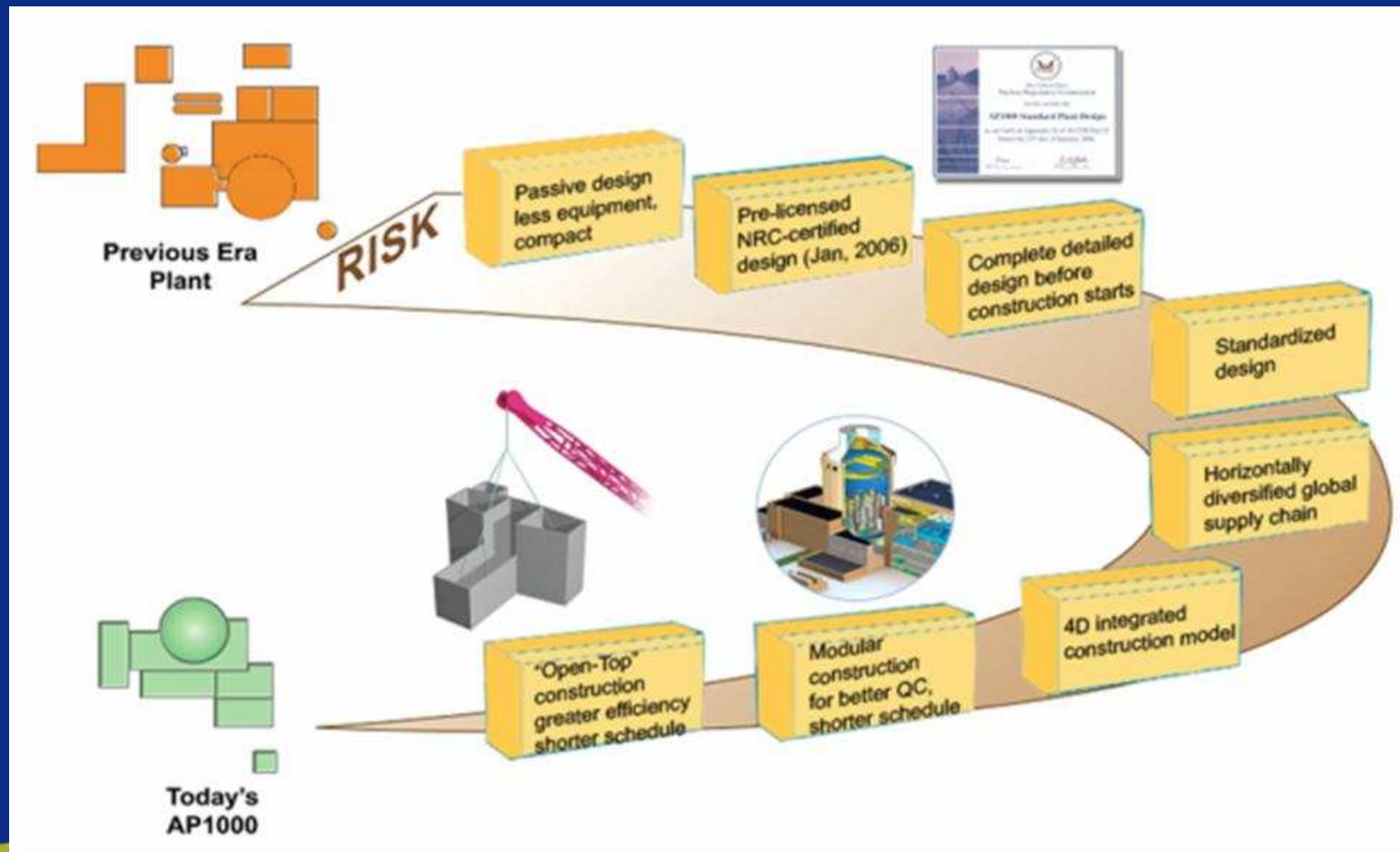
Compared with a conventional 1000 MW PWR



