

Planning Consultation Response

To: Grahame French

From: Simon Stallard

Date: 05/10/22

PLANNING REFERENCE: 22/04355/FUL

DEVELOPMENT PROPOSED: Erection of an up to 30 MW Solar PV Array, comprising ground mounted solar PV panels, vehicular access, internal access tracks, landscaping and associated infrastructure, including security fencing, CCTV, client storage containers and grid connection infrastructure, including substation buildings and off-site cabling

LOCATION: Proposed Solar Farm To The West Of, Berrington, Shrewsbury, Shropshire

Renewable Energy and Decarbonisation Context:

I have reviewed documents and plans submitted with this application and on behalf of Shropshire Council Climate Change Task Force I wish to comment on renewable energy and carbon performance aspects of the proposed development.

The climate crisis is a serious threat to the lives of millions of people globally, nationally and locally. The mitigation of greenhouse gas emissions and adaptation measures to build resilience is now urgent and essential to prevent the worst outcomes. Even if we are successful in mitigating the worst effects, we will continue to experience more pronounced and frequent episodes of extreme weather effects. The much greater frequency of extreme weather events will significantly increase insurance risks and threaten the health, wellbeing and future resilience of our communities and infrastructure.

The Department for Business, Energy and Industrial Strategy – Climate Change Explained¹ has identified the following likely impacts:

- The effects of rising temperatures on the UK
- The effect of warming on rainfall patterns and water supplies
- Changes in the oceans

¹ [Climate change explained - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/climate-change-explained)

- The impact of warming on food production
- The impact on ecosystems
- The impact on human health
- Poverty
- The impact of extreme weather events globally

In this context, Shropshire Council’s Climate Task Force strongly supports in principle the delivery of additional renewable energy generation infrastructure and capacity in the county as a positive contribution to the policy objectives outlined below. Solar farms have the potential to deliver significant environmental benefits in terms of:

- Decarbonisation of energy supplies
 - “By 2030, 95 per cent of British electricity could be low-carbon; and by 2035, we will have decarbonised our electricity system, subject to security of supply.”²
 - “The net zero economy will be underpinned by cheap clean electricity, made in Britain. A clean, reliable power system is the foundation of a productive net zero economy as we electrify other sectors – so we will fully decarbonise our power system by 2035, subject to security of supply.”³
- Greater energy security
 - “The growing proportion of our electricity coming from renewables reduces our exposure to volatile fossil fuel markets. Indeed, without the renewables we are putting on the grid today, and the green levies that support them, energy bills would be higher than they are now. But now we need to be bolder in removing the red tape that holds back new clean energy developments and exploit the potential of all renewable technologies. Most critically, when we have seen how quickly dependence on foreign energy can hurt British families and businesses, we need to build a British energy system that is much more self-sufficient.”⁴
- Green growth
 - “We also envisage that the renewable energy sector can become a major local industry with significant employment and wealth generation for Shropshire. We have therefore also projected a 30% surplus by 2030 to create an element of power ‘export’ from Shropshire to adjacent industrial regions.”⁵

Shropshire Council declared a ‘Climate Emergency’ on 16 May 2019 reflecting the conclusions of the Intergovernmental Panel on Climate Change (IPCC) at that time. Shropshire Council subsequently adopted a Climate Strategy and Action Plan on 17 December 2020 which sets out a range of principles which include:

- Support Clean and Inclusive Growth:

² [British Energy Security Strategy \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/814217/bes-2020-01-20-01.pdf) p6

³ [net-zero-strategy-beis.pdf \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/814217/net-zero-strategy-beis.pdf) p19

⁴ [British Energy Security Strategy \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/814217/bes-2020-01-20-01.pdf) p6

⁵ [The Zero Carbon Shropshire Plan](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/814217/the-zero-carbon-shropshire-plan.pdf) p22

- a. Our local economy needs to grow while our emissions shrink. The transition to a green economy can provide significant growth opportunities for businesses as well as providing a cleaner and more inclusive future;
 - b. We want the Shropshire economy to shift to one which is zero carbon and abides by circular economy principles, whilst enabling our communities to build and enjoy their prosperity. The choices we make now will determine whether we can deliver on our obligations, and the extent to which we can do so in a way which is also socially progressive;
 - c. We will support skills and training which allow our communities and businesses to benefit from Shropshire's transition to a low carbon economy.
- Work with others:
 - a. We are on a shared journey and will need to work with others. This will allow us to learn from them and make use of external resources to help us to achieve net carbon zero and manage the effects of extreme climate events.
 - b. We will help establish and support a Climate Action Partnership of stakeholders and the wider community. The Council will work with the Partnership to provide advice, support and encouragement to our communities, businesses and charitable organisations to help them to mitigate their emissions and adapt to the inevitable impacts of the climate crisis.
 - c. The climate crisis is of particular significance for young people who will inherit the consequences of our actions. We will therefore work with schools across the county to ensure that the Climate Emergency is integrated as an issue across the curriculum and provide opportunities for schools and young people to contribute directly to the development and implementation of our Climate Emergency Strategy.
 - d. Throughout the development and implementation of our Climate Emergency Strategy and Action Plan we will be as open as possible in engaging the wider community and provide opportunities for them to contribute.
 - Influencing the behaviour of others:
 - a. In addition to direct control of our own Green House Gas (GHG) emissions, we have significant influence over emissions indirectly resulting from our policies, and through our regulatory functions.
 - b. Shropshire Council also has significant influence through its purchasing power. We will put in place measures to assess the carbon footprint of our procurement choices.
 - c. We will lead by example and seek to positively influence the purchasing power or funding allocations of others like the Marches LEP and its members to favour low carbon initiatives and products.

