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FULL TRANSCRIPT (with timecode)

00:00:07:02 - 00:00:16:06

Good morning everyone. Time is 10:00 and this hearing is now open. You just confirm that? You hear me?

00:00:18:18 - 00:00:37:21

And could ask a member of the case team to confirm that. I can be sorry that the live streaming recording has started. Thank you. So I'd like to welcome you all to this issue. Specific hearing relating to an application made by West Burton Solar Project Limited for an order granting development consent.

00:00:39:09 - 00:00:53:21

For the proposed West Burton solar project. My name is Andrea McGeehan. I'm the lead panel member of the examining inspectors, appointed by the Secretary of State to examine this application. I'm now going to ask the other panel members to introduce themselves.

00:00:55:22 - 00:00:59:10

Good morning. My name is Jonathan Medlin and I'm the other member of the panel.

00:01:01:03 - 00:01:27:10

So you hear us being referred to as the examining authority. Our role is to examine the application and conclusion of the examination throughout a report to the Secretary of State for Energy Security in Net-zero, with a recommendation on whether the Development Consent Order should be made. The Secretary State is responsible for the final decision. A case team works alongside us through the process, and they're managed by Louise Haraway. Who who's here with us today?

00:01:29:00 - 00:01:51:18

Just a few housekeeping matters. Before we start, can please everyone. Set their devices, phones and other devices to silent at. Toilets are along the corridor on the left hand side. There aren't any planned fire tests, so in the event that alarm sounds, please go to the fire Assembly points, which is the secret building on Faith Wharf.

00:01:54:26 - 00:02:23:26

The purpose of the hearing today is to consider matters relating to the scope of the proposed development need, site selection and alternatives, as well as a number of environmental matters. It will generally follow the agenda published on the National Infrastructure website on the 26th of October. You realize that the agenda is is broad in scope. It's intended to provide an introduction to a number of topics to the examination.

00:02:25:21 - 00:02:43:27

We want to try and cover all of the matters identified on the agenda, and to hear everyone's comments on them. That said, if it does appear that we're running out of time, we may have to prioritize some areas and leave other areas for later on in the examination, whether that be through written questions or further issue specific hearings.

00:02:45:25 - 00:03:17:19

In terms of general planning for the day, we anticipate that we make other items three and four relating to the scope of development is consideration of need, site selection and alternatives before lunch, and so that we can then move on to cover matters relating to various environmental topics this afternoon. But we'll see how we get on. In terms of timings. We'll have a short mid-morning break at around 1130 and a longer break for lunch at around 1:00.

00:03:17:21 - 00:03:24:23

We'll also have a mid-afternoon break, and we intend that the hearing shouldn't go on past 5:00 this afternoon.

00:03:28:16 - 00:04:00:20

So this hearing is a blended event, which means that some of you are attending in the room and others are taking part via Microsoft teams. We will be making sure that everyone has a fair opportunity to participate, however they've decided to attend today. If you are watching via the live stream, please be aware that there that that it'll be stopped during any adjournments and you'll need to refresh your browser page when the to view the restarted hearing.

00:04:02:22 - 00:04:21:06

A recording of today's hearing will be made available on the West Burton Solar Project section of the National Infrastructure Planning website as soon as practicable after the hearing has finished. With this in mind, could you please make sure that you speak clearly into the microphone, stating your name and who you are representing each time you speak?

00:04:22:25 - 00:04:26:11

There is a roving mic available in the room. Should. Should we need it?

00:04:29:17 - 00:04:39:24

For those of you who are joining us virtually and if you wish to speak, you can use the raise hand function, and we will make sure that you have the opportunity to contribute.

00:04:42:24 - 00:05:01:12

A link to the Planning Inspectorate Privacy notice was provided in the notification of the hearing. We assume that everyone here today has read that. This sets out how the personal data of our customers is handled, in accordance with the principles set out in data protection legislation. Please speak to a member of the case team if you have any questions about that.

00:05:04:27 - 00:05:21:02

So moving now to agenda item two, which is refers to the purpose of the issue specific hearing. And we will confirm who's intending to participate today in terms of notifying the inspectors of their intention to be or they wish to be heard.

00:05:25:02 - 00:05:41:13

So in terms of the purpose of the hearing, this is to address matters identified by us on our reading of the application documents and and our reading of submissions made to date and and heard to date.

00:05:44:09 - 00:06:16:17

We think it would assist us in our examination to consider matters relating to the nature and scope of the proposed development, so that this is clearly understood, clearly explained, and clearly understood. We also consider that matters relating to need alternatives, site selection and site selection would benefit from oral representations and questioning, noting the numerous representations on these matters. And at this stage we also consider it helpful to have some discussion around a number of the environmental aspects of the project.

00:06:19:23 - 00:06:50:07

So just a general word about issue specific hearings such as this. Their purpose isn't to open all matters of discussion. So open discussion relating to all matters to deal with a particular topic topic. Rather, it's to allow discussion on matters that we think would benefit from oral representations. This doesn't mean that written representation aren't equally as important in terms of the consideration that will be given to them. We're reaching our recommendation.

00:06:51:21 - 00:06:59:23

And that basically means that just because a particular matter isn't discussed in a hearing, it doesn't mean that we won't give it full consideration.

00:07:03:16 - 00:07:26:00

So moving on to introduce some of the parties in the room. Please try to unmute your microphone when you speak and if you're joining by Microsoft Teams, please switch on your camera when we invite you to speak. If you're if you're comfortable in doing so, please switch them off again when you move on to the next speaker. And as I've mentioned, a roving mic is available for anyone in the room who isn't sitting in front of a microphone.

00:07:29:06 - 00:08:00:29

And again, I'll reiterate it's important that all contributions are captured. So we need to make sure that everyone's using a microphone when they're speaking so that it's captured for the formal record. So when state your organization's name, could you introduce yourself stating your name, who you represent and which agenda item you wish to speak? There's no need to introduce all members of the team at this stage. If you're not representing an organization, please just introduce yourself stating the nature of your interest in the application and the agenda item on which you wish to speak.

00:08:01:15 - 00:08:06:17

Could you also state how you would wish to be addressed, whether that's Mr. or Mrs. doctor? ET cetera.

00:08:08:13 - 00:08:14:21

So can we start with introductions for the applicants, please? And who will be leading for the applicant today?

00:08:16:26 - 00:08:50:18

I think my name is Claire Broderick. I'm a legal director at Pinsent Masons and solicitors for the applicant, West Burton Solar Project Limited. We can be referred to as Ms. Broderick. We have a number of different representatives for the applicant here today to cover the various different environmental topics. However, I'm joined at the table for the first few topics on the agenda, and so it might be helpful if they introduce themselves at this point. And then when we move on after lunch, we can provide further introductions at that stage.

00:08:50:21 - 00:08:53:14

So I will let them introduce themselves. Thank you.

00:08:56:09 - 00:08:56:27

Good morning.

00:08:57:02 - 00:09:06:10

My name is Eve Browning. I'm a senior project development manager at Island Green Power, who? The developers of the scheme can be referred to as Ms.. Browning.

00:09:08:29 - 00:09:15:29

Good morning. My name is skillet for the applicant speaking on matters of need and can be Mr. Get.

00:09:18:21 - 00:09:26:08

So. Good morning. My name is Jane Crighton. I'm associate director at planning. Consultant for the applicant have to be referred to as Miss Creighton.

00:09:28:12 - 00:09:29:12

I'm sorry. Didn't quite catch your name.

00:09:29:25 - 00:09:31:11

Mrs. Crighton.

00:09:31:19 - 00:09:32:05

Thank you.

00:09:35:25 - 00:09:44:21

Good morning, Dave Alvin for the applicant. I'm had a few projects for Island Green Power for promoting the West Burton project. Happy to be referred to as Mr. Alvin.

00:09:52:14 - 00:09:53:03

Thank you.

00:09:56:07 - 00:10:05:15

So now we're going to move on to. Hear from the organizations and individuals that give notice of their intention to speak, starting with the local authorities Lincolnshire County Council, please.

00:10:07:03 - 00:10:23:20

For the moment, I'm Neal McBride. I'm head of planning at Lancashire County Council. Happy to be referred to as Mr. McBride. Um, I haven't identified any particular agenda item to speak on, but will contribute as necessary as we go through the agenda.

00:10:26:05 - 00:10:32:18

Okay. Um, Nottinghamshire County Council, I believe, are participating via teams.

00:10:34:16 - 00:10:35:01

Thank you.

00:10:35:03 - 00:10:43:24

Thank you ma'am. Yes. Stephen Pointer, planning policy manager, Nottinghamshire County Council. And happy to be referred to Mr. Pointer.