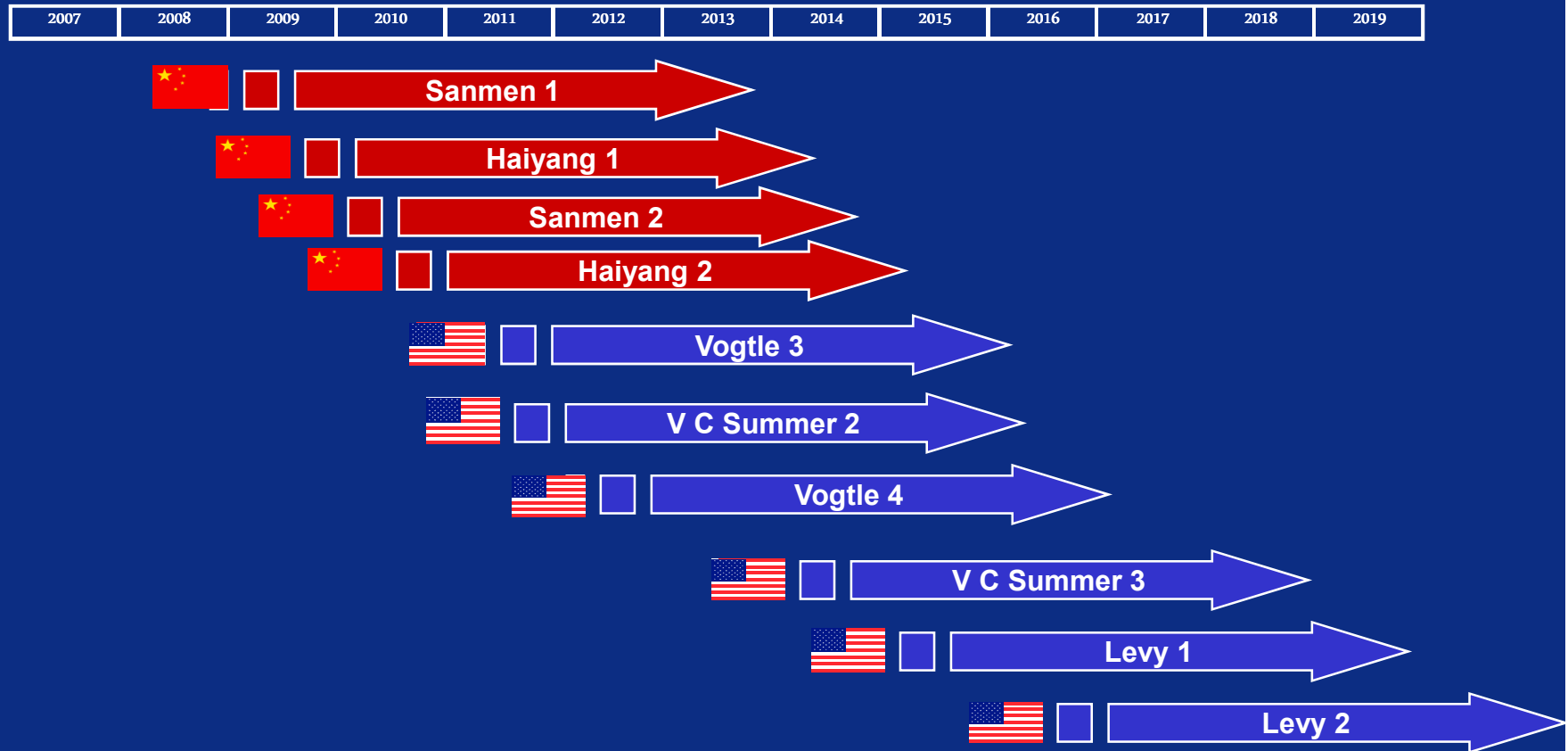
- 1. Fuel-handling Area
- 2. Concrete Shield Building
- 3. Steel Containment
- 4. Passive Containment Cooling Water Tank
- 5. Steam Generators (2)
- 6. Reactor Coolant Pumps (4)
- 7. Reactor Vessel
- 8. Integrated Head Package
- 9. Pressurizer
- 10. Main Control Room
- 11. Feedwater Pumps
- 12. Turbine Generator

The above illustration is an artist rendering of the AP1000™ PWR and may not depict actual design and layout

