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|  | <h1>Variation No.6</h1> |
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| Who are you: | State Body |
| Name: | Electricity Supply Board |
| Reference: | VAR6-152751 |
| Submission Made | January 16, 2026 3:29 PM |

Choose one or more categories for your submission. Please also select which settlement you wish to make a submission / observation about.

- Chapter 1 – Proposed Variation No. 6
- Chapter 3 – Proposed Variation No. 6
- Chapter 6 – Proposed Variation No. 6

Write your observations here:

A Chara,

Please see attached PDF document for detailed submission.

Thank you.

Best Regards.

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ESB SUB WICKLOW CDP VARIATION NO. 6 - ISSUED.pdf, 0.36MB



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16 Jan 2026

Re: ESB Submission to Proposed Variation No. 6 to the Wicklow County Development Plan 2022 – 2028.

A Chara,

Electricity Supply Board (ESB) welcomes this opportunity to make a submission to Proposed Variation No. 6 to the Wicklow County Development Plan 2022-2028 (CDP). ESB is a landowner and employer in Wicklow with property and infrastructural assets throughout the County.

ESB acknowledges the aim of the Proposed Variation to update the Core Strategy within the Wicklow County Development Plan, including the revision of housing targets as outlined in the written statement. In particular, ESB recognises the need to reflect the '*National Planning Framework (NPF) Implementation and associated Housing Growth Requirements*' within the County Development Plan.

The provision of a secure, reliable, and efficient energy transmission and distribution infrastructure is fundamental to powering and heating homes and businesses, as well as supporting the decarbonisation of transport. The Government's new housing plan called "*Delivering Homes, Building Communities*" recognises that each new home constructed today requires roughly double the electrical capacity as those built before 2019. This increased reliance on electricity, combined with climate change impacts such as extreme weather events, are driving the need to enhance the reliability and resilience of the network. In the coming years, the electricity networks must be expanded and reinforced to support the delivery of 300,000 homes.

The proposed variation aims to vary the existing County Development Plan so that it aligns with the revised National Planning Framework and the 2025 Section 28 Housing Growth Requirements, incorporating refreshed housing objectives, and revised policy objectives that place greater emphasis on the appropriate use of Residential Phase 1 and 2 lands to support increased housing delivery. In this regard, below are observations from ESB that should be considered for this Variation.

Overview of ESB Strategy

ESB is Ireland's foremost energy company and the largest supplier of renewable electricity in Ireland. Through innovation, expertise, and investment, ESB is leading the way in developing a modern, efficient electricity system that is capable of delivering sustainable and competitive energy supplies to customers in the 'all-islands market' (Republic of Ireland, Northern Ireland, England, Wales and Scotland). ESB operates a renewable energy portfolio that has a total of over 1.8GW of green energy generation connected to the grid.

To support transformation of the energy sector, ESB is embracing new technologies that are revolutionising the energy industry, including smarter electricity networks. We are investing in sustainable energy solutions that harnesses the power of solar, wind, wave, storage and green hydrogen to provide a cleaner future. Meanwhile, we continue to play a key role in maintaining our existing operations to support security of supply for Ireland. Our objective is to develop and connect renewables to decarbonise the electricity system by 2040. ESB's progress towards achieving carbon net-zero operations is consistent with the objectives of the National Planning Framework (NPF) and Regional Spatial & Economic Strategy (RSES) for the Eastern & Midland Region.

ESB Networks

ESB Networks is firmly committed to expanding electricity network capacity across Ireland to meet the demands of a growing population, accelerated housing development, industrial growth, and national climate objectives. As part of ESB Networks' Price Review 6 (PR6), covering the period 2026 to 2030, the organisation proposes substantial infrastructure investments at all voltage levels—high, medium, and low—including upgrades to

overhead lines, cables, transformers, and substations. Particular emphasis is placed on 110kV stations, which are currently overloaded due to rapid demand growth. The plan also includes converting 10kV medium voltage networks to 20kV to reduce losses and enhance capacity. These investments are strategically targeted to address current constraints while creating headroom for future growth.

In addition to physical upgrades, ESB Networks will deploy smart, flexible, and digitally enabled solutions to optimise asset utilisation and reduce reliance on traditional reinforcements. By 2030, the network will deliver 562 MW of firm transformer capacity at 110 kV in Dublin, 1.1 GW at 38kV nationwide, and 1.5 GW at medium voltage nationwide. This will enable faster customer connections, facilitate maintenance and asset replacement, and support the electrification of heat, transport, and industry. These efforts are essential to ensuring a reliable, resilient, and future-proof electricity system that supports Ireland's transition to a Net Zero-ready energy network.

