

# Using opportunities to cancel out risks: When delays can be rescued by opportunities

**Strategic Delivery Assurance (SDA) quickly identified risks - and opportunities - to bring a nuclear power station programme back on track**

## BACKGROUND

Hinkley C is one of the UK's new generation of nuclear power stations. As part of the nation's strategy to transition to a greener future, the power station is also required to ensure continuity throughout the period of decommissioning of the first-generation UK nuclear power stations. The programme consists of multiple inter-related projects most of which are very large and complex in their own right.

Advance Consulting collaborated with De-RISK on two major projects in the programme which were giving particular concern:

1. The "heads" for the water inlet/outlet pipes that provide water to cool the main reactor. These structures consisted (primarily) of very complex re-enforced concrete, and presented one of the most challenging construction problems ever attempted as they required rebar tolerances and densities that had never before been attempted in the construction industry.
2. The power infrastructure to take the generated electricity through both overhead and underground cables to link to the national grid had to be built across the Somerset Levels. This is an area that had already been subjected to devastating floods, and key parts of the programme were scheduled over the winter months.

Knowing that these two critical projects within the programme could de-rail the wider programme, Advance Consulting brought in De-RISK for a rigorous review of the risks and opportunities.

*"When we started the analysis, it was quickly evident that the Hinkley C programme was so large and complex that the individual projects had almost become 'programmes' in isolation - at the expense of the big picture. This meant that some of the interdependencies and constraints were being overlooked and in some cases, opportunities to do things quicker were not being considered."*

**Keith Baxter, Managing Director, De-RISK**

## PROJECT HIGHLIGHTS

- The Hinkley C Nuclear Power station faced a 2-year delay to one major project in the construction programme
- Another major project in the same programme was unaware of opportunities to bring forward milestones by up to 1 year
- **Strategic Delivery Assurance** methodology showed a rigorous roadmap to get the programme back on schedule
- Future engagements for strategic partner Advance Consultancy pinpointed as a result.

**A QUICK, ACTIONABLE RESPONSE**

De-Risk's Strategic Delivery Assurance methodology brought predictability and assurance to these two critical projects, identifying both delays and opportunities to recover the timescales and bring the projects on track. It also revealed the potential for additional engagements for Advance Consulting, as they detailed the actions required to help mitigate the risks identified and take the opportunities.

1. For the heads project, De-RISK quickly established via SDA Stage A that the initial "load-out" milestone was likely to be missed by approximately 1.5 to 2 years. More worryingly, the analysis showed a 0% chance of meeting the dates, meaning even if all risks were managed, they would only recover approximately 5 months of the delay.
2. On the power project however, the SDA showed that the schedule contained

several opportunities to bring specific activities forward. Using Monte Carlo Analysis, there was a potential opportunity to bring the implementation go-live dates forward by up-to 1 year and in particular, to move key parts of the construction outside of the winter months.

The prediction that the current programme was not achievable as structured, along with specific areas of mitigation, positioned Advance Consulting to propose a strategic review of the overall programme to ensure that cross-dependencies were fully understood and exploit where appropriate, showing the impact of individual projects were effectively working in isolation.

Drawing on Stage B of the SDA methodology, which captures non-timescale strategic assumptions, Advance were able to facilitate a full joint Risk Review Board which led to the

establishment of the improved associated governance processes needed to agree specific actions and monitor progress in regular follow up Risk Review Boards.

**THE VALUE TO ADVANCE CONSULTING AND BALFOUR BEATTY**

Our initial analysis showed the probability of achieving the desired milestones; the predicted delays, along with the risks – 'risky assumptions' – that would need to be managed in order to get back to plan. The 0% chance of success meant that the programme required restructuring in order to be deliverable. As one project was predicting significant delays, whilst the other project was showing opportunities to compress timescales, it led BB senior management to consider that the structure and priorities of the overall programme may need to be revisited. Advance Consulting were perfectly positioned to assist with this work.

**Cut through complexity: How Strategic Delivery Assurance brings predictability and assurance to your clients' programmes**

