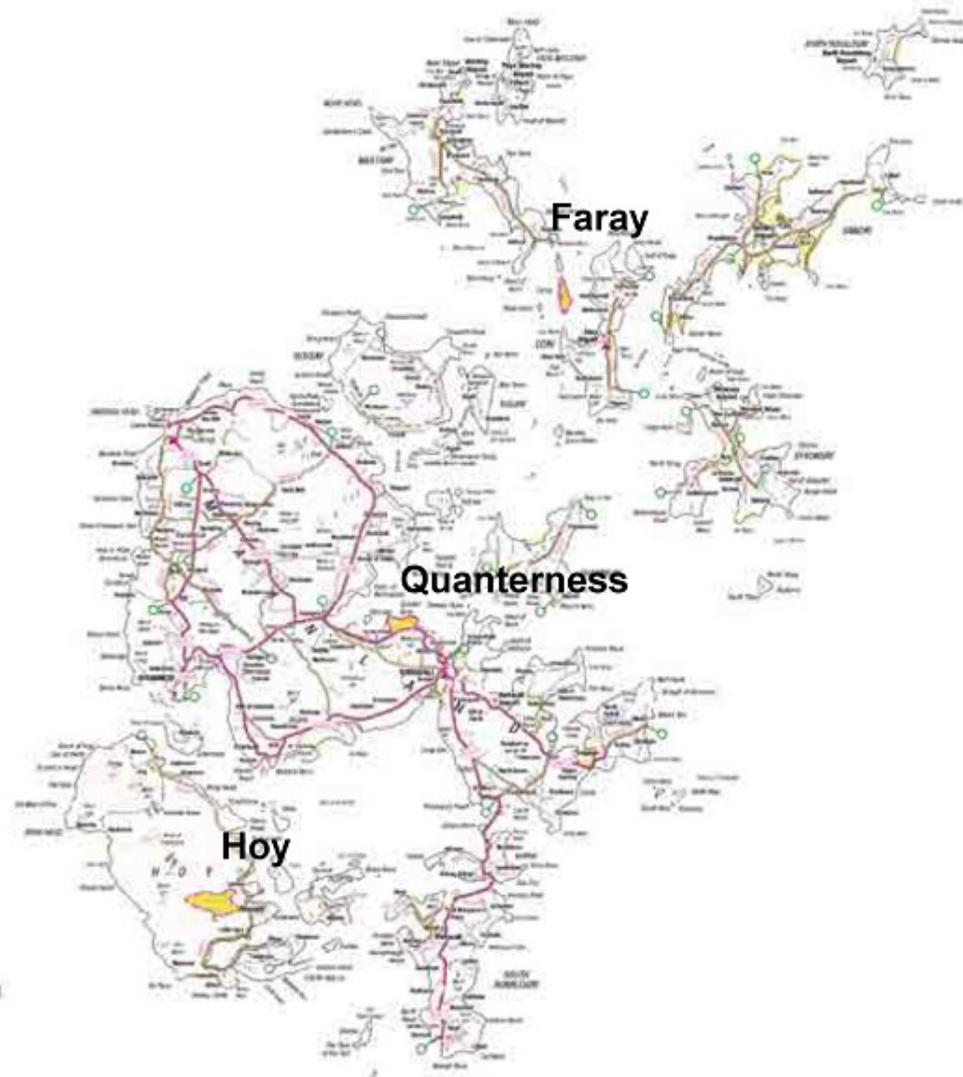


# What is the Orkney Community Wind Farm Project?



- The project is seeking to develop wind farms in Orkney with the aim of:
  - ✓ Generating income from publicly owned wind energy projects to support services for local communities.
  - ✓ Supporting a case for a new cable for Orkney to open up wider economic development opportunities for the energy industry, including marine energy.
  - ✓ Ensuring that the local benefits from a new cable are maximised.
  - ✓ Making the most of our resources.
- Early development activity will be funded from the Council's Strategic Reserve Fund.
- Three sites are under consideration.



# What are the benefits for Orkney?

## Income and community benefits



Council-owned wind farms would have the potential to **generate a significant income every year** helping us tackle the twin challenges of reducing budgets and increasing demand for public services for everyone from the young to the elderly.



As well as creating jobs through development, build, operation and decommissioning stages, **all profit would stay with local people here in Orkney.** This money could be spent when it is earned to:

- **preserve and enhance Orkney services** like social care, education, roads and transport.
- fund an **Orkney community benefit scheme** which would provide a foundation for communities to drive transformational projects of their own.
- provide the local communities with a **direct community payment** for hosting the wind farm.

## Creating a carbon neutral future



In our Council Plan we have a target outcome for, "A vibrant **carbon neutral** economy which supports local businesses and stimulates investment in all our communities."



National targets are:

- By 2030, the equivalent of 50% of the energy for Scotland's heat, transport and electricity consumption to be supplied from **renewable sources**.
- By 2050, to **reduce emissions** by at least 80% of 1990 levels.



Orkney produced 120% of its electricity needs in 2017/18, but there is still so much more we can do to **decarbonise** our agriculture, heating, and transport."

# What are the benefits for Orkney?

## Securing a new cable



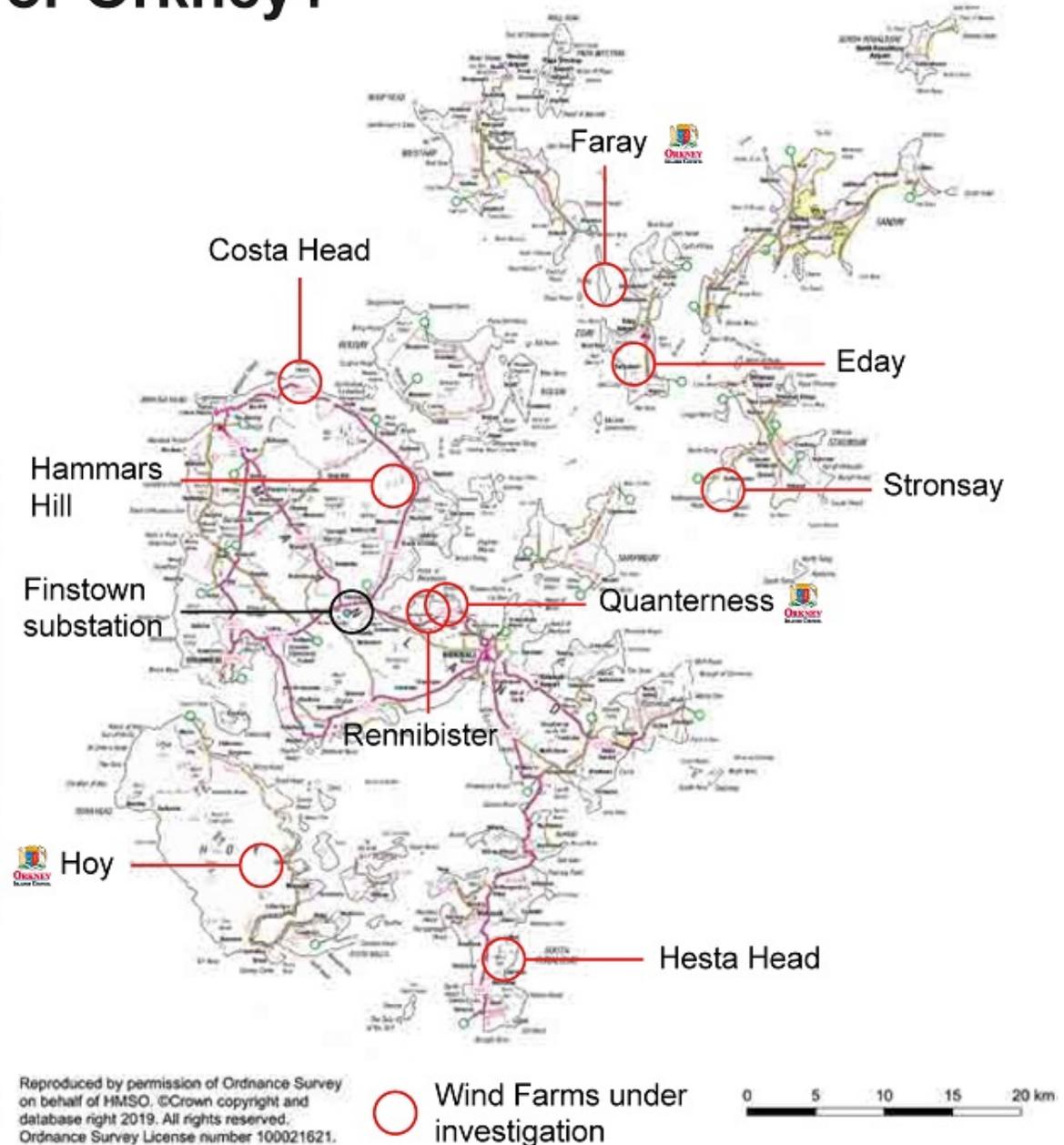
By developing these wind farms we can join other local developers in **making the case to Ofgem for a new interconnector for Orkney**, giving Orkney more chance of getting a new cable and all the benefits it could bring.



