*Building **better energy** together*

WELCOME

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Nuclear New Build

Briefing on dredging of marine sediment from the seabed at Hinkley Point

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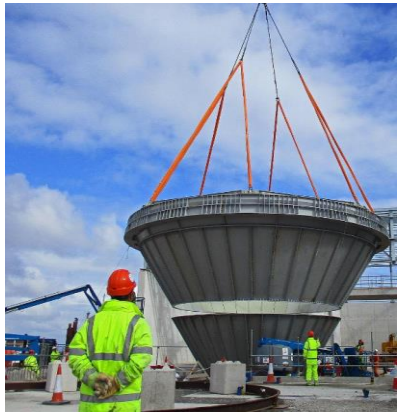
Hinkley Point C

- 3.2 GW nuclear power plant.
- 7% of the UK's electricity.
- Enough power for around 6 million homes.
- Avoids emission of 9 million tonnes of CO_2 a year.
- At least 25,000 job opportunities and 1000 apprenticeships during construction.
- 900 full time jobs when operational.

http://www.instagram.com/hinkleypointc/

EDF ENERGY HPC CGN

Hinkley Point C
Contracts in Wales



Neath: £140m

Welsh-made reinforcing steel

£140m contract with Express Reinforcements in Neath to supply 200,000 tonnes of Welsh-made reinforcing steel for the construction of the power station.

Pembroke

10,000 tonnes seawall rock

Already been delivered by ship from Pembroke, for the site's new 13.5 metres high seawall.

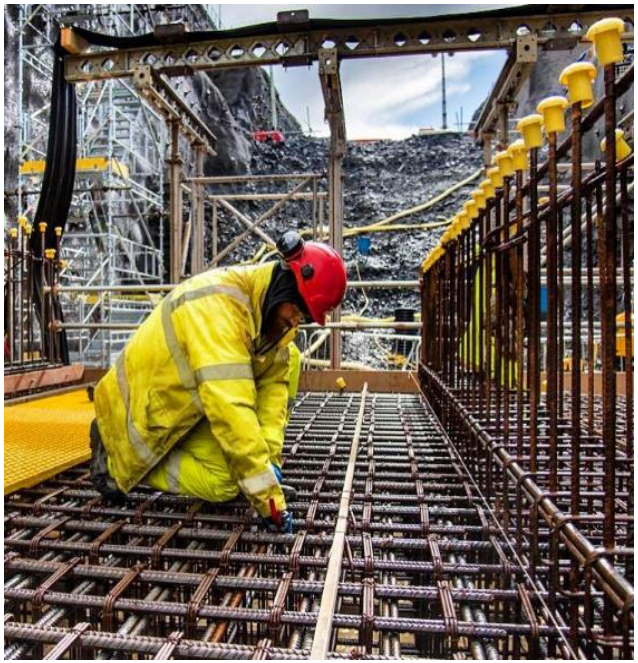
Port Talbot: £20m

300,000 tonnes of material

Port Talbot steel works: ground granulated blast-furnace slag used in the large silo on site; provided by Hanson - 300,000 tonnes of material with initial order value of £20m.

Newport: £50,000

Several companies totalling £50,000 contract values.



Monmouth: £25,000

Contract with Siltbusters for water treatment.

Around 150 HPC staff resident in Wales

HPC
EDF ENERGY
CGN

Key facts

- **We will be dredging sediment from the seabed ahead of the drilling of six vertical shafts for the Hinkley Point C cooling water system.**
- **The sediment poses no risk to human health or the environment.**
- **The levels of radioactivity in the sediment are so low they equate to 'not radioactive' under UK law.**
- **Of this 'low' amount the vast majority is from natural sources. The remaining artificial sources are typical of sediment found in the Bristol Channel.**
- **Testing has been carried out to highly conservative international standards working with Natural Resources Wales.**
- **Further tests approved by NRW over summer 2017 reconfirmed the original findings.**

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Why are we dredging marine sediment?

- We will be dredging sediment from the seabed off the Hinkley Point C site ahead of **the drilling of six vertical shafts for the cooling water system** for the new nuclear power station.

- The cooling water system is a significant piece of infrastructure, which involves tunnelling more than 3km out into the Bristol Channel.

- The maximum amount of material that will be dredged is 200,000m^3. The dredged sediment will be placed into barges and transported to the Cardiff Grounds where it will be deposited.

