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West Dublin 220/110 kV Substation and Associated Works

Stage 2 Report

June 2015



REPORT

PROJECT: **West Dublin 220/110 kV Substation and Associated Works**

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EXECUTIVE SUMMARY

EirGrid, as the state-owned transmission system operator, has identified the need to reinforce the electricity network in west Dublin as there is a substantial amount of new demand (144 MVA) seeking to connect to the network in the Grange Castle area. This new demand cannot be supplied on the existing 110 kV network as it has reached its supply capacity. The proposed reinforcement comprises a new 220/110 kV Gas Insulated Switchgear (GIS) substation which will connect to the existing Inchicore-Maynooth 220 kV double-circuit overhead line, which passes through the area.

The proposed substation will also be connected with the planned local 110 kV underground cable network in the Grange Castle area. It is proposed that five 110 kV circuits will be connected to the proposed substation; this comprises four existing or permitted 110 kV circuits, as well as a proposed new 110 kV cable connection connecting to the Corkagh Station, located within Grange Castle Business Park – this proposed new 110 kV cable forms part of this project. These 110kV substations will serve major industrial customers in this evolving high-technology industrial area.

This project is referred to as the West Dublin 220/110 kV Substation and Associated Works project.

The development of this project aligns with the principles outlined in EirGrid's Project Development Roadmap. This project is currently at Stage 2 of the EirGrid Roadmap – "Evaluate Options". The previous Stage 1 process of "Information Gathering" identified a study area for the project and constraints (environmental and technical) within that study area, considered a number of circuit route options, identified several feasible interface compound sites (where the existing 220 kV overhead line in this area would switch to underground cable to connect to the proposed substation) and considered a number of feasible substation site area options in the study area. It also identified three areas that are considered to be *"emerging preferred"* sites for the proposed substation. A six week public consultation period was held following the publication of the Stage 1 Report in February 2015.

It is noted that the use of the term 'Site' in this Stage 2 Report refers to the general locations identified on attached Figures (1-2, 1-3 and 4-1); these identified Sites should not be considered to represent any specifically defined location of the substation.

Stage 2 of this project comprises a number of tasks including; evaluating the substation and interface compound site options identified in Stage 1 and consideration of all feedback received, detailing the evaluation process that was undertaken in order to identify the location of the preferred substation site, interface compounds and cable connections for the project, presenting the preferred substation site, interface compound sites and cable connections, and identifying and engaging with landowners that will be affected by the project. Stage 2 of the project development also provides for further and ongoing public and stakeholder consultation. In particular, consultation on the findings of the Stage 2 Report will

enable the project team to gain feedback on the preferred sites and cable routes. Feedback received during Stage 2 will assist in the progression of the detailed project design and the application for statutory approval of the proposed development.

During Stage 1 of the project a number of criteria were identified to appraise each of the substation and interface compound site options (refer to section 3-2 herein). The appraisal criteria were chosen to best represent the identified constraints within the study area while also considering the technical requirements of the project.

Following consideration of feedback received on the Stage 1 Report, it has been decided to also include the criterion of *"Maximum Removal of a Section of the Existing 220 kV Line"* for evaluating the interface compound sites, as this was highlighted during public consultation as a key local issue. The potential for removal of the "Adamstown pylon", which is a stated objective of the Statutory Development Plan, was also a key issue raised during the Stage 1 public consultation process, and is also included as a criterion for evaluating the interface compound sites.

The impact and effect of the evaluation criteria on shortlisted substation and interface compound site options was classified in terms of significance and ranges from 'More Constrained' to 'Less Constrained' depending on the level of significance of each criteria to the site identification.

Following an initial filtering of all identified feasible site options, and subsequent evaluation of site options C, D and E (which it is noted also comprised the original emerging preferred site options as identified in the Stage 1 Report), Site D has emerged as the least constrained substation site location. Site D has been evaluated as least constrained in terms of land availability, land zoning, biodiversity, cultural heritage, contaminated land, road access, impact on 110 kV connections to customer site and future extensibility. Also, feedback received during the Stage 1 consultation period was largely positive towards Site D as an emerging preferred option for the substation site. **Site D will therefore be progressed as the preferred substation site.**

It is estimated that the substation development, including landscaping and security measures, will require an area of approximately three hectares (ha). Site D is a large site (> 10 ha) and there are a number of locations within Site D where the substation could potentially be developed. This exact location within the preferred Site D will be determined as part of the design confirmation stage of the project (Stage 3).

With regard to the interface compound site options, the construction of two separate interface compound sites is necessary in order to develop the required underground circuit routes for the project, in the form of a "loop-in" and "loop-out" of the proposed 220 kV substation. Each interface compound

will facilitate the undergrounding of two circuits, comprising the two existing circuits on the double-circuit (where two separate circuits travel on a single set of tower structures) of the Inchicore-Maynooth 220 kV line. Due to the orientation of the road network through the study area, and the benefits of routing the cable circuits in roadways, it is envisaged that two 220 kV circuits will be routed from the western part of the study area along the R120, and two 220 kV circuits will be routed along the eastern part of the study area along the R136 and R134 as required.

One interface compound will therefore be developed in the vicinity of the R120 road and another interface compound site will be developed in the vicinity of the R136 road. These comprise the primary roads in the study area which run in a north-south orientation between the existing 220 kV overhead line, and the core area of customer demand that will be facilitated by the proposed development.

The conductors and masts between the eastern and western interface compounds will also be decommissioned and removed.

Interface compound site options T1-T5 have therefore been divided into: western circuit route options i.e. those in the vicinity of the R120 road (sites T1, T2 and T3) and; eastern circuit route options i.e. those in the vicinity of the R136 road (site T4 and T5). One western circuit route option site and one eastern circuit route option site will comprise the preferred interface compound sites.

The project team notes that, while approved, the planned R120 and R134 road upgrades may not have occurred at the time of construction of the proposed development (assuming the proposed development obtains its own statutory consent). Therefore, while laying the 220 kV underground cables in the planned upgraded roads remains the preferred option, it has been considered prudent to explore alternative circuit route options. The proposed routes are located as close to these existing roads as possible, but outside the extent of the road upgrades. It is anticipated that evaluation of site options and subsequent identification of a preferred substation site and interface compound sites will not be affected by either road development scenario.

Following an evaluation of all feasible interface compound site options (T1 –T5), T2 has emerged as the least constrained western circuit route option and T5 has emerged as the least constrained eastern circuit route option.

However, while T2 has emerged as the least constrained western site option from a technical and environmental perspective, the project team recognises the potential community benefit of removing an additional section of existing 220 kV overhead line between T2 and T1. The project team considered that this is a significant benefit, and outweighed the differences in the evaluation criteria between T1 and T2. **As such T1 is the preferred western interface compound site. T5 is identified as the**

preferred eastern circuit route option. The development location of the interface compounds is subject to agreement with directly affected landowners and other stakeholders.

Sites T1 and T5 will enable the maximum amount of existing 220 kV overhead line to be removed while still meeting the requirements of the project. These sites will also allow for the removal of the existing pylon at Adamstown.

The Stage 2 Report is published in order to present the methodology, evaluation and conclusions reached in identifying a preferred substation site, two preferred interface compound sites and preferred circuit routes for the West Dublin project. This report is a basis for further consultation and to seek inputs on any of the preferred sites identified, and any other matters.

Following the receipt of feedback on the Stage 2 Report, the next step will be to confirm design of the proposed development and subsequent progression to an application for statutory consent.

1 INTRODUCTION

1.1 REPORT CONTEXT

EirGrid, as the state-owned electricity transmission system operator, has identified the need to reinforce the electricity network in west Dublin as there is a substantial amount of new demand (144 MVA) seeking to connect to the network in the Grange Castle area. This new demand cannot be accommodated in the existing 110 kV network as it has reached its supply capacity. The proposed reinforcement comprises a new 220/110 kV Gas Insulated Switchgear (GIS) substation which will connect to the existing Inchicore-Maynooth 220 kV double-circuit overhead line, which passes through the area.

The proposed substation will also be connected with the planned local 110 kV underground cable network in the Grange Castle area. It is proposed that five 110 kV circuits will be connected to the proposed substation; this comprises four existing or permitted 110 kV circuits, as well as a proposed new 110 kV cable connection connecting to the Corkagh Station, located within Grange Castle Business Park – this proposed new 110 kV cable forms part of this project. These 110kV substations will serve major industrial customers in this evolving high-technology industrial area.

This project is referred to as the West Dublin 220/110 kV Substation and Associated Works project.

The development of this project aligns with the principles outlined in EirGrid's Project Development Roadmap. This project is currently at Stage 2 of the EirGrid Roadmap – "Evaluate Options" (refer to Figure 1-1 overleaf). The previous Stage 1 process of "Information Gathering" identified a study area for the project and constraints (environmental and technical) within that study area, considered a number of circuit route options, identified several feasible interface compound sites (where the existing 220 kV overhead line in this area would switch to underground cable to connect to the proposed substation) and considered a number of feasible substation site area options in the study area. It also identified three areas that are considered to be *"emerging preferred"* for the substation site.

