

1:25

So welcome to the question and answer webinar for the Dogger Bank D project.

1:31

We're currently in the non-statutory phase of consultation and this is running until the 22nd of October 2024.

1:39

Just a few housekeeping bits before we get started.

1:42

We'll go in a minute to the rest of the team for some introductions and then we'll move on to a little bit of a presentation on the scheme and then we'll go to the question and answer bit.

1:52

If you do have questions throughout, that's absolutely fine.

1:54

Before you forget them, there's a little Q&A box at the top of the screen.

1:58

If you just pop your questions in there, that comes through to me and then I will read them out towards the end of the session to the team and we'll answer them live.

2:09

Just so you're aware this is being recorded and that's just for the benefit of others who can't make the session.

2:15

It will be uploaded to the website and then people come watch it back to see if their questions get answered.

2:20

And then if not, obviously they can contact us separately.

2:24

And then yeah, we'll move on to some introductions.

2:27

Just to let you know the chat function won't work or anything like that.

2:29

So just make sure you pop your questions in the question and answer bit.



2:33 OK, as I'm already talking, I'll do my introduction first. 2:37 My name is Natasha and I, along with the rest of the team, manage the public consultation element of the project, hence this webinar. 2:47 So I'll go along my screen and everyone else can introduce themselves as well. Sophie, I think you're next. 2:56 I'm oh, Sophie, you're breaking up a little bit. 3:01 I don't know if that's just me because it sounded a little bit sort of robotic, to be perfectly honest with 3:07 I may need to turn my camera off. 3:09 That's fine. 3:11 You're fine. 3:11 OK, great. So I'm Sophie Moeng. I'm the stakeholder and consultation manager for the project. 3:20 Jamie, you're next.

3:23

Hey, evening, everyone.



3:24 I'm Jamie Pratt and I'm the lead engineer for Dogger Bank D project. 3:30 Hi, everyone. 3:31 I'm Abbie Garry. 3:32 I work on the onshore elements of the environmental impact assessment for the project. 3:41 Evening, everyone. 3:42 I'm Chris Andrews. 3:42 I'm the off take director for Dogger Bank D. 3:49 Hi, I'm Dan Collins and I'm part of the team that works on community engagement and consultation. Good evening everyone. I'm Rob, I'm the Project Director for Dogger Bank D. 4:08 And finally, Matt, Hi I'm Matt Woodfield. I work with Dalcour McLaren and we're the consultant land agents. 4:13 OK, so we'll now move on to a very quick presentation. 4:16 People might have seen this already because it has been pre-recorded and put online. 4:20 But if not, it'll just give you a bit of background and context to the scheme.

4:23

So I will just share my screen and then we'll get presenting.



4:28 Can everyone see that?
4:32 Yeah, I'm getting nods.
4:33 That's good.
4:34 OK.
4:34 So if the team that are presenting can just let me know when to change slide, that would be great.
4:40 Great.
4:40 Yeah.
4:40 So I'm going to kick off.
4:42 So as Natasha said, this is the consultation event for the Dogger Bank Wind Farm, and this is to give people who weren't able to attend the events that have taken place over the last two weeks in the East Riding of Yorkshire the opportunity to be able to hear about the project and ask any questions they've got.
5:01 So if you go on to the next one, please, Natasha.
5:04 Thank you.
5:05 So first of all, just a bit of background on Dogger Bank D.
5:09 So Dogger Bank D is a proposed new fourth phase of the Dogger Bank wind Farm.
5:14 So A, B, C and D imaginatively named are shown in the big circle there on the right of the map.



5:22

So this, the Dogger Bank D phase aim is to maximise capacity of the eastern portion of the Dogger Bank C lease area.

5:34

It has the potential to generate up to two gigawatts of renewable electricity from offshore wind and that'll obviously contribute to decarbonising the GB energy system.

5:46

Dogger Bank A, B and C are at varying stages of construction and Dogger Bank A started exporting electricity to the grid in October last year.

5:57

Dogger Bank D is at a much earlier stage of development and that's why we're seeking input from the public on this project and on the design of it through this non statutory consultation.

6:09

Next one, please.

6.15

So just to explain a bit about the companies that are undertaking this work.

6:19

So Dogger Bank D is a joint venture, 50/50 joint venture between SSE Renewables and Equinor.

6:27

The two companies are two of the world's leading companies in development and offshore operation of offshore wind energy.

6:35

And both of the companies were involved in the design and planning consent of the Dogger Bank wind farm, which is the world's largest offshore wind farm.

6:44

Next one please.

6:47

So the story of Dogger Bank D so far; so between Spring 2023 and Spring 24, we explored two different opportunities to use the electricity being produced by Dogger Bank D. The first of those was to connect the wind farm to an onshore hydrogen production facility.

7:06

It was going to be located in the Holderness area and the second was to connect it to the UK electricity network via a shared connection to an offshore connection offshore collector platform.



7:20

We undertook consultation on those two opportunities between September and November last year and a report summarising the feedback that we received and what we're doing in response to that.