Westinghouse Has Facilitated New Plant Construction By Reducing Project Risks



AP1000 Units Under Contract

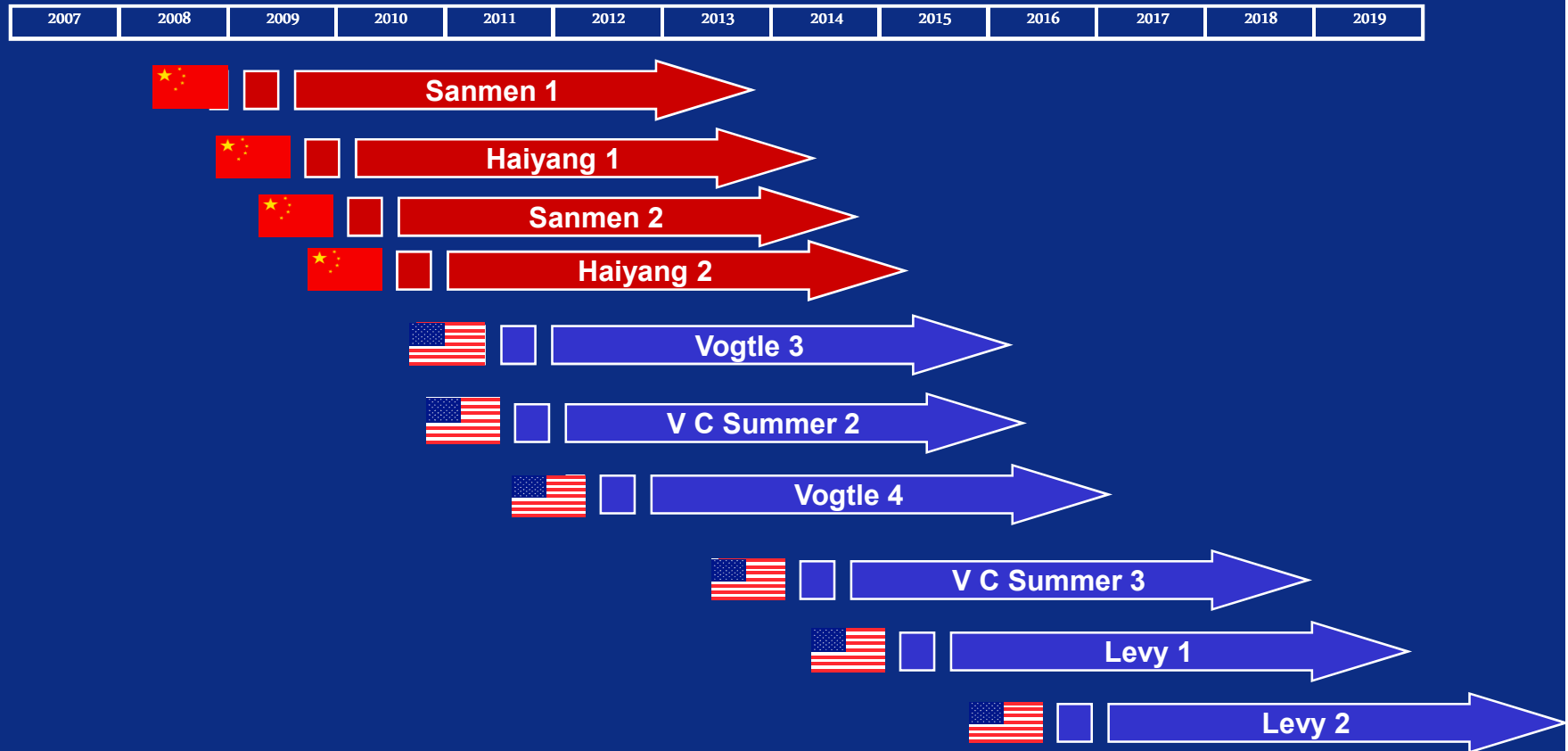


11GW – enough to replace the whole UK nuclear fleet

Sanmen – May 2011



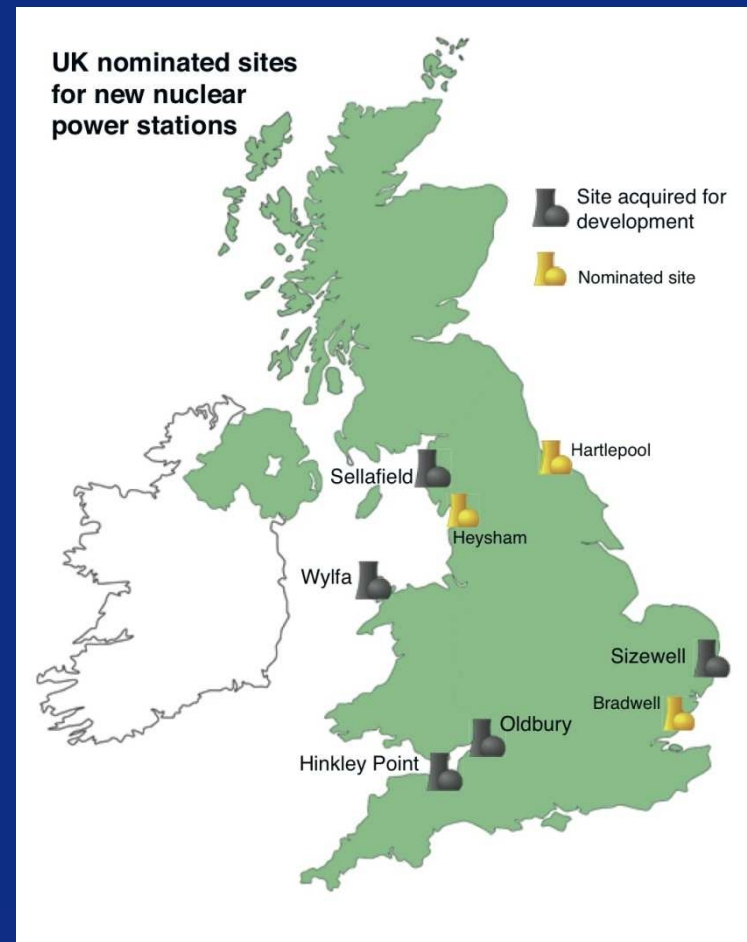
AP1000 Units Under Contract



11GW – enough to replace the whole UK nuclear fleet

Sites listed in Draft National Policy Statement

- 11 sites were nominated in Spring 2009
- 10 approved in principle – Dungeness rejected
- Now a further consultation has taken place – 2 other Cumbrian sites removed from draft list, leaving a likely list of just 8



Set to be confirmed in Parliament on Monday 18 July

Source: NAMRC 15

Generic Design Assessment (GDA)

- Four step process, which began in 2007
- At that time, 4 reactor designs involved.
- Now reduced to two – AP1000 and the EdF / Areva EPR
- Today, 14 July 2011, we have seen the latest quarterly report:
 - No “showstopper” issues for either design
 - Majority of technical assessment work now done
 - Expecting to issue interim approvals at the end of 2011
 - To get to final approval, a series of “GDA Issues” will need to be closed out
 - These include a specific GDA Issue related to implications from Fukushima

