



# Mallard Pass

Solar Farm

## Mallard Pass Solar Farm

**Applicant's Responses to  
Interested Parties' Deadline 2  
Submissions - Need**

**Deadline 3 - June 2023**

EN010127

EN010127/APP/9.16

## Applicant's Response to Interested Parties' Deadline 2 Submissions on Need

Parties Raised	Sub-Theme	Issues Raised	Applicant's Response
REP2-090, REP2-138	Need	<p>Need should only be afforded moderate weight in the planning balance because the Application fails to:</p> <ul style="list-style-type: none"> <li>- Maximise the efficient use of land</li> <li>- Adequately account for its actual capacity</li> <li>- Provides low levels of benefit to the grid for the scale of development required</li> <li>- Maximise opportunities to improve the security of the supply</li> </ul>	<p>The Applicant's position on need is clearly addressed in the Statement of Need [APP-203] and a further policy update was provided [PDA-001] at Deadline 1 which summarises the robust government policy support for the development of solar and low carbon/renewable electricity generation infrastructure. This policy demonstrates the urgency for the delivery of such infrastructure.</p> <p>Revised Draft EN-1 sets out the Government's increasingly robust position in regard to need and an applicant's requirement for it to be demonstrated. Two specific paragraphs set this out:</p> <p>Paragraph 3.2.5 states: <i>The Secretary of State should assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent, as described for each of them in this Part.</i></p> <p>Paragraph 3.2.6 follows, stating: <i>In addition, the Secretary of State has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008.</i></p> <p>The weight afforded to the delivery of low carbon and renewable energy generating projects is substantial, of this there can be no doubt. This does not, of course, mean that the relevance of other material considerations is diminished, but that the planning balance must reflect the weight afforded in accordance with the relevant policy.</p> <p>The Applicant further refers to the ExA's FWQs under topic 1.2 'Need'.</p> <p>The Applicant refers to the Statement of Need [APP-202] for matters relating to the efficient use of land (Paragraphs 3.3.16 and Section 7.6) and capacity (Section 7.7). In</p>

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			<p>addition, responses to the ExA's FWQs, notably questions 1.2.2 and 1.2.3, and 1.0.16. In particular, however, it is noted from those responses, that the Proposed Development makes efficient use of the grid connection offer that is available at Ryhall, and its sizing in relation to that offer is consistent with the policy expectation in the NPS. The Applicant therefore does not agree that the benefits can be considered to be 'low' and is in any event appropriate to the scale that has been put forward.</p> <p>On matters of security the Applicant refers to its response to Q 1.2.4 of the Examining Authority's First Written Questions and notes that Sections 8.8 and 8.9 of the Statement of Need [APP-202] conclude that solar makes a significant contribution to the security, adequacy and dependability of the GB electricity system.</p> <p>The Applicant has responded more broadly to MPAG's comments in respect of Need in the text which forms the first part of the Applicant's Response to Interested Parties' Deadline 2 Submissions.</p>
<p>REP2-119 REP2-120 REP2-217 REP2-190 REP2-104 REP2-064 REP2-154 REP2-209 REP2-185</p>	<p>Efficiency of Solar and productivity of the panels</p>	<p>Solar is the least efficient of renewable energy resources and is inefficient with respect to land use. It may be the cheapest to produce but does not result in cheaper tariffs as wholesale gas prices set prices.</p> <p>Questions the accuracy of the forecasts for the amount of energy the project is likely to produce.</p> <p>Concern that the panels are not effective above the temperature of 25 degrees centigrade, which we find frankly astonishing as during the design life of the scheme, the average temperature in the UK is set to rise. Should consideration not be given to a better performing panel so that less panels will be needed?</p>	<p>The Statement of Need [APP-202] sets out the Government's position in regard to the urgent requirement for solar energy generation as part of a sustainable energy mix in future energy scenarios, in particular at Section 7.6 where it is demonstrated that the Proposed Development delivers a large-scale solar generation asset which is consistent with the land use efficiency range set out in Government policy</p> <p>The Applicant also refers to responses to the ExAs FWQs at Section 1.2 on Need, notably Q.1.2.2, Q.1.2.4 and Q.1.2.6 which address the acreage ratio for the Proposed Development.</p> <p>Section 10.2 of the Statement of Need [APP-202] addresses matters relating to electricity pricing.</p>

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			<p>Solar panels remain effective at higher temperatures although efficiency can drop. That said temperature impacts many other electricity generation sources in a similar way, and the load factor of the panels accommodates the varying efficiency levels throughout the year. However, it is important to recognise the impact of the higher temperatures on panel efficiency across the year is minimal and, while it is accommodated for, has a negligible impact on the annual load factor at the Proposed Development.</p>
REP2-234	Net Zero	<p>If the Mallard Pass Solar Farm is not implemented, there will be a negligible effect on the Net Zero target as it is insignificant when considered alongside the capacity applied for / contained within the Renewable Energy Planning Database (REPD) (both NSIP and non-NSIP development).</p> <p>The REPD data (excluding NSIPs) suggests there is no requirement for solar installations to be on a huge scale in order to achieve Net Zero commitments. The market is already demonstrating that it has an appetite for solar on a smaller scale and, at current application run rates, could achieve 70GW by 2035.</p>	<p>The Applicant refers to responses to the ExAs FWQs at Section 1.2 on Need, notably Q.1.2.2, Q.1.2.4 and Q.1.2.6 and the response to 1.0.16 which address the adjacent matters raised, including the acreage ratio for the Proposed Development.</p>
REP2-143 REP2-145	Statement of Need	<p>Concern that the Statement of Need is not driven by any sense of care for this country but the desire to make a profit.</p>	<p>The Statement of Need [APP-202] sets out the urgent need for solar development within the UK, which has only developed further since it was written as set out in the update in PDA-001 and in the Planning Statement Addendum [REP2-040]. The need for the Application and other low carbon and renewable projects is without question.</p> <p>Revised Draft EN-1 sets out the Government's increasingly robust position in regard to need and an applicant's requirement for it to be demonstrated. Two specific paragraphs set this out:</p>

