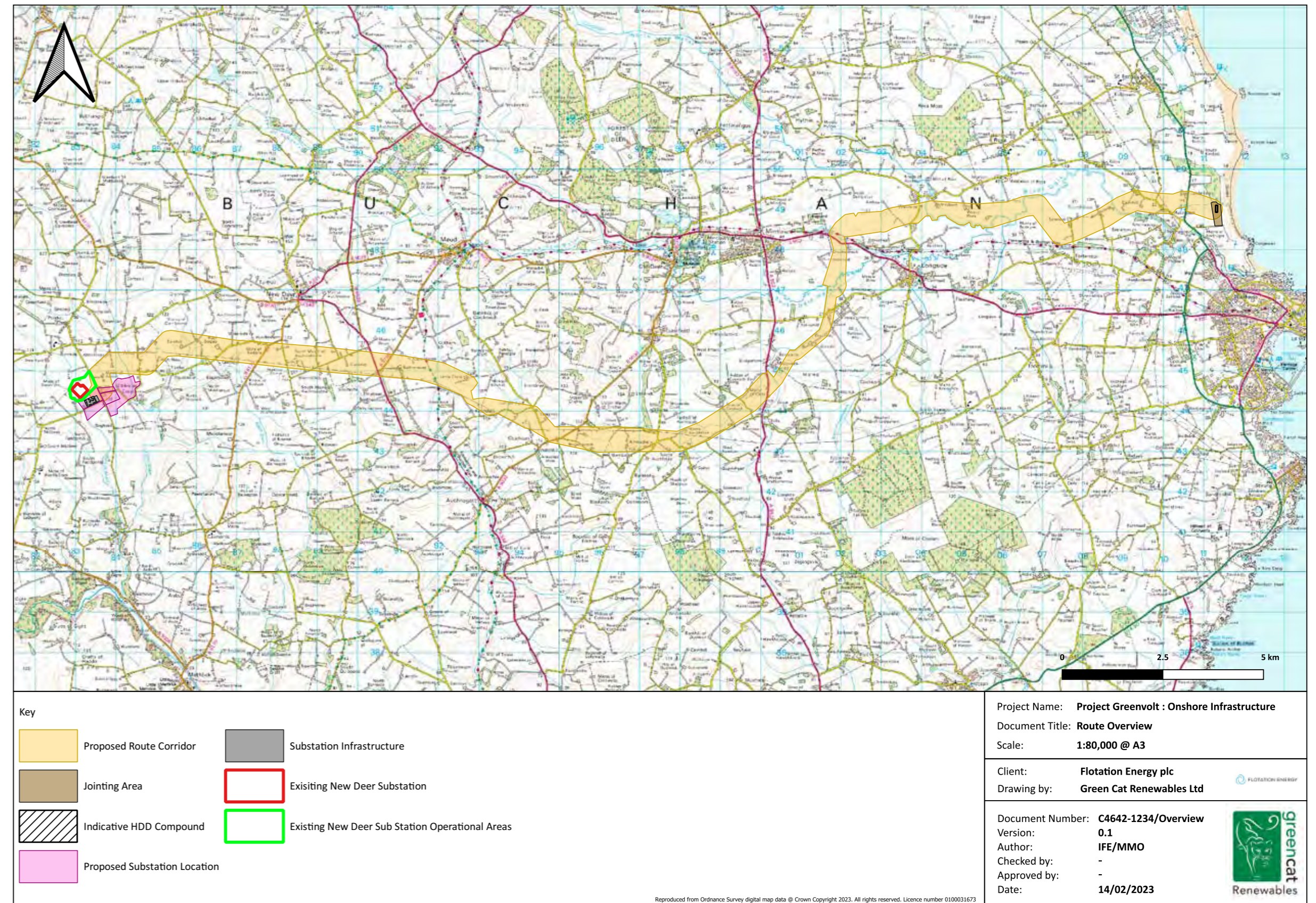


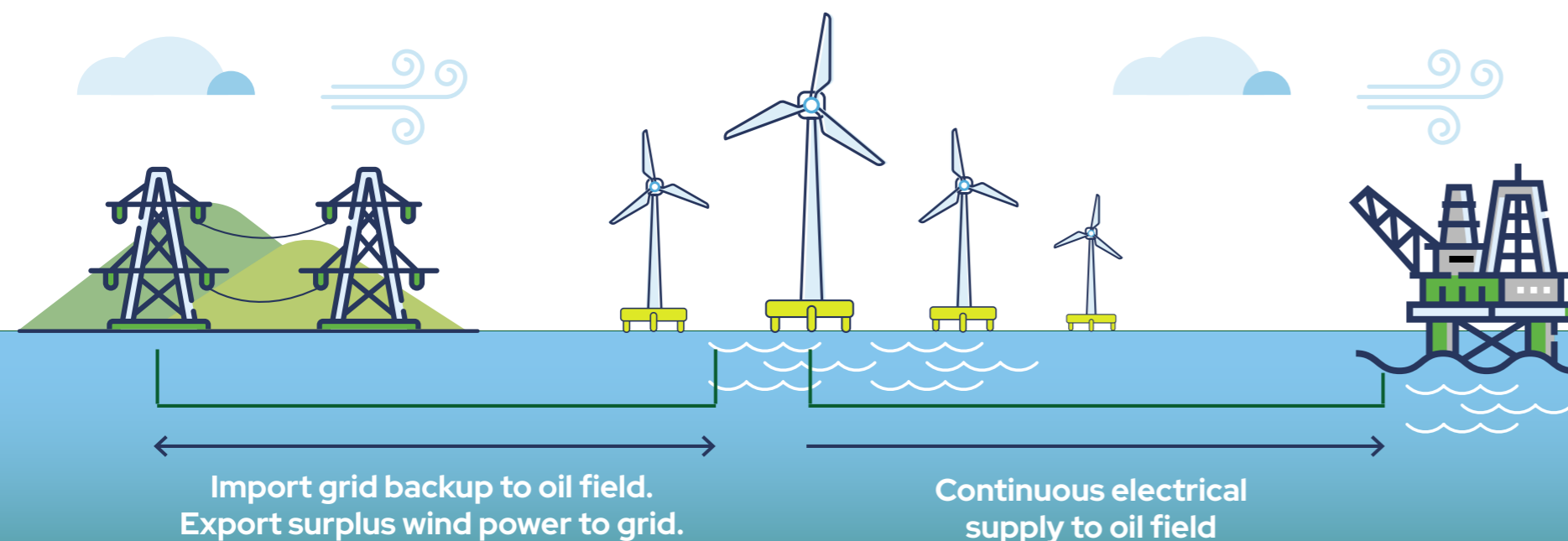
The preferred cable route

Following the feedback from our first round of consultation we have:

- selected the northern route as our preferred cable corridor. This is because it would be difficult to route around the residential properties, peat habitats and private water supplies on the southern corridor. Whilst there are residential properties and private water supplies on the northern corridor, we feel these can be avoided completely or mitigated
- carried out micro-routing along the northern route to accommodate views we heard during our face-to-face events and following discussions with landowners
- continued with ecology and hydrology surveys, breeding bird surveys
- completed technical engineering and feasibility studies



Map of preferred cable route



What is actually being developed

What is being proposed?

