



**PROJECT SUMMARY:**



**CLIENT**

Peel L&P

**PROJECT**

Liverpool Waters

**TIMESCALE:**

Ongoing

**THE BENEFITS:**

- > Scheme will serve approximately 9,000 residential units at full build out.
- > £5 billion water front development scheme.
- > Energy system designed to evolve alongside the client's 30-year masterplan and meet demand at each phase of build out.
- > Development agreement saw us work with the client to progress project from pre-concept to completion.

**PROJECT OVERVIEW**

Peel L&P's Liverpool Waters is a 30-year vision to transform the city's northern docks, bringing the 60-hectare site to life once again, creating a bustling, lively, attractive place to live and work across five different neighbourhoods.

Regeneration business, Peel L&P has embedded sustainability across its the £5bn waterfront scheme and appointed us to a development agreement which will see us conceive, design and create the heat energy infrastructure.

The project, when finished, will create a seamless extension to Liverpool's City Centre which extends over 2km along the banks of the River Mersey and will account for 20 million square foot of mixed-use development and include 9,000 residential units. Heat and hot water will be provided via the Mersey Heat district heating network served by an innovative Water Source Heat Pump energy centre.

**VITAL SOLUTION**

We began at the pre-concept stage, helping the client to understand their energy demands by creating a model from their masterplan accommodation schedule. Once this model was complete, we were able to design a technical solution, whilst supporting the ESCo to develop their commercial model.

As the development agreement process is collaborative in nature, we worked in partnership with Peel NRE to ensure the solution met their needs, including their carbon reduction ambitions. As our designers progressed the project through the RIBA stages our team produced cost plans, financial models and construction schedules, all of which were discussed and modified in consultation with the client. The result of this was that the RIBA Stage 4 design and construction programme integrated seamlessly into the larger development.

Phase 1 will deliver approximately 11 gigawatt hours of heat energy to

existing buildings on the Liverpool Dock Waterfront and this will be supplied by a temporary energy centre using boilers. Once demand increases, heat will be delivered via the permanent energy centre which has been designed to expand alongside the development build out.

**RIBA Stages of Work**

Our project team had been assembled to develop a deeper understanding of the project and create a comprehensive turnkey energy infrastructure which would meet the long-term needs of the client. With the understanding that the 30-year masterplan would be revised numerous times throughout the build our pre-construction and design team wanted to create an agile, responsive and creative culture which could best serve a constantly evolving project.

James Hadfield, Development Manager for Peel NRE, part of Peel L&P, explains, "The Vital team have very good technical