

Procuring Major Infrastructure Projects: Experiences from the UK's Nuclear New Build Projects

King's College Construction Law Association (KCCLA)

25 May 2023





Agenda

- 1. Introductions
- 2. Hinkley Point C and Sizewell C an introduction (Joe Bailey)
- 3. Financing and ESG (Lynne Kellett)
- 4. Supply Chain Contracting and Lessons Learned (Jo Ryan-Smith)





Lynne Kellett, Head of Legal (Corporate & Regulatory) – SZC Legal

Lynne is a corporate and commercial lawyer with extensive in-house experience within energy, transportation and infrastructure. Lynne has worked across HPC and SZC for the last 4 years, more latterly supporting Sizewell C, including taking the project through Government Investment.



Joe Bailey (Trainee Solicitor (Construction))

Joe has worked on the HPC and SZC Projects since October 2019, first as a paralegal and then as trainee solicitor. Joe has worked across all aspects of the projects, though currently focuses on the Engineering, Commissioning and Operations programmes on the Hinkley Point C Project.



Jo Ryan-Smith (NNB Legal Counsel (Construction))

Jo has worked on the HPC and SZC Projects as a noncontentious construction lawyer for over a decade. Jo has worked across all the main programme areas of the projects in her time and is currently the legal lead for the Civil Works Programme on the Sizewell C Project.



Hinkley Point C and Sizewell C – an introduction

Joe Bailey, Trainee – Nuclear New Build Legal (HPC)





HPC and SZC – an Introduction





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The European Pressure Water Reactor (EPR)



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Over its life, the electricity produced by Hinkley Point C will generate less CO₂ than wind or solar power



Hinkley Point C's contribution to the **UK's electricity needs**



The number of homes' electricity supplied by Hinkley Point C



Tonnes of CO₂ avoided each year, compared to producing electricity with a gas power plant



Projected availability of the plant, including planned maintenance periods



The proportion of the recycled steel used in the pow station's reinforcement





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Training

30,000 training places available between now and Hinkley Point C's completion



30,000

training

places

Apprentices 1,131 apprentices have been trained at Hinkley Point C so far

Original target: 1,000



Job opportunities

19,250 jobs created directly on site so far Target: 25,000



Skills investment

£24 million invested directly into Education, Skills and Employment

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Sizewell C

Our Vision: The Power of Good for Britain

Sizewell C Mission: Develop and build a twin-EPR power station that will operate for at least 60 years. The build will be on time, on budget, safe, sustainable and to quality.

SIZEWELL C IS A PROPOSED NEW NUCLEAR POWER STATION THAT WILL BE BUILT ON THE SUFFOLK COAST



SIZEWELL C WILL PROVIDE LOCAL JOBS, TRAINING AND EDUCATION BENEFITS





*compared to a gas-fired power station

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Replication

SZC is a replication of the execution and design of Hinkley Point C.

Benefits include:

- reduced costs of construction
- improved safety case
- greater efficiencies across the supply chain
- reduced risk







Financing and ESG

Lynne Kellett, Head of Legal (Corporate & Regulatory) – SZC Legal







Use of RAB bounds construction risk for investors

SZC will undertake its own financing and delivery of SZC, recovering costs through customers' bills

Capital expenditure forms a 'Regulated Asset Base' on which WACC is earned

WACC set through a competitive process for an initial period to at least the end of construction and then determined by Ofgem in 5 yearly reviews, taking into account their economic guidance



The RAB Model provides significant benefits

Credit strength of revenues is effectively that of the UK consumer

Construction cost risk above a Base Case is shared between investors and customers; a Financing Cap sets a limit for the amount of cost overrun that must be financed by investors

Return on invested capital provides revenue during construction, enabling it to pay interest on debt and a yield on equity

Government Support Package for remote but high impact risks

RAB funding model & economic regulation

The purpose of the RAB funding model is to allow for a fair sharing of costs and risks between consumers and investors

Key Structural Features

- **Regulated Asset Base (RAB)** is the value of capital investment in the project or company adjusted for the remaining useful life of the investment
- Economic regulator (e.g. Ofgem) oversees the regulated company and its costs and revenues
- Allowed revenue: Post construction the regulator periodically (e.g. every 5 years) sets an allowed revenue level
- Allowed revenues are set to: recover all costs (construction and operation) plus a return on the RAB (a return on investment)

Benefits for financing

- Risk-sharing: Certain risks (e.g. construction cost) shared with customers low volatility / predictable returns
- Revenue in construction are typically applied
- Flexible revenues reflecting outturn costs / changing costs







Government Support Package ("GSP")

The GSP provides protection for investors and consumers against specific remote, low profitability but high impact risk events

Potential features of the SZC GSP (similar to that provided to Thames Tideway Tunnel)