Approval is being sought for the onshore infrastructure. This will include export cables and a new substation which will take power to and from the Green Volt windfarm.

Temporary compounds, housing skip containers, welfare units, drilling rigs and cable drums will be needed. Following completion of the cable route these facilities will be removed and the area returned to its original use.

How the cables will come ashore

At the landing point, we will drill seaward to install plastic ducts for the cables. The marine cables will be threaded through the ducts from the cable lay vessel. A transition joint pit will be created so that the marine cables can be jointed with the land cables.

How the land cables are installed

The land cables will be buried along the whole route. The cables will be contained in ducts which are 1.2m below ground level (except where they are going under watercourses or roads). Each duct will be held in a trench.

Cables come in lengths of between 800m and 1,500m which means that there will be a series of joint pits along the route to allow the cables to be jointed together. This is done so that joints in watercourses or under roads can be avoided.

The use of ducts allows the trenches to be backfilled before the cables are pulled in, minimising impact to land users.

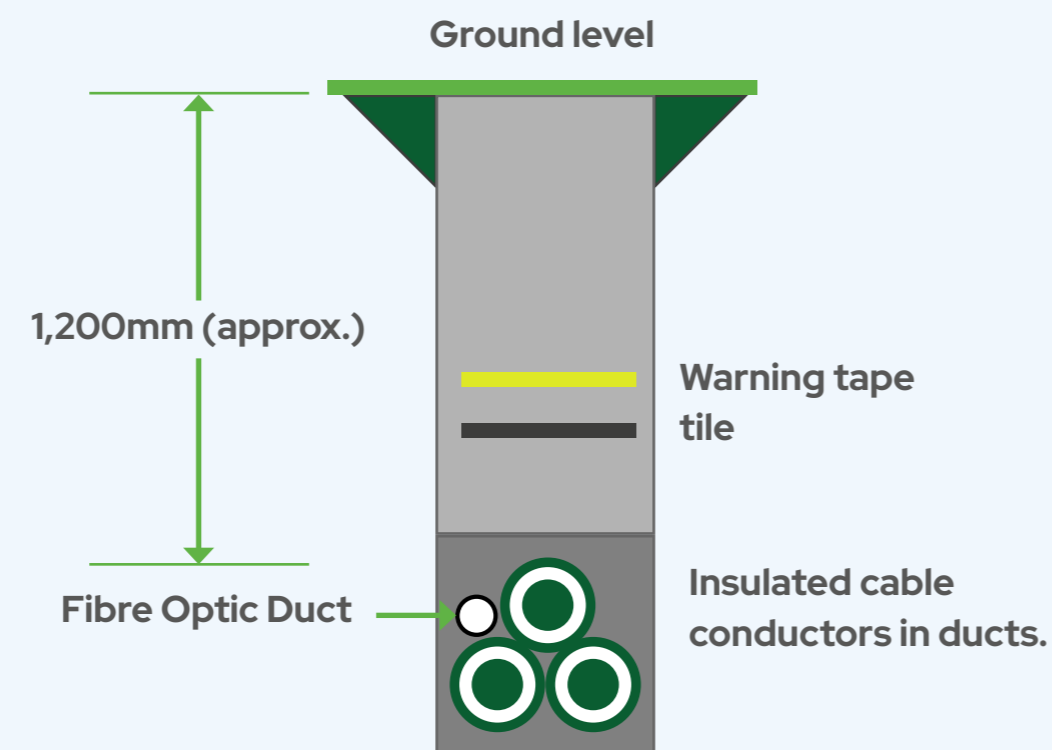


Diagram of proposed cable trench

The cable trenches will be contained in a fenced off area during construction. The width of this strip allows for storage of topsoil and subsoil, the trench(s) and a haul road for construction vehicle access.

