WELCOME Land at Pudds Cross, Leyhill Road, Bovingdon

BSR Energy (BSR) is bringing forward a proposal for a 38MW Solar Development, which would power the equivalent of 10,665 homes a year and provide a reduction of 12,042 tonnes of CO2 per year, along with 10MW of battery storage on Land at Pudds Cross. The proposal represents an important opportunity to boost green energy production and storage in the local area.



Why is this needed?

We are in the midst of a climate emergency. The most recent report from the Intergovernmental Panel on Climate Change outlines that immediate action must be taken to avoid irreparable climate breakdown. Solar and Battery Energy Storage System (BESS) developments, such as the one proposed on Land at Pudds Cross are an important part of the solution.

Dacorum Borough Council declared a climate emergency in 2019 and, as such, has pledged to become Net Zero as an organisation by 2030 and Net Zero as a borough by 2050. The Council has also pledged that whilst it accepts the majority of the Borough's emissions are outside of its direct control, it pledges to support any individuals, community groups, businesses and schools to become Net Zero by 2050.

BSR is dedicated to being part of the solution and the change

Moreover, National Grid forecast that up to 31GW of total storage could be needed by 2030, increasing to 72GW by 2050. The UK has just over 7GW of storage currently operational or under construction, demonstrating a clear requirement for the acceleration of battery storage development across the UK. (Figures from National Grid's Future Energy Scenarios Report, July 2023)

Get involved

We value the input of the local community and are eager to understand the community's feedback at an early stage. We want to work with you as the local community to ensure we are delivering a project that works for everyone. Your feedback and questions are very welcome, so please speak with a member of our team today or at any point afterwards by phone or email.

towards renewable energy sources in the UK. The impacts of climate change are already evident, with record-breaking temperatures and drought declarations becoming increasingly common. The time to act and mitigate further damage to our planet is now.

Solar energy is an affordable and efficient form of green energy which is an important part of ensuring the energy independence of the United Kingdom and working towards meeting the UK target of net zero by 2050.



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KEY INFORMATION

Why here?

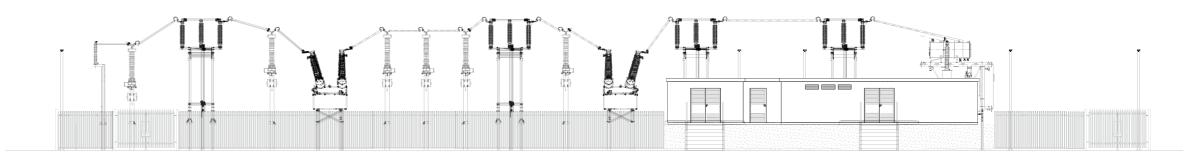
BSR often gets asked regarding its developments 'Why here?'. The key driver for looking for a suitable location to host a development of this nature is the National Grid.

Firstly, there is a need to identify a part of the Grid that has capacity, which can be challenging given that Grid availability is constantly changing and much of the network is constrained and in desperate need of reinforcement. Then a suitable point of connection to export any generation needs to be identified.

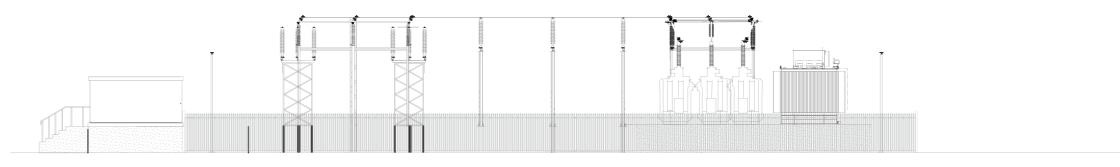
These factors significantly limit the number of options available for energy production as not every area, or brownfield / industrial site has capacity available for energy to be delivered. Once an area has been identified, landowners who have a suitable amount of land for the development are then contacted to gauge interest. BSR also considers a number of other factors, such as Land Grade, Landscape impact, Heritage, Flood Zones, Noise, Transport, and Ecology, amongst others, as part of the site selection process.

A full Site Selection report which details why the site has been chosen will be submitted as part of the Planning Application.

