

# HYDROGEN IN THE THAMES ESTUARY

Investing in sustainable energy solutions  
to solve the world's biggest problems





# THAMES ESTUARY REGION THE BLUEPRINT FOR GOOD GREEN GROWTH

The Thames Estuary Region is the UK's number one Government-backed growth opportunity with the potential to create 1.3 million jobs and add £190 billion to the nation's economy by 2050. Located in the south-east of England, on the country's most important waterway and home to approximately 3.8million people.

Led by Kate Willard OBE, Estuary Envoy, the Thames Estuary Growth Board is unlocking good green growth opportunities to realise the region's vast potential: green energy to power transport, homes, and industry; greener deliveries to homes and offices by bringing ESG investment into the region.

The Thames Estuary Region is the ideal test bed for innovation and will be a world-renowned case study of how to achieve good green growth, reach scale, solve the world's biggest problems.



Investuary™



# WHY WE'RE BACKING HYDROGEN AS A FUTURE FUEL FOR THE ESTUARY

## GOOD, GREEN JOBS

While the hydrogen economy is in the early stages of development in the UK and globally, by 2030 we anticipate it could support over 9,000 jobs in the Estuary alone.

## GOOD, GREEN INVESTMENT

The drive towards Net Zero for such industries in the Thames Estuary Region – with 4 ports, 2 major airports, 30 of large construction projects and the highest concentration of heavy goods movements in the UK – creates a multi-modal opportunity for investment in hydrogen at scale like nowhere else in the UK.

## GOOD, GREEN INDUSTRY

For industries that currently depend on gas and other fossil fuels – hard to abate sectors like high temperature industry, logistics and construction vehicles, maritime and aviation – hydrogen is a flexible, efficient and low carbon solution. Moreover, the transition away from fossil fuels will help address issues of poor air quality, improving the health and wellbeing of local people.

## GOOD, GREEN SKILLS

The UK is a global leader in hydrogen technology research, development and commercialisation in all aspects of the hydrogen value chain: production, distribution, storage, vehicles, vessels and equipment. Many of these innovators are based in and around Greater London and are excited by the prospect of collocating their R&D and growth with world leading universities, prospective customers and export ports.

## FOURTEEN HYDROGEN CLUSTERS IDENTIFIED IN THE REGION

In 2021, a series of hydrogen 'clusters' were identified across the Thames Estuary. A hydrogen cluster is defined as: 'a geographic region where one large or a co-operative of smaller potential demand exists or alternatively a site which is advantaged through access to land and infrastructure such that it has the potential to become a hydrogen hub and distribute hydrogen to outlying consumers'.

The Thames Estuary Growth Board saw the potential for an internationally significant cluster across a range of uses such as transport, industry, heating, and power and undertook this work to understand how we could deliver an investment led ecosystem.

In order to identify the potential hydrogen demand-led 'clusters', the following demand, supply, storage and distribution filtering criteria were mapped out across the Thames Estuary using GIS software. As a result of this exercise, a total 14 clusters were identified.



# WHAT IS THE POTENTIAL OF THE HYDROGEN ECOSYSTEM IN THE THAMES ESTUARY?

## SUPPLY AND DEMAND OPPORTUNITY

It's all about scale. The Region has critical mass that will enable adoption at scale, as well as large opportunities in air and port side uses, public transport, other municipal uses and a significant logistics sector to service.

## HYDROGEN END-USERS

Uses that initially appear to be the most promising are all transport related and include hydrogen for heavy good vehicles (HGVs), public sector transport and non- road vehicles at ports and airports. This is not altogether surprising, as these uses can be difficult to decarbonise using other means such as electrification.

## PRIMARY INDUSTRIES

High temperature heat process industry

Commercial HGVs (haulage companies, captive industry fleets, RORO sites at ports, existing truck parking areas, service stations on major motorways/A-road junctions)

Emergency vehicles (ambulances and police), local authority refuse collection vehicles, long-haul buses and taxis

Markets and distribution warehouses (continuous use equipment)

Long-term construction sites (non-road mobile machinery and gensets)

Ferries and other river vessels (bunkering)

## PLUS

Cruise terminals  
(where ship-to-shore power is constrained)

Airports  
(short-haul passenger and cargo)

Critical loads with onsite diesel back up

Existing / new district heat networks

Marine bunkering opportunities

Freight rail lines unable to be electrified

Large existing / planned residential schemes (one or more national/regional developers)



# THREE WAYS TO INVEST IN HYDROGEN IN THE THAMES ESTUARY REGION

1

## INVEST IN THE HYDROGEN ECOSYSTEM

If you are an investor with appetite for any part of the hydrogen value chain, whether technology, supply chain or infrastructure related, please get in touch to arrange a meeting so we can understand your investment preferences

[Book a meeting](#)

2

## PARTICIPATE IN A LIVING LAB

If you are a soft or hard technology company looking for a shared collaboration space and incubator with industrial lab quality testing, accreditation, prototyping and micro-manufacturing facilities with links to end-users and investors to support the commercialisation of your hydrogen-related technology please get in touch.

[Contact us](#)

3

## PARTNER WITH THE THAMES ESTUARY GROWTH BOARD

Contact us if you are a university, industrial player, OEM, tech provider, developer, or any other party, and are interested in discussing opportunities for collaboration with the Thames Estuary Hydrogen Ecosystem project.

[Contact us](#)

# Thames Estuary

## GROWTH BOARD

### Your Strategic Investment Partner

As your Strategic Investment Partner, the Thames Estuary Growth Board is your single point of contact to explore all the investment opportunities in the Thames Estuary Region.

We provide scale and reach to streamline the process of working with local agencies and partners. As your single point of contact in the Region we remove obstacles, de-risk delivery and make things happen for investors.

### Our pipeline of exclusive opportunities

As a growth accelerator the Thames Estuary Growth Board showcases key projects for investment on Investuary. We also have a bulging pipeline of early-stage projects investors can speak to us about before they come online.

## NEXT STEPS

Get in touch with us to arrange a meeting with our Energy Portfolio Director:

[invest@investuary.com](mailto:invest@investuary.com)



Investuary™

