HINKLEY POINT C

Présentation du projet - SFEN

Mairie de Versailles - 20 mai 2026

Hervé Barthel / Sylvain Dross

Hinkley Point C

2 X 1.6 GW EPR

- Construction began in Sept 2016
- Target for commissioning June 2027
- Adapted for UK regulations – a “UK EPR”

Hinkley Point C will be Units 5 & 6 of the EPR Series worldwide

- Twin 1650 MWe EPR.
- HPC will be the 5th and 6th reactors in the EPR series:
  - **#1** Olkiluoto 3 (Finland)
  - **#2** Flamanville 3 (France)
  - **# 3 & 4** Taishan 1 & 2 (China)
  - **# 5 & 6** Hinkley Point C (United Kingdom)
  - **# 7 & 8** Sizewell C (United Kingdom)
- Fully funded by shareholders and construction risk is held by the owners.
- Fully backed by the UK Government CfD (contract for difference) at £89.50 MWh for 35 years.

Around a decade in development, around a decade in construction and at least 6 decades of operation, followed by around a decade of decommissioning …

… in total spanning close to a century

The UK EPR™

Hinkley Point C

Type	4-Loop PWR
Thermal Power	4500 MW
Electrical Power	1650 MW (37% efficiency)
Fuel	Uranium oxide (up to 5% enrichment)
Operating temperature	297°C Tcold 312°C Tav 327°C Thot
Operating pressure	155 bar (primary) 78 bar (SG)
Coolant pumps	4x 10kV, 8.7MW, 28,500m³/hr
Service life	60 years (+ extensions)

