

## WELCOME TO DRAGON ENERGY

### THANK YOU FOR ATTENDING THIS PUBLIC EXHIBITION REGARDING A PROPOSAL FOR WIND ENERGY AT DRAGON LNG'S FACILITY IN WATERSTON.

- The project has been named Dragon Energy. Together with the recently consented solar farm, the wind energy project would make a significant contribution towards Dragon's Scope 2 CO<sub>2</sub> emissions and annual electricity demand.
- Today's exhibition is part of the first round of community consultation events for this project. The project is still at an early stage and another formal round of consultations will be held once we have more information including the results of the environmental studies that are currently underway to inform the planning application.
- This exhibition outlines the draft proposals as they stand today, and we are keen to understand what you think. Dragon staff and consultants for the project are available to answer any questions you may have.

**Please voice your opinion about the proposals by completing a feedback form. You can take it with you and send it free of charge to our Freepost address Freepost Infinergy Ltd, or fill it in at the event and submit it to the registration desk.**



EXISTING DRAGON LNG TERMINAL AT NIGHT

## WALES, DRAGON LNG AND WIND ENERGY

- Milford Haven is a key energy hub for the UK and Dragon LNG has the capacity to supply up to 10% of the UK's energy needs through the import of Liquid Natural Gas, which is key to the energy transition. Reducing the carbon footprint of this critical energy source as we transition away from fossil fuels is key to supporting the nation's net-zero ambitions.
- The Welsh Government acknowledges the important role that renewables, including onshore wind energy, has to play to combat climate change and secure energy supply. In their "Future Wales The National Plan 2040" planning policy document it sets out its target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency.
- The wind resource at the Haven Waterway is considered by industry specialists to be excellent, with wind turbines achieving considerably higher generation outputs than in many other places in the UK.



EXISTING DRAGON LNG TERMINAL AT NIGHT



### Policy 32 – Haven Waterway and Energy

The Welsh Government supports operations at Haven Waterway, and recognises its location for potential new renewable and low carbon energy-related development, innovation and investment.

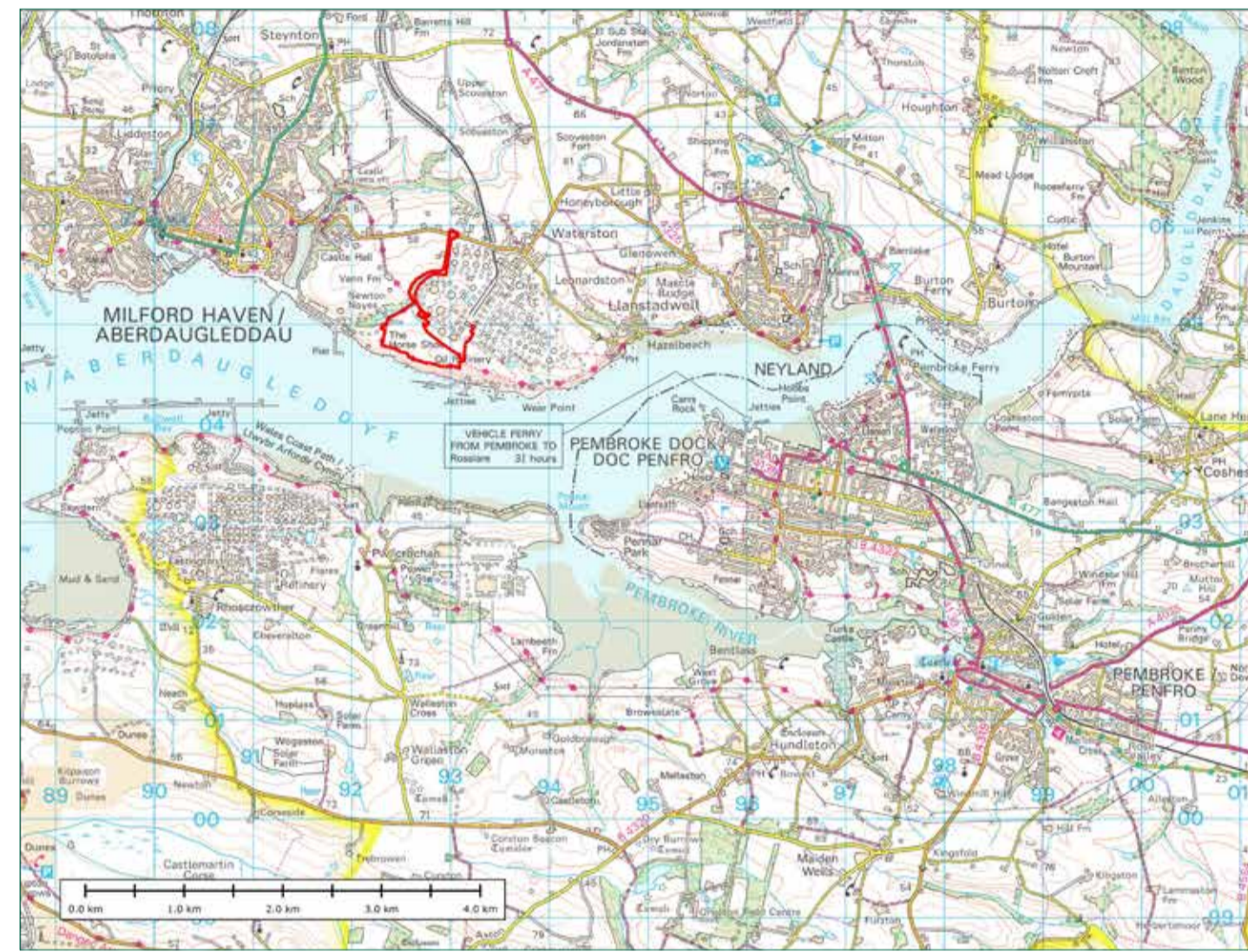
New energy-related development should support local and regional communities and provide jobs and investment in training and skills.