This process of "Information Gathering" is captured in the Stage 1 Report, available at EirGrid's project website http://www.eirgridprojects.com/projects/westdublin. For a complete and thorough understanding, this Stage 2 Report should be read in conjunction with the Stage 1 Report.

This report outlines the process and decisions arising from and occurring since the publication of the Stage 1 Report in February 2015.

Figure 1-1 EirGrid Project Development & Consultation Roadmap



1.2 THE PURPOSE OF THIS STAGE 2 REPORT

From the EirGrid Project Development & Consultation Roadmap in Figure 1-1, it can be seen that Stage 2 of this project evaluates the options identified in Stage 1. This includes considering all feedback received during the Stage 1 consultation period. The 'Report and Feedback on First Round of Public Consultation' for the project is included as Appendix 1. Stage 2 also covers ongoing input and analysis by EirGrid and their consultants.

The objectives of this Stage 2 Report are to:

- Present the evaluation process that has been undertaken in order to identify the location and routes of the preferred substation site, interface compounds and cable connections;
- Consider public and stakeholder feedback in respect of the Stage 1 Report;
- Identify the preferred site for the proposed 220/110 kV substation;
- Identify the two preferred interface compound sites; and
- Identify the preferred 220 kV and 110 kV circuit routes to the preferred substation site and interface compound sites.

1.3 SUMMARY OF STAGE 1 PROCESS

The Stage 1 process of information gathering consisted of the following steps:

- Present the need for the project;
- Establish a study area for the project;
- Identify environmental and technical constraints within the defined project study area;
- Identify and consider feasible substation site options within the defined project study area;
- Identify and consider feasible interface compound site options adjacent to the existing Inchicore-Maynooth 220 kV double-circuit overhead line;
- Identify circuit route options for the project within the defined project study area;
- Identify emerging preferred sites for the substation; and
- Provide an opportunity for stakeholder and public consultation.

In summary the key findings of the Stage 1 Report are as follows:

- 11 feasible substation sites (referred to as Sites A – K in Figure 1-2) for the proposed substation were identified. Of these 11 feasible sites, the initial appraisals identified that the optimum substation location that best meets the needs for the project is south of the Grand Canal and as close as possible to the industrial electrical demand.

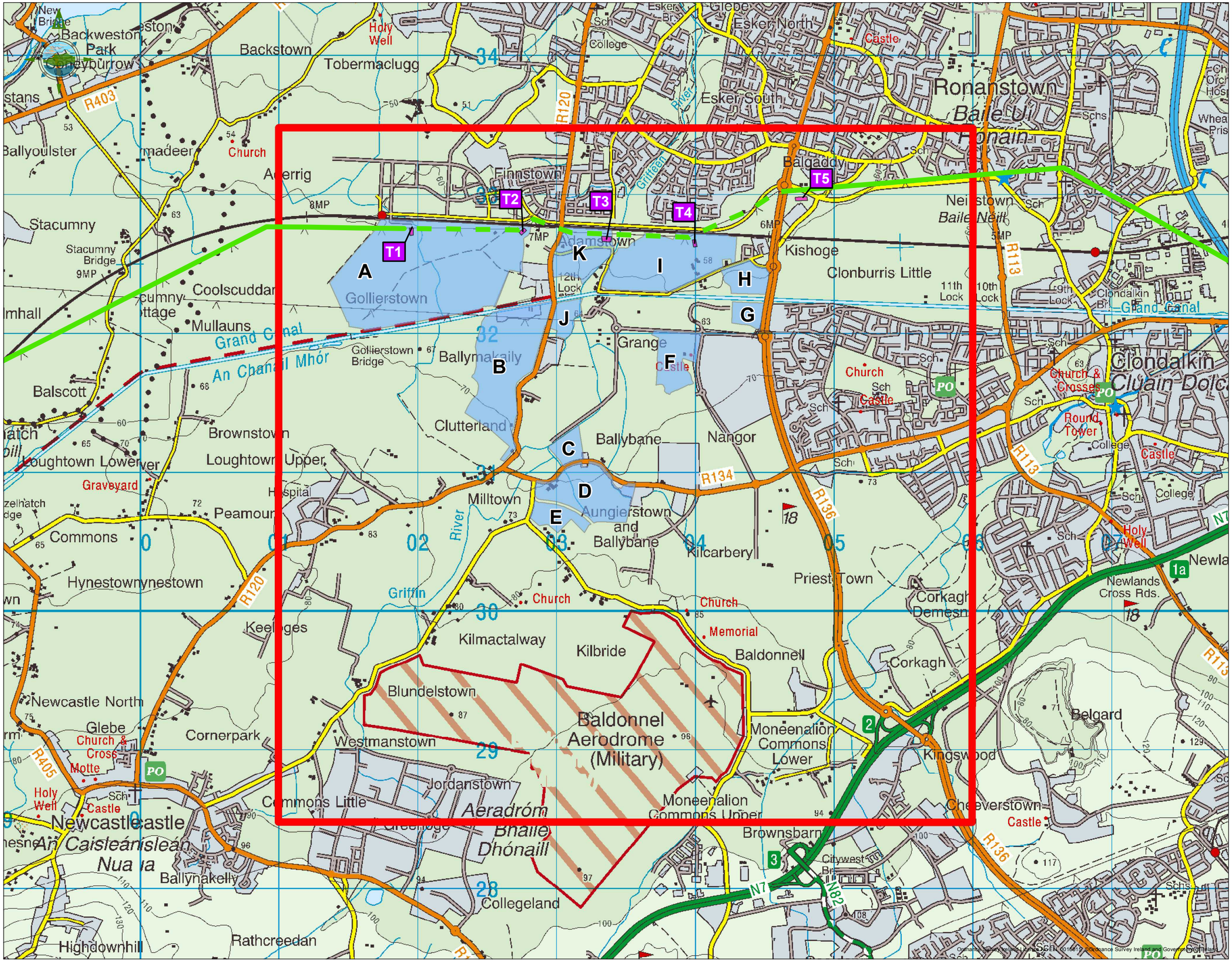
- Sites C, D and E were considered to be the emerging preferred options for feasible sites for the proposed substation (refer to Figure 1-3). The three emerging preferred substation sites all are located on South Dublin County Council owned lands.

- 5 feasible sites were identified for the interface compound locations (referred to as T1 – T5); all located at (or near to) existing 220 kV mast locations along the route of the existing Inchicore-Maynooth 220 kV double-circuit overhead line.

- Feasible route corridor options, for four No. 220 kV underground cable circuits were identified to meet the technical requirements of the project.

- Feasible route corridor options for five No. 110 kV underground cable circuits were identified to meet the technical requirements of the project.

It is noted that the use of the term 'Site' in this Stage 2 Report refers to the general locations identified on attached Figures (1-2, 1-3 and 4-1); these identified sites should not be considered to represent any specifically defined location of the substation.



Legend

- Study Area
- 220kV Line
- MAXIMUM Potential length of 220 kV overhead line to be removed (dependent on EVENTUAL PROPOSED Interface Compound locations)
- Interface Compound
- Feasible Site

0 0.1 0.2 0.4 0.6 0.8 1
Kilometres

NOTES

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
3. ENGINEER TO BE INFORMED OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. ALL LEVELS RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Issue	Date	Description	By	Chkd.
A	05-01-15	Issued	G.F.	A.A.

Client: EIRGRID

Project:
West Dublin 220/110 kV Substation and Associated Works

Title:
Feasible Sites

Scale @ A3: 1:25,000

Prepared by:	Checked:	Date:
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Figure 1.2