00:10:47:17 - 00:10:52:19

And again, in terms of agenda items, I'm assuming that you may wish to contribute to a number.

00:10:52:21 - 00:10:57:22

Yeah, nothing specific, but will contribute as necessary as the need arises. Yes. Thank you.

00:10:58:14 - 00:11:01:12

Thank you. West Lindsey district council.

00:11:03:02 - 00:11:11:11

Holy mum, my name is Russell Clarkson. I'm representing Westland District Council and to my right is Mr. Alex Blake.

00:11:13:12 - 00:11:20:23

Box and like we again haven't got a specific agenda item, we're likely to have interest.

00:11:22:21 - 00:11:23:18

Tributes appropriate.

00:11:25:05 - 00:11:25:21

Thank you.

00:11:26:19 - 00:11:29:24

I've just had an indication from the back. Is there an issue with.

00:11:37:21 - 00:11:41:14

Do we need to do introductions again or were we okay? We're okay. Thank you.

00:11:44:27 - 00:11:51:21

Any of the local authorities or statutory parties present in the room, though, or on teams.

00:11:55:07 - 00:11:59:22

So other interested parties who requested to speak. And 7000 acres.

00:12:01:24 - 00:12:07:29

Good morning ma'am. My name is Liz Garbett, representing 7000 acres, and wished to be addressed as Miss Garbutt.

00:12:08:06 - 00:12:09:10

And I'll be.

00:12:09:12 - 00:12:10:15

Making contributions.

00:12:10:17 - 00:12:11:19

Throughout the day.

00:12:11:21 - 00:12:12:16

And mainly.

00:12:12:18 - 00:12:22:12

On environmental matters as they arise later on in the hearing. But I'll pass over to my other colleagues who will introduce themselves and what item they'll be speaking on. Thank you.

00:12:24:13 - 00:12:36:18

Good morning, ma'am. Mark Pryor from 7000 acres. I'll be trying to fill in the gaps between my colleagues, and I can be addressed as Mr. Pryor. Okay.

00:12:40:17 - 00:12:46:03

It's already from 7000 acres. I'll be contributing on some of the energy topics as my.

00:12:47:23 - 00:12:49:13

Happy to be addressed as Mr. Grady.

00:12:52:01 - 00:13:02:13

Thank you. And we've also had a request to speak from her, not registered as an interested party. And Mr. Summers and we've we've accepted that request. So would you like to introduce yourself, Mr. Summers?

00:13:04:23 - 00:13:05:13

Good morning ma'am.

00:13:06:14 - 00:13:19:13

My name is Jeff Summers, and if you refer to me as Mr. Summers, please, I shall be largely referring to environmental matters the ecology, biodiversity

00:13:21:00 - 00:13:27:15

and soils in agriculture and any other issues that are that arise, which I think.

00:13:28:29 - 00:13:29:14

Um.

00:13:30:07 - 00:13:33:11

A worthy of comment and will also comment.

00:13:33:23 - 00:13:36:08

Thank you. Thank you very much.

00:13:38:28 - 00:13:41:24

Anybody else here in the room who wishes to speak today?

00:13:46:25 - 00:13:54:25

Anyone else online who wishes to speak today. Oh, sorry. Can't. There's a blind spot.

00:13:56:11 - 00:13:57:29

Sorry. Do apologize.

00:13:58:04 - 00:14:11:13

That's all right. So I'm a skeleton president. I'll just be sort of. Mention anything that feels been missed by anybody else. So I'll raise my hand when I need to speak. Thank you.

00:14:13:09 - 00:14:14:03

Sorry. Thank you.

00:14:16:01 - 00:14:18:22

Anyone online who wishes to speak today?

00:14:26:24 - 00:14:51:04

Okay, so so that's all the introductions for now. If anyone else decides that they want to speak during the today's proceedings and for example, to make comments on the representations made by other parties, then you may do so. Please indicate you wish to do so by raising your hand either physically or or virtually again each time you speak. Please give your name and any organization you're representing so that that's picked up the formal record.

00:14:55:00 - 00:15:00:17

We'd also like to request that those speaking today provide a summary of their comments by deadline one.

00:15:03:02 - 00:15:08:09

Any questions about the arrangements for today's hearing before we start?

00:15:11:15 - 00:15:43:02

So we've got the agenda displayed on screen. Was going to ask for that. So that's that's great. So we are turning to the substance of the agenda. And to start the discussion today, we've requested that the applicant give a short introductory statement about the nature of the proposed development, covering the the series of points indicated on the the agenda under this particular item. And we've given a guide time of ten minutes for this. So who'll be speaking on this point?

00:15:45:06 - 00:16:24:06

A clever project for the applicant. And so, yes, as requested, we've prepared a short summary of the components of the scheme. We note that a number of other matters are being dealt with under subsequent agenda topic items. So we've not sought to sort of cover those points in this particular summary. But West Burton's solar project is a nationally significant infrastructure project as defined in the Planning Act 2008. It consists of three solar generating stations, each with a capacity of over 50MW, together with associated development.

00:16:25:01 - 00:17:00:20

The scheme comprises a number of land parcels which are described as West Burton one, two and three. In the application documents, the scheme will generate large amounts of renewable energy and assist the government in meeting its targets of 70GW of solar by 2035, and also achieving net zero by 2050. The government's support for solar is set out in draft National Policy Statement three, particularly the introductory paragraphs three point 10.1 and three point 10.2.

00:17:00:22 - 00:17:26:05

And we'll be discussing planning policy a bit further in later agenda items. At the components or work numbers of the scheme are set out in schedule one of the draft, which is application reference 017. Schedule one needs to be read in conjunction with the works plans, which are as Dash 003. Article three of the draft

00:17:27:24 - 00:17:55:17

permits each work number to be carried out within the corresponding numbered area shown on the works plans, so the work number is restricted to the geographical location shown on those work spans. And when constructing, operating, maintaining and decommissioning the scheme. The applicant must also comply with all of the other provisions in the draft, including the requirements that are set out in schedule two of DCA.

00:17:57:04 - 00:18:34:04

That chapter four of the environmental statement, which is app Dash 042, describes the scheme in detail. We've also provided a set of illustrative layout plans as part of the application, as an example of how the scheme could be configured within the fixed parameters. However, as is similar for all energy generating nationally significant infrastructure projects, the Rochdale Envelope approach has been adopted to enable flexibility in the detailed design stage, and we'll talk a bit more about that later on.

00:18:34:26 - 00:19:07:22

Just to run through the various different work numbers, work number one are the actual generating stations themselves, which is work number one, which is West Burton, one work number one, B which is West Burton two, and work number one, C which is West Burton three and those are the

elements of the scheme. The remaining work numbers are associated development and those include work number two, which is the energy storage facility at West Burton.

00:19:07:24 - 00:19:44:20

Three site work number three which is the on site substations for each of the solar sites. So correspondingly work number three relates to West Burton one. Um, and then you've got work number three be relating to us, Burton two and West Burton work number three C relates to West Burton three, which is the larger of the substations, which then provides the connection to the national grid at West Burton Power Station, which is West number four via a underground gig connection, which is work number five.

00:19:45:02 - 00:20:02:06

Work number five also includes, in addition to the grid connection cables between West and three West Burton Power Station, you'll get connection cables between West Burton one and West Burton three and West Burton two, and the West Burton three.

00:20:03:05 - 00:20:03:28

Substation.

00:20:05:21 - 00:20:19:26

At work. Number four includes access tracks, laid out areas. So as part of those works, you've got access tracks, lay down areas, jointing bays that form part of the works, packages for the underground cable.

00:20:21:21 - 00:20:25:23

At work. Number five is a sort of separate

00:20:27:21 - 00:21:06:21

work number, which relates to the part of the grid connection cable that is shared with Gate Burton Energy Park and the Cottam Solar project, and the approach taken there in order to minimise environmental impacts was to coordinate the corridor in that area. So that is why on the works plans, you see wider width of corridor in that area so that it can accommodate three projects. You also have the fourth project which is Tilbrook Solar, which will follow behind that shared route corridor for part of it as well.

00:21:08:19 - 00:21:24:10

At work. Number six is other associated works with construction of the scheme, including things like fencing, boundary treatments, other forms of enclosure. We've also got things like security measures and. Drainage.

00:21:26:21 - 00:21:46:22

Construction compounds to facilitate it work. Number seven is the main temporary construction and decommissioning laydown areas within each of the solar array sites and the associated infrastructure required for that, including things like parking, welfare offices and workshops that will be required during the construction period.

