

Reflections on Dounreay Competition and One Year's Operation of the New Contract

**Presentation to the Waste Management Symposia
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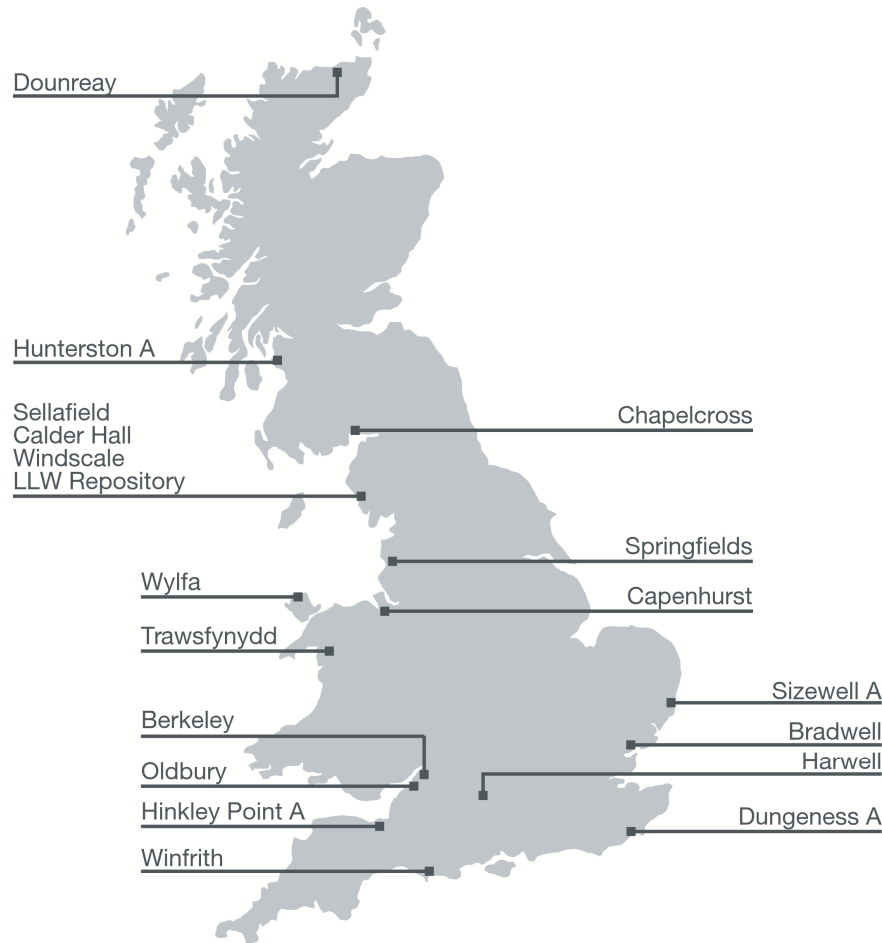
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Reflections on Dounreay Competition and One Year's Operation of the New Contract

- **The Dounreay Site – A brief history**
- **The NDA and the Energy Act**
- **Initial Contract – 2005 to 2012**
- **Competition**
- **The new Dounreay contract – How is it Different?**
- **Transition to Consolidation - observations**