In determining any applications for energy proposals, consideration should be given to the contribution it will make to decarbonising energy supplies, the impacts on the landscape, seascapes, natural and historic environment and the economic benefits they would bring to the region.

On-shore developments associated with off-shore renewable energy projects will be supported in principle.

## THE SITE

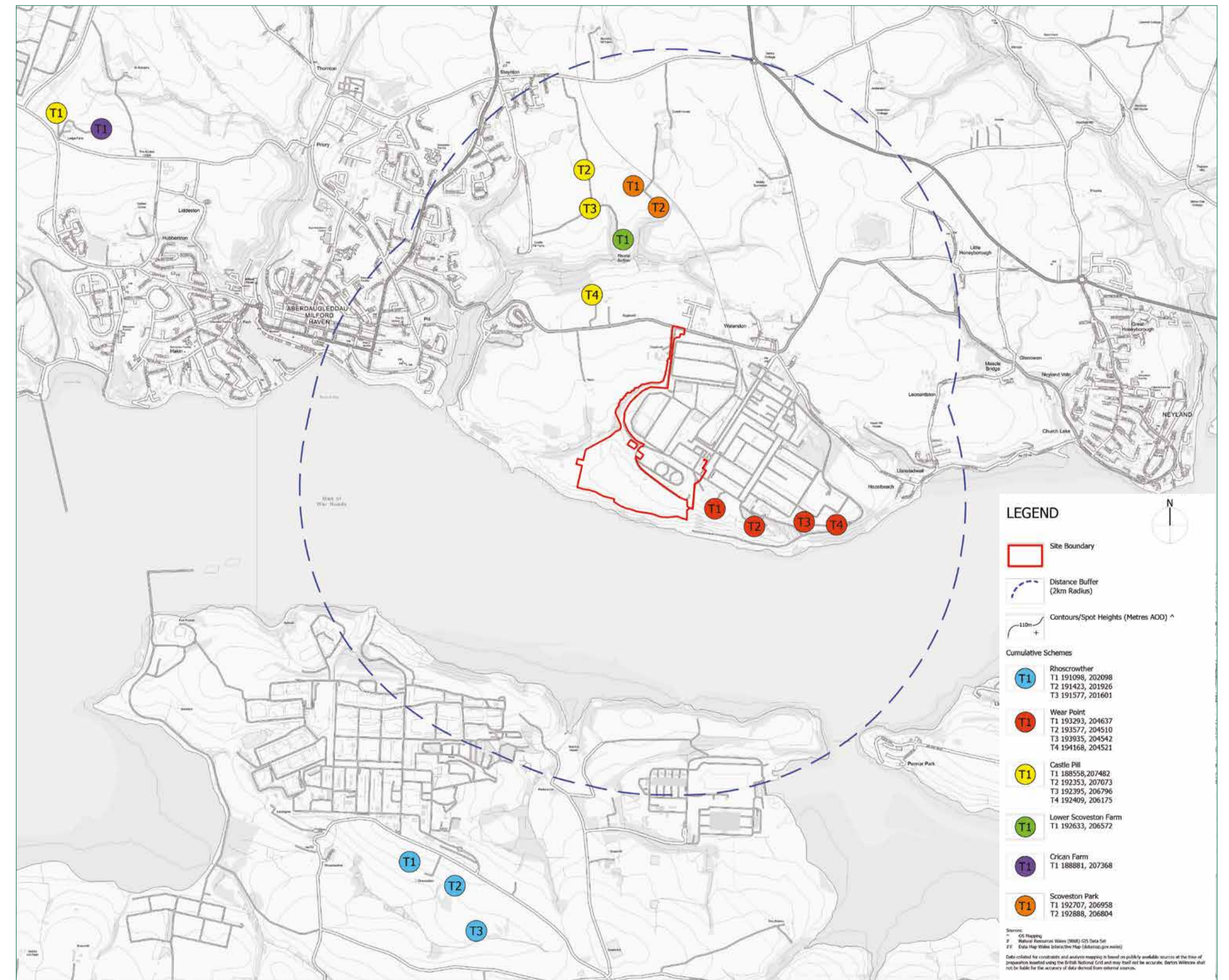
- The site comprises land to the south west, and adjacent to, the Dragon LNG Terminal, Waterston.
- The proposed wind turbines would be co-located with a recently consented solar farm, currently under construction.
- The turbines would be sited to the west, and broadly in line with the existing Wear Point wind turbines, and to the south of the existing Castle Pill wind turbines.