00:21:48:16 - 00:22:05:28

And what number eight is relating to accesses both those temporarily required during construction and permanent access for operational and maintenance purposes. And what number nine involves the creation of a habitat management area to the east of West Burton two.

00:22:07:25 - 00:22:50:29

But number ten is another habitat management area to the west and west of the southern extent of West Burton two. And then work number 11 relates to a permissive footpath that is part of being provided as an enhancement as part of the project. And you then have a number of other associated works that are required for a project of this scale, including things like conversions of footpath, site establishment works, earthworks, etcetera, as well as various mitigation measures that are set out in the environmental Statement and the wording of the schedule one is fairly detailed.

00:22:51:01 - 00:23:02:03

It's intended to cover all of the different elements that are required, and that project description is what has been used as the basis of the environmental statement.

00:23:04:09 - 00:23:39:18

Turning to the Rochdale envelope as set out in section 4.3 of chapter four, which was app Dash 042, and the need for flexibility in design, layout and technology is recognised in the National Policy Statements one as it's recognised that elements of the development of these types of projects may not be finalised at this stage, and to accommodate that flexibility, a Rochdale envelope as its known approach is used, and that's referred to in Planning Inspectorate Advice Note nine.

00:23:39:29 - 00:24:11:26

It involves assessing the maximum and, where relevant, the minimum parameters for a scheme where flexibility needs to be retained, whilst ensuring through those parameters that all potentially significant effects, both positive and negative, are considered. The principles and justification for the approach and the methodology used in the Environmental statement are set out in chapter two of the, which is referenced app Dash 040.

00:24:13:03 - 00:24:57:02

And the maximum design parameters for the scheme are identified from a range of potential technological options and spatial options for the scheme. And the maximum design has been assessed so that we have based it on the scenario that would give rise to the greatest potential impact across the various different topic areas. The maximum design scenarios are then secured via the Concept Design Parameters and Principles document, which is referenced app 322 and the requirement to comply with that is set out in requirement five of schedule two to the draft.

00:24:58:08 - 00:25:10:00

And that's the mechanism by way. Secretary of state can be satisfied that the scheme will be built out in accordance with the parameters that were assessed in the environmental statement.

00:25:11:15 - 00:25:44:05

Uh, table 4.1. Um, in chapter four of the. Yes does summarize the optionality or flexibility being sought for this particular scheme. And for example, that includes the ability to use fixed or tracker panels and a range of solutions for the energy storage fire suppression system. In each case, the yes is assessed the worst case scenario for each of this topic. So what would be the worst case from the perspective? And then what would be worst case from a noise perspective, for example.

00:25:45:17 - 00:26:00:13

And this flexibility, as we've said, is required for micro siting during construction to reflect technological advancement or changes in the plant design that might occur between the pre-application stage and then the point of construction.

00:26:02:07 - 00:26:20:25

The design process for the scheme is also set out in the Design and Access Statement, which is documents app 314 and app 315 and section five of that, and does touch on the design evolution and the flexibility.

00:26:26:11 - 00:26:28:05

As I said at the beginning, the.

00:26:30:26 - 00:26:35:23

Detail of the design and design parameters are secured in the.

00:26:37:12 - 00:27:06:26

Requirement five also requires the detailed design to be approved prior to commencement of construction, so the layout, scale, ground levels, external appearance, vehicle access, etcetera must be approved by the relevant planning authority before the scheme commences and therefore provides another level of control over the sort of higher level detail provided as part of this application with the detailed design that will actually be built out.

00:27:08:23 - 00:27:33:03

Again, that states that that detailed design must comply with the principles set out in the concept Design Parameters and Principles document. And so in addition to sort of maximum parameters such as height, for example, there are also various design principles secured via that document, including use of different types of external materials, for example paint colors.

00:27:33:19 - 00:27:34:09

Etcetera.

00:27:38:09 - 00:28:09:07

There is going to be a number of amendments. It's probably worth noting at this stage. Two, that document to address some of the comments that have been made in relation to the scheme, particularly discussions that have been ongoing with the Canal and River trust in relation to the minimum depth required for the drilling of the grid connections under the River Trent. And so we will be updating that document at deadline one to include a specific requirement in terms of minimum depth to address their concerns.

00:28:09:09 - 00:28:09:24

So

00:28:11:09 - 00:28:13:10

to just give you advance warning of that.

00:28:14:27 - 00:28:45:24

And environmental impacts resulting from the construction of the scheme have been assessed in each of the topic chapters in the US, which is document reference numbers dash zero three 9 to 0 six one. For mitigation measures to avoid or reduce construction impacts are required. These are set out in the Outline Construction Environmental Management Plan or Kemp as it will be publicly referred to, which is referenced. App Dash 309.

00:28:46:13 - 00:28:53:06

The preparation and approval of the contents of the outline plan are secured through requirement 13, in schedule two to the draft.

00:28:54:27 - 00:29:29:24

So in summary, requirement 13 provides the part of the authorised development may commence until the camp for that part has been submitted and approved by the relevant planning authority. The final camp must be substantially in accordance with the outline camp. Summer approaches taken in relation to construction, traffic management and there is an Outline Construction Traffic Management Plan or

TMP as it is referred to, which has been prepared and is secured through requirement 15, in schedule two to the draft, and that is app Dash one two, seven.

00:29:30:08 - 00:29:58:16

The outline management plans, both the ones I've mentioned here and a range of others, are essentially live documents throughout the examination process and will be being updated to account of points made in relevant representations, possibly points in today's hearing at local impact reports, etcetera. So we'll be submitting updated versions of those documents at deadline one and probably throughout the examination process.

00:30:04:06 - 00:30:59:08

At the TMP will need to be approved by the relevant planning authority in consultation with the relevant highway authority and for work number one c in consultation with Network Rail. Given the proximity of level crossings and railway infrastructure, and as a result of discussions that have taken place on the eight Burton and the Cottam solar projects, some discussions have been had with the local authorities about who would be the most appropriate authority to discharge the requirements, so whether it's a matter that would be best placed by Lincolnshire County Council discharging or approving that plan, or whether it's a matter for West Lindsey District Council that has been agreed with them, and we'll be updating the draft at deadline one to reflect that position.

00:31:03:05 - 00:31:28:20

And there are a number of other management plans which control impacts that have been identified during construction, each of which are through secured through other requirements in the DCA. Outline plans have been provided as part of the application, and again, the final version must be substantially in accordance with that outline plan, and that includes a landscape and ecology management plan and ecological protection and mitigation strategy.

00:31:30:10 - 00:31:43:11

Details of fencing, biodiversity, net gain, drainage, public rights of way so management and skills and supply chain and employment plan. And we'll provide the references documents in the written summary.

00:31:46:16 - 00:32:20:24

Going back to the Rochdale envelope. Why? The reason that those plans are produced in outline is, again, so that the final plan can reflect the final detailed design and also make sure that the most up to date and Beth's best methodologies are being used at that point in time. So it's not considered for those types of documents that are related to design for a final plan to be provided at that stage, and that differs from the approach being taken in respect of archaeological, where a final plan has been produced.

00:32:20:26 - 00:32:25:07

And we'll be talking about that under the cultural heritage agenda item later.

00:32:27:02 - 00:32:47:10

And in addition to those plans, requirement for requires a community liaison group to be established prior to commencement of construction as a way of managing information being supplied to the local community about construction activities and. Processes for dealing with issues and complaints, etcetera.

00:32:49:03 - 00:33:20:03

And in terms of operational management, a similar approach is taken in the sense that the impacts that have been identified in the various topic chapters have identified mitigation, and those are secured in

the Outline Operational Environmental Management Plan, which is app Dash 323, which again must be approved and be substantially in accordance with that plan under requirement 14 of the draft DCA.

00:33:20:23 - 00:33:40:22

And there are a number of other operational management plans, including battery storage, safety management plan, drainage, noise and some of the topics that were relevant during construction. Also have ongoing operational measures committed to including landscape, ecological and soil management.

00:33:42:07 - 00:34:12:15

In terms of decommissioning. The decommissioning of the scheme is secured through requirement 21 of the draft DCO Decommissioning Plan must be prepared in accordance with the outlined decommissioning Statement, which is Dash 338 and approved by the relevant planning authority. To ensure that the potential decommissioning impacts are minimised, it is envisaged the similar mitigation measures as were applied during construction would be required during decommissioning.

