Zero Carbon Liverpool Project

3. Development Works to Date

Work to date

Locogen has received detailed pre-application advice from Sefton Borough Council regarding the proposed development and the surveys required to support a planning application. The surveys required to determine any potential impacts consist of the following:

- Landscape character and visual amenity;
- Residential amenity (noise & shadow flicker);
- Hydrology;
- Aviation;

- Ecology and biodiversity;
- Historic environment;
- Telecommunications; and
- Operational health and safety.

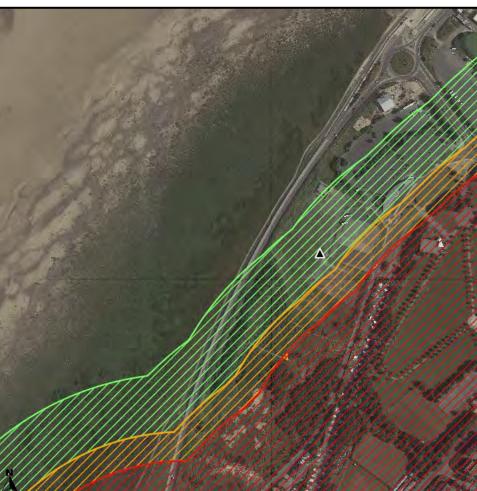
The following consultation and survey works are in progress, or have been completed for the project:

Landscape and Visual Assessment

The potential theoretical visibility of the proposed turbine was assessed, with key locations, or viewpoints, selected that best represent the setting of the turbine within the local landscape. Precise visual models (photomontages) were created from these viewpoints. The results of the Landscape and Visual Assessment is further detailed on information board 4.

Residential Amenity

When considering potential locations for the development, key buffers were placed around residential buildings so as to minimise any potential for negative impacts (see image to right). As the project progressed, noise monitoring and shadow flicker modelling works were completed to quantify these potential impacts. The headline conclusions are summarised on information board 5.



Hydrology

The location of the site in a developed area should mean there is minimal impact on drainage. In addition the development of the site would lead to a minimal increase in surface run off given the small footprint of development and re-utilisation of existing hardstanding areas.

Aviation

Consultation has been undertaken with civilian and military aviation bodies and this has demonstrated that the only potential concern is around the potential for clutter being formed on National Air Traffic Service's en-route radar. If required, this impact can be suitably mitigated.

Turbine location idential buffers

Environmental studies 2022-2023

Community consultation **June 2023**

Planning decision Q1 2024

Planning submission

Q3 2023

Discharge of planning conditions Q2 2024

> **Construction start** date Q3 2024

Commissioning Q4 2024

Ecology and Biodiversity

Zero Carbon Liverpool has commissioned an experienced and qualified consultant to undertake an ornithological and ecological assessment of the proposed wind turbine.

A full suite of ornithological surveys have been commissioned (ongoing at time of writing) and on completion will total a years' worth of survey effort. The bird surveys comprise of both vantage points and tide counts, including a survey effort designed to correlate with key periods of bird activity and migration.

The developer is in consultation with Natural England & the Merseyside Environmental Advice Service (MEAS) regarding the proposal, initial results and survey scope. The ecology and ornithology assessment will also take into account local environmental designations; SSSI, SPA, SAC and Ramsar. Two of the nationally important species protected within the Ribble and Alt Estuaries SPA are shown right A (Ruff), and left (Pink-footed Goose). A report to inform a Habitat Regulations Assessment (HRA)

will be submitted as part of the application.

In addition, a suite of bat monitoring is being undertaken to assess any possible impacts on local bat populations, and will conclude in September 2023.

We are committed to ensuring that potential impacts to local ecosystems are minimal, and hence are working to identify any issues at an early stage so that they can be mitigated at all stages in the process of this development.

To date the surveys have not highlighted any likely negative impacts to local ecology or ornithology.

Historic Environment

Consideration of impacts on cultural heritage is to be completed but given the location of development there is a minimal expectation that there will be an adverse impact on the setting of listed buildings and other monuments within the wider area.

Telecommunications

Wind turbines can sometimes cause television, radio and microwave interference by blocking and/or causing part of a signal to be delayed, however data from the Office of Communications (Ofcom), showing licensed telecommunications links within the area, confirmed that the development should not impact local network coverage.

Operational Health and Safety

The turbine has been located so that there is a suitable buffer from buildings and busy public roads. The choice of a modern direct drive turbine means that there is a high level of operational control that can be applied. From an operational perspective the following H&S considerations have been identified:

- would be closed off to minimise risk from any falling equipment.
- potential for impacts on the display.

A full health and safety assessment will be provided in support of the formal planning application that considers potential risks during construction, operation and eventual decommissioning.

• There may be occasional periods in the winter when ice can build up on the turbine blades. If this occurs then the turbine can detect build up and stop operating until such time that the ice melts.

During external maintenance of the nacelle and tower the area immediately below the turbine

During the annual fireworks display the turbine will be shutdown and positioned so as to avoid any