7:32

Feedback is available on the website if you want to take a look at it.

7:36

In March of this year, we confirmed that we were going to focus on connecting to the electrical transmission system and retired proposals for the hydrogen production.

7:46

That decision was made after the National Grid Electricity System Operator or ESO identified a new grid connection point for Dogger Bank D as part of their work called the Holistic Network Design or HND.

8:03

The HND is ESO's plan to enhance power delivery across the UK, including the goal of connecting large scale offshore wind farms.

8:18

So the new grid connection location identified by ESO is Birkhill wood in Cottingham in the East Riding of Yorkshire.

8:37

This phase of non-statutory consultation that we're undertaking at the moment focuses largely on bringing the electricity to shore, which is just the southeast of Skipsea shown on the map.

8:48

Just there laying cables underground to a new converter station that would be built as part of the project and then connecting by HVAC cables, alternating current cables to the Birkhill Wood substation that National Grid are developing.

9:07

It's called non statutory consultation because that means we're undertaking the consultation outside of the statutory requirements governed by the Planning Act.

9:16

And we'll be reporting on this consultation within the report that we'll submit along with our application for development consent.

9:25

It's really worthwhile and really important to give us your view, thoughts and views at this stage so that they can be considered alongside as we progress with site selection.



9:37

In 2025, we'll conduct another consultation, but this will be the statutory consultation.

9:44

And the purpose of that is to refine our plans further for the onshore infrastructure.

9:49

And that includes the preferred corridor for laying the cables onshore at the location of the converter station onshore and updates on our environmental assessments both for offshore and onshore.

10:04

And next slide please.

10:10

So this is a schematic to give a rough idea of how the electricity gets from the wind farm onto the National Grid.

10:19

So if we start over at the left, we've got the offshore wind turbines there that produce electricity that flows into high voltage alternating current or HVAC inter array cables.

10:32

Those are all collected together at an offshore platform or platforms and there the electricity is converted to HVDC or high voltage direct current, then it then travels all the way to a landfall point and is brought on land through what's called horizontal directional drilling underground into a jointing bay.

11:00

And then those cables flow on from there into an onshore converter station that's shown there as above ground infrastructure.

11:10

That onshore converter station converts the electricity from HVDC to HVAC and then flows through that last red wire on the right hand side to go from the onshore converter station into National Grid substation and then onto the transmission network.

11:29

Whilst this shows a pretty simple graphic of how we get the electricity from the offshore wind to homes and businesses, there's obviously an immense amount of work that goes into identifying the offshore and the onshore infrastructures.

11:42

It's really extensive work and as you've heard from the introductions, makes use of a number of consultants who are experts in specific areas of it onshore.



11:51

We carry out surveys to understand local ecology, evaluate potential access routes for construction traffic and to examine the ground conditions.

12:00

All of those surveys help with our assessments and give us the potential to avoid, reduce or mitigate environmental impacts.

12:09

Once we've gathered all that information together, we'll publish that in a report, which will be available for public and stakeholder comment at the statutory consultation next year.

12:22

Next slide please, just to explain a little bit about the planning application process.

12:29

So Dogger Bank D has a generating capacity of over 100 megawatts and as such it's considered a strategic national asset and therefore it qualifies as a nationally significant infrastructure project or NSIP.

12:44

So to proceed with developing the project, we'll apply for a development consent order or DCO and that'll grants the powers that are required to be able to deliver the project.

12:56

The application will be reviewed by the Planning Inspectorate and they manage the NSIP planning process.

13:03

And then the final decision on whether we're awarded consent or not will be made by the Secretary of State for the Department for Energy Security and Net Zero.

13:14

Next slide, please.

13:18

So to run through kind of characteristics of the project, there could be up to 113 turbines which would be located in an area of 262 square kilometres within the Dogger Bank Special Area of Conservation or SAC.

13:33

The nearest wind turbines will be situated approximately 210 kilometres from the Yorkshire coast.

13.39

At its closest point.



### 13:41

The offshore export cable corridor extends from the offshore array area to the landfall as I mentioned, southeast of Skipsea village on the Holderness coast.

### 13:51

The offshore export cable corridor includes a broader area to the northwest of the array and that's to allow potential micro sighting of the cable route in the event of the Dogger Bank D SAC potentially being extended in the future.

### 14:08

Developing an offshore wind farm is complex, so we use what's called a design envelope approach to allow some flexibility in certain project aspects, particularly offshore.

### 14:19

This approach covers potential variations in the number and size of wind turbines and the specifications for their foundations at the time that we put an application in.

### 14:30

I'm now going to hand over to Jamie who's Dogger Bank D's Lead Project Engineer.

### 14:39

Thanks very much for that Rob, and a great reflection on the last couple of years of work on the project.

### 14:44

Great to see it summarised so succinctly there.

### 14:48

What I'll take us through just now is just a bit a bit more detail on exactly what we're looking at in terms of onshore infrastructure and hopefully give a taste of the likely impacts that the project is proposing in these areas.