Our vision is for Shropshire Council to become carbon net-neutral by 2030 and assist in the ambition for the whole of Shropshire to become carbon net-neutral in the same year. In addition to this, we aim to be entirely renewable energy self-sufficient as an organisation within the decade.

- The UK Government has committed to a legally binding target of net zero by 2050.
 - “Now is the time the world needs to go further and faster to tackle climate change. The UK is stepping up to that challenge. Here we set out our ambitious strategy – the first of its kind in the world of a major economy - to create new jobs, develop new industries with innovative new technologies and become a more energy secure nation with clean green British energy. At the same time we will reduce greenhouse gas emissions across the economy to reach net zero by 2050.”⁶
- National Energy Security Strategy:
 - “Accelerating the transition from fossil fuels depends critically on how quickly we can roll out new renewables.”⁷
 - “With the sun providing enough daily energy to power the world 10,000 times over, solar power is a globally abundant resource. There is currently 14GW of solar capacity in the UK split between large scale projects to smaller scale rooftop solar.”⁸
- Marches LEP Energy Strategy:
 - “The 2030 Vision within the Marches Local Enterprise Partnership (LEP) Energy Strategy, launched in July 2019, includes an objective for renewable electricity to meet 50% of local demand by 2030. This was confirmed at the Energy Strategy launch as being locally sourced renewables and not derived from national production.”⁹
 - Recent modelling work undertaken by the Marches Energy Agency (2022) <https://mea.org.uk/wp-content/uploads/2022/05/Report-Meeting-the-Marches-Vision-of-50-power-from-local-renewables-by-2030.pdf> suggests that achieving 50% self-sufficiency in renewable power in the Marches would require, as a minimum, an additional 50 large solar farms (40 MW each), together with 625 small scale commercial roof PV (200 kWp) systems, 12 large commercial roof PV (3.811 MWp Lyreco type) systems and 75,000 domestic homes with solar PV by 2030. However, if alternative sources of renewable power such as wind turbines cannot be delivered as envisaged, then achievement of this objective would require at least an additional 120 large solar farms of 40 MW each.
- The Zero Carbon Shropshire Plan
 - “Over the next few years we need to make a rapid transition from natural gas, oil and other fossil fuels to renewable energy sources, including electricity (from wind, solar or hydro-sources), methane from anaerobic digestion, ‘green’ hydrogen, carbon-neutral synthetic fuels or biomass.”¹⁰

Whilst we are planning for renewable energy self-sufficiency as an organisation by 2030, we actively support the community-led Shropshire Climate Action Partnership (SCAP) and have worked with them to commission the mapping of renewable

⁶ [net-zero-strategy-beis.pdf \(publishing.service.gov.uk\)](#) p10

⁷ [British Energy Security Strategy \(publishing.service.gov.uk\)](#) p16

⁸ [British Energy Security Strategy \(publishing.service.gov.uk\)](#) p19

⁹ [Microsoft Word - Meeting 50% Marches Power Demand FINAL - Cover \(mea.org.uk\)](#) p6

¹⁰ [The Zero Carbon Shropshire Plan](#) p22

energy potential in the county

https://zerocarbonshropshire.org/renewable_energy_mapping_project/ and they have identified a need for around an additional 5,000 megawatts (MW) of generating capacity if the whole county is to become self-sufficient in renewable energy. The ambition to utilise this generating capacity is set out in the Marches LEP Energy Strategy which states:

“BEIS energy and emissions projections 2017 forecast national renewable electricity generation making up over 50% of total electricity generation by 2030. The Marches is aiming to contribute to this in kind with renewable electricity to meet 50% of local demand.”¹¹

And goes further still by setting a target for the Marches:

“Our new Energy Strategy sets a target of 50 per cent of all electricity to come from renewable sources by 2030 and the creation of 1,000 low carbon jobs.”¹²

The Zero Carbon Shropshire Plan supports the Marches LEP Strategy:

“Increase electricity generation so that Shropshire can be at least self-sufficient by 2030 using renewable sources and also become an exporter of electricity to generate wealth and employment locally.”¹³

And suggests this can be achieved by:

“Create a number of large-scale photo-voltaic arrays (solar farms, PV) and wind farms (wind and PV offer commercial opportunities at similar cost but have different site factors and a mix of, for example, 1/3 PV and 2/3 wind offers the opportunity to maintain better continuity of supply and balance grid loads).”¹⁴

The electricity distribution grid in Shropshire is heavily constrained and this means that opportunities to obtain a grid connection to allow power to be exported are very limited and are unlikely to improve. This significantly restricts where solar farms can be located, together with our ability to generate more renewable energy, which makes a crucial contribution to reducing carbon emissions and tackling climate change.

Application Specific Comments:

It’s recognised by the Climate Task Force that the development would contribute 30MW towards the approximate total of 5,000MW required to make the county self-sufficient in renewable energy. According to Greenhouse gas reporting: conversion factors 2022 – UK electricity¹⁵ this development would be expected to produce an approximate carbon saving of 5.8 ktCO₂.

¹¹ [Marches-Energy-Strategy.pdf \(marcheslep.org.uk\)](#) – p63

¹² [Energy - Marches LEP](#)

¹³ [The Zero Carbon Shropshire Plan](#) p23

¹⁴ [The Zero Carbon Shropshire Plan](#) p23

¹⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/108385/4/ghg-conversion-factors-2022-condensed-set.xls