Cotes Heath Solar Frequently Asked Questions

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OVERVIEW

Who is AMPYR Solar Europe (ASE)?

Ampyr Solar Europe is the developer of this project and was created in 2021. Ampyr Solar Europe has operational solar farms across the UK, Netherlands and Germany, with multiple projects in different stages of development throughout the UK.

How big is Cotes Heath Solar?

The solar panels would cover 24 hectares within a 30-hectare (ha) site and the solar development has an expected export capacity of up to 15 megawatts (MW).

What will Cotes Heath Solar consist of?

The solar development will consist of:

- Fixed-tilt solar photovoltaic panels. This means that they are fixed in position facing south and do not move during the day.
- 1,350 solar PV modules, with a power export capacity of up to 15 MW.
- Solar panels set on lightweight frames in rows spaced 2 to 6m apart depending on topography, with a minimum ground clearance of 0.6m and a maximum panel height of up to 3m.
- Power will be converted from Direct Current to Alternating Current, and the voltage stepped up to be suitable for the UK national electricity network ("the grid") via onsite inverters and transformers.
- An on-site substation and site facility, which includes a control room and components storage.
- A boundary fence up to 2m high (e.g. post-and-wire deer fence), and CCTV cameras and a thermal imaging detection system located on 3m high poles, set at approximately 50 to 100m intervals on average around the site perimeter. No permanent lighting will be required.
- Internal access tracks as either aggregate or compressed earth (grassed over) through the field to enable operation and maintenance.
- Ecology mitigation and enhancement areas to protect the ecology and habitats of the site.
- The substation, batteries, and transformers will be located away from potential noise receptors such as residents or pedestrians and cyclists.

Existing hedgerows will be maintained and enhanced, to screen the site from external views, and also to provide biodiversity benefits. Where there are existing gaps in the hedgerow, additional infill planting with native hedgerow species will be considered to improve screening and enhanced biodiversity benefit. Any further landscaping requirements would be proposed by a project landscape architect following completion of a landscape and visual appraisal.

Why have you chosen this location for Cotes Heath Solar?

We have carefully considered the best location for the solar development, both operationally and in terms of minimising impacts on the community and environment. The steps we have followed are set out be-low.

1. **Securing connection agreement**. A 15MW connection agreement was secured with National Grid at the nearby Cotes Heath Substation. The point of connection is via a proposed 33kv under-ground cable.

2. **Conducting a desktop assessment**. Desktop assessments have been carried out to find suitable areas for the solar panels. This considered a number of national and local designations, ecology and heritage constraints, flood risk, agricultural land classification, neighbouring land use and committed planning developments, visual impacts, and proximity to homes.

3. **Identifying land options in the search area**. Based on the search area identified during the desktop assessment, we then engaged with landowners to find suitable sites.

4. **Carrying out a detailed assessment on suitability of the land**. Once we had identified a site in the right area, we conducted a detailed assessment of its suitability, including environmental surveys.

Why is Cotes Heath Solar needed?

The UK is transitioning to zero and low carbon sources of power. All coal-fired power stations have now closed, meaning the amount of energy generated from renewable sources needs to increase. The UK's climate change ambitions are amongst the highest in Europe and the aim to achieve net zero carbon emissions by 2050 is set in law, and on 23 July 2019 Stafford Borough Council declared a climate emergency.

By 2050 the UK is expected by National Grid to be using double the amount of electricity than we do today. For example, the growth in electric vehicle ownership has grown thirty-fold and is set to rise with the abolition of new diesel and petrol cars by 2035.

Currently the UK's electricity price is among the highest in Europe, meaning that we need to find ways of generating more affordable, renewable and clean electricity. Energy security for the country is also of paramount importance.

What are the timescales for Cotes Heath Solar?

We are currently doing surveys and assessments to inform our proposal, as well as consulting the local community and stakeholders. All this work will inform our final proposal, which will be submitted in a planning application to Stafford Borough Council later in 2025.

Should planning permission be granted, the main construction period would likely be in around 2032. We anticipate that construction (following some enabling works) will then take approximately 20 to 30 weeks to complete. Enabling works would start 6-12 months prior to construction, although some landscaping works (e.g. any tree planting) could occur sooner if required or beneficial.

Will there be a lot of construction traffic?

