EIRGRID

The current. The future.

Who are EirGrid - and what do we do?

EirGrid is responsible for a safe, secure and reliable supply of electricity – now and in the future.

We develop, manage and operate the electricity transmission grid.
This brings power from where it is generated to where it is needed throughout Ireland.
We use the grid to supply power to industry and businesses that use large amounts of electricity. The grid also powers the distribution network. This supplies the electricity you use every day in your homes, businesses, schools, hospitals and farms.

As part of our role we are also mandated to explore and develop opportunities to interconnect the transmission grid with the transmission grids in other countries.

What is Capital Project 1029?

EirGrid is responsible for delivering electrical power to major demand customers in Ireland, including Intel.

Capital Project 1029 is an electricity project that will ensure there is a secure and reliable supply of power to the Intel manufacturing facility in Leixlip, Kildare.

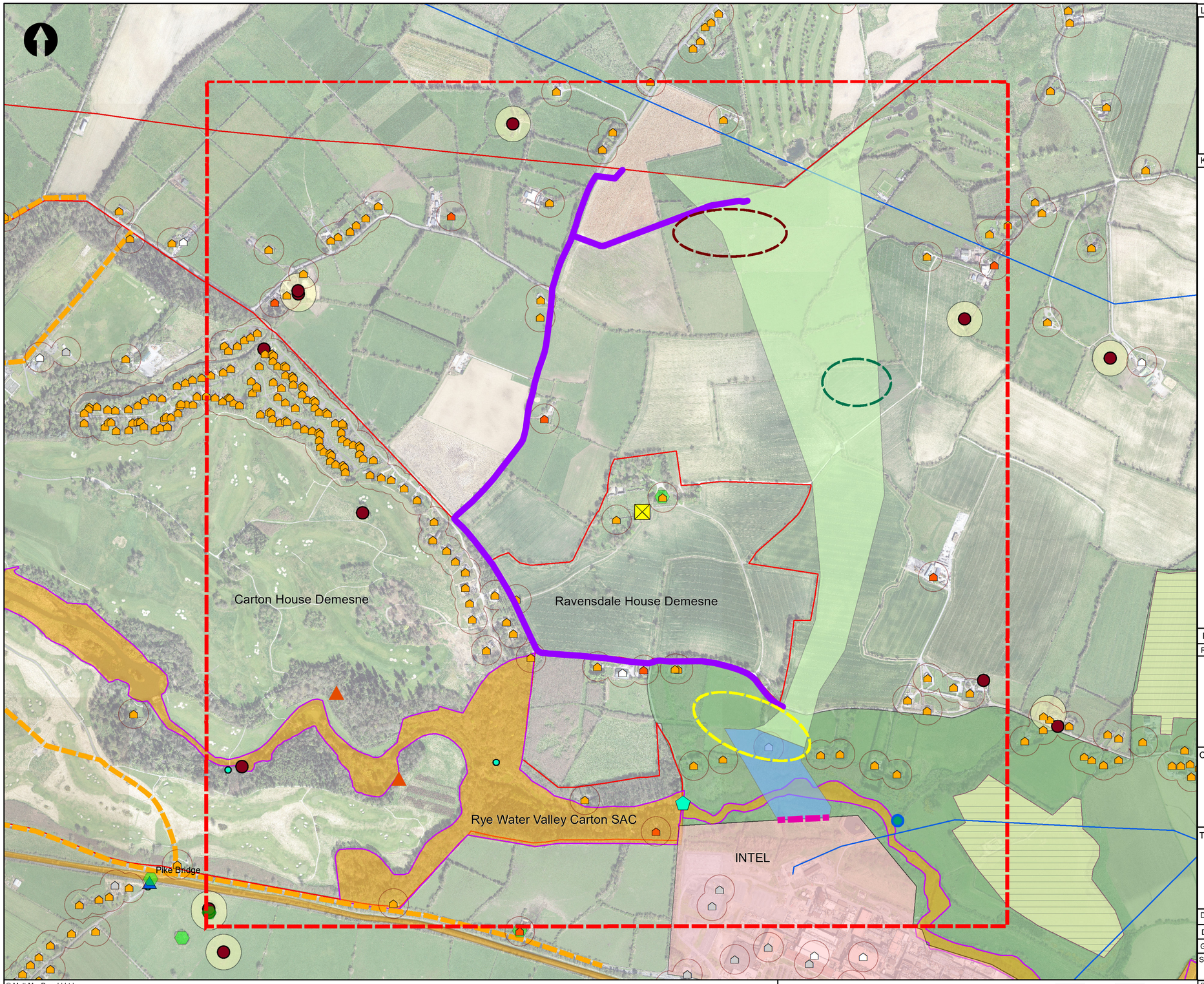
The development comprises:

- A new 220kV station adjacent to the Intel site.
- Two new circuits connecting into the existing Maynooth-Woodland high voltage power line located to the north of the facility.
- A total of six new circuits will also be required to connect the substation to the new transformers which will be located within the Intel facility. Three of these will be required immediately, and three will be required at a future point in time.

Power is already and will continue to be provided to Intel by 110 kV circuits. The new substation will enable the connection of the Intel facility to the Maynooth-Woodland line. This will deliver additional power to Intel.

In addition to this, further connections between the new substation and Intel's transformers, and an upgrade of the Maynooth-Woodland 220 kV line, will be required at a later point.

Options Considered



Location Map

Key to Symbols

- Substation Option 1
- Substation Option 2
- Substation Option 3
- Overhead line or underground connection from new substation to existing line
- Route for up to 6 circuits either overhead line or underground cable to connect from new substation to the Intel Site
- Underground cable option
- Connection to Intel Site

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	17/05/19	HL	Work in Progress	NR	PK

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Client

EIRGRID

Title

Capital Project 1029

Route Connection and Substation location Options

Designed	N/A		Eng Check	N/A	
Drawn	H Lall		Coordination	AS	
GIS Check	N/A		Approved	NR	

Scale at A3	Status	Rev	Security
1:12,010	PRE	P1	STD

Drawing Number
229100457-MMD-00-XX-GIS-N-5006

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0 100 200 300 Metres

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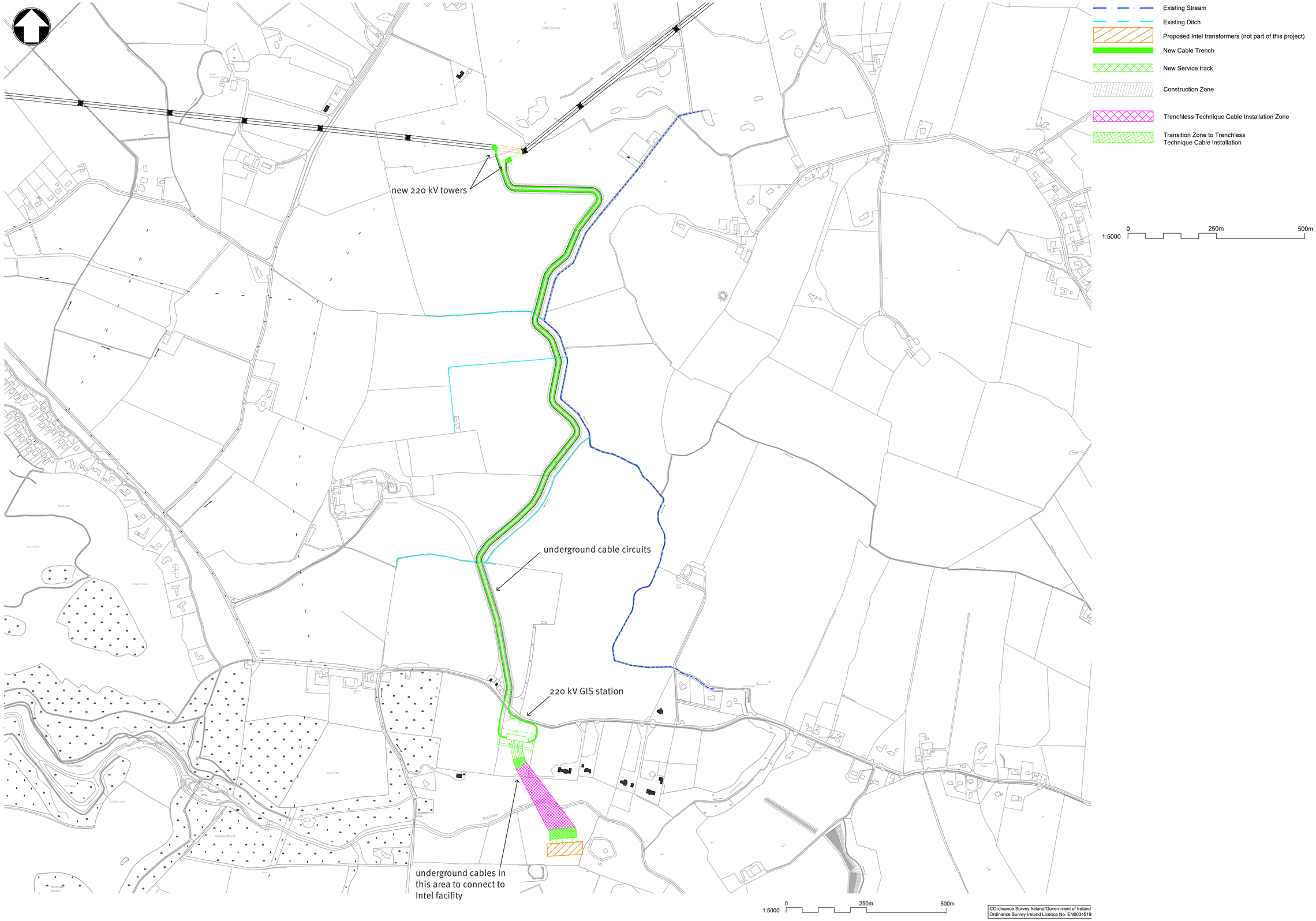
How We Assess Options