### 15:02

So just looking at the broad picture for the onshore work, as Rob mentioned, we're looking to connect into the Birkhill Wood substation, that's the National Grid substation to be located just northwest of Cottingham.

### 15:15

And to do so, we need to bring our offshore cables all the way onshore and connecting to that point and then passing through a search area where we'd site a converter station where as Rob mentioned, we've convert the electricity which is currently in HVDC at that point into the required HVAC for connection to National Grid.



15:36

So we've currently identified several potential corridors through the site selection process and they're currently about 200 metres wide.

15:45

That corridor, when we finally come to install the cables, would be in the order of 30 to 40 metres wide and obviously we'd be looking at a much smaller impact than the corridor indicates in several areas.

16:00

These impact areas, you can look through the consultation brochure and start to find a lot more details on specifically each of them and assess in more detail the different options that we're looking at

16:11

If you could go to the next slide, please, Natasha.

16:17

So just looking at some of the key points on here, Rob mentioned, we're identified just southeast of Skipsea as the location for the landfall.

16:25

At landfall, we bring the offshore cables onshore and we do that through trenchless technology.

16:32

A very typical installation might be horizontal directional drilling where o shore we would install ducts that the cables could then be pulled through from offshore and that helps minimise some of the impact of the landfall area.

16:47

When we've installed the cables, we'll end up with a what's called a transition joint bay and that's where we connect the offshore cables to the onshore cables and that's the only above ground infrastructure that we end up left with after the landfall is installed.

17:03

If you move to the next slide, please. In the section immediately in land of the landfall where we see some key cable corridor options that the project's still considering at this early stage.

17:15

We have option A1, which is about 12 1/2 kilometres long.

17:20

And some of the key features along here are crossings of the A165 and crossings local to a pumping station as well.



17:29

Option A2 is slightly longer at 18 kilometres, we have similarly crossing the A165, but some additional areas where we'd look at additional crossings of the A1035 and also proximity to Hornsea Mere and other environmental designations.

17:46

And a key part of the consultations and the discussions at this early stage of the project is that we're only looking to progress one of these options and is exactly the kind of thing that we're looking to engage with the community at this early stage and seek feedback on.

18:05

Similarly when we're talking options that the project is looking at the areas of search that we're looking at for the converter stations to highlight the two options that we're considering.

18:16

Option one is bordered by the A164 to the north and West and the A1079 to the South and that is the blue area that you can see on screen.

18:28

And option 2 is situated southwest of Walkington and west of the hamlet of Bentley.

18:33

Again, we're only looking to progress one of these options and a key outcome and goal for us with this non-statutory consultation is understanding the feedback that we can seek at this early stage.

18:46

And just some keys sort of commentary on the converter station zones.

18:50

Those zones that we're looking at are specifically an area of search.

18:53

They don't represent the actual footprint that we would look to install, but we would look to site the converter station within those areas.

19:03

The converter station ends up looking like a 30 metre tall green shed and that's the sort of visual impact that we're looking to assess later stages within the planning application process.

19:18

If you go to the next slide, just a couple of comments on some of the maybe more interesting and more novel things that Dogger Bank D is looking to investigate and progress with.

19.31

We're looking to the greatest extent we can coordinate with offshore wind and other infrastructure



and a significant part of that is working alongside National Grid and exploring potential for coordination with what's called an offshore hybrid asset.

### 19:47

So in this scenario, the wind farm that we would develop via our offshore platforms would facilitate an interconnector between the UK and what could be another European market and in essence connecting Dogger Bank D as a wind farm to two different grids.

### 20:06

Developing OHAS is a real interesting stance just now and certainly is something that's looking to enhance the energy security for the UK.

### 20:16

This allows us to export power where the UK grids may have an oversupply, but equally it helps facilitate the interconnection with other low carbon electricity sources and ultimately with the goal of bringing down EU's carbon emissions.

### 20:33

And next slide please.

### 20:35

And I guess to strengthen the position of Dogger Bank D and the ultimate aim of reducing the carbon intensity of grid energy, Dogger Bank D is looking at exploring what we've termed as energy storage and balancing infrastructure.

### 20:51

And this is as looking at options where we can store excess energy during periods where we're potentially generating surplus electricity.

### 21:00

This might be from potentially a combination of very, very good wind conditions allowing us to generate excess electricity or equally it could be represented by low demand on the grid.

### 21:14

So if we're able to implement energy storage and balancing, this helps us flatten out those peaks and troughs that might come with supply and demand.

### 21:23

And it's something that we're looking at alongside the converter station within the onshore search areas.

### 21:31

And I'll now pass over to Abbie Garry, who can pick up the next section.



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Thanks.

### 21:37

Yeah, thanks, Jamie.

### 21:40

So in order to protect and enhance the environment, we'll be undertaking an environmental impact assessment.

### 21:47

And this will identify potential impacts of the construction, operation and maintenance and decommissioning stages of the project.

### 21:55

This will look at a range of offshore and onshore topics and it will include topics such as ecology, noise, air quality, as well as heritage effects and socioeconomics to name a few.

