

## Hearing Transcript

<b>Project:</b>	Springwell Solar Farm
<b>Hearing:</b>	Issue Specific Hearing 1 (ISH1) - Part 3
<b>Date:</b>	08 May 2025

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FULL TRANSCRIPT (with timecode)

00:00:08:11 - 00:00:14:14

12:10, so we will resume, please, if everyone can make their way to their seats. Thank you.

00:00:24:11 - 00:00:32:17

Okay, um, we got to a stage where, um, I was going to ask if any interested parties wish to say anything on cumulative effects.

00:00:34:04 - 00:00:38:20

Mr. Williams, you put your hand up first, so please go for it. Thank you.

00:00:41:27 - 00:00:44:10

Is the mic there? Thank you.

00:00:50:09 - 00:01:24:24

Mark Williams, Springwell action group. Um, I think cumulative effects is one of the major issues that we all have. Reality is, we cannot look at spring while in isolation. Um, we have to look at the best. That's part of the spring application. We have to look at, um, the substation we have to look at. We have to look at the Colby base. We have to look at Foss Green. And there are several. I think there are another two bess's. That being, um, in the pipeline, we also have to look at Fen.

00:01:24:29 - 00:01:56:07

You know, this whole area that, you know, the community who live in this area are going to when they get in their cars, they're going to get in a car and drive and all they're going to see is glass. Okay. And when the applicant says they are going to mitigate it, they say, oh, we'll mitigate it by six meter high, um, perimeters to stop you seeing the best six meters high. Can you imagine driving along and all you see is six meter high? Um, I don't know what billboards. I don't know what the hell they're going to put up.

00:01:56:09 - 00:02:27:03

It's going to be hideous. Yes. Um, so, you know, as a as an inspector, I generally, you know, you really need to push hard on the cumulative effects. One real concern I have, and I mentioned it yesterday, um, the applicant marking their own homework. So they've got risk in the room. Let's not pretend risk or independent that they're bought and paid for. Um, and, you know, so when they write a report about cumulative effect, let's be honest, they're going to say there's not much of an effect.

00:02:27:17 - 00:02:42:20

These they you know, they don't really cause too much problem. If you've got a truly independent person who was actually looking at it and saying, actually, what how is this going to impact the community, they would have a completely different view on the cumulative effect.

00:02:45:12 - 00:02:55:21

Thank you. And as I confirmed yesterday, obviously as an examining authority will be considering the application thoroughly and robustly. Thank you. Okay. Anyone else on cumulative effects?

00:02:58:13 - 00:03:28:29

Thank you. Thank you very much. Marianne Overton, councillor for the neighboring area that includes part of this. The cumulative impact should also take into account some of the other solar that's there. And we do have some for example at Rosebery. We have a lot um, near Sleaford which connects which are smaller individually but collectively make a significant impact. And that connects into the connecting station at Sleaford.

00:03:29:10 - 00:03:48:19

And there's also a connecting station at North Hykeham, I think. So we need to you know, there are other places that are engaged, um, in impacting on the environment that we are, uh, in that we are experiencing. And I think those should be taken into account as well.

00:03:49:03 - 00:04:01:00

Okay. Could you just maybe explain a bit more about their location in terms of the the application site in this case. And whether, in your view, there's likely to be any crossovers in terms of impacts that might arise.

00:04:01:15 - 00:04:37:01

Yes. There is a map on the front of the Facebook of Springville Solar, which we could submit, and you probably got it, but it's a map of all the sites around. Um, the point about the these constructions is that they are industrial and they change the nature of the countryside. It's not just the footprint that has an impact. And I know we were looking we were hearing about, I think, one kilometer away. But where you've got these long views, it can be much more significant than one kilometer.

00:04:37:04 - 00:05:12:21

And I think also your eye gets drawn to these alien, shiny features. It's so they therefore have a more significant impact than their footprint than you would expect from the footprint. So therefore, I think the cumulative impact over quite a large area is really significant. And actually we also consider the ones just over the border into Nottinghamshire impactful as well because you just left one lot small break, you're into another lot. It's the whole of the area starts to get an industrial feel to it.

00:05:13:04 - 00:05:29:18

Okay. Could I ask maybe your post submission, um, statement that you could provide a detail of each of those developments that you consider. There is overlap and what impacts obviously you've just gone through landscape and visual effects mainly, but if there's any others that you feel should be particularly considered that we can then look at that would be much appreciated.

00:05:30:10 - 00:06:02:27

Perfect. Thank you. I don't know the distance that one might for the the battery storage units. Um, because I know they've been talking about quite small distances, I don't know, even six meters between the battery storage units, but they are explosive. And that could mean that the distances that they impact, for example, 600m from Colby, you know, those those battery storage units could actually have a greater impact than has previously been considered. So you are considering the plume distances and I see that.

00:06:03:07 - 00:06:03:26

Thank you.

00:06:04:02 - 00:06:23:06

Okay. Thank you. Um, I plan to let, um, slightly different approach, just to let all the interested parties have their say and then come back to the applicant at the end, if that's okay. Just in the interest of, um, getting through everything that we need to today. Um, any other interested party you want to pass over? Thank you.

00:06:24:20 - 00:06:55:06

Thank you. Um. James Gallagher. Um, I was very pleased to hear that. Louder is now to be included within the scope of the rules of impact. What surprised me somewhat when I read the documentation that's on the Inspectorate's website, is that no one had asked National Grid about what other projects were actually happening within the area that they were all engaged in. For example, there is a there's been a scoping opinion, environmental scoping opinion provided for at For Bassett Wellington. Um, so there's no reference to that.