We completed further studies on the:

- route options for the electricity circuits,
- substation locations options,
- connection to the Intel facility,
- different technology options for the substation and electricity circuits.

We assessed and compared the different options under five criteria. Feedback from landowners and stakeholders was also taken into consideration. Using this process we have identified the best performing option for the project.

Best Performing Option



Connection to Intel facility

63.2
63.3
63.4
63.5
65.7
67.5
67.9
220kV GIS substation building
Rye Water
Connection point to Intel's transformers (not part of this project)

Existing Equipment
New Equipment
Proposed Intel transformers (not part of this project)
UG Cable Duct in Standard Trench
Trenchless Technique Cable Installation Zone
Transition Zone to Trenchless Technique Cable Installation
Residential / Sensitive Receptor

1:1000 0 50m 100m

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220kV GIS substation

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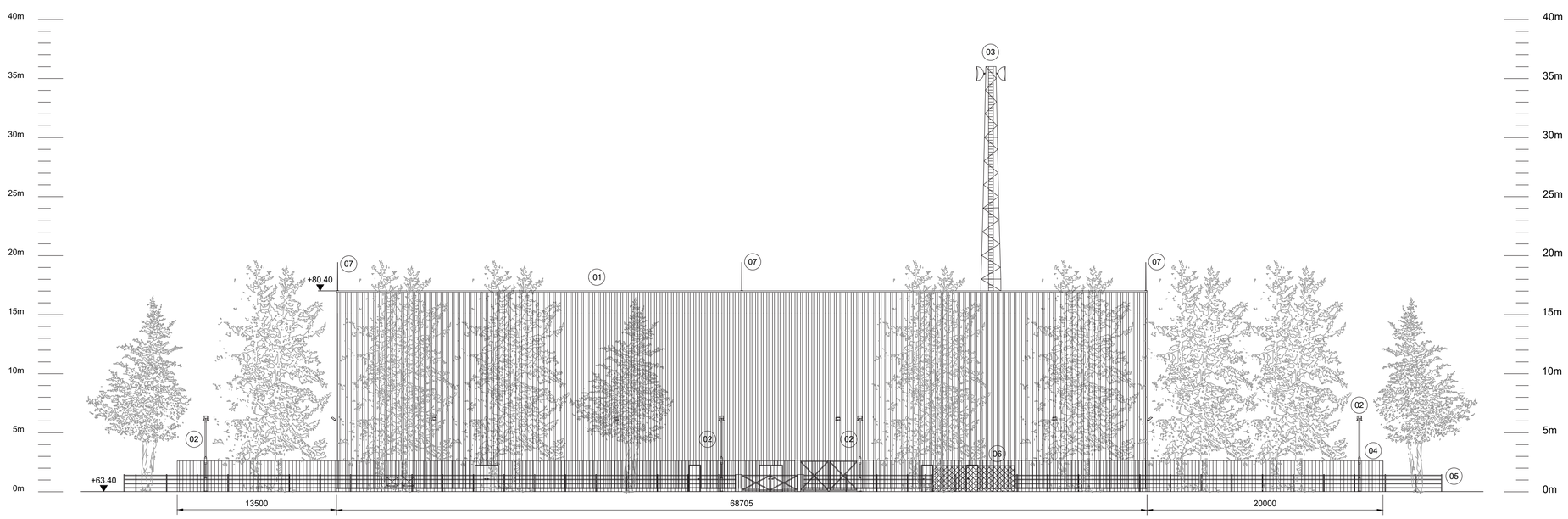
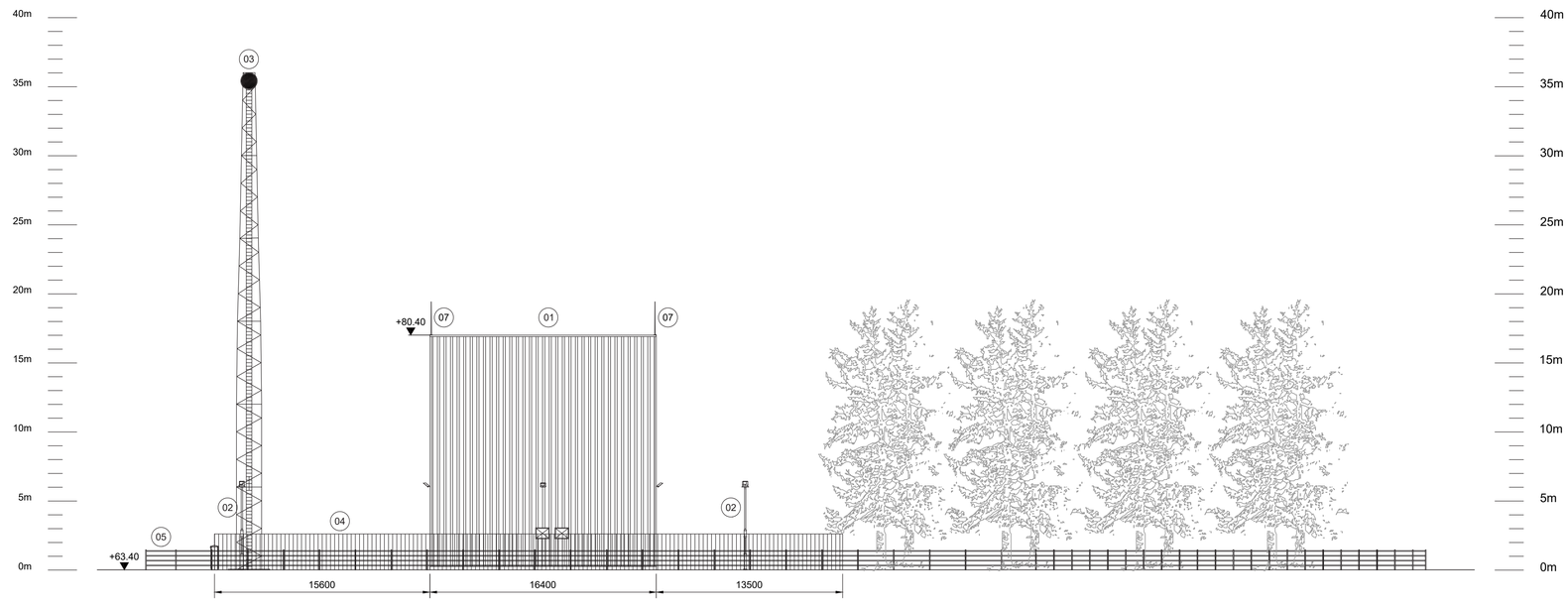
Substation elevations



North Elevation

1:200



East Elevation

1:200

Notes

1. Preliminary Design. For planning purposes only.
2. All levels are in metres above Malin Head Datum.

Key to symbols

Ref	Equipment Description
01	220kV GIS Substation Building
02	Lighting Pole
03	Communications Pole
04	2.6m high Security Fence
05	1.4m High Property Fence
06	DNO Compound
07	Lightning Protection