HPC Project organization

HinkleyPointC
EDF CGN

HinkleyPointC
EDF CGN

Civil works	Mechanical, Electrical and HVAC	Nuclear steam supply	Turbine supply

bylor

MEH ALLIANCE
Building a Powerful Future

framatome

arabelle solutions
EDF GROUP

BOUYGUES CONSTRUCTION

LAING O'ROURKE

ALTRAD

ALTRAD BABCOCK

cavendish nuclear

NG Bailey

Balfour Beatty

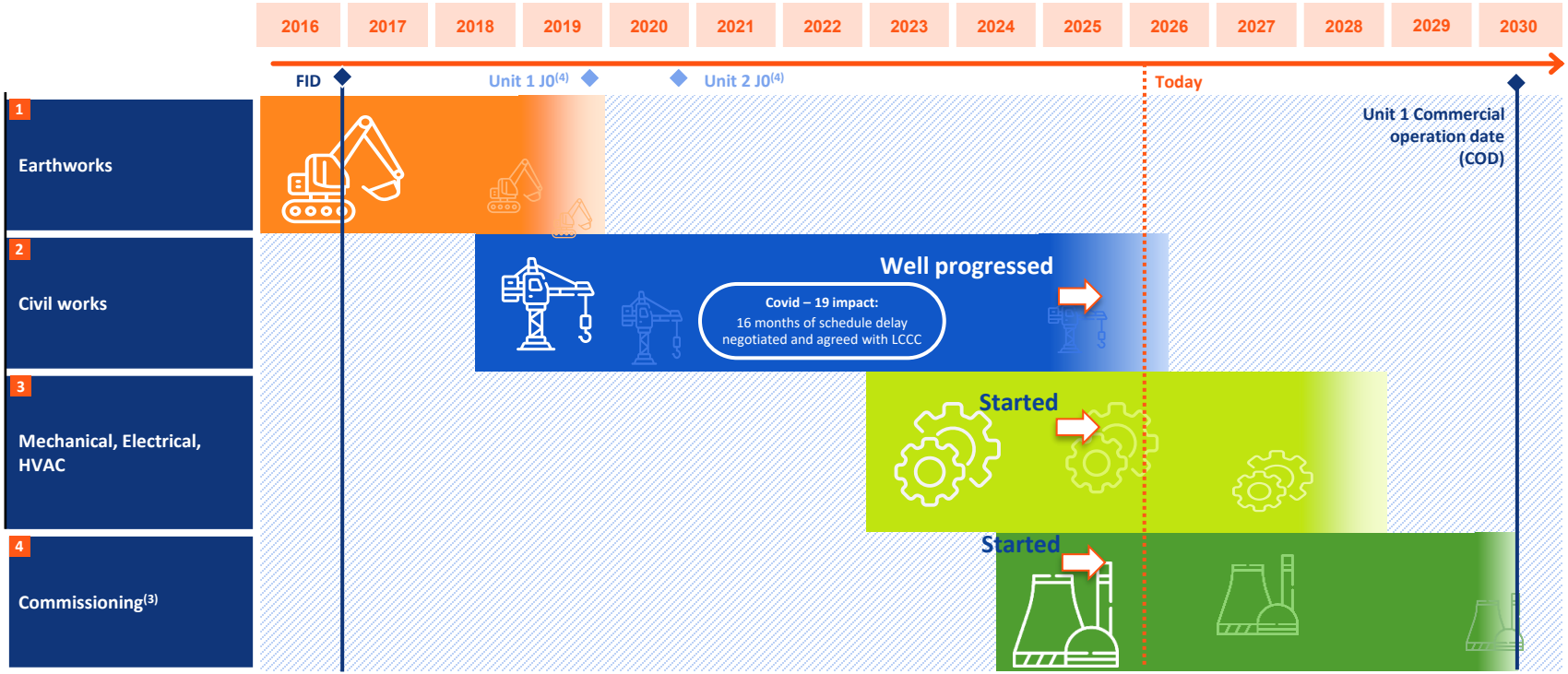
Design Engineering

edvance
GROUPE EDF

EDF
EPR engineering

+ CNEPE
+ DirN/DT
+ DQI

HPC Construction Schedule




366km of pipework
7,500 rooms
387 pumps
35,000 lights
MEH ALLIANCE
Building a Powerful Future
35,666 valves
106,000 mechanical supports
10,436km of cables
HinkleyPointC
EDF
CGN

Progress in 2025…. From the Small

- The first high voltage tests on permanent electrical equipment which will connect HPC to the UK's electricity network were completed.
- The works included testing some of the systems in Unit 1's Electrical Building, which will eventually take electricity generated in the Turbine Hall through to the National Grid.
- Works have been progressing ahead of the Auxiliary Transformer commissioning activity planned for 2026.

Progress in 2025…To the relatively small

The 22-metre high MSRs were manoeuvred into place using the turbine hall's 300-tonne gantry crane.

- Two Moisture Separator Reheaters (MSRs) were brought into the Turbine Hall and the casing for the high and intermediate pressure turbine was installed.

- The MSRs remove moisture that could otherwise damage the turbine blades with the casings ready to house the turbines themselves.

Progress in 2025….and the really large

- The Triple Point Connection formwork was installed into the bottom of the Outfall Tunnel Shaft - some 45 metres below ground level. The 245-tonne structure has now been covered in concrete and seamlessly forms part of the outfall tunnel structure system.

Progress in 2025…and the really large

- We ended 2025 with 95% of Civil engineering work complete.
- 16 Buildings were completed and their roof's installed.
- Following the installation of the Unit 2 dome, we completed the concrete work across Unit 1's domed roof.

2016-2020

2016

- **FID : Final Investment Decision**

2018

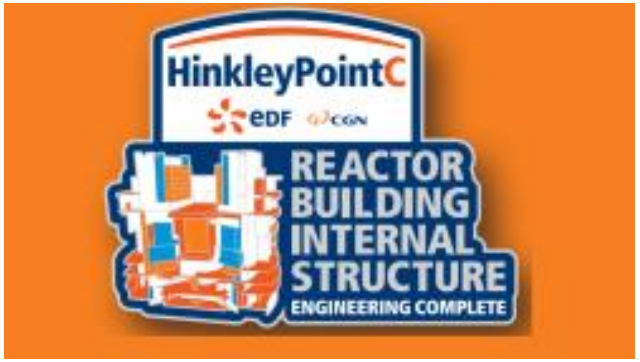
- **J0 – U1 Nuclear Island Common Raft First J0 Pour**
- Engineering Command Centre officially handing over the design package for Unit 1 Nuclear Island
- Handover of the pump house platform
- Start of the construction of the Pre-Stressing Gallery for U1

