

Tinnycross

Battery Energy
Storage System (BESS)

Public Information Evening

May 2025



SSE's Salisbury Battery Storage project in Wiltshire, England

NOT VISIBLE

Welcome

Thank you for visiting our public consultation event today. Please take your time viewing the information we have on display. If you have any questions or feedback, our Project Team are at hand.

You can also fill out a feedback form or contact us via email or post after today's event. All information on display is also available on our project website (see web address below), alongside an online feedback form, which will remain open until May 29th.

The purpose of this event is to provide information on the proposed Tinnycross Battery Energy Storage System (BESS) to be located in the townlands of Derrynagall and Ballydaly, north-east of Tullamore. This event will update you on our current activities and plans and provide an opportunity for the local community to have their say on our draft design proposals.

Please take as much time as you like to view the information boards on display.

Email:
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Visit our website:
www.sserenewables.com/tinnycross



Post:
SSE Renewables, Red Oak South,
South County Business Park,
Leopardstown,
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Meet the Team



Daniel Barnes,
Head of Solar and Battery
Development (Ireland)



Caroline Donnelly,
Lead Consent
Strategy Manager



Charlie Quaeck,
Project Manager



Conor Joy,
External Relations
Manager



About SSE Renewables

SSE Renewables is a leading developer and operator of renewable energy generation, focusing on onshore and offshore wind, hydro, solar and battery storage.

Part of energy infrastructure company SSE plc, UK-listed in the FTSE100, we are delivering clean power assets to increase SSE's operational renewable generation capacity from 5GW today to up to 9GW by 2027 as part of a €24bn clean energy plan, our five-year Net Zero Acceleration Programme (NZAP) Plus. This includes delivery of the world's largest offshore wind farm in construction, the 3.6GW Dogger Bank Wind Farm, 130km off the North East coast of England.

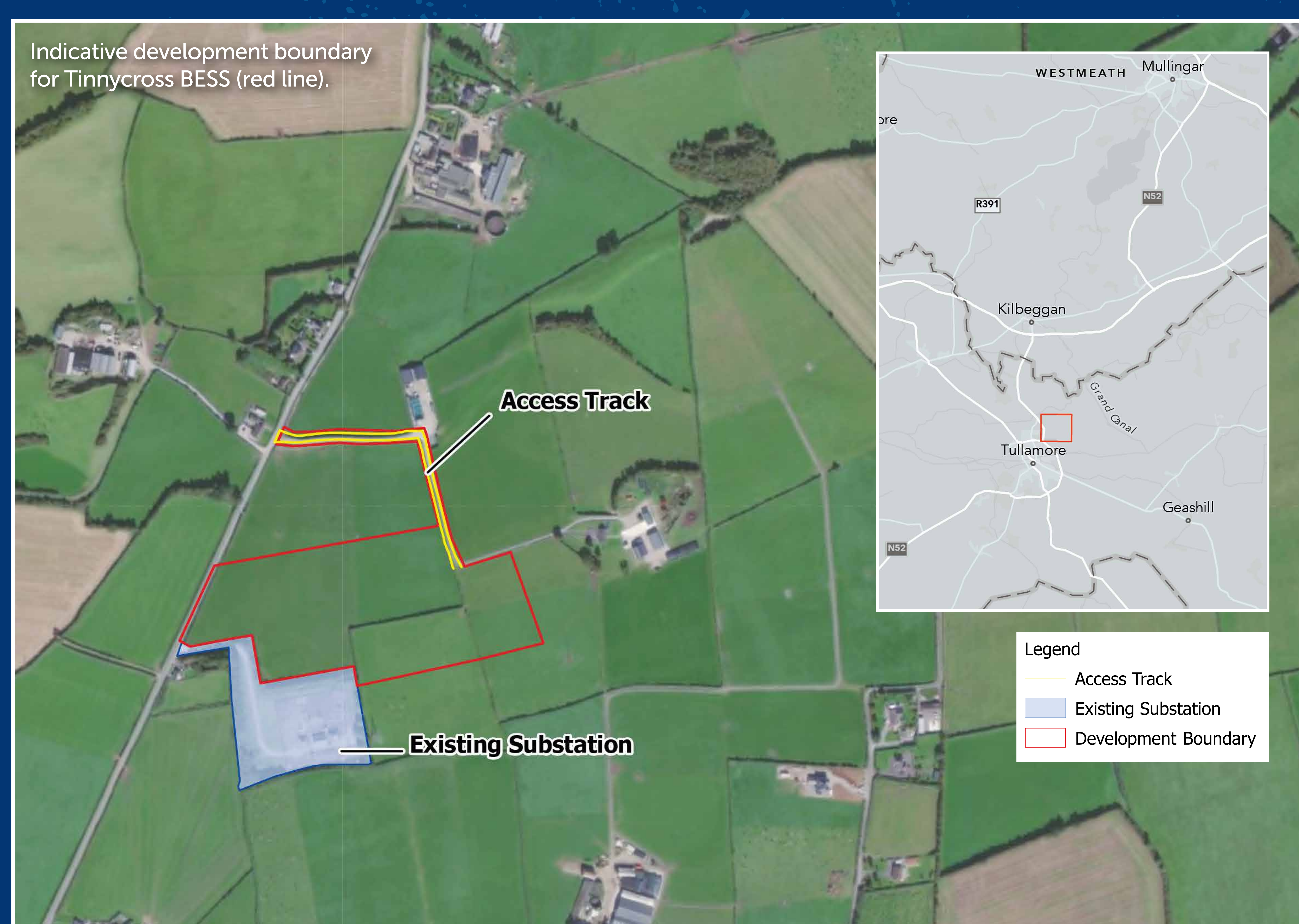
SSE Renewables operates some of the largest onshore wind farms on the island of Ireland including the 174MW Galway Wind Park in Connemara and the 73MW Slieve Kirk Wind Park outside Derry City. In Offaly, we are also the developer and operator of the recently completed Yellow River Wind Farm outside Rhode. In addition, we are also developing several wind farms across the Midlands in partnership with Bord na Móna.

