



**Grid West
Electricity Transmission Scheme**

**Study Area Rationale
Memorandum**

**Prepared for EirGrid by TOBIN Consulting
Engineers**

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TOBIN CONSULTING ENGINEERS





REPORT

PROJECT:

Grid West Electricity Transmission Scheme

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1 INTRODUCTION

This Memorandum aims to provide a considered view of the appropriate boundaries of a study area for corridor and route selection between three end nodes of the eventual Grid West development proposal (a 'node' refers to an area within which the end connection will be located).

The nodes will be:

- (a) The recommended site for the Bellacorick Substation;
[Note: this substation location has not yet been identified. A constraints study will precede the identification of a preferred substation location in this general area, taking into account environmental, technical and economic constraints]
- (b) A location within or adjacent to Cashla Substation; and
- (c) A location within or adjacent to Flagford Substation.

These end nodes define the two potential routes of:

- (a) Bellacorick-Flagford; and
- (b) Bellacorick-Cashla.

The Bellacorick Substation will be sited at an optimum location with respect to the spatial and environmental constraints in the Bellacorick area, and with respect to the connection details for the known wind farms in the Gate 3 programme. The Cashla and Flagford Substations are likely to be located adjacent to the existing infrastructure at those sites.

The purpose of identifying a study area is to define a reasonable and appropriate area, at the outset of the Grid West project, within which to commence studies to identify an optimum solution. At this early stage in the project, the identified extent of the study area is not fixed. The limits may be extended, or otherwise altered, in light of ongoing project development, including information gathering and technical, environmental and other studies and including public and stakeholder consultation. In defining a study area we have tried, where possible, to follow identifiable physical features such as, national, local or regional roads, lakes or the coastline.

The study area does not extend beyond the coastline as it is reasonably considered that a route corridor solution incorporating a sub sea cable would be unreasonable given the geographic location of the connection nodes at Cashla or Flagford Substations.

In the event that public and stakeholder consultation on the study area identifies suggestions as to why the study area should be altered, such suggestions will be carefully considered and may result in an alteration to the currently identified study area, if appropriate.



2 DESCRIPTION OF THE STUDY AREA

The study area in the Bellacorick area is proposed to extend to the coast itself, excluding the Mullet and Corraun peninsulae and Achill Island, as this allows the largest reasonable study area, in the hinterland of Bellacorick, to be examined in order to find a preferred substation site location.

The study area follows the coastline southwards to Clew Bay and towards the town of Westport. The edge of the study area between Westport and Galway City follows the N59 national secondary route, between the Partry Mountains and Mweellrea Mountains (Sheffry Hills); it follows a county road (R336), keeping to the west of Lough Mask and Lough Corrib until it meets Galway Bay. The Lakes of Corrib and Mask, and the Partry mountain and blanket peat terrain which lies southwest of a line from Partry to Westport, form a natural geographical barrier which, even at the outset of this project, could be reasonably considered to heavily constrain potential route corridor options for the likely nature and extent of this project to the east of a line from Galway City to Westport. However, such circumstances and constraints in this area are to be confirmed through the constraints mapping process, as per the scope of work in respect of information gathering, and, therefore, the study area extends from Westport to Leenane (at the head of the Killary), from there to the western extremity of Lough Corrib at Maam, and southwards to the coastline in Connemara near Rossaveal.

The study area extends along the northern shoreline of Galway Bay (R336), south of Galway City. From here the study area extends along the N18 south of the town of Athenry and the village of Craughwell. A 15km buffer zone is included within the study area around the substation site at Cashla order to ensure that all constraints (including visual impact), potentially relevant to any approach to the Cashla Substation can be assessed.

The study area extends northwards along a local road to the north west of the town of Loughrea. The edge of the study area follows local roads (R348, R359 and R358) west of the town of Ballinasloe and east of Tuam, through New Inn, Castleblakeney, Moylough and Dunmore in east County Galway.

The study area continues towards the Galway-Mayo-Roscommon border following the N83 and N60 to Cloonfad-Ballinlough, where it turns eastwards towards Strokestown (N5) in County Roscommon.

From Strokestown, the study area meets the River Shannon at Rooskey (R371) and follows an arc to the east of Flagford, at a distance of approximately 15km from Flagford Substation, to include the constraints context of any angle of approach to the substation at Flagford.

The study area extends northwards, east of the town of Boyle and west of Lough Allen along the R280. The study area extends westwards, passing just south of Lough Gill along the R289 and R290 towards Sligo Bay.

The study area extends along the Sligo and Mayo coast line, around Killala Bay, closing the study area again at Broad Haven.



