Crathes, Drumoak, Durris Community Council Meeting

14 June 2023

Scottish & Southern Electricity Networks

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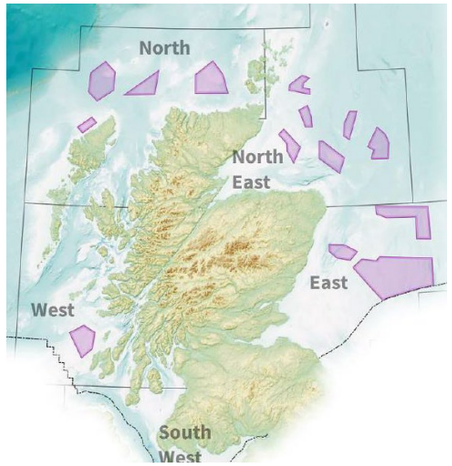
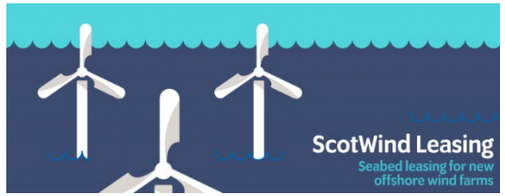
WHY ARE THESE PROJECTS NEEDED?

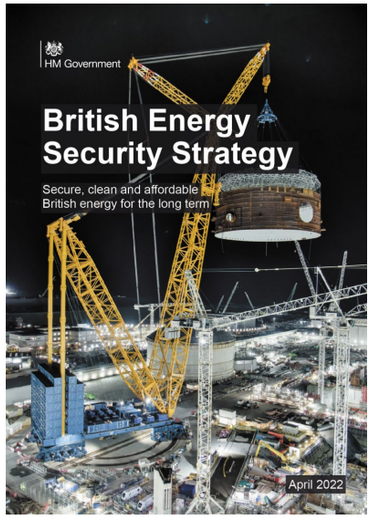
To deliver UK and Scottish Government net zero and energy security targets

- **ScotWind leasing round (Jan 22) -** delivered seabed leases for **up to 28GW**, vastly exceeding expectations (**10GW**)
- **British Energy Security Strategy (April 22) – 50GW 2030 offshore wind targets** (UK target), including current 11GW Scottish Government target – to accelerate net zero to deliver homegrown, low-carbon, affordable energy independence
- **National Grid Electricity System Operator** led **Holistic Network Design (HND) (July 22)** will enable circa 11GW of ScotWind by 2030, key to deliver 50GW by 2030
- **Ofgem approval of need for HND projects (Dec 22)** as part of its **Accelerated Strategic Transmission Investment** (ASTI) framework decision





Crown Estate Scotland
Oighreachd a' Chrùin Alba



ofgem
Making a positive difference for energy consumers

Decision on accelerating onshore electricity transmission investment

Publication date:	15 December 2022
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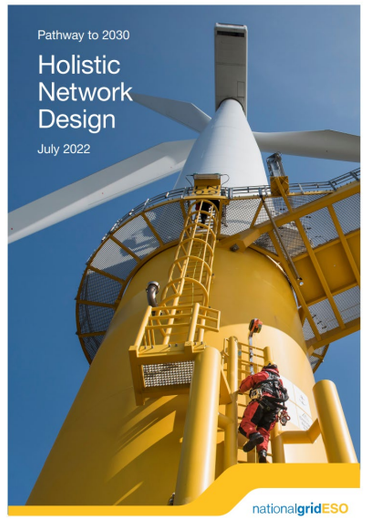
This document sets out our decision on accelerating onshore electricity transmission investment. It includes our decisions to streamline the regulatory approval and funding process, to exempt certain large, strategic onshore transmission projects from competition, and to introduce a new output delivery incentive.

In particular, it sets out our decisions on the specific points we sought views from respondents in our August 2022 consultation.