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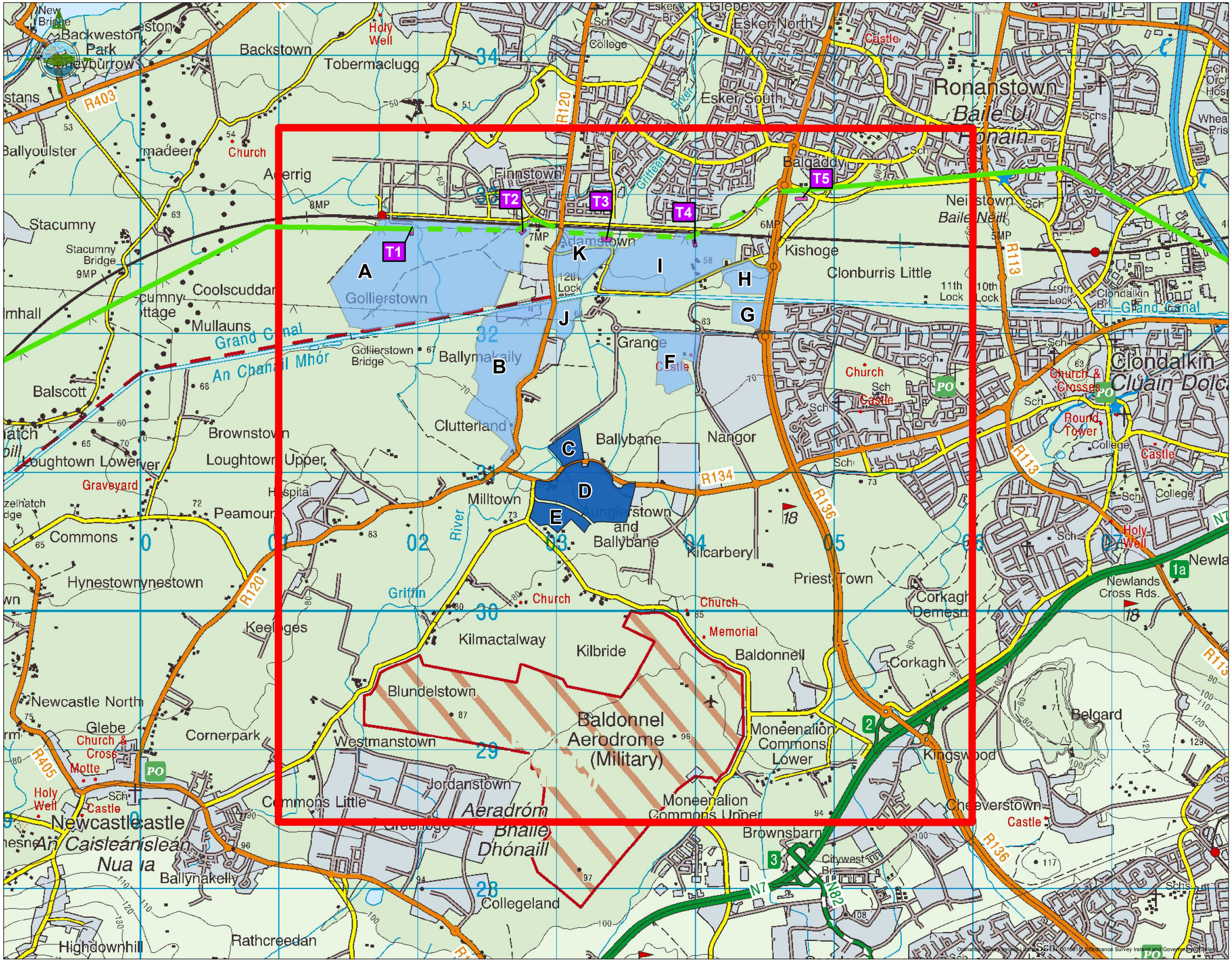

Legend

- Study Area
- 220kV Line
- MAXIMUM Potential length of 220 kV overhead line to be removed (dependent on EVENTUAL PROPOSED Interface Compound locations)
- Interface Compound
- Feasible Site
- Emerging Preferred Sites

0 0.1 0.2 0.4 0.6 0.8 1
Kilometres

NOTES

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Issue	Date	Description	By	Chkd.
A	05-01-15	Issued	G.F.	A.A.

Client: EIRGRID

Project: West Dublin 220/110 kV Substation and Associated Works

Title: Emerging Preferred Sites

Scale @ A3: 1:25,000

Prepared by:	Checked:	Date:
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Figure 1.3

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2 CONSULTATION ON THE STAGE 1 REPORT

Public and stakeholder consultation forms a key component of the development of this project.

Prior to formal public consultation the project team consulted with key stakeholders as detailed in the Stage 1 Report and Appendix 1 of this Report. This included having several meetings with South Dublin County Council, who is a major landowner in the study area and the statutory planning authority for this area. Consultation also occurred with the Department of Defence and utility service providers. Consultation with these key stakeholders took place for the purpose of informing the stakeholders of the project as well as determining any specific constraints. This consultation helped shape the feasible site options identified for the project as set out in the Stage 1 Report.

Public representatives in west Dublin were also consulted on their views on how to best conduct public consultation on this project.

Subsequently, public consultation on the Stage 1 Report for the West Dublin 220/110 kV Substation and Associated Works project was launched on the 17th February 2015 and ran until the 31st March 2015.

A dedicated webpage was set up for the project at http://www.eirgridprojects.com/projects/westdublin and went live on the 17th February 2015. A project email address; westdublin@eirgrid.com, a postal address (*Project Manager, West Dublin Project, The Oval, 160 Shelbourne Rd, Ballsbridge, Dublin 4*) and telephone number (*01 237 0479*) were put in place to provide channels through which the public could get more information and engage with the project team.

A specific Stage 1 consultation event was held on the 5th March 2015 in the Grange Castle Business Park (being the general area of the proposed development), where local representatives, members of local community groups and organisations and local residents attended the event and provided feedback to the project team.

To date, and as set out in more detail in the 'Report and Feedback on First Round of Public Consultation' included as Appendix 1 of this Stage 2 Report, consultation has occurred with landowners, key stakeholders, statutory bodies, non statutory bodies and the general public. The principles behind the consultation remain the same for all groups i.e. to engage in open, honest and meaningful discussion and consider all feedback, suggestions and information brought to the attention of the project team. In this context, the 'Report and Feedback on First Round of Public Consultation' is an integral element of this Stage 2 Report, and should be read to gain a thorough understanding of the Stage 1 consultation process, and feedback arising.

2.1 SUMMARY OF FEEDBACK RECEIVED

A six week public consultation period was held from the 17th February until the 31st March 2015 following the publication of the Stage 1 Report. During this period, feedback was sought from the public on the overall project. In particular, feedback was sought on the location of the substation and interface compounds, circuit route locations and any other information that should be considered in the development of this project. The project team has sought to use the feedback received to develop a collaborative approach for engaging with the local communities.

During this consultation period, some 40 submissions were received in response to the project and the publication of the Stage 1 Report. Those who have been in contact regarding the project are predominantly members of the public living in the local area, and statutory bodies. Contact with the project team was in most cases through the project email. Post was the next preferred method of communication, with phone calls being the least used method.

Feedback in the form of comments, observations and queries on specific issues were received and these can be categorised under eight broad themes:

1. Existing 220 kV Overhead line: Requests for maximum removal of the existing 220 kV overhead line and pylons (highlighted in 37.6% of submissions received).

2. Local Environment: Queries about the potential impact of the project on the local environment (highlighted in 12.5% of submissions received).

3. Project Consultation: The need for early, on-going consultation and progress updates (highlighted in 10.7% of submissions received).

4. Location – Design: The need for careful consideration of the locations chosen of required infrastructure (highlighted in 10.7% of submissions received).

5. Residential Amenity: Queries received relating to the impact of the project on local residences and schools (highlighted in 9% of submissions received).

6. Health Impacts: Queries received relating to the perceived or reported health effects of installing new overhead electricity transmission lines as part of the project (highlighted in 9% of submissions received).

7. Neutral: acknowledgement of the project, no submissions or observations to make at this time (7.2% of submissions received).

8. Economic Impact: The economic concerns over lands used by the project or adjacent (3.6%).

Please refer to Appendix 1 of this Stage 2 Report for the 'Report and Feedback on First Round of Public Consultation' for further details on the feedback received.

2.2 STAGE 1 LANDOWNER CONSULTATION

The project team endeavoured to engage with landowners of identified feasible sites for the purposes of receiving feedback on the overall project, the location of the substation and interface compound sites, circuit route locations and any other information that might be considered in the development of this project to help inform how the project moves ahead. The local knowledge of landowners is important to the project team. Incorporating this local knowledge with the information ascertained through technical and environmental survey and assessments enables the project team to decide on the optimum solution.

During Stage 1, all landowners of identified feasible sites for both the planned substation and interface compounds were notified of the project and that their lands were considered to be feasible site options. They were also notified when the Stage 1 Report was finalised and available to view. These landowners were also informed of the Stage 1 consultation period and that a project consultation event was to be held on the 5th March 2015. They were invited to attend the consultation event and offered the opportunity to provide feedback on the project proposals or any other relevant issues in the area.

Arising from the initial consultation activity, private meetings were requested by some landowners with EirGrid and the project team. These meetings have since taken place.

All Stage 1 landowner feedback has been captured in the 'Report and Feedback on First Round of Public Consultation' as presented in Appendix 1 of this Stage 2 Report, and considered in the evaluation of sites as discussed further in section 3 of this report.

3 EVALUATION OF OPTIONS

3.1 EMERGING PREFERRED SUBSTATION SITES

In the Stage 1 Report, 11 feasible substation sites (referred to as Sites A-K) were identified including three emerging preferred sites, Sites C, D and E.

Sites North of the Grand Canal (Sites A, K, I & H)

The project team noted in the Stage 1 Report that Substation Sites A, K, I, and H, located north of the Grand Canal are positioned at a distance from the 110 kV customer substations. Circuit routing to these sites will require five No. 110 kV circuits crossing the Grand Canal to connect to the substation. This part of the study area is constrained by lack of space within the existing road networks (R120 and R136) for the required cable infrastructure and therefore it is envisaged that cross country routes will be required.

No further information was obtained by EirGrid and its consultants during the Stage 1 consultation feedback process that would alter their views regarding the technical and environmental constraints of these potential sites to meet the requirements of the project. As such, the identified substation site options north of the Grand Canal will not be progressed further unless it subsequently emerges that all other less technically and environmentally challenging options are infeasible.