2019

- **Tunnel Boring Machine ready to launch**
- J0, Start of Reactor Building Construction (Path to Dome Lift Milestone)
- Inner Containment Lift 1 Engineering Complete
- U1 Pressuriser Manufacturing Begins

2020

- U1 Nuclear Island first safety related pipework installed
- J0 for Unit 2, start of Reactor Building construction
- **Reactor building internal structure complete (engineering)**
- Unit 1 feed water tank manufacturing complete



2021-2024

2021

- Unit 1 HM first LP (Low Pressure) rotor fully bladed
- Outfall Tunnel Drive Complete
- **Containment Liner Ring 2 installed**
- First MEH Install

2022

- Auxiliary Transformer installed into HJA bay
- **Marine installation of all six heads complete**
- U1 HL Main Control Room Box-in Box - start of on-Site assembly
- HBS Simulator Building handover to Operations

2023

- **Dome Lift**
- Steam Generators 1&3 Ready to Ship
- Chillers delivered

2024

- U1: Start of heat exchanger component install
- U2: Reactor Building Liner Ring 3 Lifted into place
- **U1: First RPV Installed at HPC**
- U2: Transfer compartment and reactor cavity pool installed

2026: A focus on mechanical and electrical

2026

- Install Reactor Pressure Vessel into Unit 2.
- Begin installing feedwater and pipe connections to Unit 1's first Safeguard Building.
- Complete installation of de-mineralised water system in readiness for commissioning.

- Complete pre-stressing on Unit 1.
- Install first fuel handling crane into Unit 1.
- Energise Unit 1's Auxiliary transformer.
- Complete cooling water system and fish return system tunnels.
- Install heat exchangers and additional systems into Unit 1 safeguard building
- Install low pressure casing into Unit 1 turbine hall.

Build and Repeat – The benefits of replication

A large, modular reactor.

- Unit 2 is being built, on average, 20-30% faster as lessons learned on Unit 1 are applied to Unit 2.
- Pre-fabrication and modularisation are playing a key role in driving productivity at HPC, where **Civils' pre-fabrication is now around 60%.**
- **Civils construction used 30% less labour to achieve 40% more work on the Unit 2 Dome lift.**

Above: Modularisation now includes whole pre-cast rooms,

4x Faster

Welding of stainless-steel pools
For Unit 2 a different welding technique has been used on large pools. On Unit 1 panels got too hot and work slowed. The new technique (SMAG) alleviates this.

40% Quicker

Unit 2 Polar Crane assembly
Improved logistics and tracking of components, plus greater assembly at ground level is enabling Unit 2's Polar Crane to be built 30% quicker

9-week Improvement

Staircase "mega lift" saved 70% of installation time and allowed concrete to be poured 9 weeks faster.

45% Quicker

Modular pool construction accelerated on Unit 2. Improved method included changes to the supply chain and increased ability to manufacture components at Site – reducing schedule risk.

2 Months Ahead

Liner ring 3 was installed two months ahead of schedule on Unit 2. The welding of the ring to the Unit 2 Dome was achieved 90 days faster than Unit 1.

More equipment installed

At the point of dome lift, 44 "nuclear" doors were installed in Unit 2 versus 28 on Unit 1. There was 30x the amount of steel fitted ion U2 vs U1 at the point of dome lift.

TM

Social and Economic Benefits

- The immense scale of Hinkley Point C means that it can be **a force for good and a catalyst for change.**
- **Our investment in people, skills and industrial capacity is driving growth across Britain**, increasing productivity and giving thousands of people new skills and jobs.
- **We have now far surpassed a number of commitments made on socio-economic impact** when the project was proposed.
  - **1,700 apprentices trained** against a **target of 1,000**
  - **£5.3 billion spent** in the region against a **target of £1.5 billion**
- **Our investment to re-establish nuclear skills in Britain has paved the way for our twin project at Sizewell C**, the development of small modular reactors and other low-carbon energy projects.
- **We are helping Britain develop the expertise to deliver the infrastructure it needs** for growth and future prosperity.

Letty, just one of 1,700 apprentices trained so far

£13.3 billion
↗ contribution to the British Economy[1]

£4.2 billion
↗ into Britain's growth-driving sectors[1]

26,000
↗ direct and indirect jobs supported across Britain

£24 million
↗ investment into education and skills

Merci!