

ESB National Grid

Kingscourt 400kV Site Selection

PE688 F132-08

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1.0 Introduction.

- 1.1 ESB National Grid commissioned ESBI to identify suitable sites for a proposed 400kV AIS Transformer Station in the Kingscourt area.
- 1.2 A site with minimum dimensions of 270 M X 260 M will be required to accommodate the proposed development.
It should be highlighted that additional works may be required as a result of planning conditions which may be stipulated by the planning authority. Such variables will have to be considered in the overall context of potential substation locations. It is envisaged that the maximum dimension required would be 300M in the North South direction X 270M in the East West direction.

2.0 Site Study.

2.1 Study Area:

The study area concentrated southwest of Kingscourt along the route of the existing Flagford-Louth 220kV and primarily between Angle Towers 241 and 253.

2.2 Site Selection:

Initial studies generated a total of 21 potential sites for study, 4 of which were North of the 220kV line. Following further evaluation, including research at the Land Registry to establish which landowners had the most viable holdings, these have been reduced to a total of ten prospective sites. Four of these are in Co. Cavan, Three of which are adjacent to the 220kV line and one which is somewhat south of it.

2.3 Site Evaluation:

The following criteria were used to evaluate sites:

- (a) Proximity to existing Flagford-Louth 220kV line.
- (b) Future access for 400, 220 & 275kV overhead lines.
- (c) Outside Gas Pipeline exclusion zone of 1km.
- (d) General topography.
- (e) Accessibility.
- (f) Proximity to housing.
- (g) Potential conflicts with archaeology & NHA.

2.4 Land Owner Identification.

No contact was made with landowners or residents within the study area.

2.5 Photographs.

A selection of photographs are included for most of the sites in this report but these are intended as an indication of general conditions only. It would be impractical to try to provide an overall view of every site in this way.

3.0 Suitable Sites.

The ten sites identified are shown on associated Drawing No. **PE688-D132-003-001-000**

3.1 Site No 1.

- Townsland of CORRAWHEELIS adjacent to the 220kV line in span 243-244.
- Road access via good quality secondary road which would meet ESB needs, and ties directly to the R165 (Bailieborough-Kingscourt) road.
- This site is attractive for its proximity to the 220kV and ease of tie-in and also for the fact that this is one landowner only. Access for future 275kV inter-connector appears OK, however the 400kV line route will require evaluation.
- There are dwellings in the area so adequate landscaping/screening will be a priority for this site.

3.2 Site No 2.

- Townsland of CORRANEARY adjacent to the 220kV line in spans 244 to 246.
- Access would be via a road which would require upgrading to facilitate ESB access requirements. This access road joins a good quality secondary road which joins the R165 (Bailieborough-Kingscourt) road.
- The location benefits from generous natural landscape screening.
- There are no dwellings adjacent to or overlooking the site.
- There is overhead line access available from all directions.
- The site is elevated and would require significant civil works.



Site 2 - Photo point 'A' on Drawing PE688D132-003-001-000



Site 2 - Photo point 'B' on Drawing PE688D132-003-001-000



Site 2 - Photo point 'C' on Drawing PE688D132-003-001-000

3.3 Site No 3.

- Townsland of BIRRAGH adjacent to the 220kV line in spans 247 to 249.
- Access via secondary road network which joins to the R164 (Kells-Kingscourt) road.
- The location has good screening but will require additional landscaping.
- There are few dwellings (including owners) adjacent to or overlooking the site.
- There is overhead line access available from all directions.
- Considerable civil works would be required here due to topography.
- There are two (same family) landowners involved in this case.



Site 3 - Photo point 'D' on Drawing PE688D132-003-001-000



Site 3 - Photo point 'E' on Drawing PE688D132-003-001-000

3.4 Site No 4.

- Townsland of DRUMBAR approx 1km south of the 220kV line at spans 243 to 246.
- Access via secondary road network which joins to the R164 (Kells-Kingscourt) road.
- The location has good screening but will require additional landscaping.
- There are no dwellings apart from landowner adjacent to or overlooking the site.
- There is overhead line access available from all directions.
- Considerable civil works would be required here due to topography.

3.5 Site No 5.

- Townsland of BOHERLEA approx 0.8km south of the 220kV line at span 249 to 250.
- Access via secondary road which joins to the R164 (Kells-Kingscourt) road.
- The location has good screening but will require additional landscaping.
- There is one dwellings (including owners) adjacent to or overlooking the site.
- There is overhead line access available from all directions.
- The site is elevated and would require significant civil works, however this could contribute to the landscaping / screening.



Site 5 - Photo point 'F' on Drawing PE688D132-003-001-000



Site 5 - Photo point 'G' on Drawing PE688D132-003-001-000

3.6 Site No 6.

- Townsland of MOORLAGH approx 0.7km south of the 220kV line at span 251 to 252.
- Access via secondary road which joins to the R164 (Kells-Kingscourt) road.
- The location has good screening but will require additional landscaping.
- There are no dwellings adjacent to or overlooking the site. Derelict building only at roadside, now used as farm outoffices.
- There is overhead line access available from all directions.
- Less civils here than some of the others but still considerable.