00:34:12:17 - 00:35:08:26

However, it will be relevant to that point in time when the scheme is decommissioned, so will take into account the relevant requirements, both legislatively guidance and best practices, at that point in time, in order to address concerns that have been raised both in respect of the Cottam Solar project and West Burton solar project, about the scheme potentially being in situ in perpetuity, some amendments are going to be made to requirement 21. In the updated draft submitted a deadline, one which are consistent with the amendments that were made in the Cottam draft DCO submitted at their deadline one, and that will require decommissioning to take place within 60 years, the final commissioning date of the scheme, so a fixed time limit will be included in the next version, and a 60 year period has been chosen to provide flexibility for the scheme to continue operating.

00:35:09:06 - 00:35:20:25

Where the solar PV panels continue to generate electricity after the average life time span 40 years, that was referred to in the environmental statement. So the environmental statement.

00:35:23:07 - 00:36:01:03

Referred to the sort of average operational time period that is currently based on existing technology considered appropriate for solar panels, which is around 40 years, however, and therefore provided the decommissioning would not take place before 2066. However, we don't consider that there is a reason for having a strict cut off at 40 years if those panels are still operational. However, we were keen to address comments on concerns about the project being there forever, and that's why we've included that 60 year time frame.

00:36:01:05 - 00:36:12:00

But we can discuss that further and each of the environmental topics. So that was our summary of the scheme. Happy to answer any questions.

00:36:12:02 - 00:36:12:17

Thank you.

00:36:12:19 - 00:36:14:12

Oh sorry. Thanks. Thank you, Mr. Broderick.

00:36:15:27 - 00:36:48:18

And just a couple of follow up points from me now, although lots of the items will actually say, we'll come on to cover in more detail later on, just in terms of design matters. And and you've explained it sort of the Rochdale envelope and you've explained that the role of the design, concept

design, concept design and principles and parameters document. I think that was a full title of it, wasn't it? Um, but I just want to be clear in terms of the design criteria that will guide implementation.

00:36:48:20 - 00:37:15:03

You've explained that. Design parameters are not set in detail at this stage. They will allow for flexibility, but in terms of good design criteria, how how are they embedded at this stage? How will they allow the the detailed approval of local authorities? How will they how they guide the detailed approval required by local authorities?

00:37:20:00 - 00:38:03:05

To protect the applicant. So a think I mentioned a design and access statement has been prepared which was application reference 314. And that has a section in it in relation to the design objective. So that was section four of that document. It sets out both the vision for the scheme and the objectives that we were that the scheme is trying to achieve in terms of good design, in order to comply with the NPS policy requirements on good design for projects of this nature, where certain objectives have been identified as being necessary to demonstrate good design, those have been.

00:38:05:17 - 00:38:46:07

Allocated as being a design principle, and then those design principles are set out in that concept. Design Parameters and principles document which is secured by way of requirement five. So that includes, as I said, both a parameter. So for, you know, in terms of height, size, depth, but also a number of design principles which relate to good design. And it kind of specifies when you go through that document for each work number, what is a design parameter and what is a principle. So if, for example, you take the panels, it says that the certain the solar modules, for example A will be either black or dark blue.

00:38:46:29 - 00:38:57:28

And that is to address a good design principle for example. So what was identified as being necessary to demonstrate good design has a direct.

00:39:00:07 - 00:39:11:03

Good in the draft so that when the relevant planning authority is discharging that the design details, they will be able to check as against the.

00:39:11:05 - 00:39:12:00

Principles.

00:39:12:08 - 00:39:21:18

That are secured and it will be the applicant obviously demonstrate and they apply for the requirements to be discharged, how they can, how they've complied with those documents.

00:39:23:12 - 00:39:48:18

Okay. Thank you. That's that's helpful. And obviously the importance of good design is, as you say, set out in the and you've explained how the applicant has sought to to embed those criteria within the documentation. I think this is something that we will want to come back to and look at in some detail, would be assisted by the local authorities in terms of how they feel, and they will be able to

00:39:50:07 - 00:39:59:15

deliver a bust design responses and so assess robust design responses in terms of their and their responsibilities to and.

00:40:01:17 - 00:40:07:26

Approve various detailed matters. So it's something we we will want to to come back to I'm sure. And so just.

00:40:08:08 - 00:40:26:29

Yeah project for the applicant. Just to clarify that obviously we have been in terms of demonstrating good design, we are led by the criteria set out in one and the draft and one as a primary policy document rather than the in this context.

00:40:32:24 - 00:40:43:26

Sorry. Thank you. So just just in terms of decommissioning then and this was this was something we wanted to follow up. And at

00:40:45:18 - 00:41:15:24

the draft we currently have, there's no maximum period of operation. And you're now explaining how that will be amended and to give a maximum 60 year operational life. Just in terms of the the assessment, I think our understanding is that that's been assessed on the basis of 40 years and you're you're explaining a possible extension to 60 years. So in terms of assessment of impacts, there's a perhaps a disparity there. Can you can you address that for us please.

00:41:17:28 - 00:41:20:24

For the applicant. The environmental statement did

00:41:22:15 - 00:41:55:05

clearly set out that there was no time limit being applied for in the environmental statement. However, for the purposes of assessing decommissioning impacts, a typical operational life was assumed for the purposes of the assessment, so it's assumed that a decommissioning wouldn't be before the expiry of 40 years, that being the typical operational life at the moment, based on sort of current technology and. We have as part of the process of deciding how we could amend the.

00:41:55:19 - 00:42:30:06

To address some of the concerns. We were looking at the the sort of typical time period that we felt would be appropriate in a scenario and in the 60 year period is consistent with that being used on other on other solar projects. But as part of that exercise, we did go through the environmental topics to see whether a 60 year time period would change any of the conclusions that have been drawn in the environmental statement and, and the results of that thought process was that it wouldn't.

00:42:30:14 - 00:42:34:05

But we will be providing more information on that.

00:42:34:26 - 00:42:40:07

I think that that would be helpful. We'd like to see how that assessment has been undertaken and the results of it. So.

00:42:42:09 - 00:42:51:00

So where is is that work up to? Can we note this as a an action point that will be receiving updated documentation in that sense?

00:42:54:10 - 00:42:59:06

So Jane Crighton for the applicant. Yes, that's underway and we're looking to submit that for deadline one.

00:43:17:28 - 00:43:18:18

Thank you.

00:43:21:10 - 00:43:43:21

So we've heard a sort of a broad overview of, of the scheme. And I've picked up a couple of points. I'm keen to move on unless there are any particular issues or points that anybody in the room wish to make on what's been said so far, to say it's given over you, and we'll be looking at more detailed matters as we progress through the agenda. I think particularly wanted to pick up.

00:43:46:24 - 00:44:15:01

I'll move on. We'll move on. Okay. Thank you. So in terms of the next point under this item, overall generating capacity. And again just asking the applicant and I assume you must Roderick, to outline the overall generating capacity of the proposed development. And and specifically look at the relationship between generating capacity and the the electricity exported, with particular reference to maximum, minimum and maximum capacities. These.

00:44:17:21 - 00:44:23:07

Collaborative with the applicant? Yes. I'm just going to provide an overview of what the actual

00:44:24:23 - 00:44:58:29

drafting secures. And then Mr. Gillet will provide some further information about the actual generating of solar energy facilities, and also how that relates to the electricity that's exported. So the draft seeks development consent, as said, for three generating stations, each with a capacity of over 50MW. And that is the threshold, the lowest threshold for a generating station under the Planning Act.

00:44:59:01 - 00:45:31:01

So the Planning Act 2008 regime only applies to generating stations over 50MW. However, no maximum capacity or other capacity cap has been included in the draft, and this approach is consistent with the DCS that have been recently granted for a range of renewable energy generation schemes. So the three granted solar discos Keith Hill, Little Crow and Longfield do not include a maximum capacity for generation.

00:45:31:03 - 00:46:13:11

Neither do numerous offshore wind farm, including Hornsea Three Offshore wind farm, Hornsea Four Offshore Wind Farm, Norfolk Vanguard and Norfolk Breast, East Anglia one North and East Anglia two, and the recently granted hourly more offshore wind farm project. So the approach of not including a maximum capacity as well established and agreed to by the Secretary of State. It is also referred to in paragraph 3.1 and 47 of Draft Ian three, which is the March 2003 version which states that export.

00:46:15:00 - 00:46:45:15

Appropriate tool to constrain the impacts of a solar farm and other measures such as panel size and area, to set the maximum extent of the development. When determining the planning impacts are relevant so it relates to the concept design parameters. So the spatial extent of the scheme, the height and the depth etcetera is not considered to be a planning control to limit the generation.

00:46:45:17 - 00:47:12:07

And that's on the basis that there is an urgent need for renewable energy. And as technology improves and panels become more efficient, it is appropriate for the panels to be able to produce as much as electricity as they can within those spatial constraints and design principles and parameters that have been secured. In the draft DCA.

