



CLEVE HILL SOLAR PARK

WRITTEN SUMMARIES OF ORAL SUBMISSIONS ISSUE SPECIFIC HEARING 6 - ENVIRONMENTAL MATTERS

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Revision A

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**WRITTEN SUMMARY OF CLEVE HILL SOLAR PARK LIMITED'S ("THE APPLICANT")
ORAL CASE PUT AT ISSUE SPECIFIC HEARING 6 ON 11 SEPTEMBER 2019**

1. INTRODUCTORY REMARKS

- 1.1 Issue Specific Hearing 6 ("ISH") on environmental matters was held at 10:00am on 11 September 2019 at Hempstead House Hotel, London Road, Bapchild, Sittingbourne, ME9 9GP.
- 1.2 The ISH took the form of running through items listed in the agenda published by the Examining Authority ('ExA') on 30 August 2019 (the "Agenda"). The format of this note follows that of the Agenda. The Applicant's substantive oral submissions commenced at item 3 of the Agenda, therefore this note does not cover items 1 and 2 which were procedural and administrative in nature.
- 1.3 In the hearing, agenda item 16 (safety management plan for battery storage) was covered before agenda item 3. In this note, however, it remains as item 16 so appears towards the end of the note. The ExA allowed this amendment after considering that it was unlikely to prejudice any of the parties.

2. AGENDA ITEM 1 – INTRODUCTION OF THE PARTICIPATING PARTIES

- 2.1 The ExA: - David Rose (Lead Panel Member) Andrew Mahon and Helen Cassini;
- 2.2 The Applicant:
- 2.2.1 **SPEAKING ON BEHALF OF THE APPLICANT:** - Gareth Phillips (Pinsent Masons LLP).
 - 2.2.2 Present from the Applicant: - Simon McCarthy and Hugh Brennan.
 - 2.2.3 The Applicant's legal advisors:- Claire Brodrick, Peter Cole, Ruth Taylor (Pinsent Masons LLP).
 - 2.2.4 The Applicant's consultants: Mike Bird; Mark Topping, Paul Phillips (Arcus Consultancy Services); Mike Armitage (RPS); Mark Turner (Wessex Archaeology), Ben Dawson (Curtins).
- 2.3 Leclanché (battery storage experts): Benoit Turbe; Daniel Föhr; James Naish.
- 2.4 Swale Borough Council – Graham Thomas (planning officer), Anna Stoner
- 2.5 Kent County Council – Alun Millard (Highways)
- 2.6 Natural England – Alison Giacomelli
- 2.7 Kent Wildlife Trust – Greg Hitchcock
- 2.8 GREAT – Lut Stewart
- 2.9 Graveney with Goodnestone Parish Council – Alan Stewart
- 2.10 CPRE Kent – Richard Knox-Johnston, Vicky Ellis
- 2.11 Independent interested party – Dr Bruno Erasin
- 2.12 Faversham and Swale East Branch Labour Party – Anne Salmon
- 2.13 Kent Wildlife Trust - Greg Hitchcock

- 2.14 Faversham Society – David Melville, Harold Goodwin, Matthew Hatchwell
- 2.15 Faversham & Oare Heritage Harbour Group – David Pollock
- 2.16 Faversham Creek Trust and Faversham & Oare Heritage Harbour Group - Sue Ackhurst
- 2.17 Independent interested party – Bob Gomes
- 3. **AGENDA ITEM 3 – APPLICANT’S UPDATE ON NEGOTIATIONS AND AGREEMENTS WITH STATUTORY BODIES AND LOCAL INTEREST GROUPS, INCLUDING STATEMENTS OF COMMON GROUND**
- 3.1 The ExA asked for an update on negotiations of Statements of Common Ground ('**SoCG**'), in response to which Mike Bird advised as follows:
 - 3.1.1 A SoCG tracker was submitted at DL4 (REP 4-036);
 - 3.1.2 The Applicant met with Swale Borough Council ('**SBC**') and Kent County Council ('**KCC**') on 22 August (Canterbury City Council ('**CCC**') could not attend) and had agreed a SoCG with SBC (REP 4-037);
 - 3.1.3 KCC had not been able to provide a signed version of the SoCG ahead of DL4, as discussions were ongoing relating to archaeology, drainage, highways and minerals. The Applicant is hoping to agree these points by DL6;
 - 3.1.4 The Applicant is still awaiting comments from CCC but hopes to agree an SoCG by DL5;
 - 3.1.5 There was a meeting of the Habitat Management Steering Group ('**HMSG**') on 23rd August where the key focus is the Outline Landscape and Biodiversity Management Plan ('**OLBMP**');
 - 3.1.6 Regarding Natural England ('**NE**'), a further draft SoCG was submitted at DL4 (REP 4-039). Discussions are continuing, and a signed version is due at DL5 or DL6.
 - 3.1.7 Regarding Kent Wildlife Trust ('**KWT**'), the Applicant submitted a draft SoCG at DL3 (REP 3-019) and discussions are continuing, with the Applicant seeking further agreements for DL6.
 - 3.1.8 RSPB have confirmed again in the HMSG that they do not want to engage in a SoCG;
 - 3.1.9 Environment Agency ('**EA**') agreed a SoCG (AS-017). Continued discussions have taken place regarding Requirement 16 and a paper submitted;
 - 3.1.10 Marine Management Organisation ('**MMO**') have agreed a SoCG (AS-028), and the next version of the DCO will include comments agreed therein;
 - 3.1.11 For Historic England ('**HE**'), a SoCG was submitted with some amendments from DL2 submission (REP 4-038);
 - 3.1.12 Public Health England have agreed a SoCG (AS-018).
 - 3.1.13 Lower Medway Internal Drainage Board have agreed a SoCG at DL4 (REP 4-040)