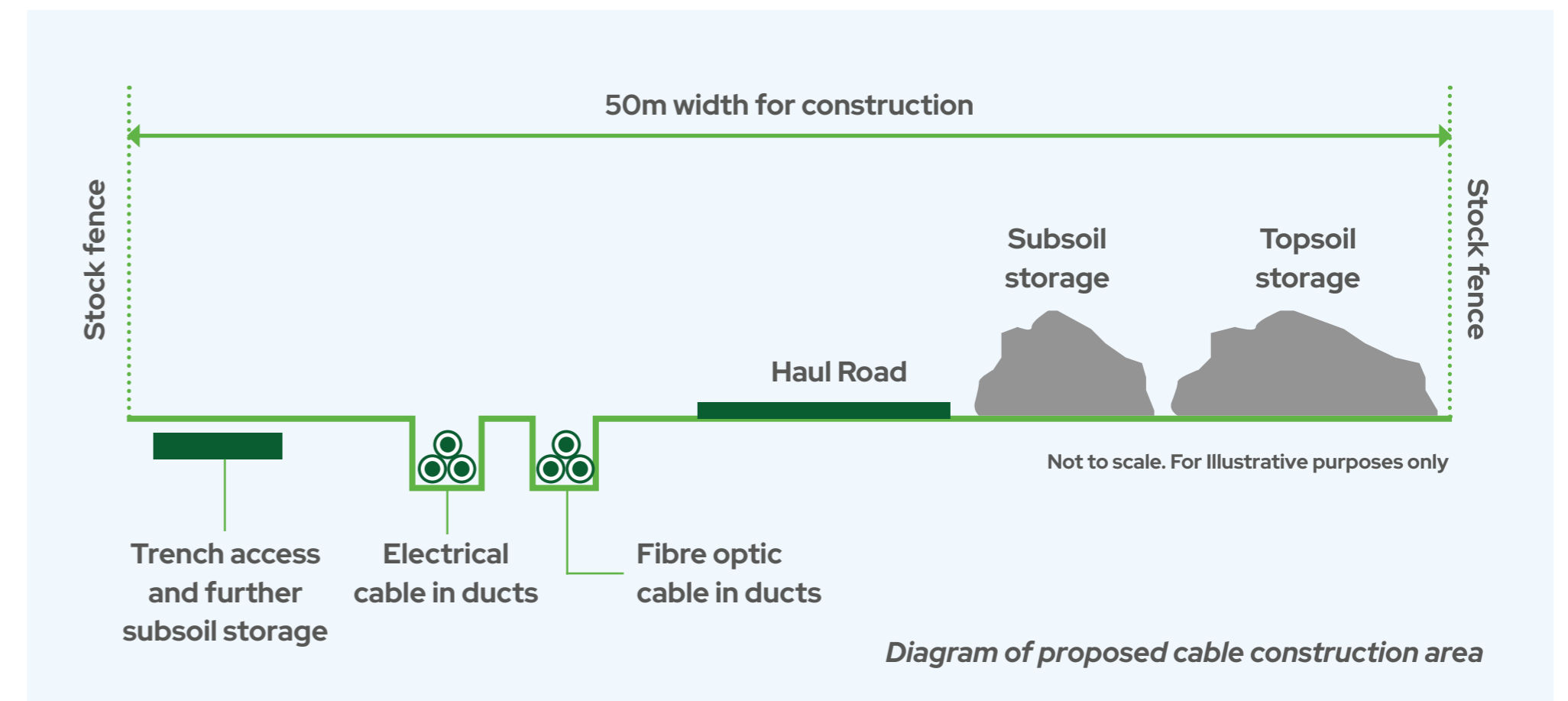
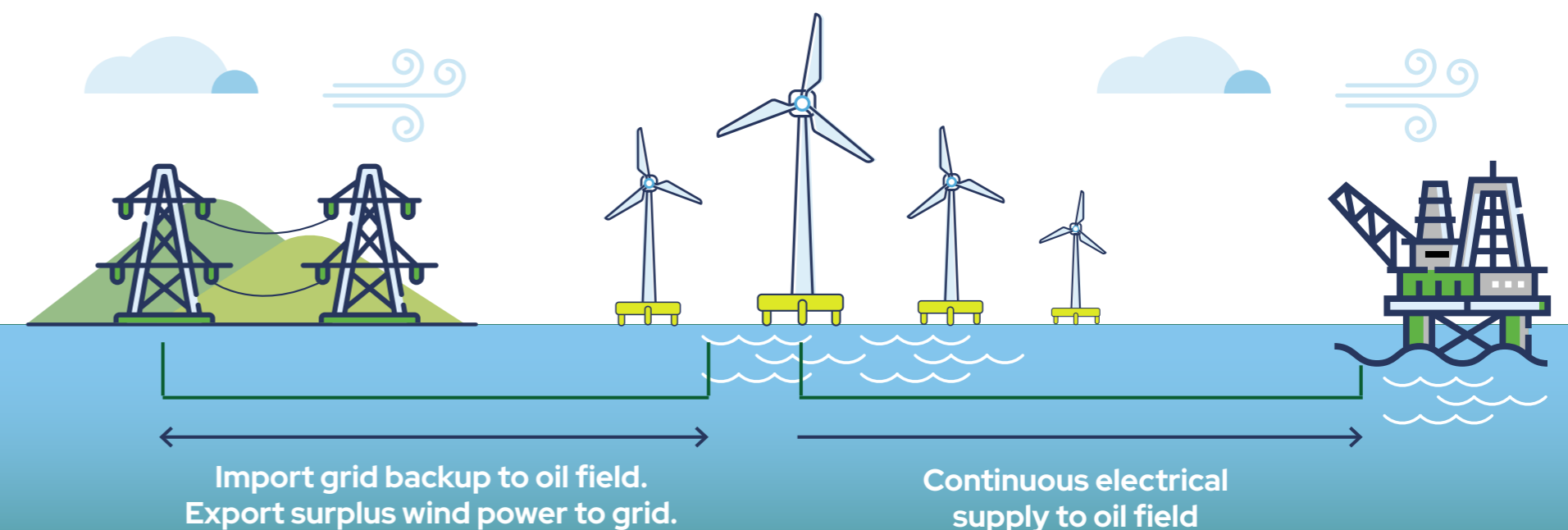


Diagram of proposed cable construction area

Once the cabling is complete in an area the site will be returned to its original state with all fences removed. The underground cables will be routinely assessed to ensure that safety clearances are maintained.



What is actually being developed

Constructing the Substation

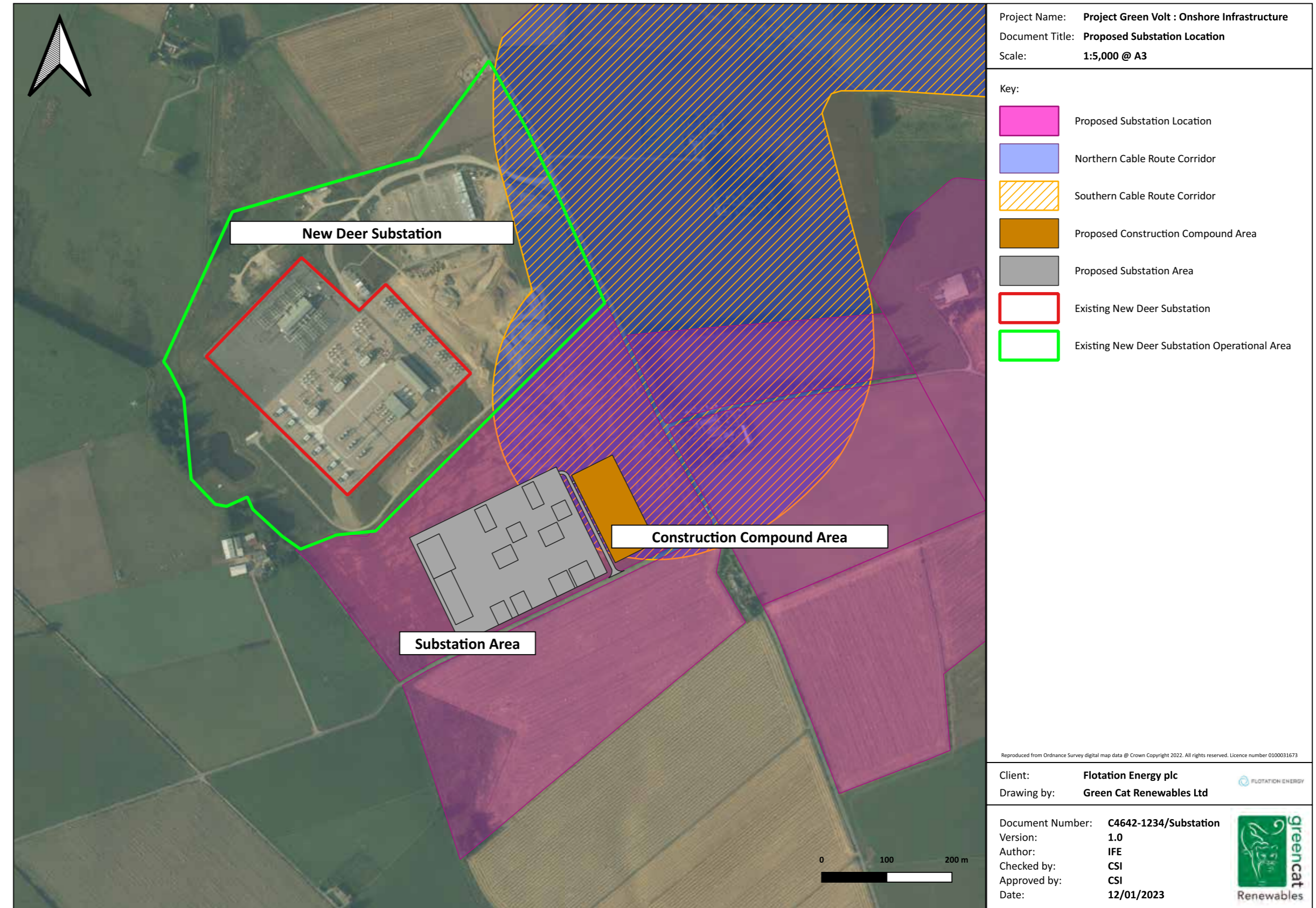
A new substation will be in agricultural land and approximately 6km southwest of the settlement of New Deer close to the existing New Deer substation. The substation will be approximately 250m by 180m.