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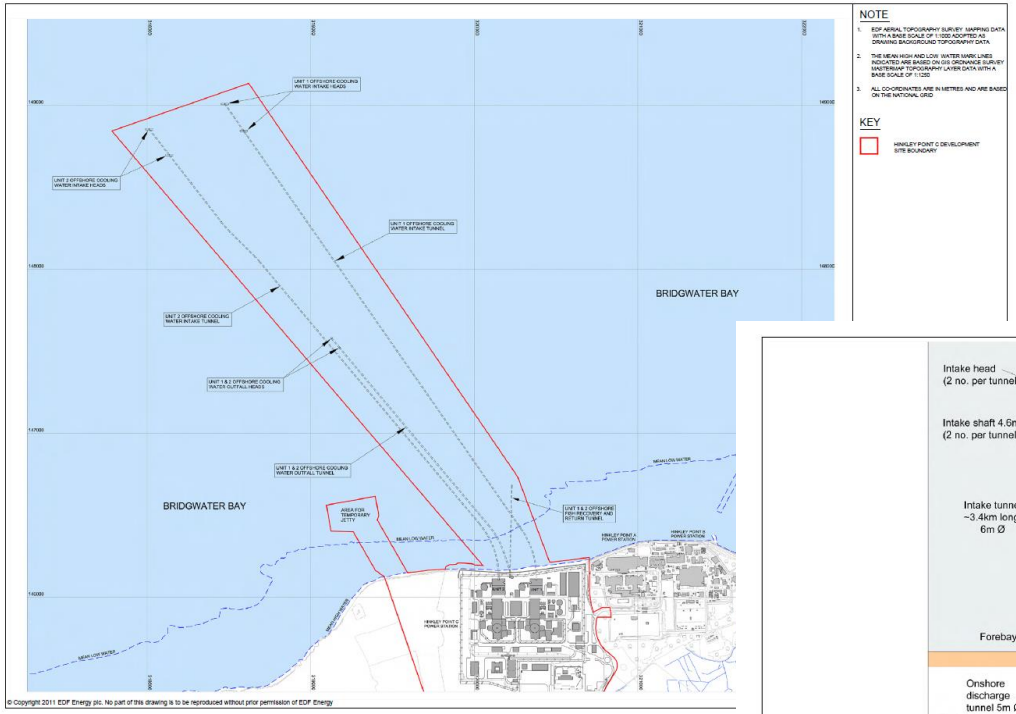
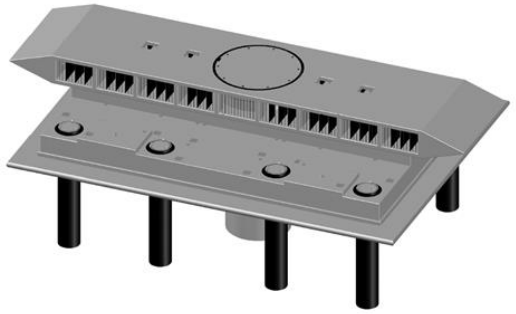
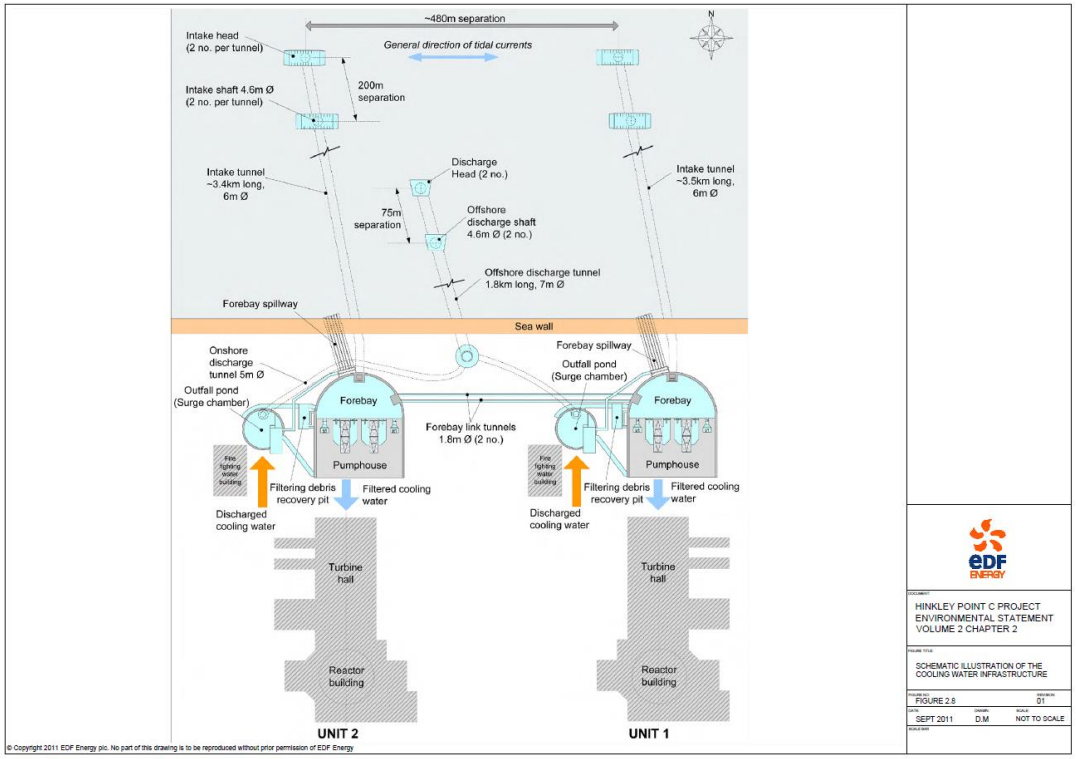
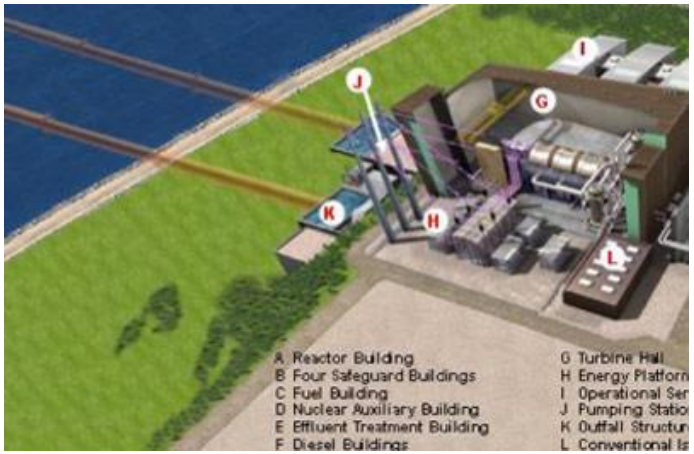
Why are we dredging marine sediment? (contd.)