Site 6 - Photo point 'H' on Drawing PE688D132-003-001-000



Site 6 - Photo point 'I' on Drawing PE688D132-003-001-000

3.7 Site No 7.

- Townsland of CORRANANAGH approx 0.8km south of the 220kV line at span 249 to 250.
- Direct access to the R164 (Kells-Kingscourt) road.
- Location is quite remote with good screening.
- There is one dwelling (including landowner) adjacent to or overlooking the site.
- There is overhead line access available from all directions.
- The site is elevated and would require significant civil works, however this could contribute to the landscaping / screening.

3.8 Site No 8.

- Townsland of BOHERLEA approx 1.0km south of the 220kV line at span 250 to 251 .
- Access via secondary road which joins to the R164 (Kells-Kingscourt) road.
- The location has good screening but will require additional landscaping.
- There are no dwellings adjacent to or overlooking the site. Derelict building only in holding - now used as farm outoffices.
- There is overhead line access available from all directions.
- The site is elevated and would require significant civil works, however this could contribute to the landscaping / screening.



Site 8 - Photo point 'L' on Drawing PE688D132-003-001-000

3.9 Site No 9.

- Townsland of CARNACALLY approx 1.1KM south of the 220kV line at span 250 to 251.
- Access via secondary road which joins to the R164 (Kells-Kingscourt) road.
- The location has good screening but will require additional landscaping.
- There are no dwellings adjacent to or overlooking the site.
- There is overhead line access available from all directions.
- The site is elevated and would require significant civil works, however this could contribute to the landscaping / screening.



Site 9 - Photo point 'M' on Drawing PE688D132-003-001-000

3.10 Site No 10.

- Townsland of KILBOYNE approx 2.5km south of the 220kV line at spans 244 to 246.
- Access via secondary road which ties to the R164 (Kells-Kingscourt) road.
- The location has good screening but will require additional landscaping.
- There are no dwellings adjacent to or overlooking the site. Derelict building only in holding - now used as farm outoffices.
- There is overhead line access available from all directions.
- The site is extremely elevated and would require very significant civil works, however this could contribute to the landscaping / screening.



Site 10 - Photo point 'N' on Drawing PE688D132-003-001-000



Site 10 - Photo point 'O' on Drawing PE688D132-003-001-000

4.0 Site Recommendation in order of preference.

2
1
3
4

Site No. 4.

- Good road access.
- 1km from 220kV line.
- No housing in the immediate vicinity with exception of landowner.
- Good screening.
- A site of dimensions 300mx270m can be accommodated at this location.
- The site can be accommodated in the preferred orientation.

Site No. 1.

- Good road access.
- Adjacent to 220kV line.
- Some housing in area.
- Good screening.
- A site of dimensions 300mx270m can be accommodated at this location.
- The site can be accommodated in the preferred orientation.

Site No. 7.

- Good road access.
- 0.8km from 220kV line.
- Some housing in area.
- Good screening.
- A site of dimensions 300mx270m can be accommodated at this location.
- The site cannot be accommodated in the preferred orientation without revisiting the design.

Site No. 3.

- Good road access.
- Adjacent to 220kV line.
- Some housing in area.
- Good screening.
- A site of dimensions 300mx270m can be accommodated at this location.
- The site cannot be accommodated in the preferred orientation without revisiting the design.

Site No. 5.

- Good road access.
- 1kM from 220kV line.
- One house in area.
- Reasonable screening.
- A site of dimensions 300mx270m can be accommodated at this location.
- The site can be accommodated in the preferred orientation.

Site No. 2.

- Access road would require upgrading.
- Adjacent to 220kV line.
- No housing in the immediate vicinity.
- Good screening.
- A site of dimensions 300mx270m can be accommodated at this location.
- The site can be accommodated in the preferred orientation.

Site No. 6.

- Good road access.
- 0.7kM from 220kV line.
- No housing in the immediate vicinity.
- Good screening.
- A site of dimensions 270mx260m can be accommodated at this location.
- The site cannot be accommodated in the preferred orientation without revisiting the design.

Site No. 9.

- Good road access.
- 1.1kM from 220kV line.
- No housing in the immediate vicinity.
- Reasonable screening.
- A site of dimensions 270mx260m can be accommodated at this location.
- The site cannot be accommodated in the preferred orientation without revisiting the design.

Site No. 8.

- Good road access.
- 1.0kM from 220kV line.
- No housing in the immediate vicinity.
- Reasonable screening.
- A site of dimensions 270mx260m can be accommodated at this location.
- The site cannot be accommodated in the preferred orientation without revisiting the design.

Site No. 10.

- Good road access.
- 2.5kM from 220kV line.
- Some housing in area.
- Poor screening.
- A site of dimensions 300mx270m can be accommodated at this location.
- The site can be accommodated in the preferred orientation.