

Appendix to Chapter 3: The Scoping Consultations

Appendix 3.4: EDL Consultees Schedule & Sample Letter

The data and descriptions in this appendix have informed the cumulative evaluations in the EIA Main Report.

Schedule of Ecopower Consultations with Statutory Bodies and Other Parties

Southern Regional Assembly

Department of Communications, Climate Action & Environment

Environmental Protection Agency, Office of Climate, Licensing & Resource Use

Department of Agriculture, Food and the Marine

Commission for Regulation of Utilities

Health and Safety Authority

Health Services Executive

Institute of Public Health

Irish Water

Transport Infrastructure Ireland

The Heritage Council

An Taisce

IDA Ireland

Coillte Teo

Waterways Ireland

An Chomhairle Ealaíonn (Arts Council of Ireland)

Fáilte Ireland

Irish Aviation Authority

Office of Public Works

Geological Survey of Ireland

Sustainable Energy Authority of Ireland (SEAI)

Friends of the Irish Environment



Ecopower Developments Limited
Zetec House, Purcellsinch IDA Business Park, Kilkenny, Ireland
Tel: 056 775 0140 • E-mail: office@ecopower.ie

Sample Letter sent to Consultees
per Schedule (Cover Page)

The Minister
Department of Communications, Climate Action & Environment
29-31 Adelaide Road,
Dublin
D02 X285

5th March, 2019

Re: Scoping for Upperchurch Windfarm (UWF) Grid Connection, County Tipperary

A chara,

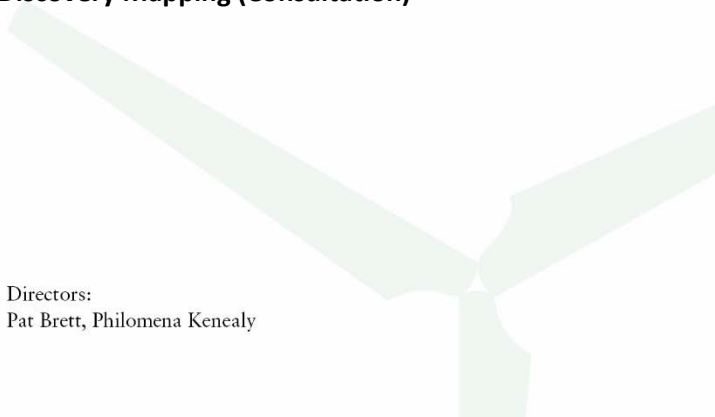
In order to prepare an EIA Report, Ecopower Developments is consulting on the potential environmental effects of a **grid connection development**, Upperchurch Windfarm (UWF) Grid Connection. This is in the context of the December 2018 refusal of a previous iteration of UWF Grid Connection (An Bord Pleanála Ref: PL92.301959).

The route of the underground cabling, refused by the Board, was a predominately cross country route along farm/forestry roads and lands. Following an examination of the Board's decision and the Board's Inspector's Report, the route of the 110kV underground cabling part is now being redesigned. The revised UWF Grid Connection now proposed will consist of an **underground cabling route predominately along the public road corridor to a new 110kV substation** (as before) **at Mountphilips**. The revised plan will be submitted to the Planning Authority in ~ May 2019.

The revised UWF Grid Connection comprises of 1) a new **110kV electrical substation in Mountphilips townland** connecting to the adjacent existing Killonan - Nenagh 110kV overhead line in agricultural grassland, 2km north of Newport and 23km west of the consented (but not constructed) Upperchurch Windfarm and 2) a **new underground cable connecting Mountphilips Substation to Upperchurch Windfarm Substation**, through the installation of underground cables mainly along the public road. The route of the underground cable (110kV UGC) **29km in length, will follow a generally west/east course along the Newport to Thurles Regional Road R503**.

As part of the consultation process, I wish to provide your organisation with a description and mapping for the revised UWF Grid Connection development, so that you can participate in the scoping process, if you have concerns for your area of expertise.

Enclosed: UWF Grid Connection location on OSI Discovery Mapping (Consultation)



1. Description of Upperchurch Windfarm Grid Connection development

The proposed Upperchurch Windfarm Grid Connection development will comprise:

Mountphilips Substation: A new substation is proposed for a location adjacent to the existing Killonan - Nenagh 110kV overhead line in agricultural grassland in Mountphilips townland, 2km north of Newport, 4km south of Birdhill, 17km north east of Limerick City and 23km west of the Upperchurch Windfarm. The new 110kV electrical substation will comprise 2 No. End Masts located at the Killonan – Nenagh 110kV overhead line; a compound, 230 meters east of the overhead line, measuring 95 meters x 94 meters which will contain a control building; 110kV busbars; circuit breakers; line disconnects; current and voltage measuring equipment; cable chairs; surge arresters; lightening protection monopoles and other electrical apparatus. The 2 No. End Masts will be connected to the electrical equipment in the compound via underground cable.

