



# **CLEVE HILL SOLAR PARK**

## **THE APPLICANT'S RESPONSES TO EXQ2 - APPENDICES Appendix 8 – Kent Fire and Rescue Service Meeting Notes - 20 August 2019**

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**CLEVE HILL**  
SOLAR PARK



## Meeting Note

Project: Cleve Hill Solar Park

Type: Notes from Telephone call between Kev Edwards (KE), Kent Fire and Rescue Service and Mike Bird (MB), Arcus Consultancy Services Ltd – 20/08/2019 to discuss Cleve Hill Solar Park

Date: Tuesday 20 August 2019

Location: Telephone Call

Present: Kev Edwards, Kent Fire and Rescue Service [KE]  
Mike Bird, Arcus Consultancy Services Ltd [MB]

### Notes:

- MB and KE – discussed the reason for the call, that Kent Fire and Rescue Service (KFRS) is looking to obtain as much information as possible in relation to the proposals. KE highlighted that KFRS has been contacted by other organisations and their role is to provide guidance in respect of fire safety and ensure that KFRS has adequate information to enable any emergency response required to be as effective as possible.
- MB – made clear that Cleve Hill Solar Park Ltd (CHSPL) is keen to engage with KFRS and other organisations to ensure that the facility is as safe as possible. CHSPL also welcomes the safety concerns raised at this stage and the opportunity to address those concerns through consultation and to demonstrate that the development can be operated safely.
- MB – explained that an Outline Safety Management Plan is being developed which will incorporate the measures discussed and will be subject to consultation and review by KFRS.
- KE – set out that KFRS is keen to work with CHSPL to ensure the Development can be delivered safely. KFRS has limited information available on battery technology, but is working on updating its information with reference to information on EVs, American research, such as NFPA 3 year project into Li-Ion battery safety ([link](#)) that is available regarding planning and training, and through engagement with developers, such as CHSPL to continue learning and developing procedures as a result.
- KE – set out that KFRS has procedures for EV fires, but currently not for BESS. KFRS are helping to develop National Operational Guidance in relation to this technology to get safe systems of work in place. At the moment there are two key strategies depending on the scenario – letting a fire burn out and dousing with copious amounts of water. KFRS is aware of risks such as thermal runaway and reignition at a later date. Mitigation through good design and including fire detection and

suppression measures in the design are a key part of the solution – preventing fires from occurring and spreading in the first place.

- KE - set out other considerations such as ensuring access to the site including to the electrical compound over the bund, safe access for fire appliances and ensuring an available water supply. Whether personnel are permanently based onsite or if the site is managed remotely also has a bearing on the regulatory regime that applies.
- MB – explained that the UK Health and Safety Executive has been contacted and that CHSPL intend to obtain a review of the Outline Safety Management Plan by HSE.
- KE – set out basic procedures for dealing with EV vehicle fires, including isolating the power supply, using copious amounts of water to cool the batteries. In some instances, fires may be allowed to burn out if there is not water available, or the fire is located in a groundwater protection zone for example.
- KE – set out that fire suppression measures may not fully extinguish a fire but contain it and stop the spread. Other design mitigation such as separation between containers or battery units and the containers themselves can be designed to stop the spread. KFRS need to know what the manufacturer’s recommended procedure is for each site.
- KE – outlined that for particular sites, it is not uncommon for containment and fire treatment measures to be held onsite, such as foam supplies at gas and oil storage depots and there may be equivalent solutions for energy storage.
- KE – asked that where measures are proposed, it is clear that they are being committed to, without qualifying terms such as “where practicable”.
- KE – set out the importance of the availability of a sufficient water supply and whether any private hydrant are available in the area. **ACTION** – KE to request information internally. **ACTION** – MB to request information from London Array Ltd
- KE / MB discussed dousing with water and any implications for water quality. KE responded that KFRS check if the location is in a ground water source protection zone and that determines whether large volumes of water would be used. **ACTION** – The Development lies outside Groundwater Protection Zones 1, 2 and 3.
- KE – set out that a Tactical Information Record will need to be developed for the Cleve Hill Solar Park site. There are 3-400 other such requirements across Kent, which applies to facilities with specific requirements in terms of fire response. MB responded that the Outline Safety Management Plan would form a good basis for this and that ongoing consultation with KFRS would be undertaken throughout the design, construction and operation of the Development.
- MB asked if there were any specific considerations relevant to the wider development (solar park). KE set out that safe access for a fire appliance to as much of the site as possible and a water supply was again the key consideration. The time delay to



reach remote parts of the site would result in a greater level of fire damage to equipment. MB explained the development design in this regard, with the spine road through the centre of the site. KE set out that it is KFRS role to make suggestions and it is up to the developer to what extent they are implemented.

- MB asked whether there were any specific concerns in relation to flooding. KE set out that if catastrophic flooding occurred, the response in respect of the electrical compound would depend on whether there was a life risk, ie if the electrical compound was manned and personnel would be cut off. In this scenario, the solar park and battery storage facility would be shut down, and any personnel would await rescue (e.g., via boat). This would form part of a countywide response in the event of a flood event of this magnitude. MB suggested the site operator should have emergency procedures in place to cover this eventuality.
- KE summarised KFRS considerations:
  - Possible need for Southern Water involvement to understand water availability in the area.
  - Need for KFRS to develop a Safe System of Work on the site in dialogue with the site operator
  - For access to and around the energy storage facility for fire appliances to be designed in.
  - If the electrical compound forms a permanent place of work the Regulatory Reform (Fire Safety) Order 2005 would apply.
  - The Outline Safety Management Plan should include containment measures.
  - KFRS will make suggestions in relation to design and mitigation, and the Applicant will determine whether and/or how to adopt the measures.
- KE set out that Cleve Hill has highlighted to them a need to updated their procedures in respect of BESS facilities, with existing developments present in the county and the Cleve Hill project gives a good opportunity to collaborate with developers, operators and technology suppliers to ensure they have the most applicable and up to date knowledge available.
- MB mentioned that there was a further round of hearings on 10, 11 and 12 of September if KFRS wanted to attend and/or participate - [LINK](#)
- MB agreed to circulate notes and the Outline Safety Management Plan when available for KFRS input. MB set out project deadlines and requested that KFRS responded to help CHSPL to meet Deadline 4 (30 August) if at all possible.
- MB set out that CHSPL would likely submit these notes as supporting information to ExQ2.8.13 which requires an update in respect of dialogue between the Applicant and KFRS.