



Event Transcript

Project:	The Keadby Next Generation Power Station Project
Event:	Issue Specific Hearing 1 (ISH1) – Part 1
Date:	21 January 2026

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TRANSCRIPT_KEADBY-NEXT-GEN_ISH1_SESSION1_2026-01-21

00:00

Good morning to you all. I hope you can all hear me loud and clear, and I'm sure I'll be told if you can't. And before I begin, can I just confirm from the case team please that the live streaming of this event has commenced.

00:17

I'm just waiting for it to update as we speak, Mister Allen, so I should be able to confirm that any second for you.

00:25

Thank you. I'll just pause for a moment. It has lovely. Thank you very much. So good morning. It is now 10 o'clock, and this issue specific hearing in relation to the key beat, next generation limited, key administration. Power Station is now open. My name is Richard Allen. I'm a charter town planner, and I'm the examining inspect, and I've been pointed by the Secretary of State to examine this application. I'm a single appointed person, and I am therefore the examining authority for this application. In the arrangements conference this morning, you will already spoken, or may have spoken to Caroline Hopewell, who is the case manager for this project, and she's supported by Georgie and Harry and other colleagues from the case team of the planning Inspectorate. Now before we begin today, I've got a few observations and housekeeping matters that I need to deal with, and I will try and get through those as quickly as possible. So for those watching potentially, those possibly watching on the live stream, who are new to national infrastructure casework, I'll just say a few words about my role. So I'm appointed by the Secretary of State for the Ministry of Housing, communities and local government to examine this application and to make a recommendation to the Secretary of State for energy security and net zero. I am an independent examiner tasked with testing the evidence presented before all of us, and I'm not here to simply rubber stamp this application. Once I've examined and tested the evidence before me, I will make a written recommendation to that Secretary of State and which I will either recommend to him that the order is made that is to approve the scheme or that with or to withhold consent, which would be to refuse. And I should say, of course, the Secretary of State is at liberty to make their own decision, regardless of my recommendation to them, I will gather evidence needed to help me to consider these matters during this examination, and then I will submit our report, as I have just said, throughout this process, I will be supported by the planning inspectorates case team, and they will answer any queries that you may have about the process and to assist in the examination events. So in regard to this hearing, I have decided to hold this issue specific hearing because I wish to ask a number of important and relevant questions in this early stage of the examination to better understand my understanding and to seek clarification on a number of issues parties should not look at this as my only issues in the exact application or the ones I consider the most important. These are ones that I have identified where I want to discuss. It does not preclude me from

holding further hearings or written questions in which I will discuss or raise other issues I would like to also state that on in respect of the relevant representation, it does not, as I say, does not mean it's done and dusted. At this stage, I wish to just understand those issues and at hand. The purpose of today is for me to examine the information submit by the application a result, I would like to reassure you that I'm familiar with the documents that you have sent in. So when answering a question, you do not need to repeat at length something that has already been submitted. If you want to refer to information submitted, I would be very grateful if you could give the appropriate document and and if you know it, the pins, examination, Library Reference and please, can ask for the first time you use an abbreviation or acronym that you do spell those out, because not everybody will be familiar with those terms for the purposes of identification and ease of reference. Could I ask that at every point you wish to speak, you state your name and whom you represent? So I'm conducting this meet at this hearing this morning, in accordance with sections 91 and 94 of the Planning Act, 2008 and the infrastructure planning examination procedure rules, 2010 and I want to remind parties that the examining authority may refuse to allow representations to be made if the examining authority considers those representations to be irrelevant, vexatious or frivolous, relate to the merits of policy set out in the national policy statement, repeat other representations already made, or relate to compensation for compulsory acquisition of land or any interest or right over. Land. This is this hearing is being recorded, and it is the only official record of the proceedings that will be uploaded to the inspectorates website as soon as practicable after this hearing, tweets, blogs or other similar communications arising out of this meeting will not be accepted as evidence in this examination. So if we can now turn to the agenda for today, please, this was placed the high level agenda was placed on the inspectorates website, on the inspectorates website on the 15th of December last year as part of the rule six letter and I published a further detailed agenda last week. So when we get to those topics discussed, I would like to start with a broad introduction to the application. I shall ask the applicant to briefly explain this development for everybody concerned those here in the room and in the virtual room, but also who are watching on the live stream no more than sort of 10 minutes or so. I then have some questions around the the general development and some of the works plans and some other questions. I then want to talk about climate effects and emissions. And I'm going to start with a policy background for hydrogen. I'm going to have a little I've got a few questions on that. I then would like to talk about the assumptions made concerning the sources of hydrogen supply, the rainbow coloring, and some more questions, really, about how, if the app can is able to give some maturity as to what sources they they will be. And to talk a little bit about the upstream emissions, I then want to talk about the scenarios A to G, which will come on to a little bit, if you're unfamiliar with those. I'll come on to those a little bit later on. And then I want to talk briefly about assumptions made concerning the sources of natural gas. And then I want to finish on away from climate, but onto emissions, and particularly around the issue of nitrogen nitrogen oxides from the combustion of hydrogen, particularly on the point that that Dr Boswell has made on that and I would like to get the views of the applicant and the Environment Agency, particularly on that matter. So I'll then turn on to landscape and visual effects. Now, those at the preliminary meeting yesterday will have noted that the applicant had stated that the what is set out in the agenda, the ancient and veteran trees, are no longer classified in that way. I should just ask the applicant to provide a little bit of an explanation to that, and then I have a number of just general questions on planting. And then we move on to the adequacy of documents. Now this is primarily raised by Natural England, the Environment Agency and canal river trust, and also national highways, on the adequacy of the documents submitted and whether they provide the information that they seek, and also how the applicant is resolving those

issues. And then I have finally some questions on the current draft development consent order. Not too many on those, but a few just to raise now. Now I have a list of parties who are here today and want to speak in certain items. And again, should an IP wish to raise a question on a matter that I'm talking about, I would like to hold that towards the end of the conversation. And again, would you please raise your Microsoft team hand to do that? Now I'm looking to seek to allow a sufficient time for us, for this conversation, for the agenda to take place, I should be looking to take a break at around half past 11 this morning for around 20 minutes or so. And then we will look to break around one o'clock for lunch, usually for one hour. But we'll have it when we get there. We'll see where we are on the agenda and whether we want to take that full hour or not. And we will take an afternoon break at around some three, 315 but I do want to finish this agenda by 5pm today. I think we should quite easily do that. The climate effects issue is, is the more substantial element of the agenda today? I think once that is, the rest of it will be reasonably quick. Should consideration of the issues take less time anticipated, I may conclude the hearing as soon as all relevant contributions have been made equally. If the discussions are going to take longer, it will be necessary for me, perhaps, to defer some items to written questions. It is important that I get the right answers to the questions. Therefore, if you cannot answer a question today, or you risk it being a potentially wrong answer, please indicate that you'd like to make the response in writing, and you can do so at the next deadline, right? So now I'm going to go through those persons here today. And do I don't necessarily need huge introductions, but if you could just identify yourselves, please that you're here. I'm going to start with the applicant. And Mr. Latif aramesh, good morning to you. If you could just introduce yourself and your team that will be speaking today.