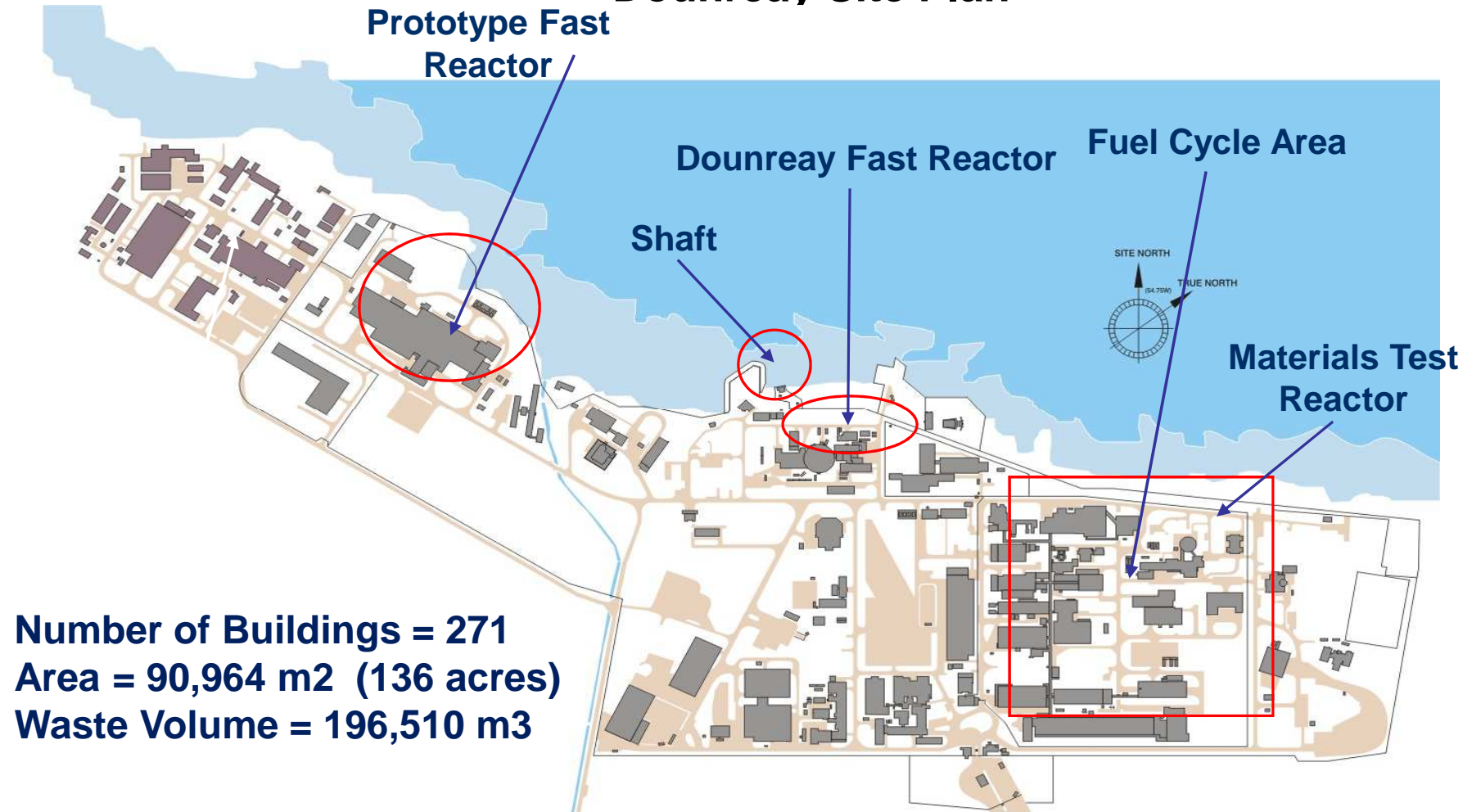
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Civil Nuclear Legacy Sites in the UK



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Dounreay Site Plan



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The Dounreay Site – A brief history

- **Constructed – 1955 to 1959**
- **Dounreay Fast Reactor (DFR) goes critical – 1959**
- **Approval for construction of Prototype Fast Reactor – 1966**
- **Construction complete – 1972, goes critical 1974**
- **DFR closed – 1977**
- **Announcement that Fast Reactor research to cease – 1988**
- **PFR closed – 1994**
- **Dounreay Site Restoration Plan – 2000 (expected cost £3bn and estimated Interim End State: 2095)**
- **Energy Act and announcement on NDA – 2004**
- **Dounreay Site Restoration Ltd (DSRL - the Site Licence Company) created - 2008**

