Written evidence submitted by Solar Energy UK (GRI0084)

About us

Solar Energy UK represents more than 350 members in the UK solar and energy storage industry, including solar installers, manufacturers, distributors, developers, investors, technical, legal and professional advisors. Our goal is to enable the deployment of 70GW of solar energy capacity by 2035.

Introduction

We welcome the opportunity to respond to the Department for Energy Security and Net Zero's call for evidence on delivering a *Flexible Grid for the Future*. The current grid challenge is proving to be an overwhelming issue for the solar industry and is hindering our ability to deliver clean and affordable energy to consumers and businesses. Current grid constraints are also impeding the Government's own ambition of delivering 70GW of solar by 2030, and the UK's ability to meet its Net Zero targets.

To meet our climate targets, it is vital that Government and the relevant delivery bodies invest in the necessary grid infrastructure ahead of need, accelerate connections reform and provide a clear strategy on how to manage the existing queue effectively. As always, Solar Energy UK would like to state its willingness to follow up with the Department for Energy Security and Net Zero directly.

1. **Does the current national and DNO grid deliver the capacity needed for the future and, if not, what are the solutions?**

No, the UK's grid infrastructure is no longer fit for purpose and without significant intervention it will impede the UK's ability to deliver on its climate targets. The grid presents a considerable challenge for solar developers seeking to connect new assets. As it stands, grid constraints are actively blocking the development and construction of renewable generation with developers now being quoted connection dates of 2037. Developers are also experiencing year long delays on current connection agreements. This not only presents a problem for the UK's net zero timelines, but these delays will also negatively impact the UK's renewable investment environment. Such severe grid connection delays make the UK an undesirable market to invest in and could divert capital to competing markets, where generation assets can be deployed and start generating returns more quickly. To resolve current constraints, Solar Energy UK recommends the following:

1) Invest rapidly in network infrastructure.

In previous years, there has been an overriding focus on minimising costs to consumers today, at the expense of long-term value and investment. If we are to meet our net zero targets it is vital that we invest in our grid infrastructure, particularly given the expected increase in demand due to the electrification of heat

and transport. The Government's intention to 'investment ahead of need', as outlined in the Strategy and Policy Statement for Energy Policy in Great Britain, is an extremely welcome development. This would likely significantly reduce grid connection wait times and accelerate our transition to net zero.

Building on Ofgem's recently announced net zero mandate and the creation of the Future System Operator (**FSO**), the regulator needs to allow and encourage investment by DNOs and TSOs to meet Net Zero goals, not just to build out sufficient capacity to meet current connection queues. System operators should be encouraged to identify the long-term, strategic grid upgrades that are required not just to meet the requirements of the generators in the current queue but that make it flexible enough to cater for connection of future technologies.

2) Connections Reform

Solar Energy UK welcomes the recent developments by both the National Grid Electricity System Operator (ESO) and the Electricity Networks Association (ENA) in recognition of the need for connections reform. We are supportive of the intent to speed up connections to the grid by identifying inactive schemes and removing them from the queue, as detailed in our consultation responses. However, it is vital that the Government details its strategy for how it plans to deal with the current connections queue. As it stands, the transmission connection queue is currently over 300GW, the incoming queue management strategies (*CMP376 CUSC Modification awaiting Ofgem decision)* will be central to minimising the current queue and laying the foundation for a new process. However, it may take 5 years or more to implement the new queue management milestones under CMP376 into existing connections contracts. It is concerning that there is no indicative timeline for when we will begin to see reductions in the existing queue.

It would also be helpful to understand how the Government plans to address the current delays at the distribution level. Recently a significant number of policy documents have been released relating to transmission with a seemingly 'wait and see' approach to distribution level issues. This is detrimental to the deployment of rooftop solar, which is extremely popular with businesses and homeowners.

2. Has the organisation of the National Grid proved a barrier to the installation of renewable energy sources, and if so what could be done to remedy this?

The organisation of the National Grid has, to date, proved to be a barrier to the deployment of renewable energy for the reasons outlined above. In addition, resourcing constraints within National Grid have resulted in delays to delivery of the necessary grid infrastructure. For the UK to reach its climate targets it's imperative that National Grid and key delivery bodies are adequately resources to deal with the expected increase in demand. Furthermore, it's critical that the transition from the National Grid ESO to the FSO does not lead to any delays to the operation of the organisation. The FSO must ensure it is ready to carry out its duties from day 1 of the transition.

We would like to emphasise that the remit of the FSO should include strategic planning. A key function of the FSO should be to provide a holistic view of the system allowing stakeholders to see what grid infrastructure needs to be built and where.

3. **Should there be more innovation and devolution in the development of the Grid?**

In our view, Government should support more robust resourcing for Local Planning Authorities (LPAs) to assess and determine planning applications for new sites faster. Local authorities have a better understanding of the local needs on a case-by-case basis and can factor in how generation technologies will be most effectively deployed in line with other local infrastructure and the environment.