00:06:55:08 - 00:07:29:23

So I would, um, ask, would you expect, uh, see it appropriate to, uh, ask National Grid what dialogue they are in regarding other developments in that area? First point I'd like to make, and I think this second point is relative effect is an overall change in the character. And that's why I think we need to look at the scope as widely as possible. And that's why including Wellington bass, etc. is important because it is really changing quite radically the whole nature of that part of North Kesteven.

00:07:30:06 - 00:07:40:22

Uh, I have my third point is I have specific observations on the cumulative effect on traffic, but, um, if the inspector would agree, I'd rather raise them when I talk later about traffic.

00:07:41:19 - 00:07:43:29

Yeah, I would prefer that, too. Please. Thank you.

00:07:47:06 - 00:07:51:14

Okay, so if we could go to the other gentleman in the front. Thank you.

00:07:53:06 - 00:08:33:24

Hello. Stuart Jackson, resident of Scott Village. Um, in terms of cumulative effects, I'd like to raise my concern about the consideration for developments, once approved and established, that they are then considered also in the impact on the environment and the habitat and wildlife overall, with new plans bringing forward, because there's a danger that you get this one through and then you start considering the next one in isolation. I just like to make sure that even once it's approved and in place, like the council has said to my left here, that they are all considered into that and the impact on the environment and the habitat and wildlife.

00:08:34:12 - 00:08:40:02

Okay. Do you mean in terms of developments which may come forward in 10 or 15 years? Just so I'm clear.

00:08:40:04 - 00:09:02:14

I if you take collectively now there's a significant number of proposed developments in the area, and there's already developments in place And established generating power. But I would like to make sure is that all of those are considered. In the environmental impact, both in terms of habitat and wildlife. And not just considered in isolation.

00:09:02:16 - 00:09:09:15

Okay. That's fine, thank you. I'll ask the applicant to reply to that one. Uh, at the end of the this session. Mr. Williams.

00:09:09:17 - 00:09:13:09

Just final point for me. Mark Williams, um, Springwell action Group.

00:09:15:04 - 00:09:46:17

The applicant and they've talked about. Uh, National Grid and having National Grid has customers. What does a business who has customers do? They look for more customers. So we're already seeing more customers coming to National Grid. National grid will still want more customers. So the reality is, again, um, planning inspector. I think we need to be very aware of that. There are, you know, the cumulative effect currently. We've identified about seven applications.

00:09:47:24 - 00:09:58:07

With In Nashville if the substation goes ahead. They want more customers. There's going to. The reality is, there's going to be more of this junk all over our fields.

00:09:59:06 - 00:10:05:06

Okay. Thank you. We've got one more gentleman over at the back left.

00:10:08:06 - 00:10:08:25

Thank you.

00:10:09:29 - 00:10:41:19

Rob Kendrick, county councillor for metering in rural. Um, I would support the remarks made by previous speakers. As regards the impact on the area. Uh, it's a massive impact. We've been well aware in Lincolnshire for some time now that we've been the focus for many proposed developments, some of which obviously have been approved and others are in the pipeline. And it's a great concern. I know it's a great concern to the residents that I represent that their amenity value is being diminished.

00:10:42:07 - 00:11:21:20

Um, there's evidence that property values are reduced. So people who may say, I don't want to live in an area surrounded by solar panels. I want to move away. We'll have trouble selling their property, which is detrimental for the residents and great concern to the residents, and I might say so far for their mental health as well, if they're worried about trying to sell their property. So there's there's an impact there. And also I did mention yesterday briefly, but, um, Lincolnshire is marketed as the County of the Big Skies by a tourist authorities. Um, Lincolnshire may become the county of the big solar farms in the future, which obviously will be negative impact on our local economy and employment.

00:11:21:28 - 00:11:32:04

So always round. It's a negative impact on the area and I can't see much mitigation actually ameliorating that problem. Thank you.

00:11:32:29 - 00:11:49:23

Okay. Thank you very much. I'll come to the applicant please, if you'd like to reply to any of those in particular. But um, obviously I mentioned I'd ask you in terms of the, um, the, the approach to how other developments have been taken into account in the cumulative assessment. A brief overview of that would be useful. Please. Thank you.

00:11:49:25 - 00:12:23:24

Thank you, Miss Coleman, for the applicant. I will pass to Miss Garner shortly, but I think the overarching point is that we very much agree that cumulative should be taken into account, and that's in accordance with the Environmental Impact Assessment regulations with which we've complied. Um, we've gone about a robust assessment in this respect, which has been discussed and and agreed with the council's. It sets out specific um areas, but also criteria for a list of developments that are identified. And we've assessed against those, um, all subsequent applications coming forward will need to do the same thing.

00:12:24:03 - 00:13:00:27

Um, so there is very much, um, legislative requirements in place for this exact purpose to ensure that cumulative effects have been considered and Miss Garner will be able to expand on that. Um, I will just respond briefly in terms of Councillor Overton's point on the, um, the extent of the area and the views, um, Specifically in terms of landscape. It is a cumulative assessment that looks ten kilometres from the order limits. And I do have our landscape expert here who can expand on the approach, specifically in relation to cumulative effects on views and and landscape, and also the screening point, if that's helpful.

00:13:00:29 - 00:13:11:29

And then I've got other experts later on in those agenda items that can deal with the traffic and the battery points. But I might just pass to Miss Gardner now to just expand a bit more on the approach to the assessment. Thank you.

00:13:12:18 - 00:13:13:26

That would be useful. Thank you.

00:13:15:22 - 00:13:46:27

Thank you. Um, Miss Garner, for the applicant. Um, so, yeah, as Miss Coleman, um, stated, the cumulative assessment has been based on a ten kilometre zone of influence. And this zone of influence is based on, uh, the largest distance where we foresee impacts. Um, it's noted on the comments that we've received about a number of best applications. Um, within, uh, chapter 16, cumulative effects We have assessed Maren Lane, Maren Lane Best.