Once complete, the substation will be unmanned and will be visited intermittently for monitoring and maintenance. A maintenance programme for the substation will be carried out throughout its life.

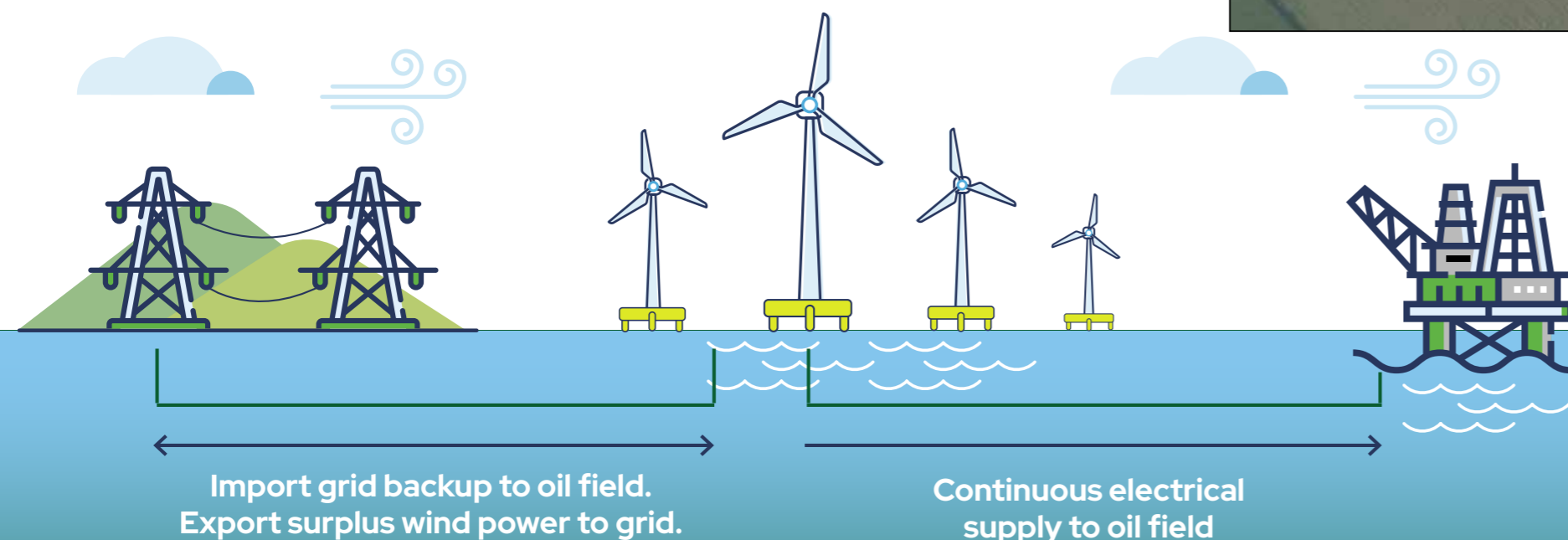
Decommissioning

Decommissioning of the cables and substation at the end of their operational life. The life span of the substation is approximately 50 years. Although there is a potential to extend this with maintenance. Where possible materials would be recycled. It is anticipated that the foundations would be removed, and shallow soils reinstated.

Cables also have an expected life of around 50 years. These may remain in the ground or be recycled in accordance with legislation at the time.



Proposed location of Green Volt substation near the existing New Deer substation





About the project

Green Volt floating offshore windfarm will help decarbonise oil and gas platforms by powering them with renewable energy.

Our fast-track project that will cement Scotland's position as world leader in floating offshore wind with the potential to export Scottish know-how and expertise worldwide. With a minimum nominal capacity of 300MW and potential to reach circa 500MW, when operational in 2027 it will make a significant contribution to the UK Net Zero Challenge.

Green Volt will make a significant contribution towards:

- Scotland's 2045 net zero target
- The North Sea Transition Deal goal to reduce offshore emissions by a minimum of 50% by 2030
- Developing Scottish supply chain and boosting local job opportunities

The project will connect to the national grid network which delivers electricity to homes and businesses around the UK – helping improve energy security. This connection will also facilitate the supply of power to offshore platforms during periods of down time or reduced output from the windfarm

This exhibition focuses on the assets which will connect the offshore windfarm to the National Grid substation at New Deer.

Meet the developers

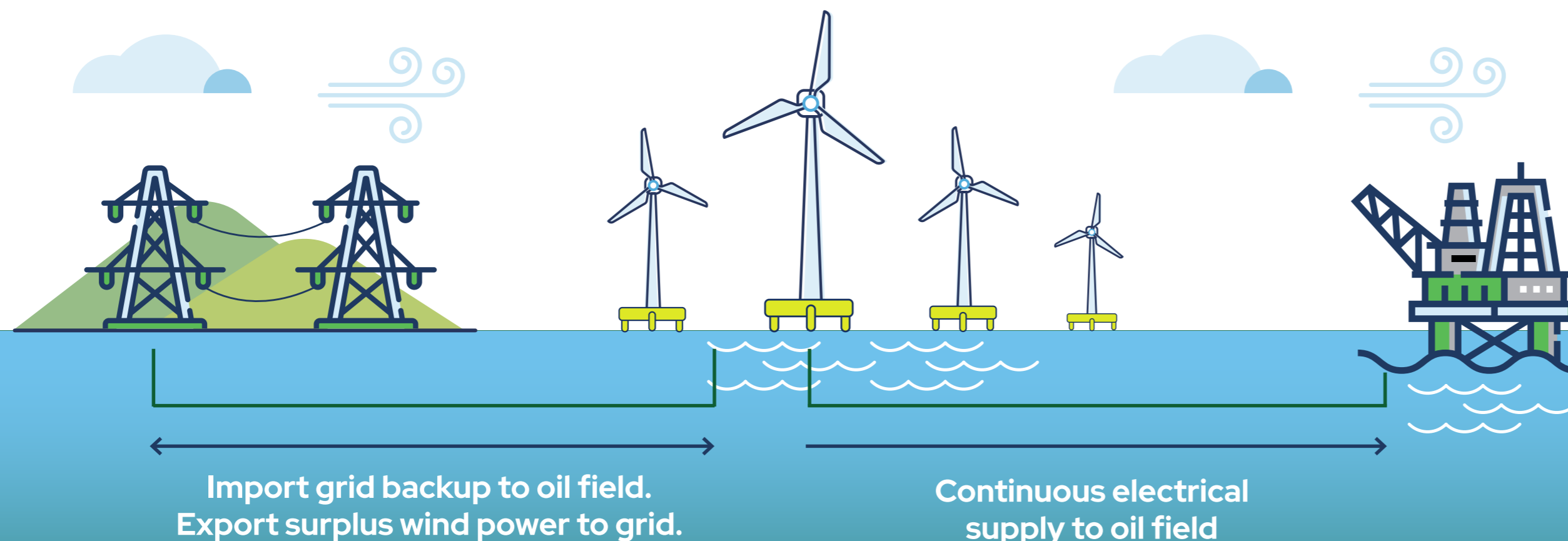
The project is being developed by Joint Venture Partners:



Flotation Energy has a growing project pipeline of offshore wind projects with more than 13 GW in the UK, Ireland, Taiwan, Japan and Australia; and plans to expand into many more key markets. The expertise of the Flotation Energy team lies in the project and engineering management of large infrastructure projects.



Vårgrønn is an agile, Norway-based offshore wind company powering the energy transition through development, construction, operation, and ownership of renewable energy generation and green infrastructure. Vårgrønn is a joint venture between the energy company Plenitude (Eni) and the Norwegian energy entrepreneur and investor HitecVision. Both companies have a long history in the offshore energy sector and are strongly committed to contributing to the energy transition.



Why is this development needed?

The Green Volt offshore windfarm will connect into the National Grid substation at New Deer.

The onshore substation

To connect to the national grid electricity transmission network we will need to construct a new substation. The new substation will allow us to transform the power supplied from the windfarms to connect into the National Grid substation at New Deer. The site selection process considers factors such as proximity to homes, environmental constraints and technical constraints. We have identified substation locations based on these factors.

How energy reaches homes and businesses

Electricity generated from the offshore wind farms is transported to the existing national electrical transmission network – which is usually called the National Grid – using export cables.

When they are offshore, these export cables typically run under the seabed wherever possible and once they reach the shore they are usually buried underground. The point where offshore cables and onshore cables meet is called the landing point.

Next, there needs to be a connection to the national grid. Above ground infrastructure in the form of onshore substation(s) will be required to allow the energy to feed into the grid. The power that Green Volt generates, which is not used by the oil and gas platforms, will go directly into the national grid; the large 'pot' of energy that is then distributed to our homes and businesses across the UK.

When the windfarm is inactive, it will also allow for the power to be drawn from the grid and used on the platforms.

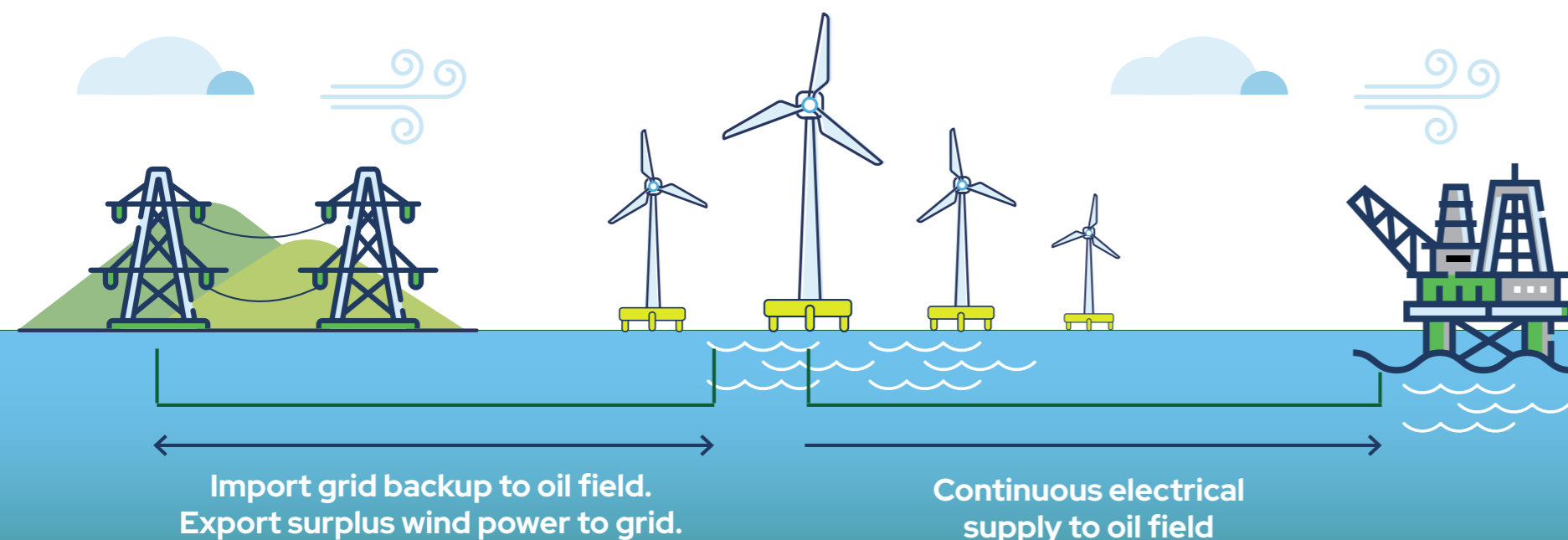
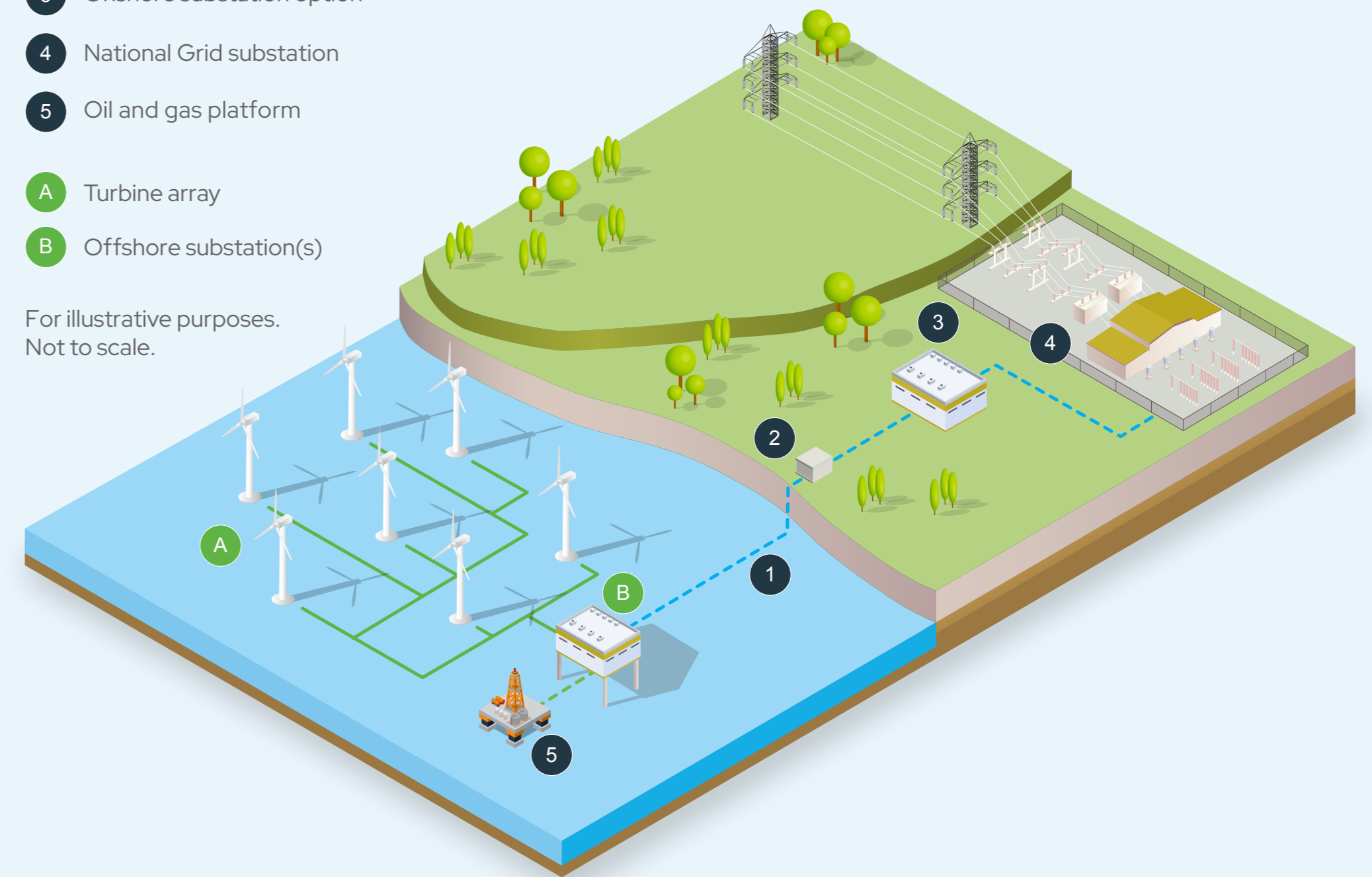
Green Volt will also offer a supply of electricity to neighbouring oil and gas platforms