4. **What changes should be made to the planning system to enable it to increase the use of renewable energy?**

Local Authorities will and must play a critical role in the delivery of net zero by 2050 and in reaching the Government's commitment to deploy 70GW of solar by 2035. The planning framework is a key area of regulation that can support these goals. However, the deterrent of a complex planning system, which is under resourced, under skilled and under-prepared can significantly discourage developers from investing in renewable energy and infrastructure projects across the UK.

1) Staff Training and Resources

Local Planning Authorities in the UK are stretched, with limited human and financial resources. To deliver the capacity that is needed to reach net zero by 2050, we recommend that further funding be provided to planning departments to bring on additional staff to support the delivery of a strong planning system.

Our members have reported that there is a particular need for LPAs to improve resourcing with regards to renewable energy expertise. It could be that there is a focus at improving expertise at a district level and or specialist resources being pooled at county level.

In addition, there is a specific shortfall in expertise within environmental specialisms, including ecology and biodiversity, landscape, and archaeology. This is particularly concerning given the impending requirement for all new developments to deliver 10% Biodiversity Net Gain (BNG) from 2023. Given the current skills gap, it is likely that this will cause additional pressure on LPAs who will need to outsource expertise from consultancies. We strongly recommend that DLUHC look into additional financing mechanisms to ensure LPAs have the resources to deal with said challenges in a timely manner.

More broadly, we ask that members of local authority planning committees are sufficiently educated on the specifics of planning applications e.g. confident in their understanding of solar technology, of material planning issues, of what the

consequences could be if they overturn positive planning officer recommendations and of information on the appeal process.

We suggest that Government could look to fund planning apprenticeships, or university studentships (as done previously) within LPAs. Supporting staff retention and upskilling the current workforce will help to drive long term positive change within the planning system; subsequently resulting in the delivery of greater customer service from better equipped and more knowledgeable staff.

Improved resourcing and expertise would also reduce inconsistency in planning decisions. Inconsistency can lead to more applications going to appeal, causing unnecessary delays and costs for developers as well as increasing demands on already stretched LPA resources. Improving consistency in planning decisions would reduce the resource burden on LPAs and the Planning Inspectorate (PINS) and build the confidence of developers and investors.

2) Planning Fees

We recommend that Local Authorities should ringfence income from planning fees as a mechanism to resource, retain and upskill the current workforce within planning departments.

We also recommend that Government create a bespoke fee category for solar and other renewable energy projects to create a more proportionate planning fee structure. The current planning fees are not reflective of the true complexity or cost to LPAs of processing a solar planning application.

The Government could seek to rework the planning fees structure, to be technology specific and based on the actual workload for the local planning authorities. A good example of this is the planning fee structure used in Scotland which separates out energy generation from residential and non-residential development. Within the energy generation category, solar has its own fee schedule where fees are capped over a certain threshold. We believe an approach along these lines would be sensible for England and Wales.

Planning fees should be simple to calculate and clearly evidenced as to how the end planning fee has been calculated.

3) Strong Planning Guidance

Strong governmental support for net zero targets, and stronger communication of that support through guidance – at all levels of the planning system - would give LPAs greater confidence in determining renewable energy planning applications. Uncertainty undermines confidence and will make developers and investors hesitant in planning projects and LPAs in approving projects. We urge Government to come forward with updated National Policy Statements as soon as possible.

4) Local Energy Plans

We also recommend that LPAs be required to develop local energy plans as soon as possible. Local authorities should be required to understand and plan for future energy demand in their areas, in the same way that they are expected to understand and plan for future housing growth. Without such a requirement for LPAs to understand their energy needs and identify pathways to achieving net zero (across electricity, heat and transport), the UK's progress towards achieving net zero will be more top-down, more controversial and adversarial, and more costly than it need be.

5. **Is our planning system able to deliver more rapid development of new local infrastructure?**

Please see above.

6. **Would regional, or nodal, pricing of energy facilitate a more flexible development of Grid infrastructure?**

Solar Energy UK does not support Locational Marginal Pricing (**LMP**) whether that be nodal or zonal pricing. The introduction of LMP would mean that prices would be based on local supply and demand, as well as how close power stations are to consumers. This would lead to variation in the wholesale price of electricity across Great Britain, resulting in very real and very negative consequences for billpayers. The country would be split up into different regions, or even into hundreds of different zones based on post codes, creating a regional or local post code lottery of prices for consumers, inflating bills in England especially.

Injecting further volatility and uncertainty into our energy market through the introduction of regional or nodal pricing would also have serious negative implications on the investment landscape for renewables. Investors who have selected a location to deliver generation assets will have built a business case to do so based on current pricing. By changing that pricing, it could jeopardise the value of their investment and discourage further future investments. This will essentially create uncertainty in forecasts, which in turn will increase the cost of capital as investors will seek greater returns to account for this increased risk. This could lead to increased costs being passed onto the consumer or even the cancellation of projects. This could then inadvertently undermine development of a flexible grid.

7. **What can be usefully learned from power transmission systems in other countries?**

No comment.

August 2023