

Mallard Pass Solar Farm Community Webinar Stage Two Consultation Event

Tuesday 05 July 2022: 6:00 pm – 8:00 pm

Agenda

1. Welcome
2. Who we are
3. Our Stage Two proposals
 - Developed design
 - Mitigation measures and enhancement opportunities
 - Preliminary environmental information
4. Our consultation process
5. Contact us
6. Your questions

Responses to unanswered questions

Q: How do you propose to partner arable farming with the solar panels?

A: As part of our proposals for Mallard Pass, arable farming is unlikely to continue within the area proposed for solar panels, but pastoral farming and biodiversity land management of the land beneath the panels will occur.

Arable farming within the site area proposed for Mallard Pass Solar Farm would occur in the majority of areas proposed for mitigation and enhancement, which equate to approximately 420 hectares (ha) of the overall site.

The majority of the fields within these mitigation and enhancement areas will continue to be farmed under arable rotation with additional measures to support skylarks, with commitments as to how this will be managed set out in the Development Consent Order (DCO) application.

Q: What benefits will Mallard Pass Solar Farm bring to local communities living within, or adjacent to the site area? What benefits will this project bring directly and guaranteed to the local community? Are there any direct benefit to communities within, or adjacent to, the site?

A: Mallard Pass Solar Farm has the potential to provide benefits at both the national and local level, helping the UK as a whole by increasing our country's supply of reliable, low-cost and low carbon energy, while at the same time offering environmental mitigation measures and local enhancements to community and biodiversity.

As part of our Stage Two Statutory Consultation, we updated our proposals for Mallard Pass, which now include residential 'buffer zones,' the creation of 108 hectares (ha) of wildflower and tussock grassland areas, and the introduction of 4.7 kilometres (km) of new permissive paths. Low-key nature areas with picnic benches, wildlife-viewing spaces, the creation of wet woodland areas and the installation of otter holts and bird / owl / bat boxes are also being considered.

Some of these measures form part of the Green Infrastructure Strategy we are proposing at Stage Two. This strategy has been developed in order to deliver a minimum 10% net gain in biodiversity, which includes the creation of riparian habitats adjacent to the West Glen River and wildflower grassland with calcareous species in the north-west of the site, amongst other proposed measures. Figure 6.10 ([Page 6](#)) provides further details regarding this Green Infrastructure Strategy, which also includes planting native grassland mixes beneath the solar panels and wildflower mixes, scrub and hedgerows within landscape buffers, in addition to retaining agricultural land with measures to support skylarks in areas for mitigation and enhancement. Figure 5.1 ([Page 4, 5](#)) shows these proposed development features in further detail, including areas where we are proposing wet woodlands, hedgerows and tree belts.

Following the close of Stage Two, we will be taking account of the feedback and suggestions we have received regarding the topic of benefits to the local community. These comments – along with the results of ongoing environmental and technical studies – will help us further refine our proposals for Mallard Pass and finalise the details of our DCO application for the project.

Q: What are some details regarding the skylark plots you are proposing? What is their proposed size?

A: As part of our Stage Two proposals for Mallard Pass, we seek to provide plots for ground-nesting skylark as a mitigation to compensate for loss of skylark nesting areas. These measures will enhance the value of retained arable habitats for nesting within areas we are proposing for mitigation and enhancement.

Plots will be provided as per guidance for arable land in use for growing cereal crops¹. The plots will be provided by switching off the drill during the seeding of crops (or lifting it up) to create undrilled patches at least 3 metres (m) wide. Each plot will be between 16m² and 24m². Two plots per hectare (ha) will be provided in these areas. They will be sited away from field boundaries (at least 50 m from the edge of the field) and telegraph poles or overhead lines.

Some areas of the newly created grassland may also support the species. The area of the site we're proposing for solar development will likely continue to be used by the species for foraging, providing a more reliable food resource (seeds and insects) than intensive arable farmland. Nesting would also continue in suitable farmland offsite. Pairs from within the site and beyond may benefit from the more diverse foraging resource offered by the newly created habitats.

With these measures in place, overall, there is likely to be a neutral effect from Mallard Pass on skylark nesting opportunities and substantial benefits for this and other bird species from increased foraging habitat. For more information, please refer to Chapter 7: *Ecology and Biodiversity* of the Preliminary Environmental Information Report (PEIR), [linked here for your reference](#). Section 7.5.6 (Page 238) onwards contains detailed findings regarding local ecology and biodiversity, specifically regarding birdlife in the area.

¹ UK Government, Countryside Stewardship grants, *Skylark plots* <https://www.gov.uk/countryside-stewardship-grants/skylark-plots-ab4>.