00:13:47:06 - 00:14:21:19

So that sits at 9.5km. Um, it would be useful, um, in the comments that we receive to understand if there's any further applications that we do need to consider. However, it's worth noting that we have been engaging closely with North Kesteven District Council and Lincolnshire County Council. If there are any new applications that we need to consider just in relation to the point about National Grid. Um, we are closely engaging with National Grid. Um, and as I say, with, um, Norfolk District Council and Lincolnshire County Council in relation to any new developments that do need to be considered.

00:14:21:21 - 00:14:35:02

And as we've stated previously, throughout the examination, we will be updating the cumulative, um, assessment should there be any new developments that we need to consider that fit in with the guidance, um, outlined by the Planning Inspectorate?

00:14:38:07 - 00:14:46:25

Thank you very much. Okay. On that basis, we will move on to our next agenda item, which is air quality.

00:14:50:13 - 00:14:58:21

And I'm afraid you're stuck again with me for this one on the next couple. Um, okay. Um, first coming to the,

00:15:00:15 - 00:15:16:10

um, PM 2.5 targets and the interim planning guidance. Um, now, the interim planning guidance on the consideration of the Environment Act targets for PM 2.5, uh, in planning decisions was published on the 4th of October, 2024.

00:15:18:00 - 00:15:30:21

Um, so the first question is for the applicant, uh, and in accordance with the guidance, is it possible, please, to set out how exposure to PM 2.5 has been considered when selecting the development site?

00:15:32:28 - 00:15:35:28

Sorry, are you just changing over experts? Okay. That's fine.

00:15:56:11 - 00:16:25:21

Sorry, sir. I'm also just going to ask Mrs. Price to come back, because I think you're also referring to, um, selection of the site there as well. Um, yes. But, um, doctor, um, Srinivas, who's our air quality, um, expert who's an air quality directorate, um, RSC um, who's done the assessment, so can speak to the um queries about 2.5 generally. Um, I'm just going to wait for price to return. But maybe if you could repeat the question. Um, now that, um, Doctor Smith is back, is here.

00:16:26:19 - 00:16:43:12

Okay. Thank you. Um, the question was in accordance with the PM 2.5 targets, interim planning guidance. Um, please, could you set out how exposure to PM 2.5 has been considered. When selecting the development site.

00:16:45:09 - 00:16:45:28

Thank you.

00:16:48:20 - 00:17:20:27

I'm sorry. Anniversary. Uh, uh, for, uh, director air quality for the applicant. Um, interim planning guidance, uh, aims to reduce the exposure. Um, and that's what exactly done in terms of the assessment. Uh, the assessment was done based on the Institute of Air Quality Management guidance and Defra technical guidance. And, uh, we have agreed the, uh, methodology to do the assessment, uh, with the, uh, councils.

00:17:21:19 - 00:17:53:24

Uh, now the district North District Council and Lincolnshire County Council. And embedded mitigation was included in the design was considered in the assessment. Um and additional mitigation was also So in essence, um, and included in the chapter. Uh, so mainly it is um, uh, reduction uh, of Pm10 2.5 exposure, uh, rather than, uh, quantifying anything.

00:17:54:12 - 00:18:00:11

Uh, the mitigation measures are listed in the uh, chapter that is uh, chapter six air quality.

00:18:02:00 - 00:18:08:00

From I understand that the the ES did take into account this planning guidance when it was prepared.

00:18:10:18 - 00:18:17:06

Thank you. Thank you. Um, anything from the local authorities on that particular point?

00:18:26:11 - 00:18:27:22

No. Okay. Thank you.

00:18:33:11 - 00:19:05:01

Okay. We'll move on to, uh, the battery energy storage system. Plume assessment, please. Um, now, the the assessment considers the possible impacts. I'll call it the best from now on. Hopefully everyone's familiar with the the term best, um, compound on the nearby receptors and in emergency situation, primarily the emergency responders and those in the surrounding area, such as workers for local residents. Uh, it notes that, uh, once the battery technology has been chosen, a revised plume assessment will be provided post consent.

00:19:05:26 - 00:19:37:00

Um, further to that, the UK Health Security Agency has raised several concerns with regard to the contents and the methodology used in the best plume assessment, and it's requested that, uh, an assessment is completed using methodology such as atmospheric dispersion modelling, uh, which allows comparison of predicted concentrations of pollutants at the receptor location with applicable health based standards or guideline values for ER and where UK standards or guideline values are not available.

00:19:37:04 - 00:20:01:10

Those from the World Health Organization or other reputable international bodies should be used. Um, obviously the UK um Health Security Agency aren't with us today, so I can only ask the



applicant, uh, on your side of, um, the story, as it were, but have you had any discussions with, um, the UK Health Agency in terms of moving this point forward? And if you could update us if you have.

00:20:01:13 - 00:20:36:17

Thank you. The applicant. Thank you. I might just touch on one point in terms of when you've said there would be further plume assessment. So, um, the battery safety management plan confirms that we will, uh, basically, I suppose, repeat that assessment almost as a validation for once. We've got detailed design for the battery just to confirm and as a confirmatory sort of assessment, really to make sure that the effects, when we know the detailed design aren't worse than those assessed. So just to be clear as to what that further, um, assessment entails, but yes, we have been in discussions with um UK HSA And I'm going to pass you over to Mr.

00:20:36:19 - 00:20:43:00

Paul Gregory, who's our battery safety and testing consultant, who can, um, expand upon those discussions.

00:20:45:08 - 00:20:45:27

Thank you.

00:20:47:13 - 00:21:30:27

Uh, Paul Gregory for the applicant. Um, so, yes, just to, um, for the examining authority, just to take you through, um, further meetings that have taken place with UK HSA. So, uh, their representation was made on the 17th of February, um, which was followed by an online meeting between the applicant and UK HSA on the 18th of March. Um, a draft statement of Common ground was issued by the applicant for comment by UK HSA on the 4th of April and um, on the 16th of April, uh, the UK HSA submitted a letter responding to the draft statement of Common Ground.

