Greenhills Renewable Energy Development

The Greenhills Solar Project

This newsletter is a part of our ongoing work to engage with people locally around the proposed Greenhills renewable energy development. In the following pages you will find our initial proposed solar site area. Additionally, you will also find a detailed Frequently Asked Questions (FAQs) section, which seeks to respond to questions we are receiving from local people.

The responses in these FAQs and list of source material will help provide people with sufficient factual information to make informed decisions about the project. Should you have any queries, we are continuously open to engaging with members of the public and would encourage you to reach out.

The Proposed Greenhills Site

The proposed Greenhills solar site is situated adjacent to the R364 road approx. 7km north-west of Youghal and 6.5km north-east of Killeagh, Co. Cork, within a number of local townlands, including Knocknagappagh, Barnaviddane, Ballyneague and Ballydaniel. There will be several elements proposed that will collectively form the Greenhills Renewable Energy Development, namely the solar array, the 220kV substation and the BESS.

Pre-planning work has been progressing well and we are happy to be able to share our site study area with you. The site layout for planning, which is currently being drafted, will be contained within this area. Note that some further refinement of this is still likely before we apply for planning permission, however any changes are likely to be relatively minor and will not exceed the indicated study area. We encourage local residents to reach out with any feedback on this and welcome any additional questions.

As a part of our continuing community engagement efforts, we are available for one-on-one appointments at Inch Community Centre on the below dates to answer your questions.

- **Tuesday 5th August**
- **Friday 8th August**

Please contact ahead of time at the below details to arrange an appointment so that we can ensure a member of the team is on site to meet you.

Project Team: greenhills@orsted.com

Community - Aidan:
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Community – Edward:
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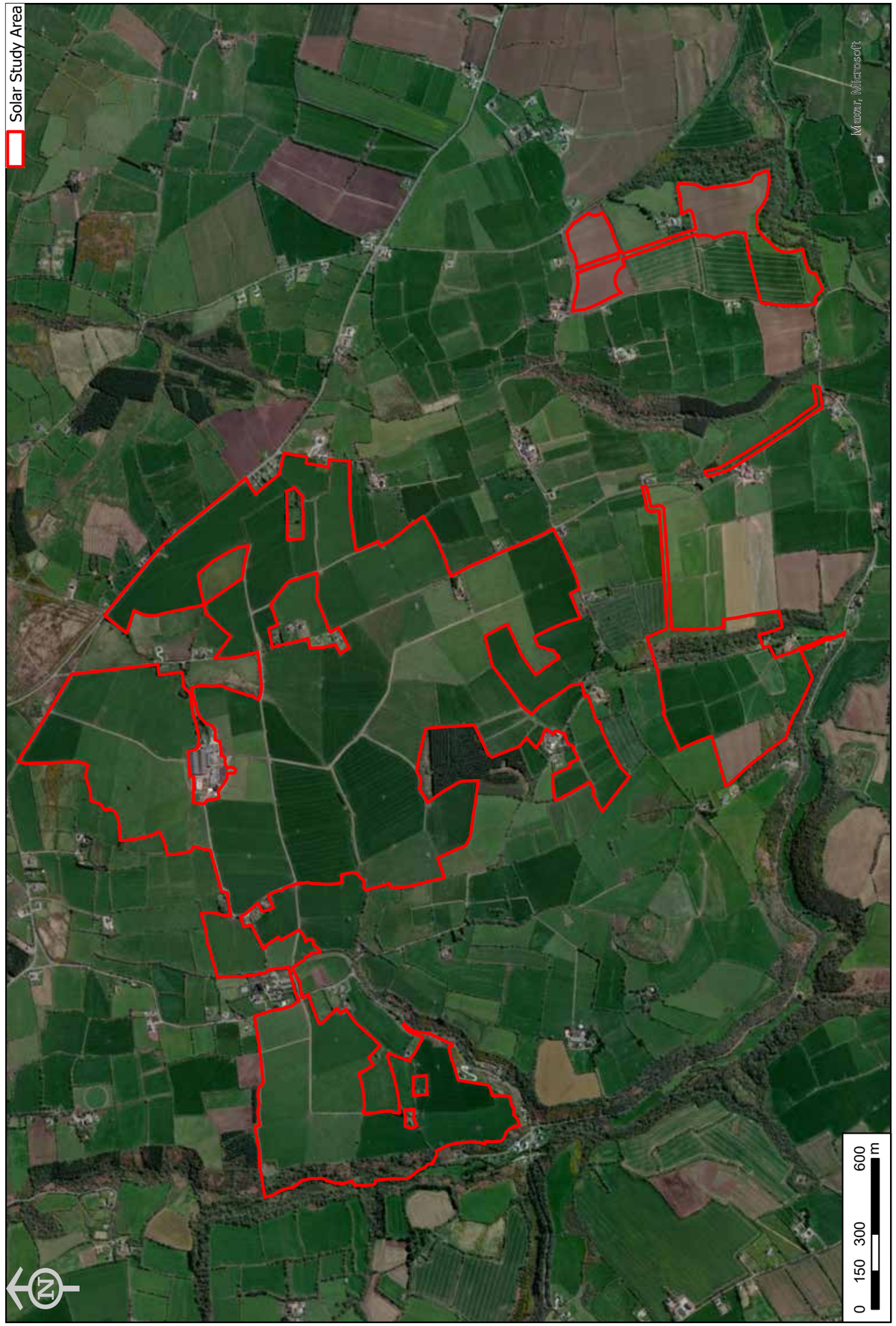
M: 086 1030464