Q: What form of livestock grazing is being considered for the land underneath the solar panels? Can land under solar panels grow things underneath?

A: Our updated plans for Mallard Pass Solar Farm propose for land underneath and around the solar panels to be grazed grassland, most likely through a combination of sheep grazing and/or hay/silage production. We sought feedback on this specific topic during our Stage Two Statutory Consultation and welcomed any views on the possibility of dual use of the land beneath the panels.

Yes, it is possible to grow on land underneath solar panels. In fact, solar developments are typically able to deliver biodiversity improvements when it comes to the land beneath the panels. This is because installing solar panels usually means changing an area away from semi-intensive farming, removing regimes of herbicides and pesticides, and introducing natural flower mixes which would also benefit a range of wildlife.

There will be ongoing management of the grassland beneath the panels and the landscape buffers proposed for Mallard Pass Solar Farm. An outline Landscape and Ecological Management Plan (oLEMP) will be submitted as part of the Development Consent Order (DCO) application, and this will discuss how we will manage the land across the site, including underneath the panels. As part of our Stage Two Statutory Consultation, we produced the framework of a draft oLEMP, in [Appendix 5.2](#) of the Preliminary Environmental Information Report (PEIR). The oLEMP will set out a plan for the creation and management of the landscape and ecological features of Mallard Pass, setting out the framework of the management regime that would be put into place during the operational phase of the project.

Further details on this topic are provided in Chapter 5: *Project Description* of the Preliminary Environmental Information Report (PEIR), [linked here](#) (Page 90).

Q: Does the grazing license allow for redrilling of grass underneath the solar panels? If so, how is this done?

A: No, as we are proposing to retain the grass that already exists in areas for solar panels. Another reason is because it is not typical for grazing licenses to address grass redrilling.

During Stage Two, we are not proposing to remove any of the existing grass in areas proposed for solar development, meaning there will be no need to redrill grass seeds. Rather, we are proposing to pile into the specific areas of the ground needed to mount the panels, but to keep the existing grass in these areas as it currently is, where we propose for it to be grazed by livestock (most likely sheep) and directly managed.

Q: How will you achieve a balance between appropriately mitigating biodiversity impacts and public usage of the permissive paths being proposed? These do not always sit comfortably together.

A: The Green Infrastructure Strategy proposed as part of our Stage Two Statutory Consultation has been designed to deliver biodiversity mitigation and enhancements, as well as to take opportunities to enhance and improve connectivity both between existing and proposed habitats and for community use. In our proposals, these objectives are not mutually exclusive.

Biodiversity mitigation, such as provision of skylark plots, can be positioned to avoid existing or proposed walking routes to minimise potential disturbance. Biodiversity enhancements, such as provision of new hedgerows, wildflower and grassland planting will provide a range of ecological benefits which can be delivered alongside permissive pathways. In areas where there would potentially be more sensitive habitats, detailed design of walking routes incorporating screens or hides will ensure that these areas can provide increased access to nature without disturbing the habitats and species.

Further, the provision of permissive pathways will be included in the calculations which will state the percentage Biodiversity Net Gain (BNG) that the proposed development will deliver (using the most up-to-date [DeFRA metric](#)). The eventual BNG figure takes both impacts and enhancements into account and we are confident that Mallard Pass will comfortably deliver a minimum of 10% BNG. The eventual calculation would present a clear view of how the balance has been struck and we will be pleased to deliver a significant improvement in biodiversity.

Q: How do you propose to mitigate the potential visual impacts of the proposed Primary Substation and control building?

A: The Primary Substation and control building is located next to the existing substation at Ryhall to reduce the physical connection distance when connecting into the national grid network. Existing vegetation around the proposed Primary Substation and control building will be retained and substantial new planting both along Uffington Road and within the West Glen River Corridor is proposed to provide further visual screening and filtering.

As part of the application, a number of design principles will be set out to guide design of the Primary Substation and control building at the detailed stage should consent be granted. These principles will include matters such as size, scale and massing and also façade treatments (such as colour) to limit as far as possible the visibility of these development components.

Q: The Mallard Pass proposals include 'ecological enhancements.' Does this mean the area will be ecologically enhanced as a consequence of the proposals versus having no solar farm there at all (i.e., in its current state)?

A: Yes – ecological enhancement refers to the measures that we are proposing to enhance specific ecology elements, improving these from the current baseline position. We propose to accomplish this through the creation of new biodiverse habitats (including wildflower, riparian and grassland); the enhancement of natural habitat connectivity via new native tree and hedgerow planting; as well as allowing existing hedgerows to grow out more fully to the benefit of a wide range of local species. One of our aims is to strengthen connections between different habitats which would also link to the wider landscape, another measure that would help to improve local biodiversity.