- 3.1.14 National Grid - draft SoCG submitted at DL2 [REP2-030]. Further update on negotiations expected at DL5.
- 3.2 Mr Bird noted the Applicant is continuing to liaise where necessary with consultees outside of SoCG negotiations.
4. **AGENDA ITEM 4 – APPLICANT TO SUMMARISE UPDATES AND AMENDMENTS TO RELEVANT DOCUMENTS AND ASSESSMENTS BETWEEN THE APPLICATION DATE AND TODAY, INCLUDING THE REPORT TO INFORM APPROPRIATE ASSESSMENT**
- 4.1 Mr Bird provided a summary of relevant updates and amendments save for where specific content is subject to further agenda items. He confirmed that updates were submitted at DL4 for: dDCO; outline Landscape and Biodiversity Management Plan ('**OLBMP**'); outline Construction Environment Management Plan ('**OCEMP**'); outline written scheme of investigation; tracked change versions of the following documents: the outline Construction Noise Management Plan, the outline Construction Traffic Management Plan ('**CTMP**'), outline Design Principles, and the Mitigation Schedule.
- 4.2 Mr Bird reported that the Report to Inform the Appropriate Assessment is still to be updated which is likely to take place for DL6, and that revised versions of screening and matrices submitted at DL3 [REP3-023]. The following new documents were submitted at DL4: the outline battery fire safety management plan and the skills supply chain and employment plan [REP4-047].
5. **AGENDA ITEM 5 – APPROACH TO THE EIA AND METHODOLOGIES USED**
- 5.1 **Updates to the mitigation route map for those measures identified as necessary in the Environmental Statement, and where and how they will be secured in any DCO;**
- 5.2 No matters raised.
- 5.3 **Updates to the OLBMP;**
- 5.4 No matters raised.
6. **AGENDA ITEM 6 - UPDATE ON HRA; EFFECTS ON EUROPEAN AND RAMSAR SITE QUALIFYING FEATURES AND ADEQUACY OF, AND MECHANISMS FOR SECURING, THE NECESSARY MITIGATION MEASURES, TRIGGERS AND REMEDIAL ACTIONS / ADAPTIVE LAND MANAGEMENT MEASURES WHERE NECESSARY, AND ONGOING MONITORING AND MAINTENANCE**
- 6.1 **SPA CNMP / BBPP / OCEMP;**
- 6.2 No matters raised by the Applicant.
- 6.3 **Arable Reversion Habitat Management Area ('ARMHA');**
- 6.4 Mr Bird noted that the calculations were discussed at the HMSG on 23 August and the Applicant felt that progress had been made. Mr Bird stated that this will be communicated to the ExA in further updates to the SoCGs with Natural England and Kent Wildlife Trust for DL6.
- 6.5 **Fertiliser application rates**
- 6.6 Mr Bird responded to comments from NE and KWT on a report produced by the landowner's agricultural consultant (REP4-050) stating that the reason for the qualified wording in the OLBMP is because of concerns regarding the availability of ivermectin free manure to apply on the land. He confirmed that it is relevant that written

representation [REP4-050] demonstrates the large amount of chemicals put on the land in the baseline situation. Mr Bird was supportive of the need to ensure that the expected benefits to invertebrates are realised but the baseline conditions of the birds' use of the land under the intensive arable cultivation should not be ignored. He confirmed that further supporting evidence would be provided for Deadline 5 (DL5 submission document reference 13.6.2) and any updates necessary will be added to the OLBMP ahead of DL6.

6.7 Replying to an ExA question, Mr Bird confirmed that further comments from Bob Gomes had been responded to the Applicant's Responses to Deadline 3 submissions submitted at Deadline 4 [REP4-041] and that where applicable, updates to the Outline LBMP would incorporate Bob Gomes suggestions.

6.8 **Seed Mixes**

6.9 Mr Bird confirmed in response to comments from Mr Gomes that references in the OLBMP to native black poplar would be reviewed for the next iteration.