A new interconnector could bring hundreds of millions of pounds of economic benefit to Orkney, supporting our existing renewable energy sector and **securing the future development of the marine energy sector** by putting the necessary infrastructure in place.



OFGEM has said that to justify the cable Orkney needs projects adding up to 135MW, but we don't know all the conditions yet. It's likely that **the Council will need to contribute a substantial proportion of this generation.**



# Why have we chosen these particular sites?

## ■ Constraints

- ✓ There are limited options for wind farm development sites in Orkney due to the spread of houses and designated areas for wildlife.
- ✓ Some of the feasible sites are being developed by private companies.

## ■ Scale

- ✓ We need enough Orkney projects to trigger a new cable.
- ✓ We need wind farms that are big enough to be financially viable in a low subsidy environment.

### Hoy

This area was originally chosen as the largest area away from homes and designated sites with the potential for 100MW. Initial scoping and bird surveys have shown that the site could more realistically offer 28MW.

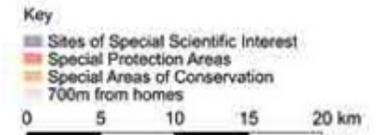
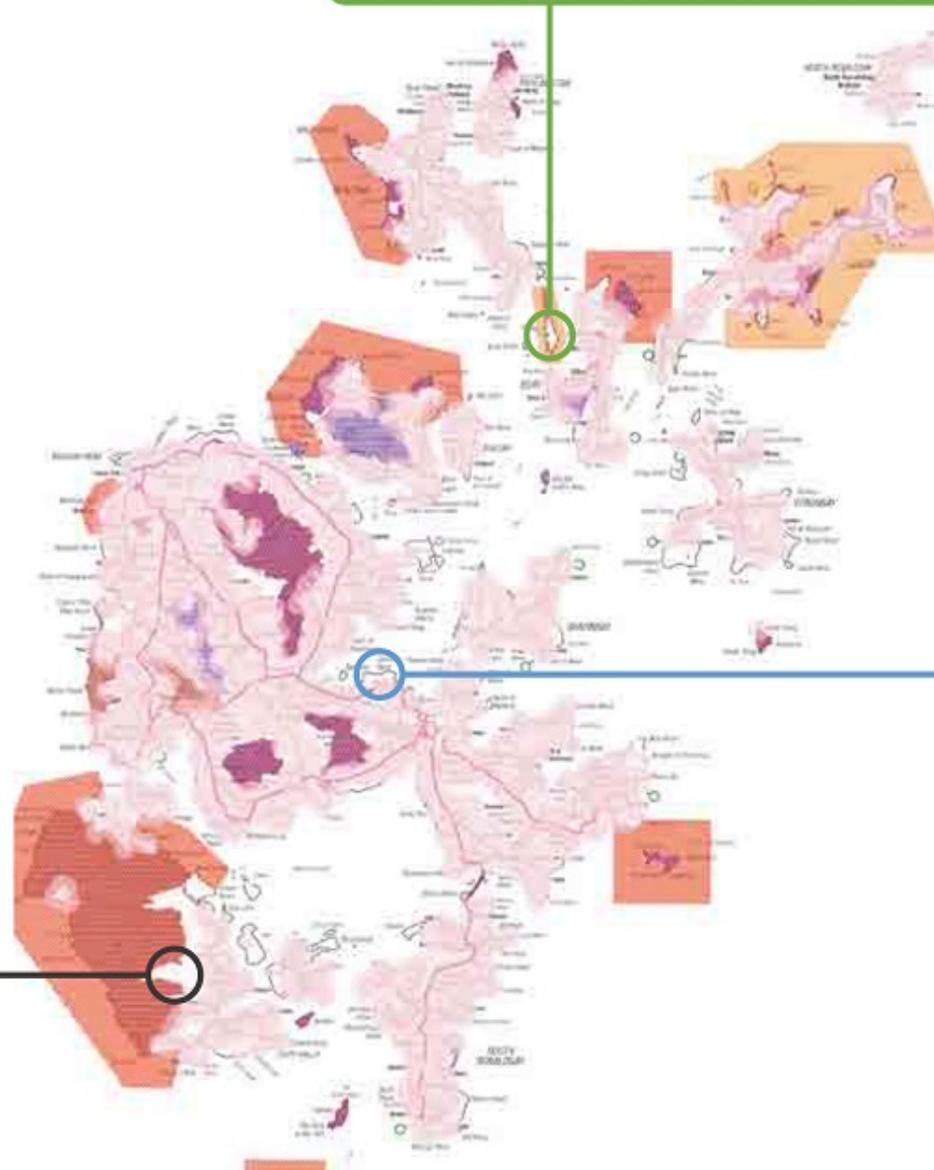
### Faray

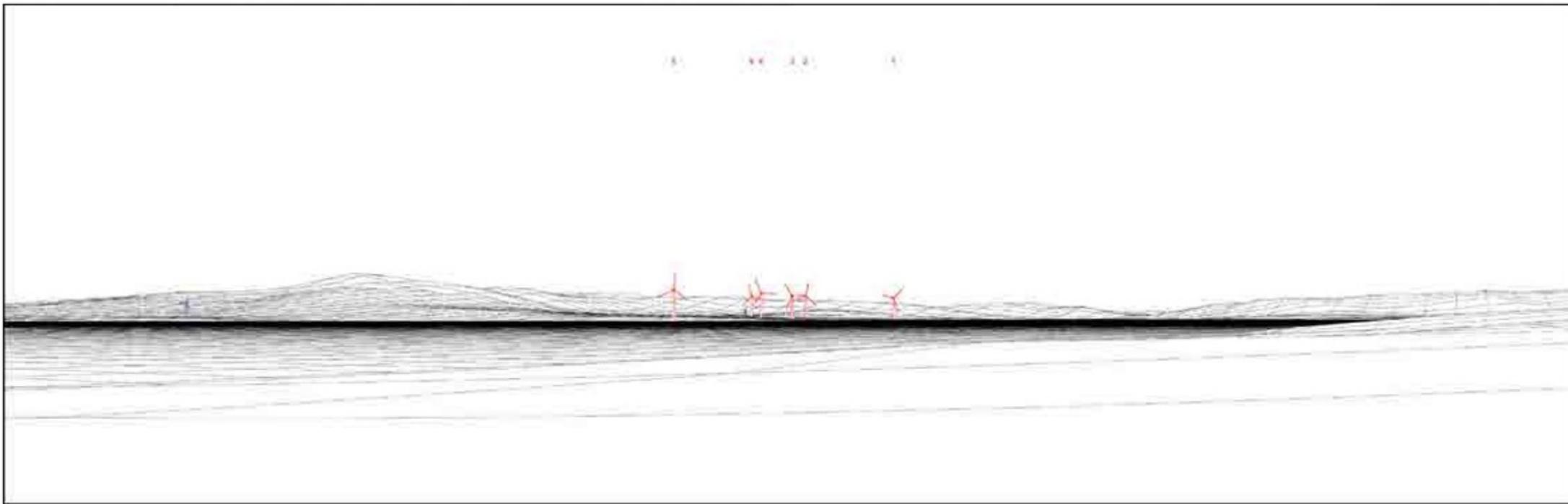
This uninhabited island was bought by the Council in January 2019 for its strategic development potential. It is probable that only one year of survey work will be required.

### Quanterness

This site has practical advantages and requires less survey work than other sites because it is the least ecologically sensitive.

Because Quanterness is close to Kirkwall, it could also enable a separate project in which the Council could directly supply electricity to its own buildings as a means to reduce costs.





