

# Why solar?

Scotland is committed to achieving net zero by 2045. As part of this progression towards decarbonisation and reducing reliance on fossil fuels, there is a need to invest in renewable technology and make the UK an independent and self-sufficient energy producing nation.

Solar is one of the cheapest sources of new electricity generation and will play a key role in improving Scotland's energy security, while supporting the transition away from fossil fuels. As Scotland strives to be a net-zero carbon economy by 2045, solar is not just an option, it is a necessity as part of a balanced energy mix. Solar is a great resource to assist in this transition as it is a free and inexhaustible resource.

By producing solar energy domestically, Scotland can secure our energy market for the future and become less reliant on expensive foreign gas imports for electricity and heating.

RES solar farms are specifically designed to be dual purpose, combining continued agricultural use and renewable generation.

Where a solar farm is installed on land which has been intensively farmed, it enables the ground underneath to recover. Solar farms can help regenerate soil quality and contribute towards the continued availability of high-quality agricultural acreage for future generations.

Solar farms provide valuable diversification opportunities for farmers, helping them to continue to invest locally, employ locally and farm in a sustainable manner.

Solar farms have significant potential to enhance biodiversity, hosting a range of habitats including wildflower meadows, hedgerows, nectar-rich areas for pollinators, and woodland. A typical solar farm uses around just 5% of the total site area with the rest of the land remaining undisturbed, creating significant opportunities to provide a range of ecological benefits.



RES solar farms utilise bifacial solar panels which as the name suggests, have two sides of solar cells, enabling additional energy generation from the reflected and diffused light on the rear-side of the panels. Solar panels do not require direct sunlight to produce energy – diffuse sunlight is sufficient, and a grass surface reflects enough light to justify the use of bifacial modules. The use of bifacial panels means that there is potential to produce more electricity in less space.

## Bonnyknox Solar Farm

[bonnyknoxsolarfarm@consultationonline.co.uk](mailto:bonnyknoxsolarfarm@consultationonline.co.uk)

**RES**  
power for good