



# Largest UK Publicly Led Renewable Project

**October 2022**

**Outline Information - WEF**

Not for Reliance



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CITY REGION**



**A STRONGER  
CITY REGION**



**A CLEANER  
CITY REGION**



**A CONNECTED  
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LIVERPOOL CITY REGION

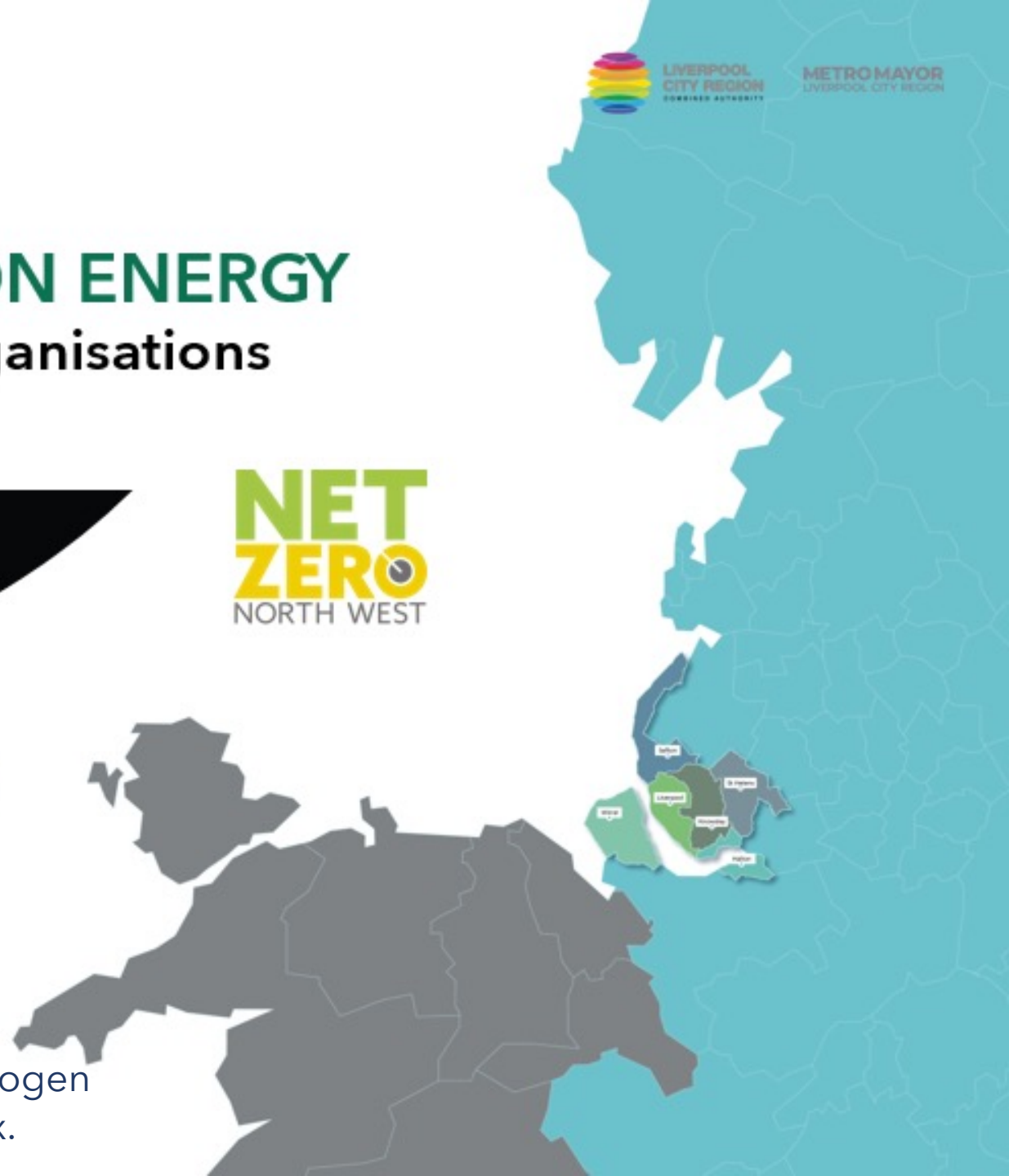


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## LOW CARBON ENERGY Regional organisations