### 22:11

But there's a lot of topics that are covered within this assessment and the results of these assessments will include measures to reduce impacts and these will be outlined within the Preliminary Environmental Information Report.

### 22:27

And this report will be presented at the statutory consultation in 2025.

### 22:34

At that point, the project design will be still evolving and will continue to refine our understanding of its potential significant effects.

### 22:43

After we received the feedback from the statutory consultation and following conducting further studies and surveys and making progress on the project design, we will complete the final EIA.

### 22:57

And the findings of this will be detailed in an environmental statement, which will be submitted with our development consent order application.

### 23:07

So that's all I have to say on that one and I think I'm passing over to Sophie.

### 23:13

Thank you, Abbie.



### 23:15

Just this slide here just shows that why consultation is an important and essential part of developing the project to help us understand the impact on the natural environment and also the human environment and finding out what matters to the people who live within the area, you know the area best and you could be directly affected by our plans.

### 23:42

So within this consultation, you know, as shown, we are presenting our proposals and we're outlining the areas we are considering for the onshore infrastructure.

### 23:52

There are different ways to send us your feedback, as you can see here - by e-mail, going to the website, calling our freephone or writing to us at the Freepost address.

### 24:06

Next slide, please, Natasha.

### 24:10

So what happens after the consultation has ended is that we will read and analyse all the feedback and consider it as we continue to develop our plans.

### 24:20

We'll have a summary of the feedback and produce this after the consultation has ended and we'll explain how the feedback has actually influenced what we've taken forward below.

### 24:34

On the screen there you can see a timeline of different milestones.

### 24:42

So where we are now is autumn 2024 where we're having the non-statutory consultation and different timelines all the way through to the if we actually get our development consent order for the early start of construction, which is 2029.

### 25:05

Next, please, Natasha.

### 25:09

So what happens next is that as I've said, we'll hold out a statutory consultation in 2025 where we'll have more detailed proposals for the project.

### 25:22

We'll be able to display our Preliminary Environmental Information Report and the statutory consultation is another chance for you to feedback on our proposals.

### 25.35

So this will help shape our final design and our planning application.



### 25:43

And then we've got various people who obviously assist us with our engagement.

### 25:51

So we've got Dalcour McLaren who are our land agents and fisheries liaison officers from Brown and May Marine.

### 26:02

Another thing to point out is that we have different deposit locations where you can go and access the consultation materials.

### 26:13

So we have the consultation brochure, a feedback form and a freepost envelope and the A3 book of plans.

### 26:25

And then the last slide is our consultation finishes at midnight on the 22nd of October and I'll hand back to Natasha.

### 26:39

Great, Thanks all.

### 26:41

So I will stop sharing my screen and we've got a few questions that have come through that have been pre-submitted.

### 26:49

So we can ask those.

### 26:50

But if anyone has got anyone on the call has got any questions, please pop them in the Q&A box and then we'll deal with them as we go through.

### 26:59

But if I could have some of the pre-submitted questions that would be great in the meantime, of course.

### 27:06

So one of our pre-submitted questions we had Natasha was why there's so many wind farms being built in the North Sea and is this area of Holderness taking more offshore wind than the rest of the country.

### 27:19

Great, thanks.



27:20

I think that's probably best directed to Rob.

27:24

Yeah, I'm happy to answer that one.

27:26

So the way the leasing process works for offshore wind is that the Crown Estate leases out the seabed on behalf of the King and administers leases on behalf of the Secretary of State and Treasury.

27:41

And so the locations of the wind farms that are built are determined by the leases that are auctioned to developers.

27:48

And the North Sea has a good wind resource and some suitable areas for wind farms, but wind farms are being developed in the Channel and in the Irish Sea as well.

27:58

And there's been a lot of connections for offshore wind that have previously been connected into areas of southeast England such as E Anglia, as well as quite a number into Scotland.

28:10

Perfect.

28:11

OK, just a reminder, I'm going to say this a lot, but if you could, if any questions crop up in anyone's heads, please pop them in the Q&A box.

28:19

Otherwise, this could be a long, long meeting for everyone.

28:24

Oh, perfect.

28:25

We've got one.

28:25

Wonderful.

28:26

Thank you.



28:27 So this question says how do you relate to RWE? 28:32 They are also putting a high power cable through Catwick. 28:35 Catwick I think is the right way of saying that. 28:37 And this has caused some confusion with residents with yourselves believing you were the same people. 28:42 So I'm not sure who that's best directed to, maybe Rob again, sorry, I don't want to keep picking on 28:46 No, that's fine. 28:46 I'm happy to take that. 28:48 Yeah. 28:48 So I, I can't comment on how RWE named the project. 28:54 It'd been easier if it wasn't called Dogger Bank South. But I appreciate from the public consultation events that we've had that there has been a lot of confusion between the different projects.

29:05

So we've tried our best to try and explain the events.

29:11

The two projects are completely separate, so and they're being developed by different developers.

29:18

So the Dogger Bank South projects are right down to the southwest of Dogger Bank D.



29:24

Those are being connected into or they're going forward for consent.