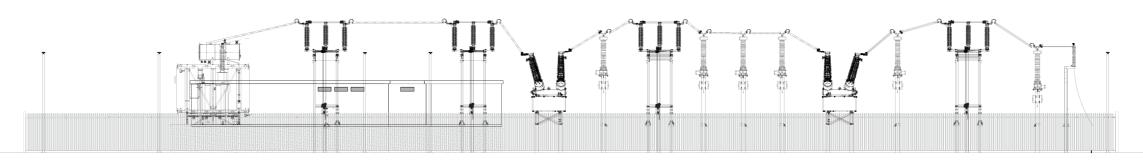
DNO Substation dimensions



View A

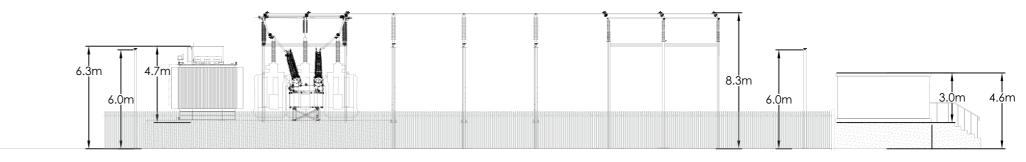


View B









Solar Panels generate power from sunrays. When sunlight penetrates the panels, semiconductors within them are stimulated to generate useable energy. The energy generated is then transferred to a point of connection where it is then exported to the National Grid.

Battery Energy Storage Systems (BESS) are one of the most flexible assets that can be connected to the grid and are key to enabling the change to renewable energy. A BESS collects energy from energy sources, such as wind and or solar panels or from the electricity network and stores the energy using battery storage technology.

During periods of high electricity demand, power stations which run on fossil fuels are brought online to respond to this increase, projects such as this help reduce the frequency of these events by responding faster with potential long term cost savings to energy consumers by taking the excess energy from the BESS instead.

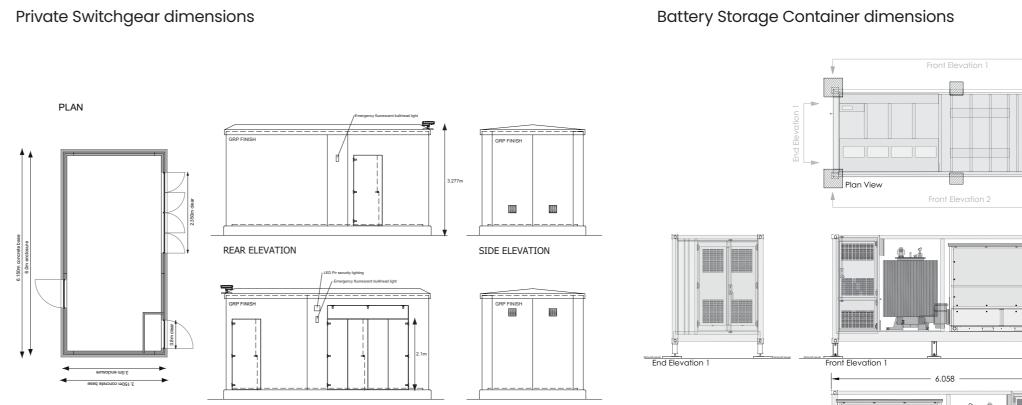
What happens to the panels after use?

The recycling process for solar panels has progressed significantly in recent years to a point where now solar panels and component parts are almost entirely recycled at the end of their useful life.

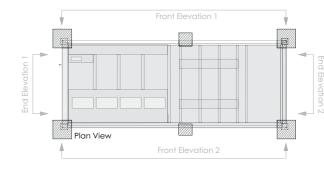
The first thing that happens in the recycling process is material separation. Solar panels are composed of several different parts, so these need dividing up. The panel's aluminium frame and glass casing are disassembled and sent their separate ways. 100% of the aluminium and 95% of the glass is used again. Then it's time for thermal processing. The temperature is ramped up to 500°C, which evaporates the small plastic components and easily allows for the cell modules to be physically separated. Around 80% of the cell modules are reused.

