

TIGER

TIDAL STREAM
INDUSTRY
ENERGISER



EUROPEAN UNION

Interreg 
France (Channel
Manche) England
European Regional Development Fund

Project Description and Supplier Opportunities

Cambrian Offshore SW Ltd
Ramsey Sound Regeneration Project

TIGER Introduction

- TIGER is Interreg's largest ever funded project which aims to be a game-changer for the European tidal stream energy sector.
- Funded through [France \(Channel\) England Programme](#), the €45.4m (€29.9m ERDF) aims to drive growth through the installation of up to 8MW of new tidal capacity in and around the Channel region driving learning, innovation and the development of new products.
- Led by the ORE Catapult from its regional offices in Hayle, Cornwall the 18-partner strong consortium will deliver the project which runs until Q1 2023.

The TIGER Partners are:



Interreg area & TIGER activity map



Site	Key partner	Location	Current status	Capacity to be installed	Technology to be installed	Timescale for deployment
Ramsey Sound	Cambrian Offshore	Pembrokeshire, UK	Fully developed tidal demo site with 5MW ROCs	Up to 1MW of new turbine capacity	TBC	2021
Paimpol-Bréhat	EDF and SEENECH	Brittany, FR	Test site to be repurposed	100kW of capacity	Minesto (x1 turbine)	2021
Le Raz Blanchard	Normandie Hydroliennes Hydroquest	Normandy, FR	Existing site under development	Consenting and techno-economic studies only	Atlantis / Hydroquest (up to 5MW deployment planned following consenting)	Deployment outside of scope of TIGER
Morbihan	Morbihan Hydro Energies SASU and Sabella	Brittany, FR	New site to be consented	500kW in project	Sabella turbines (2x D08 250kW)	2022
PTEC (TBC)	QED Naval	Isle of Wight, UK	Consented, dormant	Up to 5MW	Subhub and turbines (TBC)	2022
2.8 to 7.8 MW						

Further information can be obtained from the Project web site : <https://interregtiger.com/>