00:47:14:05 - 00:47:45:08

And it's noted that a different approach is sometimes taken for fossil fuel generating stations, where there often is a generation cap, but the reason that the generation is capped for those particular

schemes is in relation to additional obligations that apply, for example, in relation to carbon capture for schemes over a certain megawatt capacity. So there is a there is a justification for Caps being applied to those sorts of developments that don't apply to renewable energy. So there's reason for the distinction.

00:47:46:21 - 00:47:56:00

And I will now hand over to Mr. get it to you. We'll explain a bit more detail about the relationship between generating capacity and the electricity that's expected.

00:47:58:24 - 00:48:10:10

Okay, so I get it for the applicant. Firstly, I'll set out the applicant's position on the generating capacity of the scheme, and then I'll explain about the level of electricity exported.

00:48:13:27 - 00:48:36:06

So excuse me. This project mentioned paragraph 4.2.1 of chapter four. Scheme description. That's AP 042 confirms that the capacity will be over 50MW, but the applicant has not specified generating capacity of the scheme or included a maximum capacity.

00:48:38:15 - 00:49:03:19

However, paragraph 2.1.3 of the grid connection statements, which is reference AP 316, confirms that the applicant has agreed with National grid transmission entry capacity of 480MW, exports to the grid and a 20MW transmission exit capacity.

00:49:05:21 - 00:49:27:22

From the grid to the system of 20MW. And this. These agreements allow the applicant to export up to 480MW of electricity produced across the three sites one, two and three, and import up to 20MW of electrical energy to be stored in an energy storage facility.

00:49:29:18 - 00:50:01:10

The final generating capacity of the scheme, if consented, would be dependent on the area of the works. Number one, that's the best one, two and three sites and any controls agreed as part of DCO around the deployment of panels to that area, including, for example, any mitigations resulting in a subset of that work area which is developable area, developable area for solar panels, substation and associated infrastructure.

00:50:01:29 - 00:50:11:23

And the second dependency would be the detailed design of the technology choice, including panel orientation, spacing, and panel selection.

00:50:15:09 - 00:50:37:03

Section 3.3. 19 of the Statements of Need. That's AP 320 describes the draft. Three 2021 as it was then statement that over planting may be used to account for light induced degradation of solar panels.

00:50:38:21 - 00:51:09:28

The reference is also in the March 2023 three at paragraph 3.10 .46. What is over planting mean? Why is it relevant? Well, over planting means installing a greater capacity of generation at the panel, and the grid collection connection will allow. There are other advantages to over plants. These are described as section 7.7 of the statement of need. I know why this is relevant.

00:51:12:11 - 00:51:41:24

But before I do that, I just want to explain that it has commercial and technical limits. It is generally commercially and technically rational to over plants, up to a ratio between 1.3 and 1.5. That being the

factor of the installed capacity megawatts at the pedal divided by the export connection capacity. But of course this will be subject to site specific factors constraints at different developer approaches.

00:51:44:03 - 00:52:07:24

So the principle that the that will guide the applicant at the detailed design stage is one of maximizing the lifetime annual generation of the scheme through the available grid connection points from the available area. But it's not. It's important to note that's not the same as squeezing in as many petals as possible into number one area.

00:52:09:18 - 00:52:20:27

So to confirm, just finalize that point on capacity that we have not proposed an overall generating capacity of the scheme or a maximum capacity for those reasons stated.

00:52:23:00 - 00:52:27:04

And if mailed out to the electricity exported from the scheme.

00:52:28:29 - 00:52:37:15

So the amount of electricity exported by any scheme in a year as a proportion of its installed capacity, it's called its load factor.

00:52:39:04 - 00:53:11:28

So it's obviously not a surprise that solar technology uses instant irradiation from the sun to generate electricity. That has two implications. The first implication is that scheme will not generate electricity on demand, but will generate in daylight hours only. And secondly, the scheme will not generate electricity at the same rate at all times. Generated output will be higher. Studier it is. Are the factors which influence how effective the scheme will be in generating electricity.

00:53:12:02 - 00:53:19:03

Ah, its location, its choice of panels and the orientation of those panels, and of course, the weather.

00:53:21:28 - 00:53:40:19

So the relevance of over planting comes in here, because when a scheme is over planted, it will generate more electricity at all times than a unitary scheme. By your scheme, which is not over planted where the grid capacity meets the installed capacity.

00:53:42:08 - 00:54:17:13

Most of the time. An over plotted scheme will be able to export all of the capacity it generates to the grid without being what's called clipped, which is where it generates more than it can export. So there's an inefficiency there, and that happens when irradiation is very high. So overplayed. Sing as a concept is beneficial when the additional energy that is generated versus a unitary scheme is greater for the electricity that you lose at those times of clipping.

00:54:19:13 - 00:54:46:16

Uh, if it wasn't for plants, a developer wouldn't decipher plants. And an over planted scheme therefore has a higher load factor. But a unitary scheme when compared to the export capacity to the grid. It means essentially an over planted scheme means you can get more megawatt hours of clean, low carbon electricity onto the grid through the existing grid capacity.

00:54:50:11 - 00:54:52:01

So I'm going to talk a little bit now about.

00:54:53:17 - 00:55:29:02

The level of generation that could be expected generally from solar and a I'll conclude. A so there's quite a lot of data that tells us roughly what the load factor is. Solar facilities in the UK has been and should be going forwards because it's the same sud going around, same place, in the same location. Governments. Dukes. The Digest on Energy Statistics tells us that on average since 2016, solar in the UK has achieved a load factor of 10.3%.

00:55:29:25 - 00:55:47:00

That varies from year to year because the weather varies, so the lowest year was 9.9% to the highest year was 11.1, but 10.3 or 10 and a half is a good approximation for the level of generation from from this site.

00:55:48:26 - 00:56:04:28

Duke stays are also tells us that, on average, a one megawatt installation in the UK would have generated 902 megawatt hours, and that it's another way of expressing load factor. I'll explain this in a written submission rather than go through it in more detail.

00:56:06:17 - 00:56:27:16

But facilities in the UK are oriented mainly as fixed south facing facilities. Abuse panels are installed in a fixed position facing broadly south and they are tilted at a fixed tilt. Very your location and local land topology to optimize the incidence of radiation through the day of the year.

00:56:29:10 - 00:56:31:19

That's important for a reason to.

00:56:35:04 - 00:57:06:08

The statement of need uses these load factors at table 7.1 and also figure 7.4. In order to explain the level of irradiation from solar generally, and also at the specific location of the scheme, and Fig. 7.4 of the statement simply shows that the load factor potential for a south facing scheme at the scheme's location to be approximately ten points 8%.

00:57:07:02 - 00:57:14:00

So between 10.8% and 11.7% higher than the national average.

00:57:16:22 - 00:57:48:26

A paragraph 4.3.3 of chapter four scrape scheme. Description of the app 042 advises that the scheme is likely to use tracker solar panels, although optionality is included within the application to be able to use fixed panels. So just to explain what a tracker panel is and why that is relevant. Tracker panel is mounted on a horizontal axis that runs north south. So in the morning the panels face east.

00:57:49:18 - 00:57:52:13

Then they track the sun as it moves across the sky,

00:57:54:02 - 00:58:03:18

and therefore has a greater load factor than a fixed south facing scheme. A.

00:58:05:28 - 00:58:45:08

At. That therefore explains why at chapter 6.2.7, it's the climate change chapter. App 045. Paragraph 7.8. 61 implies a load factor of approximately. Of the high, 13% is 13.8% for the scheme, which is based on the calculation of an export expected exports quantity of energy at the generating capacity stated in that chapter, and that's consistent with data for schemes with similar characteristics.

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So to summarize that final points.

00:58:49:21 - 00:59:25:00

The load factor of the scheme will be dependent upon the technology and the location. The location of the scheme has got a higher expected, will have a higher means that the scheme will have a higher expected load factor than other schemes naturally brought forward to date, and the the use of single axis tracker pedals, if that is taken forward by the applicant, will further increase the load factor of the scheme and therefore the annual generation from the scheme.

00:59:29:18 - 00:59:32:08

Thank you, Mr. Garrett. Okay.

00:59:34:16 - 01:00:00:15

And that's a lot of detailed information there. Just just a couple of questions from me to start off and just going back to sort of basics really in terms of the 480 megawatt export figure. And is that is that fixed? Obviously we haven't got National Grid data to talk about this, but but in terms of that, that the figure that we're dealing with now is, is that fixed. Basically that's a.

01:00:02:07 - 01:00:04:09

Psychotic. Yes. That's fixed.

01:00:10:22 - 01:00:11:08

Okay.