10:47

Good morning, sir. My name is Mustafa Latif aramesh. I'm a partner at TLT, and I'm here on behalf of the applicant, as requested. I'll just introduce those likely speakers in the interest of time. So to my left I have Mr. John Arthur, who's a managing associate at TLT. And then directly opposite me, I have Mr. Richard Lowe, who's a director at Arup, and to his right is Kirsty, who's an associate director at Arup.

11:21

Thank you, and thank you for confirming the titles that we've got no hidden doctors amongst you, Mr.

11:29

Mr. Lowe is actually Dr low, but

11:34

that was the case. I'm pretty sure I've questioned Dr low before and got that wrong, so yeah,

11:40

but but I'm not worried about it. They're absolutely fine. Okay.

11:44

Thank you very much indeed. If I could then move on to the local authority, North Lincolnshire Council, I believe we've got Mr. Law here today. Good morning. Mr.

11:55

Law, yes, good morning, sir. Andrew law, for North Lincolnshire Council,

12:01

and you're joined by your colleague, Mr. Taylor, as well. Is that correct? I am so yes, Mr. Taylor is our ecologist. So okay, okay, so if I have any questions, I'll direct them to you, and you can, and you can move them around if you, if you say, wish, is that? Is that okay? You that's perfect, sir. Thank you. Thank you. And the same with you. Mr. Latifah Ramesh, I will pose my questions to you, and you can direct you at which one colleague is going to answer. Okay, so if I could move to the Environment Agency, please, I've got a list of names here. If someone could tell me who is the principal speaker, if you like, and introduce the team. Please.

12:45

Hi, I'm Morgan Hangman, on behalf of the Environment Agency, and I'll be the principal speaker. Thank you. On the call with me, I have various technical specialists, including Mark Corin, who's our water resources specialist, Jeremy Pyle, who's our geomorphology specialist, or, sorry, I should say, Dr Jeremy Pyle, our geomorphology specialist. We have also William West, our fisheries specialist, Luke Roberts, our biodiversity specialist, John byne, our flood risk specialist, and Lucy Halton, our water quality specialist. We have an apologies from our groundwater and contaminated land specialists. They weren't able to make it today, but we can reflect any questions that come forward, back to him and get back to you with a written response. Thank you. Can I

13:47

just confirm? Did you say that Mr. Corcoran was here because he's on my list? Is not here? Is he? Is he actually here with us? He is here with us? Yeah, that's fine. Okay. Thank you very much. Thank you. And again, Mr. Herringman, should I direct my questions to you? And you can direct them to your colleagues if you if they're the best person to ask, Is that the best thing to do? Probably the best thing to if I direct

14:13

them to you? Yes, that sounds appropriate.

14:17

Thank you very much for that. I then on my next on my list is, and I know this one's doctor. Dr Boswell, good morning to you. Dr Boswell,

14:29

Good Good morning, sir, yes. Dr Andrew Boswell, from climate emergency science and law.

14:38

Thank you very much. Thank you. And then the canal river trust we have, as it Mr. Tucker and Mr.

14:47

Good morning. Good morning, sir, thank you. Yes. My name is Simon Tucker. I'm the area Trust, the kind of river trust area planner. And with us today, I've also got my colleague Paul Gore, who. Who's one of our works engineers. If you've got any questions on to add a bit of context, need be also our planning solicitor, Sophie summers may be attending later as well, just in case any just to add some context on some of the matters, if needed.

15:18

Thank you very much indeed. So I have no other parties. Oh, well, sorry, I have Yes, sorry, Mr. Hewitt, I apologize. Mr.

15:29

Hewitt, no, that's fine. Good morning, sir. James Hewitt, I'm independent, no affiliation, no professional interest, but an interest in energy policy. Thank you.

15:42

Thank you very much indeed. So I don't that's all the persons I have in the room. I believe everyone's if have I missed anybody? Please? Could you raise your hand or put your camera on at this point? Nope. Thank you very much. So just a few final notes, just in terms of screen fatigue and broadband capacity, I'm content for those persons who are not speaking to please switch their camera microphone off and only switch them on when you are speaking. And again, as I've said, if you can, if you have any questions, please use the Microsoft Teams hand function and raise your hand for those people watching on the live stream. Can I advise you that we should we, when we do break for these proceedings, we will need to stop the live stream in order to create clear recording files, and as a result, you will need to refresh your browser to rejoin the next session. And I always say that, I will remind you again, Should this occur, but I do have a tendency not to remember that, so I will try my best to remember when we break finally, just a few more points, please. You will note from the rule six letter that the these recordings are to be placed on the planning inspectorates website and retained for five years from the Secretary of State's decision. Therefore, the general data protection regulations do apply, and it is important that persons do not reveal any personal or confidential information on these recordings. We would only ever ask for information to be placed on the public rental that is important and relevant to the planning decision, and it'll be in the rarest of circumstances we might ask you to provide personal information of the type that most of us would prefer to keep private and confidential. Therefore, please, as I say, please try and avoid revealing any information that you don't want on the public record. I also, during the course of this morning, being being a digital event. I will be looking at various screens. I will be making notes on a Word document on a different screen. So please don't be put off. If I am looking away from the screen or looking down at my desk or any other of those, it is because I'm looking at various documents and making notes. I am still listening to what's being said, and if I do miss I'll just ask you to repeat it. So please, as I say, Please don't be put off by that. And just finally, if you could have those parties, can have the examination library document to hand, I think as documents, if we refer to documents today, it's going to be a lot easier if you load those up yourself, rather than relying on the applicant to do so, the quality can be quite poor. In that respect, if the applicant still wants to screen share, that's fine, but I think it's easier for persons to load their own copy up. And I will try and make reference to the the library reference as we go on, are there any questions about what I've just said before we move on to the agenda? No, okay, so let's move straight on to then

item. What is two a on the agenda, on the introduction, and I would like at some point to have the works plans to hand, please, if you could do that, that's as 005 on the examination library. Examination library. So perhaps, if I could ask the applicant, please, Mr. Latif aramesh or one of your colleagues to just perhaps set the scene of this application and what it's about. Please not 10 minutes or so, no longer than that. Thank you.

