Application by Mallard Pass Solar Farm Limited for an Order Granting Development Consent for the Mallard Pass Solar Project – project ref. EN010127

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ExQ1 - Responses to ExA's First Written Questions

Q1.2.4 b) How does the absence of storage provision, and therefore a lack of any consequent flexibility benefits, effect the weight that should be given to the overall benefits of the Proposed Development in this case? Are there are any disbenefits that arise due to the inability to utilise storage at the site of the Proposed Development?

1.The lack of storage is likely to have a significant impact on the ability of the Proposed Development to supply the Grid. It will cause energy to be wasted and, given the Applicant's suggestion as to how to attempt to overcome the problem, require more land than would otherwise be the case with a battery system.

2. Paradoxically, the residents were extremely concerned about the possible inclusion of a battery system with the associated safety concerns.

3. It is not possible to quantify the impact of any of the above as the Applicant has not given any numerical details on which to make such calculations.

4. Relying on comments made by the Applicant it is assumed that the Proposed Development alone is not sufficient to justify a battery system.

5. As a consequence a battery system could only be justified if there was enough capacity at the point of connection to download from the Grid. This would enable the Applicant to "trade" power from and to the Grid thereby giving a source of profit.

6. Given the lack of storage, the availability of power to the Grid from the Proposed Development will be highly variable. It will be solely dependent upon the amount of light received by the panels at any one point in time.

7. Notably, in periods of high levels of production, for example during the hours either side of mid-day during the summer, the requirement from the Grid will be low. This will mean that the output of the solar farm will have to be "curtailed" during those hours, thereby wasting the energy generated.

8. In periods of high demand, for example mornings and evenings during the winter, the Proposed Development would be generating low levels of power, limiting supply to the Grid. Power that could be supplied from a battery system charged during the period of light on the previous day. Thus, the Proposed Development will suffer an “opportunity cost” in not being able to supply the Grid during those periods and will be of no value to the Grid during such periods.

9. In order to solve the problem, described in paragraph 6 above, the Applicant intends to “over-plant” panels. That is, to install more panels than required in the normal course, if a battery system was present. Whist this may serve to reduce that problem it will mean that during the summer the amount of “curtailment” will, all other things being equal, increase thereby causing even more waste.

10. The extent of the proposed “over-planting” is not given by the Applicant and therefore the area of panels required for that purpose cannot be calculated. Whatever this area is, will be an otherwise unnecessary use/ waste of agricultural land.

11. The Applicant has stressed the importance of the Ryhall sub-station as the basis for the Proposed Development. It was the “raison d’être” for its location.

12. It now transpires that the Ryhall sub-station is not entirely fit for purpose. As a result, the Proposed Development will lack flexibility and value to the Grid, it will waste power and occupy more land than it otherwise should.

13. It is my view the impact of the inability to utilise storage could reduce the benefit of the Proposed Development substantially and, in itself, could call into question the Development’s viability.