Site J

Substation Site J is located immediately south of the canal approximately mid-way between the existing 220 kV overhead line and the 110 kV customer substations. Cable access to this site is heavily constrained by limited space availability in the R120 and the R134 and several cross country cable routes would be required. As such, Substation Site J will not be progressed further unless it subsequently emerges that all other less technically and environmentally challenging options are infeasible.

Site B

Substation Site B located south of the canal is also located approximately mid-way between the existing 220 kV overhead line and the 110 kV customer substations. Cable access to this site is also heavily constrained by limited space availability in the R120 and the R134 and cross country cable routes would be required. However, following feedback from South Dublin County Council during the Stage 1 consultation process, and subsequently during Stage 2 of the EirGrid Roadmap, this site was further studied and considered by the project team.

In view of the specific requirements of this project, and the constraints that exist at Substation Site B to meet those project requirements, this potential site option will not be progressed further unless it

subsequently emerges that other less technically and environmentally challenging options are infeasible.

Sites F & G

Substation sites (F, G) located within Grange Castle Business Park are heavily constrained by a lack of availability of cable routes in the road network that service the sites. These potential site options will therefore not be progressed further unless it subsequently emerges that all other less technically and environmentally challenging options are infeasible.

Sites C, D & E

Substation sites (C, D, and E) located along the R134 road are located in the optimum position for offloading 110 kV circuits. Existing ducting within the Grange Castle Business Park western link road and the local road to the south would facilitate cable access for four 110 kV cable circuits to the vicinity of these three sites. It is envisaged that the required fifth 110 kV cable circuit could also be routed adjacent to the existing ducting and within the same public roads. The distance to the existing 220 kV double circuit overhead line necessitates a lengthy cable route for the four 220 kV cable circuits, within or in the vicinity of the R120, R134 and R136 regional roads. These potential site options were therefore considered appropriate to progress further in the Stage 2 evaluation process.

In summary, following consideration of feedback on the Stage 1 Report in relation to the identified feasible site options, and the identified emerging preferred sites, it is the consideration of the project team that Sites C, D and E should progress to the evaluation phase in accordance with Stage 2 of the EirGrid Roadmap.

3.2 EVALUATION CRITERIA

Substation Site Options

During Stage 1 of the project, as part of the information gathering stage, a number of criteria were developed to appraise each of the substation site options for the development of the required 220 / 110 kV substation. These criteria were chosen to best represent the identified constraints within the study area while also considering the technical requirements of the project. These criteria are:

- Land Availability
- Land Zoning
- Landscape
- Biodiversity (flora and fauna)
- Cultural Heritage
- Contaminated Land
- Water / Flooding History or Potential

- Human Beings / Proximity to Housing
- Road Access
- Proximity to existing 220 kV Infrastructure
- 220 kV Circuit Access
- Impact on 110 kV connections to customer site
- Future extensibility

As noted above, no additional criteria were identified by the general public and stakeholders during the Stage 1 public consultation process in respect of evaluating substation site options. Following consideration of feedback on the Stage 1 Report, as well as ongoing technical and environmental analysis by the project team, it is considered that these criteria address the issues raised and as such these criteria shall be used to evaluate substation sites C, D and E.

Interface Compound Site Options

During Stage 1 of the project, as part of the information gathering stage, a number of criteria as listed below were developed to appraise each of the interface compound site options T1 – T5. The cost associated with laying the required cable lengths and developing any new access roads (including engineering complexity and costs) has been considered within the 'Road Access' criterion below. Following consideration of feedback received on the Stage 1 Report it has been decided to also include the criterion of *"Maximum Removal of a Section of the Existing 220 kV Line"* which was highlighted as a key local issue during the Stage 1 consultation period.

The possible removal of the "Adamstown pylon", which is a stated objective of the Statutory Development Plan, was also a key issue raised during the Stage 1 public consultation process, and has also been included as an evaluation criterion.

The impact on 110 kV connections to customer site and future extensibility, which are included within the substation site criteria, are not relevant to the interface compound site identification so have been excluded from the criteria below in respect of evaluation of the interface compound options.

- Land Availability
- Land Zoning
- Landscape
- Biodiversity (flora and fauna)
- Cultural Heritage
- Contaminated Land
- Water / Flooding History or Potential
- Human Beings / Proximity to Housing

- Road Access
- Proximity to existing 220 kV Infrastructure
- 220 kV Circuit Access
- Maximum Removal of a Section of the Existing 220 kV Line
- Potential for Removal of Existing Angle Mast at Adamstown

The construction of two separate interface compound sites is necessary in order to develop the required underground circuit routes for the project, in the form of a double “loop-in” to the proposed 220 kV substation. Each interface compound will facilitate the undergrounding of two circuits, comprising the two existing circuits on the double-circuit (where two separate circuits travel on a single set of tower structures) of the Inchicore-Maynooth 220 kV line. Due to the orientation of the road network through the study area, and the benefits of routing the cable circuits in roadways, it is envisaged that two 220 kV circuits will be routed from the western part of the study area along the R120, and two 220 kV circuits will be routed along the eastern part of the study area along the R136 and R134 as required.

One interface compound will be developed in the vicinity of the R120 road and another interface compound site will be developed in the vicinity of the R136 road. These comprise the primary roads in the study area which run in a north-south orientation between the existing 220 kV overhead line, and the core area of customer demand that will be facilitated by the proposed development.

Interface compound site options T1 - T5 have therefore been divided into western circuit route options i.e. those in the vicinity of the R120 road (sites T1, T2 and T3) and eastern circuit route options i.e. those in the vicinity of the R136 road (site T4 and T5). One western circuit route option site and one eastern circuit route option site will determine the preferred interface compound sites.

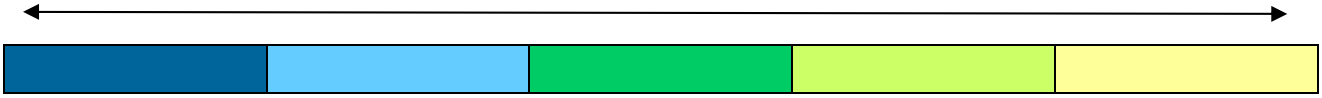
The project team notes that, while approved, the planned R120 and R134 road upgrades may not have occurred at the time of construction of the proposed development (assuming the proposed development obtains its own statutory consent). As such, while laying the 220 kV underground cables in the planned upgraded roads remains the preferred option, it has been considered prudent to progress with identifying alternative circuit route options as a contingency. Proposed routes shall be located as close to these existing roads as possible, but outside the extents of the road upgrade.

It is anticipated that evaluation of site options and subsequent identification of a preferred substation site and preferred interface compound sites will not be affected by either road development scenario.

3.3 EVALUATION METHODOLOGY

The impact and effect of the evaluation criteria on each of the substation and interface compound site options has been classified in terms of significance and ranges from 'More Constrained' to 'Less Constrained' depending on the level of significance of each criteria to the site identification. This is displayed using a simple colour coding as such:

More Constrained **Less Constrained**



Project team members, including engineers and environmental specialists, have assessed each of the sites and other options against the criteria listed above in section 3.2, from a technical and environmental perspective, while also taking into account the feedback received during the Stage 1 consultation period.

Each relevant project specialist carried out an evaluation of each site option and gave it a colour coding following the key above. The project team carried out a workshop to review specialist work and evaluate each of the substation sites and interface compound sites against the evaluation criteria detailed in section 3.2.

3.4 SITE EVALUATION

Substation Site Evaluation

The findings of the substation site evaluation are summarised in Table 3-1.

Table 3-1 Substation Site Evaluation

Evaluation Criteria	Substation Site		
	C	D	E
Land Availability			
Land Zoning			
Landscape			
Biodiversity (flora and fauna)			
Cultural Heritage			
Contaminated Land			
Water / Flooding History or Potential			
Human Beings / Proximity to Housing			
Road Access			
Proximity to existing 220 kV Infrastructure			
220 kV Circuit Access			
Impact on 110 kV connections to customer site			
Future extensibility			
Overall Least Constrained Site		**X**	

More Constrained **Less Constrained**



Following an evaluation of the three emerging substation site options, Site D has emerged as the least constrained substation site location.

Site D has been evaluated as least constrained in terms of land availability, land zoning, biodiversity, cultural heritage, contaminated land, road access, impact on 110 kV connections to customer site and future extensibility.

It is estimated that the substation development, including landscaping and security measures, will require an area of approximately three hectares (ha). Site D is a large site (> 10 ha) and the exact location of the substation development within the site therefore has flexibility.

It is noted that following the publication of the Stage 1 Report, the OPW have published draft maps from the Eastern CFRAM Study which are intended for the purpose of consultation only. Small areas of Site

D lie within the 1 in 1000 year flood risk zone, however the site is large enough to avoid these areas completely.

The exact substation development location within the site will be chosen following further consultation with the affected landowner and further technical and environmental studies to inform the specific proposed design of the proposed substation and associated development.

Site D is within land zone EP2[1], where public services are 'Permitted in Principle'. It also does not form part of a designated site, nor does it lie adjacent to a designated site. There are no known architectural or archaeological features within Site D, nor is there any indication of any contamination within the site.