6.10 **Dr Gilling's report on ARHMA**

6.11 No matters raised by Applicant.

6.12 **Ground preparation**

6.13 Mr Bird confirmed in response to an ExA question that relieving compaction by subsoiling before seeding the AR HMA will be taken on board and will be included in the next iteration of the OLBMP. He also noted that because meetings were so close together it was hard to ensure all parties were looking at the most up-to date documents. He stated that an updated OLBMP will be circulated to HMSG members and then submitted at DL6. He asked that any further revision suggestions be submitted at DL5.

6.14 **Timing and sowing of seeds for grassland/ stock proof fencing**

6.15 Mr Bird stated in replying to an ExA question in relation to seeding, that section 16 of the OLBMP now included sowing timetables based on different construction start dates, which was welcomed by HMSG.

6.16 **Grazing control and options**

6.17 The ExA queried why paragraph 15.7 of Appendix J conflicts with paragraph 15.11 of the OLBMP in relation to managing the sward length. Mr Bird stated that paragraph 15.11 refers to mechanical cutting as an alternative option to manage the habitat in order to maintain flexibility within the OLBMP. He stated the preferred intention was to use grazing, but to give the flexibility for mechanical cutting to be used if necessary. Mr Armitage also stated in response to VE of CPRE Kent that the timing of any mechanical cutting in July would minimise any impacts on ground nesting birds.

6.18 **Monitoring plans**

6.19 Mr Bird advised the ExA that he would consider Appendix A of the OLBMP at paragraph 52 (the Marsh Harrier survey) why year one was excluded.

6.20 Mr Bird replied to an ExA question stating that the Applicant could incorporate a yearly inspection of the AR HMA by a suitable grazier and an annual inspection of the water control structures into the OLBMP.

6.21 In response to a question from CPRE Kent on what 'incredibly small loss' on pages 8 and 9 of the updates to the OLBMP meant for reptile habitat, the Applicant advises

that on page 9 this is quantified as 0.13 hectares and is relative to the total size of the application site (0.03% of 491.2 hectares).

6.22 Triggers and remedial adaptive land measures; Role of HMSG

6.23 In answering an ExA question on how the effectiveness of mitigation would be monitored Mr Bird referred to the flowchart in section 17 of the OLBMP, which he confirmed had been discussed at length at the HMSG. Mr Bird stated that he considered that this process would be adequate in ensuring feedback and remediation measures will be secured.

6.24 The ExA stated a concern that the roles and constitution of HMSG should be formalised in the OLBMP and include meeting frequency. Mr Bird agreed that this could be added and welcomed suggestions from NE and KWT at DL5. It was noted that the DL4 submission from NE contains a schedule that could be used.

6.25 The ExA queried what the ongoing role of SBC would be once the requirements had been discharged. Mr Bird confirmed that their role would end.

6.26 The ExA asked both parties to take this point away to consider and Gareth Phillips stated that there were a number of bodies that could 'whistle blow' and trigger enforcement action from SBC. Alternatively, he advised that the Applicant could provide reports to SBC so there is a record of any meetings.

6.27 SBC noted that quarterly meeting could be incorporated into the OLBMP, citing that this had been done for unusual projects in the past. The Applicant agreed to take that away to consider and provide updates to the OLBMP for Deadline 6.

6.28 Habitat within the solar array for marsh harrier;

6.29 Responding to comments from Mr Gomes on the behaviour of Marsh Harriers, Mr Phillips briefly explained the legal requirements in relation to HRA. Absolute certainty is not required. A judgment is required to be made by the Secretary of State, beyond reasonable scientific doubt, that there will not be adverse effect on integrity, following an assessment having regard to best available evidence. The Applicant has made legal submissions on this point at Deadline 2 (REP2-027), where paragraph 3.3. in particular, summarises the legal tests. Mr Phillips also stated that 55% of the site will remain the same for the marsh harriers with the total arable site being improved. Mike Armitage then clarified that 55% includes the land between the arrays, with at least 15-20% being the ARHMA and LGM HMA, in addition to the existing SSSI. He was of the opinion that marsh harriers will be attracted to these areas of undeveloped grassland habitats and would then use the grassland swathes between solar arrays.

6.30 In answering an ExA question regarding the halting of construction if establishment of the grasslands does not meet expectations and carrying capacity of target species, Mr Armitage responded, stating that temporary loss during construction was assessed in the ES as not significant, on the premise that in some years those species for which the grassland mitigation is provided do not use the site; therefore the Applicant cannot say there would be a significant effect.

6.31 The ExA requested clarification of paragraph 58 of the OLBMP rev 3. Mr Bird confirmed that this was an error in terminology and an error in relation to length, height and width that would be addressed in updates.

6.32 The ExA then cited paragraph 82 of Appendix B, again in relation to how grazing areas were defined. Mr Bird stated he would take that question away and correct if necessary.