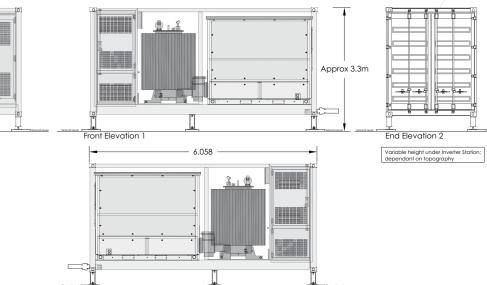
Finally, you're left with the silicon 'wafers'. These are etched away

View D

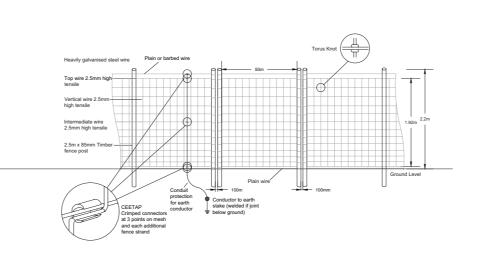


SIDE ELEVATION



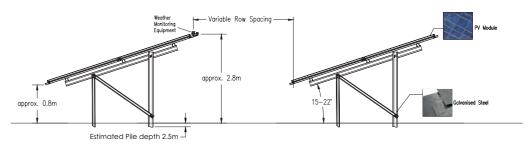


Fencing and CCTV dimensions



FRONT ELEVATION

Solar Panel dimensions

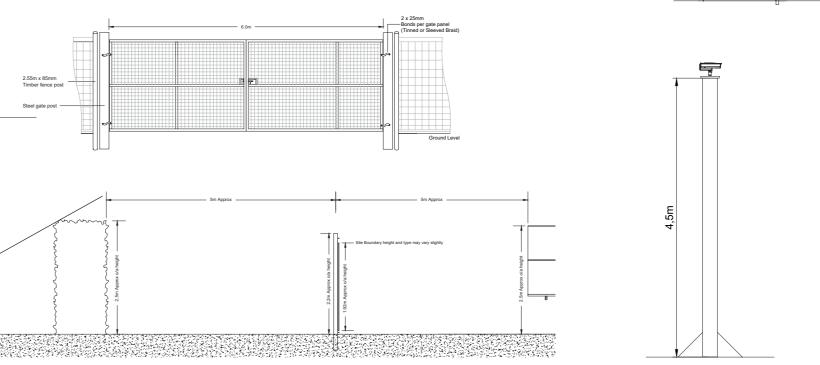




and smelted into reusable slabs. 85% of the silicon is repurposed for new solar panels, the remainder is lost in the process.

The frame which is either steel or aluminium is able to be recycled as part of regular recycling practices. Cables can be stripped for the metals to be recycled as well as the plastic.

Electrical elements (such as Inverters, Transformers, and Combiner Boxes) can be repowered / upgraded, or the components containing metals can be recycled.





ABOUT THE SITE AND BSR



Planning History of Eastern Site Parcel

The Eastern site parcel received an approval for Clay Extraction Minerals consent on January 21 2016. This approval, if implemented would involve the extraction of 15,000 tonnes of clay per year for over 18 years.

This would cause significant disruption to the immediate landscape to the east of Leyhill Road with regards to noise, dust and traffic movements for at least 18 years and would result in no ecology or biodiversity benefits from this use as the site area of 11.6ha would have to be worked for the full 18year period.

Traffic movements related to the Clay Extraction consent project would be 40 movements per day whilst operational, which means 20 trucks into the site to be loaded and then 20

About BSR

British Solar Renewables (BSR) is a leading renewable energy developer and provider of expert services to the renewable energy industry. We are dedicated to reducing carbon emissions and transitioning towards renewable energy sources.

The company was founded in 2010 and has grown into one of the largest integrated developers of utility-scale solar and storage in the UK with over 700MWp successfully developed and built to date.

In 2022, ICG Infra, a global alternative asset manager that expanded into infrastructure investments, acquired BSR as the majority owner. ICG is committed to being a net zero asset manager across its operations and relevant investments by 2040.

trucks out with Clay.

The effects and impacts of the Clay Extraction consent are considered to be significantly more intense in terms of longterm impacts than the proposals BSR is now bringing forward

for consideration, which we hope is welcome news in contrast.

In 2020, ICG was elevated to the FTSE 100 for the first time.

https://www.icgam.com/





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THE PROPOSALS

The below site layout plan indicates the proposed location for the Solar and BESS site, underground cable connection route, and substation location.