Mountphilips - Upperchurch 110kV UGC: The 110kV UGC will connect Mountphilips Substation to Upperchurch Windfarm (through the windfarm substation), through the installation of underground cables along the public road. The route of the 110kV UGC, which is 29km in length, will follow a generally west/east course along the Public Road - Thurles to Newport Regional Road R503. The 110kV UGC route starting at Mountphilips Substation will be under a grassland field for 500m; under Local Road L2166-0 for 2km, under the Regional Road R503 for 23km; under the L2264-50 for 2km; the L6188-0 for 330m and under a Private Farm Road for 720m as far as Upperchurch Windfarm Substation. The route is through the townlands of Mountphilips, Coole, Freagh, Foildarrig, Newport, Tullow, Cooldrisla, Derryleigh, Kilnacappagh, Scraggeen, Derrygareen, Inchadrinagh, Knockancullenagh, Fanit, Lackamore, Tooreenbrien Upper, Tooreenbrien Lower, Reardnogy Beg, Reardnogy More, Shanballyedmond, Bournadomeeny, Coonmore, Foildarragh, Kilcommon, Loughbrack, Knocknabansha, Knockmaroe, Knockcurraghbola Crownlands and Knockcurraghbola Commons. The 110kV UGC will be installed in trenches, which will be laid with ducts through which the electrical cables and communications cables will be pulled. The cable lengths will be pulled through and joined together at Joint Bay locations, in joint bay chambers. The ducts will be surrounded by concrete and the trench backfilled with aggregate and the road surface will be reinstated according to Local Authority specifications. The only surface expression of the 110kV UGC will be the man-hole type covers over the Joint Bays and the over-ground identification marker posts and marker plates.

UWF Grid Connection Ancillary Works will support the construction of UWF Grid Connection and will include the construction of a new Permanent Entrance at Coole townland (including the provision of sightlines) and Permanent Access Road from the new entrance to the proposed substation at Mountphilips townland; construction and use of a Temporary Compound at Mountphilips; replacement of watercourse crossing structures; installation of drainage systems at Mountphilips Substation, around the Temporary Compound and along the new Access Road; fencing; protection of existing underground services; provision of electricity supply to Mountphilips substation; excavation and reinstatement and disposal of spoil; hedgerow/tree removal at Mountphilips and hedgerow replanting and site reinstatement.

2. UWF Grid Connection: Construction & Operation

UWF Grid Connection Construction Phase: All elements of the whole UWF project will be constructed at the same time. Construction of UWF is expected to commence in 2019 and will take approx. 12 months. Approximately 100 persons will be engaged in the pre-construction, main construction, cable jointing and commissioning works for the UWF Grid Connection. 1290 No. loads of concrete; 1320 No. loads of aggregate; and 210 No. loads of surface dressing (public road sections) will be imported from Roadstone Killough, Co Tipperary and Bunratty, Co Clare and Shanballyedmond, Rear Cross. 20 No. loads of general building materials including geotextile, and 310 No. loads of electrical plant and equipment including lattice towers, control building doors and switching gear, will be imported to the site from various suppliers throughout

Ireland and the EU. The excavated material from the 110kV public road trenches will be classed as spoil and will amount to 23,810m³, all of which will be removed to a licensed waste facility.

UWF Grid Connection Operational Phase: Once commissioned and energised, the UWF Grid Connection will be taken in charge by ESB Networks and the Mountphilips Substation and the Mountphilips – Upperchurch 110kV UGC will become part of the national electricity network. The new asset will be managed and operated by ESB Networks. Scheduled inspection and maintenance activities will be carried out by ESB Networks personnel (2 men crews) over a total of 13 days per year. Very infrequent planned maintenance or unplanned repairs may be required, if at all, during the lifetime of the UWF Grid Connection, it is expected that one crew with c.6 ESB Networks personnel would be required for 1 – 2 weeks duration, depending on the nature of the repairs work. The UWF Grid Connection will remain permanently in place as part of the national electricity network and thus decommissioning is not envisaged.