Feature	Principle
Contingent Financing Agreement	• A facility that provides financing to the project for costs overruns resulting from remote probability events
Liquidity facility	 Provision of debt in certain circumstances when disruption to the debt capital markets impacts SZC's ability to raise debt financing
Supplemental Compensation Agreement	HMG to provide insurance cover in respect of certain liabilities which cannot be provided by commercial providers
Special Administration Regime	 In the unlikely event of insolvency scenarios, provision for additional support to support continuity of operation as a going concern
Discontinuation Agreement	• Should the project become subject to unexpected political events (incl. political shutdown); or if HMG exercises an option to discontinue under the GSP there will be payment of compensation to investors
Sizewell C	

The power of good for Britain

Corporate structure, governance & financing

Indicative corporate structure & governance

Shareholders eDF 203 Equity GSP HM Government investors **Contingent Financing** 170MA Agreement The power of good for Britain Market Disruption Financing Agreement HoldCo ECA debt to be explored Bank debt & liquidity Discontinuation facilities Agreement Bonds / Private placement Hedging **Supplemental** Compensation Agreement FDP GenCo creditors Energy Administration and Statutory Transfer Agreement Licence ringfence

Funded Decommissioning Programme ("FDP")

- By law, the project will be under an obligation to establish the FDP before construction of the nuclear power station
- The mechanics of the FDP are currently under discussion



ESG and Finance

Access to green finance will enable the capital raise process, and so strong ESG performance alongside classification of nuclear as a sustainable investment (as seen in the EU Taxonomy) is important to achieving financial close.

The long term environmental benefits of nuclear power are clear, and replacing the ageing nuclear fleet is critical for the UK to achieve its Net Zero target by 2050.

SZC must also demonstrate strong ESG performance to potential investors who incorporate these factors into the investment decision-making process. This includes ensuring the project:



Makes ambitious ESG commitments and establishes key performance indicators to monitor and report progress publicly.



Works with the supply chain to drive the delivery of ESG commitments, harnessing the benefits of new nuclear to create jobs, invest in communities and encourage sustainable construction practices.



Implements strong ESG governance to robustly manage ESG-related risks and report transparently to internationally approved standards.



Image: Wild Aldhurst heathland and wetland habitat

Delivering strong ESG performance will support SZC to realise its vision of doing the Power of Good for Britain while meeting the expectations of the green and responsible investors

Supply Chain Contracts and Lessons Learned

Jo Ryan-Smith, Legal Counsel (Construction) – Nuclear New Build Legal (SZC)





Contracting Strategy – HPC/SZC

Civil Works Programme	responsible for the provision of all civil construction works, site establishment, along with overall site operation and logistics.	
Nuclear Island Program me	responsible for the provision of the systems required for the operation of the reactor	
Conventional Island / Balance of Plant Programme	responsible for the provision of the conventional island (effectively all systems contained within the Turbine Hall) and the Balance of Plant including the heat sink / main cooling water system.	
Sizewell C The power of good for Britain		

5. Regulatory

Arrangements

6. Insurance Strategy

4. Waste and

Decommissioning

8. Environment Social &

Governance

9. Glossary

10. Appendices

7. Financing

NI/CI BOP Programmes – HPC/SZC

- Vast majority are FIDIC-based fixed price equipment contracts c. 150 contracts
- Contracts and suppliers from HPC are being replicated for SZC
- **Importance of replication** prevention of "ripple effect" changes, no re-qualification, knowledge transfer / cost savings

Key challenges for SZC:

- o Replication
- o Investability requirements
- Obsolescence
- o Capacity
- Logistics





Civil Works Programme Delivery - HPC

Multiple contracts for:

- Associated developments
- o Site operations and logistics
- o Enabling works

Big 3:

- o Earthworks Kier Bam
- Main Civil Works JV between Bouygues and Laing O'Rourke (BYLOR)
- o Marine and Tunnelling Balfour Beatty







Main Civil Works Contract - HPC

Challenges:

- One of the largest and most complex contracts on the HPC project.
- o NEC ECC Option C Contract cost reimbursable, target cost and pain/gain share
- Challenges early performance was hampered by late handover of platforms by the earthworks contractor / late release of design information by the employer's designer
- o Both sides spending significant time managing compensation events
- o Misalignment of interests

Revised Model:

- o Setting of work on an annual basis
- o Cost reimbursable with bonuses
- o Low liability structure major defects, H&S breaches



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Civil Works Programme Delivery – SZC

Alliance Contract:

o Australian Model Form of Alliance Agreement - multi-party agreement

<u>Scope</u>

- o Earthworks, Main Civils Works and Marine & Tunnelling all being brought together under one contract
- Site Ops & Logistics, enabling works and associated developments stays with SZC

Counterparties:

- o Bouygues, Laing O'Rourke and Balfour Beatty
- o Collective responsibility (majority of scope)
- o Collaboration integrated delivery team with SZC unanimous decision making / best for p





Civil Works Programme Delivery - SZC

Alliance Contract - Commercial Model:

- o Cost Reimbursable
- o Low liability regime
- Profit all at risk on performance
- Schedule
- Cost
- KPIs
- o Limited adjustment events
- o Alliance Charter