BSR's proposal for Land at Pudds Cross would deliver the following:

- A Solar Development with a total export capacity of up to 38MW. This is the equivalent energy production to powering 10,665 homes every year, resulting in the reduction of 12,042 tonnes of CO2 per year being emitted into the atmosphere.
- A Battery Energy Storage System (BESS) with a 10MW capacity, which will ensure that when energy generated is surplus to grid requirements, this energy is not wasted and will be available for future use, when needs may exceed power generation.
- At least a minimum 60% increase in Biodiversity Net Gain, which far exceeds the 10% target as outlined in the Environment Act 2021.
- 2. Planting of night-scented flowers that will help attract night-flying insects.
- 3. Retention of existing vegetation to screen views from the Public Right of Way (PRoW) through the site.
- 4. Creation of species rich grassland and wildflower grassland to increase biodiversity value of the site.
- 5. Provision of insect hotels, bat boxes and log piles to provide a variety of habitat across the site for a number of species.
- An important part of ensuring the energy independence of the United Kingdom and working towards fulfilling the Government's net zero targets by 2050.

BSR always seeks to select land of a low agricultural grade for its proposals where possible and the Land at Pudds Cross site has been classified as 100% Grade 3b which is not the best and most versatile agricultural land.

The development of Solar and BESS in this location will also allow the landowner the opportunity for a guaranteed, stable income, compared to farming the land, supporting the farm's wider activities for the next 40 years. The proposed Solar and BESS facility would have an operational lifespan of 40 years, after which the development would be decommissioned, and the land would be returned to agricultural use,

- BSR will ensure that habitats on site are retained and managed. If there are instances where this is not possible, suitable mitigation will be taken to ensure that there is no detrimental impact.
- BSR will also ensure that improvements are made to the condition of existing habitats, as well as facilitating the creation of new habitation which will enhance biodiversity on site. This could include:
 - 1. Planting of hedgerow and trees along all sensitive boundaries to screen views of the development as much as possible.

Generation of Business Rates to Local Council – this additional income can be used by the Council to fund Council run services. This development would generate approximately £95,000 per annum.

The proposal is temporary and will be in place for 40 years

Given that the site is temporary, and farming activity is hard on the land, the fallow years the provision of solar on the site will provide will contribute to improving the soil quality and the condition of the land for agriculture in the future. with no detrimental impact to the quality of the land.

The proposed development has also been designed to ensure that there is no significant harm on the heritage significance of the Grade II Listed Marchant's Farmhouse and the Double Barn at Marchant's Farm which is also a Grade II Listed Building.

The design and layout of the Solar Development took this into consideration and as a result excluded the immediate surroundings of these Listed Buildings to ensure that there are no direct views of the proposed development from these.