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MAIN NORTH OF SCOTLAND ELECTRICITY TRANSMISSION NETWORK IN 2030

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In-flight Investments

1. Argyll 275kV strategy
2. Fort Augustus to Skye 132kV upgrade
3. Orkney 220kV subsea link

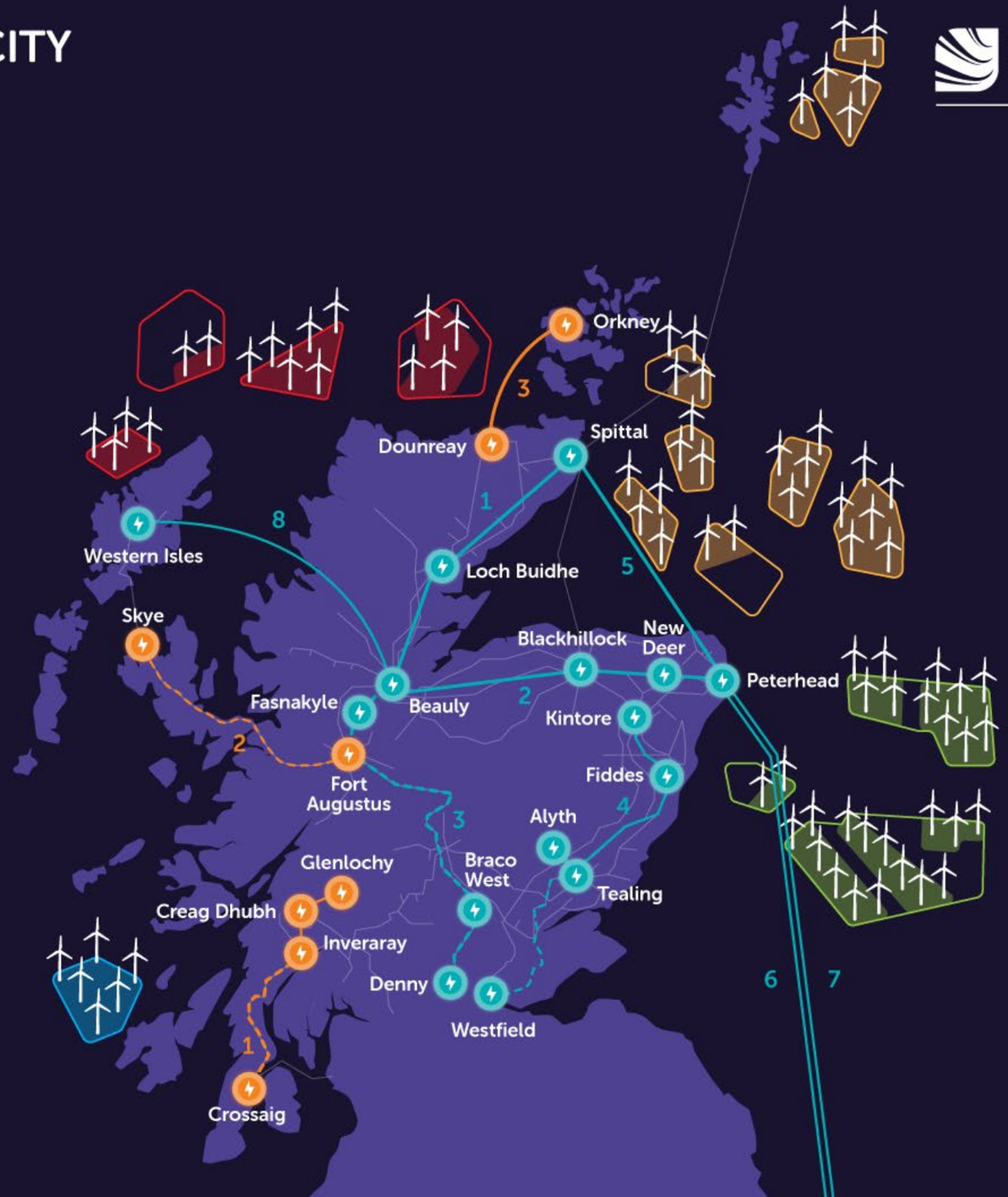
Pathway to 2030 Investments

1. Beauly to Loch Buidhe to Spittal 400kV reinforcement
2. Beauly to Blackhillock to New Deer to Peterhead 400kV reinforcement
3. Beauly to Denny 400kV uprating (with SPT)
4. Kintore to Tealing (with connection to Alyth) to Westfield 400kV (with SPT)
5. Spittal to Peterhead 2GW HVDC subsea link
6. Peterhead to Drax 2GW HVDC subsea link - Eastern Green Link 2 (with NGET)
7. Peterhead to South Humber 2GW HVDC link - Eastern Green Link 4 (with NGET)
8. Western Isles 1.8GW HVDC link

Public Consultation to Inform Project Development

All new reinforcements remain subject to detailed consultation and environmental assessments to help inform route and technology options.

More detail on these projects, including how to sign up for updates, will be made available on SSEN Transmission's website:
www.ssen-transmission.co.uk