00:21:31:07 - 00:22:01:08

And on the 28th of April, uh, the applicant and the UK HSA had an online meeting, um, to discuss, um, the draft SoC and the responses from the UK Health and Security Agency. Excuse me? My voice is a little ropery today. Um. Um, the outcomes of of that meeting was the the statement of common ground was simplified and the agreement was verbally made on all topics.

00:22:02:05 - 00:22:33:18

Um, and that was, uh, the new draft was submitted on the 1st of May to UK HSA to approve and sign off. Um, further information, uh, was put in in the email by the applicant, uh, confirming the meeting actions and agreement. And also, um, a lot of the technical elements of the discussion with clarifications, areas of alignment and additional technical information, uh, which is requested by UK HSA.

00:22:34:12 - 00:22:51:29

Um, so that was submitted on the 1st of May and we're waiting. The applicant is waiting to hear back from UK HSA to make to make sure we have full agreement. I mean, I can sort of run through some of those topics if it will help the examining authority.

00:22:52:05 - 00:23:15:07

Um, if you could comment on the ones that were set out in the relevant representation from the UK, HSA. Um, the ones that I referred to in my preamble. Um, mainly around the, the methodology. Uh, and whether that further work from the applicant has provided what they requested and whether that will be made available to the examination. Please.

00:23:16:01 - 00:23:54:04

Okay. Um, so Paul Gregory for the applicant. Um, so it's the applicant's opinion, and this was stated in the meeting with UK HSA that, uh, within the assumptions and parameters used, the plume assessment did consider the worst case scenario for life safety risks to site operatives and first responders within the indicative base area, as well as the surrounding area, which is, you know, workers and local residents. Um, this this assessment was done to satisfy internal assurance and governance, controlling safe design of the site, as well as to provide critical information to Lincolnshire Fire and Rescue Service.

00:23:54:18 - 00:24:46:03

Um, all the technical information used for that assessment has been shared with the UK HRSa, which I'll just briefly go through. So the reference one um, point was the the criteria for the assessment related to mortality and not considering minor health impacts, which might be caused through exposure to a best plume. Um, so following the meeting with the UK HSA, um, the applicant agrees with UK hsa that the detailed design uh, plume assessment post process, it will be based on atmosphere atmospheric dispersion modeling, understanding what they will be emitted and the impact on sensitive receptors with comparison with air quality standards.

00:24:46:12 - 00:25:22:02

The future running of the plume assessment at the detailed design is secured in line 4.2.1 of the Outline Battery Safety Management Plan, and the applicant clarifies that because of the buffer zones to sensitive receptors, the applicant is confident that toxic toxic gas emissions will be below relevant public health exposure levels. Um, the applicant presented, uh, suitable examples to the UK hsa uh of similar best chemistry where fire emissions were below the acute exposure guideline levels.

00:25:22:04 - 00:26:00:18

Level one, which is that, uh, toxic emissions must be below one part per million. Which at 320m uh on on similar schemes and best systems. Uh, that was the case. Uh, this will be checked by the applicant specifically at detailed design, um, to ensure that um, this fully aligns with expectations of UK HSA. Um on on the reference to about the methodology not being protective of vulnerable people, children, older adults, pre-existing health conditions.

00:26:01:12 - 00:26:55:12

Um, the future plume assessment as part of detailed design will consider the UK air quality objectives, which is the concern of the UK HSA relevant public health exposure levels and standards, and it will report against relevant measures and threshold as deemed by evolving best practice or standards at that time. For example, an FCC guidance uh update, which is expected to be published this year, defines both the radius, which is one kilometer, and a full definition of sensitive receptors that should be considered by best development and as a response to the immediate concern raised, the applicant is giving UK a full opportunity to interrogate and test the technical data that supports a non-technical summary in the plume assessment, and at the moment, we're waiting for that response.

00:26:56:05 - 00:27:10:18

Um, and assurances were given by the applicant that toxic gas emissions and production of particulate matter, that's PM 2.5 and Pm10 in the best fire will also be included in that future assessment.

00:27:15:03 - 00:27:50:28

Um, the applicant feels that it's important to note that currently, um, particulate matter uh, 2.5 and ten exposure thresholds are not currently set by any standard. Um, the Future Premium assessment will consider standards from the UK air quality objectives and the acute exposure guideline levels alongside other guidelines. So for example, visibility impacts of a plume on a on a road in proximity to a best area. So Pm10, you know, would potentially impact that that sort of visibility.

00:27:51:20 - 00:28:22:03

Um, the applicant confirms, um, that they will accommodate UK HSA recommendations that um, particulate matter as just discussed, nitrogen oxides and benzene are assessed together with all of the significant toxic gases produced by the selected best system. Uh, based on current assumptions of the best chemistry, these gases are likely to include carbon monoxide, methane, hydrogen fluoride, and hydrogen chloride.

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Uh, the final assessment will be based on the contemporary evaluation of the actual best chemistry and system selected

00:28:31:10 - 00:29:06:22

um reference for um on the modeling methodology. Uh Ukhsa commented that it wasn't clear that, uh, locally relevant meteorology data had been used, um, in the assessment or whether topography had been considered. And in our discussions, um, the applicant made clear that uh, meteorological data had been considered in the current modelling approach. Uh, 29 years of uninterrupted wind data from the Waddington Office weather station was utilised in the study.

00:29:07:09 - 00:29:17:01

Um, and worst case submission wind speed of two meters per second and five meters per second was applied in all directions, not just the prevailing southwesterly wind.