All construction materials will be delivered by Heavy Goods Vehicle (HGV) lorries with no abnormal indivisible loads (AILs). The average daily number of delivery vehicles throughout the construction period would be expected to be low, with approximately 25 deliveries per day at its peak.

How long will construction take?

The construction period is expected to last between 20 to 30 weeks, and it is proposed that construction working hours would be as follows:

- 08:00 – 18:00 Monday to Friday; and
- 08:00 – 13:00 on Saturday.

Should work be required to be undertaken outside of these times, this would be agreed in advance and in writing with the local planning authority.

Will solar really work in this location?

Solar panels need daylight and sunshine, not high temperatures, so solar panels can and do work well in England.

What will happen when the solar development is no longer needed?

The Cotes Heath Solar development will be reversible, with an operational period of approximately 50 years. At the end of the development's lifespan, the site will be decommissioned, with the land returned to the landowner ready for agricultural use and with improved soil quality.

On decommissioning of the solar development, the majority of materials removed from the site will be either re-used or recycled. It is anticipated that few waste materials would be generated during the operational period – transformers and inverters will be the most frequently replaced components of the solar development, and these would also be either re-used (e.g. reconditioned) or recycled.

Traffic during decommissioning is expected to be similar to the levels during construction.

How will Cotes Heath Solar be constructed?

During the construction period, initial site setup works would take place followed by construction of the internal access route(s), ground works, and the installation of the solar panels and other associated infrastructure.

Facilities would be provided on-site for construction workers, including provision of a site office and welfare facilities. Fencing would be installed around the perimeter of the site, and temporary parking would be provided for the construction workers.

The components for the construction phase are largely prefabricated and therefore any construction waste generated would be reduced to a minimum. Site waste management will be in accordance with appropriate licenses.

How will Cotes Heath Solar be operated?

During operation, the solar aspect of the site will be remotely operated and would only be visited for maintenance and inspection purposes. There will also be some management of the habitats on-site (e.g. wildflower meadow and hedgerows), which could involve activities such as surveys and additional or replacement planting.

ENVIRONMENT

Have you considered the impact of Cotes Heath Solar on the environment?

We are working hard to be mindful of the environment at the site. Surveys are being carried out to assess Cotes Heath Solar's likely effects on the environment, landscape, heritage and local community. We are also looking at ways to enhance local ecology and biodiversity through the project.

Have you considered the impact of Cotes Heath Solar on ecology and biodiversity?

Conserving and enhancing the biodiversity around Cotes Heath Solar is important to us. We are undertaking surveys to understand if there are any protected wildlife and habitats at the site, as well as to identify any mitigation required to minimise impacts on them. So far, these surveys have concluded that the solar development will not have a significant impact on the local ecology, wildlife or habitats of the area.

The site will have a combination of solar panels and areas of ecological mitigation to protect the ecology of the site and its ecological value to the wider area.

We are required to deliver a minimum 10% biodiversity net gain through habitat enhancement onsite, and it is currently expected that this can be substantially bettered through hedge and tree planting, ecology and habitat enhancement areas, and the planting of wildflower meadow grassland under the solar PV areas.

How will local wildlife and habitat benefit?

We will be working to enhance the natural environment through our work at Cotes Heath Solar. Some options we are considering include:

- Ecology mitigation area
- Maintenance and planting of hedgerows

Will there be more traffic in the area because of Cotes Heath Solar?

During construction, there is likely to be more traffic due to materials being delivered to the site but, when the solar development is operational, additional traffic would be limited to maintenance vehicles less than once a week on average.

During the construction phase, access to the site will be directly from the A519 (N), before approaching the A519 / A51 priority controlled roundabout junction. The site will be accessed by either using an existing field access or via a newly created access. We will aim to avoid the loss of any existing hedgerow should a new access be required.

Site traffic will consist of HGVs, light goods vehicles and cars. Movements during the construction phase are expected to have a minimal impact on the safety or operation of the local highway network, and a traffic management plan will be submitted as part of our application, as part of the Construction Traffic Management Plan and Transport Statement.

Traffic management measures may be implemented for cable installation works, however these will be short-term and are not likely to cause significant disruption. We will also consider any cumulative impacts from other nearby works.

Will Cotes Heath Solar create a glint/glare issue?