The site also has existing road access for ease of construction and maintenance of the substation. Site D is located immediately south of the R134 road. This location is in a good position for offloading the five No. 110 kV circuits which are key to the project. The existing 220 kV overhead line is located approximately 2.5 km north of the site can be connected to the site by four No. 220 kV cable circuits.

The preferred substation site identified in Stage 2 is Site D and this site will be progressed further as part of the project development process.

As previously stated, Site D is a large site (> 10 ha) and there are a number of locations within Site D where the substation could be developed. This exact location within Site D will be determined as part of the design confirmation stage of the project (Stage 3).

[1] As per the South Dublin County Council Development Plan 2010 - 2016

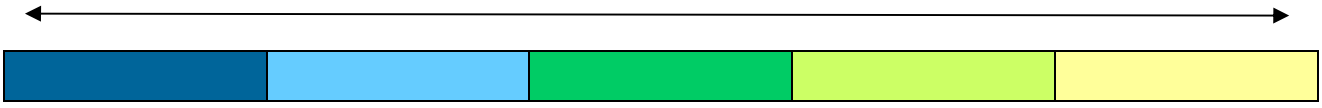
Interface Compound Site Evaluation

The findings of the interface compound site evaluation are detailed in Table 3-2.

Table 3-2 Interface Compound Site Evaluation

Evaluation Criteria	Feasible Interface Compound Sites				
	Western Circuit Route			Eastern Circuit Route	
	T1	T2	T3	T4	T5
Land Availability					
Land Zoning					
Landscape					
Biodiversity (flora and fauna)					
Cultural Heritage					
Contaminated Land					
Water / Flooding History or Potential					
Human Beings / Proximity to Housing					
Road Access					
Proximity to existing 220 kV Infrastructure					
220 kV Circuit Access					
Maximum Removal of a Section of the Existing 220 kV Line					
Potential for Removal of Existing Angle Mast at Adamstown					

More Constrained **Less Constrained**



Following an evaluation of all feasible interface compound site options, T2 has emerged as the least constrained western circuit route option and T5 has emerged as the least constrained eastern circuit route option.

However, while T2 emerges as the least constrained western site, EirGrid is cognisant of the community benefit of removing the additional section of existing 220 kV overhead line between T2 and T1. This was considered, in particular in light of feedback received during Stage 1.

The project team considered that the maximum removal of the existing overhead lines and tower structures in this urban area is a significant community benefit of the project, and one which outweighed the differences in the technical and environmental evaluation criteria between T1 and T2. The T1 interface compound site still allows for the removal of the existing pylon at Adamstown.

Approximately 0.2 ha is required for an interface compound site. Both Sites T1 and T5 are in excess of this land requirement. Site T1 is located within land zone B[2], where public services are 'Permitted in Principle'. T1 is located within substation site option A which bounds the Grand Canal proposed Natural Heritage Area (pNHA) to the south. There are no known archaeological features within this site, nor is there any indication of any contamination. Site T1 is not located within the 1 in 1000 year flood risk zone. The existing 220 kV double-circuit overhead line Inchicore-Maynooth (including four No. 220 kV masts), runs through Site A in which T1 is also located.

Site T5 is located within lands zone A1 where public services are 'Permitted in Principle'. Site T5 does not form part of a designated site, nor does it lie adjacent to a designated site. There are no known archaeological features within the site. Site T5 is not located within the 1 in 1000 year flood risk zone. The existing 220 kV double-circuit overhead line, Inchicore-Maynooth, runs through this site with one No. 220 kV mast currently located within this site.

The preferred western interface compound site identified in Stage 2 is T1, while the preferred eastern interface compound site is T5, and these sites will be progressed further as part of the project development process.

The development location of the interface compounds is subject to agreement with directly affected landowners and other stakeholders.

[2] As per the South Dublin County Council Development Plan 2010 - 2016

4 CONCLUSION

Stage 2 of the West Dublin 220/110 kV Substation and Associated Works project has involved the consideration of feedback from Stage 1 and the identification of the preferred substation site, the preferred interface compound sites and feasible circuit routes.

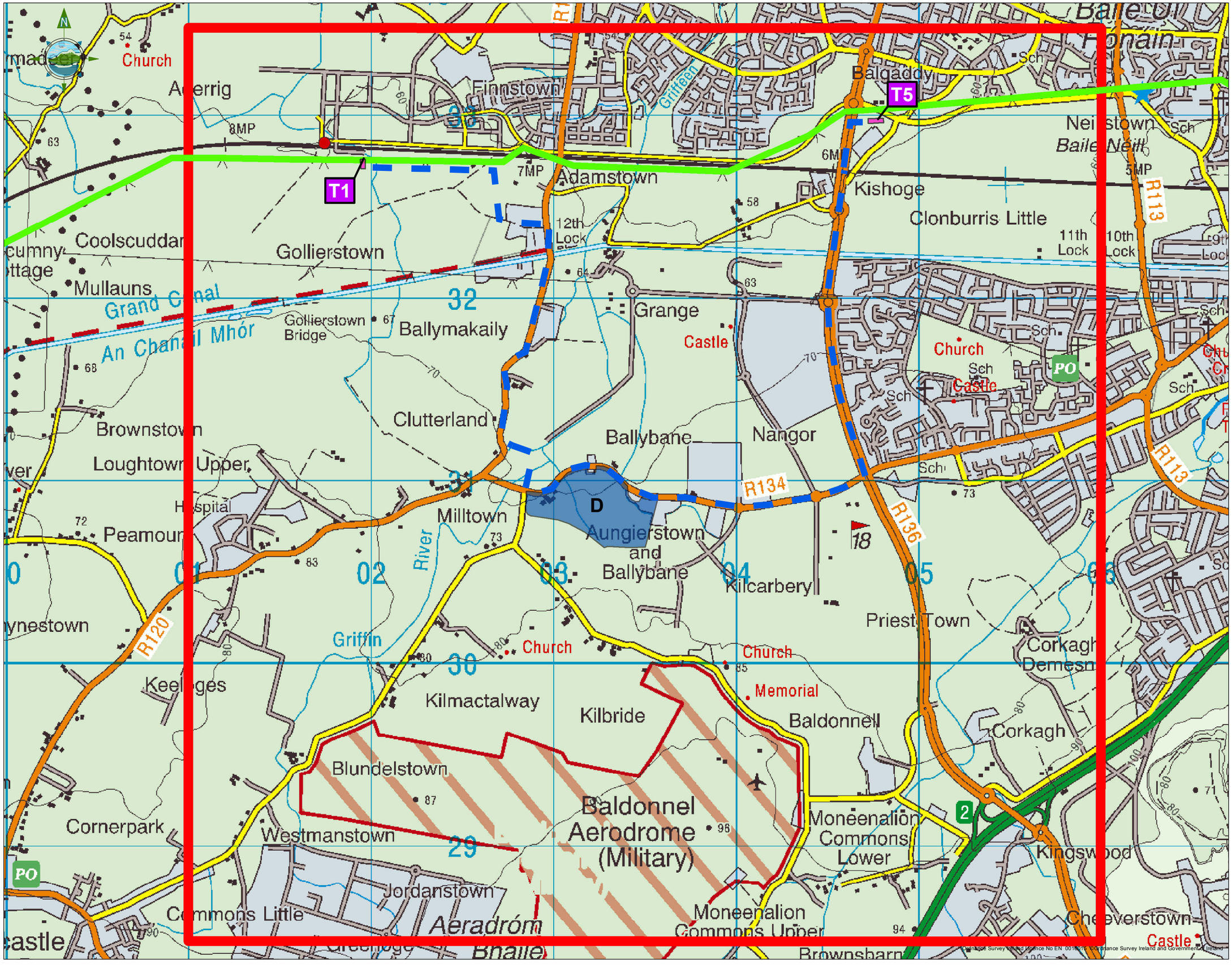
Following the Stage 2 evaluation process and consideration of all feedback received to date, Stage 2 of the project has identified substation Site D and interface compound sites T1 and T5 as the preferred sites. These preferred sites, along with the preferred circuit routes, are shown in Figure 4-1 overleaf. These sites and circuit routes will be progressed to the next stage of the project.

4.1 NEXT STEPS

The Stage 2 Report will be published, in order to present the findings on the project to date, and to act as a focus for further consultation and to seek public and stakeholder inputs on the preferred sites identified.

The project team will continue to engage with landowners of the identified preferred sites and along the circuit routes. This consultation will enable the project team to gain feedback on the preferred sites and cable routes, as well as undertaking further technical and environmental survey. This will assist in the project design and in moving the project forward.

Following the receipt of feedback on the Stage 2 Report, the project will progress to Stage 3, confirming the design of the project with the focus of preparing an application for statutory consent. Further environmental and technical surveys will also be undertaken to aid the project design.



Legend

- Study Area
- 220kV Line
- Preferred Cable Routes
- T1 Interface Compound Site
- Substation Site D

0 0.05 0.1 0.2 0.3 0.4 0.5
Kilometres

NOTES

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3. ENGINEER TO BE INFORMED OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. ALL LEVELS RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Issue	Date	Description	By	Chkd.
A	MAY-2015	Issued	G.F.	A.A.