00:29:17:23 - 00:29:42:06

Um, so could I just just jump in there? Because I do have a question about the wind speed that was assumed within the the best assessment. And it's something the German authorities sort of jumped out into in terms of they seem to be a relatively low wind speed. So could you just explain further how the wind speeds? Was it the average that was taken from the data that you had? How how how was that formed in terms of what what filtered into the assessment?

00:29:47:26 - 00:30:22:17

Paul Gregory for the applicant. Um, so typically so it's a little bit of a misnomer. So we're just speaking generally here. Um, is that stronger wind speeds. So for example ten meters per second. Uh, and I've been involved in many plume studies and safety consequence modeling. Um, actually toxic

emissions dissipated far shorter distances. So the, the two meters per second and five meters per second where the typical night time and day.

00:30:22:27 - 00:30:58:21

Day time wind speeds within that area, and again at speeds of two meters per second, you get a the the levels of emissions sort of will reach at a further distance from the best enclosure. Okay. So typically, um, wind speed with regard to best safety has more relevance to flame tilt, i.e. the fire propagation risk rather than than the risk for toxic emission dispersion.

00:30:58:28 - 00:31:03:10

You know, it dissipates very quickly outside the proximity of the best.

00:31:07:01 - 00:31:16:10

I'm sorry to my microphone on in terms of the two in the five miles per second assumptions. If you could just explain if that was based on an average of the data, that that's.

00:31:16:12 - 00:31:33:11

The daytime release. Sorry for the applicant. So yes a daytime release. Average wind speed and a nighttime. So the two meters per second was the nighttime, uh, i.e. when it was really still. So when the emission will stretch at the furthest.

00:31:34:29 - 00:31:40:24

Okay. Thank you. If you'd like to carry on with, um, what you intended to say afterwards or were you all done?

00:31:44:05 - 00:31:46:15

Paul Gregory for the applicant. Um.

00:31:48:23 - 00:32:13:26

Yeah. So, um, just coming back to the actual site topography. Uh, again, this was discussed, uh, with Ukhsa and the topography that was used in the, in the study was, uh, urban or forest terrain based with partly cloudy conditions, which were again, um, assumed to be most representative for Springwell and included in in those modeling assumptions.

00:32:14:09 - 00:32:29:12

Okay. Thank you. So in summary, there's been some detailed discussions between the the applicant and the UK HSA and ultimately waiting to hear back from the UK HSA, whether they're now satisfied fully or not, at a fair.

00:32:30:15 - 00:32:41:29

Yes, I mean that there are two more um, uh, points which again, I can go through, but that they will it's fully included in, in the speech. In the speech notes.

00:32:42:01 - 00:32:42:16

Okay.

00:32:42:18 - 00:32:43:18

Thank you. You know, it can.

00:32:44:02 - 00:32:52:20

Okay. That's useful. And we'll ask in writing the UK HSA directly, um, what their current position is after those discussions. Okay.

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Thank you. I think we noted yesterday that we intend to submit the CCG with them at deadline one as well. I should capture those discussions.

00:33:00:09 - 00:33:01:11

Thank you very much.

00:33:05:10 - 00:33:19:00

Um, just quickly, in terms of the requirement to provide, uh, revised plume assessment or or to check that it's still relevant once the battery technology is known. Is that appropriately, appropriately secured in the draft DCO.

00:33:21:23 - 00:33:52:11

For the applicant. There's a requirement that requires us to submit the detailed battery safety management plan substantially in accordance with the outline. And the outline does include a requirement. Um, at 4.2. ten of that document. So I'm not giving you any reference there obviously. So that document is um app 0147. Um, I'll just need to bring up the exact DCO requirement. Um, I was just having a look at the wording in the battery safety management, the outline battery safety management plan.

00:33:52:13 - 00:34:05:05

We can perhaps make the wording within the plan a bit clearer, but it is secured by virtue of the requirement, um, requiring that plan to be in accordance with the outline requirement seven in the DCO, which is app 012.

00:34:05:18 - 00:34:07:18

Okay. That would be useful. Thank you.

00:34:09:24 - 00:34:35:12

Okay. Coming on to the the final point on on this agenda item. Now the the potential fire risk of fire and air pollution from the proposed facility is very significant concerns with interested parties. These include that the time assumed to distinguish a fire is too short, and there won't be enough water on site to deal with an emergency. Could I get the applicant to reply, um, to those concerns?

00:34:39:06 - 00:34:43:23

Um, Miss Colin, for the applicant, I will pass over to Mr. Gregory to to respond.

00:34:49:02 - 00:35:20:07

Uh, Paul Gregory for the applicant. So, uh, obviously at detailed design, when you have the specific system and the full, uh, test data, then again, um, the volumes of water, um, on site are agreed, signed off by an independent fire protection engineer and agreed by Lincolnshire Fire and Rescue in the indicative design and in the outline battery safety management plan.

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Um, for our supply at 1900 liters per minute, um proposed, which is double the volume, um, which is the minimum requirement under existing National Fire Chiefs Council guidelines. Um, again, there's a very sort of misunderstood, um,

00:35:45:18 - 00:36:24:03

concept is so firefighting water really is only proposed for boundary cooling by the Fire and rescue service, which is if the fire rescue service field with access to internal adjacent enclosure temperatures, batch management systems that um, the the heat flux from the fire is heating up the equipment is that then they would typically discharge, uh, uh, a water curtain or a fog misting pattern just to cool adjacent equipment.

00:36:24:14 - 00:36:59:05

So typically that would be 15 minute bursts, um, where they would then stand off and then take the thermal data that was required. You know, you're not discharging water directly on the battery systems. There is no need. If testing shows that, um, that is required, then internal suppression systems could be installed. That would, uh, have the aim to sort of, uh, cool down the systems directly and again, have separate water capture drainage solutions to that.