The Mallard Pass proposals also include introducing new planting (tussocky grassland, wildflower grassland, hedgerows, tree belts, woodland blocks) which will help us visually mitigate the project as well as serve to enhance the local ecology. This new planting would help provide benefits to local wildlife and environment. In some areas of the Site, the fields will be managed to enhance the existing habitats for certain species, such as skylarks. For example, this could be through the continued arable use with an increase in the areas of bare ground within a field for skylarks to nest within.

Biodiversity Net Gain (BNG) has been adopted by the Government as a way of measuring numerically the ecological enhancement of development proposals, ensuring that all development results in an enhancement to biodiversity and certainly no overall loss.

Using the Government's BNG calculator, the Mallard Pass proposal will achieve a minimum of 10% BNG in comparison to the existing use. This means local biodiversity (what is currently there) will be improved by at least 10% as a consequence of our proposals for this project.

Q: What is the capital cost to build Mallard Pass? How long will it be before these costs are recovered?

A: It is not yet known what the final capital cost to build Mallard Pass will be (and therefore how long it would take for these to be recovered) as the specific concept plan, design and layout for the project has yet to be finalised. The proposals, once complete, will be submitted to PINS as part of the DCO, at which point we will have a more accurate idea of the cost estimate to build Mallard Pass Solar Farm.

At this time, the Government expects that a low-cost, net zero consistent electricity system is likely to be composed predominantly of wind and solar, and that wind and solar will be key building blocks of the future generation mix (Department for Business, Energy & Industrial Strategy (BEIS), [Energy White Paper](#), 2020, Page 43). This is not only because of the decarbonisation and supply chain security benefits that solar technologies bring, but also because solar is already among the lowest cost technologies for UK electricity generation (Dept. for BEIS, [Electricity Generation Costs](#), 2020). We expect Mallard Pass Solar Farm to be delivered at a cost which is consistent with the BEIS' latest estimates, set out in Section 4: Generation cost estimates of the [Electricity Generation Costs](#) Report (2020, Page 25).

Q: Is it planned that the land used for panels be entered into any RPA [Rural Payments Agency] schemes?

A: No, there are no plans for the land underneath the panels proposed for Mallard Pass to be entered into any scheme, including any RPA schemes.

Q: Has an Historic Environment Farm Environment Record (HEFER) been completed? Are there any areas of Selected Heritage Inventory for Natural England (SHINE) that have been identified?

A: No, we haven't completed a HEFER because this is a service provided to those seeking to apply for stewardship or farming initiatives. However, as part of our Environmental Impact Assessment (EIA) work, we have consulted with the local authority Historic Environment Record (HER) to obtain relevant data and environmental information regarding undesignated historic and archaeological environment features in the broader area where we are proposing to site Mallard Pass. HERs are the entities that feed into the national HEFER datasets and services. We have checked the SHINE webtool and this didn't reveal any information beyond that already obtained as part of baseline information gathering exercise.

The HEFER is service provided to farmers and land managers seeking to apply for stewardship or farming initiatives. The HEFER lists the known historic and archaeological features on a land holding and provides advice on how to protect and enhance them. It may include information about: Scheduled Monuments; Registered Parks and Gardens and Registered Battlefields; and non-designated historic and archaeological features, known as SHINE features, which have been created by your local authority HER.

SHINE is a single, nationally consistent dataset of undesignated historic environment features from across England that could benefit from management within a Countryside Stewardship agri-environment scheme. Data about suitable sites is created by local authority HERs and fed into the national SHINE dataset.

Q: Being able to enjoy wide, open green spaces is important for the mental health of many. How are potential impacts on the mental health of local residents assessed?

A: We recognise the significant benefits that contact with nature can have on one's mental and physical wellbeing, and the additional impact that COVID-19 has had on the ability to access and enjoy common green spaces. Ensuring continued accessibility to local amenities, Public Rights of Way (PRoWs) and footpaths is a key priority for our proposals, as we seek to retain these pre-existing aspects. Further, we are proposing approximately 4.7 kilometres (km) of new permissive paths across the site, helping enhance current routes and improve connectivity in the area. During our Stage Two consultation, we proposed an approx. 1.2 km route linking Essendine to Carlby Road, providing a new off-route, an approx. 1 km link creating a loop running northwest of Essendine linking back to the existing bridleway, and an approx. 2.5 km link from Stamford Road south-eastward along the river corridor to join the Macmillan Way.