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			<p>Paragraph 3.2.5 states: <i>The Secretary of State should assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent, as described for each of them in this Part.</i></p> <p>Paragraph 3.2.6 follows, stating: <i>In addition, the Secretary of State has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008.</i></p>
<p>REP2-090 REP2-145</p>		<p>The grid is most under pressure during the winter months. Solar will do little compared to, say, wind to help relieve the pressure on energy demand</p> <p>Solar is the least efficient form of renewable energy, currently only delivering 10% of its maximum stated output. Without battery storage, this development will deliver even less as during the higher-performing summer months, the grid may not be able to take the energy, and the potential will be wasted.</p> <p>Solar is low-cost to install, but none of those benefits is passed on to the consumer as global gas wholesale prices determine electricity tariffs.</p>	<p>The Applicant refers to the ExA's FWQs, notably Q.1.2.4 in response to matters relating to efficiency and implications of lack of accompanying battery storage.</p> <p>It is further noted that there is no import capacity available to the Applicant at Ryhall substation, nor does it form part of the Applicant's Grid Connection offer. In addition, the Application is for a solar farm, not a solar with battery storage and is required to be assessed as such.</p> <p>Matters of pricing are addressed at Section 10.2 of the Statement of Need [APP-202].</p> <p>Table 7.1 of the Statement of Need shows the electricity generated per Ha by different low-carbon technologies. At the UK's average solar load factor (11%), solar generation produces much more energy per Ha than biogas, and generates a similar amount of energy as onshore wind. Solar is now a leading low-cost generation technology and Figure 10.4 of the Statement of Need shows that on a levelized cost of energy basis, large scale solar is already cheaper than offshore wind, and Government's projections are that it will remain cheaper in the future. In 2021, GB sourced 42% of its electricity from renewables, of which approximately 9.4% was from solar</p>
<p>REP2-145</p>		<p>Solar generation is not specifically referred to in the National Policy Statements, therefore, the</p>	<p>Paragraph 3.1.4 of the Statement of Need [APP-202] describes the relationship between the existing NPS (2011)</p>

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		<p>consequences of the MP proposals are not valid. The fact that these policies do not mention solar energy indicates that the need for large-scale developments is not appropriate for the UK.</p>	<p>and the Revised Draft NPS (March 2023), specifically in relation to confirmation that it is government's position that "any emerging draft NPSs (or those designated but not having effect) are potentially capable of being important and relevant considerations in the decision-making process". Solar is specifically referred to in Section 3.3 of Draft NPS – EN1 and Section 3.10 of Draft NPS EN-3. Indeed, paragraph 3.3.20 of Draft EN-1 sets out the importance of solar (and wind) in the UK's future energy mix, stating: <i>Wind and solar are the lowest cost ways of generating electricity, helping reduce costs and providing a clean and secure source of electricity supply (as they are not reliant on fuel for generation). Our analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar.</i></p>
<p>REP2-126 REP2-160 REP2-219 REP2-137 REP2-218 REP2-186 REP2-131 REP2-134 REP2-177 REP2-231</p>	<p>Energy production vs loss of BMV</p>	<p>There are questions about the accuracy of the forecasts for the amount of energy the project is likely to produce. If the estimates are inaccurate, the whole thesis behind the supposed benefits of the project is in question.</p> <p>Concerned that the energy production is too inefficient to give up good quality agricultural land.</p>	<p>The Applicant is satisfied that its forecasts relating to energy production are sound. The Applicant's position is further addressed in response to the ExA's FWQs, notably Q.1.2.3(b).</p> <p>On the matter of agricultural land, these matters are addressed in Section 7.4 of the Planning Statement [APP-203], the Statement of Need [APP-202], in the Planning Statement Addendum [RE2-074] and the updated Policy Tracker [REP2-042] and later in this document.</p> <p>In that context, the Applicant considers that the Proposed Development would successfully enable the energy needs of today to be met while preserving the land's agricultural value for future generations.</p>
<p>REP2-199</p>	<p>ExQ1 - Q1.2.4(b) – With the absence of storage creates a lack of any consequent</p>	<p>Mr Orvis responds to ExQ1 –</p> <p>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</p>	<p>The Applicant refers to its response to the Q.1.2.4 and 1.0.16 of the ExA's FWQs. The Applicant has not included any storage proposals for the Proposed Development and any proposal to do so would require separate planning permission. It should also be noted that the substation at</p>

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	<p>flexibility benefits and potentially impacts the overall benefit.</p>	<p>than would otherwise be the case with a battery system.</p> <p>2. Paradoxically, the residents were extremely concerned about the possible inclusion of a battery system with the associated safety concerns.</p> <p>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.</p> <p>4. Relying on comments made by the Applicant, it is assumed that the Proposed Development alone is not sufficient to justify a battery system.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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</p>	<p>Ryhall is entirely fit for the purpose of connecting a solar farm.</p> <p>In addition, the Applicant refers to the text which forms the Introduction to the Applicant's Response to Interested Parties' Deadline 2 Submissions.</p>

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		<p>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.</p> <p>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. Whilst 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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	