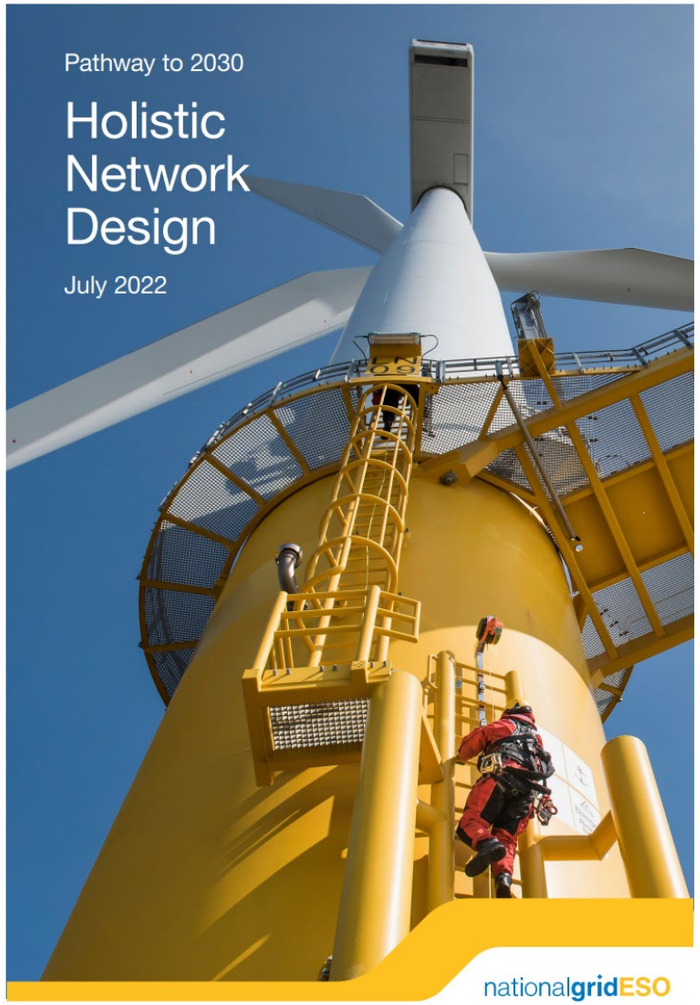


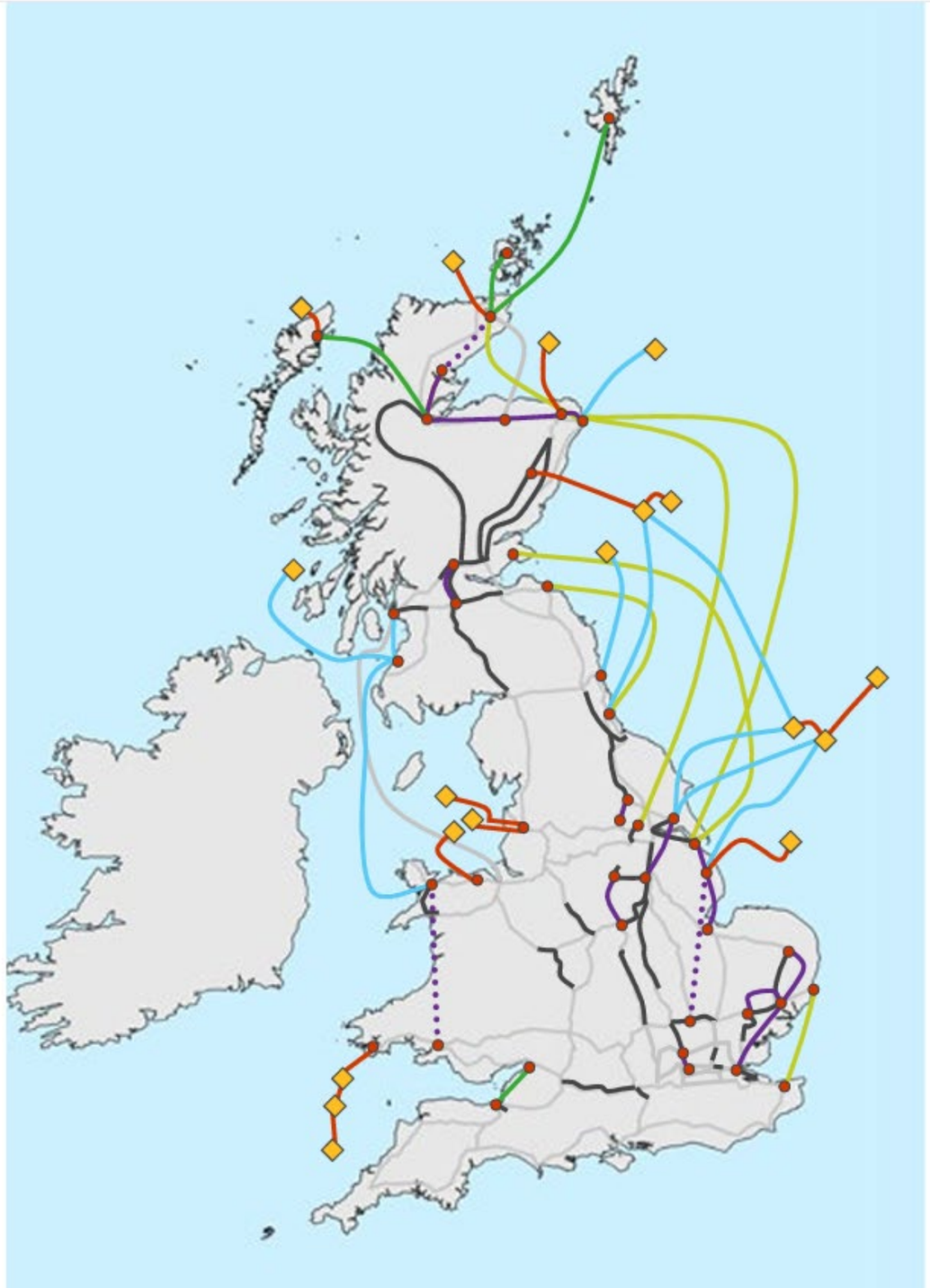
New Infrastructure (Routes shown here are for illustrative purposes)

Upgrade/Replacement of Existing Infrastructure

Existing Network

GB-wide Holistic Network Design





Legend	
Existing network	
Existing network upgrade	
New onshore network infrastructure	
New network need	
New subsea network reinforcement	
Other works	
New offshore HVAC	
New offshore HVDC	
HND offshore wind farm	
Onshore substation to connect new infrastructure	
All option routes and locations are for illustrative purposes only.	