Glint and glare are visual effects that can sometimes affect nearby motorists or homes. Solar panels are designed to maximise the absorbency of the sun's rays, and this means that glint and glare levels will be lower compared to surfaces such as window glass, water, or snow.

We are also undertaking a Glint and Glare assessment, which will consider the visual effects within a 500m radius of the site and consideration of aviation receptors further afield. In general, the panels are designed to absorb the sunlight and are proven to reflect less light than waterbodies or glass and therefore do not normally create issues.

Will there be any risk of land contamination?

Solar developments do not produce, emit or leak any toxins. There are claims online about solar panels in landfill (after the end of the life of a solar development) eventually (over a long period of time) starting to disintegrate under the ground and any potentially contaminating elements in the panels eventually ending up in the soil in a landfill. However, most of these websites are discussing the USA, where the policy has allowed hundreds if not thousands of solar panels to be disposed of in landfill – this is not the case in the UK, and so these claims do not apply here and certainly not at the site of an active solar development.

Will there be any noise/ buzz from the panels?

Solar panels themselves do not make any noise and there are no known health issues associated with being near solar developments. When the solar development is operational, low levels of noise can be generated by the electrical system, such as from the transformers and inverters, which can sound like a quiet buzz or fan noise, which decreases rapidly with distance from this infrastructure. We propose to use Medium Voltage Stations (MVS), which combine the transformers and inverters into these units and minimise the number of inverters needed on-site. The MVS will be located away from the PRoW and nearby properties, at a distance confirmed by acoustic specialists and/or assessment as required, to minimise noise impacts. Detailed noise modelling will confirm any likely noise impacts on surrounding communities.

The construction of the solar development will be a relatively short period, as minimal digging is required. The potential effects of noise and vibration during construction will be limited to specific locations within the site and only for short periods. We will make the community aware when works are likely to take place and details of our limited working hours will be set out in our planning application.

Is there a risk of flooding at the site?

The site is located in Flood Zone 1, and the majority of the site is located in an area of very low risk of surface water flooding, with a small section at low risk of flooding. Drains and water courses near the solar development will not be impacted by the development. Maintaining the grass below the site itself wherever

possible will ensure that the land will remain permeable, meaning surface water can pass through easily.

As part of our planning application, we will submit a Flood Risk Assessment and Drainage Strategy, which will demonstrate that the site will not be affected by flood risk, nor affect flood risk elsewhere. It will also demonstrate how any residual risk of flooding will be managed.

Will there be any impacts on local heritage from the works?

Direct impacts on the heritage of the area are unlikely and there are no designated heritage assets within the site. The planning application will include a Heritage Assessment that assesses any potential impacts on the setting and character of heritage sites, and the potential for undiscovered archaeological remains.

How high will the infrastructure be?

The solar development will range from 0.6m in height at the lowest point, rising to no more than 3m at the highest point. This means that the visual effects of the solar development will be limited for the communities surrounding the site.

The inverters and transformers are expected to be around 2.5m high. The onsite substation will include a regular brick and tiled-roof building with a pitched roof, maximum 5m in height at its peak.

How will the solar panels be screened?

Existing hedgerows and trees will be maintained, with the boundary hedgerows reinforced where needed, which will also provide wildlife benefits. All planting will use native hedgerow species.

We will also look at other ways to introduce planting, such as wildflower meadows. This will all be considered as part of our Landscape and Visual Assessment, which will be submitted with our planning application.

Will there be any impacts on food security and agricultural land?

ASE welcomes sheep grazing on its solar developments to manage the grassland under the solar panels; new companies have established in the UK that match sheep farmers with solar developments. Should the grass need to be cut mechanically, ASE will investigate whether the cuttings can be shared with farmers to ensure an end use for the grass/hay.

Following decommissioning, the land will be restored back to a state ready for its return to arable farming.

We know that food security is important. The National Food Strategy, which is an independent review for Government, notes that the next big shock to our food supply will almost certainly be caused by climate change in the form of extreme weather events and catastrophic harvest failures. It follows that addressing climate change, including by using solar energy, will improve the security of our food supply.

In addition, Solar Energy UK published a paper about the Facts About Solar Energy – in it, they note that to meet the government's net zero target, the 75 to 90 GW

of solar required by 2050 would at most account for approximately 0.4 – 0.6% of UK land, or less than the amount currently used for golf courses.

