

Solar Energy UK (SEUK) and the Planning Advisory Service (PAS) present:



Workshop 5: Solar farms and Site Selection

Thursday 03rd October, 9:30-10:30



Agenda



Time	Topic
9.30am	Welcome and introductions, PAS
9.35am	Presentation: Solar farms and Site Selection, Ed Perrin, Low Carbon
9.45am	Q&A - Panel
10:25am	Closing remarks, SEUK
10:30am	Session ends

Introduction to the organisations



Planning Advisory Service

PAS supports local planning authorities to provide effective planning services and works with national and local government to help implement changes in the planning system.

Solar Energy UK

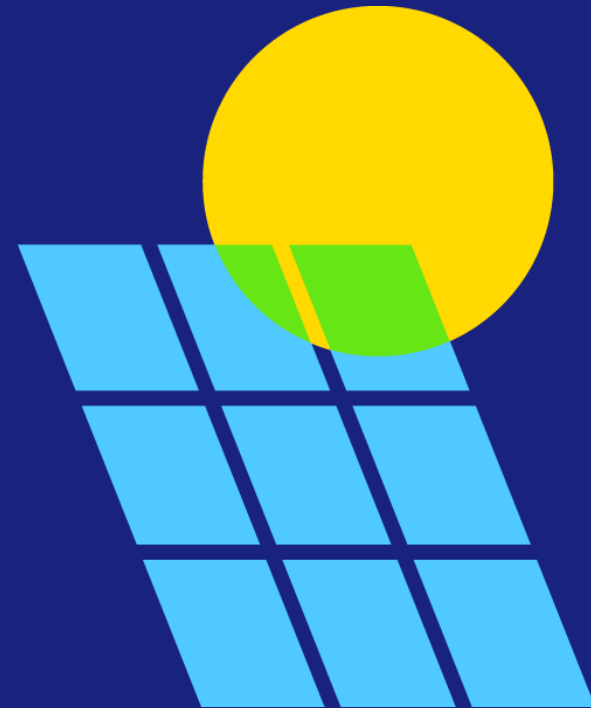
Since 1978, Solar Energy UK has worked to promote the benefits of solar energy and to make its adoption easy and profitable for domestic and commercial users. A not-for-profit association, we are funded entirely by our membership, which includes installers, manufacturers, distributors, large-scale developers, investors, and law firms.

Our mission is to empower the UK solar transformation. We are catalysing our members to pave the way for 50GW of solar energy (and 30GW of storage) by 2030 and 70GW of solar energy by 2035. We represent solar heat, solar power and energy storage, with a proven track record of securing breakthroughs for all three.