19:53

Thank you, sir, Mr. Phil Latif aramesh, for the applicant, and we'll be brief as requests. It. So, just as a introductory comment, this is an application which is submitted by key be next generation limited, which is a subsidiary of SSE. The application seeks development consent for the construction operation and maintenance of a new combined cycle gas turbine that CCGT as an acronym, on land which is in the vicinity of the existing key B power station. The key B next generation power station, which will refer to as the authorized development, or the proposed development, is a new CCG T Electricity Generating Station with a capacity up to 910 megawatts of electrical output. The generating station will be designed to run 100% hydrogen, and it's also able to run on 100% natural gas, or a blend of both natural gas and hydrogen. It's located on land which is to the west of the existing key b1 and key b2 power stations, and it includes connections for cooling water, electricity, electricity, hydrogen and natural gas and construction lay down areas as well as other associated development. The full project description is contained in chapter four of the environmental statement. That's a P, P, 038, the proposed development falls within the definition of a nationally significant infrastructure project. Infrastructure project under Section sections 15, one and two of the Planning Act 2008 the DCO, if it's made by the Secretary of State, would be known as the key be next generation power station order and a draft DCO has been submitted alongside the application, the DCO will grant the powers and rights needed for the construction and operation of proposed development. And I think that's where I'll conclude just the brief outline of the proposed development, but we can come back to it in the next agenda item. If you had further questions, I was going to spend the next brief period just talking about the national policy surrounding hydrogen and what applies to the proposed development.

22:04

Well, I'm going to come on to that, I think, into the next agenda item, so it can reach, pause that for there, and then that will be, that will be the first item on the next item, the to be to look at national policy and around hydrogen. So that would be helpful there. I think, if that's okay, that's very helpful. Thank you very much indeed. So can I just confirm with you that if the if this order were to be made that would replace the key be three order, it would that that order would effectively be washed in a way

22:40

must fill itifaramish for the applicant. TB three is an alternative. So the answer to your question is, is Yes, sir. So only one of the two can be constructed on the site. Yeah, but Sir, just just on the very last point that you mentioned about quashing it, it doesn't quash the existing order. They exist as alternatives. So that's why the DCO does not contain provisions which revoke that order so that one or the other can go forward.

23:11

Yes, but my question is, should it? I mean, should this order, I don't know. I'm seeking your advice on this. Should this order effectively quash this may be something you want to take away. The key be three scheme in order that only one scheme is is constructed, is it? Is it? Should this order, if constructed, quash the key be three order, I think your microphone is off. I can't hear you. I'm sorry. Apologies.

23:44

So must Felitti, very much for the applicant, the answer to that question is is, no, we don't think it should revoke or quash the previous order, and that's because these two alternatives, the one that will be taken forward, depends on government policy and the feasibility of the particular development going forward, and so we have specifically, as I said, Not included provision in the DCO to revoke or quash that order so that both can be one or the other can be taken forward, depending on government policy as it's formed and as it is shaped in due course. Right.

24:19

Okay, so what you're saying is neither. You couldn't build both. It literally has to be one or the other. If you implement this scheme, you can't implement key b3 that's that's effectively what you're saying. Yeah, okay. Very much

24:36

for the application. Yes, yes.

24:38

Thank you very much indeed. Okay, so if I could then just talk a little bit about works two A and 2b and three, a and 3b and if you could just perhaps say a few words on the differences between the two, one being the suppliers, equipment and apparatus, and one being yours. Works. And particularly, I'm interested why the two works overlap.

25:08

Must fill itifar image for the applicant. So to start off, just as an introduction, work two is the hydrogen supply related works, and work three is the natural gas supply pipeline works. The reason they overlap is because we expect each one of these works to be constructed by the particular suppliers in due course. And there is a need for flexibility as to how the works are constructed and just just to explain the particular points of each each work so a high pressure gas supply pipeline in work to will be transported, transported from the point of connection with the hydrogen supplier work which is work to a via above ground infrastructure which is work To be and because at this stage of development, we have not carried out the detailed design, we have included flexibility, which explains that overlap that you see in the works plans between work a and work to be work number three, which is The natural gas supply pipeline infrastructure. Works again, it is, it will be the supply transported from the national gas transmission above ground infrastructure, which is work three A, via the above ground infrastructure which the applicant is constructing. And that's work 3b so again, because these works have not yet been designed in detail, there is an overlap. And just to confirm, if you wanted further details about both the natural gas supply works and how they are phased constructed, and who's doing, what is explained in the natural gas connection, sorry, the gas supply pipeline connection plans,

which is application document, two, point 11. I'll get you the examination reference in just a second. And the environmental statement assesses the flexibility that we have included, which includes the overlap that you've referred to, sir. And any examination document reference for the Indicative natural gas supply pipeline works is a P, P, 024, thank you.

27:40

And just to confirm the I think what you said again, this is more for the benefit of everybody here, so they and everybody online who understands the application both works a two, two and three are above ground installations. They are on site. They're not below ground. I don't

28:17

know if you're talking to me again. Mr. Latifah,

28:20

apologies, sir. Apologies, sir. Miss phility, very much. I might just invite Dr Lowe to give a brief response.

28:27

Richard Lowe representing the applicant. So the above ground installations, I think, are the part A's of the respective works two and three. The part B's are the pipelines that then go from the above ground insulation, which by definition, is above ground, they are likely to be buried pipelines into the power station is possible. They could also be above ground across the site, but more likely they would be buried across the site. But I think the key point, sir, is that all of that infrastructure is within the main site area, rather than but the

29:03

the supplier of the of the hydrogen and the natural gas that is outside of your site that is coming into the site that is in a pipeline below ground, Is that correct? That's correct.