- 6.33 The ExA quoted paragraph 52 and asked when the Applicant planned to make a decision regarding sampling small mammals given their importance as prey for the marsh harriers.
- 6.34 Mr Bird confirmed that the Applicant would undertake additional monitoring if marsh harrier use was lower than expected.
- 6.35 The ExA also questioned whether there should be definitions in the OLBMP where the document refers to consultees and parties.
- 6.36 Mr Bird confirmed that there would be a further review of the structure of the OLBMP, noting they doubted this would be helpful given all parties were now familiar with the document.
- 6.37 **Other HRA issues;**
- 6.38 In reply to an ExA question, Mr Armitage stated the Applicant's position on the SPA is that there is no adverse effect on integrity of the Swale SPA, as written in the conclusions of the RIAA.
- 6.39 Mr Phillips responded to comments from NE stating that details of the HMSG's involvement could all be included in the OLBMP and that the level of remaining uncertainty regarding marsh harrier behaviour was within what the law permits in HRAs in both legislation and case law.

7. **AGENDA ITEM 7 – UPDATES ON EFFECTS ON EUROPEAN, NATIONALLY AND OTHER IMPORTANT WILDLIFE AND HABITATS AND ADEQUACY OF, AND MECHANISMS FOR SECURING, THE NECESSARY MITIGATION MEASURES, TRIGGERS AND REMEDIAL ACTIONS / ADAPTIVE LAND MANAGEMENT MEASURES WHERE NECESSARY, AND ONGOING MONITORING AND MAINTENANCE**

7.1 **Water voles and European eels**

7.2 Mr Bird responded to an ExA question on whether the aims of the OLBMP were specific enough on the design and location of eel and elver friendly culverts that in drawing together other submissions and with reference to the Eels (England and Wales) Regulations 2009 they could include more detail on the process and design of the water control structures. In relation to specific design at each location, Mr Bird noted that the Applicant had submitted an RSPB document showing different control measures to be confirmed at the detailed design phase, to ensure flexibility in the outline plans.

7.3 Mr Bird addressed comments by CPRE Kent on eels, stating that the Applicant would respond fully in writing and this will be through updates to the OLBMP which are now expected to be made for DL6. He noted the site will be constructed subject to the Eel Regulations; the water quality monitoring programme already proposed in the OCEMP which is expected to confirm the beneficial effects of the development on water quality, references to eel and elver monitoring in the OLBMP and the need to consult relevant landowners on the provision of an eel and elver passage at the Nagden Sluice meaning this could not be committed to by the Applicant in writing. Mr Bird also stated that the Applicant would consider the appropriate baseline to compare against.

7.4 **Hazel dormouse;**

7.5 Mr Bird responded to an ExA question stating that the Applicant is still seeking confirmation of the presence of a dormouse nest and that a survey was being conducted on site with an update therefore expected at DL5.

- 7.6 **Other issues;**
- 7.7 None were raised
8. **AGENDA ITEM 8 – ANY OTHER BIODIVERSITY AND NATURE CONSERVATION MATTERS**
- 8.1 Mr Bird responded to an ExA question on whether grazing was intended for the lowland meadow grassland stating that the intention is to achieve a habitat type through mechanical cutting or grazing as appropriate. He described that both options were included in order to retain a level of flexibility to ensure the land can be maintained in the most effective way.
- 8.2 Mr Phillips addressed an ExA question on the weight that should be placed on the meeting notes from the HMSG confirming that the notes should be afforded the same weight as an SoCG, unless any attendees dispute the content of the note. Both NE and KWT confirmed they were content with the note.
9. **AGENDA ITEM 9 – ANY OUTSTANDING CULTURAL HERITAGE MATTERS**
- 9.1 Mark Turner explained in response to comments from GREAT that Oyster Bay House, Oare Church House, Saint Peter's Church and Pheasant Farm House were not missed from the assessment. He stated all assets within a 5km radius were considered as part of the EIA process, but that detailed consideration has been given to those within 1km where it was considered that there was the potential for a likely significant effect. Some assets beyond 1 km had been considered, and both KCC and HE had been consulted on which assets should be specifically considered. Mr Turner stated that none of the four sites had been previously raised in consultation and were not considered to be subject to such a change in their settings that would harm the significance of the assets.
- 9.2 Mr Turner responded to comments from Swale Labour Party, stating that the differing opinions on the degree of harm represented within the category 'less than substantial harm' were a matter of professional judgement on the degree to which "setting" contributed to the "significance" of a heritage asset.
- 9.3 Mr Bird addressed an ExA question on the World War 2 pillbox being used as a bat roost, stating that the Applicant was aware of this and had seen KCC's response supporting this use. Mr Bird stated in regard to remedial measures that a management plan will be set out in updates to the OLBMP and noted that as there is no control of vegetation currently, there would be an improvement from the baseline.
10. **AGENDA ITEM 10 – ANY OUTSTANDING MATTERS RELATING TO PUBLIC RIGHTS OF WAY**
- 10.1 Mr Phillips confirmed that a potential new footpath was being progressed as a community benefit style goodwill gesture, as it was a long-term aspiration of KCC to dedicate the footpath. The footpath, he stated, is not associated with the development nor a mitigation measure so falls outside of the DCO's remit.
- 10.2 Mr Bird provided an update on conversations with landowners. He stated the Applicant was still waiting for responses from some, including NE, in order to progress the dedication which would also require KCC's acceptance.
- 10.3 Mr Phillips confirmed that the Applicant would be happy to enter into a permissive path agreement.
- 10.4 Replying to an ExA question, Mr Bird confirmed that progress on discussions regarding potential path closures will be in the SoCG with KCC to be submitted at DL5, although this is now expected to be submitted at DL6.