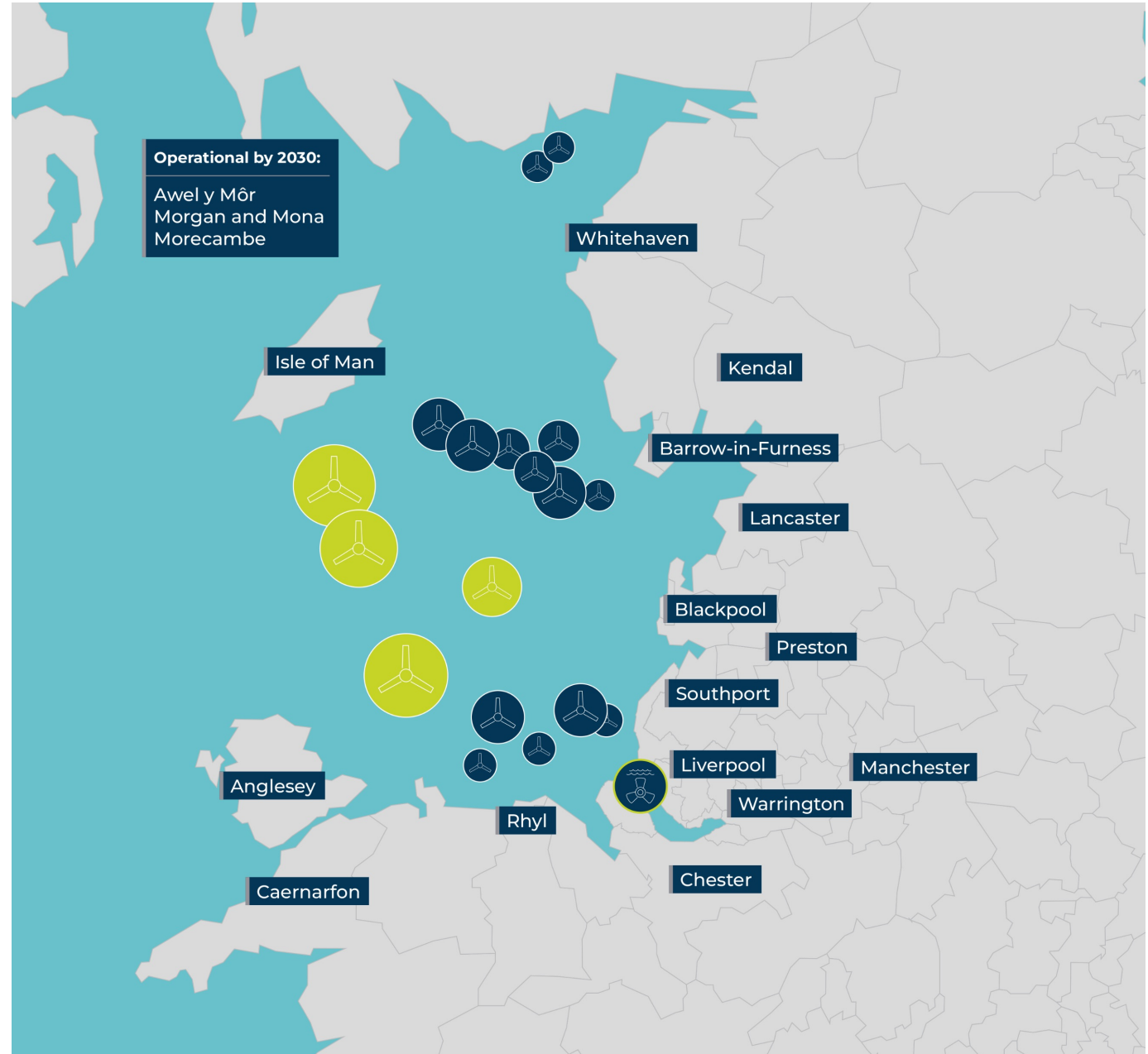
The **Mersey Tidal Power Project** complements regional development ambitions in Offshore Wind Generation, Hydrogen and Nuclear that form part of the UK low carbon energy mix.

