

# UK's first transmission-connected solar generation


## Overview

***Cero Generation**, a leading European specialist in solar energy development, production and storage is dedicated to delivering world-class solar assets and providing solutions to accelerate the realisation of a net-zero future. With 11 GW under development, Cero is home to one of Europe's largest solar and battery development portfolios.*

*In May 2023, alongside its UK development partner Enso Energy, Cero energised the first solar generation plant to connect directly to the UK electricity network. The **Larks Green Project** connected a solar generation plant to National Grid's Iron Acton 132 kV substation, near Bristol, England. The solar generation plant can generate up to 49.9MW of sustainable, low-carbon power for U.K. homes and businesses.*



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<b>Client</b>	CERO Generation	
<b>Country</b>	UK	
<b>Year</b>	2022 - 2023	

## Challenge

Larks Green is the first solar farm to connect directly to the transmission network in the UK. A requirement for transmission-connected generation is that it must comply with National Grid's Grid Code. To ensure full compliance with the Grid Code, Cero engaged PSC UK as an experienced and trusted Compliance Manager to support them through the project.

## Project solution

PSC acted as the Compliance Manager for the Larks Green project, providing technical and regulatory support from the initial concept through the design and construction phases. PSC also provided grid works services relating to the Cero Generation/ National Grid Electricity Transmission (NGET) interface.

Specifically, as Cero's Compliance Manager, PSC managed and coordinated the Compliance Process with National Grid's Electricity System Operator (NGESO). This included guiding Cero's EPC Contractor through the compliance process. PSC ensured all documents required to achieve Energisation Operational Notification (EON) and Interim Operational Notification (ION) were prepared and submitted, as well as finalising and submitting the Compliance Statement.

In addition, PSC led Cero's EPC Contractor through Compliance Testing, including submission of test notifications to NGESO and coordination with the NGESO control room for testing. PSC has successfully helped Cero achieve unrestricted operation at Larks Green and in the coming months will witness the Grid Code compliance tests, review model validation reports, and achieved the Final Operational Notification (FON).



Regarding Grid Works, PSC reviewed the status of TP106 and TP153 which are UK electricity transmission procedures ensuring that commissioning is carried out with a demonstrable level of governance and associated audit trail, and coordination of HV system stage by stage connections for construction installation and commissioning. As part of such, PSC undertook site commissioning audits, advised on the 132kV Cable Sealing Ends and 132kV cable testing, and reviewed 132kV partial discharge testing.

Additionally, PSC supported Cero for EPC Contractor claims at various stages throughout the project.

## PSC advantage

Cero Generation has benefitted from PSC's consistent technical support via a single unchanging point of contact throughout the project's phases. PSC's experienced engineers provided a depth of understanding of Grid Code requirements, project installation and commissioning of connections inside a NGET substation.

PSC's experience was valuable to Cero and their EPC Contractor as this was the first time National Grid had connected a solar generation to the transmission grid.



*"Connecting the first solar project to the transmission network did not come without significant technical challenges. PSC provided outstanding support throughout the project, leveraging their expert knowledge and professionalism, to ensure the success of the project."*

**- Dr Charles Cresswell – Director of Grid, Cero Generation**



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