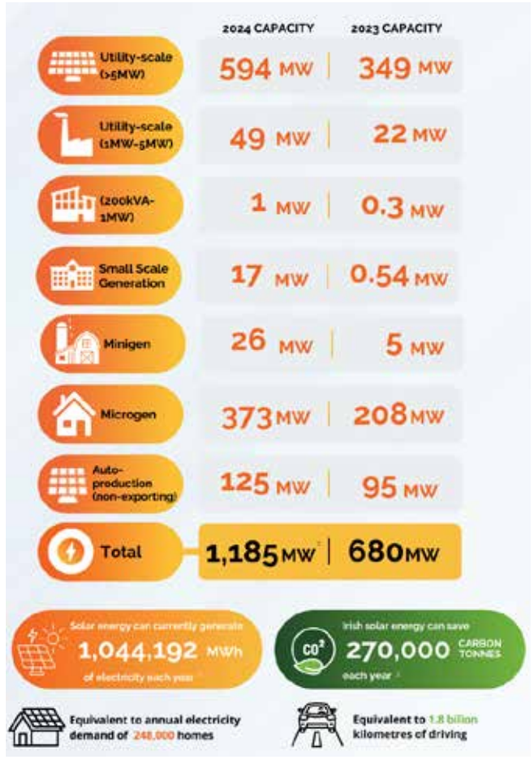
Frequently asked questions

Why are solar developments of this scale needed?

It is increasingly essential for every country to have a competitive and secure indigenous energy system. In Ireland, our targets to develop such a generation system place a strong emphasis on renewable energy, based primarily on solar, onshore wind and offshore wind. We require significant volumes of each of these technologies working together to be able to provide a secure local energy source. While Ireland has a proud history of developing a global leading role in onshore wind, the solar and offshore wind journey is at an earlier stage.

Ireland is committed to achieving climate neutrality no later than 2050, with a 51% reduction in greenhouse gas (GHG) emissions by 2030. These legally binding objectives are set out in the Climate Action and Low Carbon Development (Amendment) Act 2021, which establishes a framework with clear targets and commitments, to ensure the means are in place to deliver our national, EU and international climate goals and obligations in the near and long term. Failure to achieve these targets will result in fines being imposed on the Irish state. As things currently stand, it is expected that Ireland will have to pay out a minimum of €8 billion in fines, which could rise as high as €26 billion if we do not actively work to narrow the gap to our targets. This directly impacts on all of us as Irish taxpayers.

Climate Action Plan 2025 sets out the roadmap to deliver on Ireland's climate ambition and aligns with the legally-binding economy-wide 2030 GHG emission targets. One of the key relevant targets is the commitment to increase renewable electricity generation to supply 80% of demand by 2030, through the development of wind and solar energy generation.
To achieve the solar aspect of this, the government have set a target of 8000MW of solar to be installed by 2030, which is broken down as 5500MW of utility-scale solar (which would include Greenhills solar) and 2500MW of non-utility solar (which would include rooftop installations).
This infograph from the Irish Solar Energy Association displays the current figures for solar generation installed in the country and highlights the substantial increase that needs to take place between now and 2030 to achieve the government energy targets.



Frequently asked questions cont.

As our population continues to grow, demand for electricity is increasing. A secure and stable electricity network is a central requirement for the construction of new, much needed housing, which in turn increases demand on the electricity network. As public transport and private cars continue to transition to electric motors, electricity demand increases. As fossil fuel heating systems continue to be replaced with modern electric alternatives, electricity demand increases. Every time you pay for something, browse the internet, use messaging apps, social media, watch video content, send an email, book a flight or hospital appointment etc, you produce and consume data, which is stored in data centres. These data centres, which are at the core of how we go about our modern life, increase electricity demand. Ireland's national grid operator (Eirgrid) forecasts that electricity demand is set to increase over 45% by 2034 from 2023 levels. [3][5][7][8][12]

Does the conversion of land from agriculture to solar energy impact on the overall availability of agricultural land in Ireland?