## Offshore Energy Alliance

Multiple Offshore Wind Farms built out in Liverpool Bay and Irish Sea (Cumbria to North Wales)

Four more Offshore wind schemes in development

And then Tidal range.....





# Liverpool City Region Context - Innovation for Prosperity

## Mersey Tidal Power Project

The Mersey Tidal Power Project is exploring the possibility of a Tidal Range barrage solution and/or a lagoon solution.



Urban, Industrial  
and Coastal



Build Back Better



Clean Growth



Inclusive Economy

IT'S TIME FOR TIDAL

Marine &  
Maritime



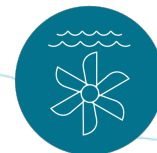
Prosperity



Levelling Up



Time for Tidal



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# Tidal Range in UK

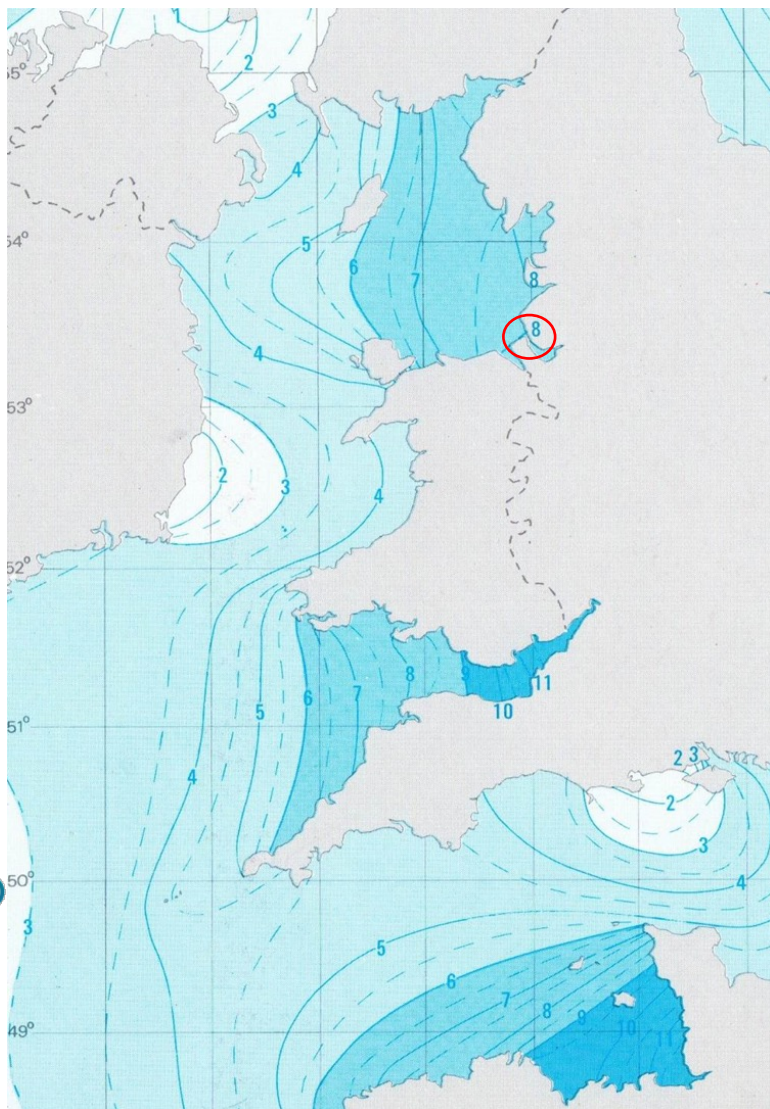
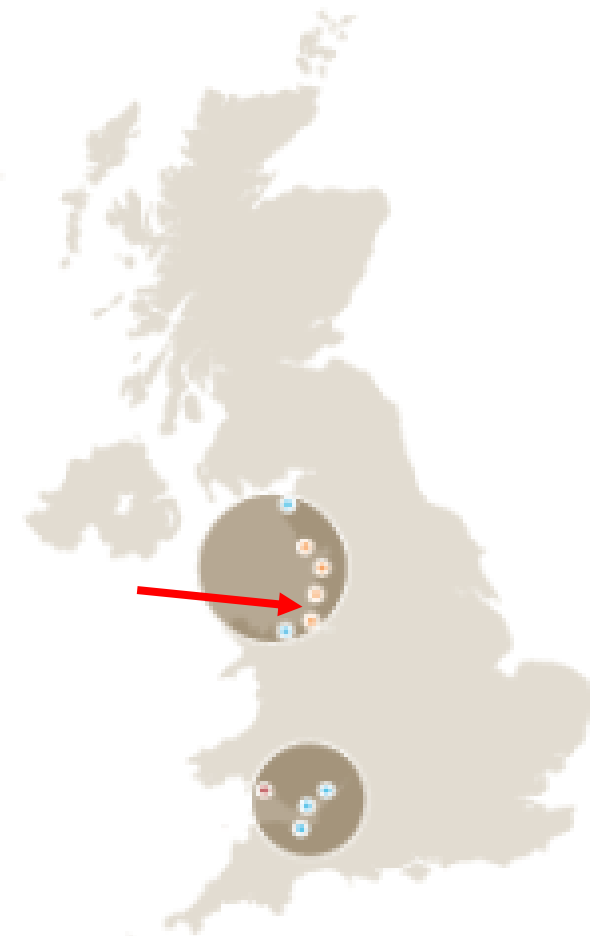
## Tidal Range Energy Resource in UK