00:36:59:11 - 00:37:21:06

So four hours supply, you know, really the peak heat release for any current best system that I've been involved with testing and that I've reviewed data that peak fire lasts sort of 1 to 2 hours and typically. So that's when the flames and the heat are at there.

00:37:21:08 - 00:37:22:10

Sorry. Can we just stop?

00:37:23:27 - 00:37:35:11

I appreciate that everyone's very passionate about these subjects, but the applicant deserves the right to say what they want to with respect from everybody else, as they did yesterday for, for for everyone. So.

00:37:39:09 - 00:37:44:10

Mr. Williams, you can speak once we've finished the questions we wish to ask. Thank you.

00:37:46:17 - 00:38:18:25

So when I'm referring to say that two hour period, that would be when the flames of their height, their fullest extent and the maximum heat. So that is when you've got a propagation risk dependent on your spacing to your equipment. That's really, you know, where the fire service might be concerned that, um, the fire could propagate potentially. However, the rest of that fire. Typically, again, for this type of generic system that was used for the scheme.

00:38:19:10 - 00:38:50:16

We've seen sort of four burnout times of sort of 6 to 10 hours. So with a two hour peak fire within that. Okay. And then um, depending on the state of charge with the battery system at the time, if the state of charge is generally lower, then sometimes we've seen longer burn events. So for example, the Tesla fire in Boulder, uh, in Australia, which was just over 12 hours, um, because the best enclosures have high levels of thermal insulation.

00:38:50:18 - 00:39:22:29

Now, typically you will see sort of still smoldering, ongoing, you know, up to a 24 hour period just due to the plastics and the combustibles that could be contained within there. But basically, the battery system and all the gases that produce the toxic emissions and which will really fuel the fire, those burnout depending on the failure scenario. Um, you know, typically in every large scale burn test, that's a full scale burn that I've seen.

00:39:23:17 - 00:39:29:29

Uh, all tests except to, uh, have, you know, fully burnt out within that ten hour period.

00:39:31:23 - 00:39:32:21

Okay. Thank you.

00:39:33:00 - 00:40:03:01

So could I just add something here? Um, I wouldn't normally take the point, but there have been now several references to the competency of our experts and their approach. I'd firstly, just want to note, obviously, the IRA regulations require that our assessment, um, must be done by competent experts and is accompanied by a statement outlining their expertise and qualifications, which, of course, we've included in our environmental statement with respect specifically to Mr. Gregory. He's a recognized expert in his field.

00:40:03:03 - 00:40:16:27

I would just actually it might just be worth him expounding upon his experience. Um, because there have just been a few comments Now about about our our consultants. I would just like to make sure we address this by Mr. Gregory, just to do that briefly.

00:40:17:09 - 00:40:17:24

Thank you.

00:40:17:26 - 00:40:18:11

Thank you.

00:40:19:28 - 00:40:50:09

Um, Paul Gregory for the applicant. Um, so I've worked directly with, um, uh, battery system manufacturers, uh, conducted full scale burn testing, uh, tested various suppression systems, detection systems. Um, and I've also reviewed probably, uh, most, um, best systems, uh, test data on the market.

00:40:50:11 - 00:41:05:08

So UL 954 to testing third party testing. You know, I've worked with, um, planning authorities and local councils to peer review, uh, best safety, um, aspects for

00:41:06:26 - 00:41:41:21

planning projects. I work with developers to help from the indicative planning stage to ensure that site design and safety documentation, risk assessments and consequence modeling are appropriate for the proposed, uh, best schemes. Um probably tested over nine years, more than 50 different sort of battery designs and, you know, on on a weekly basis. I'm reviewing the latest systems and tests, uh, test data, um, for those systems.

00:41:44:03 - 00:41:54:10

Okay. Thank you very much for that. Um, okay. Any, uh, anyone in the back of the room wishes to say anything on, uh, air quality? Mr. Williams, thank you.

00:42:04:22 - 00:42:42:12

Thank you, Inspector. Thank you Inspector. This is going to be a bit lengthy because I've got a bit of detail to go in here. Um, the first question would be, will the details around the battery technology be submitted prior to the full application going forward? Because I don't think it's right that the applicant can can again use the Rochdale envelope to essentially get, um, get the planning inspector to okay a project without the real technology being being clear to, to us what is actually going to be on the land.

00:42:42:16 - 00:43:15:04

So, you know, using using technicalities to avoid being honest and upfront is a real issue for us. And then look, let's I don't I don't I'm not going to go into the detail. I think the, the um representing the applicant is an expert or not, but I will I will raise the point of a report are called the safety of grid scale lithium ion battery storage systems. It was produced by Doctor Edmund Fordham, a fellow of the Institute of Physics.

00:43:15:14 - 00:43:46:10

Doctor Wade Allison, a professor of physics, fellow of Keble College, Oxford University. And Professor Sir David Melvin CBE, Professor of Physics, former vice Chancellor, University of Kent. Three gentlemen who know what they're talking about. Um, they look at the electrochemical energy held within batteries. Um, and it is the equivalent of several times the energy released from the August 2020 Beirut explosion.

00:43:48:08 - 00:43:58:21

Okay. Significant. Let's not diminish it. It's significant. There are going to be nearly. I think it was 1300 shipping containers

00:44:00:06 - 00:44:32:25

with the with each of those the equivalent of a Beirut Explosion. I don't think our, our, our community really want that on our doorstep. Plus the additional battery storages that are coming through the the other applications that are coming forward. When we start looking at the, uh, the chemicals that could, um, come out of those, um, in the event of a fire. Yes. Your expert was correct. Hydrogen fluoride. Methane, ethylene, carbon monoxide.



00:44:33:00 - 00:44:42:12

All toxic gases. Ken, if it was next door to any of the applicants, would they want it? No. They wouldn't. But why should we have to have it?