1:200 0 5m 10m 20m

Reference drawings

229100457-MMD-01-XX-DR-E-1200 229100457-MMD-01-XX-DR-E-1203	220kV GIS Station Site Compound Layout 220kV GIS Compound Site - Contiguous Elevations - Sheet 1 of 2
229100457-MMD-01-XX-DR-E-1200 229100457-MMD-01-XX-DR-E-1204	220kV GIS Station Site Compound Layout 220kV GIS Compound Site - Contiguous Elevations - Sheet 2 of 2

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	03/05/2019	CHC	Issued for Client Review	DMC	TK

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Client

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Title

CP1029 - 220kV Project

220kV GIS Compound Site
Contiguous Elevations

Designed	B. Zulueta		Eng check	D. McCormack	
Drawn	C. Cunningham		Coordination	A. Coffey	
Dwg check	D. McCormack		Approved	T. Keane	

Scale at A1	Status	Rev	Security
1:200	PRE	P1	STD

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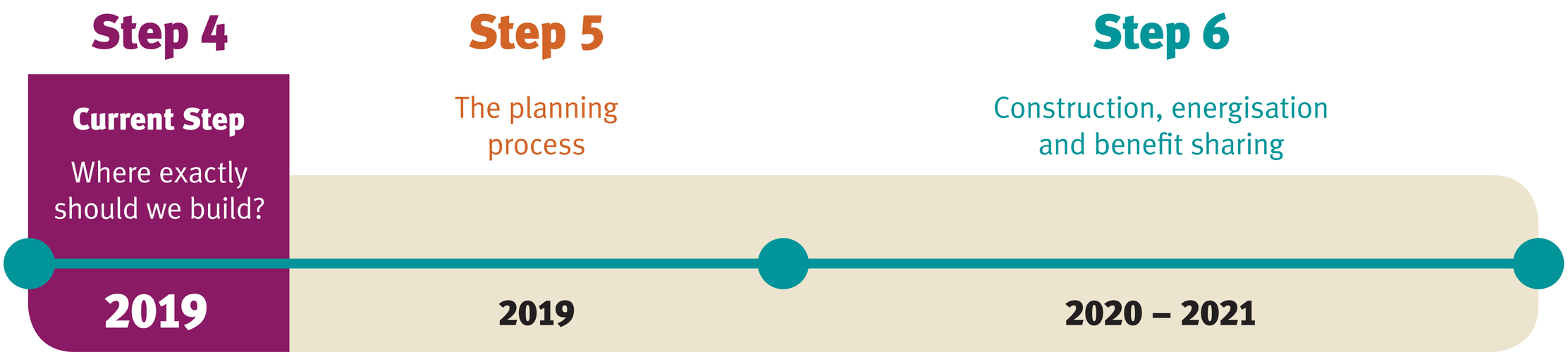
cun38190

Next Steps

What happens next?

We are now at the end of step 4 and have confirmed the best performing option.

We will now move to step 5 of our six step consultation process. In step 5 we will submit a planning application to An Bord Pleanala or the local planning body.