The Tidal range energy resource in the UK is generally on the West Coast (see left) where tidal height differences between 6 and 11 metres occur.

The UK Government (BEIS, 2013) estimated that Tidal range could contribute around 25-30 GW of electricity across the West Coast.

There are up to 10 tidal range projects that are in early development focused around the North West and South West (see right)

Government Policy to support Planning and Consenting is expected to be confirmed in mid 2022.





# Strategic Context of Mersey Tidal in UK

## Climate Change

Increasing awareness & drive for change, mitigation and adaption

## Net Zero

Net zero carbon by 2050 in UK will need twice the amount of electricity produced today as we move to Electric Vehicles and Heating

## Green investment

Finance increasingly looking for sustainable investment and for a RAB model

## Green employment, skills and training

Contributing to regional green skills  
Stand-up manufacturing in region

## Journey on from COP26

UK renewable leadership on technology diversity

## Whole Energy System

The future energy jigsaw will require a mix of complementary technology solutions

## Resilience

Predictability, flexibility and locality can help with stability of our network and provide charging for the Electric Vehicles in our urban port city region

## Locking in Low Carbon Assets

Investments providing generation assets which last over 100 years are real sustainability! **What else does that?**

## Technical Innovation

The technical innovations have advanced and remain low risk v Nuclear and CCuS

IT'S TIME FOR TIDAL

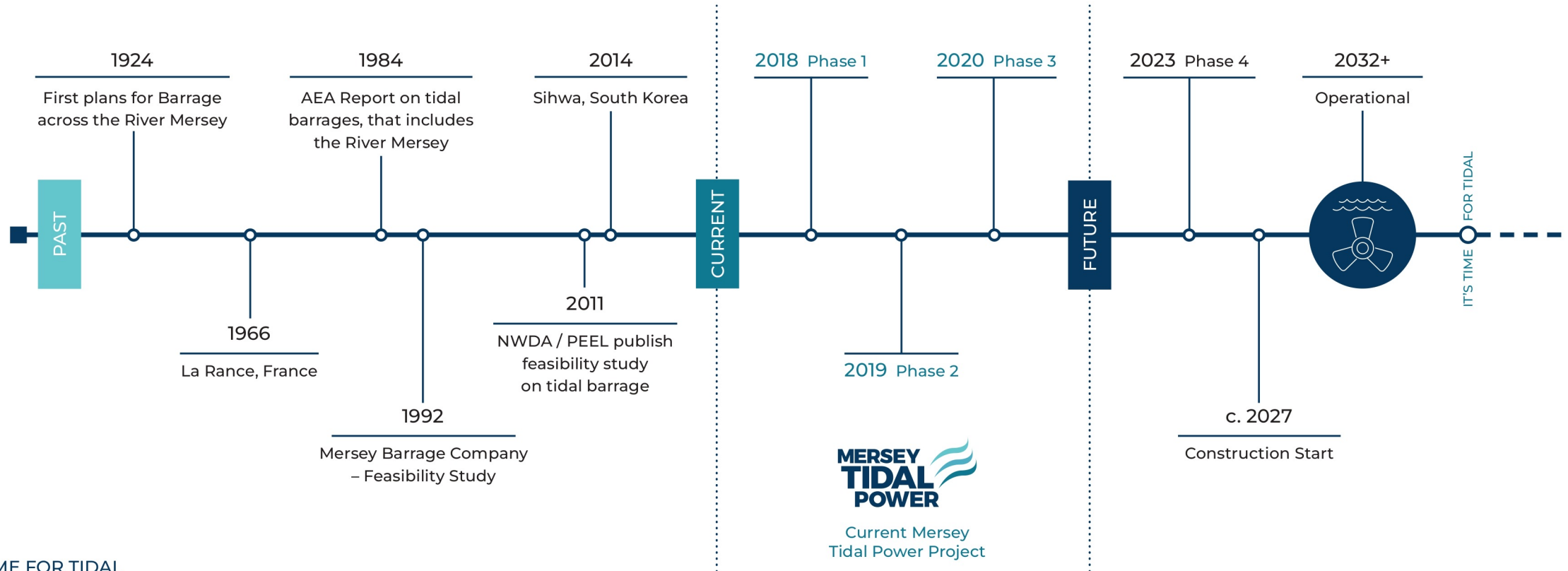


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# Historic Timeline



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Low risk  
25 MW Units  
Modular build  
High Availability



## Mersey Tidal Power Project

The Mersey Tidal Power Project is exploring the use of turbines similar to those already deployed at Sihwa in South Korea. (image)