Project Specifics

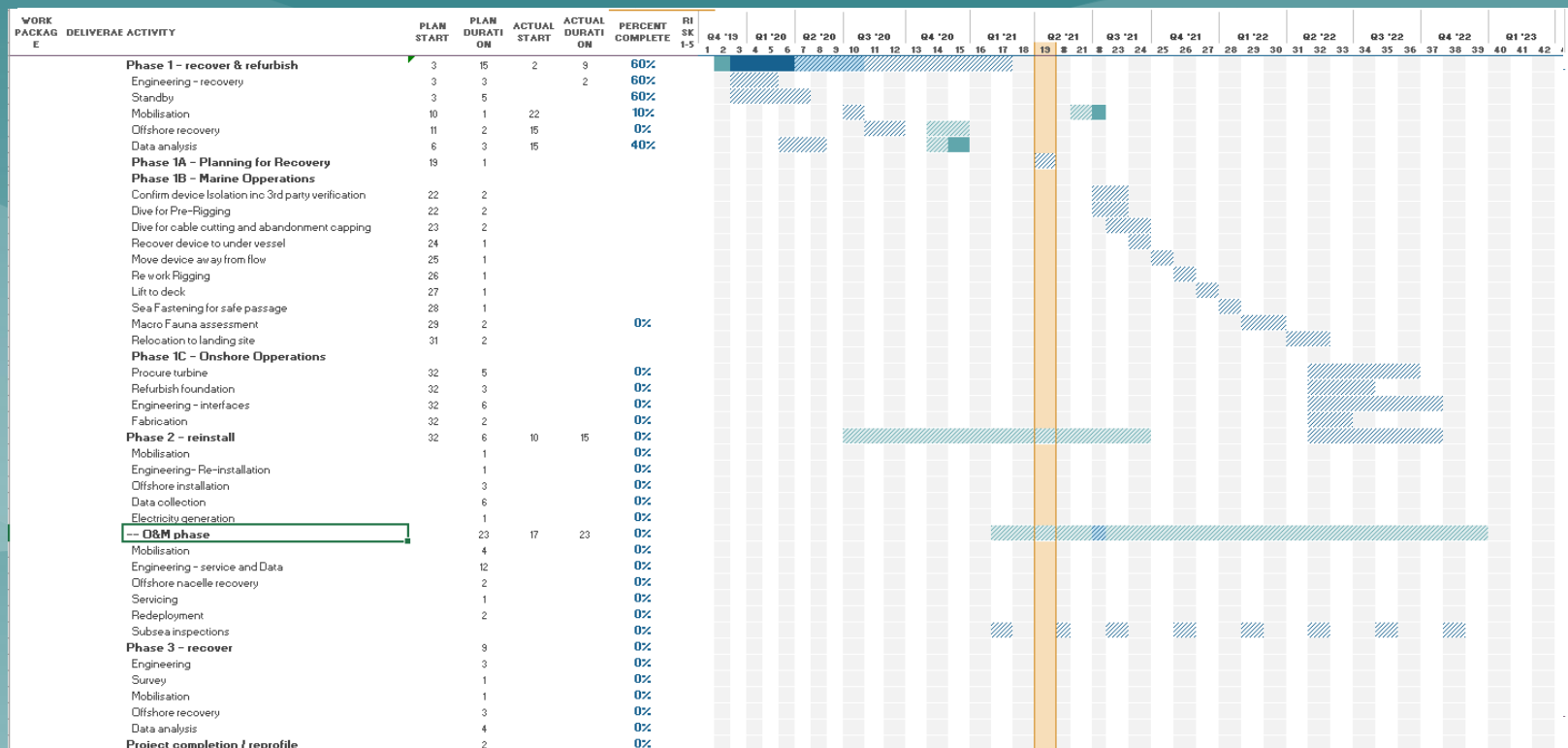
Summary site description

- Cambrian Offshore SW Ltd was formed to gain the assets of TEL and the Ramsey Sound site and upgrade these to provide an operational tidal turbine and tidal energy site.
- Ramsey Sound is a key tidal deployment site, having consent, grid connection and ROC accreditation.
- Cambrian acquired pre-existing infrastructure at Ramsey Sound to accelerate the development cycle (>£10m already invested over 4 years) and fulfil the potential of the historic investment
- The project will recover and refurbish the existing assets and redeploy the device with a new turbine to deliver electricity to the grid and importantly capture valuable data and learning
- The vision is to deliver an operational tidal site at Ramsey Sound and build capacity for Cambrian Offshore SW Ltd.

The initial project budget is €6.3m over 4 years.



Project Timeline



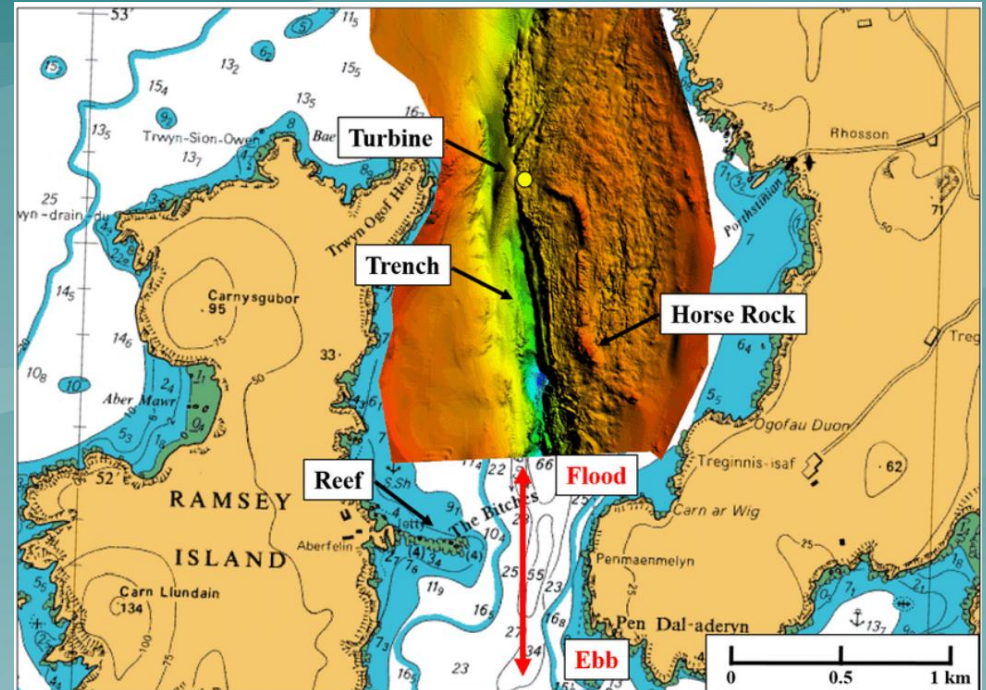
Project Milestones

- End Q2-Q3 2021 Turbine Recovery – DeltaStream retrieved and forensic investigation undertaken.
- Q1-Q2 2021 Turbine Procurement Exercise
- Q4 2020 Review of Consents
- Q2 2022 Turbine redeployment

Site Description - Specific

Describe the site in terms of:

- Tidal flows – up to 3.1m/s tidal range, 5.1m. At turbine location
- Ebb 1.79m/s
- Flood 2.73m/s
- 31.5m deep (LAT)
- Seabed characteristics: Exposed rock / coarse sand and gravel inshore



Site Description – Location and Logistics

- Project located in Ramsey Sound, Pembrokeshire.
- Logistics Port identified - Pembroke Dock
- Grid connection and substation onshore at St Justinian's



Technology Description

Technology (horizontal axis tidal turbine up to 1MW capacity to be procured Q2-Q4 2021.