29:15

Sue, okay, thank you. Do?

29:23

Just pause for one second, please.

29:37

So Richard Lowe, representing the applicant the further point the natural gas pipeline is already established and installed to the site, because that is the gas pipeline that is currently supplying the existing operational power station.

29:52

Yes, that was my next question, but that's so you would just literally be channeling into that. Would you correct the new okay, that. Script, that's great. Thank you very much indeed. I will be asking more questions about the hydrogen supply in the next as part of the next item on the agenda. Thank you. So

can I just move to work for a and for b, and this being the connection to the national grid substation. Now it's my understanding of that this is an either or situation, that you will either be connecting effectively to some I think it's either sort of normal to the south of it has that progressed any further. Are you able to narrow the down which which one you intend to use first?

30:46

Aramesh for the applicant, first starting point, Sarah is yes, you're correct. They are alternatives in terms of narrowing down the options we wouldn't be able to do that. We've been working very closely with national grid on the appropriate grid connection corridor, and for a and 4b have been developed in engagement discussions with them. It won't be possible to conclude which corridor to utilize within the period of the examination but obviously we are working to try to hone it down as much as possible. The point at which the final connection will be determined is when a connection agreement is made with National Grid, and that would only be following the grant of a DCO if the Secretary of State makes the order.

31:44

So your, I think point here is that national grid electricity won't discuss the connection agreement until there is a permission in place. Is that what you I think that's what you're saying.

31:59

Must phility faramesh, for the applicant, no, sir. The point is that we have been discussing the options the connection agreement will can is progressing. We're having those discussions, but because of the timescales for a connection agreement and the proposed development it's it's unlikely that that connection, that connection agreement will be finalized until following the conclusion of these proceedings on the DCO, that doesn't necessarily mean there's a connection between the two. It's just that the timescales for agreeing a connection agreement require time, and that's what's driving the alternatives that we put forward for the connection

32:42

and in just in case the Secretary of State is interested as to why connection agreement could, could not be achieved during these examination period, are you able to, just to provide some narrative as to why it would, It wouldn't be done within this examination time period? So

33:06

so we've got the connection for Thank you, sir, Mr. Philosophy faromish, for the applicant. In short, the way that a connection agreement is is put in place is going through existing processes, through niso. That's the national systems operator for grid connections. What it requires the applicant to do is engage with national grid on those connections. And you'll no doubt be aware that the timescales for grid connections are not such that you can just immediately asked national grid to make modifications. There is a process that we're going through. What I can say is to provide assurance, is that we are having very detailed discussions with National Grid and operating within the existing processes that apply for grid connections to be agreed and the modification processes that apply. Thank you.

34:09

Now, if I could move on to work number 11, the carbon capture storage. Now I want again to go into a lot more detail on this in the next item on the agenda, particularly on whether it should or shouldn't be provided as part of this scheme I will do. I've got some further questions on that, but purely on a general point of view. Again, work number 11 appears to overlap with works one, b2, A, two, b5, and six. Could you just provide an explanation as to why, why these works wouldn't impede on carbon capture storage? Should it need to be delivered? Because there is some overlap on those works on that, on the carbon capture storage.

34:58

Thank you. So. To Dr Lowe will address that question.

35:03

Richard Lowe representing the applicant. So, so the reason we've had included an overlap into work number 11 for the carbon capture redness land is to facilitate connections so the work areas are developed based on indicative and some some preliminary designs of plant for the CCGT and any carbon capture equipment that would maybe required in the future, but because the final design hasn't been completed, the exact dimensions of individual units and components have not yet been finalized. So in the event that carbon capture was required to be retrofitted to the CCGT, it may require, then some slightly different sizing relative to the work areas that have been allocated. And hence, if we didn't have any overlap between the respective work areas, we could theoretically have a gap and a distance between where the CCGT is obliged to be constructed under the work area one, and where the carbon capture equipment may be required under work area 11, and that would then lead to or design and inefficiency and a waste of space. So we very much need to provide potential overlaps to facilitate connections between the different infrastructure.

36:22

So Mr. Phility, very much for the applicant. And if I could just add we have as part of the application, prepared a carbon capture readiness statement, which is a P, P, 160, and you'll see in that document, particularly section four explains how we have considered the worst case, total footprint that is required for the carbon capture facilities, and how that has been accounted for in the design. So notwithstanding the flexibility that Dr Lowe has mentioned, there is adequate space for the carbon capture infrastructure within the application, and we've explained in quite a bit of detail, how we've worked that out.

37:05

Yeah, yes. So just just again, hearing from you, you're so that even with the addition the infrastructure needed as on the works one to five and six that I've discussed, there would be sufficient space to to do carbon capture, and you're confident of that, Mr.

37:26

Phil Latif aramesh with the applicant, absolutely.

37:30

Thank you very much indeed. I have a couple of other questions

37:39

on this, so just on in just going to schedule one of the DCO there is the term ancillary works, and then it's followed by the words associated development are used. I would just like the applicant to confirm that the list set out in schedule one is deemed as associated development for this application. Again, if that's something you want to come back in writing to, because I haven't said that to open the DCO, I accept that. But if that's something you want to just check and come back to, that's fine, but I just wanted to set out to the Secretary of State the what is deemed associated development is that list in schedule one of the DCO

38:24

responsibility, faromesh, for the applicant, I think I can come back to you on that now, sir, the list of ancillary works is associated development, and you'll see that it says, in connection with works, number one to 11. It is also worth saying that if you go to the very top of schedule one, the way that we have divided the works is that work number one is the nationally significant infrastructure project. And then just before work number two, we explain that what follows is associated development.

39:01

I see. So just, I just want to be clear on this point that so you're saying work number two onwards is associated development for work number one and then the list of ancillary works is almost associated development to the associated development, if you

39:21

like, correct. And just to explain, sorry, Mr. Phility faramesh, for the applicant, to explain why the work schedule is split up in that way is that the list of lettered works under ancillary works is relevant to a number of the numbered works, and it would make the drafting of schedule one difficult to understand if we replicated each lettered work under the relevant work. And so the standard practice that we've adopted is that, yes, the ancillary works are associated development, but we don't want to duplicate and replicate each lettered work against each numbered work. So you can it's Paris. Tick on what the work number is in terms of whether it's associated with that particular work, but it's all associated development.