We have a team of over 2,000 renewable energy professionals with a passion for championing clean energy delivery. Our core market focus is in Ireland and the UK, with a growing international presence in carefully selected markets in Continental Europe and Japan.

If you want to learn more about our other projects, please see: <https://www.sserenewables.com>.

About the Project

Tinnycross Battery Energy Storage System (BESS) is a proposed 120-MegaWatt (MW) / 240 MegaWatt-Hour (MWh) grid-scale BESS to consist of lithium-ion units capable of delivering 120 megawatts of electricity to the grid for 2 hours when it's needed the most.



The proposed site location is in the townlands of Derrynagall and Ballydaly, to the north-east of Tullamore (see above). Tinnycross BESS was acquired from UK-based renewable energy company Low Carbon in November 2024 and was formerly known as “Thornsberry BESS”.

The project will include a battery energy storage system facility, consisting of batteries with heating, ventilation, air conditioning and associated infrastructure. SSE will consider the optimum BESS supplier for the project and will include details on location and size within our final planning application to be submitted to Offaly County Council.

We expect that the planning layout contained in our forthcoming planning application will contain flexibility for different battery options to allow for potential future technological advances in battery technology. The batteries for Tinnycross BESS may reach a maximum of 4.5m in height and will be placed in modular racks to allow ease of replacement. The site will also encompass supporting infrastructure, such as grid transformers, MV transformers, switch houses and cabling.

About the Project

When called upon, Tinnycross BESS would be capable of providing back-up energy to the equivalent of over 115,000* Irish homes for up to two hours at a time, while also delivering essential balancing services to Ireland's energy system.



The site will be contained by perimeter fencing, which will be surrounded by natural screening, the exact make up of which will be agreed with Offaly County Council but could include newly planted trees, hedges and shrubs.

Tinnycross BESS is the latest project to join SSE Renewables' growing battery storage development portfolio on the island of Ireland.

In May 2024, the company announced the acquisition of the 100MW/200MWh Derrymeen project at Dungannon in Northern Ireland, which is targeting delivery at the end of 2026, subject to a final investment decision.

The company is also developing the 80MW/160MWh Mullafarry BESS project in Tawnaghmore, County Mayo which was recently submitted into planning. A 100MW/200MWh future prospect battery project at Tarbert in County Kerry is also being explored.



Enables more renewables by storing excess energy, reducing curtailment, and supporting a cleaner, more reliable electricity grid in Offaly and beyond.



Employment during the construction phase of the project.



Rates payment to Offaly County Council which will contribute to the provision of services and infrastructure improvements in the county more widely.



Ability to store energy, thereby increasing Ireland's energy security.