Client: EIRGRID

Project:
West Dublin 220/110 kV Substation and Associated Works

Title:
Preferred Site and Cable Routes

Scale @ A3: 1:19,002

Prepared by:	Checked:	Date:
G.Fil	A.Austin	May 2015

Project Director: D.Grehan

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Figure 4.1

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APPENDIX 1

SCF043L2

West Dublin 220/110 kV Substation and Associated Works Report & Feedback from First Round of Public Consultation

June 2015



Patrick J. Tobin & Co. Ltd.

REPORT

PROJECT: **West Dublin 220/110 kV Substation and Associated Works**

CLIENT:
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DOCUMENT AMENDMENT RECORD

Client: EirGrid

Project: West Dublin 220/110 kV Substation and Associated Works

Title: Report and Feedback on First Round of Public Consultation

PROJECT NUMBER: 7568				DOCUMENT REF: 7568-01			
A	Report	AAM	10/05/15	DC	11/06/15	DG	11/06/15
Revision	**Description & Rationale**	**Originated**	**Date**	**Checked**	**Date**	**Authorised**	**Date**
TOBIN Consulting Engineers							

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1 INTRODUCTION

EirGrid has identified the need to reinforce the electricity network in west Dublin as there is a substantial amount of new demand (144 MVA) seeking to connect to the network in the Grange Castle area. This new demand cannot be accommodated in the existing 110 kV network as it has reached its supply capacity.

EirGrid needs to reinforce the electricity network in west Dublin by introducing a new 220/110 kV Gas Insulated Switchgear (GIS) substation connected to the existing network (at both 220 kV and 110 kV). The proposed substation will be connected to the existing 220 kV double-circuit overhead line, Inchicore-Maynooth 1 and 2 220 kV line, which passes through the area. There will be 4 no. 220 kV connections, namely Inchicore 1 and 2 and Maynooth 1 and 2. As underground cable options are being explored, two separate interface compounds may be required, located adjacent to the existing 220 kV overhead line, to connect the existing 220 kV overhead line to the underground cable connections, which ultimately connect with the substation.

The proposed substation will also be connected with the planned local 110 kV underground cable network in the Grange Castle area. It is proposed that five 110 kV circuits will be connected to the proposed substation; this comprises four existing or permitted 110 kV circuits, as well as a proposed new 110 kV cable connection connecting to the Corkagh Station, located within Grange Castle Business Park – this proposed new 110 kV cable forms part of this project.

It has been noted in Stage 1 of the project that EirGrid will, where possible, endeavour to “design out” the double-circuit angle mast on the existing Inchicore-Maynooth 220 kV double-circuit overhead line at the junction of Station Road and the Adamstown Link Road. The removal of the “Adamstown pylon” is a policy of the South Dublin County Council Development Plan 2010–2016.

If an underground cable design option is progressed between the existing 220 kV overhead line and the proposed substation, it determines that of the two break-in points required on the existing 220 kV overhead line circuits (i.e. locations for the interface compounds), one will be required to the west of the R120 and one will be required to the east of the R120. This is because; given the width required in laying these circuits to ensure a secure and reliable connection, all four required 220 kV cables could not be carried within the same road corridor.

In this scenario, the conductors and masts between the two break-in points would also be decommissioned and removed.

2 LAUNCH OF PUBLIC CONSULTATION

Public engagement during Stage 1 of the West Dublin 220/110 kV Substation and Associated Works project has been shaped by engagement with the media, engagement with public representatives, the production of a project brochure, advertisements, meetings, a consultation event, written correspondence and the establishment of a dedicated project email address and webpage.

Prior to formal public consultation, consultation had occurred with primary statutory stakeholders in shaping the project, most notably South Dublin County Council (see section 5 of this report).

The first phase of public consultation on the West Dublin 220/110 kV Substation and Associated Works project was launched on the 17th February 2015 and ran until the 31st March 2015.

A specific Stage 1 consultation event was held on the 5th March 2015 at South Dublin County Council's Marketing Suite in Grange Castle Business Park to provide the public with information on the project and offer the opportunity to provide feedback to the project team. Local representatives, members of local community groups and organisations and local residents attended the event.

During the first phase of public consultation, feedback was sought from the public on the overall project, the location of the substation, circuit route locations and any other information that might be considered in the development of this project to help inform how the project moves ahead, and how the project team can work together with communities in west Dublin. This phase of consultation was usefully focused on the content and conclusions of the published Stage 1 Report.

3 PROJECT WEBSITE AND CONTACT DETAILS

A dedicated webpage was set up for the West Dublin 220/110 kV Substation and Associated Works project http://www.eirgridprojects.com/projects/westdublin and went live on the 17th February 2015. A project email address; westdublin@eirgrid.com, a postal address (*Project Manager, West Dublin Project, The Oval, 160 Shelbourne Rd, Ballsbridge, Dublin 4*) and telephone number (*01 237 0479*) were put in place to provide channels through which the public could get more information and provide feedback to the project team. This is in line with EirGrid's consultation policy of using a wide range of channels to communicate and consult with the public.

4 PUBLIC ADVERTISEMENTS

In advance of the Stage 1 consultation event on the 5th March 2015, the event was advertised as follows:

- Adverts were placed in local newspapers (Clondalkin Gazette and Southside People)
- 1000 flyers detailing the event were dropped into those houses closest to Grange Castle Business Park (refer to Figure 4-1 overleaf)
- Local community groups and organisations were contacted regarding the project and invited to the consultation event
- Local Councillors and representatives were contacted regarding the project and invited to the consultation event
- A press release regarding project consultation was issued to local media outlets

Legend

- Study Area
- Flyer Drop Distribution Area

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Kilometres

NOTES

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Issue	Date	Description	By	Chkd.
A	19.05.15	Issue	G.F.	A.A.

Client: EIRGRID

Project:

West Dublin 220/110 kV Substation and Associated Works

Title:

Flyer Distribution Areas

Scale @ A3: 1:25,000

Prepared by:	Checked:	Date:
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Project Director: D.Grehan

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Figure 4.1

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In the course of preparing the Stage 1 Report the project team consulted with relevant stakeholders for the purpose of informing the stakeholders of the project as well as determining any specific constraints which would interfere with the identification of feasible sites. At this stage consultation contact was made with the following, who at this early stage of project development are considered to be the primary stakeholders in terms of shaping options for the project:

- South Dublin County Council (SDCC) – a key landowner in the Grange Castle Business Park area
- Department of Defence – operators of the adjacent Baldonnel Aerodrome
- Utility service providers
- Landowners of identified feasible sites (for both substation and interface compounds)

Once the Stage 1 Report was finalised consultation was made with the following stakeholders to provide details of the project, to announce the publication of the Stage 1 Report and to offer the opportunity to provide feedback:

- An Garda Siochána
- An Taisce
- Bat Conservation Ireland
- BirdWatch Ireland
- Commission for Communications Regulation
- Commission for Energy Regulation
- Department of Agriculture, Food & Marine
- Department of Communications, Energy & Natural Resources
- Department of Defence
- Department of Transport, Tourism & Sport
- Development Applications Unit, Department of the Arts, Heritage & Gaeltacht
- Environmental Protection Agency
- Fáilte Ireland
- Geological Survey of Ireland
- Health & Safety Authority
- Health Service Executive
- Iarnród Éireann- Irish Rail
- Inland Fisheries Ireland
- Irish Aviation Authority
- Irish Farmers Association
- Irish Water

- National Parks and Wildlife Service
- Railway Procurement Agency
- South Dublin County Council
- Sustainable Energy Authority of Ireland
- Teagasc
- The Heritage Council
- The Irish Wildlife Trust
- The National Roads Authority
- Waterways Ireland

4.1 LANDOWNERS OF FEASIBLE SITES

All landowners of identified feasible sites for both the planned substation and possible interface compounds were notified that the Stage 1 Report was finalised and available to view. These landowners were also notified of the Stage 1 consultation period and informed that a project consultation event was to be held on the 5th March 2015. They were invited to attend the consultation event and offered the opportunity to provide feedback on the project proposals or any other relevant issues in the area.

Arising from the initial consultation activity, private meetings were requested with EirGrid and the project team. These meetings have since taken place.

4.2 LOCAL REPRESENTATIVES, COMMUNITY GROUPS AND ORGANISATIONS

Public Representatives, community groups, individuals, organisations and other stakeholders were consulted by EirGrid to inform them of the project, the publishing of the Stage 1 Report, to invite them to attend the project consultation event and to offer the opportunity to provide feedback. Each stakeholder was also sent a copy of our Stage 1 project brochure.

5 FEEDBACK

5.1 OVERVIEW

The project's primary objectives in the Stage 1 consultation phase were to:

Communicate the need, rationale and benefits accruing from the project, clearly and consistently to all stakeholders and key audiences.

Consistent with these objectives and reflecting the early stage of the project, much of the project team's interaction with stakeholders focused on the communication of the need, rationale, economic and social benefits and a general awareness of the project, including potential site locations and associated circuit routes.

5.2 FEEDBACK FROM STATUTORY BODIES AND AGENCIES

Several statutory bodies responded in the Stage 1 Consultation period following the publication of the Stage 1 Report. Below is a summary of their responses.