Target Customers in the UK

- Horizon Nuclear Power

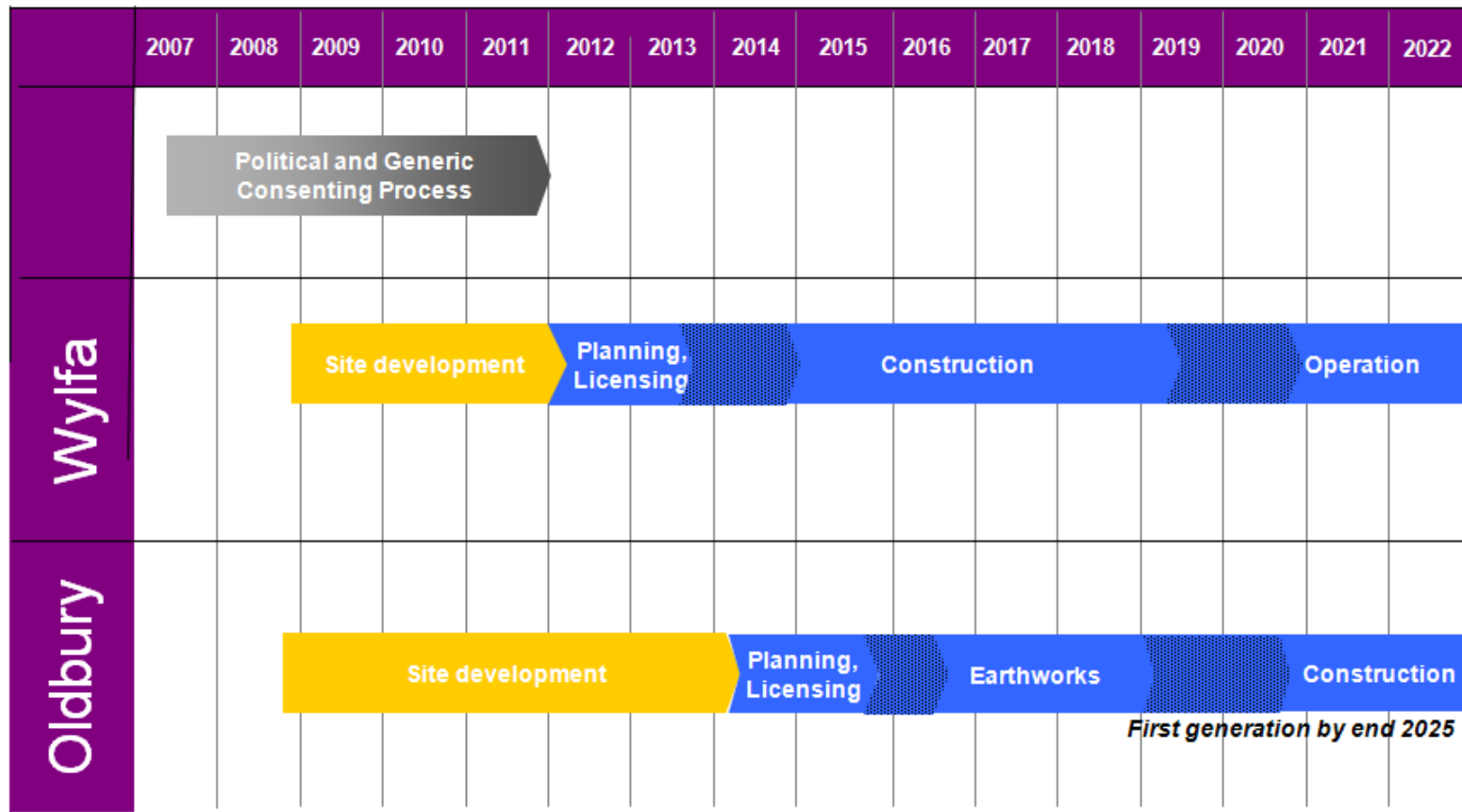
- Two sites at Wylfa in North Wales and Oldbury in Gloucestershire
- Potential for 3 AP1000 reactors on each site
- First site at Wylfa scheduled to produce first electricity around 2020
- Reactor choice for Wylfa expected from Horizon at end of 2011 (between AP1000 and our French competitor)

- NuGen

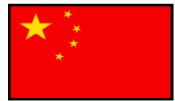
- One site at Sellafield in Cumbria: Potential for 3 AP1000 reactors
- Scheduled to produce first electricity in 2023
- No process or date set out yet for reactor choice, but only two designs are going through the UK licensing process, so could well be another two horse race

Timescales for Horizon Project

Phased programme



Learning Lessons from Overseas



TOSHIBA



TOSHIBA



As the AP1000 programme develops around the world, it is imperative that we retain the accumulated learning and experience, whilst working with respected companies with local knowledge

Preparing for UK Success - the Delivery Team

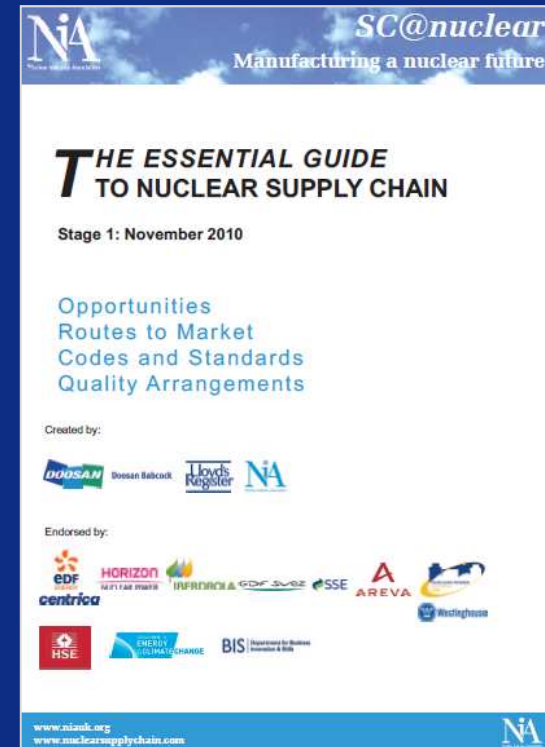


Particular Attractions of AP1000 in the UK

- Physical size – a better fit for compact UK sites
- Power output – reduced need for strengthening of the grid
- Well known to UK regulators and industry
- Modular construction – supports UK jobs in supply chain
- Opportunity to benefit from US Design Certification
- Opportunity for fuel fabrication at Springfields

Supply Chain

- Both NPD UK and Westinghouse endorsed the recent industry guide for potential supply chain companies.
- We are working with NIA, MAS, NAMRC and others (including regional bodies in the NW, Wales and Cumbria) to ensure we reach as many potential supply chain companies as possible
- Around 600 UK companies are now registered as potential suppliers to us.