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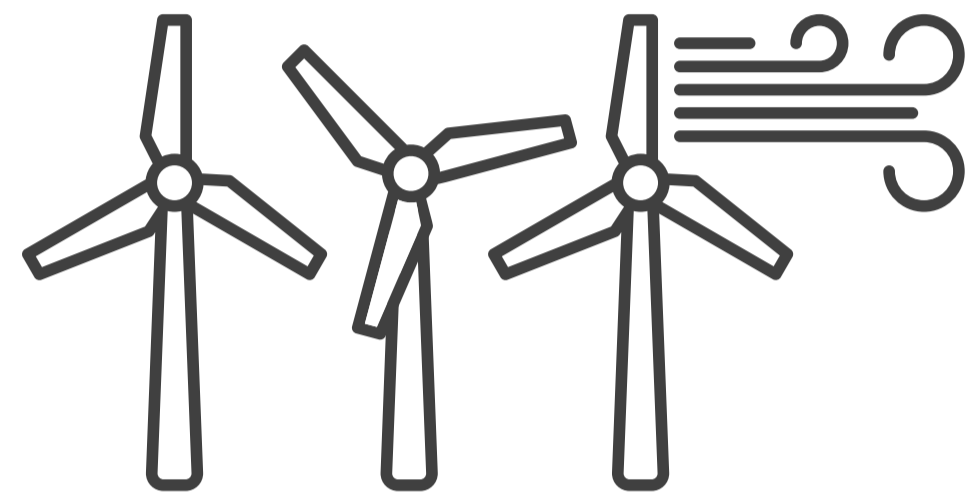
EXISTING WEAR POINT TURBINES



CUMULATIVE SCHEMES

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## OVERVIEW OF THE PROPOSALS



The emerging proposal is for up to **3 wind turbines** of up to

# 149.9m

(491.8ft) when the blade is in a vertical position.



Access would be taken from the **B4325** and the existing West Perimeter Road.

Each turbine would have an installed capacity of up to

# 4.8 MW

(megawatts)

Enough electricity could be produced to meet up to

# 39% PER YEAR

of Dragon's on site demand. Combined with the solar farm, approximately **47%** per year.

Expected electricity output per annum: would be up to approximately

# 49,600 MWh

(megawatthours)

This is the equivalent of the annual electricity consumption of approximately **13,230** average UK homes.

(source: Renewable UK)