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BENEFITS / NEEDS CASE

Community benefit

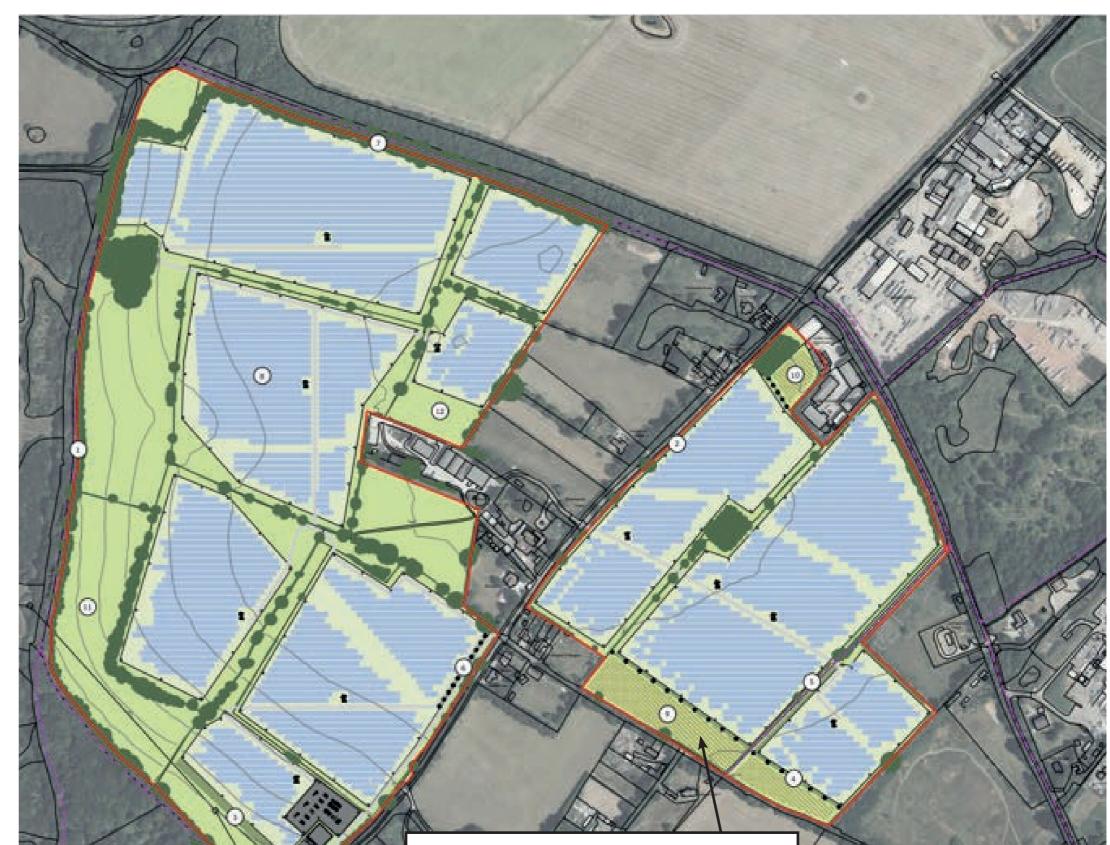
As part of the proposal, BSR will create a fund that would hold up to £116,400 which would directly benefit local residents.

BSR is also open to considering the use of some / all of this fund to deliver a community space next to the PRoW that runs through the site.

Some ideas for this area include a wildflower meadow or some picnic benches with some information boards.



We would welcome feedback on how you would like this fund to be allocated. Your ideas can be provided as part of our feedback survey – please scan the QR code to access..



Proposed community area



The key benefits of our proposal include:

- Allowing for a significant opportunity for green energy production and storage in Hertfordshire to help meet key Net Zero targets.
- Ensure a secure and stable supply of electricity to help meet the Government's target of Net Zero by 2050.
- Support existing biodiversity to thrive on the site. Improvements in the condition of existing habitats and creation of new habitats to enhance biodiversity on site.
- Provide at least a minimum increase of 60% in Biodiversity Net Gain, which far exceeds the 10% target outlined in the Environment Act 2021.
- Allow the land to be returned to agricultural use following decommissioning with an operational lifespan of 40 years.
- The creation of a community benefit fund that would hold up to £116,400 to be used to deliver an on-site community area or other community initiatives.





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BIODIVERSITY

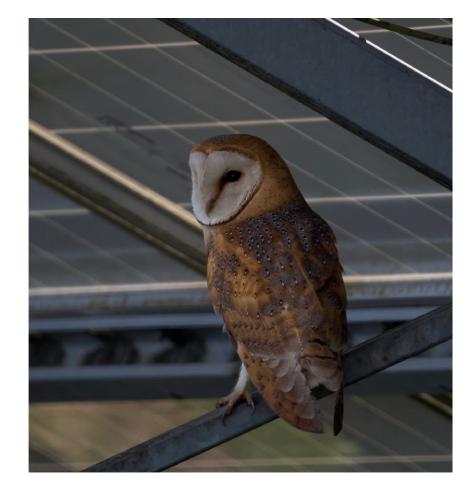
- The use of the land for a solar development provides a significant opportunity for diversity to continue on the site. Solar panels only disturb around 5% of the ground, allowing for plants to continue to grow and animals to still pass through the site.
- The proposal will provide at least a 60% Biodiversity Net Gain, meeting and exceeding the 10% target as outlined in the Environment Act 2021.
- Existing habitats on site will be retained and managed where possible, to ensure that there is no detrimental impact on the existing condition of the habitat over the lifespan of the development.
- The development will improve the condition of existing habitats and create new habitats to enhance biodiversity on site. It's likely that this will include:



BSR and BNG

- Creation of new native hedgerows where required;
- Infill hedgerow planting where gaps occur in the existing vegetation, for betterment of the existing landscape and along Public Rights of Way (PROW); and
- Creation of species rich grassland across the entire site, including rough grassland along the bases of existing vegetation.