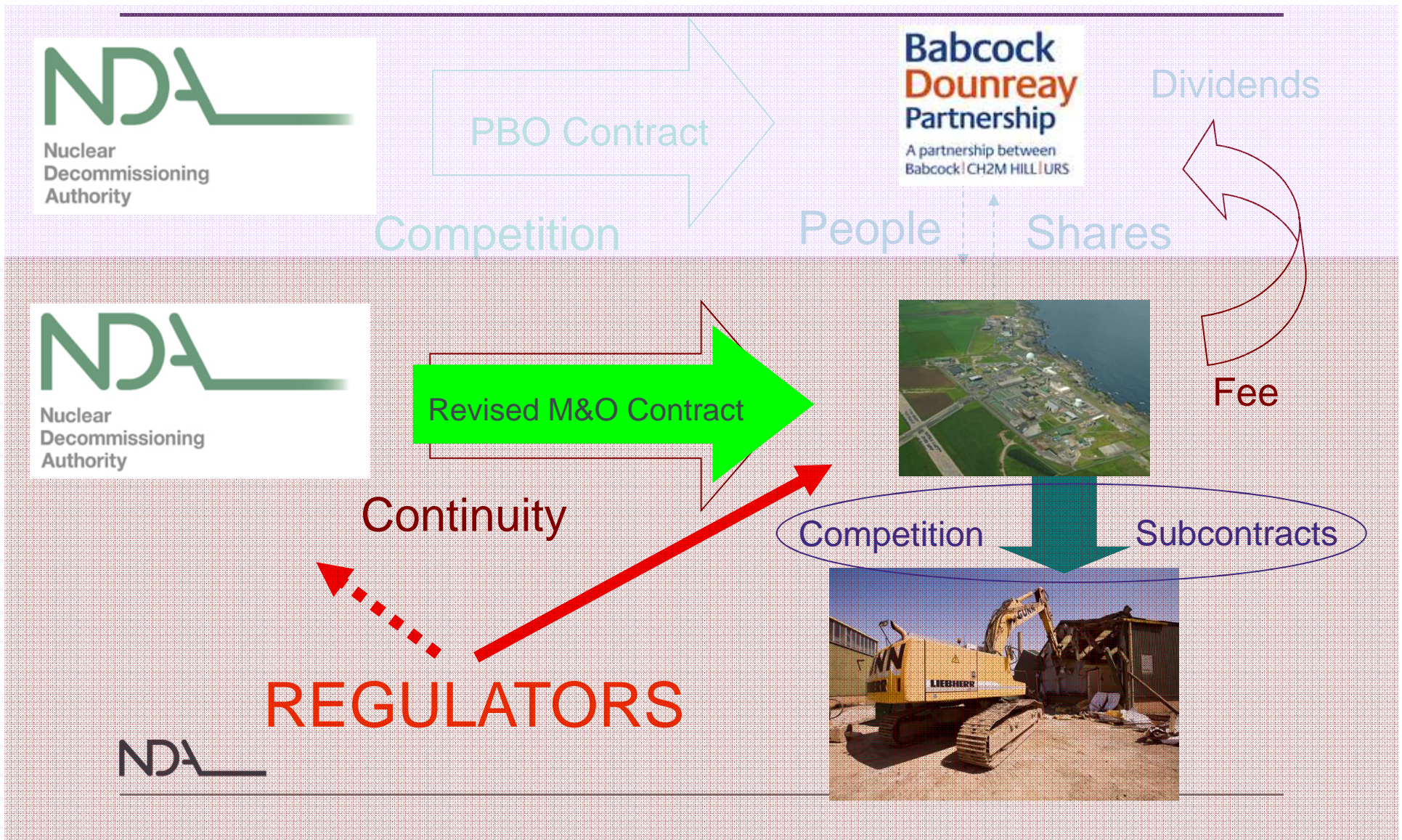
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The NDA and the Energy Act

- Government wanted an independent organisation to manage Decommissioning of legacy civil nuclear sites;
- 2004 Energy Act created the Nuclear Decommissioning Agency (NDA);
- Initial size of NDA – 180 with HQ and 20 site teams;
- NDA responsible for managing the funding provided by Government;
- Initial mission – each site to produce a plan which could be “rolled-up” into a composite estate-wide plan. [Dounreay estimated cost still around £3Bn, IES: 2065)
- Initial contract placed between each site and NDA: 1/4/05.

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NDA Contract Model



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Initial Contract – 2005 to 2012 (1)

- ❖ Bespoke contract influenced by Bechtel and drawn up by English lawyers (Herbert Smith);
- ❖ Cost reimbursible contract with all costs allowed (including remedial work) – unless they can be shown to be disallowable;
- ❖ Therefore small risk to Contractor – reputational. Some fee could be at risk (see Fee Determination on next slide);
- ❖ Contract incentivised with Performance Based Incentives (PBIs) equating to roughly 4% of annual value;
- ❖ In year 3 further incentives relating to savings – to be proven by demonstration of “Management Action”;
- ❖ In year 5 further fee paid for reductions in overheads – again backed-up by demonstration of Management Action;

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Initial Contract – 2005 to 2012 (2)

- ❖ **Few remedies: Fee Determination, which was a subjective judgement on performance or behaviour which could lead to fee being deducted at year-end (“Pink Shirt” clause);**
- ❖ **Intellectual Property clauses unwieldy and somewhat harsh on the Contractor;**
- ❖ **Risk and reward were probably balanced but Contractor’s perception of low return could have worked against NDA if the relationship with the Contractor was damaged;**
- ❖ **Funding agreed before the start of each year. Possible risk from Government policy changes.**