Green Volt will allow the full retirement of existing offshore power generators and use a grid-connected wind farm to deliver reliable, renewable electricity, significantly reducing the carbon emissions of the platform's power demand.

Key:

- 1 Cable route option
- 2 Landfall option
- 3 Onshore substation option
- 4 National Grid substation
- 5 Oil and gas platform
- A Turbine array
- B Offshore substation(s)

For illustrative purposes.
Not to scale.



How do you choose where to locate the cables and substation?

The route planning and site selection process for the onshore cable corridor and substation involves the identification of a range of engineering, commercial, environmental, land interest and community related principles and constraints. These are then used to identify potential onshore cable corridor route options for consideration.

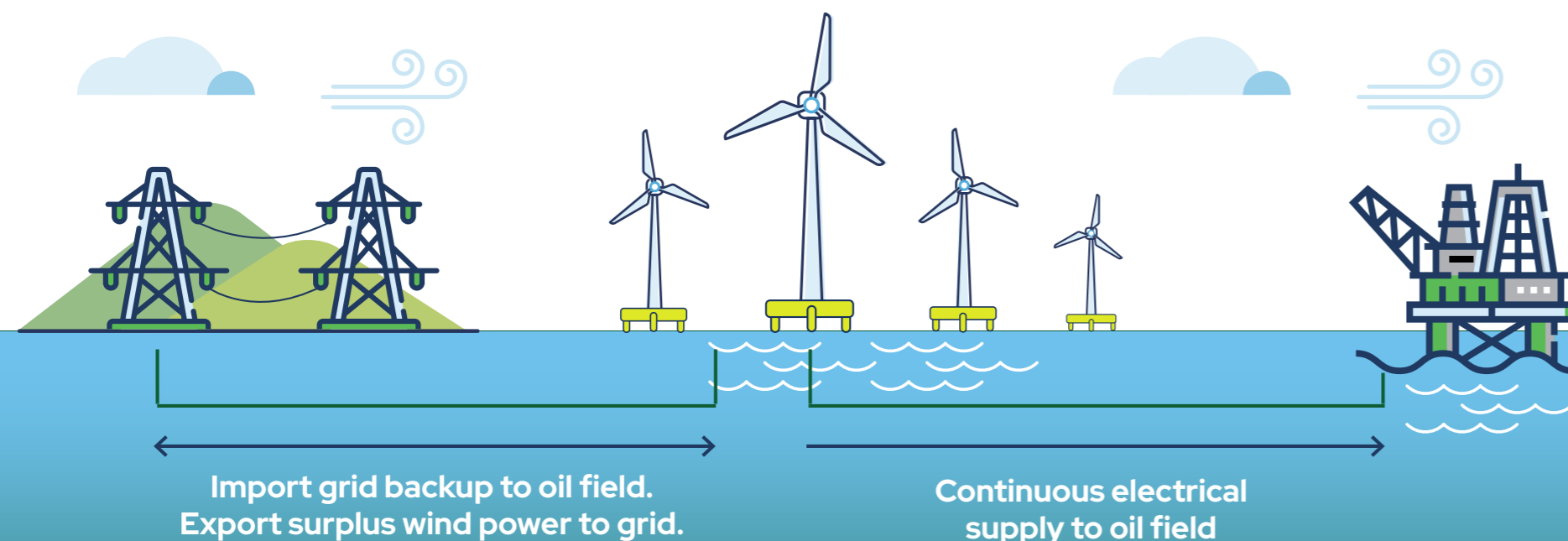
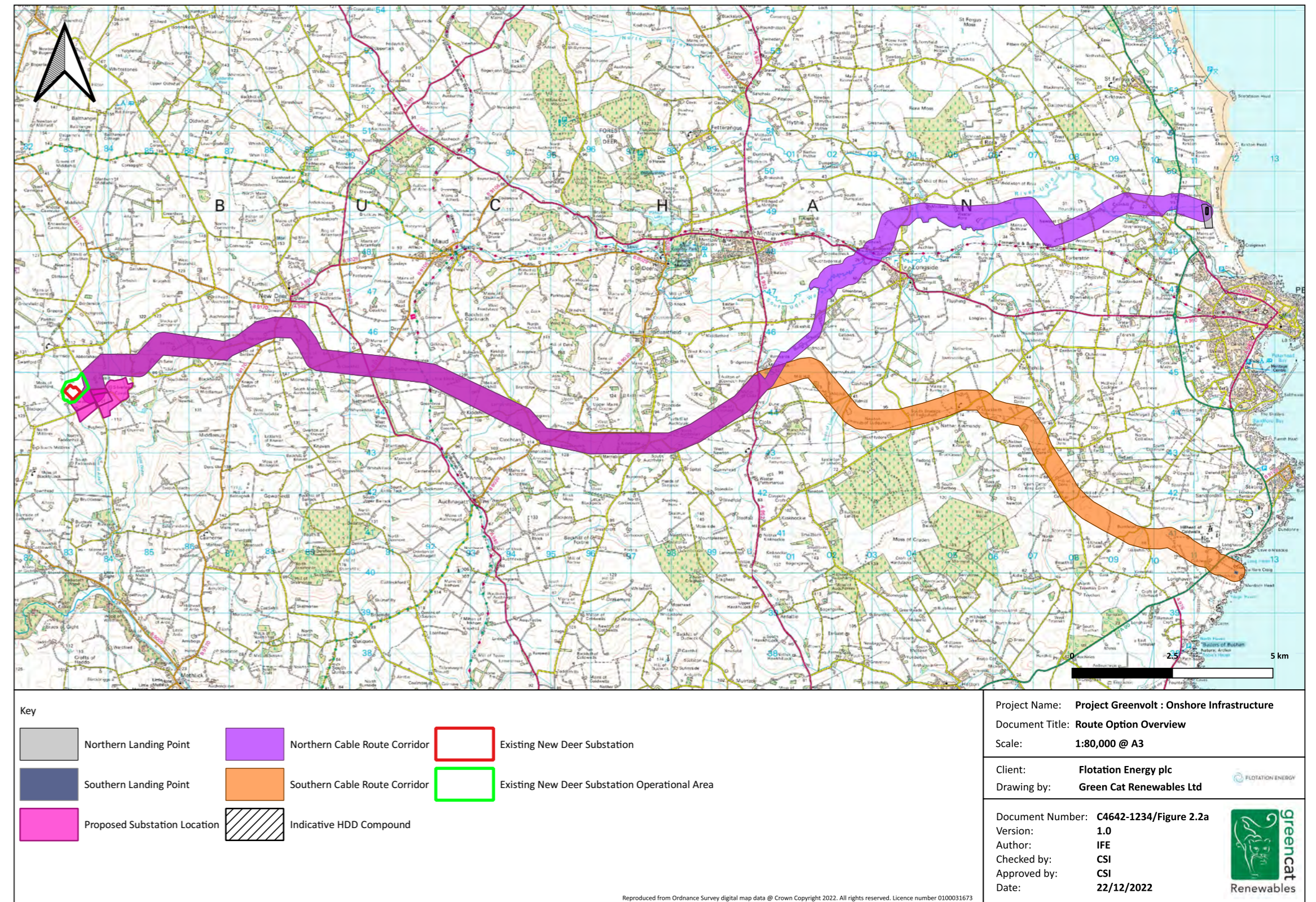
Our engineers think about aspects such as technical feasibility and the identification of the shortest and most direct route, wherever practicable. We also factor in designated sites, protected species, landscape and cultural considerations. Other constraints include the location of existing utilities and infrastructure.