The surrounding landscape, planting, wildlife, and broader ecology will also be retained, and our proposals include enhancements to these, as well as to local amenity more generally. Our proposals for Mallard Pass include the creation of over 108 hectares (ha) of wildflower and tussock grassland planting across the site, the creation of over 30 ha of wildflower grassland with calcareous species, and the creation of 3.7 ha of riparian habitat in certain areas along the West Glen River corridor, which could include wet woodland or carr planting.

By delivering a biodiversity net gain, our proposals would also ensure that local ecosystems thrive further, in an overall better state than before.

The Landscape and Visual Assessment (LVIA) that we must undertake as part of our Environmental Impact Assessment (EIA) will also ensure that the visual impact of our proposals is fully understood and appropriately mitigated, ensuring the local community's ability to walk in the area and enjoy its natural amenities. This will specifically include an assessment on the impact on residential and recreational amenities. The Environmental Statement (ES) will also include an assessment on the potential noise and air quality impacts, both of which are important health considerations, on local residents within the local area.

Throughout the Stage Two Statutory Consultation, we have also encouraged community feedback on the topic of potential enhancements, welcoming suggestions for measures that could help improve local amenity and connectivity.

Q: How many annual hours of sunlight has been calculated to be needed in order to generate the approximately 350 megawatts (MW) Mallard Pass is proposing to deliver? How does this compare to the hours of sunlight specifically registered in this area?

A: Approximately 4,410 hours of sunlight per year, which is based on the actual historical average hours of sunlight per year specifically registered in the area.

To assess the megawatt hours (MWh) that Mallard Pass Solar Farm will generate in each year, we have used [PVSyst](#), an industry standard software package. The software takes into account historical cloud cover and atmospheric effects over a multi-year period, and accounts for natural features, shadow effects and historical sunlight hours and levels.

PVSyst indicates that the actual hours of sunlight specifically experienced in the area over a year, which has been used to derive the output calculation, is approximately 4,410 per year (**Meteonorm**). A full breakdown of the calculations used for Mallard Pass Solar Farm can be found at www.MallardPassSolar.co.uk.

Q: Could disused Royal Air Force (RAF) bases not be used to site Mallard Pass Solar Farm?

A: The Preliminary Environmental Information Report (PEIR) Chapter 4: *Alternatives and Design Development* briefly outlines the alternatives considered in relation to Mallard Pass, and we will also provide a full description of these alternatives in the Environmental Statement (ES) that is to be submitted to the Planning Inspectorate (PINS) as part of our Development Consent Order (DCO) application. [Please click here](#) to read, view and download Chapter 4 of the PEIR (Page 64).

Specifically, Table 4.1 ([Page 80](#)) offers a breakdown of the alternative sites considered for Mallard Pass, and the reason as to why these were not accounted for as part of our proposals. Various RAF sites in the area are considered here, including Woolfox Depot, North Luffenham (St Georges Barracks) and Cottesmore. Please see the Table for a detailed breakdown of why each site was not suitable for our proposals –for the most part, these areas were discounted because they are not available for solar development, either having previously been selected for other forms of development, or already and currently being in use.

Q: Are the panels likely to require replacement before the end of the 30-year lease? Does the carbon neutrality calculation account for potentially needing to replace panels before then?

A: The exact panel type to be used for Mallard Pass Solar Farm has yet to be decided, however, according to the Department for Business, Energy and Industrial Strategy (BEIS) [Electricity Generation Costs](#) Report (2020), large-scale solar projects are generally expected to operate for up to 35 years. Based on this Government data, we therefore do not expect the panels for Mallard Pass to require replacement before the end of the leases agreed with landowners, which each last at least 35 years.

During our Stage Two Statutory Consultation, we consulted on two options for the Mounting Structures to be used for the Mallard Pass solar panels, to allow for some flexibility in the type of photovoltaic (PV) technology that is to be used. This flexibility is in response to the many technological advancements and developments in the solar industry, helping us to ensure that we select the most effective and best-suited technologies for Mallard Pass Solar Farm, should our Development Consent Order (DCO) application be approved.

We are proposing ongoing management of the panels to be used for Mallard Pass, which includes operational monitoring and equipment maintenance. This means that should the Mallard Pass solar panels incur any degradation or damage, or should these require replacement for any other reason, we would need to ensure periodic maintenance requirements are able to be undertaken and that any maintenance required is properly identified and carried out. In other words, replacement of panels may be required on an ad-hoc basis to deal with faults or deficiencies. This will be done in accordance with an Operational Environmental Management Plan (OEMP) secured through the DCO. Currently there is no intention for a systematic replacement of panels across the site.