29:30

Currently those are being connected also into the Birkhill Wood substation, which was by there's been consultation events in similar area, but they are completely separate projects and we've been trying to clarify that as we've gone through the consultation materials.

29:49

Great, that's fab.

29:50

Thank you.

29:52

And then the next one is what is the current target year for the project to be up and running and producing electricity?

30:00

If you could just give me a wave if you want to answer that.

30:02

I don't want to keep picking on Rob, but it might actually be a Rob question.

30:07

That's fine.

30:07

Now I'm happy to happy to answer that.

30:10

So as it said on the slide that Sophie was running through our aim, if the DCO consent goes through in the timeline, we hope to start construction in 2029, working forward from that based on the programme of the projects that have been delivered to date.

30:31

And we'd be targeting a 2032 first power date.

30:36

So that'd be the first time we would export to the grid, right?

30:41

And then there is 2 questions about the A1 and A2 routes.



30:46

So this might be a Jamie question.

30:48

We'll see whoever wants to take it essentially.

30:50

So what are the benefits about the A1 route versus the A2 route?

30:55

And what are the differences?

30:57

And then also, how long would it take to complete each route?

31:00

We might not know at this stage, but I don't know if we've got an estimation.

31:05

Yeah, I can answer hopefully some of that.

31:07

When we're looking at the two routes, A1 and A2, one of the key things that we're looking at is the different utilities or infrastructure points that we would need to cross.

31:18

So where, for example, if there's a railway line, or if we find a lot of gas mains, for example, that we want to avoid having any impact to, we would need to have additional drilling points onshore.

31:31

So that allows us to bring the cables under those key infrastructure points with minimal disruption.

31:37

And when we're comparing routes A1 and A2, what we find is a fairly similar comparison on a risk of different bits of infrastructure.

31:47

And so we, they're quite comparable actually from a technical point of view.

31:52

And then we'd look to understand what are the key constraints that might impact our ability to deliver either of those.

32:02

Perfect, thank you.



32:03

And then we've got lots of questions now.

32:05

This is really exciting.

32:07

So there's the next one is why is the, I assume the corridor or the route corridor 50 metres wide?

32:15

This is as wide as Catwick

32:16

I'm going to keep saying Catwick, I'm hope I'm saying it right, Catwick village.

32:21

And I think that's probably a Jamie one as well.

32:23

Sorry, Yeah, no, and that's a good question.

32:26

And if you looked at the sort of cross section of how we install these cables, one of the biggest contributors to that width is actually the need to have effectively a temporary road installed alongside the trench.

32:41

So the cables themselves would go in a trench that would maybe be, and depending on designs, let's say 5 metres for argument's sake, but the bulk of the width would be made up of the road adjacent to that.

32:53

But then also on the other side of it, the soil that would be removed from the trench ready to be brought back in.

32:59

So when we're talking about 50 metres, it's actually made up of trench, road and spoiled remediation areas.

33:06

And then we have an allowance for fencing and with their ability to make sure that that trench is safe from anyone that might be in the area as well.



33:17

So worth just clarifying, Jamie, the eventual once the haul road's removed, what the situation would be.

33:26

Yeah, absolutely.

33:26

It's a very good point.

33:27

And that's everything that I've mentioned there is all temporary, that would all be removed, reinstated and put back to as close if not better than it was before, if we can achieve that.

33:40

Yeah, OK, great.

33:44

Thank you both.

33:45

And then there's two questions that I think I can kind of combine together.

33:49

So one of them is what road infrastructure will need to be built to put the cables in and how disruptive will that be?

33:56

And then how will the land be left after installation of the cables?

34:00

I think they can probably be joined together as a kind of disruption question.

34:05

Yeah, happy to take that 'cause I think it follows on quite nicely from understanding when we're talking about a cable corridor, what actually makes that up.

34:14

And in terms of the impact really when we actually look at installing this cable corridor, we'd break it up into sections.

34:23

So while we might see you know a construction programme and as Rob alluded to starting 2029 with generation in 2032, we don't anticipate that specific sections of the cable corridor would be left as, for example, an open trench and road for the entire duration.



34:42

We anticipate that sections could be closed up and reinstated within a target of sort of one to two year periods and that would be done on a sort of segmented basis throughout the cable corridor.

34:54

So we'd look to try and structure the programme to ensure that we were closing up those trenches as quickly as possible and then starting that process of reinstatement, which is where we put the all of the soil back in the ground from what was removed and then begin replanting that to ensure that it's back to the condition that it was in beforehand.

35:18

Great.

35:18

Thank you.

35:20

And then the next one is what are the acceptable EMF levels and what will these cables give off?

35:25

And I assume that's probably another Jamie question.

35:29

Yeah, and probably one that's too difficult to answer at this stage given how early we are in the project process.

35:37

We don't have a design that we would be allowed to or be able to share more information on that one, but certainly something that we've both factored into how we evolve that design.

35:49

And again is another great example of some of the feedback we've received at this early stage that we can capture and make sure is built into the design.

35:58

Great, thank you.

