

OFGEM POLICY REVIEW ON FUTURE REFORM TO ELECTRICITY CONNECTIONS

BLUEFIELD PARTNERS LLP RESPONSE

JUNE 2023

INTRODUCTION TO BLUEFIELD PARTNERS LLP

- Bluefield Partners LLP (Bluefield) is a London based investment adviser to the Bluefield Solar Income Fund (BSIF), one of the largest operators of UK solar and onshore wind assets in the UK.
- BSIF has attracted over \$1 billion into its solar investment strategies since 2011 and invested in a diverse portfolio of solar PV assets across the UK since 2013.
- There are over 120 assets under operation, typically large agriculturally situated solar farms, with a small number (by energy capacity) of industrial and commercial sites. In July 2020, the Company's shareholders voted to broaden the investment mandate into complementary renewable technologies, such as onshore wind, hydro and storage.
- Bluefield is seeking to deliver on the government's target of £100 billion of private sector investment in the UK by 2030.
- Bluefield has nearly a gigawatt of solar and battery storage projects currently in the distribution connection queue, a number of which already have planning permission but have limited visibility of connection dates.

SUMMARY

- Bluefield welcomes Ofgem's recognition of the important role that efficient connections play in meeting the UK's ambitious net zero targets, securing affordability for consumers and maintaining a secure energy supply.
- In particular, Ofgem's calls for intelligent changes to be made to the connections queue methodology to meet the growing demand and facilitate the transition to net zero are encouraging.
- Indeed, Bluefield concurs with Ofgem's identification of the current challenges facing energy system transformation, not least the long connection times that are leaving many projects that are otherwise considered "ready to build" now facing connection dates of 2028 and beyond.
- Bluefield was pleased to attend Ofgem's recent webinar to discuss its proposals in further detail. We hope that engagement with the industry will continue and that this results in tangible solutions being identified and delivered.

CURRENT CONTEXT

- The current challenges faced by National Grid and the DNOs are enormous and, until recently, there is limited evidence that the Government has recognised these challenges and provided the policy and financial support necessary to address them.
- The difficulty of connecting new projects to both the transmission and distribution networks is now the major barrier to expanding solar generation and battery storage at all levels from rooftop to utility-scale.
- At the same time, a significant shortage of personnel at National Grid and the Distribution Network Operators (DNOs), together with a lack of enforcement action by Ofgem, has resulted in increasingly poor levels of service for those wishing to connect.
- This is impacting projects at all stages of development, including those projects that are already in construction.
- Many projects that are otherwise considered 'ready to build' are now facing connection dates of 2028 and beyond. Newer utility-scale projects are unlikely to be able to connect for at least 10 years.
- It is, therefore, difficult to see how the government's decarbonisation targets can be met at current buildout rates.
- Tinkering around the edges of connection management policy and committing to long term energy market reform, whilst welcome, is unlikely to stimulate the significant upgrades to the grid that are required to allow generators to meet the net zero targets.

THE NATIONAL GRID AND FUTURE CONNECTIONS

TRANSPARENT, CONSISTENT DATA GIVING APPLICANTS ADVANCE, GRANULAR INSIGHT INTO EXPECTED GRID CAPACITY AND LEVEL OF NETWORK INVESTMENT

- This will be crucial to ensuring that parties across the system are equipped with information on when and where is optimal to connect, enabling streamlined, well-informed applications and efficient allocation of capital.
- Previously, developers had been able to rely on a combination of heat maps, network development plans, budget estimates and customer clinics to make reasonably informed decisions about where to invest in projects. Today, these information sources are either out of date or not available at all. Picking a location for a project has therefore become akin to a lottery, thus wasting valuable time for both developers and network operators.