BSR takes great pride in its commitment to improving biodiversity and the environment on all of its sites. Whilst the proposal for the site at Pudds Cross is being finalised, BSR will ensure that the statutory requirements for Biodiversity Net Gain of 10% are far exceeded, with at least a minimum of 60% achieved. BSR always seeks to go above and beyond requirements in this area and is working on some exciting environmental initiatives on some of its other sites, including:

- Working with the Bumble Bee Conservation Trust on its campaign to save the Shrill Carder Bee across three of its sites where the species has been identified.
- BSR has cameras set up which monitor wildlife activity across all of its sites. These have captured species such as Badgers and Rare Bird Species in and around the solar panels.
- BSR is also currently exploring the creation of an App where we the species on or around its sites can be logged, to show how its BNG enhancements are bettering the local environment.

Each site will have a site-specific Landscape Environment Management Plan (LEMP) which will outline how BSR will implement its BNG enhancements.

If you would like to know more about BSR's work with BNG on its sites please speak with a member of the project team today, or after the event using the details on the Have Your Say board.



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FIRE SAFETY

BSR is aware that fire safety is a key concern for communities when battery storage facilities are proposed. BSR takes its responsibility for the health and safety of its sites incredibly seriously and is exploring the mitigations necessary to ensure the site's long-term safety.

In light of the new guidance from the National Fire Chiefs Council (NFCC), BSR has taken proactive steps to update its initial designs to reflect the changes.

The overall changes from the NFCC which BSR is now implementing across its proposals are:

A comprehensive risk management process

- A robust Emergency Response Plan.
- A minimum of 6 meters between units to act as a fire barrier.
- Sufficient water supply to deal with a potential fire safely and effectively, with mitigations to the environmental impact of any run-off. Local fire and rescue services would be consulted regarding water volumes and flow rates.
- A combination of fire suppression systems will be implemented, drawing from lessons learned in the wider industry.

BSR has engaged Hertfordshire Fire and Rescue Service to discuss the proposal and we will continue to work with them to ensure the design is suitable and safe. We are confident that our designs are in line with National Fire Chiefs Council (NFCC) guidance.

undertaken by BESS operators, identifying specific hazards and risks, and developing, implementing, maintaining, and reviewing risk controls.