40:09

Thank you very much indeed. Okay, and then on the life's operating hours, which I understand is 3500 hours. Is that That's, that's the life side time of the development. Is that correct?

40:27

Must ability faromesh for the applicant. So the life of operating hours are assessed in the environmental stage, and there are different numbers used depending on what is a reasonable worst case scenario, and in some cases, we carried out a precautionary assessment which has a higher lifetime operating number. The actual application does not specify that there is a specific number of lifetime operating hours. But what we've done in order to ensure that we have complied with the EIA regulations is to ensure that we've assessed the reasonable worst case scenario. So I'm sorry that's that's a slightly convoluted response, sir. But the point there is, we've assessed what is the reasonable worst case scenario, but if the if the question is, what is the actual operating lifetime hours. That is something

which we have not specified, because that will be determined by market demand, what is required from the power station in terms of maintenance shutdown periods. So because it's demand driven, we can't say this will definitively be the lifetime operating hours. Notwithstanding that, again, accounting for that uncertainty, we've carried out an assessment, depending on what the those operating hours are, depending on the topic, Chapter of the EES,

41:55

but, but in which, whichever one you've used, you've said that the reasonable, worst case is 3500 hours. That's That's correct, isn't it?

42:04

Sir, must feel a t faramesh for the applicant. So just as an example, the air quality chapter as 8760 hours. So it is not consistently 3500 across the different topic chapters of the years I see

42:20

so see. So the obvious question, then, from that, or certainly for me, is to what's what prevents the power station for operating longer than those assessed in the ES? So,

42:43

Mr. Phility faramesh, for the applicant, I think, sir, the short answer to that question is that, because we have assessed a reasonable worst case scenario, it accounts for what might happen in practice as the upper edge of the operating hours of the proposed development. I think we were going to come on to this in the next agenda item. But it is also worth saying that there will be a number of controls included in the environmental permit, which will control the activities that can take place on the site. So I think it's the short answer is, because we've assessed a reasonable worst case scenario, we don't think it's necessary to go any further on the operating hours. I think the other point to make in this context is that the question that you have just asked has been raised in a number of previous DCO applications, and the Secretary of State has not imposed requirements in relation to operating hours, acknowledging that there is a reasonable worst case scenario assessed in the ES and that there are further controls on the operation and maintenance of the facility. And again, we can, we can set that out in more detail in writing, but that's the short answer to that question.

44:05

I think that would be very helpful, if you could do that for me. Yes, please. Thank you and I, for the purpose of the case team, I'll make that as an action point please that you will provide in writing some further explanation on the control of operating hours or the need not to in the in the DCO, and your comments on the Secretary of State not doing similar on other schemes. Thank you. And then my final question was, there anything else you wanted to say on that, Mr. Latif, I mentioned you all

44:48

must fill itifar image for the applicant. There are just two points. The first is just a clarification, which is that when we're talking about the 3500 hours that that is an annual operating. In basis. And then the second thing is just to underline the point about why we don't think we need to go further, which is the ES assesses the various scenarios that we have, which we, as I said, say, signifies the reasonable

worst case scenario, but we have provided appropriate mitigation for that reasonable worst case scenario. So further controls, I think, would go beyond what is necessary to control the significant impacts associated with the proposed development.

45:32

Thank you. Okay, well, if you could, as I say, I would accept that, if you could just provide a written response on that basis, that would be, I think, very helpful. Thank you. And then finally, I just, I have asked in writing, and I'm just provide very brief explanation, please, the key be three. Scheme required a ding marine license. I noticed this scheme does not you have said it does not, but it would be helpful to me to just if you could briefly under explain to me why this scheme doesn't require a dean marine license, whereas keep me three did. The only thing I can find is the order limits did extend slightly into the river Trent in a different place, alongside the two places that you have at the moment. But it would be just helpful for background information to know why this scheme isn't needing a dean marine license,

46:34

stability faromesh for the applicant. So if I, if I could just give you a reference, which is as 017, that was our response to the procedural decision of the 24th of September. In that document, we explain in part of the interface with the marine management organization, the NMO, and it provides a high level response as to why we have not pursued a D marine license in this application, unlike key b3, and in particular, it turns on the nature of the works that we're seeking authorization for. There are no marine licensable activities which we are seeking authorization for as part of this application. So that's the distinction. And as 017, 017 explains that's the basis on which we weren't going to take forward a statement of common ground with the MMO. So I hope that answers the question, and

47:35

also Sir Richard Lowe, representing the applicant, just for further clarity on the QB three application at the time of submission of the DC application, but it'd be three there were two options for cooling water obstruction carried into the DC examination and into the consent one was obstruction from the canal, and the other was a potential obstruction from the river Trent, and That was the licensable activity under the D marine license. So, as this scheme is not progressing any optionality for cooling water obstruction from the river Trent, we therefore do not need any as, as my colleague has said, we don't need any marine license and activities the discharge into the river Trent does not require any physical works in The River and hence does not need a demarine license.

48:43

Mr. Allen, you're on mute.

48:47

So I am indeed. Thank you. I knew I was that was going to happen to me, just to say that that's all the questions that I have on item two. A does any party want to ask any questions on the the application, the description the application, what's being proposed. I can't see any hands up so, and if I'm wrong, I can't see any anyway. But if I'm sure, the case team will let me know if, if there are hands up and I can't see it. So with that, I'm going to move on then to the next item on the agenda, which is the to do with

climate change and emissions. And here I'm going to be referencing es chapter 18, which is a PPO 52 the climate change risk assessment, Appo 87 the combination climate change impact assessment, Appo 88 and the carbon capture readiness assessment, AP 160 and potentially the draft DCO, which is as 003 now, as I say, we may or may not need any, all of those. But if, uh. The questions arise from my reading of those documents. So if I could ask then please, Mr. Latifah Ramesh, my first question is, again, I think you were going to touch on this in the last item, but this is where I if you could, just perhaps think I might take the two questions I had together here, which is that I've asked you, I'm going to ask you to explain the policy position in respect of hydrogen combustion for electricity generation. But particularly, I'm sure within your answer, you will also explain how the low carbon hydrogen standards and the UK hydrogen strategy fit in with that policy position. So if you could just provide that explanation, that would be very helpful to me, Mr.