Agreements Signed with Major UK Suppliers

- Memoranda of Understanding signed with three major UK supply chain companies
 - BAE Systems
 - Rolls Royce
 - Doosan Power Systems
- The MOUs cover:
 - Manufacturing and components
 - Supply chain and logistics
 - Engineering support

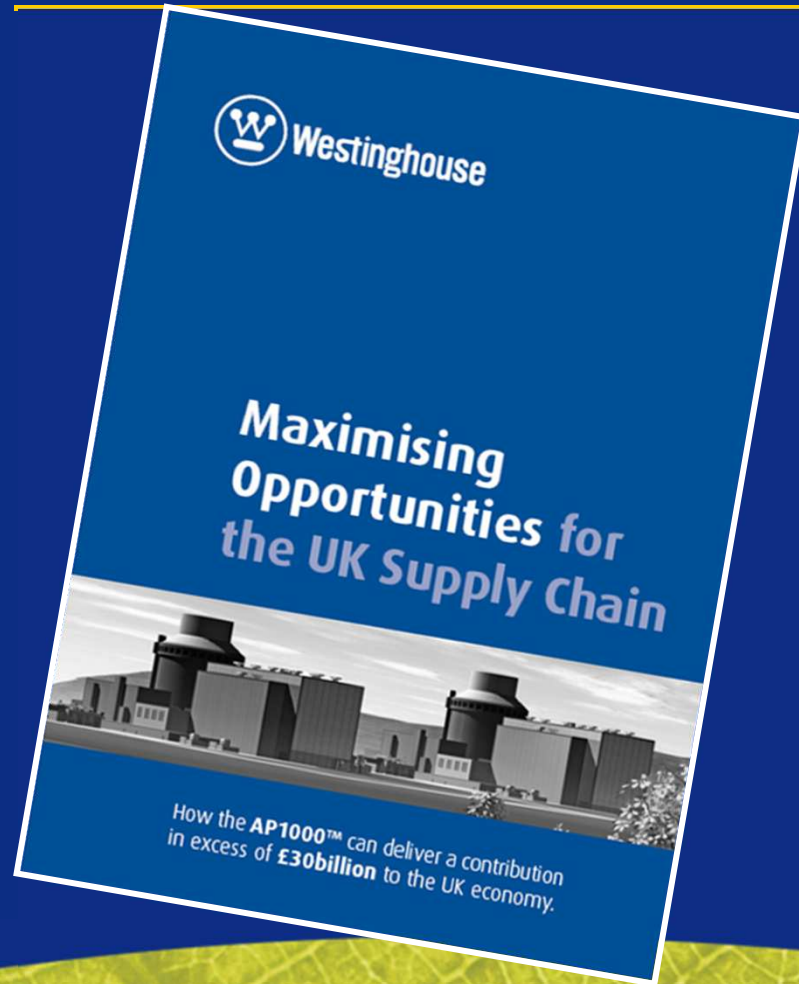
The logo for BAE Systems, featuring the text "BAE SYSTEMS" in white, bold, uppercase letters on a red rectangular background.The logo for Doosan Power Systems, featuring the word "DOOSAN" in a stylized, multi-colored font (blue, green, and yellow) followed by the text "Doosan Power Systems" in a dark blue, sans-serif font.

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UK Supply Chain

- The UK supply chain is already engaged in meeting AP1000's global needs
 - Forgings
 - Pumps
 - Valves
 - Engineering
- Companies already working with us include:
 - Flowserve
 - Clyde Union
 - Rolls Royce
 - Fisher
 - Sheffield Forgemasters
 - Weir
 - Tyco
 - Crane

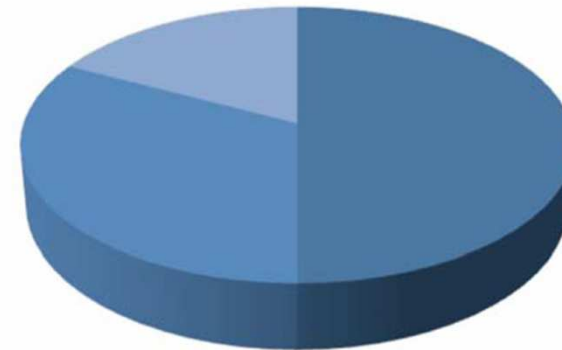
Potential £30 Billion value to UK economy



