

TO: Project designation team, NESO

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Dear NESO,

Supporting evidence for project designation at Cottam

Purpose of this letter

We are seeking designation for our 'Cottam SMR' project under NESO's long-lead project designation criteria¹. Our understanding is that this provides a route for projects with long-lead times to secure a place in the reformed connections queue, subject to making a formal application in an application window and compliance with 'readiness' aspects of the process.

We are working with Holtec International to bring its 'SMR-300' technology to the UK. Holtec is currently developing the first units at the Palisades nuclear site in Michigan, USA, targeting commercial operation in the early 2030s. Our planned Cottam SMR project will directly benefit from a mature, de-risked design, tested and deployed in a comparable country and aims to be a direct replication (notwithstanding the 50Hz conversion required for the UK). It will also bring substantial UK benefits through inward investment in domestic manufacturing and nuclear supply chains, jobs, apprenticeships and broader socio-economic development.

Securing a confirmed grid connection is a critical enabler of commercial and regulatory discussions with offtakers, Government, and regulatory bodies. We are targeting a commercial operation date (COD) of around 2036/37, with our development, financing, and regulatory milestones anchored to this objective. We also specifically note that the detailed physical connection arrangements on-site represent a core part of the nuclear safety case to be presented to the ONR, hence the need for this activity early on in our project plan.

We are confident our project meets NESO's long-lead designation intention and requirements.

Contents of this letter

We have made a formal application to NESO using the required online form. This letter contains supporting evidence in line with the requirements specified in the application form.

The annexes to this letter contain:

- Annex 1 – Programme plan.
- Annex 2 – Supporting information for project timelines.
- Annex 3 – Forecast cost and benefits to consumers and the wider UK economy.
- Annex 4 – Additional technical information

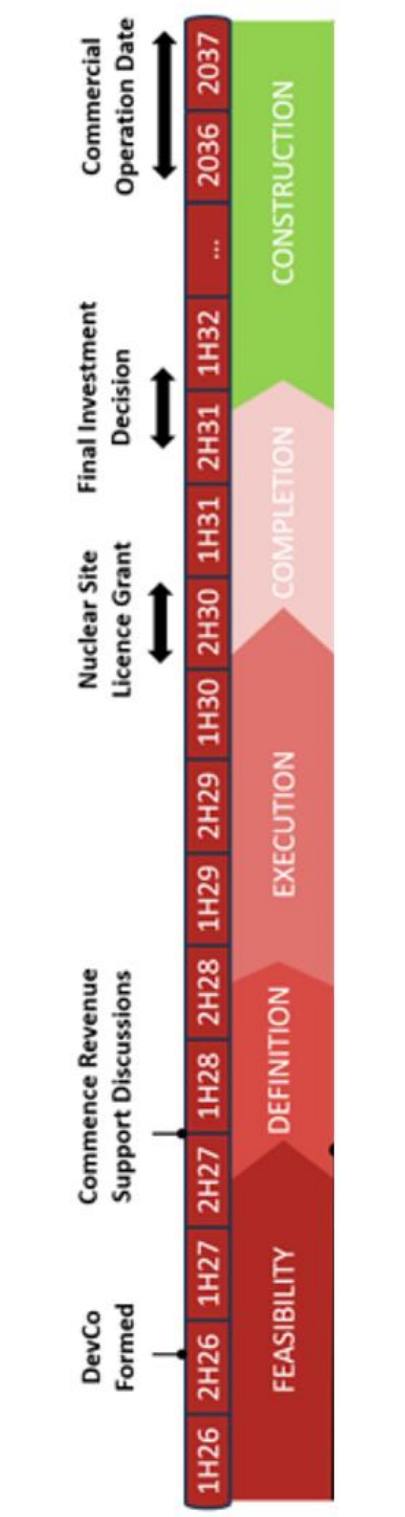
We are available at any point for a discussion on our application. Please contact me and ██████████.