UWF Grid Connection use of Natural Resources: Construction Phase – There will be 5.9 hectares of **land** required for the construction works site. The use of the Public Road corridor (24 hectares) is not considered a natural resource. There will be no cabling in the verge. 35m of **hedgerow** and 2 No. of **trees**, which are immature, will be permanently removed to facilitate either a permanently widened entrance off the public road or a new permanent access road. These hedgerows and trees will be replaced immediately adjacent to the area. c.700m of new hedgerow will be planted with locally sourced native species. **Water** required for welfare facilities will be brought onto site. Approximately 2,470m³ of **topsoil**, 1,570m³ of **subsoil** and 30m³ of **rock** will be permanently excavated from the works areas. 300m³ of the excavated topsoil will be used to reinstate the temporary access road to the End Masts. 3,770m³ of the excavated material will be permanently stored around the Mountphilips Substation and along the Permanent Access Road as linear berms.

UWF Grid Connection use of Natural Resources: Operation Phase – The Land required will reduce considerably to just **2.0ha of land permanently changing use** - comprising the footprint of the Mountphilips Substation and access road. No further **hedgerow** or **tree pruning or removal** will be required during the operational stage. Non-potable **water** requirements will be provided at the Mountphilips Substation via a rain water harvesting system, and drinking water will be brought onto site as needed. **No excavations of soils** will be required during the routine operation of the UWF Grid Connection. Planned maintenance or unplanned repairs on the electrical cable, if any is necessary would involve the re-opening of the underground chambers, at Joint Bays by first removing the overlying surface finish and reinstating following the repairs.

UWF Grid Connection Emissions: Dust, construction machinery exhaust, noise, vibration and light will be emitted during the construction stage, negligible levels are associated with the operation and maintenance activities. During operation, Mountphilips Substation will emit **noise** however this is unlikely to be audible above the existing background noise levels at nearest residence, which is 385m distant. The operational substation and 110kV underground cable will be a source of very low frequency (50Hz) **electromagnetic fields**.

UWF Grid Connection Waste: Waste water from construction stage welfare facilities will be contained in self-contained units and emptied by a licenced facility. General and chemical waste will be segregated and stored in allocated tanks, bins, skips or areas at the Temporary Compound. Waste will be collected by an appropriately licensed waste contractor. Any wastes which result from the construction of the UWF Grid Connection will be managed under a specific **Waste Management Plan**. Approximately 22,210m³ of spoil will arise during excavations in public roads. This excess material or other contaminated material arising during the construction of UWF Grid Connection will be collected by a licenced operator and disposed of in a licenced facility.

There will be minimal general and chemical waste during the Operational Stage, with any waste taken offsite by ESN personnel.

3. Environment Topics to be covered by EIA Report

Population and Human Health: The proposed development is wholly in County Tipperary and the Mid-West region. The area around the development is largely rural. Nearby settlements and community facilities include the villages of Upperchurch, Kilcommon and Rear Cross and Newport town. **The proposed underground cabling runs through Rear Cross Village and Newport Town.** The nearest residence to the proposed new substation in Mountphilips is 385m. Once-off rural housing occurs along the public road. Construction impacts from dust, noise, traffic pollutants, vibration and operational impact from operating electrical equipment i.e. electromagnetic field emissions will be considered in the EIA Report.

Biodiversity: The habitat present at the proposed new substation site location is improved grassland. The proposed underground cable route will be under c.500m of grassland (at the western Mountphilips extent); **28km within the carriageway of the Newport to Thurles R503 Regional Road mainly;** 720m of private tarred road and 20m in grassland at the eastern extent at Upperchurch Windfarm Substation compound.

The UWF Grid Connection is proposed for a location within the Slievefelim to Silvermines mountains area. **European Sites such as the Slievefelim to Silvermines Mountains SPA, the Lower River Shannon cSAC, the Clare Glens cSAC and the Lower River Suir cSAC, are found in the surrounding area.** The cSACs mentioned are designated for the protection of salmonids and freshwater aquatic species. The Slievefelim to Silvermines Mountains SPA is designated for the protection of Hen Harrier.

The surrounding environment includes lands under active management for agriculture and forestry.

63 watercourses cross the proposed grid connection cable route, 20% of which have fisheries value, the remaining watercourses generally comprising small culverts under the public road.

Land & Soils: **The main change in land-use will be the agricultural field for which the substation is planned.** The Public Road will be reinstated. The Soils at the proposed development are not designated and overall, the soil, subsoil and bedrock can be considered to have a low to medium geological importance.

Water: **Work is proposed in the following river catchments: Mulkear, Clare and Bilboa Rivers in the Lower River Shannon catchment and the Clodiagh River which forms part of the Lower River Suir catchment.** 63 watercourses cross the proposed grid connection cable route; instream works will be required at 3 of these watercourses to gain access to the new substation at Mountphilips. The remaining crossings relate to existing culverts or bridges along the public road (58), and along the tarred private forestry road (2) near the permitted Upperchurch Windfarm substation. Instream works may be required at some older small culverts on the public road sections.