## Balfour Castle to Quanterness

Distance to Nearest Turbine: 5,621 m

Turbine Tip Height: 150m

Turbine Hub Height: 92.5m

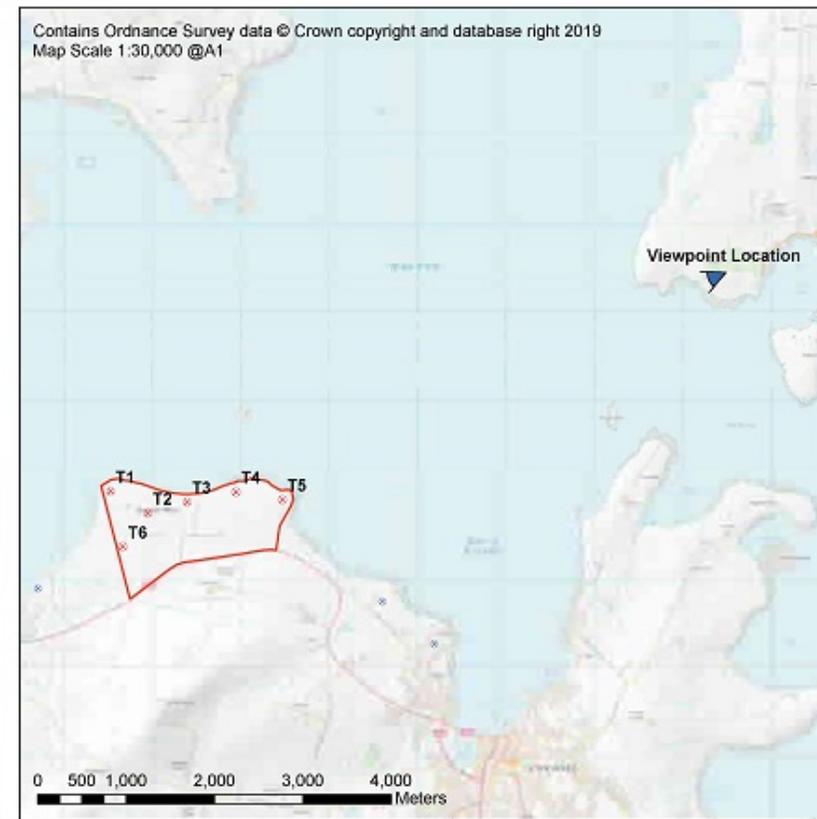


Orkney's Community Wind Farm Project

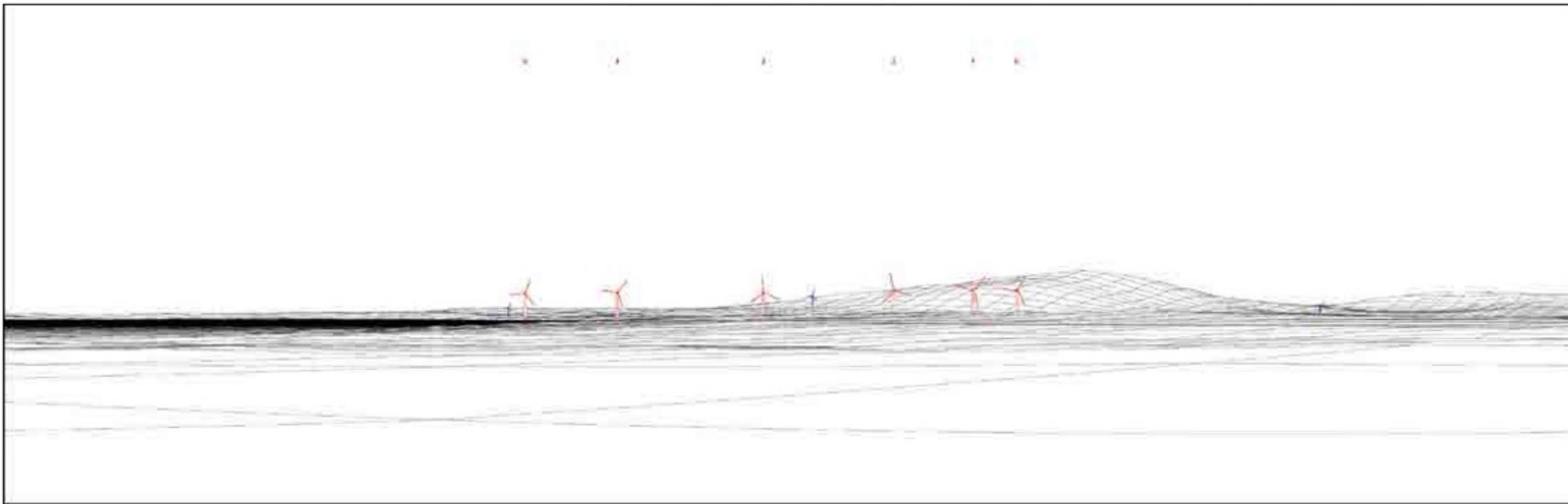


Photo to provide context only – wind turbines not shown

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Map Scale 1:30,000 @A1



0 500 1,000 2,000 3,000 4,000 Meters



## A966 to Quanterness

Distance to Nearest Turbine: 5,244 m

Turbine Tip Height: 150m

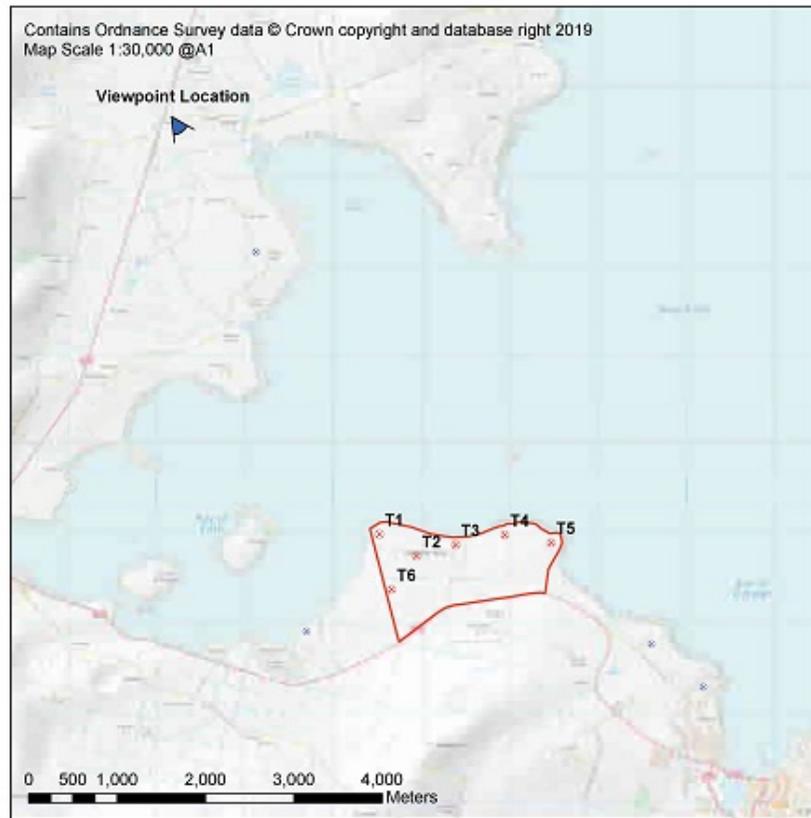