Around half from supply chain during construction

Around 35% from operation

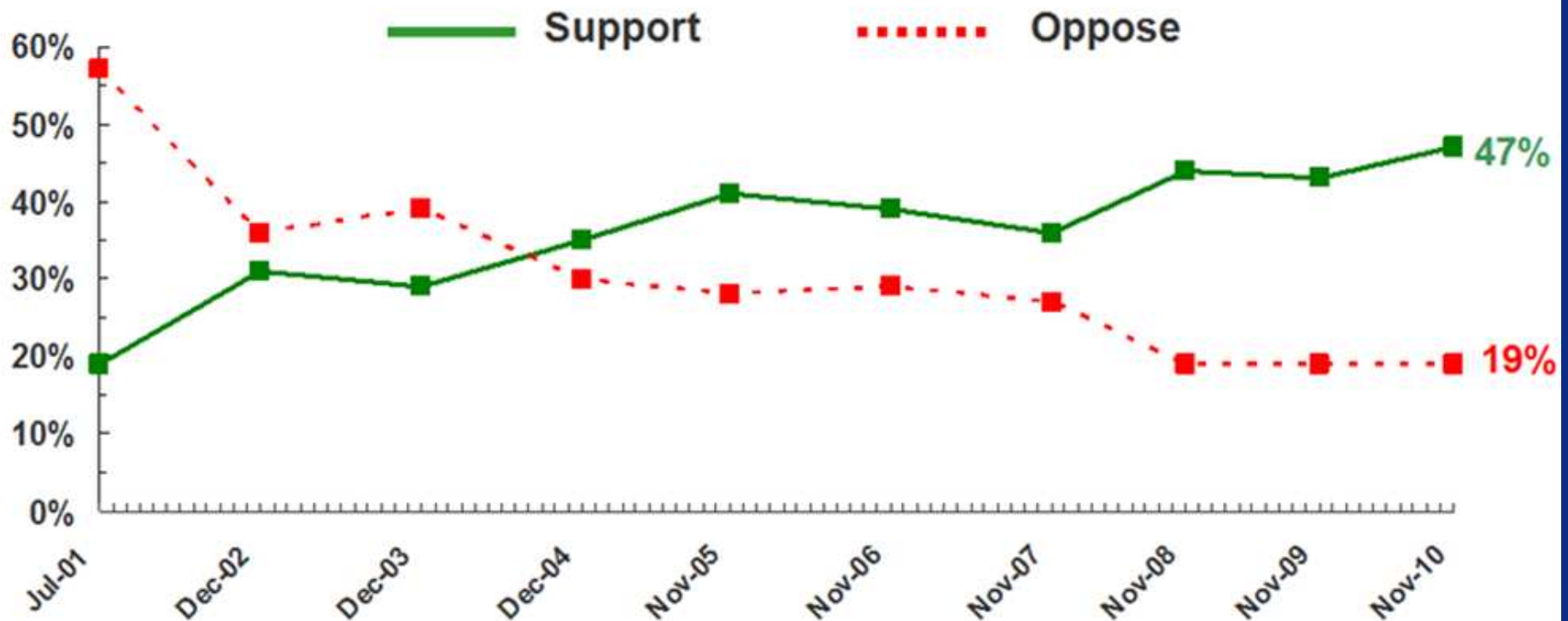
Around 15% from fuel



- UK Supply Chain
- Operational Jobs
- Fuel Supply

In the UK, Public Opinion has Shifted

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.



Impact of Fukushima

- Heightened public concern over reactor safety – but potential advantage in longer term for passive reactor designs, due to “fail-safe” approach
- Delays to announcements on Generic Design Assessment – will now be end of year, instead of June
- Delay to Horizon technology selection – was due early 2011, will now be around end of 2011.
- Impact on Horizon due to reaction in Germany

Summary

- Westinghouse are one of the leading players in the global nuclear industry
- Our experience in China and the US will set the scene for a UK programme to build the same, standard, plant
- In the meantime, we are working hard to strengthen our position in the UK on fuel, supply chain and skills development

Thank You