Air: Construction impacts from dust, noise, traffic pollutants, vibration and operational impact from operating electrical equipment i.e electromagnetic field emissions will be considered for effects on Air in the EIA Report.

Climate: The emissions from construction vehicles and excavations are predicted to be minimal. However, the proposed development **will facilitate the connection of Upperchurch Windfarm and thereby export green electricity to the national grid.**

The electricity produced from Upperchurch Windfarm will bring the following benefits to reducing greenhouse gas emissions (set out as carbon dioxide (CO₂) equivalent)

- Upperchurch Windfarm will produce over **220 million kWh of electricity every year without any CO₂ emissions.** If the same amount of electricity was produced using the typical fuel mix in Ireland of coal/gas/oil and peat, then 106,216 tonnes of CO₂ would be emitted into the atmosphere^[1]. Therefore it can be said that **Upperchurch Windfarm will offset the emissions of 106,216 tonnes of CO₂ every year.**

^[1] Energy-related CO₂ Emissions in Ireland 2005-2016 (SEAI, 2018)

Offsetting 106,216 tonnes of CO₂ every year is the same as

- Taking 44,629 cars off the road^[2]
- Planting 8,614 hectares of trees for CO₂ sequestration^[3]
- Equal to the CO₂ emissions from 21,243 dairy cows^[4]

Material Assets: Trenching works are proposed along 28km of public road, mainly the Newport to Thurles Regional Road (R503). The effects of road works on the road itself; on built services under (water pipes, telecoms cables etc.) and alongside (overhead electricity and telecoms lines) the roads and; on safety, access and convenience of road users will be examined in the EIA Report.

Cultural Heritage: No Recorded Legally Protected Sites are likely to be affected by construction works due to the distance of these sites from the construction works areas, which are located outside the Zone of Notification for all sites, with the exception of 4 No. sites. These are *Bridge in Newport (TN037-001)*; *Ringfort (rath) in Derryleigh (TN0037-005)*; *Enclosure in Scragheen (TN037-031)*; *Mine (copper) in Lackamore (TN037-020)*. However the proposed construction of the 110kV cabling within the public road carriageway will avoid impacts to the Ringfort (rath) in Derryleigh; the Enclosure in Scragheen and the Mine (copper) in Lackamore. At the Bridge in Newport, the cabling will be constructed within a concrete curb within the road pavement over the bridge, there will be no interaction with the columns or structures which are described for this RMP (all are underneath the new parts of the bridge).

The proposed new substation in Mountphilips will be the only structure visible following construction. **4 No. Recorded Legally Protected Sites will be theoretically visible from the Mountphilips Substation, (*Ringfort in Ballyard (TN031-011)*; *Bawn in Cragg (TN031-048002)*; *Castle - Tower House in Cragg (TN031-048001)*; and *Bowl Barrow in Foildarrig (TN031-071)*).** The results of drone surveys, carried out by the experts studying the Landscape, demonstrates that the surrounding vegetation combined with the low lying location of the proposed new substation will completely screen the new substation from view from all of these 4 No. sites.

Landscape: The cabling will be undergrounded, and the ground reinstated and returned to its original use. The above ground structures associated with the proposed UWF Grid Connection will be limited to the proposed new Mountphilips Substation. This new substation will have a minor, but permanent impact on the rural landscape fabric of its site and immediate surrounds. However, it is not readily visible from surrounding roads and residences due to landform and vegetative screening, which limits the perceived impacts on landscape character and visual amenity.

4. Consultation Period

I would be obliged if you would respond to this scoping consultation, advising us of any particular concerns or matters you would like examined.

The consultation period is open for four weeks i.e. until 1st April, 2019.

Please reply to me, Julie Brett at the contact details above or at jb@ecopower.ie. I am also available if you wish to discuss the proposed Knocknamona Windfarm Grid Connection development on my mobile at 086 831 2014.

Yours Sincerely,

Julie Brett

^[2] Based on Irish Motor Industry June 2018 (2.38 tonnes/per annum CO₂ per car) and Cartell.ie March 2018 (average per car in Ireland 21,025 km/pa)

^[3] Carbon Sequestration in Irish Forests (COFORD 2009)

^[4] Teagasc (Environment Knowledge Transfer Department 2019)

- Proposed Underground Cable
- R503 Regional Road
- Proposed Mountphilips Substation
- Permitted Upperchurch Windfarm Substation

