



Irish solar energy Illuminating a sustainable future

In a nation known for its rain, Ireland's skies are now shining brighter than ever with the promise of solar energy. In just a few short years, solar power has transformed from hero to zero, becoming a significant player in Ireland's energy landscape. In May 2023, solar energy contributed a remarkable 10% to the country's power supply, a stark contrast to the 0% it delivered just two years prior. ESB Networks fittingly described solar as "the fastest-growing renewable power source in Ireland," reflecting the rapid pace of its adoption, writes *Conall Bolger, Chief Executive Officer, ISEA.*

Even having only recently arrived on the power generation scene, Ireland is likely to see more megawatts of solar installed than any other onshore renewable over the remainder of this decade. With ambitious targets and supportive policy frameworks in place, the country could emerge as a global leader in solar energy deployment.

The Irish Solar Energy Association (ISEA), representing the industry's interests, has been instrumental in driving this transformation. Through collaborative efforts, the solar industry has secured policy changes that have unlocked opportunities across various sectors, including utility-scale, residential, commercial and industrial.

The potential for solar energy in Ireland is immense, and the industry is starting to deliver. Utility-scale developers have already laid the groundwork here for approximately 11GW of solar capacity, securing most of the capacity in recent Renewable Electricity Support Scheme (RESS) auctions. Notably, solar projects

secured through these auctions have contributed to a total capacity of 2.8GW to date, which represents over 35% of the government's 8GW target.

Beginning with the inaugural RESS-1 auction in 2020, which allocated contracts to 63 solar projects totalling over 796MW, there was the subsequent RESS-2 auction securing 1,534 MW (equivalent to more than 55%) in capacity, and then the latest RESS-3 auction, which secured 498 MW (or nearly 50%) in solar capacity. This translates to approximately 73.9% of the total secured capacity in the auctions being attributed to solar energy, underscoring the increasing confidence and investment in solar power.

The microgeneration sector is also experiencing rapid growth, with rooftop solar installations becoming increasingly prevalent. At certain points last year, up to 100 homes connected per day, highlighting the enthusiasm for decentralised energy production and the potential for widespread adoption. A power generation mix that includes solar will

decarbonise far more than one without a high volume of solar. By running during the middle of the day, solar is displacing more polluting, less efficient power stations which tend to run during the day when the demand and prices are higher. This effect was found by AFRY to generate an additional 7% emission savings under certain conditions.

Rooftop panels benefit both homeowners and businesses alike. Homeowners enjoy reliable, renewable energy, reducing reliance on fossil fuels and cutting electricity costs long-term. Similarly, businesses find opportunities for cost savings, sustainability efforts and corporate social responsibility. Through generating clean energy on-site they reduce operational expenses and bolster their environmental credentials, while also contributing to the nation's broader sustainability objectives. Rooftop solar adoption plays a pivotal role in meeting Ireland's 2030 renewable energy targets, increasing renewable capacity, cutting emissions and advancing towards our ambitious sustainability goals.

The ISEA has been at the forefront of changing the policy and regulatory landscape so that solar could succeed.



Conall Bolger is the CEO of the Irish Solar Energy Association. He has nearly two decades of markets and policy experience working across the energy value chain, from community and customer site projects to larger scale onshore and offshore wind developments. He founded, led and developed Cornwall Insight's Irish operations while his international renewables experience includes Poland, Canada and the UK.



Rooftop solar installation is becoming increasingly prevalent.

We lobbied successfully for renewable auction changes that attempted to quantify societal benefits, enabling solar to capture most of the capacity in the second and third Renewable Electricity Support Scheme (RESS) auctions. Among the policy changes for which we advocated were:

- The increase of national 2030 solar targets from 1.5GW – 2.5GW up to 8GW;
- The inclusion of grants and an export tariff for microgeneration;
- Removal of planning restrictions for residential rooftop solar;
- A more favourable solar commercial rates regime than expected;
- Removal of VAT on the supply and installation of domestic solar.

With the industry scaling at this rate, it is essential for solar to grow sustainably. ISEA has been working on a set of guidance documents for rooftop solar, following on from its publication of industry guidance related to utility-scale planning in 2023.

The first Irish solar farm became operational in April 2022, signalling the start of a new era in Ireland's renewable energy mix. The growth trajectory continued unabated, with the ISEA's *Scale of Solar* report in June 2023 highlighting the remarkable expansion of solar energy in Ireland. This report emphasised the importance of embracing solar energy as being a key driver of the country's sustainable future and redefining its dependency on fossil fuels.

The speed of solar deployment in Ireland has been impressive, with projects facing fewer planning hurdles and

navigating the process relatively quickly. Recent reports by organisations such as AFRY and MaREI have underscored the potential of solar energy in Ireland and the need to remove barriers to its deployment.

As we embark on this journey towards a more sustainable future, there are countless opportunities on the horizon. The ISEA's annual conference, Solar Ireland 2024, which will be held in the RDS, Dublin on 1 October, promises to be a platform for exploring these opportunities and exchanging insights with industry leaders and stakeholders. The conference will address key topics such as project delivery, planning, industry growth, sustainable supply chains, infrastructure development, driving good practice, biodiversity benefits of solar, collaboration between agriculture and solar energy, and the role of women in driving change in the solar sector. ■

• This article is the first in a four-part series exploring this new Irish solar landscape. The second will review policy landscape and educational initiatives being undertaken by the industry. The third will focus on the key considerations to scale the solar industry and contributing to sustainable development. The final article will consider the trends and outlook for the solar energy market.

We look forward to sharing our insights with you and hope to see you at an event in future. Solar is starting to shine brightly in Ireland's energy ecosystem. Join us in this transformative journey so we can, together, build a cleaner, greener tomorrow with solar energy leading the way.