50:44

Phil Latif aramesh, for the applicant. The starting point is that national policy on hydrogen is, as you know, contained in a number of documents, and we have in as 010, which is appendix two of the planning statement explained in quite a bit of detail, the relevant national policy that sets out the framework for decision making for a DTO application such as this. And again, what I'll try to do is answer the very clear steer that you've just provided and summarize what those what those policy documents say. So the UK hydrogen strategy published in 2020 in 2021 states that hydrogen is one of a handful of new low carbon solutions that will be critical for the transition to net zero as part of a deeply decarbonised renewable energy system. Low carbon hydrogen is said to be a versatile replacement for natural gas used today, which helps bring down emissions in the UK. It also says that there is almost no low carbon production of hydrogen in the UK or globally today, and that relates to the need that is identified to stimulate the commercial demand for clean energy and reduce investment risk for the first movers, if hydrogen is going to fulfill this potential in the energy mix, then there must be a flexible path that is provided. The primary national policy document for this application is the national policy statements en 124, and five provide the primary basis for decision making in this application. And in summary, again, hydrogen is recognized, particularly at paragraph three, point 3.49, of the n1 as being capable of replicating the role of natural gas in the electricity system, as is the need for, quote, a strong and enduring UK hydrogen economy. This is best achieved by, again, creating the market conditions that encourage investment in domestic hydrogen supply. The establishment of an end user for hydrogen in the form of a gas fired power station that is capable of transitioning to hydrogen fire generation would create those market conditions. Thus, a new gas fired generating capacity, such as the proposed development, would encourage the delivery of critical national priorities such as the hydrogen fired power station and hydrogen distribution infrastructure. En one sets out that the government has an ambition for 10 gigawatts of electricity supply being generated by hydrogen by 2030, so there are some particular paragraphs that we think are pertinent in how policy is applied. And so I'll just summarize these. Paragraph three, point 4.12, of en one states that there is an urgent need for all types of low carbon hydrogen infrastructure to allow hydrogen to play its role. The following paragraph. So that's three point 4.13. States that the government is committed to developing hydrogen, which is critical for meeting the UK's legally binding targets by 2050 hydrogen is also recognized in paragraph one point, 1.4 of the n4 as being important to the clean energy transition. And what it specifically says is the clean hydrogen and the infrastructure that supports it will be needed to help transition to net zero by 2050, with the potential to help decarbonize UK industry sectors and provide

for and this is the important part, flexible deployment across heat, power and transport. Paragraph one point, 1.2 or en to states. And again, this, there is a reason for underlining this point, the majority of new generating capacity will need to be low carbon, but new unabated natural gas generating capacity will also be needed during the transition to net zero. This will ensure that the system remains reliable and affordable before just moving on to the low. Carbon hydrogen standard. I think there are three key takeaways from the national policy documents that I've just summarized. The first is that there is national policy support for the development of new hydrogen infrastructure, including the proposed development, and that's explained in detail in the planning statement, particularly appendix two. The second is that there is strong support for enabling hydrogen through flexible technologies, such as the proposed development. This stems not just from the National Policy Statement and the hydrogen stack strategy, but also, for example, the conclusion that, quote, a highly renewable power system combined with flexible technologies, including hydrogen power generation, could be substantially cheaper than alternatives that rely on alternative forms, and that's from the net zero opportunities for the power sector document that was published by The National Infrastructure Commission. The third key takeaway from the national planning policy documents is that there is support for enabling low carbon infrastructure during the transition to net zero. So for example, the NPP F sets out the planning policy should quote give significant weight to the benefits associated with renewable and low carbon energy generation, and the proposal's contributions to a net zero future. So for reasons that might seem obvious, and try to say we think for those three reasons, there is extremely strong national policy support in the national policy statement, the National Planning Policy Framework, and then a series of government policy documents, including the hydrogen strategy for the proposed development. And then, I guess, just moving on to the low carbon hydrogen standard, that document obviously makes government position on the maximum carbon intensity of various aspects of hydrogen development as a standard that they expect that the market to abide by the low carbon hydrogen Standard itself. So that's the carbon intensity that is included. Is achievable for for blue hydrogen, if the upstream wtt emissions factors for natural gas from the UK government data set is applied together with a conservative carbon capture rate, it's much more easily achieved for green hydrogen produced using power from renewable sources. So the higher the proportion of the green hydrogen in the fuel mix, the lower the overall carbon intensity of the hydrogen fuel that's used will be. And that's in relation to the again, the carbon intensity standard, things, the low carbon hydrogen standard. So there's a lot more that we could say on the low carbon hydrogen standard, but I think the one reference that I would draw your attention to is paragraph 18.6 point 18 of chapter 18 of the environmental statement, which deals with greenhouse gas emissions, and that explains why we consider the assumptions that we've applied which relate to that low carbon hydrogen standard, why they are conservative in the context of the assessment that we have undertaken. I think it's also worth saying that it government has stated in the low carbon hydrogen standard its commitment to achieving low carbon hydrogen production by 2030 that document is issued to the market who have responded positively to complying with the standards they're in. And I think I will stop there, just because I think it sounds like you might have some specific questions on the low carbon hydrogen standard. Sorry, you're on that.

59:17

I know I got it. So just, to just just to row back a little bit on some of the points you've made, just that I want, not only myself, but all the parties listening and potentially online, to be very clear on this, as clear

as we can be. So the Low Carbon, the low that the two low carbon documents that we're referring to, either have they come out from national policy, or have they fed international policy? In your view, I.

1:00:00

Much stability paramesh for the applicant just to take each one of those documents in turn. So the hydrogen strategy, we would say, is national policy for the purposes of explaining what the government's position on the ambitions for hydrogen are. Now this, this relates to a point that we briefly discussed yesterday, which is the newly designated national policy statements which do not have effect for the purposes of this application. But what I would note is that both the national policy statement which applies to this application and the newly designated one, they contain cross references to hydrogen strategy that the hydrogen strategy. And so I guess, if the question is, is it national policy? Yes, it's national policy because it reflects what the government believes the ambitions for the sector are. If the question is, is it equivalent to the national policy statement for the purposes of section 104 of the Planning Act, the answer would be no. The UK low carbon hydrogen standard is a different category compared to the UK hydrogen strategy, and that it does set out the ambitions. It contains much more granular detail about the for example, the carbon intensity that is expected of the market. It represents the government's view, but it does not have the same level of setting the framework for decision making in the way that the national policy statement has, and it's almost implied incorporation of the UK hydrogen strategy.