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Timeline and Consenting Process

• **Application made to Marine Consenting Unit**	**August 2012**
Application advertised for public consultation	*September 2012*
Response to Eluned Parrott during consultation	*October 2012*
MCU commissions CEFAS to analyse sediments	*March 2013*
• **NRW takes responsibility for Marine Licencing**	**April 2013**
• **CEFAS reports material suitable for disposal**	**April 2013**
• **Licence issued by NRW**	**July 2014**
Monitoring plan for recent samples submitted	*October 2016*
Monitoring plan approved by NRW	*November 2016*
• **New samples acquired May 2017; analysis reported**	**September 2017**

Testing the sediment

- In 2009 CEFAS obtained sediment samples at depths up to 4.8 m to support the HPC Planning Application. No artificial radioactivity was observed below 2 m. The analysis of the core samples do not impact the outcome of the 2013 and 2017 CEFAS reports discussed below.

- In 2013, Natural Resources Wales commissioned an independent analysis by CEFAS to determine the radioactive characteristics of the sediment to assess the licence application. EDF commissioned CEFAS to undertake a recent analysis in 2017 as required, and approved, by NRW.

- 17 sediment samples were taken in 2013 and a further 12 were taken in May 2017.

- Majority of the radioactivity within the samples are naturally occurring in origin (~ 80 - 85%). The remaining artificial radioactivity is typical of muddy sediments in the Bristol Channel.

- The levels of radioactivity in the sediment are so low they equate to ‘not radioactive’ for the purposes of environmental legislation.

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Radiation Dose in Context

10,000 x less than a pilot's annual dose

Eating 20 bananas per year

750 x less than the average Radon dose in Pembrokeshire

- In order to assess the impact of the dredging a highly conservative, internationally recognised (IAEA) assessment methodology was used.
- The majority of the radiological dose (> 80%) comes from the naturally occurring radioactive material.
- These are below the limits requiring a more detailed assessment.

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Why was Cardiff Grounds chosen?

- The lower reaches of the Severn Estuary (including the area where we intend to be dredging) constitute **a highly protected conservation area** (the Severn Estuary European Marine Site). To preserve the local ecology we are required to keep the sediment within this Special Area of Conservation.