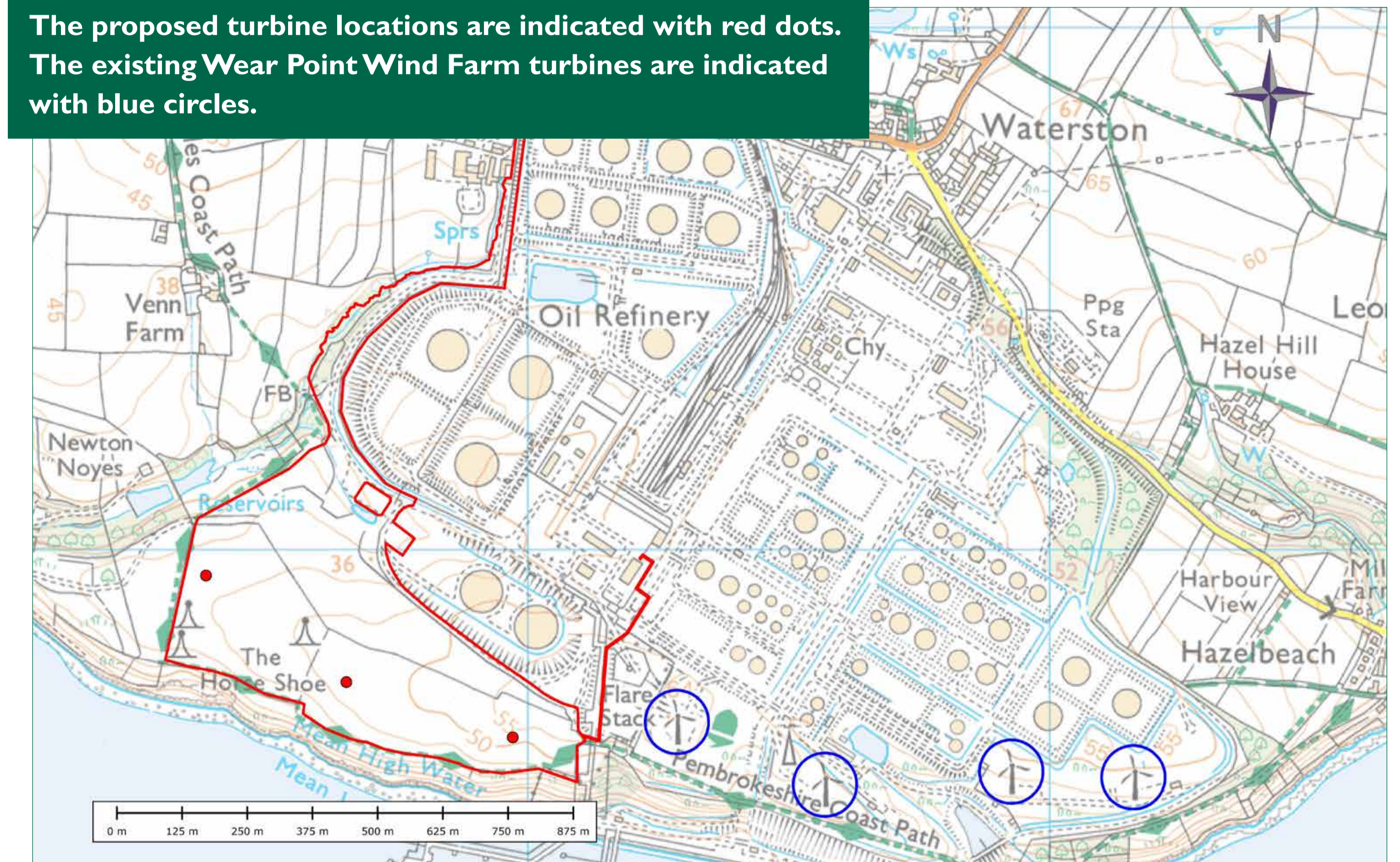
The expected generation of some **49,600MWh** of renewable power will eliminate around

# 10,530 CO<sub>2</sub>

tonnes of Scope 2 CO<sub>2</sub> emissions each year.

(source: BEIS/DEFRA)

The proposed turbine locations are indicated with red dots. The existing Wear Point Wind Farm turbines are indicated with blue circles.



● PROPOSED TURBINE LOCATIONS

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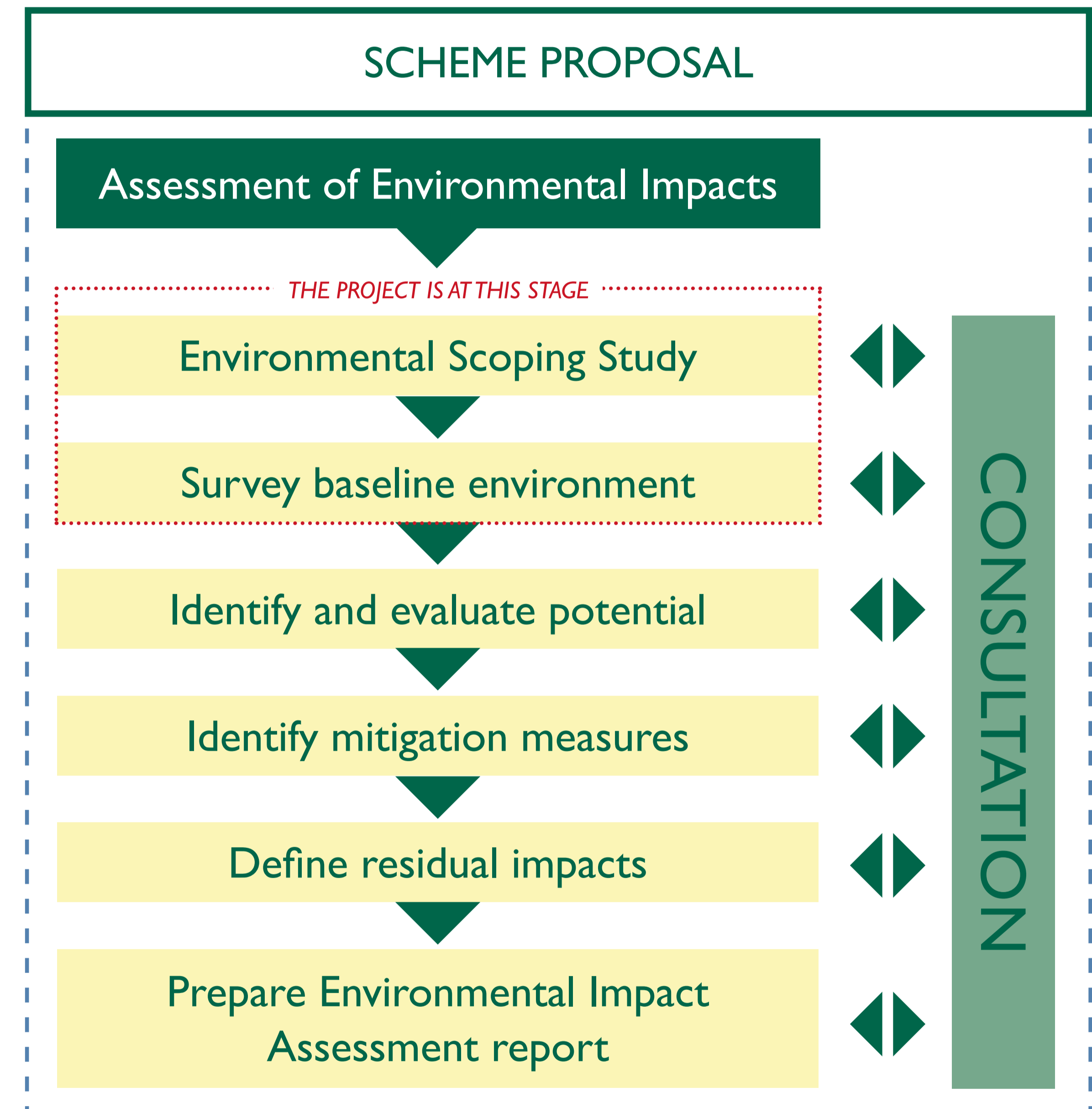
LAND WHERE TURBINES WOULD BE LOCATED