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[Name and signature redacted]

¹ [Project designation | National Energy System Operator](#)

Annex 1 - Indicative Programme Plan



Annex 2 – Supporting evidence for project timelines

This section provides:

1. Contextual information for the end-to-end programme plan.
2. Explanation of how the project plan reflects industry best practice for the development timelines that are publicly available for this technology.

1. Additional contextual information

We have provided a provisional, high-level programme plan as a supporting attachment to this document (Annex 1).

Points to note:

- The supporting plan is indicative at this stage and will be subject to revision as the project progresses. Our activity plan for 2026/2027 includes a focus on funding for creation of a well underpinned integrated schedule for the Cottam project.
- Timelines related to planning are based on the NPPF and supporting policy statements (including the new EN-7 for nuclear energy generation) as of February 2026.
- DESNZ have recently announced a new Advanced Nuclear Framework² process which allows for projects to be accredited to their ‘pipeline’ and to receive an ‘in principle Government endorsement’, facilitating discussion on funding and revenue support. The Cottam SMR Project is currently preparing a submission to the Advanced Nuclear Framework and hopes to benefit from the support mechanisms.

Description of the programme plan in Annex 1

Feasibility stage

- The feasibility stage seeks to further develop the project beyond the initial work undertaken by EDF and Holtec in 2025. Site works such as geotechnical surveys and flood modelling will be completed during this phase to support the site specific commercial estimates and layout.
- The expectation is that this stage ends once the scope is defined (including activities to resolve technical challenges identified by the ONR during the GDA Step 2 assessment), and secured sufficient funding for, the DevEx phases to enable successful progression through the remaining phases to completion.
- Completion of this stage is expected to involve developing an initial level of clarity on the funding and financing approach for the CapEx phase, supported by engagement with government to build confidence in the overall investment case. This engagement will continue through subsequent phases leading to Final Investment Decision.

Definition stage

- This stage is focused on the transition from an Initial Design, based on a First Of A Kind (FOAK) US SMR-300 design, to a Concept Design for UK deployment.
- Preliminary site characterisation is undertaken during the Feasibility phase as a derisking activity, with detailed, nuclear safety-grade characterisation carried out during the Definition phase to inform the design and licensing submissions.
- EDF, Holtec, and external partners will progressively develop and refine the existing plan for design, engineering, and supply chain activities, increasing the level of detail and updating key assumptions on cost and resourcing as the programme matures.
- Key submissions required for the Development Consent Order (DCO) stage 2 consultation will be developed.

² [Advanced nuclear framework - GOV.UK](https://www.gov.uk/government/news/advanced-nuclear-framework)

- Finalising all the input assumptions to have a more comprehensively defined scheme will allow the project to submit detailed licensing and planning submissions in the next stage.

Execution stage

- During this stage, the SMR-300 design will be revised and matured from concept to preliminary design, with non-impacted plant systems repurposed from the US SMR-300 Design.
- Any modifications required to address technical challenges identified by the ONR during the GDA Step 2 assessment will be deployed within the preliminary design.
- Key activities will include collating the substantial evidence base for nuclear site licensing and finalising the DCO submission, in preparation for entry into the Planning Inspectorate process.
- Engagement with construction and delivery partners will be further progressed to support future phases beyond the preliminary design stage.

Completion stage

- We expect this to be a key phase in which the final determinations for all the permits and licences start to reach conclusion. This will include regular, detailed engagement with regulators and planning bodies to resolve any final issues.
- Detailed designs for the specific site implementation of the Holtec SMR-300 units will be finalised through support from delivery partners.
- The completion of planning and licensing will mark a significant change in the project risk profile to enable the project to achieve a Final Investment Decision.
- Once full financing is secured, the project will prepare to move into construction, including any key enabling works in or around the site.

Construction stage

- There is a set schedule of [REDACTED] months from point of Final Investment Decision to commercial operation.
- [REDACTED]
- [REDACTED]
- The UK adaptations include considerations for lessons learnt from UK historical projects (e.g. Hinkley Point C, HS2 and others) to address topics such as requirements for UK regulatory compliance, health and safety considerations, permitting and consenting.