1:01:44

Thank you. So just while we actually my next question directly relates to the intensity issue, the carbon intensity issue. And if I could draw your attention to paragraph, I'm going to do this more than once actually in the course of my questions, paragraph 18, point 3.57, of the environmental statement, chapter 18. And you say that that in order to be compliant, carbon intensity must be no more than 20 grams of CO₂ two emissions per NJ. And you set out now that carbon intensity. Could you explain? Is that guidance, or is that secured in any way, either through policy, through or through the environmental permit? How is that 20 grams for CO₂ two emissions secured, or is it

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guidance only very much for the applicant? So this, this goes to the point that the low carbon hydrogen standard is something that government has issued to the industry, and it explains what it expects of them in terms of carbon intensity. It is not secured as a policy or as part of the permitting arrangements. I think the other thing just to flag and apologies, we're going to be referring to this on a number of occasions during the course of these first agenda items. But net zero T side, which was an application determined a DC application determined in 2024 delved into this issue in quite a bit of detail, and so we have quite useful commentary about what the Secretary of State considers to be necessary, as having to be secured, or just something which can be assumed as part of the overall package of government direction and government policy. And there is one particular paragraph which, if it assists, I think it goes directly to this line of questioning, sir, which, if you'll excuse me, I'll just, I'll just read out. And this comes from the examining authorities report on the net zero T side application, which was endorsed by the Secretary of State. And it says it's paragraph five point 3.47, of the recommendation report, it says we regard the use of the base Defra emissions factor, which represents the national average carbon intensity for the fuel in commercial use, is a reasonable approach, and we are satisfied that this

represents The best data and understanding available. So what the examining authority in that case and the Secretary of State confirmed was that, yes, the low carbon hydrogen standard, that intensity that it sets, is embedded in some of the assessments. That's reasonable to do, but it's not necessary to then separately secure a. Um, a requirement to meet that intensity. And if I just quote one other part of the recommendation report, it's paragraph five point 3.48

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and just like, if I could ask you this, right, can you just repeat what you just said? Because I'm just trying to make a note of it. So the back to paragraph number

1:05:20

of the of the one that I read out or the one that I was just about to read out. Yeah, so the Thank you, sir, is paragraph five, point 3.48, of the recommendation report, and it says, quote, we do not consider it necessary to insert a requirement into the DCO that requires the CCGT to operate only when the carbon intensity is below the particular projections that were used in that case. So again, what we have here is the low carbon hydrogen standard setting an expectation for the market the government's emissions factors, factor in factoring in particular national average carbon intensities across a number of different measures. And the Secretary of State and the examining authority in that case saying, We think that's reasonable to use. We understand why you've done it, and it represents, quote, the best data available. And the reason for going into all of that detail is because that's precisely what we have done in our assessments, and that's why, when you're asking, is the carbon intensity secured, it is an expectation that the government expects the market to meet as part of the the low carbon Hydrogen strategy, and separately, it's something that we have used in the course of our assessments, and that approach has been endorsed as being reasonable and reflective of not just a reasonable worst case scenario, but the best data available.

1:06:56

Thank you. Then if so, is it your Is it your view that if, if that intensity requirement, guidance that you say government expects, was not met, then it's not that important in the scheme of things. It's, it's, it's a guidance there and the Secretary of State is accepted, as you talked about Net Zero, net zero T side, that it is only a guidance and if the intensity was greater than that, well, so So be it.

1:07:40

So Mr. Phillippe parametric, the applicant, I think two points. The first is that if the carbon intensity was greater, it is worth looking at the number of scenarios that we have assessed in chapter 18, and you'll know that we have what's called seven different scenarios, and one of those scenarios is an unabated 100% natural gas scenario. So if the question is, what would happen, we would say, well, we have a scenario that is assessed in the ES, which is that reasonable worst case scenario. So so far as your question revolves around, would you still be assessing a reasonable worst case scenario for the EIA regulations? The answer is yes. The second is, it is for the reasons that we have set out in paragraph 18.6, point 18 of the chapter 18 of the environmental statement. We think it is an, you know, a conservative assumption to say that that carbon intensity will be met. It's worth noting the wider context for this, which is there is a need in developing this hydrogen fuel mix which meets the carbon intensity for government support, and given the government has set its expectation, it is unlikely that the fiscal

support that's necessary to bring forward that hydrogen production will would come forward unless that standard was met. So again, the answer is, we don't think this changes anything that is put forward in the application or the assessments that we've produced.

1:09:25

Thank you. Thank you very much. I think I don't I'm going to come on to assumptions on hydrogen and fuel source is probably the natural point where we're heading with this conversation. So I don't have any further questions on policy related to hydrogen? Again, I'm going to ask, does any of the parties today want to want to ask any questions? Yes. Dr Boswell, just on policy for the moment.

1:09:58

Good morning, sir. I. Dr Andrew Boswell, climate emergency science law. I understand what you've just said about policy, but we've already strayed into the EIA area in what the applicant has said, and I think I'd like to make a comment on that at this stage. What I'd also like to say is that you have my relevant representation, and I'm aware that the next step I can put in written submissions is February the fourth on the written representation, writing up. So I'm not intending to say too much, you know, largely because I want to listen and then to submit stuff for February the fourth. So I'm just sort of highlighting points as we go along. Really helpful. You might want to ask questions, but I'm not trying to make sort of big technical statements at this point, so to speak.

1:11:10

Well, hopefully the questions I ask in the discussion we have will be helpful to you in making your written statement. It may answer questions. It may raise more questions for you, hopefully to start to get us some, you know, get some answers, hopefully. So, yes,

1:11:27

yes, so it absolutely has already, so it's been helpful discussion. I think the delving into the LC, HS, there is the sort of issue of where that fits into policy. And I'm not really going to say anything about that, but the applicant has also talked about that being sufficient for the environmental impact assessment. And I think the key point I'd like to make is that since the development of the LCH standard, and also actually since the net zero T side application, there is new science and the new science comes from both first principles scientific papers, where people have looked at the upstream supply chain of The natural gas supply, and they've looked at every element. In that upstream supply and the greenhouse gas emissions associated with it, with the most recent evidence, and also from satellite and remote imaging. So you have sort of two things, Sir, you have what I'd call first principle science, a very, very detailed scientific analysis. And you have remote imaging and satellite imaging now where this, and as this is in the last few years, literally in the last two or three years. So this is very recent, and I want to put in, in my written representation more on this. I'm not going to get into the detail, no, because I think that will not be helpful at this point.