00:44:44:23 - 00:44:52:03

These these acute toxics are classed as flammable and dangerous substances, and they are controlled by coma.

00:44:55:03 - 00:44:59:08

The experts that I've mentioned. Consider the HSE's.

00:45:01:19 - 00:45:19:00

Um, approach as Scientifically mistaken and legally incorrect. They need to be much more vigorous. We talk about the local fire and rescue service. As we mentioned yesterday, the vast majority of Lincolnshire's fire and rescue services are part timers

00:45:20:16 - 00:45:25:06

who have never, ever been trained to deal with lithium battery explosions.

00:45:27:11 - 00:45:35:09

We've seen the effect of these explosions. We've seen several in the UK that have burned significantly longer than two hours.

00:45:37:03 - 00:45:54:09

The explosion that happened in Liverpool, I believe, burned for nearly 18 hours. The battery storage site in Moss Moss Landing in the US most recently burned for nearly three days. But guess what? That's exploded six times.

00:45:57:08 - 00:46:18:25

Okay, so we're not talking about little incidents. We're talking about significant issues. The applicant, clearly through their experts, wanted to diminish it. They don't want the truth. You know, there's been some classroom studies. Fantastic, fantastic. Let's look at the reality.

00:46:21:17 - 00:46:27:14

1300 shipping containers packed full of lithium batteries,

00:46:29:00 - 00:46:54:23

with absolutely no control of whether or not they can explode. No one knows why. You know, it could be a technical issue. Technical things go wrong all the time. If they do go wrong, we have to live with it, not you. You'll be well gone. You'll have taken your risk, payment, etc. and be well gone. You won't have to live with the consequences. We will.

00:46:57:03 - 00:46:58:02

I'll stop there.

00:46:59:11 - 00:47:05:10

Okay. Thank you, Mr. Williams. Um, gentlemen, at the very back, I think you had your hand up next.

00:47:10:15 - 00:47:45:27

Yeah. James Goff, I'm a resident, I apologize if I repeat a couple of things from the new information today. Um, the reports reports model, uh, used is for the worst case scenario at the best site itself, with low wind speeds. However, neighboring properties will be more affected by higher wind speeds and different directions. Why haven't similar reports for the worst case scenarios for neighboring properties been undertaken?

00:47:48:09 - 00:47:56:23

Um section 3.4.6 states. Um the analysis does not does not consider the effects of smoke or part.

00:54:50:27 - 00:54:59:09

Okay, it's 1:05 and I understand that the live stream is now back up. So we'll continue the hearing, please.

00:55:08:14 - 00:55:09:14

Okay. Thank you.

00:55:11:19 - 00:55:20:29

Okay, just before we break for lunch, is there anyone else who wishes to say anything in relation to, uh, the discussions on air quality that we've had? Mr. Williams, one more time, please. Thank you.

00:55:32:02 - 00:55:52:18

Mark Williams, Springwell, um, action Group. Another quote I'd like to raise. A company called Baker Engineering and Risk Consultants, Inc. also highlighted the need to have considerable separation between each best container. So I know I might be slightly wrong. I believe you're referencing three Meters apart.

00:55:54:09 - 00:56:25:05

They are referencing and again stating that the industry insurance industry are very keen for this to be the case, that it should be 25ft between each best. Again, recognising the serious consequences of trying to stop the fire jumping from one container to the next. So, you know, again, there is a lot more out there which is highlighting, uh, highlighting the risk.

00:56:25:14 - 00:56:45:15

Um, there was one other point I wanted to raise, and I can't find it, so, um. Oh, yeah. Um, the the the the doctors, um, the experts. Right. Who I quoted one of the things they said, location matters. Buses should never be sited above sensitive groundwater zones. The aquifer.

00:56:48:19 - 00:56:55:13

Okay. Thank you very much. We'll come to the applicant if you wish to say anything in response to anything from the interested parties that we've heard.

00:56:55:26 - 00:57:32:25

It's common for the applicant. Um. Thank you. Just. I'll just pick up a couple of small points, and then I'll invite Mr. Gregory to expand upon some of the points as well. Um, just around the detailed design points. Um, you know, the detail around the technology and the types of details that Mr. Williams is talking about. Um, won't be in the application. The, um. And that's not a case of us avoiding being honest or upfront, as he puts it, but it's ensuring there's flexibility so that at the time we can make sure we've adopted the most up to date and best technology rather than being tied to, um, technology that's available now.

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So it's really in the the interest of everyone that we're able to do that and make the, you know, make the most advantage of that technology. We obviously put in place the appropriate parameters and controls, and that's largely through the battery safety Management Plan to ensure that the effects, you know are controlled. And if you look at that outline, battery battery safety management plan that we've submitted with our application. It's quite extensive and sets out the various controls that are in place. Um, the best will be subject to approval of detailed design pursuant to requirement five.

00:58:07:11 - 00:58:41:20

And that also includes that that detailed design must be in accordance with the battery Safety Management plan. And the um relevant planning authority will be, um, required to approve that detailed design. Um, that approach aligns with all of the made orders to date that have consented battery as part of a solar scheme, which I think is probably around seven. Um, in terms of the fire and rescue service, I addressed this point last night at the open floor hearing. Um, we're in discussions with them. We've agreed all matters with them in an so I think, um, the draft is before you, but when the process of getting that signed.

00:58:41:22 - 00:59:14:03

Um, hopefully by deadline one but it might be um, deadline to We've also agreed to include protected provisions in our draft development Consent Order, which funds and hosts an annual site familiarisation exercise so that the fire and rescue service comes up to site, can be satisfied that we're complying with the battery safety management plan and also is, as the name suggests, familiar with the site so that they can respond in the unlikely event there is a need to do so. Um, the updated DCO that we submitted deadline one will include those protected provisions.