- 10.5 Replying to a question from Graveney with Goodnestone Parish Council, Mr Phillips confirmed that the lease timescales are 26 years plus a 14-year option to extend.
11. **AGENDA ITEM 11 – LANDSCAPE AND VISUAL IMPACT ASSESSMENT MATTERS**
- 11.1 **Cross-sectional drawings provided at Deadline 3;**
- 11.2 To answer an ExA question on the implications of the development for the view from Harty Church, Mark Topping described that the long cross sections (REP4-029) demonstrates the limits of what can be seen from the church. He noted that there would be limited visibility as only the tops of the panels can be seen (c.0.5m – 0.75m above the sea wall).
- 11.3 Mr Topping confirmed that this did not change the assessment. He also confirmed there was no east/west visibility from Faversham Creek apart from views of the taller structures within the site compound but not the panels. Mr Topping advised that he had undertaken another site visit to the 'Take a Pew' seat along the Saxon Shore Way and that approximately 0.1-1m of the top of the panels would likely be visible.
- 11.4 In reply to an ExA question on visibility from a boat at astronomical high tide, 1.5m above the water level, Mr Topping stated there was no visibility from this point or any other locations in the cross section provided, but that there were some areas with some visibility from the water.
- 11.5 Responding to comments from on behalf of Faversham & Oare Heritage Harbour Group and Faversham Creek Trust, Mr Topping stated that the cross sections provide further clarification, and that there are no level changes around the panels, only in the compound areas. He also described the use of detailed LIDAR data up to the sea wall; AOD heights, and that the receptor was placed on top of the barge in the worse case scenario of high tide.
- 11.6 Mr Topping stated that he was happy to look into any further information that was provided by on behalf of Faversham & Oare Heritage Harbour Group who suggested a height of 3m would be appropriate for the barge they described in their deadline 4 written submission. Mr Topping agreed that it would be possible to provide a section with a revised viewing height of 3m. He also noted that a topographical figure had been submitted as part of the ES and that the barge height was taken from onsite observations as well as research into boat dimensions similar to those used on the Swale.
- 11.7 **Any other landscape or visual matters**
- 11.8 The ExA asked the Applicant to confirm the adequacy of the ES in relation to bund height, given that it is now proposed to limit the bund to 6.28m AOD, a higher level than assessed in the ES.
- 11.9 Mr Topping advised that although the height of the bund would be slightly larger, there would be a reduction in what was seen in the compound as a result. He confirmed that this makes no difference to the assessment. He confirmed that the background landscape provides a back clothing effect to the bund and that the presence of the existing Cleve Hill substation and other buildings reinforced this. He noted that mitigation planting would also be higher with resultant mitigation of existing and proposed infrastructure within the bund. He also noted that the main views are east/west from the Saxon Shore Way and would be mitigated by existing planting and further back clothing from vegetation associated with the fruit farm landscape beyond.
- 11.10 Mr Phillips on behalf of the Applicant stated that negotiations are ongoing with the London Array parties, and that the parties would take stock on 30 September, by when it is hoped there will be an agreement on the southern access route. Mr Phillips

stated that the preference is for southern access, and that a progress update would be submitted at DL5.

12. AGENDA ITEM 12 – ANY OUTSTANDING MATTERS RELATING TO NOISE

12.1 Replying to a query from GREAT, Mr Phillips explained that the changes to the construction timeframe were a result of the iterative design process and the gradual addition of detail. Mr Bird added that the additional 6-month period was a result of a new proposal to possibly split the development into two phases, though he advised that this is yet to be confirmed.

13. AGENDA ITEM 13 – TRAFFIC AND TRANSPORT

13.1 CTMP;

13.2 Ben Dawson responded to a question from the ExA, stating that based on a robust vehicle frequency estimates and through careful planning and mitigation, an off-site holding area for Heavy Good Vehicles (HGVs) was not considered necessary.

13.3 Mr Dawson stated the following in response to comments from SBC:

13.3.1 The assessment for the Cleve Hill project assesses a predicted daily two-way HGV peak of 80 (40 vehicles). This compares with a daily two-way HGV peak of 60 (30 vehicles) assessed as part of the London Array project;

13.3.2 Panels arriving by boat are expected to be held at the port of entry prior to being released in a controlled manor for onward transport to the site;

13.3.3 Similar to the London Array substation project, the Cleve Hill CTMP also includes a commitment to avoid Graveney Primary School start and end times;

13.3.4 Road condition surveys will be undertaken prior to construction starting and remedial works will be undertaken where necessary to bring the carriageway surface to an appropriate standard at this point. The road surface condition will be monitored throughout construction and repairs undertaken as required. Furthermore, an additional survey will be undertaken post construction and any road damage attributable to the Cleve Hill project will be remediated as described in the CTMP.