In 2023, the utilised agricultural area in Ireland comprised of 4.62 million hectares (ha), or 11.42 million acres (ac). For additional context, this equates to approx. 66% of the entire land area of the Republic of Ireland, or over 3.6 million Croke Park pitches. This utilised agricultural area increased by over 110,000 ha (approx. 272,000 ac) between 2020 and 2023 inclusive, which would give an average increase of 27,500ha per year.

Using Teagasc figures of 1.5ha per megawatt (MW) of solar, it can be estimated that the approx. 4900MW of additional utility-scale solar required to reach Ireland's 2030 targets would need 7350ha of land, or around 0.16% of the 2023 total utilised agricultural area. If we were to assume an unlikely scenario of all 7350ha being taken out of agriculture in 2025 (rather than spread between 2025-2030 and taken from a range of existing land-uses), there would still be a net increase of over 20,000ha in utilised agricultural area in 2025, assuming the 2020 to 2023 trend has continued. The proposed Greenhills solar development, at an estimated 250MW, would represent a loss of around 0.008% of Ireland's 2023 total utilised agricultural area. The Greenhills proposal represents a tiny fraction of an already insignificantly small theoretical solar land area, in the context of total agricultural land in Ireland. [2][13]

Will the use of agricultural land for solar development impact on Irish food supplies and/or food security?

No. Ireland is a net exporter of food products. In 2024 alone, Ireland exported over 8.1 million tonnes of agri-food products, including approx. 1.9 million tonnes of dairy products. Ireland produces more than enough food to feed itself many times over, particularly when considering temperate agricultural commodities like meat and dairy-based products. This level of food security can be suitably complemented with the achievement of a level of energy security, through proposals like the Greenhills energy development, by providing a clean, indigenous source of renewable energy to the national grid. The development of solar energy at this site aligns with Mission 1 of the governments Food Vision 2030 plan, aiming for a climate-smart, environmentally sustainable agri-food sector by 2030. [6][14]

Frequently asked questions cont.

Do solar farms contribute to the circular economy?

Yes. Solar energy generation, as a form of renewable energy, is by its very nature a circular economy, converting energy from the sun into electricity without any emissions. Apart from the obvious provision of clean energy onto the national grid, solar also provides a significant range of additional benefits to local and regional economies in Ireland. KPMG conducted an investigation into the economic impacts of the solar energy industry in Ireland and found that there are significant benefits to be seen, both in the current day and forecasted out to 2030, if we meet our targets. Some of the relevant numbers for Ireland are given as follows:

- The Irish solar energy industry had a total 2024 economic output of up to €1.2billion across capital investment and operations, with up to €7.3billion in total economic output forecasted between 2025 and 2030.
- This represents a Gross Value Added figure of €514million in 2024 when costs of goods and services are subtracted. Up to €2.7billion is expected to be added to the economy between 2025 and 2030.
- PRSI and income taxes paid by the sector to the government amounted to €63million in 2024, with up to €344million expected between 2025 and 2030.
- Commercial rates of up to €5.4million were paid to city and county councils in 2024 from solar renewable energy alone, and this figure is expected to rise significantly to €51million in 2030, providing up to €193million cumulatively between 2025 and 2030. Rates are one of the main sources of income for county councils and renewable energy developments form a significant part of this. These funds are used to directly benefit the community through the development of roads, public transport, water services, recreation facilities and a wide range of social and community services.
- Community benefit funds from solar energy amounted to around €1.6million in 2024 across Ireland, and this figure is expected to rise to €15million in 2030, providing up to €58million cumulatively between 2025 and 2030. Historically, our community funding has contributed to a wide range of community causes, including things like the development of upgraded school, community centre and club facilities, energy upgrades, local volunteer health services, biodiversity initiatives, local recreational trail developments and community events.

The solar industry in Ireland is estimated to currently support approx. 6440 jobs in Ireland, of which around 5000 are directly supported and an additional 1440 are indirectly supported. Much of this employment is located outside of Dublin, in the regions surrounding utility-scale developments. With our head-office based in Cork City, most of our colleagues are locally resident in the surrounding towns, including a large number based in the East Cork electoral district where the Greenhills energy proposal is located. Over the 2025-2030 period, up to 7130 jobs are expected to be supported by the growth in solar energy. These jobs are in varied sectors, including construction, project management, civil and electrical engineering, planning, environmental science, ecology, legal and financial services. [8][10]

Does renewable energy lead to increased electricity costs for the consumer?