MORE ROBUST CONNECTION APPLICATIONS, ENABLING WELL-PROGRESSED PROJECTS TO PROCEED

- This will ensure that well-developed connection projects, including new technologies and business models, can deliver when ready and are not unduly delayed by projects which are not ready to proceed.
- The solar industry has been calling for a consistent approach to queue management across transmission and distribution for many years. Despite inputs to many ENA and other industry fora, very little has changed in the last 10 years.
- At a distribution level, there are already significant hurdles for bringing forward viable projects. Letters of authority are required from landowners, deposits need to be paid, planning and other milestones are set and need to be achieved.
- Unfortunately, the same rigour is not applied at transmission level, and this leads to blocking of capacity by projects that are either very long term or may not be built at all. National Grid needs to do more than just launch a technology amnesty to unblock its customer queue. It should set the same, if not stricter requirements, to demonstrate that land is available, under the control of the developer, and that planning is progressing. These milestones should be enforced on all existing projects in the queue in addition to new projects.
- Projects sitting in the transmission queue should not be able to change technology type. As with distribution, such projects should be required to re-apply and join the back of the queue.
- National Grid and DNO connection queues need to be coordinated so transmission connections aren't permitted to jump ahead of existing distribution connections.
- Projects which are genuinely ready to build should be moved up the connection queue subject to achieving enforceable milestones. The position in the LIFO stack should also be re-assessed and a revised curtailment analysis produced.
- Bluefield welcomes the current work on remodelling the impact of battery storage on transmission and distribution systems and hopes this will result in a quick ramp up of connected capacity.

REFORMS DELIVER IMPROVEMENTS SWIFTLY, ENABLING SHORTER AVERAGE CONNECTION DATES TO BE OFFERED TO CUSTOMERS

- These are needed at both transmission and distribution stages, to meet net zero pathways for a secure, resilient low carbon system, through improved connection processes and planning assumptions and approaches.
- When capacity is released at transmission level, following the tech amnesty and enforcement of milestones, this shouldn't automatically be reallocated to other transmission projects. Many of the projects in the distribution queue have been waiting for a considerable period because of congestion in the transmission queue and therefore there should be a fairer way of reallocating that capacity.

- The ENA guidelines for DNOs on submission of Statement of Works / Project Progression applications need to be enforced so that these are submitted as and when connection offers are accepted, rather than being delayed to suit their internal processes.
- Projects are also impacted by increasing lead times for key components such as high voltage transformers, some of which are on 18 months back order. With uncertainty over connection dates, the risk of ordering long lead time items increases.
- There needs to be much greater consistency applied to connection offers not just between DNOs, but also within DNOs. There sometimes seems to be limited management oversight of the engineers making the offers so that different engineers will analyse impacts on the network using different methodology and therefore producing very different conclusions.
- Communication between DNOs and National Grid are far too adversarial, with generators rarely permitted to engage in discussions between all three parties even though, as the letter highlights, many of the constraints are at a transmission level.
- Once a project has joined a connections queue, communications between generators and DNOs is often poor. Repeated emails and phone calls are often ignored, even for projects which are in construction. Lack of resources is no excuse for such poor service, particularly given the large sums of money that generators are required to pay for connections.
- Where poor levels of service are apparent, there needs to be a transparent and effective mechanism for customers to hold the companies to account. Making an official complaint usually becomes a further excuse for DNOs to further delay connection planning. It is also not clear what action, if any, Ofgem would take if a complaint gets to that stage.
- We are not optimistic that the ENA can achieve meaningful progress without firm supervision from Ofgem. The industry has been engaging the ENA for more than 7 years to improve the queue management process and little progress has been made to date.
- It is evident that there is a significant shortage of staff at all levels of transmission and distribution operators. This is a longer-term challenge but at the very least there should be a major training and recruitment drive to address supply chain and skills constraints.

GREATER COORDINATION AND CONSISTENCY ACROSS SYSTEM BOUNDARIES, SUPPORTING MORE CONSISTENT OUTCOMES AND EFFICIENT AND COORDINATED APPROACHES

- This is required particularly across transmission and distribution, and to support the planning of network expansion and efficient use of network capacity on a whole systems basis.
- Building on Ofgem's recent net zero mandate, 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.
- There needs to be much more effective communication between DNOs and TSOs. This often appears to be an adversarial relationship and not one focused on finding solutions.

- 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.
- Such investment needs to be modelled not just on the impact on short-term consumer prices but on much longer-term time horizons. Crucially Ofgem needs to enable system operators to make the investment that is required and to encourage additional private-sector investment and delivery in partnership with the system operators.

ENDS