During the solar development's life span, which is approximately 50 years, the ground beneath the solar panels will be used by wildflower meadow or similar, allowing the soil to rest and become more fertile. After its operational period, the solar development will be decommissioned and the land returned to full agricultural use.

COMMUNITY

Will local communities be able to have their say on your proposal?

Yes – this consultation is your opportunity to fully understand the scheme, ask us questions, and share your feedback. We will consider all feedback received and use it to inform our proposal. We would also like to hear suggestions on how we can deliver community benefits through the scheme.

This consultation is running from **14 January to 11:59pm on 11 February**. Views can be shared on the project in one of the following ways.

- Online: by completing the online feedback form at www.cotesheathsolar.co.uk
- Email: by sending your feedback to the scheme email address – **cotesheathsolar@aecom.com**
- Post: by posting your feedback to the scheme Freepost address (no stamp required) – **Freepost ASE**
- At one of our consultation events: by filling in a hard copy feedback form and submitting it to a member of the project team.

How are we involving the community?

We are now consulting the local community on our proposal, in advance of submitting a planning application to Stafford Borough Council later this year. This consultation is your opportunity to fully understand the scheme, ask us questions, and share your feedback. We will consider all feedback received and use it to inform our proposal.

Once the planning application is submitted, Stafford Borough Council will host a statutory consultation, where you will be able to comment further, directly to the council. At this point, we will also share an update with the local community on how your feedback has influenced our proposal.

We will stay in touch through the development of the scheme, including through our scheme website: www.cotesheathsolar.co.uk

Will any permanent jobs be created?

A procurement process will take place during the pre-construction phase of the project, should planning permission be granted. The procurement process for

construction and operational contractors will first look at opportunities to use local companies, before searching the wider region and then nationally.

However, the procurement process will consider, companies experience, costs and availability as well as other factors.

What benefits will Cotes Heath Solar bring?

Cotes Heath Solar will bring a number of environmental and carbon saving benefits, including:

- Supply the equivalent energy needs of approximately 7,400 homes per year.
- Help to decarbonise the local area, saving around 5,100 tonnes of CO_2 per year and over 250,000 tonnes of CO_2 over 50 years.
- Biodiversity net gain / habitat creation.
- Local farm diversification.
- Supports UK transition to zero and low carbon power sources.

We are also looking at ways to help ensure the local community directly benefits from the development of the solar development. This could include:

- A Community Benefit Fund to support local projects, initiatives, or community cooperative electricity; and
- Creating opportunities for local business in the supply chain.

We would also like to hear your ideas on what benefits you would like to see delivered. Any ideas or suggestions can be shared with us using our consultation feedback form.

Are there any health risks associated with solar developments?

There are no health risks associated with solar developments. Solar developments are passive developments, absorbing sunlight and converting this energy into electricity. There are also no emissions or air quality impacts associated with solar developments.

Will Cotes Heath Solar impact any public rights of way (PRoW)?

No – there are no PRoWs within the site. The closest PRoW is bridleway Standon 33, which is approximately 200m to the northeast of the site, and which will not be directly affected by the proposals.

OTHER

Does the UK risk being covered with solar developments?

The Government's 'Net Zero Strategy: Build Back Greener' commits the UK to be powered entirely by clean electricity by 2035, subject to security of supply. To deliver the strategy, overall electricity demand is expected to increase 40-60% by 2035, all met from low carbon sources. This means that the number of solar

developments in the UK will increase. However, solar developments in the UK currently account for around only 0.1% of total land use.

Is there a possibility that the extent of the development will be expanded in the future?

The scale of this scheme is limited by the capacity of the grid connection that has been obtained. The planning application will be for a scheme with a maximum export capacity and will be decided by the planning authority on the basis of the potential impacts that it has. If ASE or anyone else wished to construct another solar farm (provided they have an allocated grid connection), they would have to make an entirely separate planning application which would be determined on its own merits and have to take into account the cumulative impact of the solar farm currently being applied for.

Where will the solar panels be manufactured?

As Cotes Heath Solar is at an early stage of development and a planning application has not yet been submitted, we have not yet procured the equipment and therefore cannot confirm where the components will be manufactured.