01:00:14:01 - 01:00:17:06

So following on from that, you explained though that.

01:00:19:03 - 01:00:31:15

Reasons for the decision, not setting out a maximum output figure in terms of precedent, in terms of drafting, and three in terms of not constraining renewables and.

01:00:34:27 - 01:00:50:20

Is there anything that anybody in the room wants to pick up on that in terms of generating capacity not being fixed? Because think understand rationale for that. And Mr. Thomas, do you want to raise any points on that?

01:00:52:03 - 01:00:56:27

Yes, thank you very much. And I'm just interested to know how you

01:00:58:21 - 01:01:20:00

how you conclude, calculate that the generation volume is way above what the average would be for the UK when there are obviously numerous sites, especially going further south where the generation is much higher. It just sounds a little bit unsure on that fact. Thank you.

01:01:21:19 - 01:01:33:08

Thank you, Mr. Thomas. So generally if you if you address points through, through me and can then relay them to the applicant if needs be. Thank you. But I'm very happy that Mr. Gillet, if you want to respond to that particular point, please go ahead.

01:01:33:21 - 01:01:41:00

Thank you very much, Mr. Gillet, for the applicant. So the. So the generation potential of the site has been based on.

01:01:42:19 - 01:01:54:15

Satellite information showing cloud cover and solar radiation over a period of years historically. Of which is converted through many types of.

01:01:57:27 - 01:02:13:18

Software packages that have got high fidelity. Accurate. To convert that into an estimated annual generation. So that's how the the generation of the scheme has been created. And explained earlier how the national.

01:02:16:18 - 01:02:29:24

Load factor has been explained by government through their Dukes application. Duke's publications go back to 2013, but I've quoted information from 2016 onwards.

01:02:33:10 - 01:02:50:17

Okay. Thank you. And this there's an awful lot of detailed information behind that that I know was available in some of the documentation that you've referred to. So I think we'll leave that that point there for now. Would like to come on to um, over planting and the principles behind over planting. Sorry.

01:02:52:09 - 01:02:54:20

Excuse me. In running this car 7000 acres, I believe.

01:02:54:22 - 01:02:56:02

We wanted to make representation.

01:02:56:04 - 01:03:01:21

There, Mr. Peter O'Grady, if that's okay. Sorry. Yes. Mr. O'Grady, what do you want to say?

01:03:02:23 - 01:03:05:16

So is it specifically on the.

01:03:06:10 - 01:03:09:21

So you mentioned we going to move on to over planting but you just.

01:03:11:05 - 01:03:14:26

We're talking about the overall generating capacity okay.

01:03:14:28 - 01:03:15:17

So.

01:03:17:13 - 01:03:55:03

Mr. Thomas raised an interesting point about the impact of of the tracking panels and what that would be in the UK. And. And the observation that I hadn't thought about it. The observation about what would be the difference between the. But the effects of moving moving a panel south in the UK and rough calculation think think the the long field scheme think is around which was which is relatively recently been approved. Um, obviously it's a lot further south than the in the UK, but that's got around a 7.5%.

01:03:56:02 - 01:04:23:03

Higher. So again, than than in West Burton and that sort of area. Um. The difference the tracking panels make. Don't shift it far enough. South. And to overcome the difference between the region. So there is only a very marginal gain by by the by the tracking and comparison. In my rough assessment.

01:04:25:02 - 01:04:33:13

As you're moving around 0.5 of a of a percent in terms of load factor by deploying tracking panels.

01:04:36:05 - 01:04:44:25

Okay. So so so in terms of we're looking particularly at the difference of between fixed and tracker panels in terms of of the load factor. That's that's what you're.

01:04:45:04 - 01:04:47:06

Yeah I think I'm just trying to

01:04:48:24 - 01:05:03:26

address Mr. Smith point here. Um. In that, you know, the, the locational stuff that Mr. Gillet has described, uh, is, is is clearly the dominant factor and.

01:05:06:01 - 01:05:37:00

The use of tracking panels. Uh, improves the yield of the scheme, but doesn't overcome by by any means the. The difference of location to location selection is a is a is a is a far more significant variable site selection rather than deployment of tracking panel. Think about tracking panels as well of course, is that you end up with a far more adverse visual impact because you have a much. Or significant sized device. Okay.

01:05:37:15 - 01:05:53:01

Thank you, Mr. O'Grady. So. And we'll come on to visual impacts a little later on. But in terms of a response to that point about the locational factor being more significant than pixel tracker panels, do you want to attempt to respond to that now? Please do get it.

01:05:53:03 - 01:06:24:24

Certainly scale it for the applicant. So I don't think the applicant in any way would disagree. That location is important, but that's why we've chosen this location for this scheme. Um. I didn't follow the argument that was being made by 7000 acres. Representative I'm afraid. Solar panels, which are on a single axis tracker, collect more sunlight than solar panels, which are fixed south facing.

01:06:25:25 - 01:06:37:27

And that's a slightly separate point to location. But perhaps if there's some data that can be brought forward that we can talk to, you know, or on sort of written representation, there might be a way of taking this forward sufficiently.

01:06:40:16 - 01:07:20:09

So the applicant was just going to say obviously site selection principles. We have a lot later on in the gender about why we are proposing this scheme in this particular location. We're not trying to say that there aren't other locations that are further south that are suitable for solar. Obviously, the the national policy statements are clear that there is an urgent need for a great range of different projects. So we are not attempting to say that this particular site outperforms other sites that might be located somewhere else further south in the country, but we're going to be talking about the reasons why we've selected the site for this particular scheme, but further later.

01:07:20:11 - 01:07:31:17

But don't think we're we're not disagreeing that there aren't higher levels of radiation elsewhere in the country. We're just saying that there are suitable levels in this particular location for a scheme of this nature.

01:07:31:20 - 01:07:46:19

All right. Thank you. So. So, Mr. O'Grady, if you've got some and some detailed evidence that relates to the points that you've made about the difference between tracking and fixed panels, then by all means something that endures and we can we can have a look at that. Okay. Thank you.

01:07:48:06 - 01:08:03:19

Uh, okay. Um, just moving on to, to over planting then and think, um, you've given us a good overview. What what that means. Um, I think what I'd like to be clear about is, um.

01:08:05:08 - 01:08:07:25

How they. Excuse me. Um.

01:08:09:22 - 01:08:39:09

How over planting is managed in terms of generating capacity. You referred to the term being the energy generated is clipped at a certain point when overproduction happens. And so I just want to be clear about how that process is managed when thinking about generating capacity, because obviously clipping is not an efficient approach to energy generation. So can you give us a bit more information on that, please?

01:08:41:06 - 01:08:41:21

Bob.

01:08:45:28 - 01:09:16:11

Clipping is managed by the installation itself in in relation to the fact that if more energy is being generated at any time and can be exported through the grid connection, then the systems on the site effectively prevent that energy from being exported. And that's what we mean about that. That energy be lost or clipped in some circumstances. That energy can be stored on site with batteries.

01:09:16:22 - 01:09:22:23

That again depends on the equipment which is which is installed. You're absolutely right.

01:09:24:29 - 01:10:13:06

Uh, in the clipping is, is a reduction creates a reduction of the the effectiveness of the facility. However, clipping is caused by an increase in the effectiveness of the facility by over planting. So if one had 480MW of panel on a 480MW grid connection, there would be no clipping. But if more generation capacity was was put into that facility at some times of the day, within particular days of the year, amounts of energy would be clipped that say there's 500MW installed.

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Then there may be times when up to 20MW would be clipped when the site was generating at full capacity, but it couldn't export all of that 500 out through the grid. The number of times that that happens. Is very much lower than or less than benefits of over planting in all those other hours where the over planted scheme would not be generating 480MW.

01:10:44:03 - 01:11:04:00

And in that regard, yes, over planting is is inefficient. But that's like that's it's analogous in a way to driving up 56 miles an hour versus driving at 70 miles an hour. You get there faster, but you use a little bit more petrol. So.

01:11:06:05 - 01:11:10:11

Would be by that is that it's not. It's it's it's nothing. Which is.

01:11:12:06 - 01:11:20:19

In terms of the benefit of it. It's not a significant reduction to that, to that overall benefit. Hope that answers your question, but.

01:11:22:15 - 01:11:50:12

I think I'm just trying to understand the how over planting relates to how tightly or broadly parameters, scheme parameters are drawn. And I think that's probably a complicated design process, and I'm keen to understand a little more about that, because obviously it has direct implications for the environmental impacts of the scheme. So it's important that we understand this. So can you help us a little bit more in terms of that, that, that that design process for the applicant.