Helps ensure the smooth functioning of Ireland's electricity grid.

* Quoted 115,757 homes supplied for 2 hours, based on an 120MW/240MWh battery against assumed average daytime (08:00-20:00) hourly use of 1.03kWh at a typical home (based on Typical Domestic Annual Consumption, 4,200 kWh per household, Commission for the Regulation of Utilities).

Why do we need batteries?



Battery storage technology is a key net-zero enabler as part of a diversified portfolio of energy technologies because of its ability to hold and release energy when most needed.

Batteries work by storing energy when output from natural sources such as wind is high, and then releasing it as required at times of peak energy demand. They are fast responding and will play an increasingly important role in Ireland's energy mix as carbon-based generation is phased out and replaced by renewables.

Clean

Addressing climate change by reducing the amount of carbon we release into the atmosphere is one of the biggest challenges facing society today. Ireland is well-placed to embrace the benefits that renewable energy can bring to meet the challenge. BESS developments can help to cut our reliance on fossil fuels by ensuring renewable energy generated during off-peak times is stored and used when required.

Secure

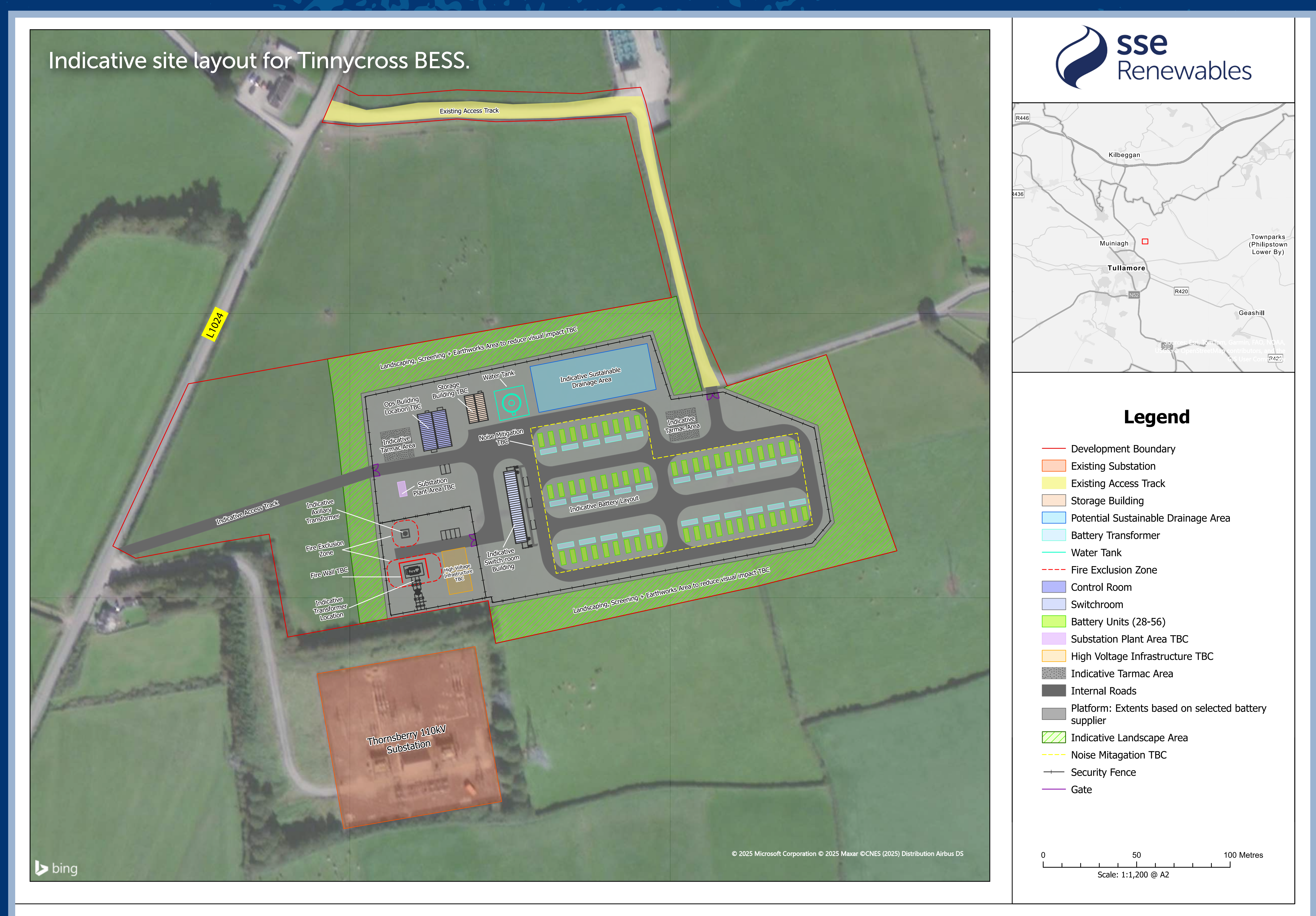
Increasing the amount of indigenous energy we create and increasing our ability to store this energy to use when supplies drop will help enhance Ireland's security of supply. This will help relieve some of the energy price volatility we have been experiencing due to our reliance on imported fossil fuels.