Solar Farms and Site Selection

Ed Perrin, Development Director, Low
Carbon

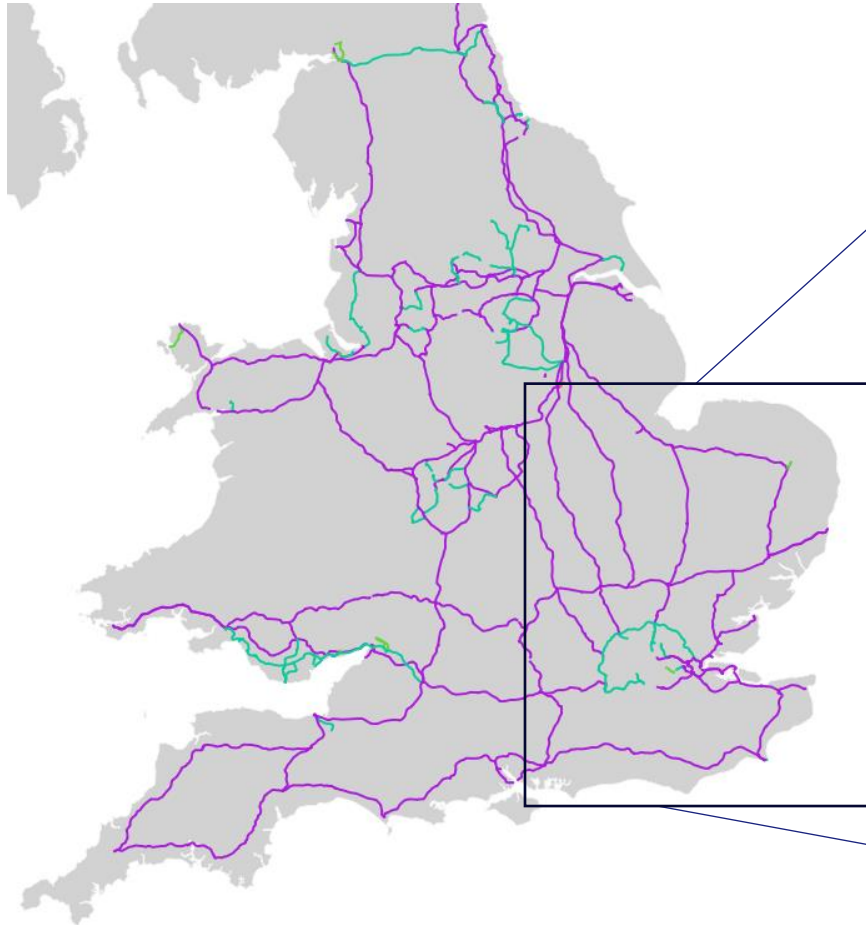


Introduction

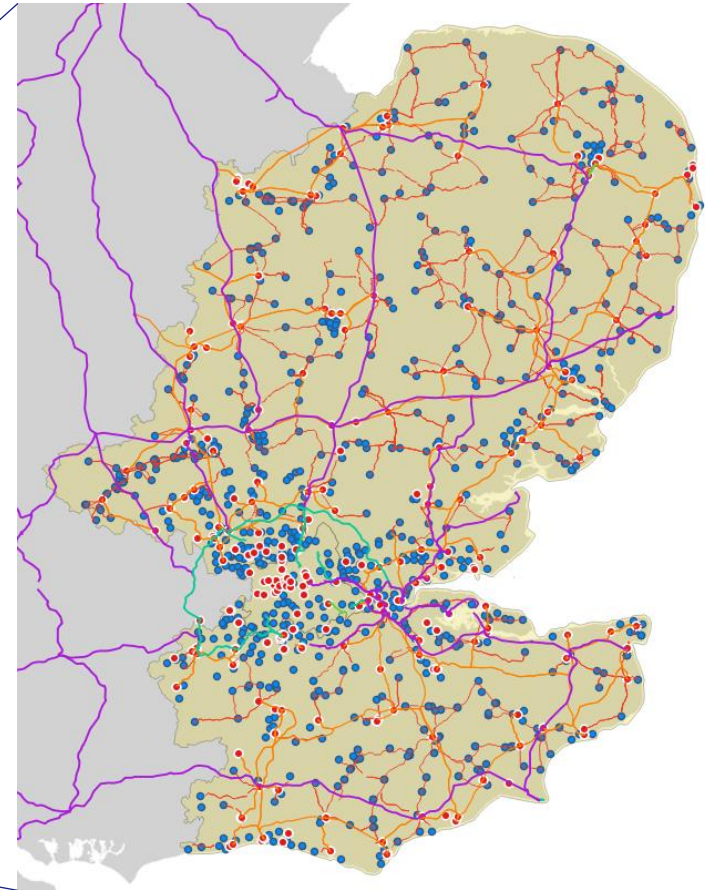


- Solar farms are a critical component of the Government's net zero strategy with an ambition to achieve 50 gigawatts (GW) of solar power by 2030. A four fold increase in capacity is needed in 5 years to achieve this goal.
 - Facing this scale of delivery, site selection is a critically important component in allowing viable sites to come forward. Sites will need to be:
 1. Large enough to meet individual project aims to contribute toward legal decarbonisation targets;
 2. Financially viable and technically feasible within a time period that responds to the urgent need for solar projects;
 3. Capable of accommodating a scheme where the benefits outweigh the impacts.
 - This sessions explores the various considerations that influence where sites are located, how big they are and the timescales they will be delivered.
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The grid