Energy Infrastructure – Planning Policy

Ireland is embarking on a major expansion of its electricity infrastructure to address critical capacity shortages and support national growth objectives. Under the 2025 National Development Plan (NDP) Review, the Government has committed €3.5 billion in equity funding to ESB Networks and EirGrid to significantly enhance grid capacity and resilience. This investment is strategically aligned with the goal of delivering 300,000 new homes by 2030 and meeting Ireland's climate and competitiveness targets. The electricity network is increasingly strained by rapid population growth, urban development, and the electrification of heating, transport, and industry. As mentioned above, each newly constructed home now requires approximately twice the electrical capacity compared to those built prior to 2019. This increase combined with growing demand from other sectors has resulted in many high-voltage stations becoming overloaded, and forecasted demand for 2030 exceeds current capacity in key regions.

As outlined in the Delivering Homes, Building Communities 2025-2030, An Action Plan on Housing Supply and Targeting Homelessness, it is essential that Ireland's electricity networks are expanded and reinforced over the coming years to support the delivery of 300,000 new homes by 2030.

To address this, ESB Networks' PR6 Business Plan proposes a €13.4 billion programme, including €10.1 billion in baseline investment, to reinforce network capacity across all voltage levels, integrate 4.4 GW of utility-scale renewables, and deploy smart, flexible technologies to manage complex energy flows. The plan also introduces an Agile Investment Framework to manage delivery risks and avoid unnecessary upfront costs to customers. Together, these measures represent a decisive shift towards a future-proofed, Net Zero-ready electricity system that underpins Ireland's housing, economic, and climate ambitions.

Energy Infrastructure - Transmission and Distribution

ESB is continuously assessing and reviewing electricity network capacity in County Wicklow to ensure alignment with current and future development needs. Through ongoing studies and monitoring, ESB identifies where reinforcements, upgrades, or new infrastructure may be required to support residential, commercial, and industrial growth. This proactive approach ensures that additional projects can be brought forward in a timely manner to facilitate further development in the region.

To support this, ESB requests that Wicklow County Council and ESB coordinate closely to identify suitable sites for the delivery of key electricity infrastructure. Early identification and zoning of such sites will be critical to ensuring timely and cost-effective delivery of infrastructure that underpins regional growth and climate action targets.

ESB would welcome opportunities to future-proof the delivery of electricity infrastructure through greater collaboration with Local Authorities. Early engagement at the design stage of key public infrastructure projects—such as new roads, public realm upgrades, and greenways—offers opportunities to incorporate ducting and underground cabling in the most economically efficient way, while minimising disruption to local services. We encourage project teams to contact the local ESB Networks Office to ensure input from ESB Networks at the earliest stage of project design.

ESB owns and operates a comprehensive portfolio of electricity transmission and distribution assets across County Wicklow. These assets are integral to ESB's operations at local, regional, and national levels. The existing electricity grid in the region currently possesses limited capacity to accommodate new development, particularly in North Wicklow. This constraint, until resolved, will impede the attainment of the targeted growth and development in Co. Wicklow.

ESB currently owns and operates 32 No. high-voltage substations within the boundaries of Wicklow County. Strategically situated across the county, these assets serve as a crucial component in supporting ESB's operations at both the regional and national levels. At present, the electricity grid in this region is constrained by limited capacity for accommodating new development. Unless these constraints are addressed, they will hinder the achievement of the targeted future growth for County Wicklow. Some of the issues are addressed below.

North Wicklow

North Wicklow is currently under significant pressure, and major upgrades will be essential to support planned development. ESB intends to expand the Fassaroe 110 kV station to unlock capacity and support new MV networks towards Bray and Greystones. In addition, a new 220 kV station and a separate new 110 kV station are planned to reinforce the wider Greystones area, supported by new circuits and looping-in of existing circuits. These works will underpin new MV circuits towards Greystones and Kilcoole and provide critical voltage support. Further uprating of several 38 kV circuits will also be required over the next 5–10 years. These measures are designed to strengthen network resilience and ensure the grid is equipped to accommodate future demand by increasing circuit capacity. Such interventions are essential to meet projected residential and economic demand.

South Wicklow

There is an urgent requirement for substantial reinforcement of both the existing transmission and distribution networks within south Wicklow. In Arklow, the station north of the River Avoca can accommodate some additional demand, but may require further uprating depending on the final housing allocation, while capacity is already constrained at the Tinahask 38kV station south of the river; an uprate of the Tinahask 38kV substation is planned for completion by 2028/29 alongside a new station to be delivered in PR7 (2031-2035), with site identification ongoing. Wicklow Town and Rathdrum can accommodate some additional demand, but both may require further uprating depending on the final housing allocation, while Ashford, Aughrim, Carnew and Tinahely also exhibit constrained capacity and are likely to need reinforcement. Shillelagh will require uprating of the existing station during PR7 and delivery of a new loop-in circuit in PR6 to maintain resilience.

