



NWEF – New Nuclear Power in the UK

Implications and Opportunities for North West
Companies

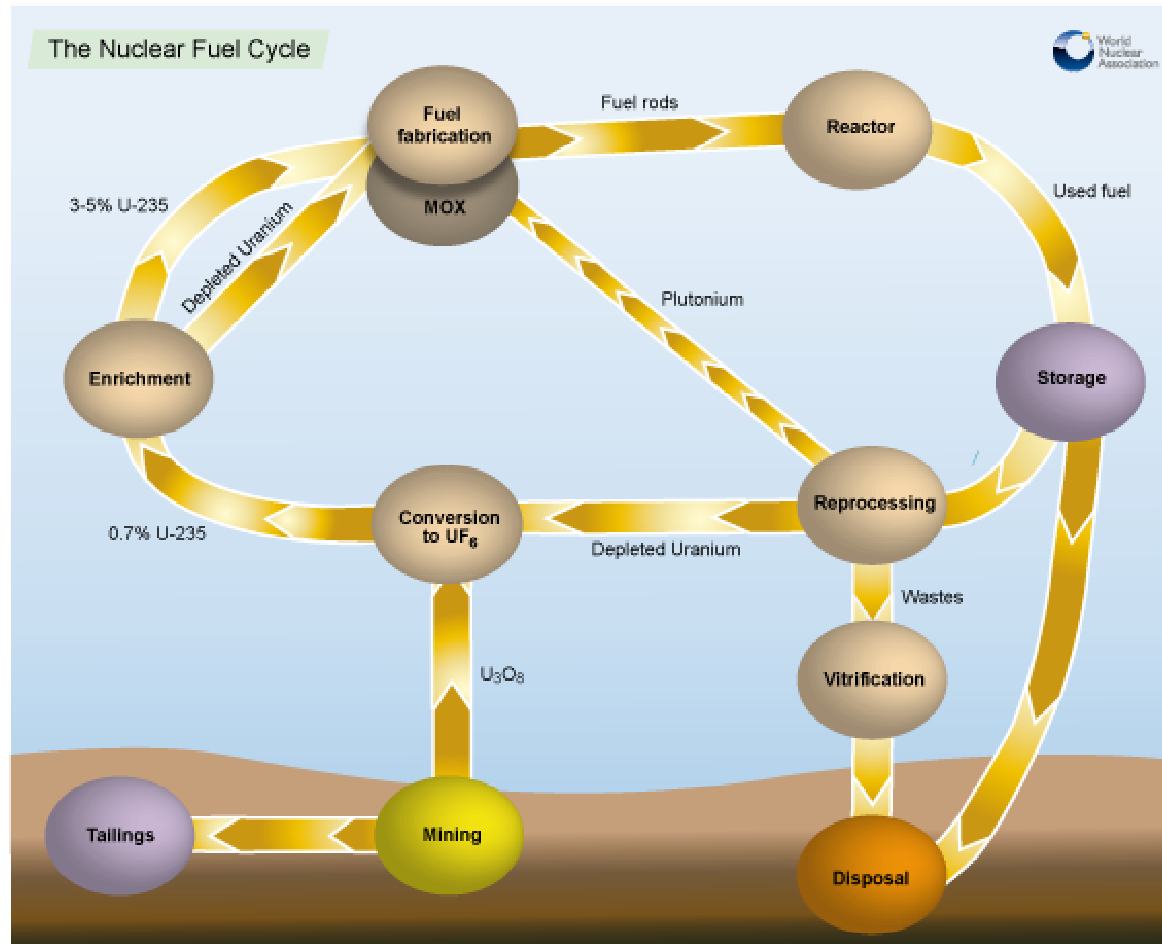
New Nuclear Power in the UK

- **What is the role of the nuclear sector in the North West economy**
- **How could national plans impact the North West region**
- **What are the opportunities from the nuclear renaissance**
- **How could new nuclear build lead to development on existing nuclear licensed sites**
- **What can North West companies do to engage with the associated opportunities and what Government funded support is available**

North West Nuclear Sector – Heritage

- **Springfields – Nuclear Fuel Fabrication – Operated since 1946**
- **Windscale Piles – Operation started 1950**
- **Reprocessing operations started at Windscale 1951**
- **Capenhurst – Uranium Enrichment – Operated since 1953**
- **UKAEA formed 1954**
- **Calder Hall Power Station – Commercial operation began 1956**
- **Prototype AGR at Windscale 1962**
- **1970 Construction of Heysham 1 Power Station started**
- **BNFL formed 1971 – production operations**
- **1981 – Windscale & Calder Works becomes Sellafield**

North West Nuclear Sector – Fuel Cycle Operations



North West Nuclear Licensed Sites



North West Nuclear Sector Capability

- **Fuel Cycle Operations**
- **Engineering / Technology / Consultancy**
- **Programme delivery on nuclear licensed sites**
- **Research & Development – National Nuclear Laboratory**
- **Marine Defence – Nuclear Submarines**
- **Skills Development – National Skills Academy for Nuclear, Energus**
- **Education – Dalton Nuclear Institute, Lancaster, Liverpool, UCLAN, NTEC**
- **Nuclear Decommissioning Authority - Headquarters**
- **Nuclear Directorate of HSE - Headquarters**