2. Alignment with industry best practice

SMR-300 background

The SMR-300 has been designed to make extensive use of modular structures, standardised components, and indoor manufacturing processes in order to reduce the total construction period and overall delivery risks.

We will work with the Office for Nuclear Regulation (ONR) to minimise the number of UK-specific changes and maximise the benefits of replication and we are aiming for this to be limited to the 50Hz conversion. This is also reinforced by the Nuclear Regulatory Review 2025 led by John Fingleton, of which Government is supportive, with the Prime Minister already issuing a “strategic steer”, and DESNZ developing a plan for implementing recommendations.

[REDACTED]

Applied to deployment at Cottam

The project plan provided alongside this application represents our current view of the programme, and is subject to further refinement. Alongside EDF's own recent experience of planning and executing Hinkley Point C and Sizewell C, we will continue to work with Holtec and other expert advisors to develop the programme of work. We will also be working with Holtec, Government, and regulatory bodies to seek opportunities to streamline aspects of the programme over time. Nonetheless, this is still a complex engineering effort with a long development and construction period in comparison to other technologies.

The UK will benefit from 'next of a kind' delivery knowledge from the Palisades project, which enables us to internalise real world experience and de-risk UK delivery. EDF's experience at Hinkley Point C shows that increased modularisation and indoor working substantially increases pace and quality, and Sizewell C will be a beneficiary of this learning for the EPR design.

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Cottam SMR ██████████ is a key component of the East Midlands Combined Authority's [growth plan](#). Combined with its location on a former coal station site, ██████████. Early assessments against EN-7 criteria indicate that there are no major blockers to the site licensing process under this new policy.

Annex 3 – Forecast costs and benefits to GB consumers and wider economy

Costs

Capital and operational costs

We have been working with Holtec and partners to develop robust cost estimates for our own purpose, and they are commercially sensitive.

The principle of SMRs is that as more units are developed the average cost per unit is expected to fall. This is driven by the relatively high proportion of factory build and the fundamental replication proposition. This is not unique to SMRs – our own experience at HPC has shown the benefits of replication and more modular construction with Unit 2 being delivered 20-30% faster than Unit 1. In line with Annex 2, our core plan is for Cottam to be the direct beneficiary of lessons learnt at Holtec's Palisades project. Additionally, the Cottam SMR development will benefit from EDF experience of nuclear development and lessons learned from both Hinkley Point C and Sizewell C.

Given it is too early to confirm capital and operational costs, for the purposes of the cost-benefit analysis (see below) we have assumed energy costs broadly in line with Hinkley Point C and internal estimates.

Funding approach

The feasibility study undertaken by EDF and Holtec to support the Cottam SMR project considered different approaches to funding and revenue support. We have a good understanding of the costs associated with the development phase, and this has been independently assured by [REDACTED]. A funding strategy is being developed currently with our advisors.

The 'Advanced Nuclear Framework', outlines a package of potential regulatory, programme, and financial support for new nuclear projects and Government has signalled the availability of a variety of support mechanisms, targeting key financial risks for new nuclear development.

We also expect that securing a bankable Gate 2 connection agreement will form a critical part of being able to secure offtakers and consequently allow us to take FID in 2031 in line with the project plan.

The intention is to set up a formal Special Purpose Vehicle (SPV), with Holtec and EDF as joint Shareholders in the Autumn, following agreement of terms including the structure of the SPV and the early investment commitments.

EDF is also developing a data centre project on the same Cottam site, which presents an opportunity for large local baseload offtake. This mirrors the approach being taken by hyperscale data centre developers around the globe who value reliable, low carbon power. Government is clear that increasing Data Centre capacity to its 2030 and beyond targets is a critical national priority, and we believe that coupling this capacity with baseload, low carbon generation is a clear mutually beneficial arrangement for Britain. Any offtake is subject to commercial discussions with Cottam data centre operators.