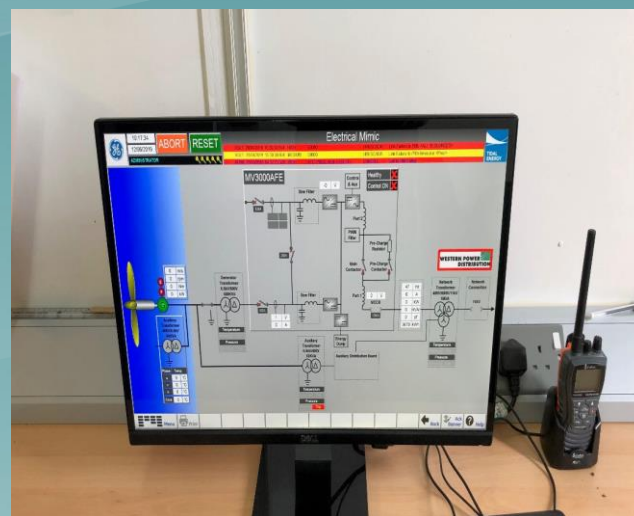
- Horizontal axis, 3 or 2 bladed nacelle
- Up to 1MW
- Grid connected site
- Supplier to be agreed through procurement process.
- Ongoing commercial discussions with suppliers.



Grid connection

Currently GE substation and control facility at St Justinian's with grid connection through WPD:

- Connection arrangement under negotiation with WPD.
- Historically for 1.2MW
- All onshore consents live.

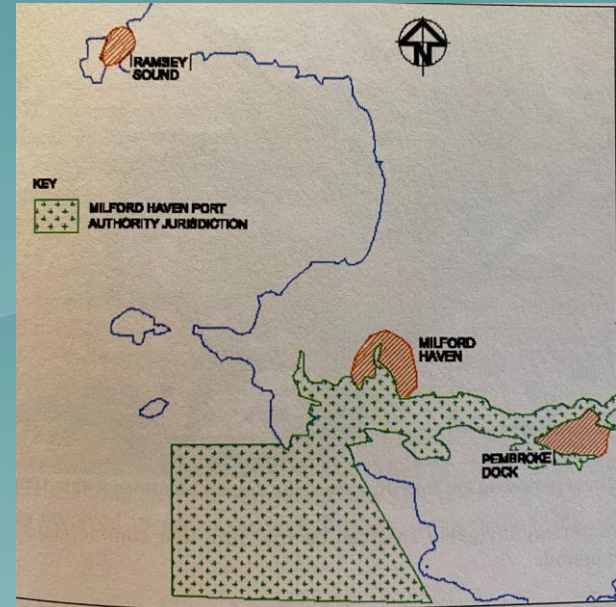


Logistics: Construction

The project will be mobilised from Pembroke Dock;

Assets will be installed using available vessels best placed for installation works following procurement.

- Barge on mooring
- Dynamically positioned
- Associated HL vessel



Project Consent

The project is currently consented under **Marine Licence ML 10/28/ML/9 issued by NRW under the Marine and Coastal Access Act 2009: Part 4**

Provide a timeline of any consent activities:

- Site Consented in early 2015.
- Ongoing extensions to cover deployed turbine
- Scoping will build on existing evidence from baseline surveys.
- Monitoring to be determined through close collaboration with NRW.
- Re-utilise the RAMP allow for continuous monitoring.

Supply Chain Procurement Opportunities

- Procurement Activity
- Environmental Scoping Support
- Horizontal axis turbine to replace exiting generator
- Engineering Support Services
- Electrical Support Services
- Marine operations – re-deployment and maintenance.

Contact Details

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Ramsey Sound Tidal Demonstration Regeneration Project

Developing a full scale in-stream
tidal demonstration zone for Wales



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France (Channel) England
EUROPEAN UNION

CAMBRIAN
OFFSHORE

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Co-financed by the European Regional Development Fund