13.4 Answering points from SBC, Mr Phillips noted that one of the lasting complaints regarding the London Array Substation project was the poor state the roads were left in after and confirmed that this would not be repeated. Mr Phillips clarified that the consent is not the end of discussions and that there would be plenty of time to change aspects of plans in the future. He noted that a final CTMP will be submitted for approval by SBC, with KCC as consultee – this point will be the opportunity to raise any suggestions.

13.5 The ExA then raised Mr King's submission at DL4 on the CTMP and asked that the Applicant address these at DL5. Mr Phillips confirmed they would be addressed (document reference 13.4.1).

13.6 Any other outstanding matters relating to traffic or transport.

13.7 Responding to a query from Mr Gomes on how the Applicant would be able to ensure controlled movement of traffic onto the site from local ports, Mr Dawson responded that GPS tracking and 'real time' traffic information could be used to control and accurately plan vehicle movements from the ports to the site. The ports expected to be

used to transport goods and equipment to the site are all located within 50km of the site.

14. **AGENDA ITEM 14 – ANY OUTSTANDING MATTERS RELATING TO THE WATER ENVIRONMENT**
- 14.1 **Pollution Prevention Plan ('PPP');**
- 14.2 Mr Bird responded to comments from the ExA on the PPP, stating that pollution prevention measures are contained in the OCEMP and that there are embedded measures of the incident management plan in each section. He accepted that clarity needed to be improved so it would be clear what these measures are. Mr Bird advised that the Applicant will consider this for an update to the OCEMP at DL5.
- 14.3 **Drip line rilling and susceptibility to soil erosion;**
- 14.4 Mr Bird responded to comments from the ExA regarding rain pooling stating that Section 6 of the Flood Risk Assessment contained details of solar panel run off. He described the details and noted a slight conflation of dripline erosion, rilling (surface water run off creating channels) and other impacts. Mr Bird noted that the site is flat, so areas will be pre-seeded prior to construction to ensure vegetation protects against dripline erosion. He also noted that rilling was not considered as an issue except in extremely localised areas.
- 14.5 Mr Bird noted it would be helpful to produce a topographical map for the site in order to provide more clarity on this issue and noted the need to clarify plans to allow KCC to respond in the SoCG for DL6. He noted the drainage strategy will only be required at the detailed design phase.
- 14.6 **Containment of any pollution or contamination from the battery storage and substation compounds;**
- 14.7 No issues raised - covered by agenda item 16.
- 14.8 **Any other matters relating to the water environment.**
- 14.9 Mr Phillips responded to comments from Dr Erasin confirming that the Applicant had made a commitment to a containerised, lithium-ion battery.
15. **AGENDA ITEM 15 – AGRICULTURAL LAND CLASSIFICATION**
- 15.1 No issues raised by Applicant.
16. **AGENDA ITEM 16 – SAFETY MANAGEMENT PLAN, ESPECIALLY FOR BATTERY ENERGY STORAGE SYSTEM / FIRE PRECAUTIONS AND MANAGEMENT MEASURES / LIAISON WITH EMERGENCY SERVICES / DEFINITION OF PROPOSED SYSTEM AND EIA**
- 16.1 **Fire Safety**
- 16.2 Daniel Föhr provided a brief overview of Leclanché. He described their experience across different industries and global locations, installing 150 MWh in the last 2 years across North America and Central Europe. Mr Föhr described Leclanché's track record on storage systems with high safety requirements. Benoit Turbe introduced himself as the technical proposal manager with 13 years of experience in lithium ion batteries ('LIBs'), mainly for aircraft and railways.
- 16.3 Mr Föhr replied to comments from the Faversham Society, describing the battery containers and the fire suppression system within the containers. He stated that the safety distance between enclosures of 3m is calculated with reference to battery

energy density so as to prevent propagation. Mr Föhr described how these safety rules can be replicated on any scale, from 100 MWh to 1 GWh, as long as safety measures prevent propagation.