Efficient

Renewable energies, like solar and wind, are becoming an increasingly important part of our country's energy mix. Incorporating BESS systems ensures that the energy we generate from them when their supply is high can be stored to discharge when the sun is not shining, and the wind is not blowing.

Why this Site?

The site for the proposed Tinnycross BESS is in the townlands of Derrynagall and Ballydaly, approximately 4km from Tullamore. Where we build our renewable energy projects depends on a combination of factors.



Proximity to Thornsberry 110kV Substation

The site is located adjacent to the existing Thornsberry 110kV substation, which provides a direct and efficient grid connection point. This minimises infrastructure costs, reduces transmission losses, and enhances the project's feasibility by allowing stored electricity to be quickly dispatched to the grid when needed.

Supporting National Energy Policy

The Irish Government has set ambitious targets for renewable energy and grid modernisation under the various Climate Action Plans. Energy storage infrastructure, like Tinnycross BESS, is essential to achieving these goals by enhancing energy security and maximising the use of clean power sources. The principle of the proposed BESS is supported by national, regional, and local level policies.

Land Suitability and Environmental Considerations

The site has been selected based on its compatibility with a BESS project, considering land availability, topography and environmental impact.

Grid Stability and Renewable Integration

Ireland is undergoing a significant energy transition, and this is especially true of the Midlands Region, with increasing reliance on wind and solar power.

Battery storage plays a crucial role in balancing supply and demand by storing excess renewable energy during periods of low demand and releasing it when demand is high.

Tinnycross BESS will help stabilise the grid, reduce curtailment of renewable energy, and enhance overall system reliability.

Economic and Local Community Benefits

The project will contribute to local economic growth by creating jobs during the construction phase and generating long-term revenue for Offaly County Council through commercial rates.

Furthermore, improved grid resilience benefits both local electricity users and the broader energy network.

Health & Safety



Safety is the founding principle of any SSE development. SSE Renewables only works with the leading manufacturers of battery technology, with a proven track record in safety.



All new BESS sites are required to adhere to stringent fire safety standards, including compliance with NFPA 855 and the UL9540A* fire testing standard. These frameworks ensure that fire risks are systematically assessed and mitigated through best-practice design and operational strategies.

As part of any BESS planning application, an Outline Battery Safety Management Plan (OBSMP) is submitted. Prior to construction starting, this is replaced by a Battery Safety Management Plan (BSMP), which will include further detail on site specific solutions.

Below are some of the specific avoidance and mitigation measures we put in place at our BESS sites to ensure they remain safe.

Large Scale Fire Testing for each of our solutions which tests BESS under extreme conditions which would not normally be seen during operation. We go through rigorous testing with each of our manufacturers and follow guidelines to ensure we are confident that the solution is safe, including safety distances from other BESS and equipment onsite.

Containerised configurations with sufficient spacing and compartmentalisation to minimise the risk of thermal runaway spreading.

Layout ensuring easy access, if required, for emergency vehicles.

Advanced fire detection and suppression systems tailored to lithium-ion batteries.

Avoiding configurations and layouts with excessively high energy density, which can exacerbate fire risks.

SSE Renewables' approach focuses on mitigating risks through robust design, compliance with evolving standards, and ongoing learning to continuously improve our health and safety standards.

* The American organisation the National Fire Protection Association (NFPA) produced a standard (NFPA 855) for the installation of stationary energy storage systems, which outlines standards for the design, construction, installation, commissioning, operation, maintenance and decommissioning of BESS. UL 9540A is a safety standard developed by Underwriters Laboratories (UL) for evaluating the fire and thermal runaway hazards associated with energy storage systems.