Turbine Hub Height: 92.5m



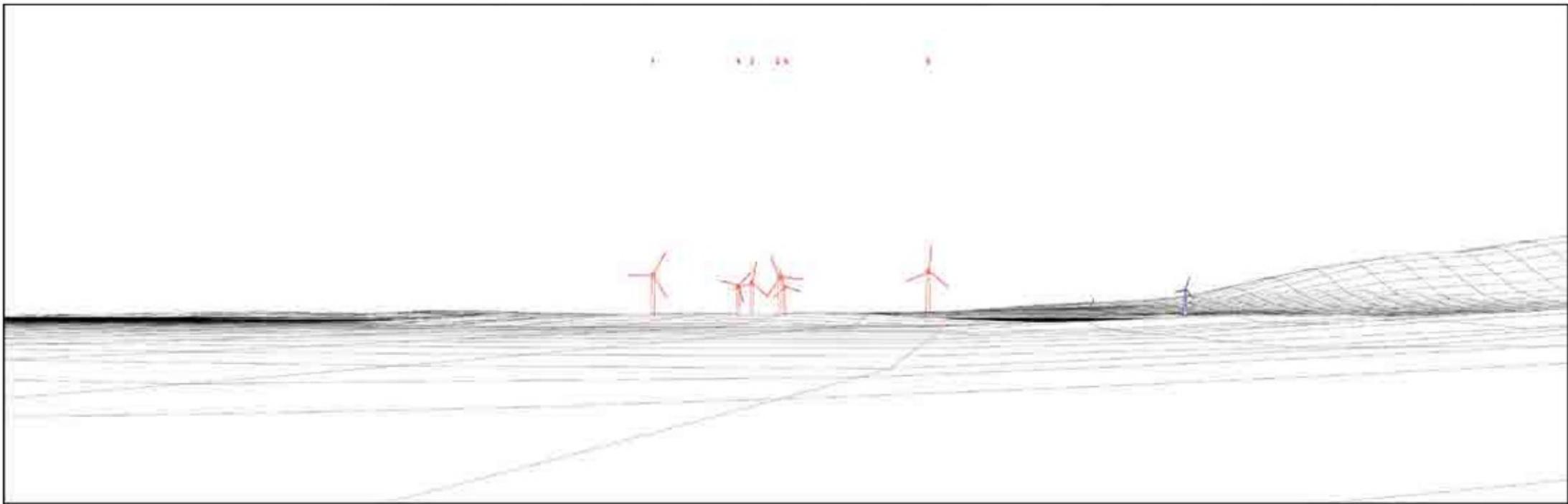
Orkney's Community Wind Farm Project



Photo to provide context only – wind turbines not shown



0 500 1,000 2,000 3,000 4,000  
Meters



## A965 to Quanterness

Distance to Nearest Turbine: 3,808 m

Turbine Tip Height: 150m

Turbine Hub Height: 92.5m



Orkney's Community Wind Farm Project

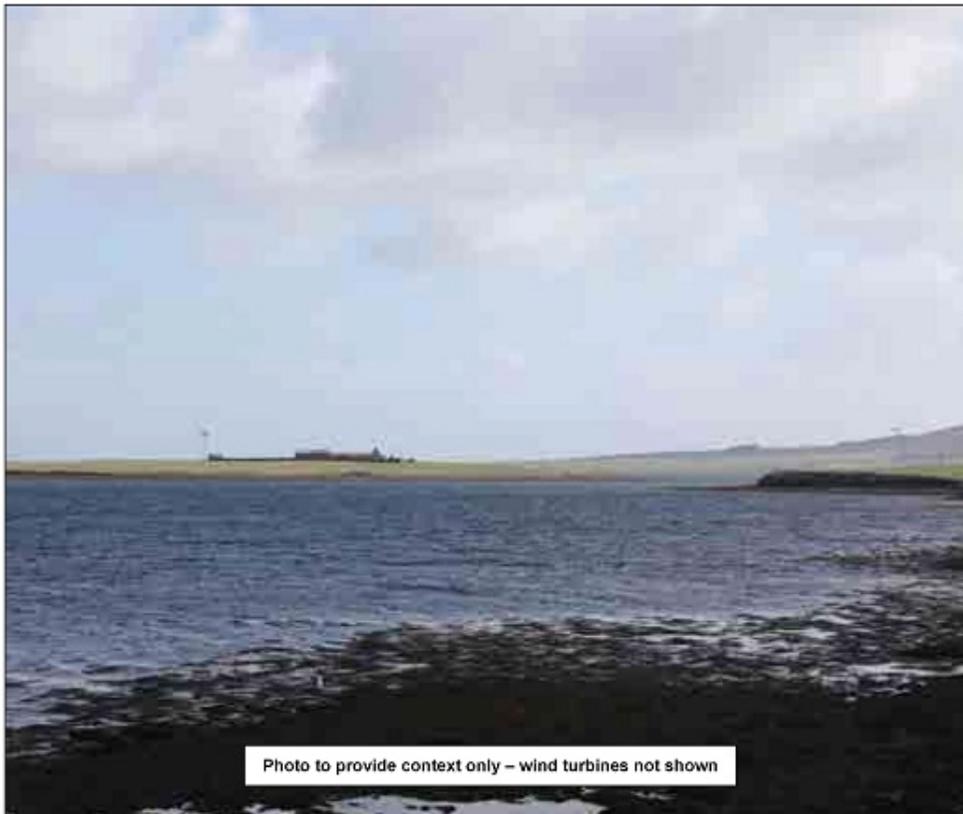
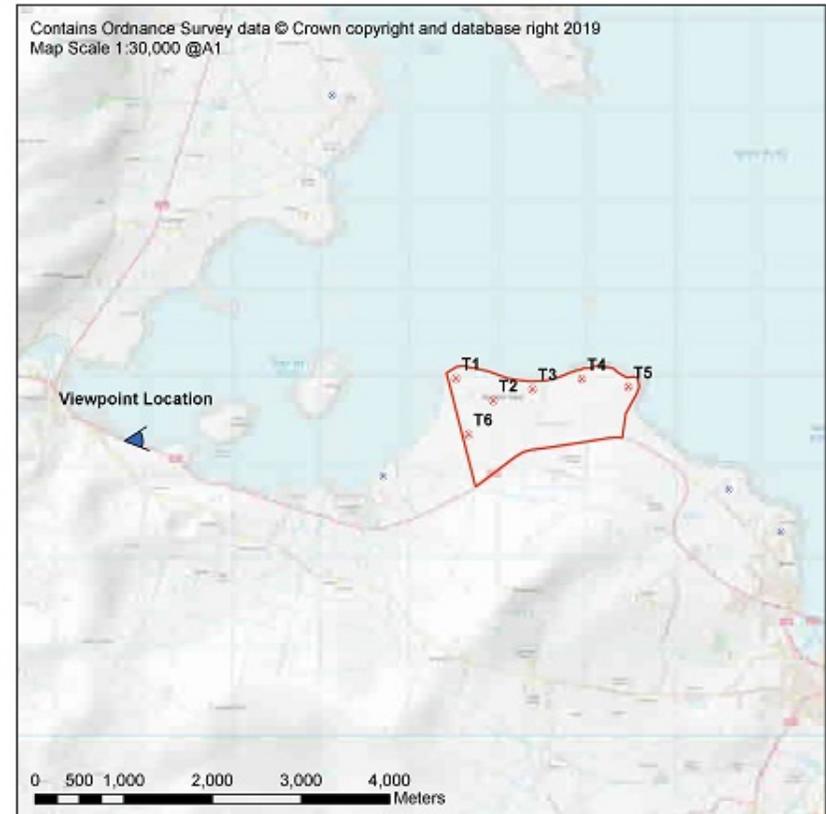
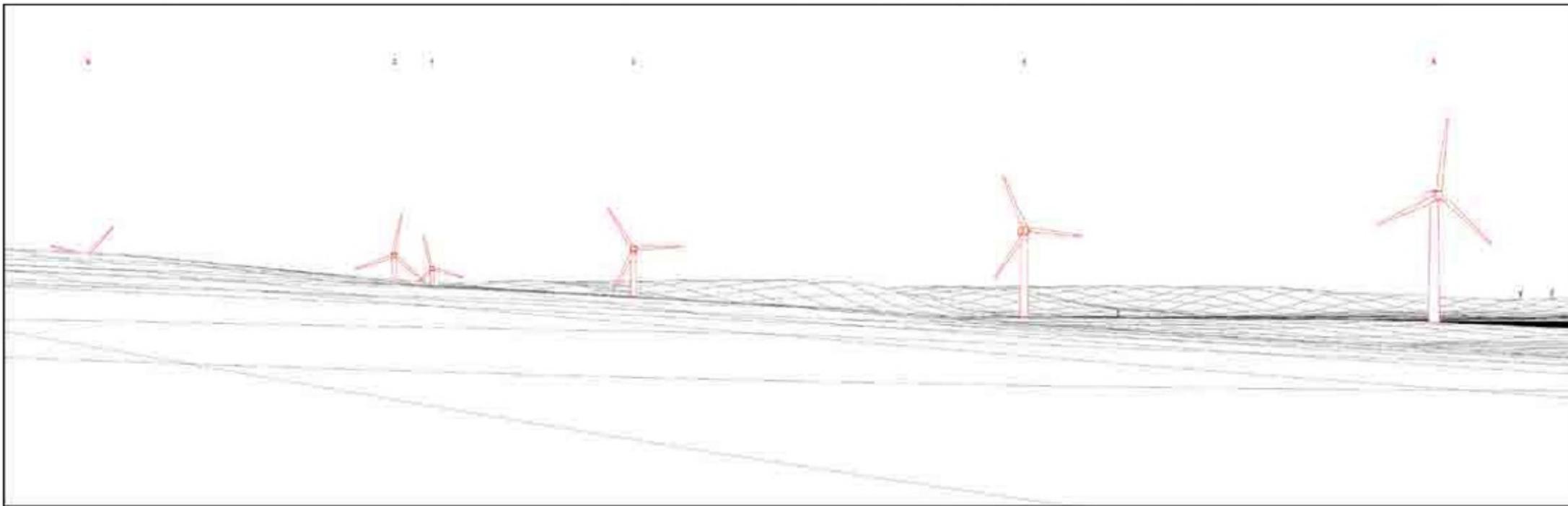


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## Kirkwall West to Quanterness