- 16.4 Mr Turbe responded to further queries from the Faversham Society on safety, noting that Leclanché were aware of the Allianz Insurance report [REP4-032]. He described the paradigm shift in LIBs during the past 2 years, following investigations by the Korean government and the re-design of battery cell regulations by Samsung and LG. Mr Turbe also noted that all events happened within construction phase and that the causes were often misbehaviour of electrical systems on site. He advised that Leclanché had taken note and improved their designs, which includes early detection in the enclosures prompting early shut down of systems making them more reliable than 2 years ago.
- 16.5 Regarding experience of similarly sized installations, Mr Föhr stated that Leclanché see the project not as one large battery, but as a scaling up of smaller installations, meaning the size does not affect safety as each container will have the same safety mechanisms within it. He stated that the largest installation Leclanché currently operate is for a German wind farm with 34 MWh of LIB. Mr Föhr advised that the largest in the development stage is 48 MWh to integrate a solar park on St Kitts.
- 16.6 The ExA asked at what stage during installation prevention and protection measures come into force, and Mr Föhr stated that these would be installed unit by unit during the first energisation of each battery and that population of battery modules into an enclosure would only be conducted when safety measures such as Fire Detection and Suppression is fully commissioned and active.
- 16.7 Mr Föhr also confirmed in response to a question from the Faversham Society that the project will be the largest single battery storage, the largest so far being by Tesla in Australia, and reiterated that they considered that scaling up would not impact safety risk levels.
- 16.8 In response to points on runaway fires from the Faversham Society, Mr Turbe gave the example of a LIB on a Boeing 787 and described how all of the safety measures were subsequently replaced as a demonstration of how incidents lead to improvements in regulations.
- 16.9 Replying to an ExA question on whether the safety measures outlined were industry standard or Leclanché specific, Mr Föhr described how the market has adapted industry standards in light of the recent incidents, citing that on top of that there is experience within Leclanché. Mr Föhr stated that IAC and UL standards for batteries have, or are likely to be, adopted by most governments.
- 16.10 Mr Phillips addressed the Faversham Society's request for regulations to be set out in the DCO, noting the following:
- 16.10.1 It would not be the place in the DCO to replicate existing safety requirements and that the DL3 submission covering the legislation and guidelines applying to battery safety [REP3-021] had been considered by the Health and Safety Executive ('HSE'). Mr Phillips reported that the HSE expect an increase in legislation and evolving design standards over the next few years given the recent incidents;
 - 16.10.2 This is only the consent phase, there is a suite of regulation that will apply to the operational facility;
 - 16.10.3 Kent Fire and Rescue Service ('KFRS') have stated that they want a specific fire response plan for energy storage facility;
 - 16.10.4 Both HSE and KFRS will be consulted on final plans.

- 16.11 **Safety implications for different climates/ population density**
- 16.12 Mr Föhr responded to points from the ExA and Faversham Society on experience in different climates, noting that Leclanché have experience in wetter and windier locations, and in such conditions used a higher standard of coating for coastal areas (C5M). He advised that all pedestrian doors are also subject to a higher sealing standard (IP54 and IEC 12207 Class 4). Regarding experience in populated areas, Mr Föhr also gave example of installations in city centres in Bremen in Germany and the Netherlands.
- 16.13 The ExA asked Leclanché to explain how the safety measures could be extrapolated to apply over the 40-year operational life of the site and the involvement of external agencies. Mr Turbe responded that a programme of maintenance every 6 to 12 months would be set up. He advised that the quality of metal coating, sealing and air conditioning would be verified to confirm that all equipment remains safe over the operational life of the site. Mr Föhr provided an example from Berlin where the team on site are responsible for maintenance and constantly collect data and check fire suppression equipment every 14 days. He advised that for that project the local fire brigade check their fire equipment that is on site and all equipment was verified when it was installed by an independent safety body.
- 16.14 Mr Phillips added to this by outlining the inspection powers of the HSE and the sanctions that exist under the Health and Safety at Work Act 1974 that, at their most extreme, extend to criminal liability for corporate manslaughter. He noted that the HSE can impose sanctions after a site inspection if they can see there is an issue; he noted that there is no requirement to wait until an incident happens. Mr Phillips advised that a DL3 submission from the Applicant had summarised this legal framework [REP3-021]. Mr Phillips also noted that the safety management plans were a work in progress and would be subject to further refinement.
- 16.15 Replying to a query from Dr Erasin relating to the number of containers required to achieve 700 MWh of storage capacity, Mr Turbe provided a full description of the dimensions of the containers. A 40ft container (at 12m x 2.5m x 2.9m height) would house 6 MWh using current technology, therefore there would be around 120 containers for approximately 700 MWh of storage capacity.
- 16.16 Mr Phillips responded to a question from Faversham Creek Trust on insurance stating that negotiations are ongoing regarding an agreement for insurance. He noted that the Applicant would not begin construction without having the insurance in place, and that the level of public liability insurance will be discussed with the insurers.
- 16.17 In response to a question from the CPRE Kent on the size of the maintenance team, the Applicant advises that the operational management team is likely to consist of approximately 4 permanent members of staff based on approximately MWh of storage capacity.
- 16.18 The ExA then asked Leclanché to clarify what safety measures are taken during construction, given this is still the highest risk stage. They also asked whether safety has improved over the years.
- 16.19 Mr Föhr responded that each battery tested on site with voltage and insulation and as part of the new standards, each module has a shock sensor that will identify any prior damage. He also stated that safety has improved over the years. Containers/enclosures arrive with all fire suppression systems already integrated/installed and are in a working condition prior to populating with battery modules.
- 16.20 Mr Phillips responded to a point on drafting of Requirement 2 of the DCO from SBC, stating that the safety management requirement was a space filler at the time the latest version of the dDCO was drafted, as there was no draft Fire Safety

Management Plan for HSE's review. He confirmed that all parties are aligned and that for DL5 safety management would be separated into a new requirement. Mr Phillips advised that this would include the requirement to consult with KFRS and HSE. He also confirmed that the requirement could not include approval from KFRS/HSE because this would go beyond their legal remit.