EXISTING WEST PERIMETER ROAD TO PROVIDE ACCESS TO THE SITE

## PLANNING AND THE ENVIRONMENTAL IMPACT ASSESSMENT

- As a project over 10MW, this is a Development of National Significance (DNS) which is the planning application process for larger scale infrastructure.
- The Welsh Government will make the final decision as to whether to approve, with the application administered by Planning and Environment Decisions Wales (PEDW).
- Pembrokeshire County Council will be a key consultee alongside Natural Resources Wales, Cadw, Milford Haven Port Authority and others.
- To inform the planning application, an Environmental Impact Assessment (EIA) is required. This will study potential environmental impacts with the aim to avoid or mitigate any which may be significant. It covers a wide range of topics, including: Landscape and visual impact; Noise; Ecology; Ornithology; Cultural heritage; Transport and access; and Safety.
- Extensive consultation with local Councils, communities and professional bodies are an important part of the process to ensure that feedback can be considered and where possible, taken on board, leading to the best possible proposals coming forward.



## NOISE

### What makes the noise?

- The predominant source of noise from wind turbines is the aerodynamic noise generated by the blades as they rotate. Other sources of noise, such as that from the gearbox or generator, are minimised such that they are usually not perceptible at residential properties.
- Wind turbine noise levels increase as the wind increases until they reach their maximum sound power level above which noise levels tend not to increase. Background noise is generated as the wind passes through trees and hedgerows and tends to continue to increase with increasing wind speeds. For all sources of noise, the level reduces with distance away from the source.

### How is it assessed?

- Wind farm noise is assessed using ETSU R 97, "The Assessment and Rating of Noise from Wind Farms".
- Wind farm noise levels at nearby residential properties are calculated and compared to noise limits derived from the background noise which already exists in the area, without the wind farm operating.

- To monitor and record the background noise, noise monitoring equipment is set up and left for a number of weeks to gain a representative dataset.
- The appointed wind turbine acoustics specialists, also referred to as noise consultants, predict operational noise levels which they compare against the ETSU R 97 noise limits.
- Their calculations work with a worst case scenario, meaning that they assume that the wind is blowing from the turbines towards the residential property. This is to ensure that the results are conservative.
- For Dragon Energy, noise monitoring is currently underway and the results will become available later on in the planning process.

### How is it measured?

- Noise is measured in decibels dB(A)
- The (A) signifies that that sound is 'A' weighted which means that the noise levels account for the way in which sound is perceived.
- The decibel is a measure of the sound pressure level. A change in noise level by 3 dB(A) is just perceptible and an increase of 10 dB(A) is perceived to be twice as loud.