Distance to Nearest Turbine: 1,246 m

Turbine Tip Height: 150m

Turbine Hub Height: 92.5m

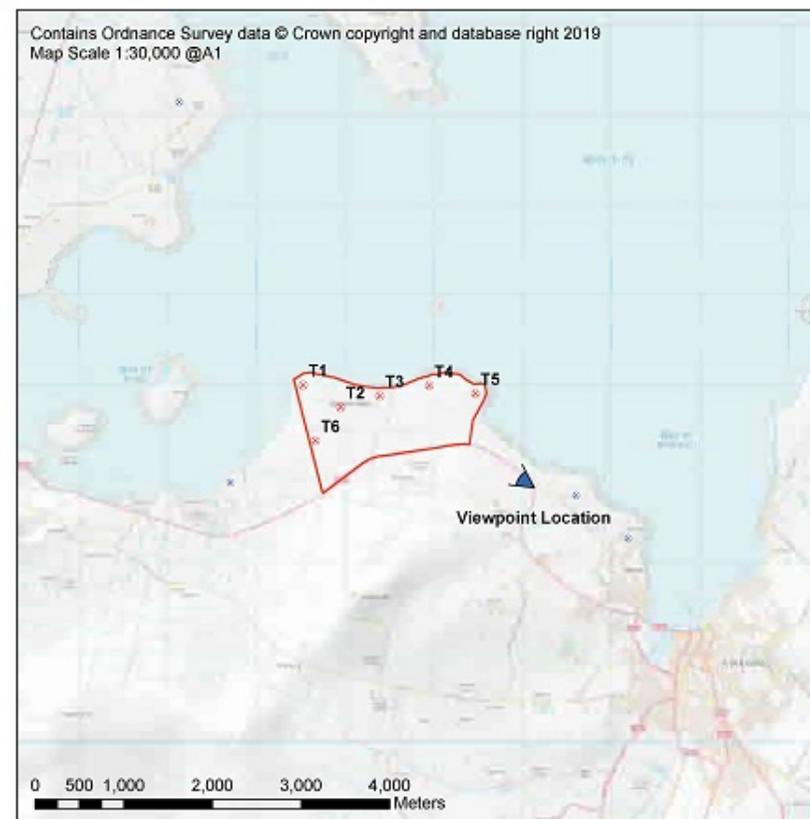


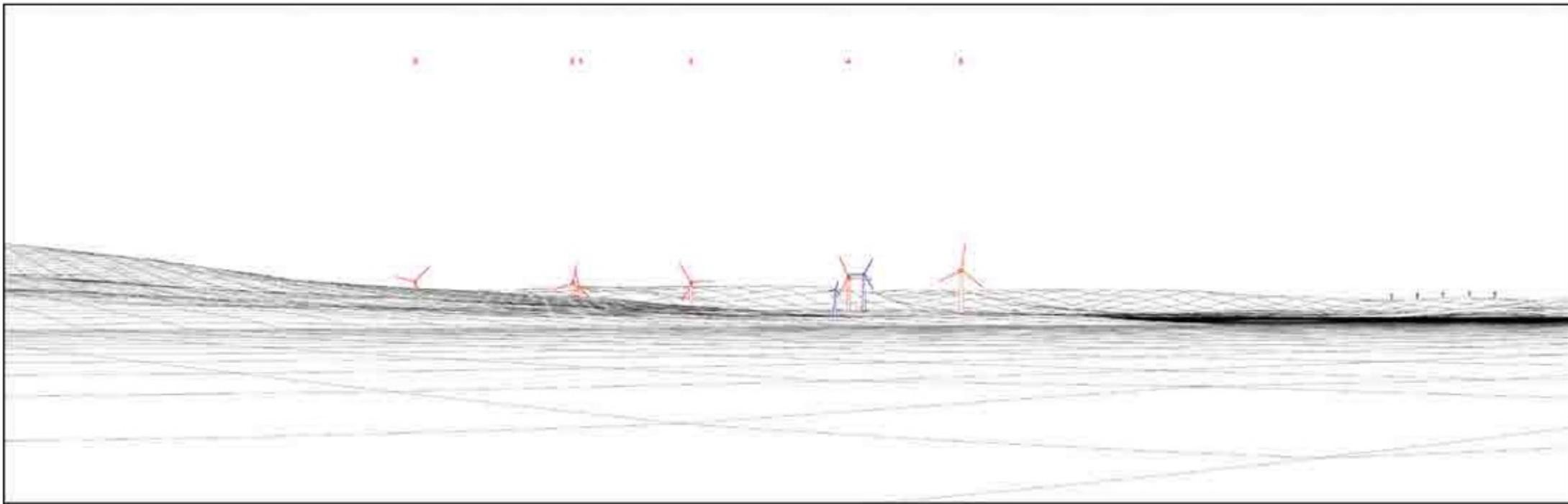
Orkney's Community Wind Farm Project



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## Kirkwall Central to Quanterness