Transmission Network – 275 and 400 kV
– the dual carriageways and motorways



Distribution Network – 11 kV, 33 kV and
132 kV – the A, B and C roads

Types of connection

Powerlines

11 kV & 33 kV



132 kV



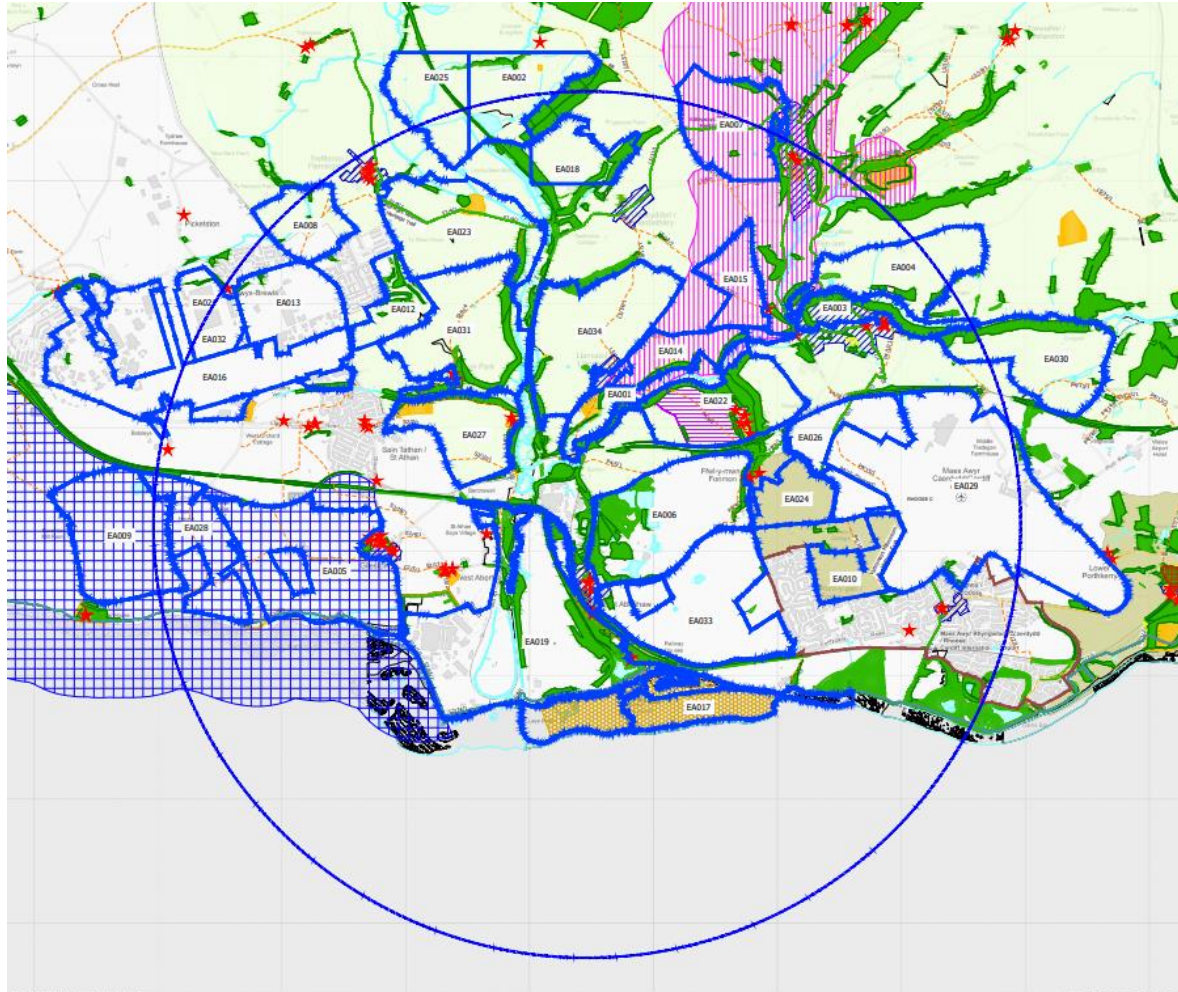
275 kV & 400 kV



Substations



Planning constraints



- Compatibility with national and local planning policy
- Accessibility
- Preference for previously developed land or industrial settings
- Agricultural land quality
- Visual impact
- Proximity to sensitive landscapes and areas of designated environmental significance
- Flood risk
- Historic environment impacts

Land availability



- Solar developers typically enter into a long term lease with the landowner rather than buy the land permanently.
 - Is the landowner willing to see some or all of the land developed for solar?
 - Are there any legal encumbrances on the property which would restrict development?
 - Is it physically suitable for a solar farm e.g. topography, field size, field pattern etc.
 - Are there any previous uses which would place a risk on the development e.g. mining or dumping?
 - Is this a primary landowner or secondary one and how does this fit in with the overall plan?
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Challenges in site selection



- **Grid capacity:** the grid is highly constrained with new capacity extremely challenging to secure, particularly at lower voltages. Often grid offers are prohibitively expensive, on extremely long timescales, or are subject to high curtailment. Often this is not known until some years down the road.
 - **Grid rules:** grid operators do not allow a site to be moved once a grid application has been submitted. If there is a site constraint that was not known at the time of application, this can have significant implications for the project.
 - **Spatial data restrictions:** unknown constraints such as archaeology or agricultural land classification are unknown until well into the development process. In addition, often the spatial data is unreliable or unavailable.
 - **Planning changes:** because of the long timescales to bring a site forward, planning policy can shift on certain areas after the site selection process but before planning is approved. Backchecking is essential to ensure we can respond to these changes.
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Panel Discussion



Laura Fogarty, Planning Manager, British Solar Renewables



Dan Corcoran, Development Project Manager, RWE



Ed Perrin, Development Director at Low Carbon



Laura Murphy, Senior Development Manager, Anesco

Please submit any questions for the panellists via slido:



Join us next week...



.. For our final workshop on Solar and Batteries!

(Thursday 10th October, 9:30–10:30)