35:59

And then we've got another one which I don't actually think is for Jamie.

36:01

So you'll be excited to know that.



36:03

So this one is as the proposed route will directly impact our vineyard, which is a permanent structure and crop.

36:10

The three month period is a long time and they're looking to plant the next 30,000 vines, wow into the ground in spring next year, but need to be ordered and booked now to ensure that they can access the labour and window of planting, etcetera.

36:23

Could this decision be speeded up?

36:25

So I think Rob, that might be best left with you.

36:29

I can start off and then it might be worth Matt if you're happy coming in on that.

36:35

So we are aware and I believe you've been speaking to our land team in relation to the concerns about the vineyard.

36:46

We are at an early stage of the project as has been mentioned a few times.

36:50

So we won't be starting any work until we've got consent for the project.

36:55

Our timeline for getting consent is currently January 2028.

37:01

As we go through the project, we will be looking at confirming the route selection as quickly as we can.

37:12

But there's a number of different factors that feed into that which we'll be working on over the coming periods.

37:20

So environmental, landscape and visua, I technical constraints as well as all the feedback we're going to be getting from the consultation process.



37:31

So the exact timing when we make that decision on a single export cable route, a single onshore converter station, not certain at the moment.

37:39

I don't know, Matt, if there's anything you wanted to add.

37:41

No, just that, yeah, we're obviously, we're fully aware of the vineyard and its location and, and the corridor.

37:48

And obviously we've, we've fed back to the project and the different teams that will be taking that information on board.

37:54

And yeah, as soon as you obviously do make the decision on where we're going, we'll, we'll let landowners know.

38:00

Yeah, great.

38:04

Thank you.

38:05

And then the next one is, will you be looking at compulsory purchasing?

38:12

Can't say that, for land and houses in the path, in the route path maybe Matt, I'm not sure or Rob? I mean, I can give it a stab.

38:23

So we obviously the first port of call is to get a voluntary agreement with any land owners that the project impacts.

38.30

So and where possible we'll be as far away from residential properties as, as we can be and obviously trying to keep impacts to a very minimum.

38:42

Obviously where we can't agree voluntary agreements to fall back position is compulsory purchase.

38:46

But that's yeah, the sort of worst case and obviously we don't want to do that.



38:50

And generally, yeah, the voluntary agreement route is that that most beneficial for both project and landowners.

38:59

It's probably just worth saying that one of the key, key selection criteria in terms of the route selection is to avoid domestic properties, which is why we've got a fairly long route going around the north of Beverley rather than coming through the gap between Beverley and Hull.

39:15

So that's already kind of built into a lot of our site selection criteria.

39:22

Great, thank you.

39:24

And then this question is about consultation materials and whether there's photos or examples of onshore, similar onshore infrastructure with a scale made clear.

39:34

So I assume so they can see the size of it.

39:36

So if that might be one for you, it might be something that we're planning to include for statutory consultation.

39:56

So yes, for statutory consultation we will look to include real life examples of above ground infrastructure such as the converter station.

40:10

So where we also have those which are already constructed or using 3D models, we will try and provide as accurate as possible as we can.

40:26

But bearing in mind that there are some design parameters which won't be decided until after the DCO is granted.

40:37

Perfect, thank you.

40:40

So the next one is if the route cannot be diverted around an area, what happens?

40:46

So I'm not sure.



40:47

I don't know if that's like a land base questions, maybe one for Matt or maybe one for Jamie.

40:52

I'll let you figure out sort of between yourselves.

40:56

Maybe I could say something initially and then Matt and Jamie, feel free to jump in.

41:00

It depends a little bit what the obstacle is that we're trying to get around.

41:04

So for example, for roads or watercourses where we can't go around them, then we would use a number of engineering techniques which Jamie will explain better.

41:15

So I'll let him do that in a moment if it's what we would try and avoid domestic properties anyway.

41:24

If there's specific things that we need to avoid, we have the ability within the cable route given the width of it that Jamie's just referred to, part of the purpose of that is to be able to microsite around.

41:38

And then the last thing I just say is this is part of why we're undertaking the consultation at the moment.

41:45

People have local knowledge that'll be better than will be at least complementary to all of the survey work that we're doing.

41:52

So if we get feedback from people on a specific constraint in an area that may affect our choice of export cable route or the location we choose for the onshore converter station.

42:05

So really important that people give us that feedback now so we can feed that into our site selection process.

42:12

Jamie or Matt, do you want to jump in with anything?

42:16

I think you covered that really succinctly, Rob.



42:18

But maybe just to stress as well that, you know the technical feasibility of these routes have been core to the site selection process and it's been a real part of the effort and understanding how these cable routes work.

42:32

And that's something that we're continually evaluating as more information becomes available as well.

42:39

Great.

42:40

OK, Thanks guys.

42:42

The next question is the onshore cables are shown to be underground.

42:48

Could this ultimately be changed to overground cables on pylons for example on grounds of costs?

42:54

So it's a really important question.

42:56

That's what we were asked a number of times in the face to face consultation events.