Distance to Nearest Turbine: 3,618 m

Turbine Tip Height: 150m

Turbine Hub Height: 92.5m

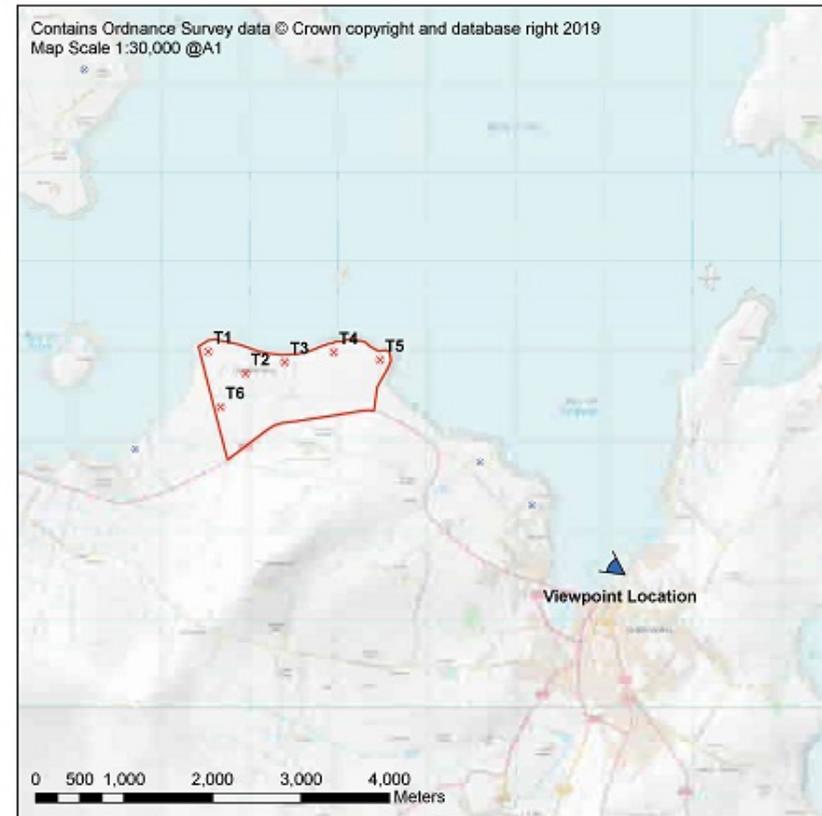


Orkney's Community Wind Farm Project



Photo to provide context only – wind turbines not shown

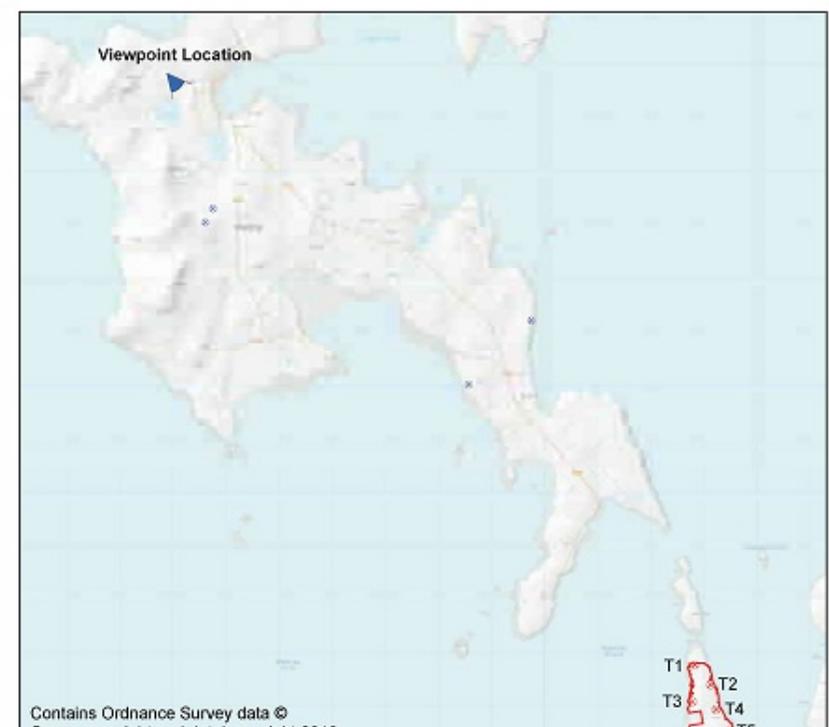
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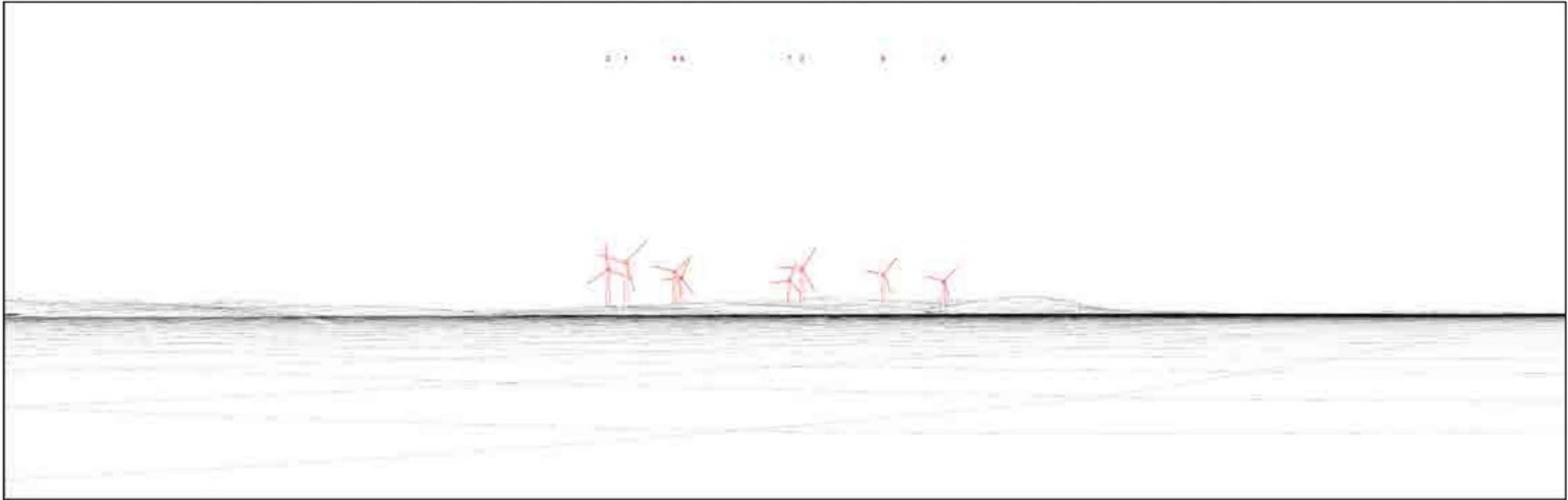




## Noltland Castle to Faray

Distance to Nearest Turbine: 14,876m  
Turbine Tip Height: 150m  
Turbine Hub Height: 92.5m





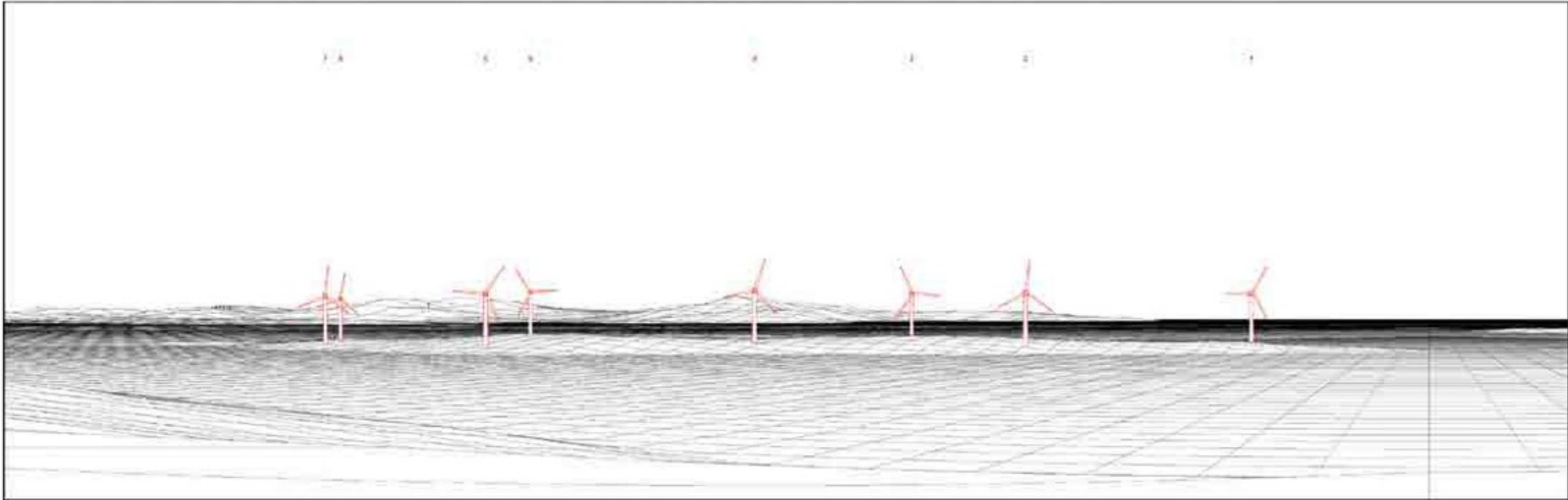
## Westray Ferry Terminal to Faray

Distance to Nearest Turbine: 3,406 m  
Turbine Tip Height: 150m  
Turbine Hub Height: 92.5m



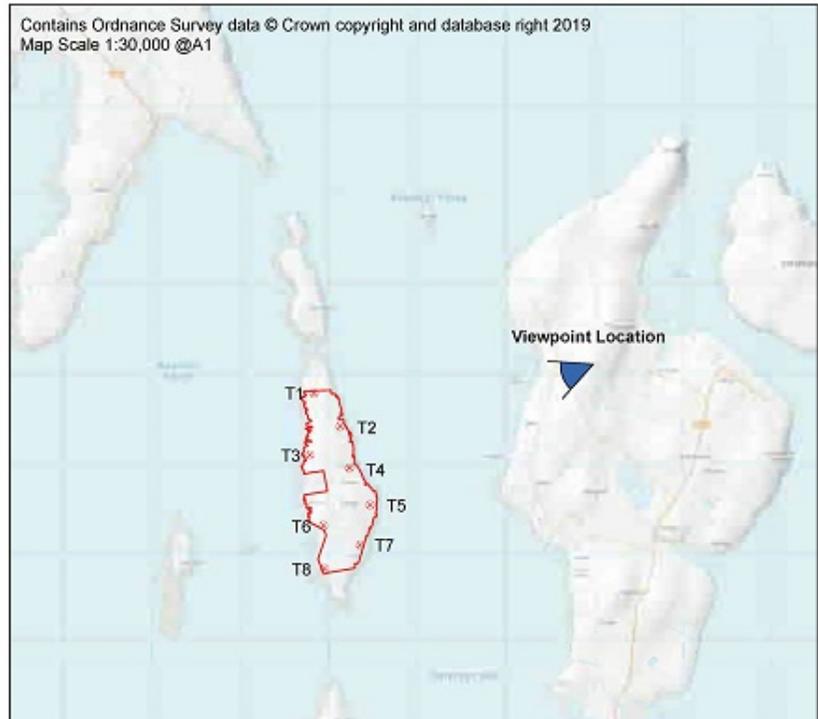
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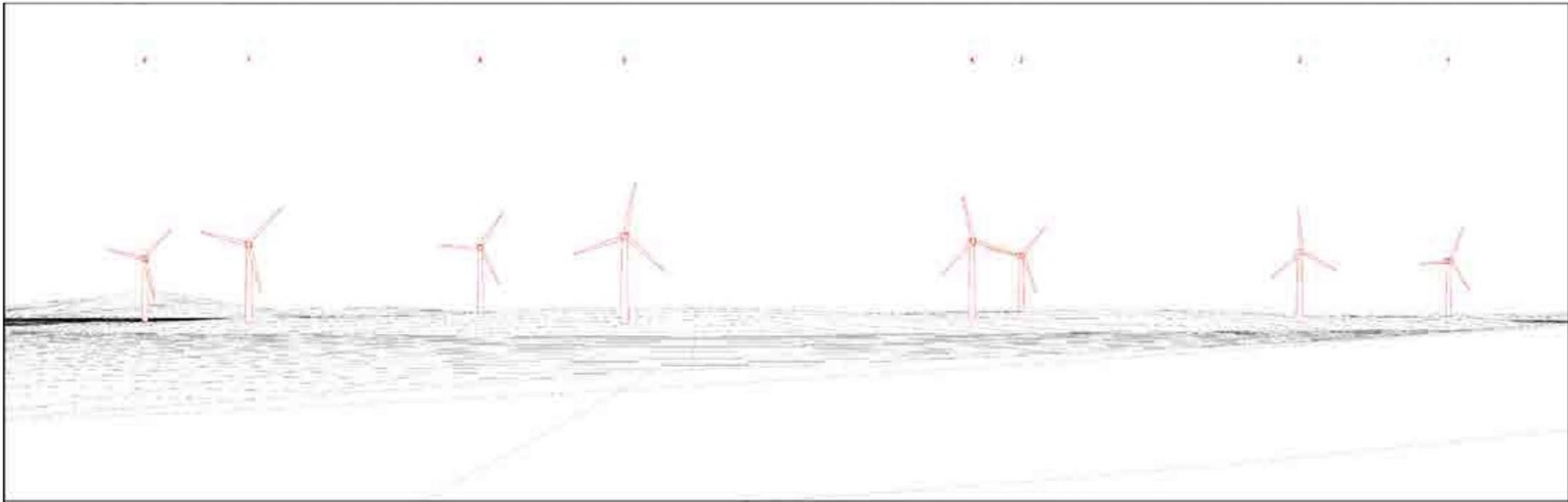