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Competition

- Energy Act requirement that decommissioning activity be competed;
- Regulator (and Government) would be uncomfortable if knowledge and experience were lost in the Site Licence Company (SLC);
- Competition therefore restricted to the ownership of the SLC – the Parent Body;
- The competitive exercise for the ownership of DSRL started in 2008/09 and ended with Contract award on 31 March 2012;
- Two consortia competed. Babcock Dounreay Partnership (BDP) comprising Babcock International, CH2MHill and URS was successful and pronounced Preferred Bidder in November 2011;
- Successful bid provides savings to UK taxpayer of close to £1Bn and brings in completion to IES by over 10 years.

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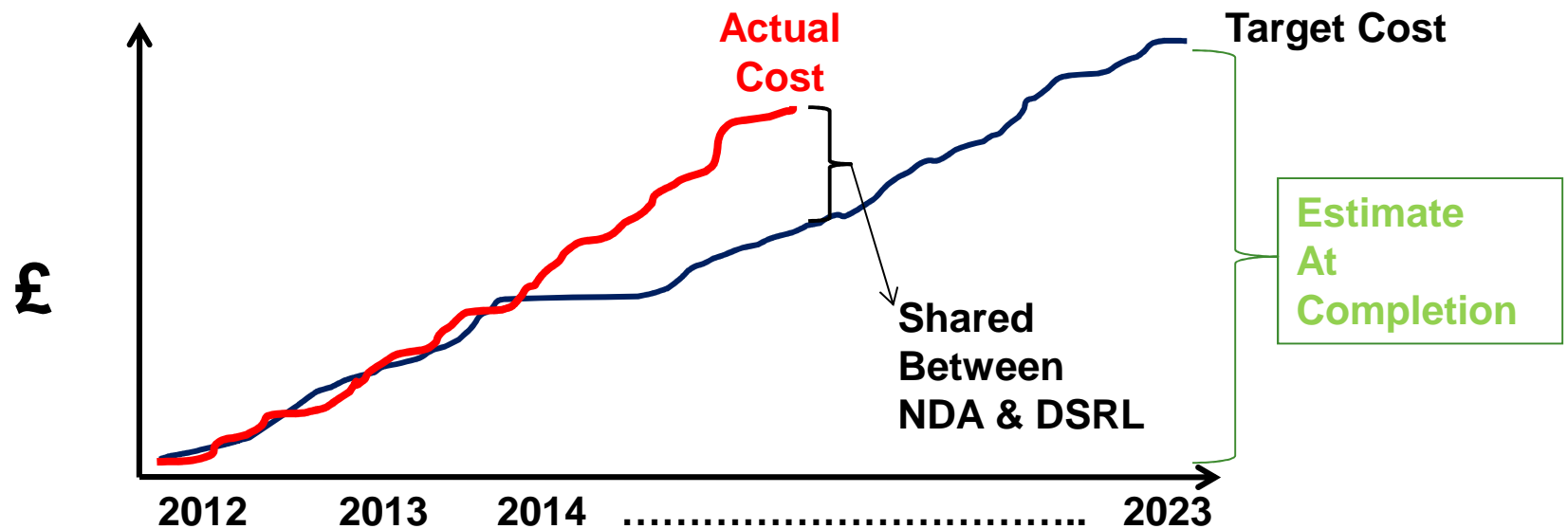
The new Dounreay Contract – How is it Different?

- ❑ Target cost contract (see next slide) with gain and pain shared (shareline). Target cost and fee were bid;
- ❑ Funding, whilst not guaranteed, is “preferred” giving more confidence to the Contractor
- ❑ Contract completes with the sign-off of the Interim End State (IES) – the date for which was bid;
- ❑ Liquidated Damages applied if late delivery of IES;
- ❑ £100M fee over the contract lifetime (currently ~13 years);
- ❑ Major milestones embedded in contract and fee paid when achieved. Delay to achievement does not lead to reduced target fee;
- ❑ PBIs applied for each contract year. Related to behavioural issues;
- ❑ Defective work and remedial work are at Contractor's cost;
- ❑ Rates for people supplied by the parent body included in the bid.