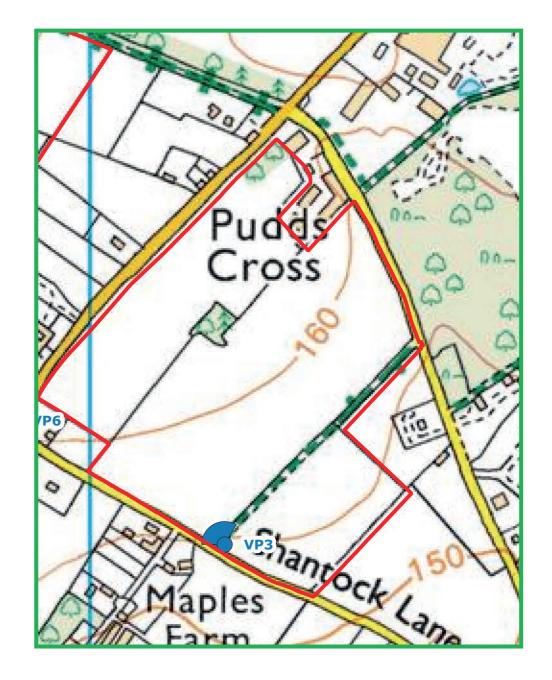




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VIEWPOINT 3 IMAGES







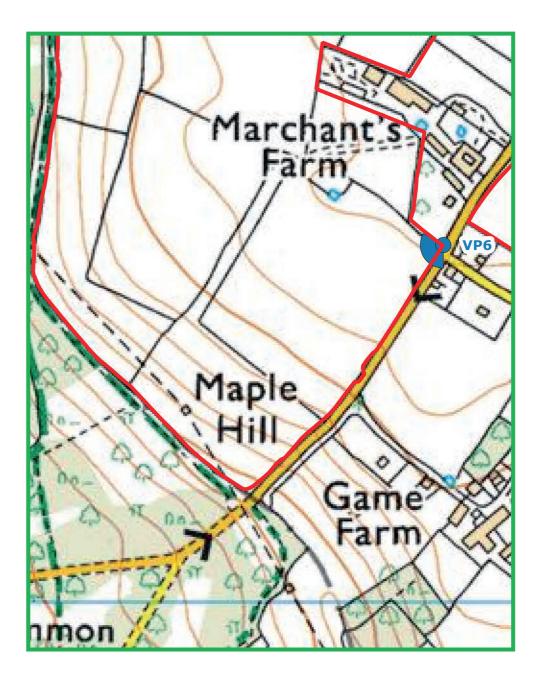




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VIEWPOINT 6 IMAGES







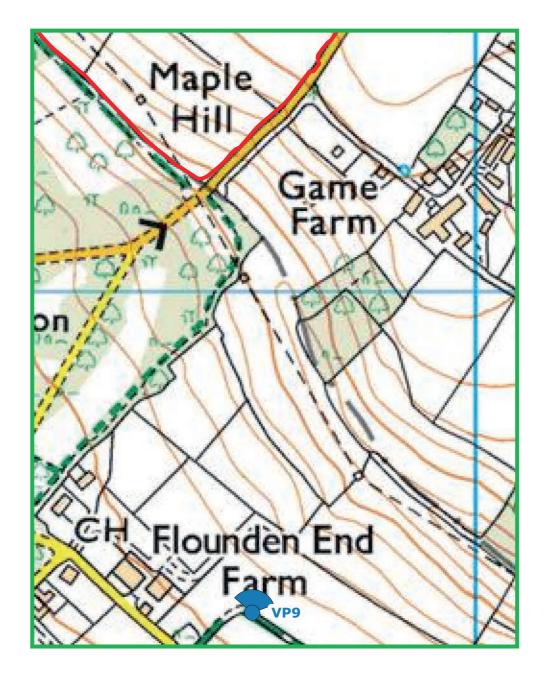




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VIEWPOINT 9 IMAGES







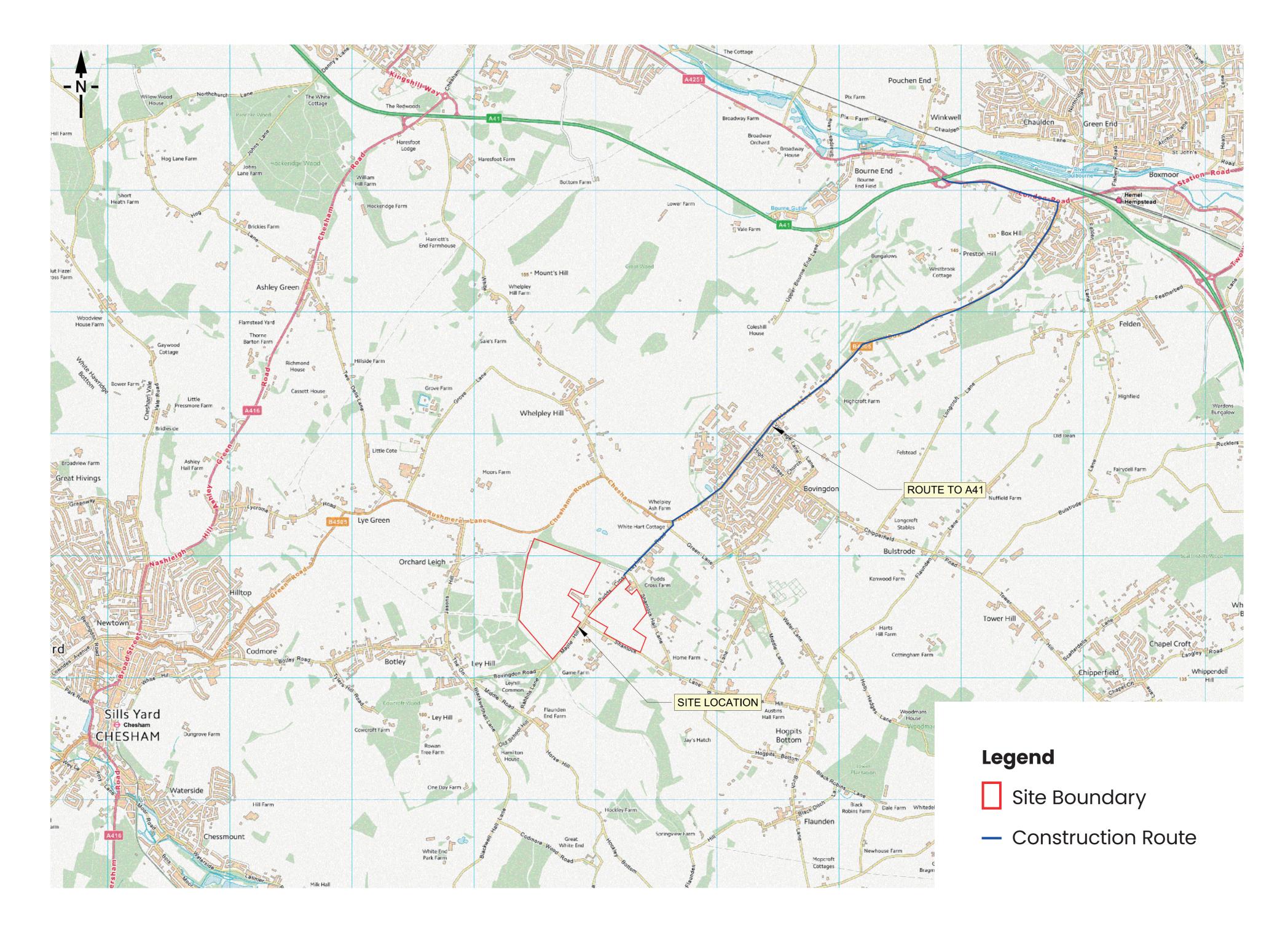




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CONSTRUCTION AND OPERATION



Throughout the construction and operational phases of the proposed solar and battery energy storage development on Land at Pudds Cross, BSR Energy is committed to ensuring that the impact to the local road network, and the local community is kept to a minimum.

The construction phase is likely to last for approximately 10 months with the peak traffic movements during months 8–10. This will generate an average of 5 two-way HGV movements per day, during which a Construction Management Plan will be in place, to minimise any disruption to the surrounding area.

We would also see a slightly higher number of cars / vans associated with workers travelling to / from the site at this time.

The measures that are likely to be taken to minimise

- Wheel washing to reduce mud on local roads as a result of vehicles exiting the site.
- Restricted delivery hours to avoid busy periods.
- Dedicated construction route agreed with County Highways.

Once the site is operational, it is anticipated that there will only be low levels of traffic accessing the site for maintenance purposes. It is therefore expected that the largest volume of traffic will be associated with the construction phase of the project.

If planning permission is granted, construction is expected to begin on site in January 2027 and finish in October 2027, when the Distributed Network Operator (DNO) will be able to connect the facility to the Grid. The DNO is a licensed company that owns and operates the network of cables, transformers, and towers that bring electricity from the national transmission network to businesses and homes, and so this connection is essential for the operation of the facility.