5.2.1 South Dublin County Council (SDCC)

As a major landowner in the area and the planning authority, several meetings were held with SDCC in the course of preparing the Stage 1 Report to discuss the project and address issues such as the availability of space within the existing road network for the required cables, proposed road upgrades and the location of council owned lands potentially available for development. Details of those meetings can be seen in the Stage 1 Report.

In response to the Stage 1 Report publication, the SDCC submission states that it is their view that the provision of a 220 kV substation is critical for the future development of the Grange Castle area as an internationally recognised business location, capable of providing quality services to future and existing clients. SDCC also confirms that the proposed development does fall under the definition of public services as defined by the South Dublin County Council Development Plan 2010-2016.

The SDCC submission discusses each of the identified feasible sites and states that Site B, in their view, should be further evaluated to help develop the existing business park westwards, subject to planning. The three emerging preferred substation sites all are located on SDCC owned lands.

The correspondence confirms that the roads aspect of the proposal and how it impacts on the design process will be dealt with separately through the SDCC Roads Design Section.

The SDCC submission also notes that although located close to each other, the three emerging preferred sites C, D, and E are vastly different sites in how they would be used by SDCC.

The correspondence notes that Site C is located adjacent to an important future entrance to the Grange Castle Business Park, pending upgrade to the Nangor Road. Site C also overlooks a small water feature making it quite an attractive site for the purposes of employment possibilities. SDCC note that a substation would not be considered the optimal use for this site.

SDCC note that Site D is considered acceptable for the substation development but that analysis would be required not to compromise the integrity of the site for future high profile economic development. It is noted that along the north side of the Google access road is not considered the optimum location but that a number of locations within the overall site do have the greatest potential including the north east periphery and the south east periphery adjacent Profile Park / Google at the end of the new access road.

The SDCC correspondence notes that the optimum portion of Site E for the substation development is to the east to allow a feasible sized site to remain for employment purposes.

The SDCC submission also notes that it is an important consideration that additional and future circuits be identified as early as possible.

SDCC also note that a new Development Plan is currently in the process of being adopted and the emerging draft Development Plan should be taken into consideration.

The submission concludes by stating SDCC supports this necessary upgrade to the electricity network.

5.2.2 Inland Fisheries Ireland

Inland Fisheries Ireland note that the three emerging preferred sites are located within the Griffeen catchment and that this system is exceptional as it supports Atlantic salmon (*Salmo salar*), listed under Annex II and V of the EU Habitats Directive, Sea trout and Brown trout (both *Salmo trutta*). As with any development, it was noted that all measures necessary to protect watercourses should be undertaken. Any works directly affecting watercourses or riparian habitats must be submitted for assessment and approval in the form of a detailed method statement.

The Inland Fisheries Ireland also notes that all construction works should be completed in accordance with a Construction Management Plan (CMP) including comprehensive surface water

management measures. Inland Fisheries Ireland state that attenuation ponds and infiltration over land should be considered.

5.2.3 Iarnród Éireann

Iarnród Éireann states that the company welcomes EirGrid's intention to strengthen the electricity network in west Dublin for new and future demands.

Their submission confirms that the emerging preferred substation site locations are some 2km south of the railway. It also acknowledges that four of the interface compound sites are immediately south of the Cork Mainline railway and that the only significant interface compound likely to affect the railway is T5, as it will require a 220 kV circuit to cross the railway.

Iarnród Éireann request that dialogue on any emerging design issues is commenced at the earliest possible time. If the option to cross the railway line with cables proceeds, then an application seeking to cross the railway line with cables or ducts must be made. Iarnród Éireann also highlight that any works associated with this project should not affect the integrity of the existing railway and / or access arrangements or Iarnród Éireann's intention to electrify the Cork Line between Hazelhatch (Kildare) and Inchicore/ Heuston in the future.

5.2.4 Irish Water

A submission was received by Irish Water stating that in general they have no objection to the proposals. It was however noted that Irish Water intends to construct a major watermain in this area, potentially along the R120 which may conflict with any proposed underground connections. Irish Water indicated that they would have their preferred route finalised by the end of May 2015. Irish Water suggests that when project plans have been firmed up, that EirGrid should consult with them further regarding the proposed watermain.

5.2.5 National Roads Authority (NRA)

It was advised that the NRA is not in a position to engage directly with planning applicants in respect to proposed development. The feedback submission received by the NRA provides best practice guidance only and general scoping recommendations are made. It is noted that the project does not appear to encroach into the area of the N7 which is a strategically important inter urban national route. However, if the substation site or circuit routes alter and there are greater implications for the N7, the NRA would welcome further consultation.

5.2.6 Health and Safety Authority

The Health and Safety Authority acknowledged receipt of the consultation letter and Stage 1 Report. They advised that they have no feedback on the Stage 1 Report at this time.

5.2.7 Department of Agriculture, Food and Marine

The Department of Agriculture, Food and Marine acknowledged receipt of the consultation letter and Stage 1 Report. They advise they have no observations or comments to make on the project at this time.

5.2.8 Department of Arts, Heritage and the Gaeltachta

The feedback submission received by the Department of Arts, Heritage and Gaeltachta outlines heritage related observations, specifically relating to archaeology. It states there will likely be impacts or likely impacts to archaeological remains. The submission also highlights that in recent times there have been some archaeological discoveries in the vicinity of Grange Castle. It is suggested that EirGrid should engage in the services of a qualified archaeologist at the early stages of project design.

5.2.9 Department of Defence

The Department of Defence advised in their submission that it has no objection to the proposed project. Their submission advises that, having consulted with the Air Corps, any planning application should comply with the restrictions as detailed in Schedule 4 (Casement Aerodrome, Baldonnel) of the South Dublin County Council Development Plan 2010 -2016.

5.3 SUMMARY OF ALL FEEDBACK RECEIVED

This report reflects an analysis of the feedback received and the actions already in place or proposed to address the observations raised. Some 40 submissions were received in response to the project and the publication of the Stage 1 Report. This is in addition to feedback received prior to publication of the Stage 1 Report by key stakeholders, and which shaped the options identified therein.

Feedback in the form of comments, observations and queries on specific issues were received and these can be categorised under eight broad themes:

1. Request for maximum removal of the existing 220kV overhead line and pylons

2. Queries about the potential impact of the project on the local environment

3. The need for early, on-going consultation and progress updates

4. Design – The need for careful consideration of the locations chosen of required infrastructure

5. Queries received relating to the impact of the project on local residences and schools

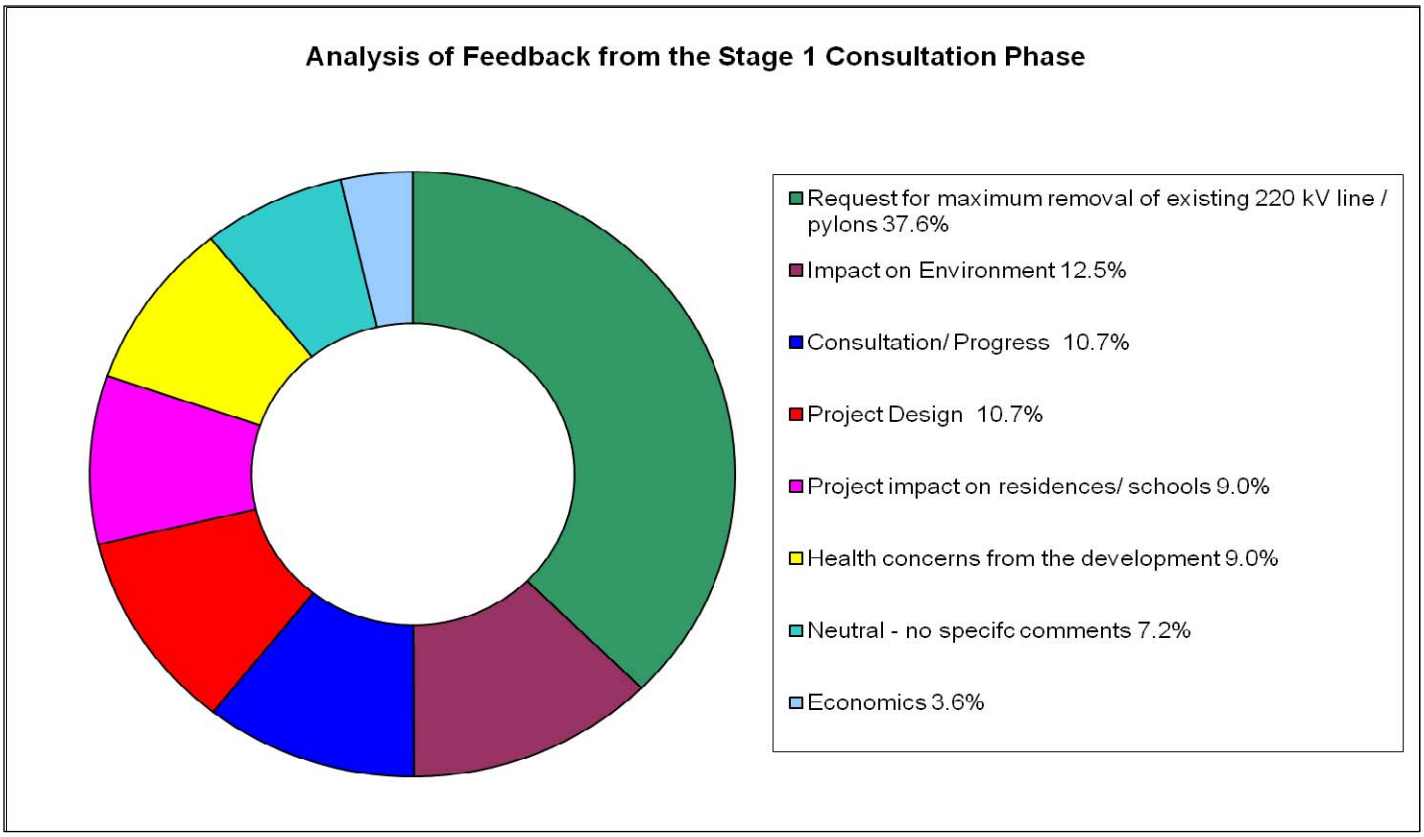
6. Queries received relating to the perceived or reported health effects of installing new overhead electricity transmission lines as part of the project