## Vinquoy Hill to Faray

- Distance to Nearest Turbine: 2,920m
- Turbine Tip Height: 150m
- Turbine Hub Height: 92.5m





## Guith to Faray

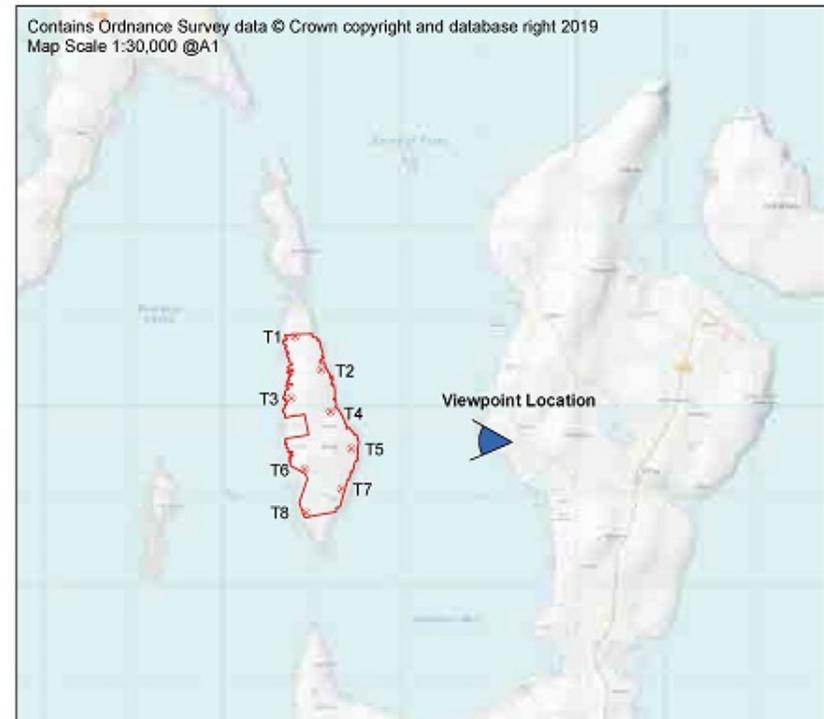
Distance to Nearest Turbine: 1,739 m

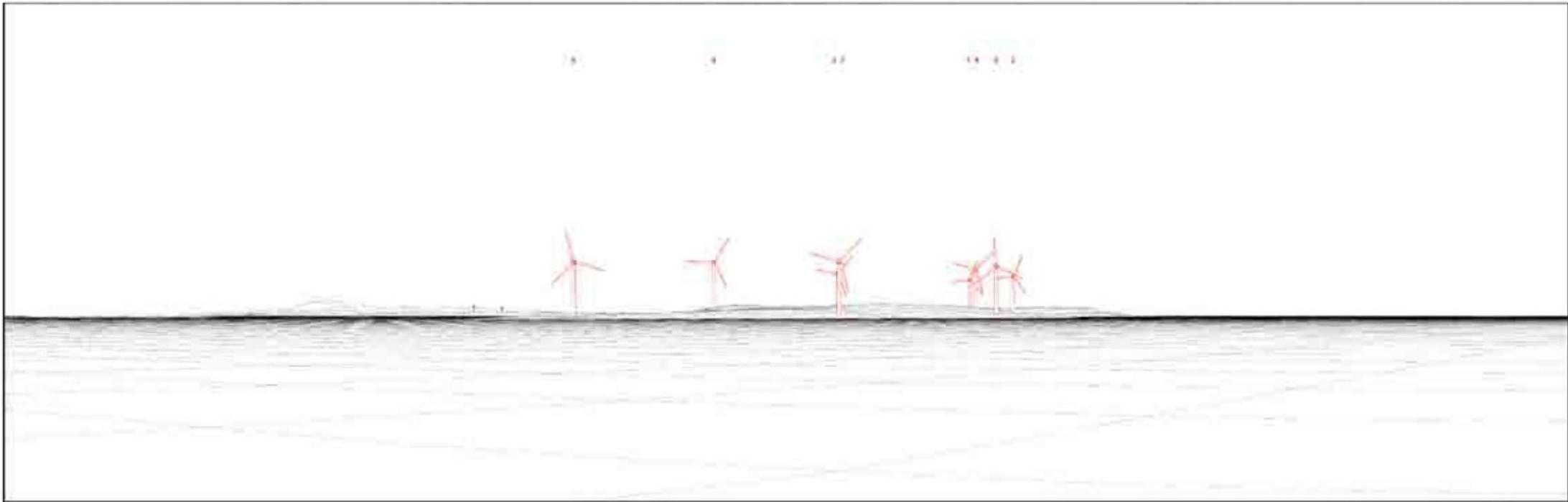
Turbine Tip Height: 150m

Turbine Hub Height: 92.5m



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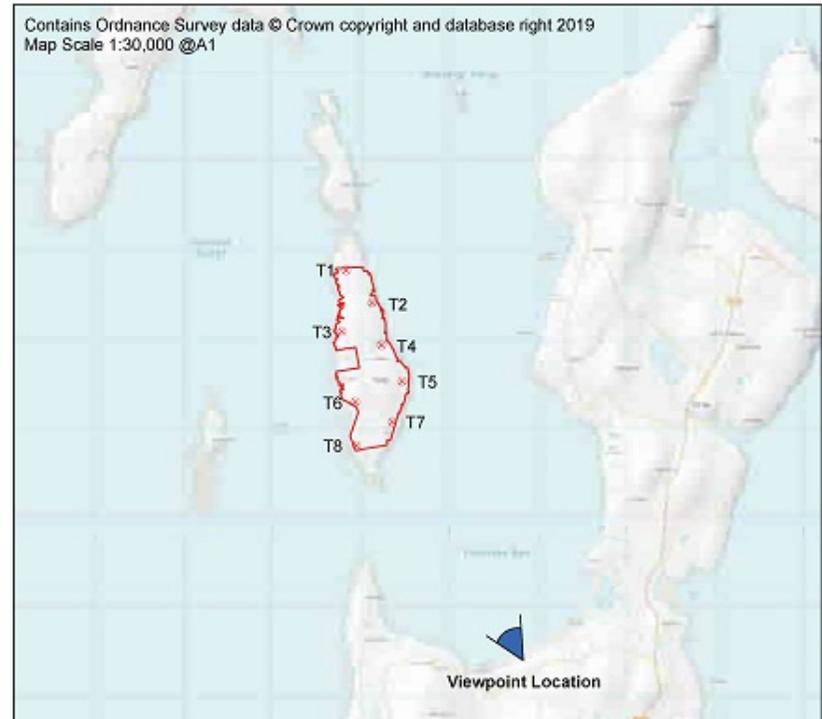