3 RATIONALE

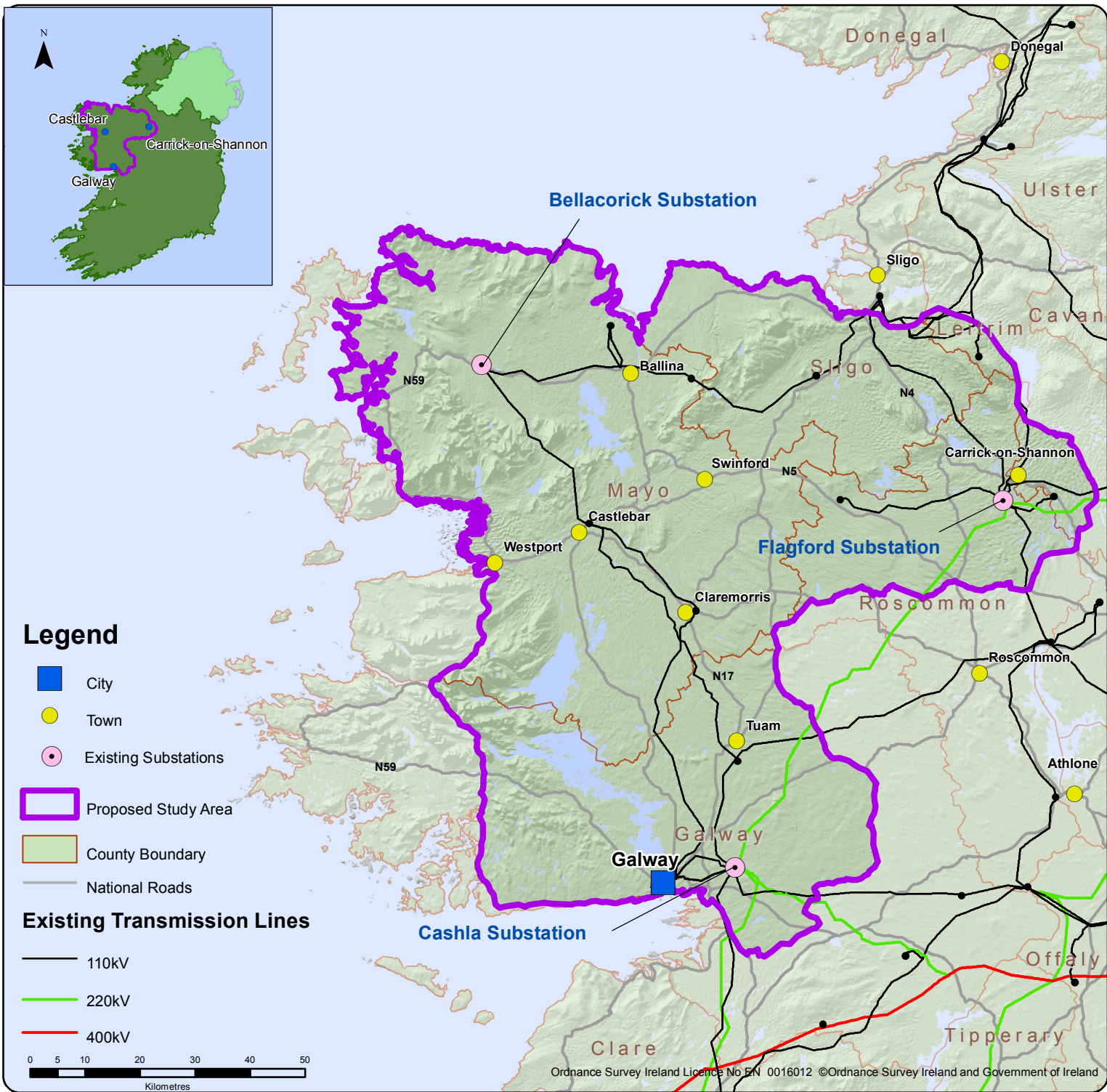
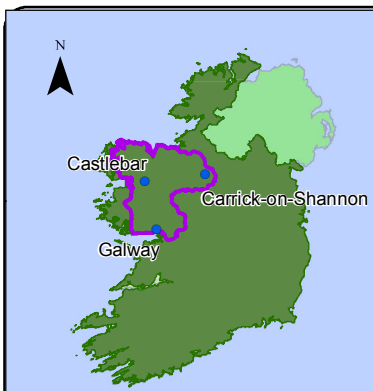
South Connemara, west of Galway City, Lough Corrib and Lough Mask, has been included within the study area, even though it departs significantly from the line-of-sight between Bellacorick and Cashla, and even though many constraints (e.g. Partry Mountains, steep sided, closed valleys of the Maamturks, blanket peat terrain, environmentally designated areas) will combine to weigh against optimum route corridor options in this area. In this way, a precautionary principle is being observed, so that the study area is not constrained by any preconception in these respects at the outset of this project.

Westport, Galway City and Castlerea are each situated within the study area, thus ensuring that the final proposal considers the constraints within all reasonable potential route corridors, as well as ensuring that the general public within these communities have an opportunity to take part in the consultation process.

The furthest limits of East Galway and that part, of County Roscommon south of a line from Castlerea to Strokestown are not included within the study area because, given the defined end nodes for this project, none of the route corridors from Bellacorick to Flagford or Bellacorick to Cashla would reasonably extend so far into the south-east from the direct line of sight between these defined end nodes.

Areas north east of Lough Allen have been omitted from the study area, because it is considered at the outset that a potential Bellacorick to Flagford line would not be routed that far to the north east of the existing Flagford Substation, as it would mean an unreasonably long deviation in the direct route corridor.

APPENDIX 1

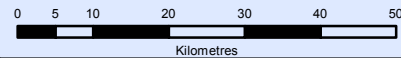


Legend

- City
- Town
- Existing Substations
- Proposed Study Area
- County Boundary
- National Roads

Existing Transmission Lines

- 110kV
- 220kV
- 400kV





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