00:59:14:06 - 00:59:32:25

And again, those are consistent with the made orders to date. Um, in Lincolnshire, in terms of what happens to the water in connection with firefighting, I can assure you that arrangements are in place with that and will cover that in writing at deadline one. I'm going to hand over to Mr. Gregory now, just to expand on some of the slightly more technical points, if that's okay.

00:59:33:06 - 00:59:33:25

Thank you.

00:59:36:23 - 01:00:07:16

Uh, Paul Gregory for the applicant. Um, so I think it's thank everybody for their contributions. You know, I think it's just a fair point to make that, you know, there's a lot of information on the internet, a

lot of which is misnomer, inaccurate or basically outdated. But, uh, next year there's a new revision to NFP 855, the sort of international, the approved standard for safety, battery energy storage.

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And there's just been a recent change to UL 948 that the testing, uh, protocols for all best systems, um, in the last sort of 12 months, um, in Europe and North America, um, many third party and government facilities now have new test equipment capable of capturing data from full scale, uh, best system fires so they can capture every gas and particle emitted during the thermal runaway process.

01:00:41:05 - 01:01:19:21

A module rack and enclosure level. Okay. And this is done through, um, gas chromatography and Fourier transform infrared spectroscopy. Uh, and it defines in parts per million, um, all organic compounds, toxic gases which we've, which we've mentioned and also through X-ray fluorescence, uh, heavy metal particulates. So if you're concerned about land contamination it isn't the gases. It would be particulate emissions which would be of the greater concern um, such as phosphorus, aluminium, nickel, silicon, etc..

01:01:20:06 - 01:02:04:15

Okay. Um, so I've reviewed now I think more than sort of ten full scale fire tests that not only are they, uh, capturing the specific emissions and they're able to show at what distances they dissipate, um, that those tests are also there to show that, as opposed to the 25 foot reference, that because of the high levels of thermal insulation, explosion prevention and protection systems, now typically, uh, these containers are being, um, spaced at sort of between 150 millimeter to 200mm between adjacent or back to back base.

01:02:04:19 - 01:02:38:01

And they're running full scale burn destruction tests to demonstrate that without any intervention or application of water, that the thermal insulation properties are sufficient to ensure that the fire does not propagate between best enclosures. Okay, and this is the new standard moving forward. And when it comes to detail design, you know the system will have been through these types of full scale testing. Toxic emissions will be absolutely quantified and modeled.

01:02:38:09 - 01:03:14:07

Uh, and again, that the equipment spacing that's used should be validated through a full scale destruction test without any intervention from the fire and rescue service. Well, I was referring earlier to, uh, actually higher wind speeds. It doesn't take the toxic emission further what it does on site. It means that if you do have a high wind speed and you've got, uh, back to back or side to side enclosure, what we call flame tilt, when when the wind speed it is stronger, that can flatten that flame.

01:03:14:09 - 01:03:53:13

And it would put more heat flux, uh, through the top of the enclosure. But again, that will be something that is specifically consequence modeled based on maximum wind speeds on site for five years, for example. So not only is it, you know, a real world fire toxic emission, but also a worst case scenario to fully validate, um, the final system design and safety and mitigation requirements. Uh, and just finally, obviously, a lot of points were made by the two of the authors quoted in that white paper.

01:03:53:18 - 01:04:25:10

One was heavily involved in the sonic opposition. Uh, the other was involved in Cleeve Hill. Um, they are physicists, but they've never had any access to any significant scale. Uh, best test data. They were extrapolating, um, small scale outlier laboratory testing to make claims about toxicity. Uh, and with regard to the explosion risk of Bess, uh, from real world incidents and destruction testing.

01:04:25:16 - 01:04:55:29

Safe blast radius is defined by NFPA 855 and recognized by the FCC as being 30.5m. Um, so that is just specifically Typically a risk to first responders and site operatives. There are, you know, there is no explosion risk at 300m, 500m debris or shrapnel. If you have an explosion, it will, uh, where you get a significant volume of gas ignites at one time.

01:04:56:10 - 01:05:29:07

That could sort of increase the, uh, a mission sort of radius for, for toxic gases by maybe 40 to 50%. So if you wanted to say that, you know, 70m would be at a level that is below is at one part per million or below. Well, you might say, okay. Well, uh, in the consequence modelling that might stretch to maybe 120, 130m before, uh, dissipating off to levels below that one part per million.

01:05:29:27 - 01:05:30:21

Um, so

01:05:32:09 - 01:06:09:23

again, uh, the notes will be available which drill down in sort of quite specific detail about how, uh, testing takes place, what is tested, and how. Um, you know, the applicant is confident at detailed design that, um, all mitigation and protection and risk analysis and consequence modeling, um, deals with the system, um, that will be integrated on site best systems, new systems come in at every 12 to 18 months from OEM.

01:06:09:25 - 01:06:52:16

So the reason you couldn't today state what best system you'd have in in two years time is potentially you might have two more generations, um, of best systems coming through. And because of commercial sensitivities, the the best OEMs, you know, never give advance warning on the specific chemistries. And, uh, you know, the, the, the system makeup. So it's absolutely impossible to, um, choose a battery system, uh, two years away because it's likely to be obsolete by the time detailed design and procurement comes into into play.

01:06:53:17 - 01:07:25:23

Okay. Thank you very much for that. Um, if you do have any other comments on what we've just heard, please submit them in writing. We do need to move on as we've got lots to do this afternoon still. But yeah, you're more than welcome to reply with anything at deadline one. Okay. Thank you very much. We, um, is everyone content with a slightly shorter lunch break, maybe 45 minutes, just so that we can try and get through everything this afternoon is we have run over slightly. Uh, I think it's partly because of the, the, the drama of the fire alarm, but, um. Yeah. Okay. We will come back at 2:05.

01:07:25:25 - 01:07:27:29

In that case. Thank you very much.