Views from bodies such as Aberdeenshire Council and regulators, including NatureScot and SEPA who shared their Scoping Opinion, have also helped us refine our proposals in relation to impacts on landscape and visual factors, ecology, birds, cultural heritage, water courses, noise and other considerations like public rights of way, traffic and agriculture. Working with land agents we are gaining a picture of land use and ownership in the area.

Following the identification of the Area of Search a list of potential cable routes were examined. Technical, economic and environmental constraints were considered and balanced. Each route was then assessed and compared to identify any key risks.

The two shortlisted options, shown in the map, were identified as suitable landing points for the offshore cable and associated infrastructure. The cable route corridors which facilitate the cable connection from the two proposed landing points back to the proposed substation location at New Deer are also shown.

Works will be planned to minimise any disruption to the environment and land users. Continued refinement of the preferred cable route corridors will continue, and micro-siting will be used to avoid specific constraints where possible.



What is actually being developed

The Proposed Development consists of electrical cables and a new substation to be installed as well as a small number of temporary work elements required as part of the installation process. The elements of the Proposed Development are as follows:

1. Electrical cables installed in a single trench

At the landing point a temporary construction compound will be required to enable us to drill seaward and install the ducts for the marine cable. The cables will be pulled inland from a marine vessel which will be located offshore as close to land as possible. The marine cables will be connected to the land cables in a jointing bay buried in the ground.