While we recognise that the Proposed Variation No. 6 is relatively straightforward, ESB also notes the recent publication of the Section 28 Guidelines on National Planning Framework Implementation – Housing Growth Requirements (2025), as well as the approval of the Revised National Planning Framework in April 2025. ESB is committed to proactively engaging with Wicklow County Council as these updated guidelines are incorporated into the County Development Plan. We are ready to meet with the Council to discuss the impact of revised housing growth requirements, particularly regarding new residential zoning and the planning of supporting infrastructure. This collaborative approach will help align development objectives with national housing targets and ensure the timely delivery of essential electricity infrastructure.

Energy Infrastructure – Medium and Low Voltage Network

At a localised level, ESB Networks has undertaken a comprehensive review of the Medium and Low Voltage (MV/LV) network throughout County Wicklow. This assessment examined the distribution of customers across MV/LV unit substations to determine where upgrades or the provision of additional unit substations may be necessary. The objective is to support the decarbonisation of the electricity network and to facilitate the transition of customers to Low Carbon Technologies including heat pumps, solar photovoltaic systems, and electric vehicle charging infrastructure.

This review has resulted in identified areas where additional MV/LV substations and upgrades to existing substations are required. New MV/LV (10kV/400V) unit substations require a space of approximately 3 square metres and are typically sited in public locations, subject to agreement with landowners and/or local authorities.

As of the present, County Wicklow contains a total of 656 No. ground-mounted MV/LV unit substations across the County. Projections indicate that by 2040, 255 No. of these unit substations will be operating beyond their

designed capacity. Of these, 227 No. unit substations are suitable for upgrading, while an additional 28 No. unit substations will be necessary to meet anticipated demand. The majority of these MV/LV unit substations are primarily located within the county's main urban areas, specifically Bray, Greystones, and Arklow. The table below details the number of additional substations required for the following towns.

| Town | No. of additional MV/LV unit Substations required |
|--------------|---------------------------------------------------|
| Bray | 10 |
| Greystones | 5 |
| Mountkennedy | 2 |
| Wicklow | 1 |
| Rathdrum | 1 |
| Arklow | 5 |
| Carnew | 1 |
| Blessington | 1 |

To guarantee the delivery of a secure, reliable, and efficient electricity network for customers in urban town areas, it is essential that the Wicklow County Development Plan incorporates robust policy objectives supporting the reinforcement of the medium and low voltage (MV/LV) network. This will ensure that sufficient capacity is available to accommodate increasing demand. In this regard, ESB requests that Wicklow County Council support the recommended energy infrastructure developments set out in this submission, consistent with Policy CPO 16.18, which states.

"To support the development and expansion of the electricity transmission and distribution grid, including the development of new lines, pylons and substations as required."

To support this, ESB requests that Wicklow County Council and ESB coordinate closely to identify suitable sites for the delivery of key electricity infrastructure to address capacity issues in the MV/LV network. The proactive identification of suitable sites, along with the inclusion of provisions within the zoning matrix that allow for public utilities permissibility under all zoning objectives, is essential for the timely and cost-effective delivery of infrastructure. This approach will promote local and regional growth while advancing the achievement of climate action objectives.

Conclusion

Investment in infrastructure is crucial to the economic and social well-being of our country. There is a significant multiplier effect from investment in infrastructure which means that it stimulates growth in the local economy. This investment in infrastructure is also necessary to support the delivery of the Government target of 300,000 homes by 2030.

ESB, is building a truly sustainable company by investing in smart networks, renewable energy and modernising the generation portfolio. ESB is implementing energy strategies that support the transition of Ireland to a low-carbon and ultimately post-carbon economy to become a competitive, resilient, and sustainable region. We request that due consideration is given to the issues raised in this submission, most particularly:

- Ensuring that the long-term operational requirements of existing utilities are protected. The importance of existing infrastructure and the level of operational activities ongoing at our high-voltage substations within County Wicklow are protected.
- A collaborative partnership between Wicklow County Council and ESB to proactively identify and secure appropriate sites for the development of essential energy infrastructure.
- ESB respectfully requests that due consideration is given to the need for critical upgrades and capacity enhancements across County Wicklow, as these are essential to address current grid constraints, support renewable energy integration, and enable sustainable residential and industrial growth.



- Ensuring that public utilities are permissible under all zoning objectives is critical to enabling timely, efficient delivery of network capacity upgrades and supporting sustainable local growth and climate goals.
- Recognising the opportunities for early engagement with ESB in relation to the design and delivery of new roads, public realm upgrades or the delivery of public greenways and the provision of ducting/underground cabling.

If we can be of any further assistance, or if you wish to clarify any of the points raised, please do not hesitate in contacting the undersigned.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Keith O'Brien'.

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