The carbon neutrality calculations included in Chapter 15: *Climate Change* ([Page 434](#)) of the Preliminary Environmental Information Report (PEIR) are preliminary estimates based on the most up to date data available, and do not account for potential replacement or repair of panels. Specifically, these calculations examine how much carbon dioxide (CO²) would be eliminated should Mallard Pass be built. Based and accounting for a variety of factors, including the likely carbon cost of construction, manufacturing and decommissioning, we have estimated that the CO² emissions of Mallard Pass Solar Farm would be recouped within approximately 10.5 years, and that all savings beyond that would be a net benefit of Mallard Pass to reducing climate change relative to the baseline. For a detailed breakdown of this, please refer to paragraphs 15.4.7 - 15.4.15 of the [PEIR](#).

Q: Will shooting/hunting still be permitted on land Mallard Pass is proposing for solar development i.e., with panels?

A: No, should Mallard Pass be built, shooting/hunting will not be permitted on areas of land for solar development and infrastructure. This is because the solar photovoltaic (PV) site for Mallard Pass Solar Farm will be secured through the use of fencing and Closed-Circuit Television (CCTV) operations, which we are proposing to install around the perimeter of each operational area.

During Stage Two Statutory Consultation, we proposed pole-mounted internal facing CCTV systems around the perimeter of the operational areas, and these are proposed to use night-vision technology with a 50-metre range, would be monitored remotely and avoid the need for night-time lighting. CCTV will not overlook any public or private areas of land and be oriented towards the panels and equipment for Mallard Pass Solar Farm. Further, fencing enclosing the operational areas for Mallard Pass are also being proposed, likely to be a deer fence in either wood or metal, to help further secure the development.

Q: What is the accountability process should one of your construction vehicles not travel using the prescribed access routes? Will local authorities be provided with resources to manage this possibility?

A: Contact details will be provided by the Principal Contractor in suitable locations which residents will be able to use to contact the Contractor/Applicant directly to inform them of any instances where vehicles are not following the prescribed routes.

Residents will also be able to contact the Council, who will have direct, regular contact with the Contractor/Applicant to inform them of any complaints and deviations from the prescribed routes. The Council will then inform the Contractor/Applicant who will be able to undertake action as necessary to ensure this does not happen.

The agreed routes will be secured as part of the requirements of the Development Consent Order (DCO) and will therefore be taken seriously and actioned appropriately as the DCO is a legally binding document. This should be particularly seen in the context that breach of the requirements of a DCO is a criminal offence.

Q: Following the United Nations Life Cycle Assessments for Electricity Generation Options Carbon Neutrality report for March 2022, utility solar farms are one of least efficient forms of renewable energy production with some of the highest lifetime pollution ratings for Green House Gas emissions (GHG emissions) and dependency on mineral resources and land usage. Can you comment on this?

A: As described by Solar Energy UK, “*the evidence is conclusive that solar reduces carbon emissions*” ([Everything Under the Sun, 2022](#)). Considering the average carbon payback period for solar, each solar panel generates zero carbon and zero pollution electricity for decades over its lifetime ([Solar Energy UK, 2022](#)).

The Government recognises the importance of developing renewables at utility (or large) scale. The National Policy Statement on Renewable Energy Infrastructure ([EN-3](#)) states in Paragraph 1.1.1. “*Electricity generation from renewable sources of energy is an important element in the Government’s development of a low-carbon economy. There are ambitious renewable energy targets in place and a significant increase in generation from large-scale renewable energy infrastructure is necessary*” (Page 1). EN-3 does not include solar farm development, because at the time of publishing utility-scale solar development was not feasible.

However, the [Draft National Policy Statement EN-3](#), published by the Department of Business, Energy and Industrial Strategy (BEIS) in September 2021, introduces a new section (Section 2.47, Page 79) on solar photovoltaic generation, recognising that solar farms are ones of the most established renewable electricity technologies in the UK and the cheapest form of electricity generation worldwide. Paragraph 2.47.1 states that the Government has committed to sustained growth in solar capacity to ensure that the UK is on the pathway to meet net zero emissions by 2050, and that as such, solar is a key part of Government’s strategy for low-cost decarbonisation of the energy sector (Page 79).

Therefore, although renewable developments such as wind and solar do come with life-cycle emissions, these are many times lower than coal or gas, and this remains true even after accounting for emissions during manufacture, construction and fuel supply ([Carbon Brief, 2017](#)). For further information regarding the environmental cost of solar, please feel free to visit the websites in the links provided here, as well as the 2022 analysis by Renewable Energy Hub [linked here](#).