disruption include:

- The introduction of a dedicated construction compound running adjacent to the main site, with temporary matting to ensure that all vehicles have somewhere to make deliveries, to keep the road network free of waiting vehicles.
- A dedicated site manager who will coordinate timed delivery slots.



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HAVE YOUR SAY

Our consultation period is running until Sunday 6 October 2024 and provides the local community the opportunity to provide feedback as we develop our proposal for Land at Pudds Cross to ensure we understand any concerns.



There are a number of ways you will be able to provide feedback:

- Fill out our questionnaire by scanning the QR Code opposite
- Call us on 0800 058 4626 (freephone)
- Email us at info@BSRpuddscross.co.uk
- Fill out the 'Contact Us' form on our



website

If you, or anyone you know, would benefit from hard copy information or accessible formats, these are available on request by using the details listed below. There are a limited number of hard copy forms available at today's event for those unable to fill this in online.



Next Steps

Following the close of the consultation period, we will review the feedback received. This feedback analysis will then be used to inform the final design of the scheme for planning submission to Dacorum Borough Council. We are hoping to submit a planning application by the end of this year.

There could be some time between the submission of the planning application and determination, but we would hope to have a decision by Summer / Autumn 2025.

For this site, we have a delayed grid connection date of October 2027, so should planning permission be granted by Dacorum Borough Council, we would be looking to start on site in January 2027.



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