1:13:29

No, it certainly wouldn't. And I think, I think yes, if you I think probably that is the best way, is if you were to expand on certainly what you said in relevant reps to put that in detail, and then to give the

applicant that opportunity to respond to that in writing at deadline two. And then that will give me the whether I need to question it further in written questions. Okay, so,

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so, absolutely, so. So what I would like to say at this point, because I guess, relevant to the the discussion, is that the Defra emission factors have been mentioned, and these are the the well to tank emission factors and data sets and that they're published every year. They're conversion factors. They actually initially started in 2002 they have had the well to tank data in them from 2015 they they had not been significantly updated on the well to tank data since 2015 so the science I'm talking about is not in those emission factors. Those emission factors don't reflect the latest science. In other words, and that. Data Science wasn't actually put into the examination at Net Zero Teesside. I participated in that, as you probably well know, because I didn't have that information, then it hadn't been available. I was sort of watching it emerging that it hadn't actually been totally, fully available at that point. So there's, there's two things which come from that, which is that, first of all, those emission factors can't be trusted in EIA statements. And I will put in much more evidence on that, but I just want to flag that up at this point in terms of the L CHS standard when you apply the more recent science. I mean, I'll just rewind that a moment, because the applicant said that the Ichs is achievable for blue hydrogen, but it's only achievable for blue hydrogen if you use the the des NES, the department energy security and Net Zero conversion factors I've referred to, which I've said are out of date with the latest science. Yeah, and you assume capture rates in the blue hydrogen process of above 95% and no system worldwide has ever achieved those rates. The there's, there's a there's a project in Canada which has achieved up to below 80% so

1:16:39

dr Boswell, I'm going to come on to the assumptions on hydrogen as a fuel source in right immediately after this item. Would that be better to have a discussion more about then? Because what I want to ping the applicant to do is to provide us where they're going to get their hydrogen from and what color it can be for the for the being simplistic, I think I've heard what you've had to say, certainly from your rhythm and representations about the whether the data that is being used is up to date or not. Can I leave it at there, at that point?

1:17:15

Yeah, did have one other thing to say

1:17:18

with policy? What is to do for what's

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been said. And I will, will obviously put in written representations which are sort of clear, and I don't want to hold things up, but I think it's important to be clear now as well. If I can,

1:17:35

okay, if you can be brief, please, yes, yeah, yeah.

1:17:39

Which is that the net zero T side has been talked about, but that is a gas fired power station carbon capture and storage. It's not a blue hydrogen plant. And those two paragraphs, 5347, and 5348, are referring to the emission factors I've just talked about, but they're not referring to the emission factors with respect to low carbon hydrogen standard, because it's not a blue hydrogen plant. It's nothing to do with hydrogen that plant. So I just need you to be aware that there's an indirectness there, that the the security of those emission factors as they're understood at the time of the net zero T side plant, as they've been indirectly applied to low To then to low carbon hydrogen and blue hydrogen potential, blue hydrogen support sources for this plant. So it's a rather indirect argument, and I'll leave it at that. Thank you very much, sir.

1:18:57

Thank you. Thank you very much indeed. Dr Boswell, Mr. Latife, very much. Is there any do you want to come back on anything that Dr Boswell has said? Or do you would prefer, because I know you haven't responded to Dr Boswell's written representation. So relevant representation as yet? Which, which you've said you will do so at deadline? One, is this something you would prefer to wait for full written representations and then provide quite a detailed response? Or is there anything that you specifically want to say now, particularly in Dr Boswell's final remarks? Well, two remarks, firstly, about the data being out of date used, and that the relevance of the five paragraph, five point 3.47 and five point 3.48 of the net zero T side report. Is there anything you want to say specifically on the two points? I think Dr Boswell is raising now, or do you want to wait for to respond in full, in written form at deadline to

1:19:57

Latif aramesh for the applicant? I. I think we'll wait to respond in full, in writing, once we've seen the written representation, sir. But but just very briefly, as Dr Boswell notes, the emissions factors are updated. And just for the avoidance of doubt, the ES uses the 2025, emissions factors. So that's the first point about whether any of the assessments are based on outdated emissions factors or other factors. Dr Boswell says that he'll provide details of why it's not acceptable to use the government's emissions factors, and will respond to that in due course. The second thing, which is on the last point on the relevance of the paragraphs that I quoted from the net zero T side recommendation report, notwithstanding that technical difference, the principles which those paragraphs stand for do apply, in this case, the questioning of the use of government data emissions factors is something that we were trying to make sure that you had assurance on. We've done the appropriate thing and what government expects, I think, applicants to follow, and we have also ensured that there is a full compliance with the EIA regulations on having a reasonable worst case scenario. The final point, which is just related to that, is, again, my comment about the scenarios that are assessed in chapter 18 of the ES, including that scenarios D through to f and g, means that we have assessed for the purposes of the EIA regulations, a scenario which I think shows what would happen in circumstances where the factors that Dr Boswell is talking about couldn't be addressed or weren't contrary to government policy, weren't weren't addressed. So if you were looking to see what the effects would be. We think we have supplied that through the use of the scenarios that we've included in the Yes. And I think I'll leave it there, sir, and respond in further detail once we have Dr Boswell's relevant, sorry, written representation.

1:22:15

Yes, thank you. And no doubt you've already seen Dr Boswell's written representation. Where, where he sets these out in more high level terms. And so I think you can know what to expect, right? Okay, so I think this is probably a good point to take a short break before I move on to the assumptions on hydrogen fuel source, where I have a few questions to just ask on that, to get some clarification on. So it is just gone 20 past 11. Should we resume at 1140 is that? Is that? Is that okay for everybody? Okay? So we'll resume the resume this hearing at just just after 1140 Thank you. Yeah.