## Engaging and Listening Phase

As part of Phase 3 activity we are speaking to environmental bodies and listening to ideas around the data and evidence we will need to gather during Phase 4 Consenting activity.



Environmental stakeholders engaged in the project were varied and their informal roles included data supply to workshop participation.

# Next Major Steps in Enabling Tidal Range Project

## **UK Government**

Await publication of revised National Planning Statements (NPS) that will include Tidal Range as a specified technology for UK energy generation as 'needed and urgent' (EN1 draft)

Investigated UK Government Funding Policy and possibility of Regulated Asset Base (RAB) Model

Working with K-Water South Korea to look at International Co-operation / Connected Place Catapult

## **Environment**

Setting out a Consenting Strategy with Data and Evidence Plan for a Development Business Case (DBC)

## **Energy and Modelling**

Developing our detail understanding of likely energy potential and dynamic hydro-environmental processes

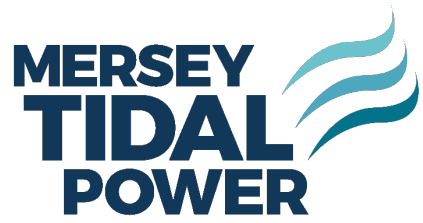
## **Cost Analysis and Supply Chain**

Building our development activity plan and base scope for initial Capital Cost estimates (CapEx)

## **Funding and Delivery Model**

Providing a route map for future structure and Consideration of Funding channels for Consenting as Development Expenditure (DevEx)





# Thank you



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**UN CLIMATE  
CHANGE  
CONFERENCE  
UK 2021**  
IN PARTNERSHIP WITH ITALY



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*Knowsley Council*



Liverpool  
City Council

Sefton Council



ST HELENS  
BOROUGH COUNCIL



**WIRRAL**



**Merseytravel**



Liverpool City Region  
Local Enterprise Partnership

**growth.  
platform**  
Liverpool City Region Growth Company



Local Growth Hub  
Liverpool City Region

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BUSINESS  
FESTIVAL.**



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