- 16.21 Following a question from the Faversham Society regarding how the project would incorporate developments to battery technology (vanadium redox batteries), Mr Phillips confirmed that the DCO would seek flexibility to account for technological improvements.
- 16.22 Answering an ExA question on potential battery leakage, Mr Föhr described the early warning system, designed to detect leaks before they can cause any damage. He advised that the Energy Management System would initiate an immediate shutdown of the affected battery system. Mr Föhr noted that leakage of one cell would only be a few grams so would be easy to contain within each container and would not reach the ground.
- 16.23 On points made regarding decommissioning, Mr Phillips made the point that it is difficult to capture regulations now as they will change over the 40-year life of the project. He described the trigger for a decommissioning plan to be produced, starting with SBC sending a notice to the Environment Agency. Mr Phillips also described how enforcement powers under the Planning Act 2008 could be used to claw back money from the company or specific persons who originally caused the pollution.
- 16.24 Mr Phillips confirmed in response to a question from CPRE Kent that it is a design requirement that the height of the containers cannot be higher than the height of the bund and therefore the containers cannot be double stacked.
- 16.25 **Air Quality (AQ)**
- 16.26 Paul Phillips responded to comments made in the representations by Dr Erasin on air quality risks that a representation had been prepared by the Applicant in response [REP 4-051]
- 16.27 Dr Phillips advised that data had been taken from Leclanché, describing the emissions of hydrogen fluoride and carbon monoxide from a fire burning the whole battery within a single storage container, which means that the internal fire suppression system would have failed. He stated that this therefore is a conservative approach.
- 16.28 Dr Phillips stated that the Applicant had modelled the dispersion of the emissions using software called ADMS ('Air Dispersion Modelling Software'). He advised that this models the dispersion and movement of emitted gases in response to:
- 16.28.1 Emission concentrations, speed and direction;
 - 16.28.2 The temperature of the gas;
 - 16.28.3 Weather and atmospheric conditions; and
 - 16.28.4 The surrounding landform – structures, etc.
- 16.29 Dr Phillips stated that ADMS is industry standard software that is referred to in guidance and accepted by the regulatory bodies, such as Councils and the EA.
- 16.30 Dr Phillips stated that the maximum release rate of hydrogen fluoride ('HF') and carbon monoxide ('CO') identified by Leclanché during such a fire has been modelled as a continuous emission for a year. He confirmed that meteorological data representing conditions for each hour of 2018 recorded at London City Airport were

used, to give a realistic representation of wind speeds, directions and atmospheric conditions.

- 16.31 The model predicted, Dr Phillips said, concentrations of HF and CO at the nearest residential properties, Crown Cottages, around 200 m to the south of the site compound. Concentrations further away would be lower, he noted.
- 16.32 The concentrations were compared to Acute Exposure Guideline Levels (AEGLs), published by Public Health England. Dr Phillips advised that the appropriate threshold for a rare, emergency event that could affect people's health is AEGL2, which is described as "the level of the chemical in the air at which there may be serious long-lasting effects or impaired ability to escape".
- 16.33 The worst-case emissions, combined with the worst-case weather conditions, gave an outdoor concentration of HF at the worst-case sensitive receptor of less than half a % of the threshold for HF, and around 20% for CO. Dr Phillips noted that concentrations would be lower indoors. Given an event would last for 3-5 hours, these concentrations would soon reduce, he advised.
- 16.34 Dr Phillips stated that the assessment contains a highly precautionary degree of conservatism, and even if a fire did occur, and the fire suppression systems fail, it is highly unlikely that the predicted levels would actually occur at residential locations. Overall, he advised, the assessment shows there would be no threat to health at residential properties from a battery fire within the compound.

17. **AGENDA ITEM 17 – ANY OTHER OUTSTANDING ENVIRONMENTAL MATTERS**

- 17.1 Mr Bird provided an update on the minerals assessment. He confirmed that the Applicant met with KCC on 22 August where they flagged where further work needed to be undertaken. Mr Bird confirmed that the aim is to incorporate the assessment into the SoCG at DL5 or DL6.
- 17.2 Mr Bird advised that the ExA that no parties had been consulted on the skills and employment plan and that information on the timescales for it would be provided at DL5.
- 17.3 Mr Phillips provided an update that the EA's Medway Estuary and Swale Strategy ('MEASS') has been finalised and will be published online soon. He confirmed that the MEASS had been shared with the Applicant on 10 September and that there are no substantive changes from the consultation version. Mr Phillips advised that once published it will be submitted to the examination.