Benefits

System benefit from additional nuclear

Our modelling indicates that an incremental 1.4GW of nuclear capacity could deliver net electricity system benefits of approximately £0.5–1 billion per year by 2050, resulting in lower power costs for consumers, compared with alternative net zero-aligned pathways that include no new nuclear beyond Sizewell C. Over the project lifetime, this translates into total system benefits in the £10bns. These findings are initial estimates resulting from a set of modelling assumptions, including an indicative nuclear cost range informed by our internal assessment of the Holtec technology and benchmarks from other nuclear projects in Great Britain. These system benefits assume the project is a standalone grid connected project.

Network benefit

We have not yet had any specific conversations with NGET or NESO on the transmission network needs as this would form part of the grid connection application. Our view is primarily informed by a desktop review of available information.

We expect that siting generation at Cottam has substantial overall network benefits compared to development at other sites. Cottam is located between system boundaries B8 and B9, meaning it is south of all major transmission boundary constraints and well-placed to serve GB's southern-weighted demand profile. The site is also at a strong part of the national transmission system. The Cottam substation itself has eight 400kV circuit connections, making it one of the most well-connected and resilient locations on the transmission system.

We also note the extensive upgrade and reinforcement works underway by NGET in the area (see [NGET ET3 business plan](#)), which will provide even more transmission capacity in and around the East Midlands region to 2035. Our view is that this area of the East Midlands is highly unlikely to become a constrained area of the system, and therefore a strong candidate for baseload low carbon generation.

With regards to export capacity from the site itself, the former Cottam coal-fired power station had a generating capacity of 2GW before it closed in 2019. Subject to detailed assessment by NGET through the connections process, we do not expect that any substantial, attributable wider network reinforcement will be required as the Cottam SMR project has a lower planned capacity than previous generation on site. Other local generation developments in the coming years are likely to be predominantly intermittent solar, with lower utilisation factors of the local grid.

On the Cottam site itself we are separately progressing up to 1GW of data centre demand which is expected to connect in advance of the SMR, targeting two 500MW phases from the early 2030s. This would be a high load factor demand, meaning the net export from the site could be substantially lower than the headline SMR generation capacity.

Local and GB economy benefits

The Cottam SMR Project is poised to generate substantial socio-economic value, primarily by driving significant regional regeneration and bolstering the UK's strategic energy ambitions. It can directly address lack of opportunity in the 50-mile Cottam catchment through the creation of jobs, skills development, and supply chain inclusion. It was found that 16 constituencies in the wider catchment face significant socio-economic challenges and are particularly deprived (IMD < 100) in areas relating to income, employment, education and health.

The project may indicatively deliver ■■■ FTE employment opportunities, ■■■ permanent high-quality jobs, ■■■ apprenticeships, and a recurring ■■■ workforce for refuelling and maintenance cycles in the local and regional catchment area.

With regards to broader UK economic investment, indicative figures suggest ■■■ in Engineering, Procurement and Construction (EPC) spend and ■■■ in total contract value could flow to UK suppliers. Crucially, half of this total spend is expected to benefit Small and Medium-sized Enterprises (SMEs), start-ups, and Voluntary, Community, and Social Enterprises (VCSEs) across the UK.

We also note the UK domestic benefit to a continued rollout of new nuclear projects, building on the investment and nuclear skills base revival led by Hinkley Point C. Expanding the domestic nuclear supply chain represents an opportunity to secure high-value jobs and potential export benefits.

Annex 4 - Additional technical information

Project size

The indicative TEC sought in the designation application form is 1600MW. This is subject to further technical development of the proposed SMR, and discussions with NGET about the connection arrangements on site. We will refine this TEC as we approach making a full connection application. We expect the final number will be a function of the technical and economic arrangement at the site. At this stage, we have included some additional headroom in the estimate to ensure that this represents a 'maximum' export figure for NESO's assessment.

A single Holtec SMR-300 unit is expected to produce 320-340MW net, and are procured in 'twinpacks' of approximately 640-680MW. The Cottam SMR project is planning two twinpacks, giving an output range of 1280-1360MW. The final output figures will be evolved as the design is matured, turbines are selected, and unit demand load fully refined.