## Sands of Mussetter to Faray

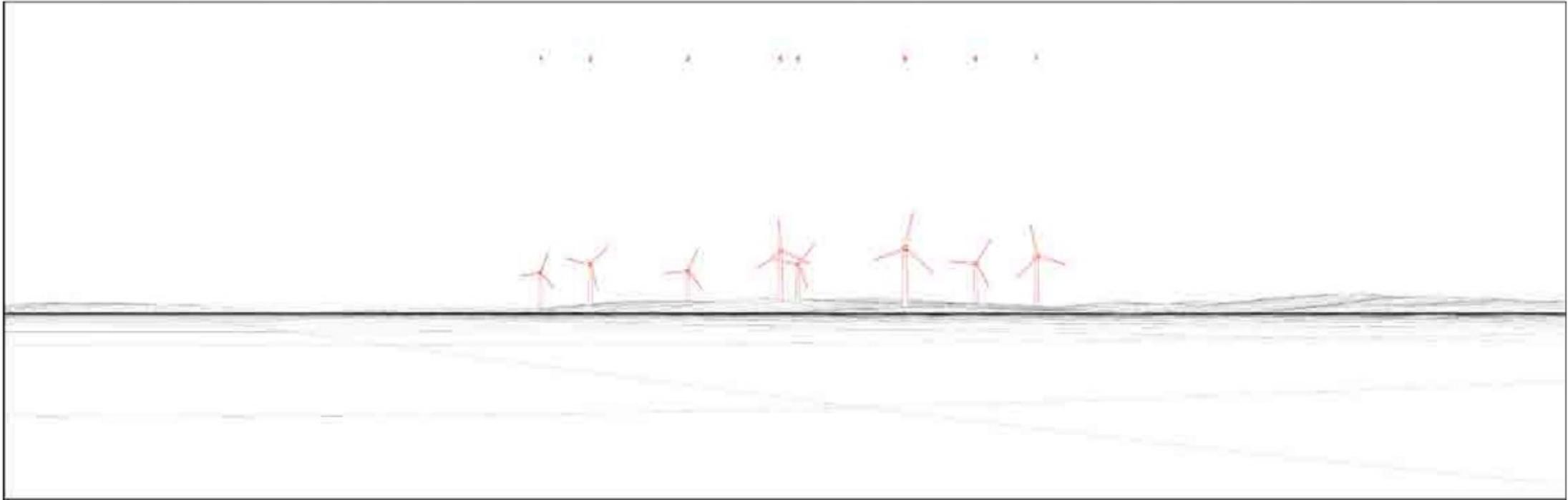
Distance to Nearest Turbine: 3,039m

Turbine Tip Height: 150m

Turbine Hub Height: 92.5m



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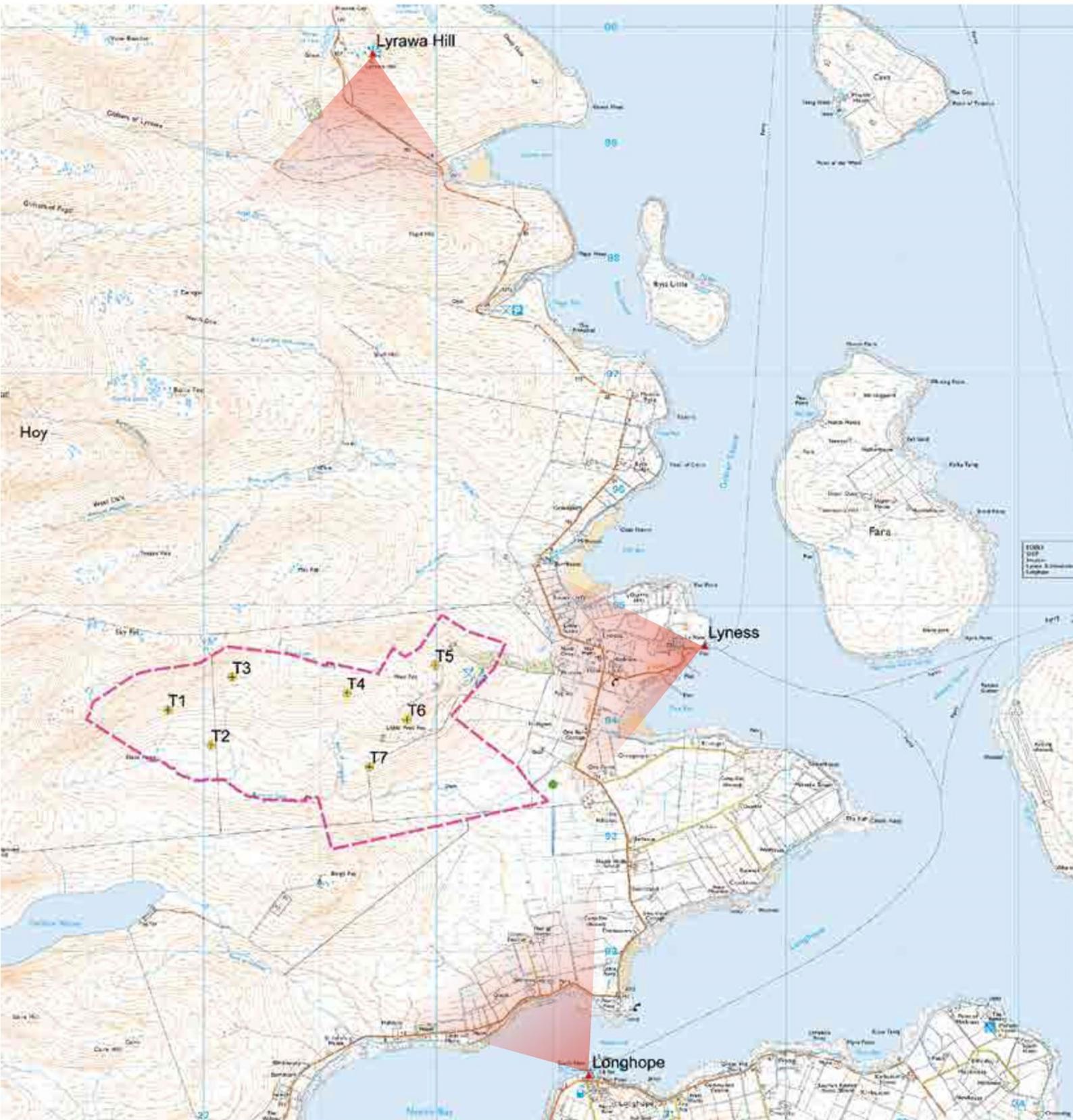


### A View from the Ferry towards Faray

Distance to Nearest Turbine: 2,657m  
Turbine Tip Height: 150m  
Turbine Hub Height: 92.5m



# Hoy Proposed Layout



# Hoy - Latest Design December 2018

**View to Hoy Wind Farm from Longhope Pier**



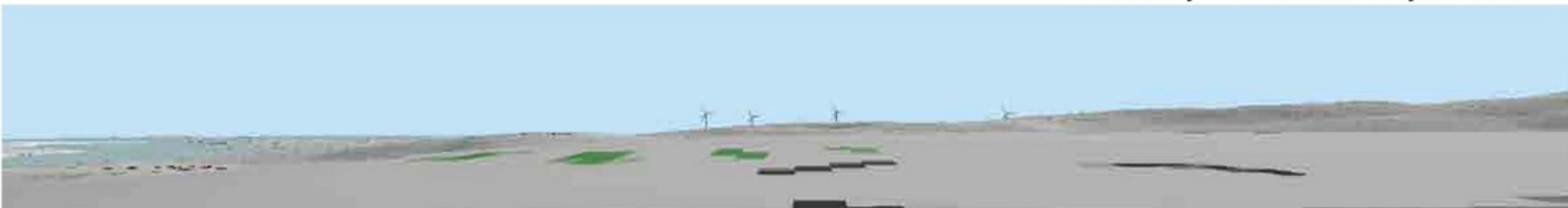
Turbine Tip Height 150m Turbine Hub Height 92m

**View to Hoy Wind Farm from Lyness Pier**



Turbine Tip Height 150m Turbine Hub Height 92m

**View to Hoy Wind Farm from Lyrawa Hill**



# What's happening next?

Continue discussions with stakeholders

Explore options for delivery of community benefit – we want your opinions

Keep you updated on developments

Commence full Environmental Impact Assessment including the following studies:

- Bird surveys
- Ecology and cultural heritage
- Geology and hydrology
- Noise and shadow flicker
- Landscape and Visual
- Traffic and access
- Socio-economics and recreation
- Aviation and telecommunication

Undertake wind resource measurement

Re-design layout based on studies and feedback