- Cardiff Grounds is a licensed disposal site which receives between 400,000 and 1,500,000m^3 material per year. Because of this, and its location within the Special Area of Conservation, this is the only practical location for the depositing of this material.

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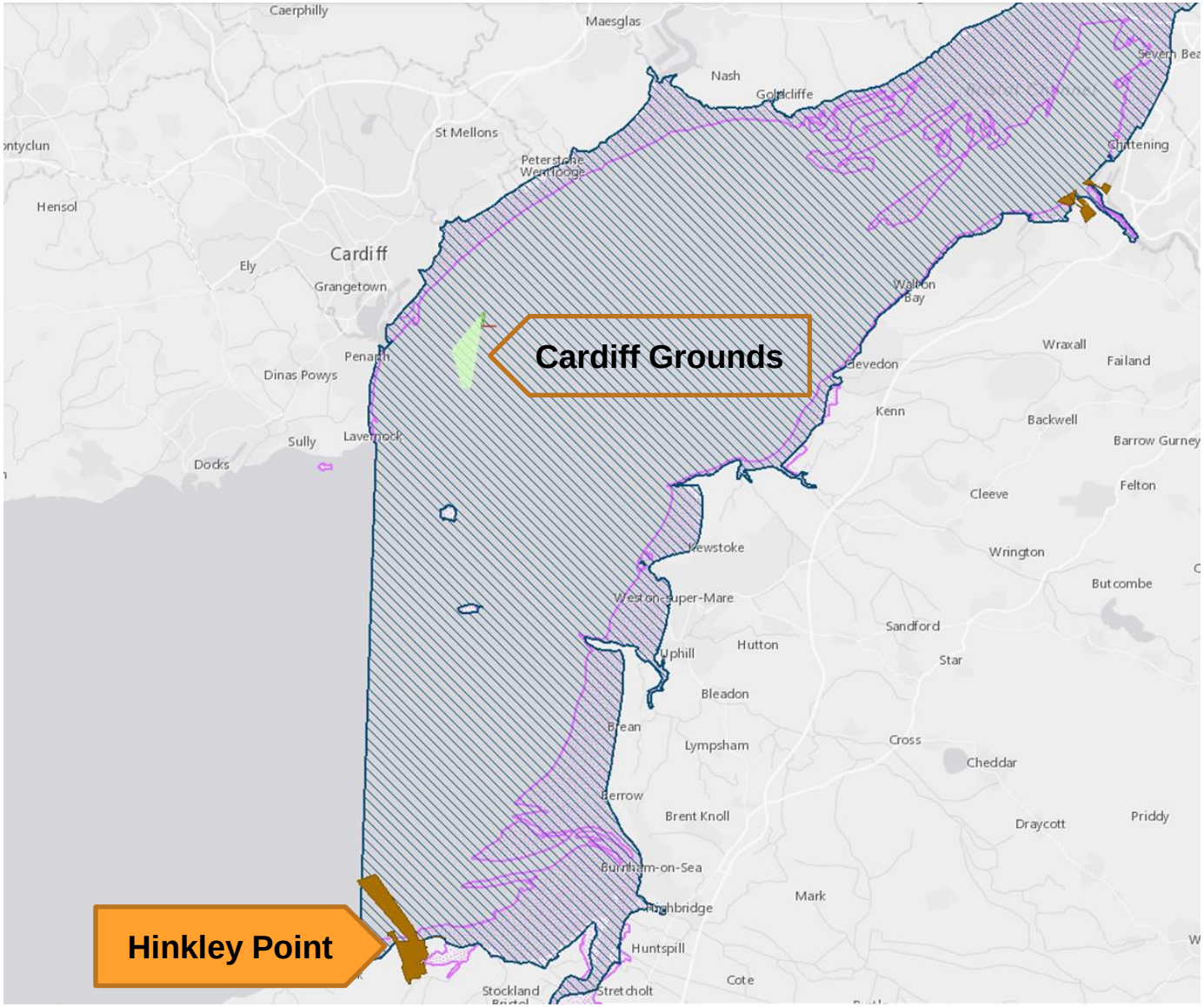
Why was Cardiff Grounds chosen? (contd.)



Special Area of Conservation (SAC)

Special Protection Area (SPA)

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In summary

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- **The levels of radioactivity in the sediment are so low they equate to 'not radioactive' under UK law.**
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THANK YOU