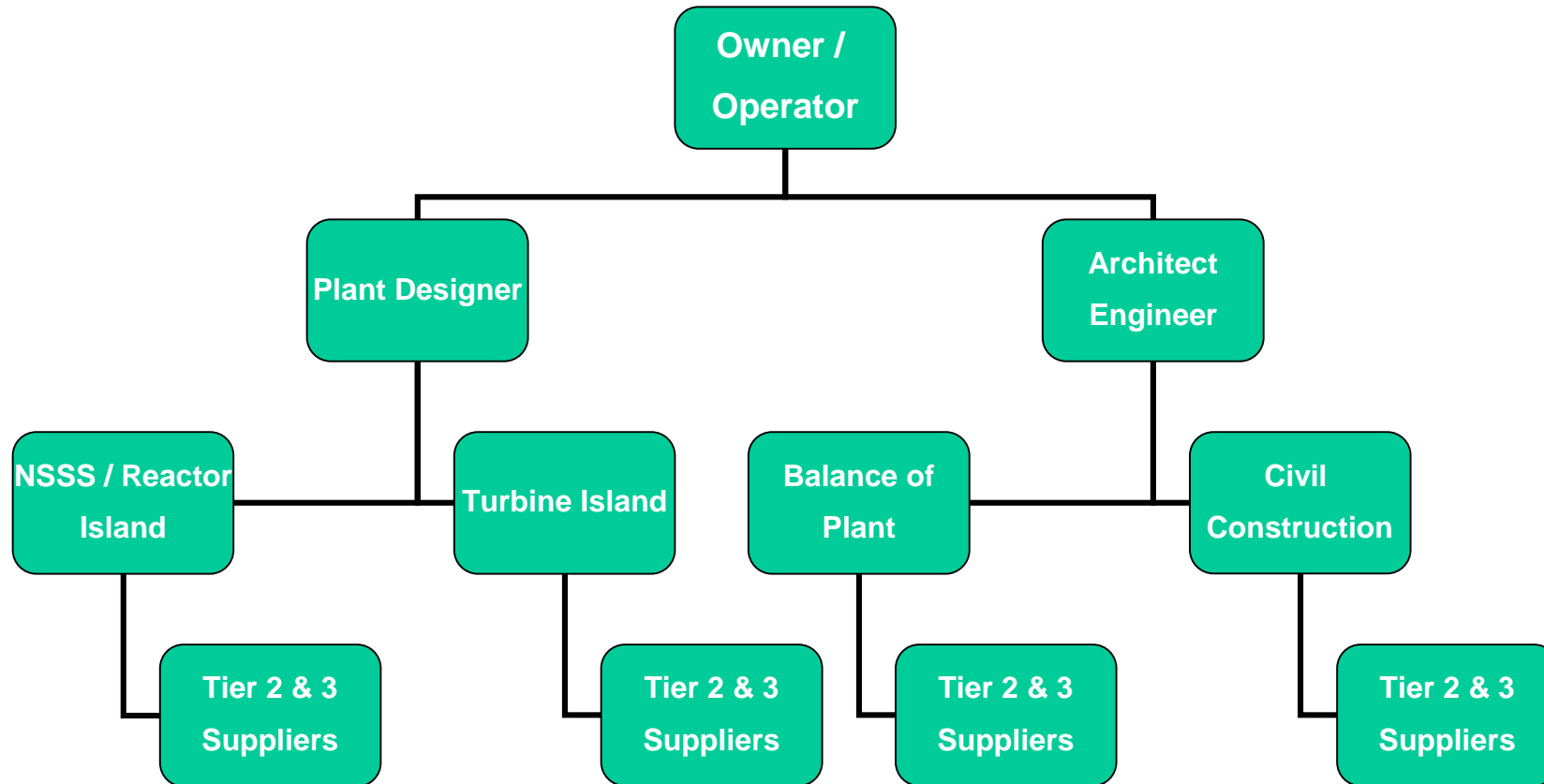
North West Nuclear Sector – New Nuclear Build

- Vendors – Areva (EPR), Westinghouse EC UK (AP1000)
- Siting Process - UK Sites overview
- North West Sites nominated – Heysham, West Cumbria (3 sites)
- Forward Programme – Key Milestones
- Opportunities for businesses – UK & International

Nuclear Supply Chain Development

- **National Supply Chain Development Programme - Nuclear Industry Association/DECC/BERR/RDAs etc**
- **North West Supply Chain Development**
- **Contract Model**
- **How to engage with Vendors**

Indicative Contract Model



How to engage with the Vendors

- Westinghouse EC UK –
<http://supply.westinghousenuclear.com>
- Areva –
http://suppliers.areva.com/UK_supply_chain_EPR
- Vendors Partnership Agreements – Rolls Royce, Doosan Babcock, BAE Systems, Balfour Beatty, Sheffield Forgemaster

Nuclear Supply Chain Development – Key Challenges

- Time elapsed since last new build in the UK
- Technical Codes & standards / Quality Management
- Skills Development and Retention
- Economic Climate – confidence to invest
- Global industry = Global competition

UK Nuclear Programme – Future Strategy Developments

- **Next Generation Power Stations**
- **Spent Fuel Reprocessing**
- **Waste Management**
- **Recycling of Plutonium & Uranium**
- **Decommissioning**

North West Nuclear Sector Opportunities - Summary

- **New Nuclear Power Stations – Global opportunity**
- **Uranium Conversion**
- **Uranium Enrichment**
- **Fuel Fabrication**
- **Transmission Network**
- **Decommissioning Expertise**
- **Waste Management – Geological Disposal Facility**
- **Research & Development**

North West Nuclear Sector Opportunities

Thank You

- **Solutions for Business – funded by Government**
- **New Build Timeline**

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