

capital hydrogen

East London Hydrogen Pipeline: Insights from our Pre-FEED Study

Last year, we hosted a launch event for the East London Hydrogen Pipeline (ELHP) project, unveiling the findings of our Pre-FEED (Preliminary Front-End Engineering Design) study. This event marked a significant step forward in delivering a hydrogen economy for London and the South East.

The East London Hydrogen Pipeline (ELHP) is a flagship project under the Capital Hydrogen Programme that will stretch approximately 75 kilometres along the North bank of the Thames. Designed to decarbonise hard-to-abate sectors across London, the pipeline will create a vital link between hydrogen producers and major industrial consumers. Starting in Stanford-Le-Hope (Thurrock) and extending west to Newham, it will serve sites including Tate & Lyle, London's largest industrial gas user.



The Pre-FEED study confirms that the ELHP is not only feasible but essential for decarbonising hard-to-electrify industries in the Thames Estuary. By connecting hydrogen producers with major industrial consumers, this project will help secure jobs, support economic growth, and accelerate the UK's transition to net zero.

Why does this matter?

The UK's net zero target requires bold action. Decarbonising hard-to-abate sectors is crucial if we're to meet climate goals and secure a sustainable economy.

Recent policy updates reflect this urgency, with hydrogen becoming a core part of the UK's energy strategy. The Hydrogen Update to the Market set out concrete steps for production, infrastructure and regulation, while Hydrogen Allocation Rounds are unlocking billions in investment and hundreds of jobs¹². The recent Autumn Budget also confirmed the removal of the Climate Change Levy on electricity used for making green hydrogen, cutting operating costs for producers. This is a clear signal to investors that

¹ Gov.UK (July 2025) [Hydrogen update to the market: July 2025 - GOV.UK](https://www.gov.uk/government/publications/hydrogen-update-to-the-market-july-2025)

² Gov.uk (January 2025) <https://www.gov.uk/government/collections/hydrogen-allocation-rounds>

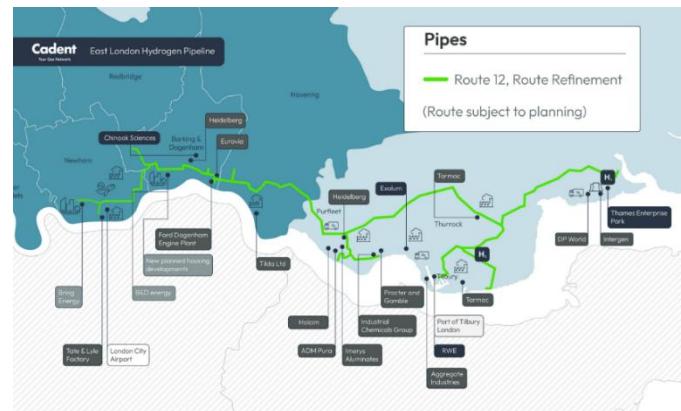
the government is serious about speeding up hydrogen rollout, reinforcing the update to the market's message of acceleration³.

Projects like the ELHP are turning concept into reality, connecting producers to industrial users across London and the South East. Our Pre-FEED study confirms the pipeline's feasibility and its potential to cut emissions equivalent to thousands of transatlantic flights each year. The ELHP is more than a piece of infrastructure; it's a catalyst for jobs, investment and a cleaner future for the Thames Estuary. By 2035, it could transport over 5,000 GWh of hydrogen annually, helping secure the region's net zero future.

Key findings from the Pre-FEED study

- Preferred route identified:

Eleven route options were originally developed, which was then narrowed down to three deliverable options. The study recommends Route 12, a refined option that combines the best aspects of Routes 10 and 11. This route offers improved constructability, lower environmental impact, and greater reuse of existing infrastructure, delivering carbon and circular economy benefits.



- Technical validation:

A 7 barg, 500mm PE100 pipeline has been confirmed as suitable for a fully developed hydrogen distribution system.

- Phasing strategy:

Construction is planned to roll out between 2030 and 2035, with six major consumers connected in the early phase and full network completion by 2050. This phased approach aligns with hydrogen production availability and ensures a practical, cost-effective rollout.

- Policy and stakeholder support:

The project is strongly supported by national legislation and local policy. Due to its scale and strategic importance, the ELHP is expected to be classified as a Nationally Significant Infrastructure Project (NSIP), requiring a Development Consent Order (DCO).

³ Gov.uk (November 2025) <https://www.gov.uk/government/publications/budget-2025-document/budget-2025-html>

Early engagement with councils, statutory bodies, and regulators will be critical to securing approvals and accelerating delivery.

Pushing the hydrogen transition forward

The Pre-FEED study confirms that the East London Hydrogen Pipeline is a crucial solution for decarbonising hard-to-abate sectors across the Thames Estuary, backed by strong demand from major industrial players.

Hydrogen offers a practical pathway for industries where other decarbonisation options are not viable, supporting both economic growth and job security. As a cornerstone of the UK's wider hydrogen strategy, the ELHP will deliver reliable, low-carbon energy at scale, helping the UK progress towards net zero and creating a cleaner, more resilient future for London and the South East.

Stay connected with the [Capital Hydrogen programme](#) for updates. If you have any questions, get in touch at capital.hydrogen@talan.com