7. Neutral – acknowledgement of the project, no submissions or observations to make at this time

8. The economic concerns over lands used by the project or adjacent lands

The chart below reflects the frequency which each theme arose in the submissions received.

Figure 5-1 Analysis of Feedback from Stage 1 Consultation Phase



5.3.1 Request for maximum removal of the existing 220kV overhead line and pylons

This theme which involved the request to include the removal of the existing line / pylons in the project was the most recurring having been identified in some 37.6% of stakeholder's feedback. There appears to be widespread local support for removing as much of this existing line as possible.

Other matters which arose under this theme:

The noise, visual impact and potential health risks of the existing circuit were cited as concerns and annoyances for the local communities within the submissions received.

A. Actions

The project team will carefully consider the design of the proposed development to meet the needs of the project, including where possible, selecting two interface compound locations which will enable removing as much of the existing 220 kV line and associated pylons as we can. The reasoning for selecting the interface compound locations are detailed within the Stage 2 Report.

The project team notes specifically that the removal of the "Adamstown pylon" is an objective of the current County Development Plan.

5.3.2 Queries about the potential impact of the project on the local environment

Some 12.5% of submissions received highlighted potential impacts from the development of the project to the local environment as needing careful consideration and further studies. This included potential impacts to local archaeology, including potentially unknown archaeology, water courses, ecology and traffic.

A. Actions

The project team consists of environmental specialists (including archaeologists, ecologists, hydro-geologists etc.) who were involved in the initial Constraints Study, Report and Mapping for the West Dublin 220/110 kV Substation and Associated Works project.

Environmental issues will comprise a primary consideration in identifying the preferred substation site, the interface compound locations and the circuit routing. Detailed environmental studies will be undertaken at these sites and within the study area as the project progresses. An Environmental Report will be prepared for submission to An Bord Pleanála (assuming it is the Competent Authority for the planning application). The Environmental Report, and indeed the entire application will be available to view on EirGrid's project webpage. If the application is deemed by An Bord Pleanála to comprise Strategic Infrastructure Development, the application will also be uploaded to a stand-alone website, and will also be available to view in hard copy in the offices of South Dublin County Council.

5.3.3 The need for early, on-going consultation and progress updates

The need for on-going consultation and requests for progress updates was included in 10.7% of feedback submissions received.

Of the stakeholders who raised this theme, 1.8% cited that public consultation was not adequate during Stage 1 of the project, particularly regarding the publicising of the consultation event.

1.8% of the stakeholders in this theme sought information on the project.

A common observation, mainly from statutory authorities, was for further consultation and project updates as the project progresses.

A. Actions

EirGrid has committed to improving its approach to public consultation and published a report detailing these commitments in December 2014 (available at www.eirgrid.com). While these new commitments are due to be rolled out in 2015, they were employed where possible during Stage 1 consultation on the West Dublin Project. Commitments employed during Stage 1 include clear communications, improved community relationships, a consideration of social impact, consistency of information and engagement with policy makers.

EirGrid's public consultation commitments will be further employed, where possible, during Stage 2 of the project.

The following additional steps will be undertaken:

- EirGrid's dedicated West Dublin Project page (available at http://www.eirgridprojects.com/projects/westdublin/) will be regularly updated as the project progresses and will detail project activity.
- EirGrid will be available to respond to queries on the project via our dedicated email address (westdublin@eirgrid.com) and phone number (01 2370479).
- Prior to the Stage 2 consultation event, EirGrid will place advertisements in local newspapers, drop flyers into relevant residential areas, directly contact local representatives and liaise with local organisations, individuals and community groups.
- EirGrid will contact, where requested, interested parties who contacted EirGrid during Stage 1 of the project and inform them of any project updates.
- EirGrid will contact all effected landowners in advance of the Stage 2 Report being published and again in advance of the Stage 2 consultation event.

5.3.4 Design – The need for careful consideration of the locations chosen of required infrastructure

The design of the project, specifically the potential locations chosen for the interface compounds, was an area of concern for 10.7% of submissions received. It was cited within the submissions received that the western interface compound should be placed as far west as possible to avoid potentially impacting any future development in the Adamstown area and lands adjacent and to the general daily life of the people who live in this area. It was also cited that interface compound

T5 should be chosen as it would result in the longest length of existing 220 kV overhead line being removed.

Concerns regarding the location of the substation site to be chosen were also highlighted, particularly with regards to impacts on nearby residential properties and the potential for developing the lands for other commercial purposes.

Other matters which arose under this theme:

The crossing of the 12th Lock Bridge by underground cables was also a highlighted design concern. Both the 12th Lock Bridge and Lock Chamber are protected structures. Attention was drawn to the need to cross the railway line by underground cables should interface compound T5 be chosen.

A. Actions

Our project team will carefully consider the potential location of all interface compound locations, including the option of looking at areas further west as suggested in the feedback received. The chosen locations will need to meet the technical requirements of the project but the local benefits of the chosen location will also be considered.

The emerging preferred substation sites will be assessed in Stage 2 of the project using specific evaluation criteria. This assessment will be presented in the Stage 2 Report along with details of why the preferred site was selected.

5.3.5 Queries received related to the impact of the project on local residences and schools

Stakeholder feedback (9.0%) received included concerns regarding the potential impact of the project on local residences and schools. This was mainly in relation to locating the required infrastructure in the vicinity of local residences and schools.

A. Actions

In identifying feasible sites for the required infrastructure as part of Stage 1 of the project, the project team considered the location of local residences. Now following the feedback received and as the project moves in to Stage 2 which involves the identification of preferred sites for the substation, and if required, the interface compounds, impact on residences and residential amenity specifically forms part of our Stage 2 evaluation criteria for our assessment of sites and will assists us in identifying the preferred substation site and interface compound locations.

5.3.6 Queries received relating to the perceived or reported health effects of installing new overhead electricity transmission lines as part of the project

9.0% of submissions received related to health concerns from the development.

Other matters which arose under this theme:

The potential health risks associated with the existing 220 kV line and pylons in the area specifically in relation to its proximity to neighbouring houses and schools was a common issue highlighted. It is noted that this refers to the existing double-circuit line, and not to the proposed development.

A. Actions

The existing EirGrid EMF brochure, which was available at the Stage 1 consultation event, will continue to be available at http://www.eirgridprojects.com/yourhealth/. It will also be made available at the Stage 2 consultation event. In addition, specific focus in the development of this project is being given to the potential for removal of a portion of the existing 220 kV overhead line.

5.3.7 Neutral

Some 7.2% of feedback received can be classed under the neutral theme. These were submissions from statutory bodies acknowledging the project but who had no specific observations or comments to make at this stage.

A. Actions

Further consultation will take place in Stage 2 of the project.

5.3.8 The economic concerns over lands used by the project or adjacent

Some 3.6% of submissions received cited economic concerns, mainly regarding the impact of the project on the selected lands identified in the Stage 1 Report as feasible substation sites or interface compound sites, and the potential loss/ reduction for development in these areas in the future.

A. Actions

The need and rationale for the project must continue to be the centrepiece of the project team's communications, given EirGrid's Statutory obligations. However, when selecting the preferred project scope, and substation site/interface compound locations, the project team will bear in mind the current land use and development potential of the lands involved.

6 CONCLUSION

This report reflects an analysis of the feedback received from submissions during the Stage 1 consultation period in response to the project and the publication of the Stage 1 Report. This is in addition to feedback received by primary stakeholders prior to publication of the Stage 1 Report.

Feedback received during Stage 1 in the form of comments, observations and queries on specific issues were categorised under eight broad themes as detailed in section 5. The request for maximum removal of the existing 220 kV overhead line and pylons was the most reoccurring theme, mentioned in 37.6% of submissions received. This report also details the actions already in place or proposed to address the observations raised in the submissions received. The project team will carefully consider the design of the proposed development to meet the needs of the project, while taking into account all of the feedback received during Stage 1 of the project.

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