The Tunnel under the River Thames: Flagship project gears up at London landmarks

National Grid Gas Distribution's biggest civil engineering project gets under way

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• 330m long intermediate pressure gas pipe under the Thames is National Grid Gas' biggest civil engineering project

• Work will take place at landmark London locations Battersea Park, the Royal Hospital Chelsea and under the River Thames
• Project will help the booming regeneration in Battersea and Nine Elms and leave a lasting legacy for London

Engineers are starting work on National Grid Gas Distribution's biggest civil engineering project - a 330m long tunnel under the River Thames.

A critical part of National Grid's vital work to future-proof London's gas infrastructure for the 21st century the project involves three of London's most famous locations: the Royal Hospital Chelsea, Battersea Park and the River Thames.

Engineers are preparing to sink a 30m deep shaft at each of the land locations ahead of digging the 330m long tunnel using a micro tunnel boring machine (TBM), which will be remotely operated from above ground.

Getting to this stage has been a Herculean effort for the project team who have liaised with fifteen different organisations and secured almost 20 different permissions before getting the green light. The team have also been working closely with Thames Tideway regarding their nearby Chelsea Foreshore works, to ensure both projects can proceed together harmoniously.

Major events at the Royal Hospital Chelsea, most notably the Chelsea Flower Show and arts fair Masterpiece, have also had to be factored into the project timetable.

The first shaft, which will have a diameter of 7.5m, will be sunk in the grounds of the Royal Hospital Chelsea between January and March 2017. The site will then be cleared to avoid any disruption to the events over the summer. Work will then shift to Battersea Park where the second shaft – with a diameter of 6m - will be sunk between April and August 2017.

Tunnelling will start after the shafts have been completed and should be finished in 2018 after which the new intermediate pressure gas pipe will be installed.

Project Manager Andrew Hejdner said: “This is National Grid Gas Distribution’s flagship civil engineering project for the 2013-2021 regulatory period*

“We’re looking forward to getting started on the construction which has taken almost 12 months of planning.”

He added: “Designing a tunnel 330m long tunnel that runs 30m under the River Thames is fairly straightforward in tunnelling terms however to secure so many permissions and factor in Thames Tideway’s works in such a short space of time is an impressive undertaking.

“Our project team have done a fantastic job in designing the river crossing and securing the necessary permissions.”

Engineering Manager Stuart Donaldson, who will oversee construction of the project, said: “This is quite a bit different to the average gas mains replacement scheme to say the least!

“However the purpose of this project is the same – keeping people connected to safe and reliable gas supplies for cooking and heating.”

He added: “The project is going to leave a great legacy and help London maintain its status as a leading 21st century city.”

The project will be delivered by National Grid Gas Distribution’s strategic partner tRIIO, which also includes contractors Mott Macdonald and Skanska. The tunnel forms part of National Grid’s £1billion investment in replacing ageing gas mains across the capital.

For more information on the project call 0800 389 8261, email nationalgrid@londongasmains.co.uk or visit: www2.nationalgrid.com/UK/In-your-area/Projects/London-Gas-Mains-Replacement

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Notes for editors

*Energy Regulator Ofgem sets out the RIIO (Revenue, incentives, innovation and outputs) Gas Distribution outputs that the eight gas distribution companies, which include National Grid, need to deliver and the revenues they are allowed to collect during the eight year period 1 April 2013 to 31 March 2021.

The project is part of National Grid's £1billion programme to replace ageing gas mains across the capital.

This essential work involves replacing and upgrading over 1,800 miles of ageing metal gas mains with tough new pipes.

The work will reduce the amount of unplanned repair work, help ensure people remain connected to safe and reliable gas supplies for cooking and heating and help London maintain its status as a leading 21st century city.

Notes to Editors:

National Grid is pivotal to the energy systems in the UK and the north eastern United States. We aim to serve customers well and efficiently, supporting the communities in which we operate and making possible the energy systems of the future.

National Grid in the UK:

- We own and operate the electricity transmission network in England and Wales, with day-to-day responsibility for balancing supply and demand. We also operate, but do not own, the Scottish networks. Our networks comprise approximately 7,200 kilometres (4,474 miles) of overhead line, 1,500 kilometres (932 miles) of underground cable and 342 substations.
- We own and operate the gas National Transmission System in Great Britain, with day-to-day responsibility for balancing supply and demand. Our network comprises approximately 7,660 kilometres (4,760 miles) of high-pressure pipe and 618 above-ground installations.
- As Great Britain's System Operator (SO) we make sure gas and electricity is transported safely and efficiently from where it is produced to where it is consumed. From April 2019, Electricity System Operator (ESO) is a new standalone business within National Grid, legally separate from all other parts of the National Grid Group. This will provide the right environment to deliver a balanced and impartial ESO that can realise real benefits for consumers as we transition to a more decentralised, decarbonised electricity system.

- Other UK activities mainly relate to businesses operating in competitive markets outside of our core regulated businesses; including interconnectors, gas metering activities and a liquefied natural gas (LNG) importation terminal – all of which are now part of National Grid Ventures. National Grid Property is responsible for the management, clean-up and disposal of surplus sites in the UK. Most of these are former gas works.

Find out more about the energy challenge and how National Grid is helping find solutions to some of the challenges we face at https://www.nationalgrid.com/group/news
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