43:00

So to be absolutely clear, all of the cabling from the point the cable comes ashore southeast of Skipsea, right the way to the National Grid substation of Birkhill Wood, that will all be underground right the way through to there.

43:19

Once the power is delivered in HVAC to the Birkhill Wood substation, that's National Grid's design that tends to be overhead infrastructure.

43.30

Birkhill Wood substation is located very close to Creyke Beck substation, which is an existing substation.

43:37

So I'm unclear how much additional overground infrastructure there might be a National Grid design, but that'll be part of their project.

43:49

Great, thank you.



43:52

Next one is, is it true that when the cables are in use, the ground heats up like above the cables, obviously causing disruption to crops being grown above?

44:04

That might be one for Abbie maybe.

44:12

I don't know if Jamie might be able to answer that more easily than I could.

44:19

Yeah, I think this is this is probably another one where for Dogger Bank D, we don't have enough design information to kind of confirm that heating effect.

44:28

Certainly we see heating of the cables, but we have the benefit of them being buried usually about a metre and a half below the soil surface and with the appropriate design measures in place to minimise that impact.

44:44

So it's a bit early to say the impact Dogger Bank D might have without a design to evolve that, but we'd look to understand that more fully as that design matures for ourselves.

44:57

If that is an issue and I can't remember off the top of my head, it will be covered within the Preliminary Environmental Information Report in the Soils and Land Use chapter as well.

45:10

Great, thank you both.

45:12

So the next question might not be directly related to us, but we'll see if we can give it a go anyway.

45:18

With all the extra wind farms or additional wind sort of capacity, will the Cottingham substation need to be made bigger to cope with the additional electricity coming onshore?

45:30

So I can try and take that question.

45:32

As you say, Natasha, it's not part of our project.



45:35

So just to be clear, all of the onshore transmission infrastructure, so the substations are designed and built by National Grid Electricity Transmission.

45:48

My understanding is that Birkhill Wood is being built to provide a connection point for a number of projects including Dogger Bank D and Dogger Bank South.

46:03

I believe there is some work going on to provide extra bays at Crekye Beck Substation, which the existing substation near Cottingham to provide a connection for Hornsea Wind Farm.

46:16

But if there are more detailed questions on that, it'd be more appropriate to contact National Grid Electricity Transmission.

46:27

Perfect, thank you.

46:28

Right.

46:29

We've just got a couple more to go in the Q&A box.

46:33

So if you do have any other additional questions, please pop them in there for now.

46:36

And then after we've answered these two, we'll go on to a couple of the pre-submitted ones as well.

46:42

So the next one is approximately how many temporary and permanent jobs locally will the scheme create?

47:01

Yeah, I think you can give a bit of flavour of that one.

47:03

It's obviously an element that will be broadly designed dependent.

47:07

But for a bit of context, the, as Rob mentioned at the start, you know, we're in construction on other phases of the Dogger Bank wind farm.



47:16

And we've seen sort of up to 800 people on site as jobs created during the temporary construction. For Dogger Bank D during the sort of longer term phase.

47:29

That's yet to be determined what the operational setup will be there.

47:32

So we can't provide too much information on the through life job creation, but hopefully that gives a flavour of the, the sort of temporary workforce that a project of this sort of scale entails, right.

47:47

Anything to add from anyone?

47:50

I suppose it's maybe just worth saying that's based, I think Jamie, on Dogger Bank A&B - that project, those projects were kind of take undertaken sequentially, but with some of the workforce transferring between the two of them.

48:05

So I think it provides an indication, but it may not be exactly the same on Dogger Bank D because it's a single project.

48:12

Yeah, absolutely.

48:15

Great.

48:15

Thank you.

48:16

And then the last one so far.

48.18

So just another reminder, if anyone's got any last minute questions, please pop them in there, the Q&A section.

48:23

But the last one is probably one for Abbie and it says when, when is the environmental impact assessment being undertaken and how frequent is the monitoring?



48:35

Is it daily, weekly, monthly just so that they can ensure that it captures all aspects of environmental conditions and wildlife activities?

48:44

Yeah, no worries.

48:45

So we've already started some of our surveys relating to the project to inform the Preliminary Environmental Information Eeport and the frequency of those surveys depends on what the survey is.

49:00

So for example, we've been doing a preliminary ecological appraisal, which is basically a walkover of the whole of the project onshore boundary or as much as we can get access to, to look up what the habitats are there and what the potential ecological receptors could be.

49:24

So that has been ongoing pretty much weekly since about August.

49:33

And that survey will then identify follow on surveys that we can do, for example, bat surveys, reptiles and vertebrates and those more targeted surveys will happen next year in the appropriate seasons.

49:55

We've also undertaking bird surveys for overwintering birds at the moment and those surveys are monthly or twice monthly depending on the receptors.

50:08

They started in August and they're finishing in May.

50:13

So that's a bit of an overview of the ecology surveys.

50:17

We also will undertake other surveys or are undertaking other surveys associated with noise to understand any kind of key receptor locations that might be impacted by any noise from the project.