01:11:50:21 - 01:12:22:08

So, so in very simplistic terms, obviously we're seeking to utilise the full 480MW throughout the hours where solar panels generate electricity. Um, and to put it in incredibly simple terms, obviously the max, if you took midday, for example, just by way of this example as being the time of the day when you would generate the most electricity and you that is the point where if you have only we've got your unitary scheme.

01:12:22:10 - 01:12:55:05

So a scheme that can only ever generate 480MW, it would be operating at full capacity. But in the hours preceding that and after that, where there's lower levels of generating, you'd be under 480MW. So what over planting is seeking to do is try and deliver 480MW throughout the full daylight hours so that you've got enough panels generating electricity to make up to 480 throughout the morning later on into the afternoon. However, the consequence of that is that potentially the day, for example, when you've got your highest

01:12:56:27 - 01:13:27:23

amount of generation, you might be clipping some of that. But overall, throughout the course of the day, you have maximised the generating capacity for that day in very simplistic terms. But that's the reason why you would not have more panels that could potentially could generate more than 480, because you're seeking to achieve the most generation throughout the course of the day. So that's what the spatial parameters and have been based on.

01:13:27:25 - 01:13:47:15

When we're talking about site selection later, we've been looking for a scheme that can deliver 480 megawatt hours worth of electricity throughout the daylight hours, as much as it can do not watts can max, and that could only generate 480MW within a panel is operating at full capacity. Right.

01:13:47:21 - 01:14:05:21

Understand the principle behind it in terms of what you're trying to achieve. I guess what I'm trying to get to a little bit more was about how that's influence the how tightly or loosely the design parameters are in terms of the physical extent of the scheme. I don't know whether you can help any more at this stage on that specific point.

01:14:06:27 - 01:14:43:09

And also look for the applicant. I think what we were, what we were trying to explain through the open plans and maybe slightly on a parallel track here, is explaining that the the maximum capacity installed capacity of the scheme doesn't have to be 480MW, and it makes sense for it not to be 480MW. But to be clear over policy doesn't change any of the parameters that are set out in the application in relation to the Rochdale envelope approach, and therefore any planting would be contained within the parameters of that approach and therefore are assessed by the.

01:14:43:11 - 01:14:44:14

Yes, that helps.

01:14:44:18 - 01:15:01:01

All right. Thank you, I think. Yeah. Um, thank you for that. Or the parties. Does anybody want to raise any particular questions around? Yes. Mr. O'Grady. You want to introduce. If you say who you are each time you speak. That's helpful. Thank you.

01:15:02:15 - 01:15:03:00

I'm.

01:15:04:08 - 01:15:30:25

Yeah. The the points on over planting are are understood in terms of you have a. A grid connection, and they're trying to make the most out of the grid connection. But by over planting. What the what they're doing is effectively putting down more panels. And using effectively more space.

01:15:31:29 - 01:15:32:14

Uh.

01:15:33:04 - 01:16:05:26

So it's kind of a bit misleading to say that there is an increased load factor. Load factor is normally the technical capacity of an asset versus how much it can produce. It stands to reason if you increase the megawatt capacity of solar panels in a field from 182 600 700MW, if you're if you're doing a 1.3 to 1.5 times over planting.

01:16:06:27 - 01:16:42:17

Then the output per panel is massively reduced. So the land use, the efficiency of the land use is again similarly reduced. So the the thing that and I get the logic, but I think the way it's described is a little bit misleading in the fact that. The applicant has used a figure of a load factor of 10.3%, and then and then the quote of 9.9 to 11.1 as being the the numbers.

01:16:42:27 - 01:17:02:18

But that number would dive. With over planting because the actual installed capacity, if it was 700MW, the actual yield. Of that scheme? Maybe only 9%. 8%. And think one of our main frustrations with the whole.

01:17:05:06 - 01:17:08:22

The whole large scale solar enterprise.

01:17:09:17 - 01:17:10:02

Uh.

01:17:11:00 - 01:17:14:28

Is the efficiency of land use and the inefficiency of land use.

01:17:18:25 - 01:17:34:20

So it's, it's it's very much related to a topic called curtailment. And I don't know if you're familiar with with with curtailment, but this is the phenomenon where there is effectively too much renewable energy to.

01:17:36:06 - 01:17:40:06

For the demand. Supply must match demand.

01:17:40:29 - 01:17:41:14

Um.

01:17:42:29 - 01:17:52:13

And in the UK we're already curtailing renewable energy because actually we need flexible energy, not just energy when it turns up. Uh.

01:17:54:23 - 01:18:08:27

And therefore. All, the future view of grid is that curtailment will rise significantly, and particularly with uncontrolled permitted solar development.

01:18:10:21 - 01:18:14:29

And that will drive the yield of the scheme down because it will be switched off more.

01:18:16:01 - 01:18:16:19

And that's.

01:18:17:05 - 01:18:39:28

So you've got I guess, 2 to 2 points here. One is the question that you raised earlier about output. And the second one is about over planting. Over planting effectively. Continues to decrease the yield of a solar panel. So incrementally, you are reducing the efficiency of your land use.

01:18:40:25 - 01:18:51:19

Right. Thank you. Thank you. Mr.. O'Grady, in terms of your second point, we're coming on to need and benefits a little bit later on. So we'll part that. The point about curtailment. But for now. But but on the on the particular point about

01:18:53:12 - 01:18:59:25

the relationship between the load factor and over planting and Mr.. Do you have any any response to that particular point?

01:19:00:23 - 01:19:07:01

Mum I do. Very happy to go through now or can put that in a written representation.

01:19:09:28 - 01:19:11:05

So sorry.

01:19:12:13 - 01:19:13:19

So the overview now.

01:19:13:21 - 01:19:16:21

Overview now. More detailed in writing would be helpful. Thank you. Sure.

01:19:16:26 - 01:19:37:01

So the the overview is that up to an over planting ratio of approximate of between 1.3 and 1.5. Um there are insignificant losses in relation to at the panel load factor as a result of over planting.

01:19:39:26 - 01:20:01:08

That is because broadly. The number of hours that the sun is not at its highest in the sky, and we're not basking in full sunlight, is very much larger than those small number of hours when clipping would occur. But beyond a certain limit

01:20:02:23 - 01:20:11:29

which which has been calculated at between 1.3 and 1.5. That ranges up to is as a result of locational specific issues.

01:20:13:16 - 01:20:27:21

Beyond that limit, then over planting does start to reduce materially the load factor, which is why it's not a sensible thing to do beyond that number. I can provide more information in a written representation, if that helps.

01:20:32:06 - 01:20:36:14

Thank you. Think it would be helpful to see that? Do you want to come up briefly, Mr. O'Grady?

01:20:38:00 - 01:20:56:12

Very briefly. Sorry, Pedro. So in the original description of output and over planting, the applicant described that load factor would increase. And now the applicant is describing that the load factor will decrease with over planting. And.

01:20:58:02 - 01:20:58:23

That's.

01:20:59:23 - 01:21:01:03

That's what was described in the.

01:21:06:06 - 01:21:07:27

We can play the tape at the time, I'm sure.

01:21:09:07 - 01:21:28:06

I think we can we can park this for now and get some more detailed information in for deadline as Mr. Mr. Gillis described and we can revisit this point and orally or in writing and as the examination progresses. Okay. Want to move on to any other points in terms of.

01:21:30:29 - 01:21:39:25

Generating capacity under that item. Item B of the the agenda. Before we move on to look at the energy storage system.

01:21:41:24 - 01:21:57:01

Anyone in the room or online. Okay, so moving on to see I'm starting with the applicant and possible to outline the role and purpose of the energy storage system and its capacity, please.

01:21:59:27 - 01:22:02:24

So for the applicant. A.

01:22:04:16 - 01:22:16:12

So firstly, I'll provide information on the role and purpose of the energy storage system. And I'll go on to provide further context around the capacity of the proposed system as part of the scheme.

01:22:18:15 - 01:22:44:08

So paragraph 3.3. 25 of the March 2023 draft. M1 government sets out its emerging policy position in favour of energy storage, saying it's got a key role to play in achieving net zero, in providing flexibility to the energy system and in integrating high volumes of low carbon power, heat and transport.

01:22:50:05 - 01:23:10:06

The electricity system. Supply and demand needs to be balanced at all times and flexibility which storage delivers. It's needed at a system level to deliver that balance. It also maximizes the use of renewables, so when there's an abundance of generation,

01:23:12:00 - 01:23:39:00

electricity can be stored. And when there's a shortfall in generation, electricity can be released from storage at a system level, at a national system level. And what does that do? Governments say that that reduces the total amount of generating capacity required to meet peak demand, and reduces the need for new network infrastructure. So storage has those benefits there.