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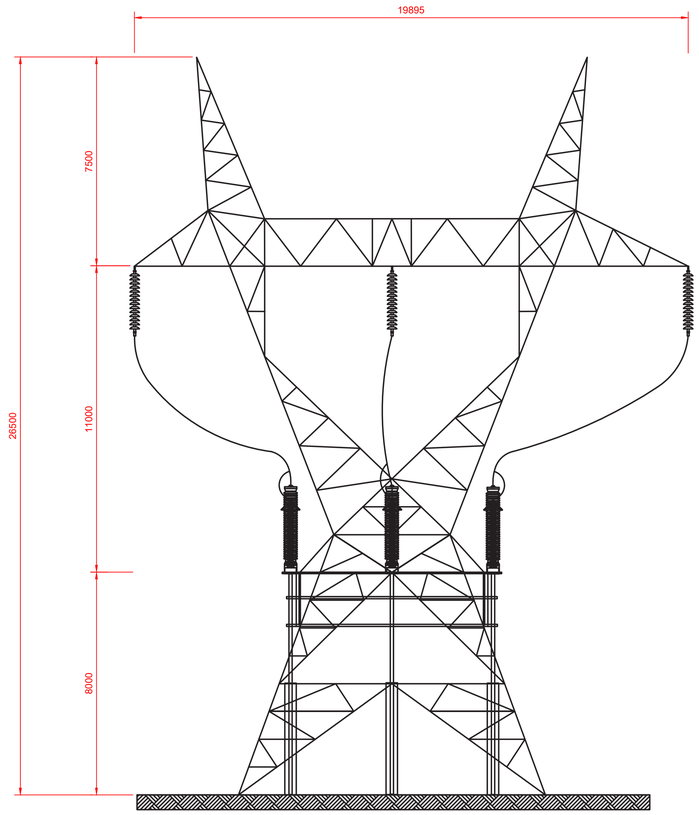
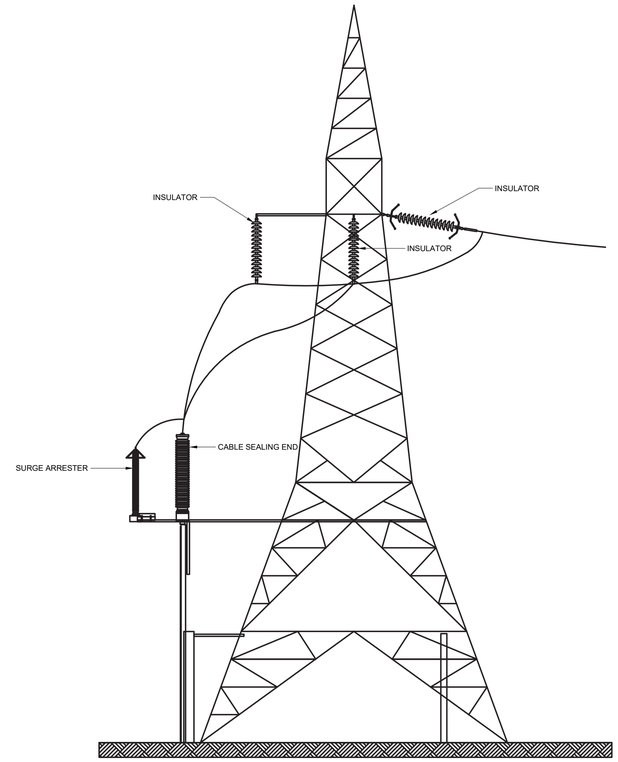
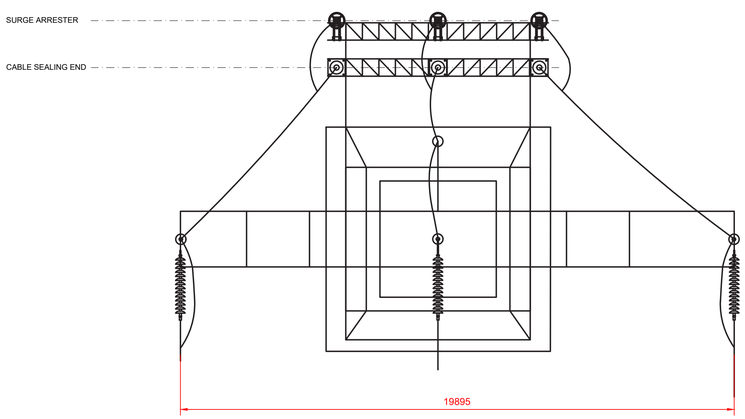
New Tower Details



Front Elevation
Transversal Face



Side Elevation
Longitudinal Face



Plan View
Main Cross Arm

Notes

1. Preliminary Design. For planning purposes only.
2. All dimensions in millimeters unless otherwise stated.

Key to symbols

1:100 0 5m 10m

Reference drawings

229100457-MMD-01-XX-DR-E-1150	220kV Cable Route from Maynooth/ Woodland Line to Substation - Overall Plan Layout
229100457-MMD-01-XX-DR-E-1151	220kV Cable Route from Maynooth / Woodland Line to Substation - Plan Layout - Sheet 1 of 9

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Title

CP1029 - 220kV Project

220kV Overhead Line
Line/Cable Interface Tower- Details

Designed	E. Halpenny		Eng check	D. McCormack	
Drawn	B. Zulueta		Coordination	A. Coffey	
Dwg check	D. McCormack		Approved	T. Keane	

Scale at A1	Status	Rev	Security
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Drawing Number
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