50:35

So we'll be undertaking some monitoring at those locations, automatic traffic count monitoring, which includes putting out monitors onto the roads to capture the current movements.

50:50

So that will inform our assessments, heritage surveys as well.



50:57

Again, it does vary in terms of the frequency which was the question and there'll be some heritage surveys this year and some next year when we've got a bit more information.

51:09

And all these surveys are also backed up with desk-based assessments where we look at what the key receptors are as well.

51:21

There are lots, I haven't covered every single survey that we're doing.

51:23

There are lots that are ongoing at the moment.

51:27

And if you want any further details on any of them, feel free to put another question in the chat.

51:34

I was going to say as well, I just did a quick check on that soil heating question that we had earlier.

51:42

And following our initial review of the issue, we've concluded that the electrical system will be designed to minimise heat loss and that will be to a level which is unlikely to affect crop growth.

51:58

So the Planning Inspectorate who monitors the development consent order application has agreed that we can scope that matter out of the environment impact assessment as they've acknowledged that it's not an issue that would be necessary to be considered.

52:19

Just to provide a bit more of a clear answer on that one.

52:22

So yeah, unlikely to affect crop growth.

52:26

Yep, that, that should be about it.

52:29

Yeah, no, thanks.

52:30

Thanks for thanks for checking that.



52:32

And actually I'll be sorry, I've got another one for you.

52:36

So the last question is what are you doing regarding BNG?

52.39

So biodiversity net gain again, might be a little bit early for that, but we'll see.

52:44

Yeah, that's fine.

52:45

So as I mentioned, the surveys that we're undertaking at the moment, the preliminary ecological appraisal surveys will also undertake an element of working out what habitats are currently on the site.

52:59

And once we've taken that into consideration, so what is there, for example, is it arable, is it grassland?

53:06

What kind of habitats are there?

53:08

We can do an assessment to work out.

53:12

And I'm sorry, once we've worked out what, how much land the infrastructure might take, we can do further assessments to understand the feasibility of biodiversity net gain.

53.25

So we'll be undertaking a feasibility report and a biodiversity net gain strategy.

53:35

We will potentially have some information available at the statutory consultation on that.

53:40

But the final biodiversity strategy I don't think will be available until we actually publish the environmental statement, but that will be available at the DCO application stage.

53:53

But we could potentially have some preliminary information.

53:57

We could provide at statutory consultation on that one.



54:03 Perfect.
54:04 Thank you.
54:05 So that was all of the questions from attendees so far.
54:09 So if we take a couple more of the, I think we had a couple more of the pre-submitted questions and then that gives everyone a little bit of time if they think of anything last minute to pop in the Q&A box and then we'll probably draw it to a close because I think we've lost a few people throughout anywhere.
54:23 So Dan, can we get the next couple of pre-submitted questions please?
54:31 Yeah, of course, this one might be one for Abbie.
54:35 Sorry.
54:35 To go straight back to over is how will fishing be impacted by the new wind turbines?
54:41 And we do.
54:42 Oh, are you able to fish between the turbines?
54:45 That makes sense.
54:47 Yeah, sure.
54:49 So in the area where the turbines are, so the Dogger Bank Special Area of conservation bottom towed fishing is currently banned.



55:00

So fishermen aren't able to fish there in that method, although other methods are permitted during the construction works.

55:11

It won't be possible to fish in the array site or along the export cable corridor, although we will make efforts to minimise the duration of this.

55:20

After the construction has been completed, the fishing activity will be permitted again within the array area, which is where the turbines are, but there'll be a safety buffer around the turbines to avoid entanglement and loss of nets.

55:38

Hopefully that answers that one.

55:41

Yeah, that's great.

55:42

Thank you.

55:43

And then I think we had one more and we've not had any other submitted ones so far from attendees.

55:48

So after this one, we'll bring everything to a close.

55:54

So I think this one might be for Matt and no pressure on the big finish.

55:58

Will landowners be compensated if the cables run through their land on the way to the converter station?

56:04

Yeah, yeah.

56:05

So yeah, they'll be fully compensated for any disturbance or cables that are going through the land.

56:11

Typically they'll have a land agent that will act for them.



56:14

And that's who we deal with on all of these projects in a typical sense.

56:17

So, yeah, they'll be fully compensated.

56:22

Great, short and sweet.

56:23

OK, well, last, last chance for anyone in attendance to submit a final question, I'll give you a few minutes, well, say a few minutes, a minute or so to type that out.

56:35

If not, we hope this has been really, really helpful and you found it useful and, and got all the answers to the questions that you needed.

56:43

Obviously you've got the contact details for the consultation team from that presentation, so if and any materials you'll have received as well.

56:52

Obviously, if anything does crop up, just get in touch.

56:56

And yeah, I think we've not got anything else, so I'll just bring it to a close.

57:00

And just wanted to thank everyone for attending and to thank the team as well for answering all the questions.

57:05

And yeah, wish everyone a good evening.

57:08

Thanks very much.

57:12

Thanks everyone.

57:15

Thanks for joining.



57:18 Have a lovely evening.