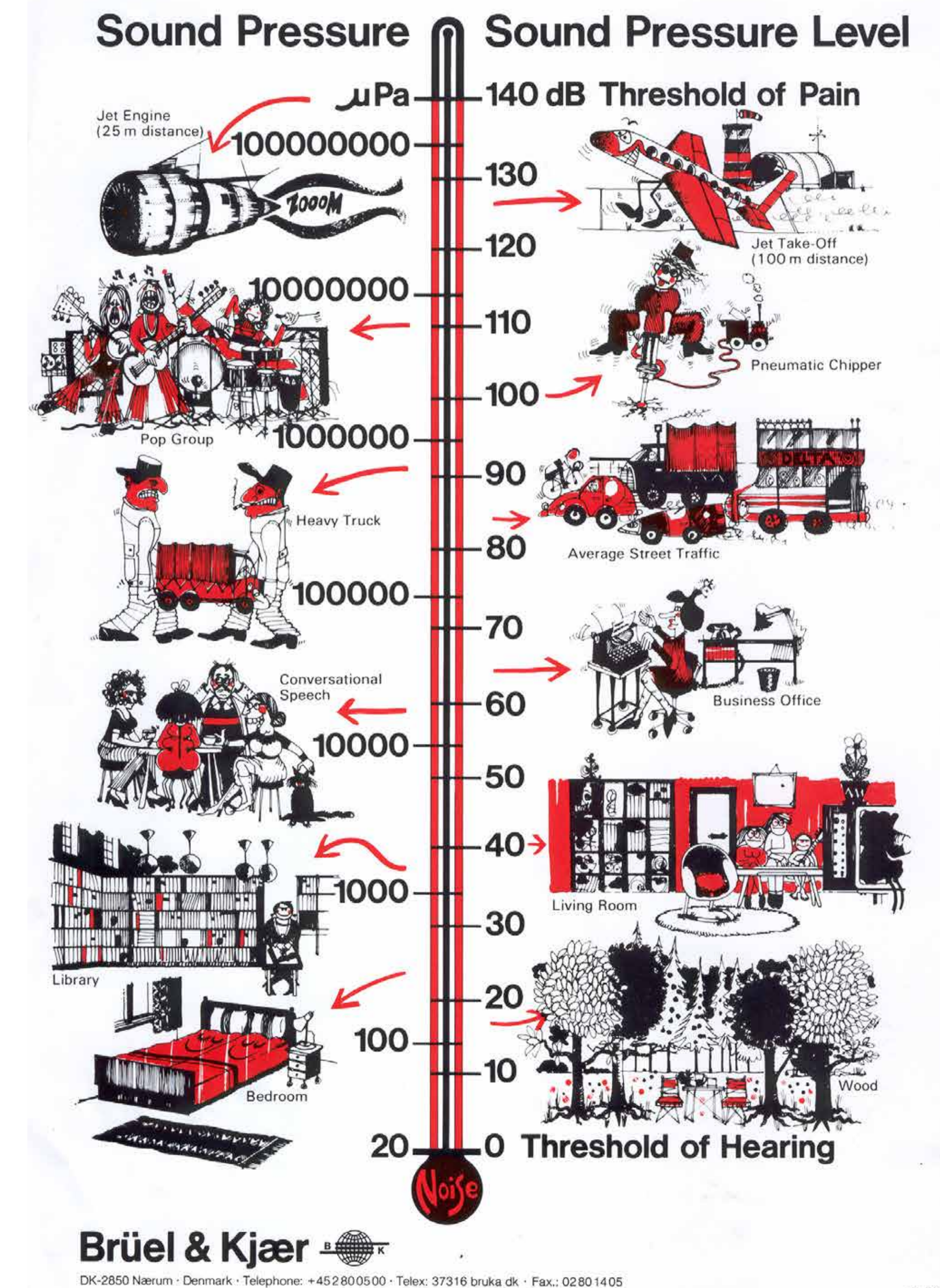
- In general, each turbine will produce a sound pressure level of 50-60 dB(A) at a distance of 100 metres from the turbine. This is about the same level of conversational speech.

### How is noise controlled?

- Noise limits, if required to be met, will be applied to the wind turbines throughout the operational lifetime of the turbines.