Environmental Impact

At SSE we aim to tackle the climate and biodiversity crises simultaneously while accelerating towards Net Zero. We are aware of the responsibility on us as a sustainable developer to build and maintain our sites in harmony with nature.



Environmental Impact

Environmental Impact Assessment or EIA is the process of examining the anticipated environmental effects of a proposed development, through consultation and preparation of an Environmental Impact Assessment Report (EIAR). An EIA screening report will be prepared by our consultants. Like other battery projects which we have recently submitted into planning, we anticipate that Tinnycross BESS will not be defined as a development that would require EIA and, therefore, that neither mandatory nor sub-threshold EIA will be required, and that the development will not have any significant impacts on the environment.

Appropriate Assessment

Appropriate Assessment or AA is an assessment of the potential adverse effects of a plan or project (in combination with other plans or projects) on Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). These sites are protected by National and European Law. Screening for AA will be undertaken by our consultant to determine the potential for likely significant effects of this project, individually, or in combination with other plans or projects, on any SACs or SPAs (Natura 2000 sites) and their conservation objectives.

Key Issues



Visual Impact

Battery Energy Storage Systems (BESS) are relatively low-profile developments compared to other energy infrastructure, such as wind turbines. Tinnycross BESS will be designed to blend into the surrounding environment with the below outlined mitigation measures.

Height and Compact Design: The battery units and associated infrastructure will ensure minimal disruption to sightlines. It is not expected that the battery units will exceed 4.5m in height.

Landscaping and Screening: A comprehensive landscaping plan, which will likely include native tree, hedge, and shrub planting, will be implemented to screen the site from nearby viewpoints and integrate it into the local environment.

Sensitive Siting: The facility has been positioned to reduce visibility from public roads and residential areas, taking advantage of natural screening provided by existing vegetation.

A Visual Impact Assessment (VIA) will be conducted as part of the planning process.

Key Issues

Noise

The primary sources of noise from a BESS facility are associated with the cooling systems and inverters that manage the storage and dispatch of electricity.

A Noise Impact Assessment will be prepared as part of our planning application to assess the likely noise impact associated with the proposed development during the construction and operational phases. In addition, modern BESS technology is designed to operate at low noise levels, and several mitigation measures will be considered.

Acoustic Barriers:

Where necessary, acoustic fencing or bunding will be used to further dampen any operational noise.

Operational Noise

Compliance:

The BESS will comply with all relevant noise regulations and planning conditions, ensuring that noise levels remain well within acceptable limits at the nearest residential properties.

Low-Noise Equipment:

The project will utilise the latest battery technology, featuring quiet cooling systems and low-noise inverters to minimize disturbance.

Daytime Construction Activities:

Construction work will be scheduled primarily during daytime hours to limit noise disruption and residents will be informed in advance of any planned activities.

In summary, the proposed BESS development is expected to operate within the prescribed noise limits, ensuring minimal impact on the surrounding environment and nearby communities

Traffic

During construction, access to the proposed development site will be via the L1024 local road. Construction traffic will include heavy goods vehicles (HGV's) importing construction materials including concrete, delivering fuel and traffic associated with on-site construction personnel.

The volume of additional traffic will be temporary and intermittent over the construction phase and will not be discernible from existing daytime traffic on surrounding roads. There will be a low number of workers required during the operational phase. This will consist of occasional traffic coming to site for maintenance and deliveries. These will be minimal in the context of existing traffic along in the local road network.

Thank you

Thank you for taking the time to visit us today to learn more about the proposed development. Please do provide any feedback or comments you may have about the project.

What happens next?

The feedback we receive from the community will be examined by our Project Team, once our public consultation closes. This may have an impact on how long the development process takes. That said, we aim to submit a planning application for Tinnycross BESS to Offaly County Council for their consideration in Autumn 2025. The statutory consultation period for formal comment and submissions will open once the planning application has been lodged. This will be publicised through the required notices at the site entrance and newspaper advertisements.

SSE Renewables would like to continue bringing benefits to communities in County Offaly, as we have been with our Yellow River Wind Farm, outside Rhode. We welcome your suggestions on how we can contribute to this. Please include your suggestions within your comments when providing feedback.

Your comments can be provided using the feedback forms here today or via email, post, and electronically on our project website. All responses received will be carefully considered and be factored into the proposed development, where possible.



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