Detailed investigations into the costs and savings of renewables have revealed that the adoption of wind and solar generation in Ireland has displaced expensive gas-fired generation from the all-island power market, wiping a total of €3.1billion of wholesale power cost from Irish power bills between 2021 and 2023. This has contributed to a reduction in consumer power bills of almost €1.7billion since 2020, leading to overall savings on the electricity bills of all consumers. Continued investment in wind and solar generation could offer a further annual net saving of €610million in 2030, if our 80% renewable electricity target is achieved.

The displacement of fossil fuels has avoided the need to burn €7.4 billion worth of gas and coal between 2000 and 2023, including almost €4 billion since 2021. Renewables have reduced Ireland's exposure to volatile fuel prices by displacing 3 million tonnes of coal, and displacing enough gas to heat every home in Ireland for nine years. [1]

Is East Cork 'ground-zero' for solar farm development?

No. Ireland's Revised National Planning Framework, which was only recently approved by the current Government in April 2025, allocates the national capacity targets for renewable electricity development across three regions in Ireland. The solar part of these capacity targets is outlined in the below table.

The higher percentage figures attributed to the southern, eastern and midland regions is directly correlated to the higher levels to solar irradiance in these regions, providing better conditions for energy generation versus the northern and western region. [4]

Region	Energised Capacity 2023 (MW)	Additional Renewable Power Capacity Allocations (MW)	Total % of National Share in 2030
Eastern and Midlands	306	3294	45%
Northern and Western	0.3	959	12%
Southern	138	3302	43%
Total	**445**	**7555**	

Do solar farms displace wildlife?

The construction of anything, be it a solar farm, creamery, industrial facility, house, school or road, will temporarily displace wildlife in the short-term. In the medium to long-term, however, assuming the solar farm is built, it is expected that people will see more wildlife in the surrounding area. The reality is that a well-managed solar farm provides for a more diverse habitat than the existing improved agricultural grassland. The planting of extensive native hedgerows and wildflowers provides important food and shelter resources to a wide range of species up along the food chain, from insects to birds and mammals. Security fencing is installed in a way that ensures mammals like badgers can pass through, while hedgerows provide for important sheltered pathways in which they can traverse the site. [9][11]

Will the solar farm be highly visible?

While some parts of the site will be visible from various locations, views will be limited by the natural screening provided by the rise and fall of the land. This will be significantly enhanced by extensive native hedgerow and tree planting at strategic locations, which has the added benefit of providing valuable food and shelter for a wide range of plants and animals to thrive where they previously did not.

Why don't you cover rooftops and/or car parks with solar instead of fields?

Small-scale rooftop solar and large-scale ground-mounted solar serve different purposes. Where rooftop solar is typically intended to supplement the electricity usage of the adjacent building, solar farms like the Greenhills project seek to export large quantities of electricity onto the national grid, helping Ireland to reach its legally binding renewable energy targets. Additionally, ground-mounted solar panels are typically more efficient than rooftop solar, as they can be positioned to capture the maximum amount of sunlight throughout the day, with optimal orientation and tilt angles. While carparks might provide for larger areas than rooftops, the general principle is still the same – they are all necessary energy developments of varying scales, all of which are required in order to meet our growing energy needs.

References

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[8] Irish Solar Energy Association. (2025, 01 15). 2024 Report - Scale of Solar. Retrieved from irishsolarenergy.org: https://www.irishsolarenergy.org/_files/ugd/f7484d_13925c5011d3410e88b0857370b4abd2.pdf

[9] Joshua P. Copping, C. E. (2025). Solar farm management influences breeding bird responses in an arable-dominated landscape. Bird Study.

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[14] Teagasc. (2025, 04 14). Safety net: food security in Ireland. Retrieved from Teagasc Agriculture and Food Development Authority: https://www.teagasc.ie/news--events/daily/food/safety-net-food-security-in-ireland.php

Meet the Team

Aidan Stakelum
Community Engagement Lead

Aidan is the community liaison representatives for the project. He is responsible for developing community engagement strategies and stakeholder management plans to engage with communities on renewable energy projects. Aidan is available to discuss the proposed project with the local community.

Patrick McMorrough
Project Developer

Patrick is the project developer responsible for managing the Greenhills project from initial conception to the submission of the planning applications and throughout the subsequent planning process. Patrick manages a team of skilled specialists from a range of backgrounds in preparing the necessary reports and documents to inform the planning process.

Contact Us

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