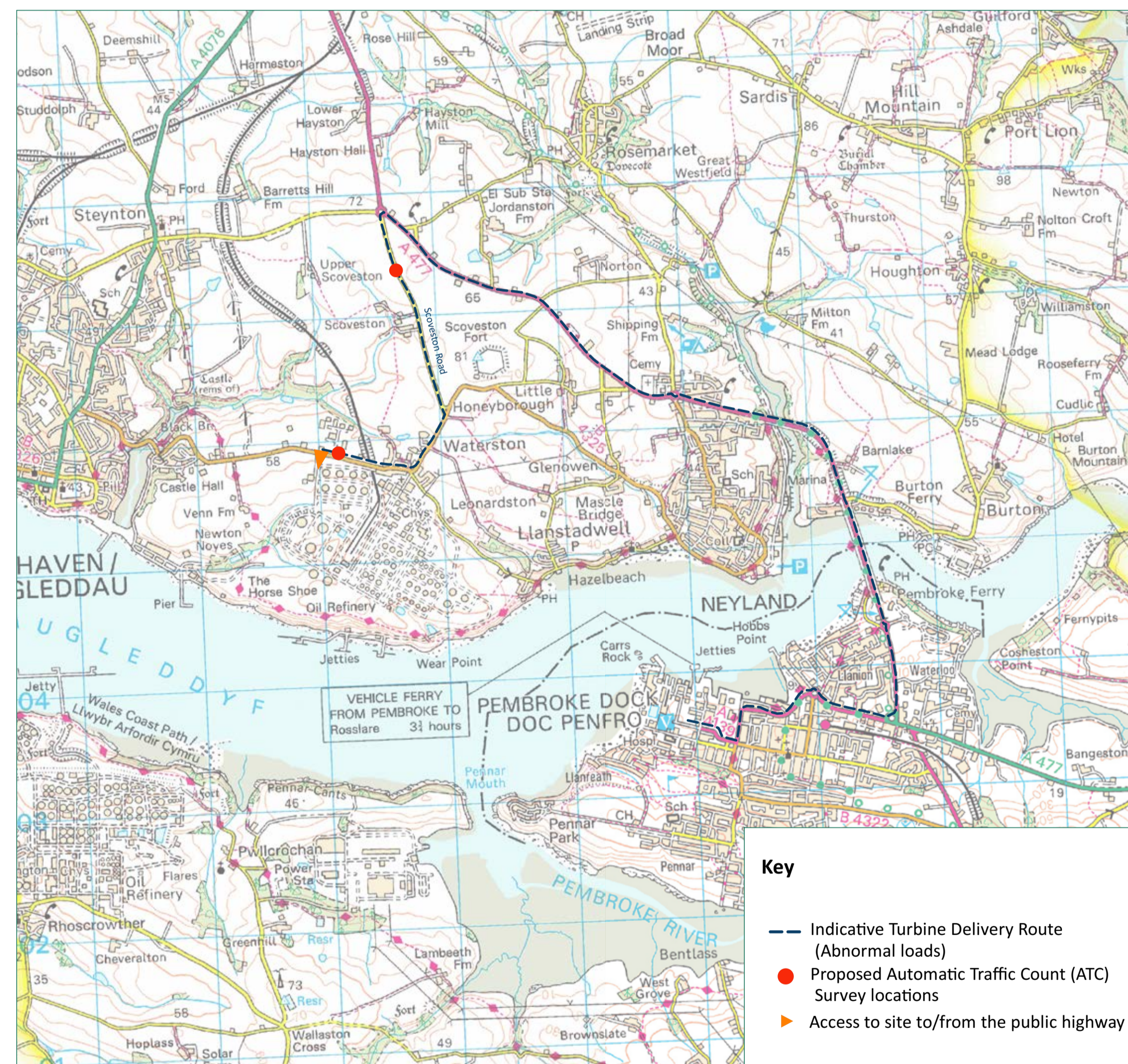
NOISE MONITORING EQUIPMENT SET-UP



## TRANSPORT AND ACCESS

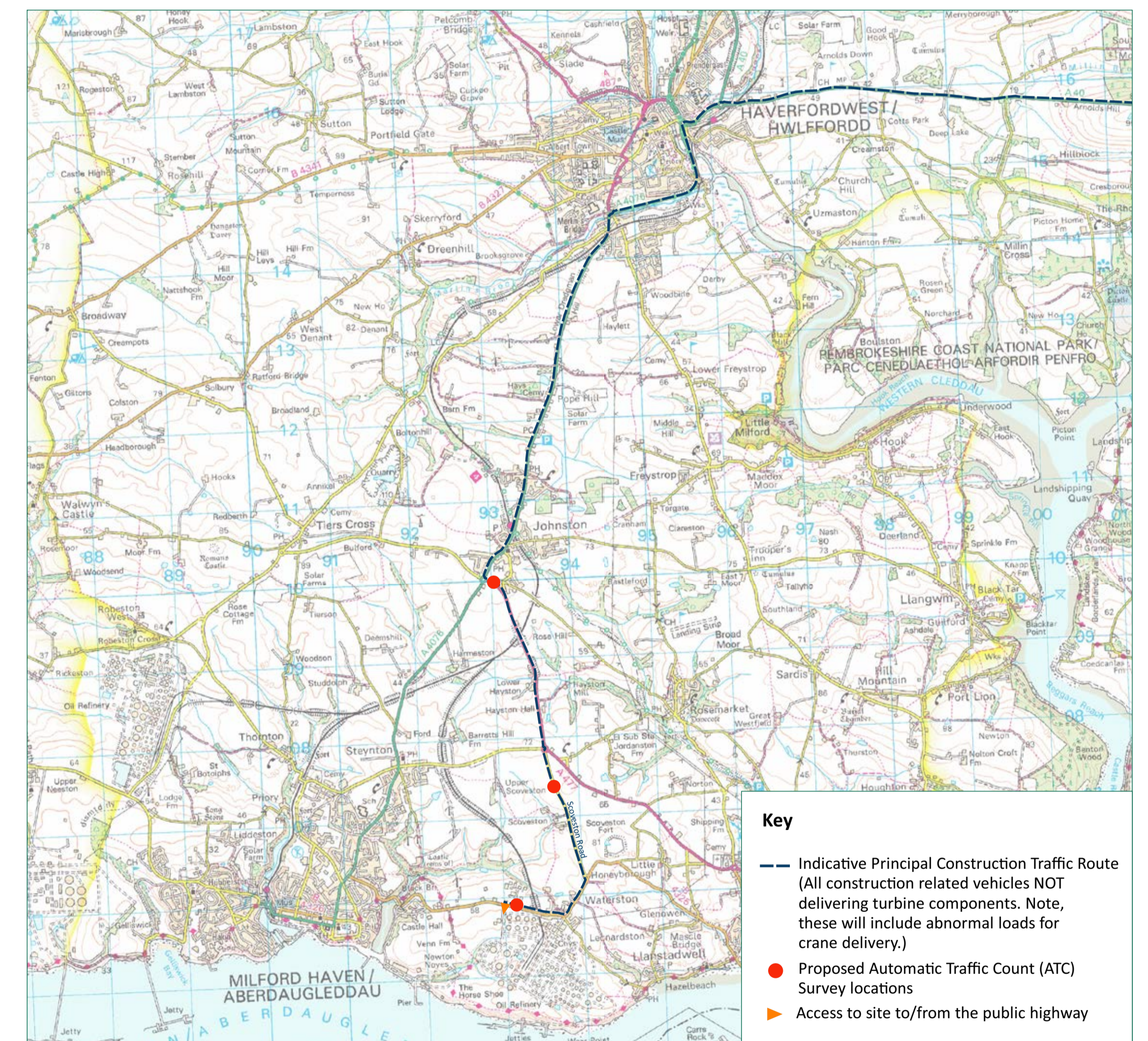
- Initial site visits and route modelling and inspection suggests that turbine components could be delivered to site from Pembroke Dock and then the A477 Cleddau Bridge, Scoveston Road and B4325 through Waterston Village to site. Further consultation will be required with the appropriate bodies.
- General Construction traffic is anticipated to take an alternative route and will not be permitted to travel west on the B4325 beyond the site access junction due to the sinuous geometry and unsuitable vertical alignment at Black Bridge.

### Construction Access - abnormal loads



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### Construction Access - general construction route



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TYPICAL ABNORMAL LOAD – TOWERS

## COMMUNITY BENEFIT

- Dragon LNG are looking at opportunities for community benefits, and would be delighted to receive any ideas of how this could be achieved.
- Please feel free to write down any ideas that you may have on how community benefits of Dragon Energy could make a positive contribution to your local community. For example, community benefit funding from Wear Point Wind Farm contributed to the provision of new play equipment for the play area in Waterston. Please put your suggestions on a post-it note and stick it on the rectangle below.

*Thank you for sharing your views with us.*

Please put your suggestions on a post-it note and stick them here...