01:23:40:20 - 01:23:41:05

A.

01:23:43:21 - 01:23:59:15

Co-located storage, as is proposed for this scheme, can store energy when it's generated by the scheme and release it to the grid when it's needed. And it could also store energy from the grid and release it back to the grid as well.

01:24:01:05 - 01:24:01:20

Have.

01:24:05:15 - 01:24:07:28

So just in the interest of time, just.

01:24:09:19 - 01:24:12:01

Skipping through my notes here.

01:24:14:02 - 01:24:20:18

Because energy storage systems also provide the function of responding to fluctuations in the supply and demand.

01:24:21:24 - 01:24:22:09

Uh.

01:24:23:03 - 01:24:42:09

They could also provide what are called ancillary services, which are effectively the kind of the health services that the national grid needs to keep power flowing to consumers across the, across the country. And storage can do that. So ag storage systems support decarbonization.

01:24:44:02 - 01:25:00:20

By storing abundant. Renewable energy, providing energy security benefits by then being able to release that energy when it's needed, and delivering affordability benefits for the UK's electricity consumers

01:25:02:07 - 01:25:30:15

through measures I mentioned earlier and requiring less overall generating capacity to meet peak demand and reducing the need for new work infrastructure. So storage facilities can be very short duration. So they can be designed to operate on type of scales from milliseconds to hours or longer duration, which could work week to week or even potentially into seasonally.

01:25:32:10 - 01:26:09:02

Different technologies are expected to deliver the UK's range of storage needs. The applicant confirms that paragraph 4.5. 23 of its scheme description. Chapter four. That's app 042. But the application and

this environmental statement assumes that the form of energy storage will be battery storage or Bess. And that is a short duration storage technology. So the Best will support solar scheme in its operation as specifically, it will support the integration of the scheme.

01:26:10:10 - 01:26:12:10

It's the UK's electricity system.

01:26:16:13 - 01:26:31:21

In relation to the proposed capacity of the scheme. It's relevant to explain that all storage systems require two way connection capacity, so import and export connection capacity to the electricity system in order to operate.

01:26:33:11 - 01:26:33:26

Uh.

01:26:34:05 - 01:26:46:08

At the size, therefore, of the import connection secured by connection agreement with the National grid at the points of connection is an important input into the power capacity of the storage facility.

01:26:48:01 - 01:27:16:18

There are other physical parameters which may limit or provide opportunity for specific elements of the scheme, but the key one for storage power is a key one for storage powers capacity, which I confirmed in an answer your earlier question earlier agenda point is 20MW of import connection at at this location.

01:27:18:09 - 01:27:48:25

Uh, in terms of capacity. The scheme description is chapter four at paragraph 7.8.26 advises that the the assessed megawatt hours battery storage has be assumed been assumed to be 159 megawatt hours, which, if one does a calculation would be would be equivalent to a 20 megawatt capacity system that could store eight hours worth of full export capacity at any one time.

01:27:51:05 - 01:28:20:09

A kid notes, however, that it's not necessary. Neither is there a policy requirement for energy storage systems be located with renewable generation schemes. And that's that's government ID three draft three, paragraph 3.10 point two. Does state that government is supportive of solar that is co-located with other functions, and storage is specifically pictured there?

01:28:22:24 - 01:29:06:03

So the best proposals of storage proposals are part of this scheme. Designed to make use of the available infrastructure at the West Burton substation, specifically that imports capacity as. Proposals are beneficial for decarbonisation, energy security and affordability. At because that capacity is there and available. We would argue that it's necessary to use that capacity in order for that existing infrastructure to be optimized, in order to meet government's decarbonization targets and deliver benefits to security of supply and affordability of energy.

01:29:12:04 - 01:29:13:03

Thank you, Mr. Gillet.

01:29:14:28 - 01:29:32:20

So a question from me to start us off in terms of the parameters for the battery storage facilities, how have they been defined, bearing in mind that the rapid changes in battery technology. Has that been accommodated in the scheme?

01:29:45:29 - 01:30:23:10

And collaborate with the applicant. So the concept Design Parameters and Principles document, which was app 322 and sets out the parameters that have been used for the purposes of the environmental statement assessment and therefore secured in the DCA. And those relate to kind of in from sort of a planning perspective, relate to the footprint that's been used, the maximum height of the modular battery storage containers and the.

01:30:25:09 - 01:31:12:27

Other types of apparatus that are considered necessary. So what we have done is looked at the type of infrastructure and the amount of infrastructure that would be required to deliver the type of energy storage facility that Mr. Gillet has described in terms of its physical parameters, so that they've been used as the maximum for the purposes of the assessment. Obviously, the technology that is contained within those modules is likely to improve over time, but for the purposes of the worst case for consideration, we've looked at what would be the maximum parameters for the number of modules required to deliver a system of this size.

01:31:20:03 - 01:31:31:08

Okay. Thank you. Do other parties have points and queries about the the role of the Bess and capacity? You want to raise any points?

01:31:33:22 - 01:31:42:17

What? Prior for 7000 acres. Ma'am, do you wish to discuss the design of the best now or purely the need?

01:31:45:21 - 01:31:47:20

We can go on to talk about design.

01:31:47:29 - 01:32:24:18

Right. Thank you. Um, just to. Will actually make written submissions. But just to put down a marker, as it were, we have severe safety concerns about better this size, which is huge. Um, there have been more than 30 major incidents throughout the world. There was one in Liverpool with a 20 megawatt Bess that took the fire department several days to put out.

01:32:25:01 - 01:32:59:25

They could not access enough water. The local hydrants could not provide enough cooling water for the site will submit as well a letter from Yorkshire Fire and Rescue that opposed a 50 megawatt Bess in Yorkshire because they made the point that to cater for a thermal runaway on on on a 50 megawatt site, so roughly a third of this one, they would need 5.5 million litres of water.

01:33:00:12 - 01:33:07:28

Now there is no way that that can be stored on site, and the local mains will not provide that water.

01:33:09:16 - 01:33:41:00

Looking through the documents the applicant has submitted, they say that they will comply with current guidance. They have not done that because they have not, um, referenced and complied with the National Fire Chief Council guidance that says the modules should be six meters apart. Um, in fact, the actual design says the modules can actually be adjoined and touching.

01:33:41:08 - 01:33:48:22

So. There are lots of lots of concerns we have, but we will submit those in a written submission.

01:33:50:17 - 01:34:14:15

Thank you, Mr. Prine. Yes, I've noted a lot of points raised in the relevant representations about about safety concerns. So so your sometimes neighbors are going to submit some further evidence. And I've made a note of that as a, as something arising from, from this meeting. So does the applicant want to make a general response in terms of of those safety concerns. Now

01:34:16:02 - 01:34:18:09

noting that more detail will be looked at later on?

01:34:19:16 - 01:34:56:15

A couple took the Atkins and yes, as you say, will respond to this particular points in detail. However, um, a outline battery storage safety management plan has been submitted as part of the application, which is app Dash 318 and is secured in the draft. The applicant has been working closely with Lincolnshire Fire and Rescue Services in relation to that plan, and also the water storage solutions that would be available and are included as part of the design of this scheme.

01:34:56:17 - 01:35:13:26

So we provide that detail in the written submissions. But the issues that have been raised have been considered by the applicant, and the design that has been put forward is considered to be appropriate and suitable for a scheme of this size.

01:35:37:05 - 01:35:48:26

Claire Atkins was just double checking the current situation. So obviously we've had that engagement with Lincolnshire Fire and Rescue Services and they haven't raised any concerns as part of this nomination process to date.

01:35:49:13 - 01:35:50:15

Okay. Thank you.

01:35:52:19 - 01:35:54:20

Yes, Mr. big ride, Lancashire County Council.

01:35:56:10 - 01:36:27:27

You know, Brightlingsea County Council probably wasn't prepared for any sort of discussion about battery safety today. But just to confirm that there is ongoing dialogue with my fire and rescue colleagues and I'm sure it's an appropriate time during the examination, we can look into sort of fire safety around the system a bit more, but just to flag that, that's something that Fire and Rescue are looking at.

01:36:30:16 - 01:36:36:09

And it is referenced in our Local Impact report, and we'll address it further in due course.

01:36:41:00 - 01:37:05:26

Thank you, Mr. McBride. Okay. I'm going to suggest that we we move on. We have a break now and that we move on after the break to look at need site selection and alternatives. I've no doubt that we'll come back to battery storage matters later on in the examination, but we'll leave that there for now. So at 1137, can we return at 1150, please? Thank you.