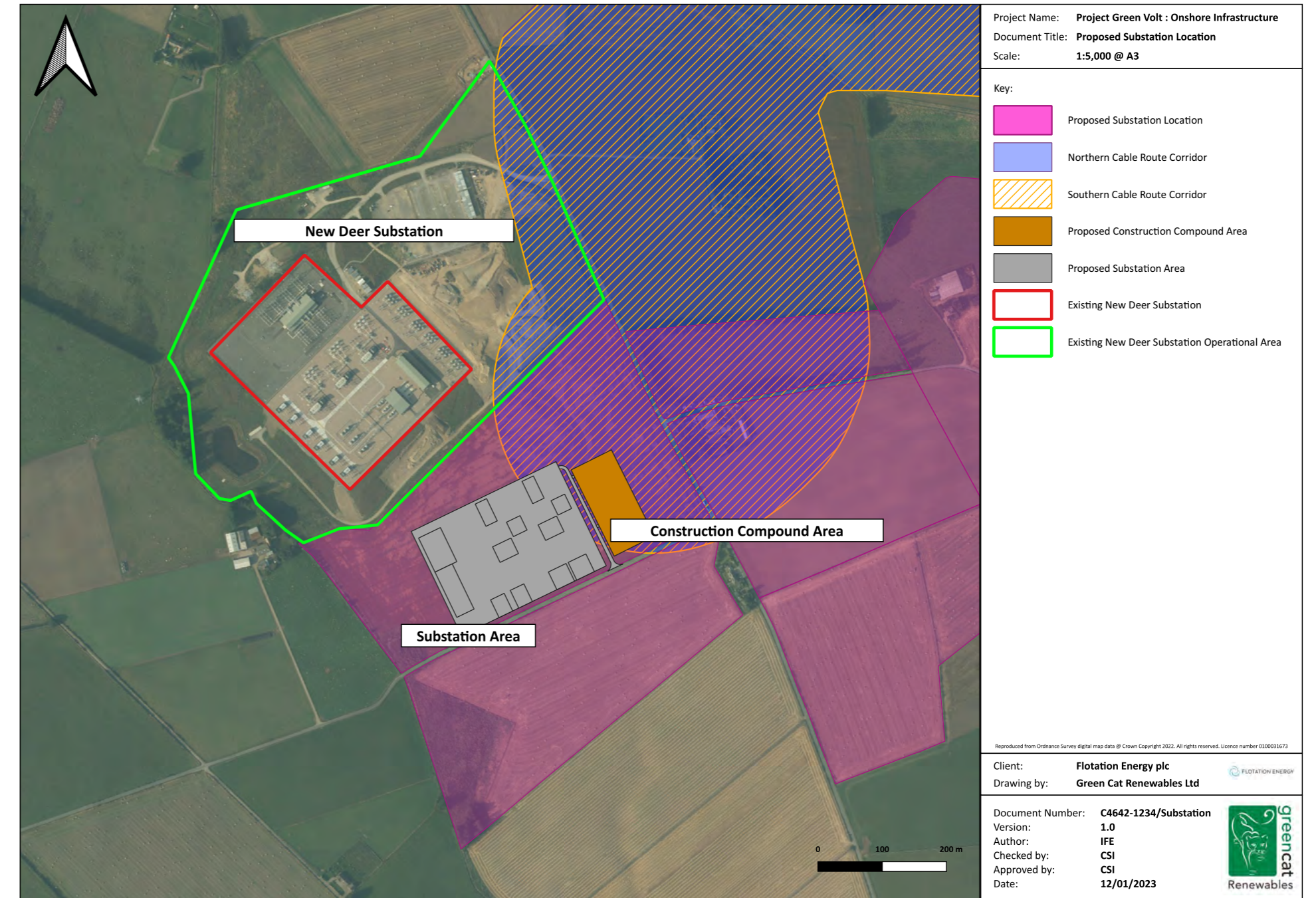
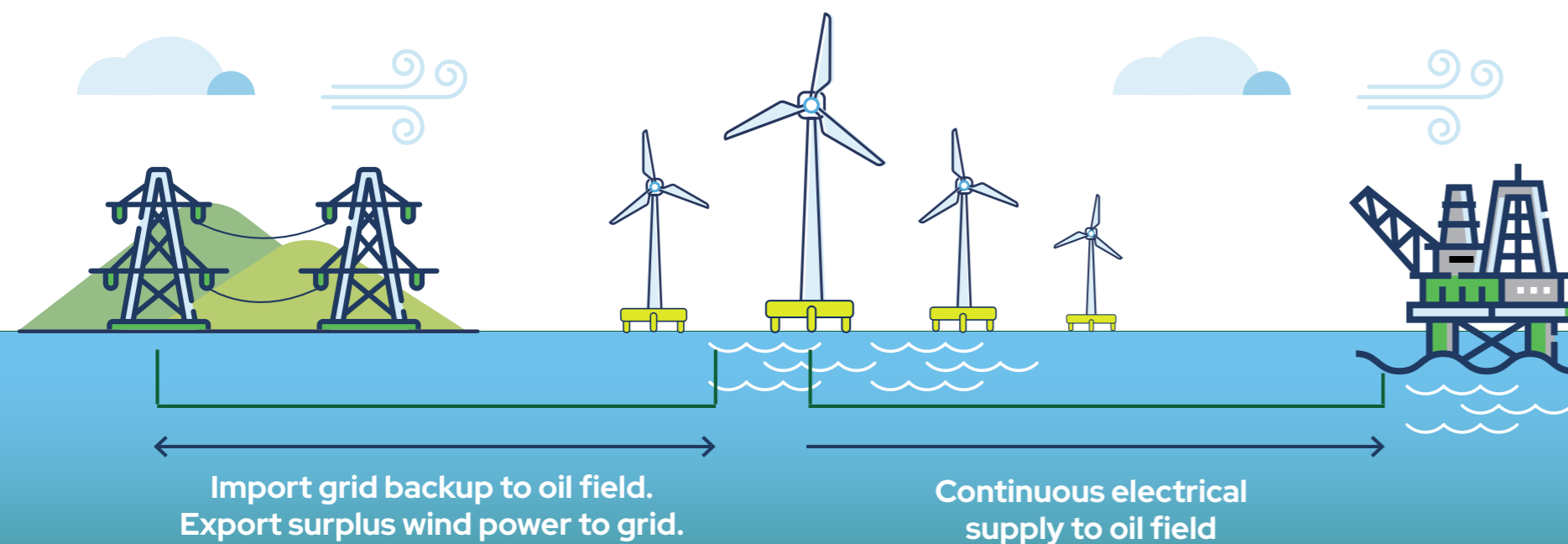
Onshore the cable will be buried for the entire length of the route in a trench excavated to approximately 1.5m depth and 3m in width, except where they are ducted under watercourses or roads.

The cable installation works will likely take place within a 50m wide excavation corridor accommodating working area, excavated soils and the cable trenches. The cables will be installed using methodology suited to the existing land use although it is anticipated at this stage that open cut trenching will be used for the majority of the cable length. Horizontal Directional Drilling (HDD) can be used to cross significant constraints such as watercourses and roads.

Once the cables are installed, the ground will be reinstated.

2. Temporary storage and welfare compounds that move along the cable route

During construction temporary compounds housing a skip container, welfare unit and around 20 cable drums will be needed. Following completion of the cable route the facilities will be removed and the area returned to its original use. Additionally, temporary compounds to enable HDD will move along the route to allow ducting under watercourses and roads and at the landing point.



3. A new substation with temporary storage and welfare compound.

The proposed substation will be located in agricultural land approximately 6km southeast of the settlement of New Deer and proposed on land nearby the New Deer substation. The substation will be around 250m by 180m.

Following completion of the works, the substation will be unmanned and will be visited intermittently for monitoring and maintenance. Maintenance works will be required during the lifetime of the substation. The underground cables will be routinely assessed to ensure safety clearances are maintained.

Decommissioning of the cables and substation at the end of their operational life

The lifespan of a substation is approximately 50 years although there is the potential to extend this with maintenance. Once expired, the materials would be recycled and it is anticipated that foundations would be removed and shallow soils reinstated.

Similarly, underground cables have a life expectancy of approximately 50 years at which point they would remain buried in the ground.



Your views

Early consultation with local communities and consultees is a key part of this process, so that feedback on potential social and environmental impacts, opportunities and potential mitigation measures can be considered in advance of an application being made.

This consultation represents the first opportunity for local communities and other stakeholders to share their views on the land based aspects of our project. To help us develop our proposals further we're asking for your feedback on our plans.

We're carrying out lots of our own technical and environmental assessments but people living near to the proposals have local knowledge we would really value.

How we use your feedback

Following the conclusion of this first stage of consultation, we will analyse the feedback we have received, along with conducting further technical impact assessments and design work to develop our proposals ahead of further public consultation.

Comments we receive from future consultations will also be used to develop our final proposals.

All the comments we receive during these consultations will be reviewed so the subjects raised – and our responses – can be included in our Consultation Reports. These reports will form part of our applications for development consent.

- ❓ **Are there any impacts that you would like us to consider?**
- ❓ **Do you have any comments on our cable route proposals?**
- ❓ **Do you have any comments on our substation location proposals?**
- ❓ **Do you have any other feedback on the development?**

Indicative Project Timeline