## ECONOMIC BENEFIT

- Onshore wind brings economic opportunities to Wales. Should the UK increase onshore wind capacity to **30 gigawatts (GW)** by 2030, Wales could secure around ...

**£4.4 billion**

of Gross Value Added (GVA) and create ...

**3,000 Welsh jobs**

(source: RenewableUK Cymru, 2021).

**Local businesses** could benefit from the construction of Dragon Energy, for example by securing contracts for the ground works, mechanical engineering works, aggregates supply and internal access track construction.



## PROJECT TIMELINE

- As a first step, an EIA Scoping Request has been submitted to PEDW (part of the Welsh Government) and informal consultation has been undertaken.
- Once the responses are reviewed, the scheme will be finalised and the EIA and other supporting application documents completed.
- The full final DNS planning application will then be subject to further formal public consultation in Summer / Autumn 2022, after which it will be submitted to PEDW in the Autumn / Winter 2022.
- All documents will be uploaded to our website [www.dragonenergypark.co.uk](http://www.dragonenergypark.co.uk)
- Once the planning application is accepted, the DNS examination process is scheduled to take 36 weeks. If the examination requires a hearing, this must be held by week 15. If an inquiry is necessary, this must be held by week 18. The timeline shown below gives an indication of possible timescales should the proposal be deemed acceptable but is subject to change depending on the planning process.



### Indicative Timeline