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Gain share/Pain share

- Target cost is bid in the Competition process



- Target cost is adjusted for inflation
- Maximum liability and maximum gain is capped
- Actual Cost & Estimate at Completion regularly checked

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- **Shareline**
 - Percentages agreed during Competition process

Relevant (Cost) Variance	<5%	5% to 15%	>15%
Overspend	-20%	-25%	-12.50%
Under spend	40%	50%	25%

- Negative Shareline for the Contractor is capped at the level of Target Fee achieved to date;
- Shareline is applied as an adjustment to Target Fee – which is calculated each time a milestone is achieved.

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Some Major ("Cardinal") milestones

M41 – Fuels Characterised for future management or otherwise removed from the site

M29 – POCO of D2700 (Dounreay Cementation Plant)

M03 – Drain and decontaminate DFR pond ready for demolition in accordance with the strategy to remove hazards

M05 – Demonstration that the liquid metal hazard from DFR materials has been eliminated

M10 – Completion of delivery of all "in-reactor" DFR Breeder fuel to Sellafield



M66 – Particles remediated to agreed end point

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Transition through Consolidation – how did it go?

Transition period: mid-December 2011 to 31 March 2012

Mission: NDA and BDP to prepare the way for signing of the Contract by 31/03/12 prior to Commencement Date of 1/04/12

Cost of failure: dependent on fault - payment to other party of £5M. Re-run of Competition or appointment of other bidder.

What was required?

- i. Due diligence by BDP, assessing and discussing any...
- ii. “Material Differences” between bid information and current status with the NDA;
- iii. BDP to set up financial structures and confirm financial soundness to NDA satisfaction;

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Transition through Consolidation – how did it go? (continued)

- iv. BDP to confirm their people and satisfy NDA and regulator that they are fit for purpose (SQEP – Suitably Qualified and Experienced Person);
- v. NDA to obtain Government approval to proceed together with acceptance of Nuclear Indemnity;
- vi. NDA to complete Competition process including final changes to the contract;
- vii. NDA to manage choreography of signage events
- viii. Parties to agree the Performance Based Incentives for year 1.

All this to be done under the shadow of a very disappointed bidder who was watching progress on transition very carefully

Note especially that the work had to be completed in the ~4 months period **prior to** the Dounreay contract actually being awarded.

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Transition through Consolidation – how did it go? (continued)

Transition was successfully completed by 23 March 2012.

Success was due to:

- Treating Transition as a Project and dividing the work into manageable workstreams. Each workstream manager reporting each week on progress and problem areas;
- Whilst each Workstream manager was an NDA employee, each team included at least one BDP representative;
- Keeping NDA and BDP senior management apprised of progress thus ensuring a high profile in both organisations;
- A lot of hard work!

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Transition through Consolidation – how did it go? (continued)

Consolidation Period: 01/04/12 to 31/12/12

Mission: To create a new plan for DSRL which would take the site to Interim End State, including the solutions proposed in the bid and any changes that had occurred since the bid was prepared.

Monetary Value: £2M fee awarded on successful completion.

What was required?

- Creation of a compliant DSRL plan that incorporated all changes since the bid was prepared plus the planned solutions included in the bid. The bid was based on the information up to May 2011). It includes 75 projects and 6,205 activities covering the contract period (04/12 to 01/25). There are 800 DSRL staff on site with over 1,000 contract staff;
- The DSRL organisational structure had to be completed showing changes post commencement date that required NDA and regulatory approval.

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Transition through Consolidation – how did it go? (continued)

Consolidation was completed some 14 days early. Success was due to:

- a) Early recognition that DSRL's success was NDA's success;
- b) Close collaboration and guidance from NDA as to what was expected in Change Controls;
- c) Weekly progress meetings where progress was reported openly and honestly ensuring that resources were directed quickly at problem areas;
- d) DSRL created small teams that were responsible for specific aspects of the plan;
- e) Again, a lot of hard work!

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Overall:

1. The Competition for the ownership of DSRL has been a success;
2. Even with the changes agreed during Consolidation the UK taxpayer can expect to pay much less for decommissioning Dounreay than was estimated in 2000, 2005 and 2010;
3. Dounreay will reach Interim End State much quicker;
4. The past 14 months since the Preferred Bidder announcement have been hectic but the Client/Contractor relationship has held;
5. Now that Consolidation has been completed, DSRL will be able to concentrate 100% on performance going forward. The end of March 2014 will provide a better perspective on progress.

Perhaps a review at WM-2014?