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How we assess options – Key development considerations

Environment and People

- Designated Sites
- Protected Species
- Habitats
- Geology/Hydrology
- Cultural Heritage
- Proximity to dwellings
- Landscape & Visual
- Land use / Recreation
- Planning

Engineering

- Technology
- Other infrastructure
- Elevation
- Flooding
- Ground conditions
- Access
- Constructability
- Health & Safety
- Operability

Cost

- Construction
- Associated works
- Operations

Performance	Comparative Appraisal
Most preferred	Low potential for the development to be constrained
	Intermediate potential for the development to be constrained
Least preferred	High potential for the development to be constrained

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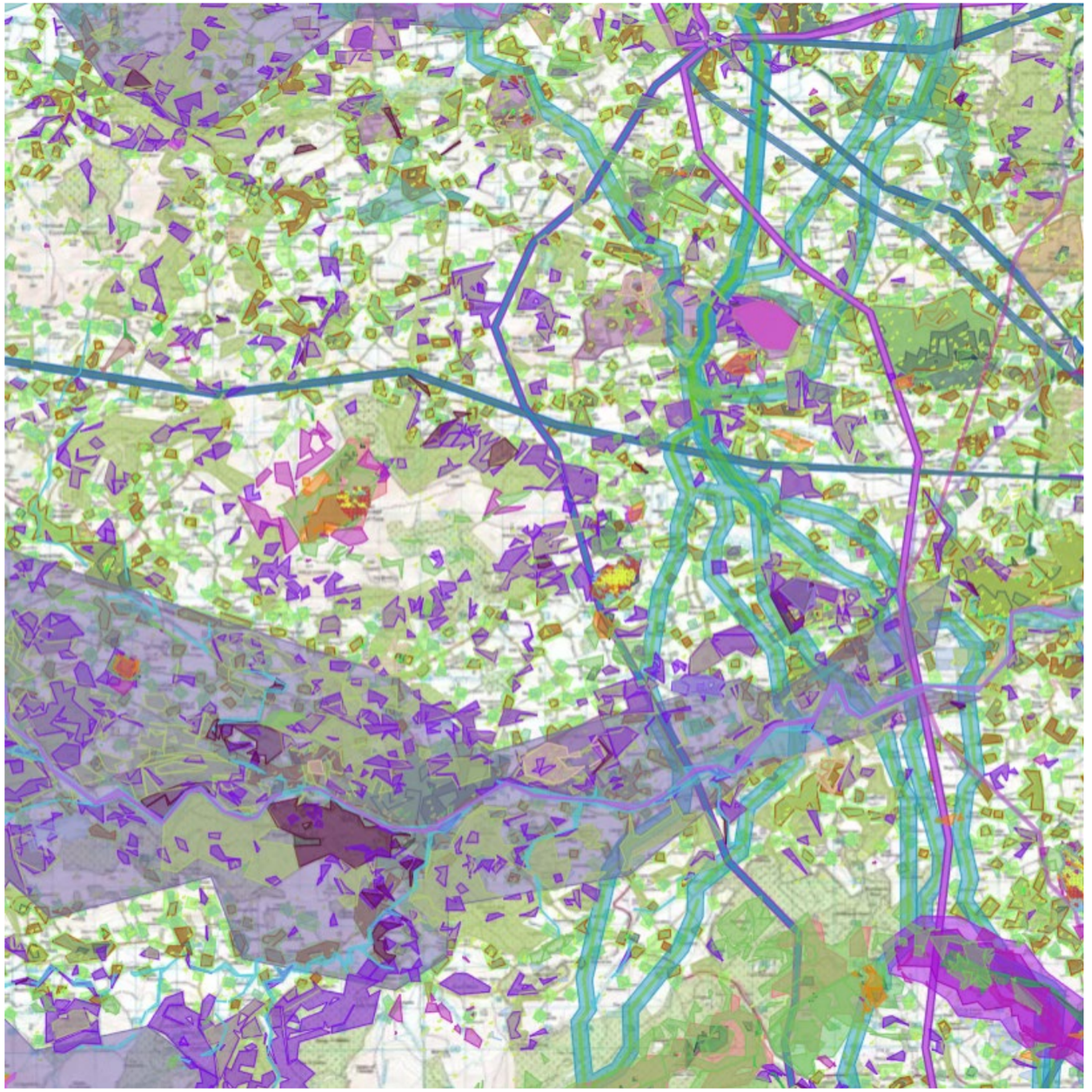
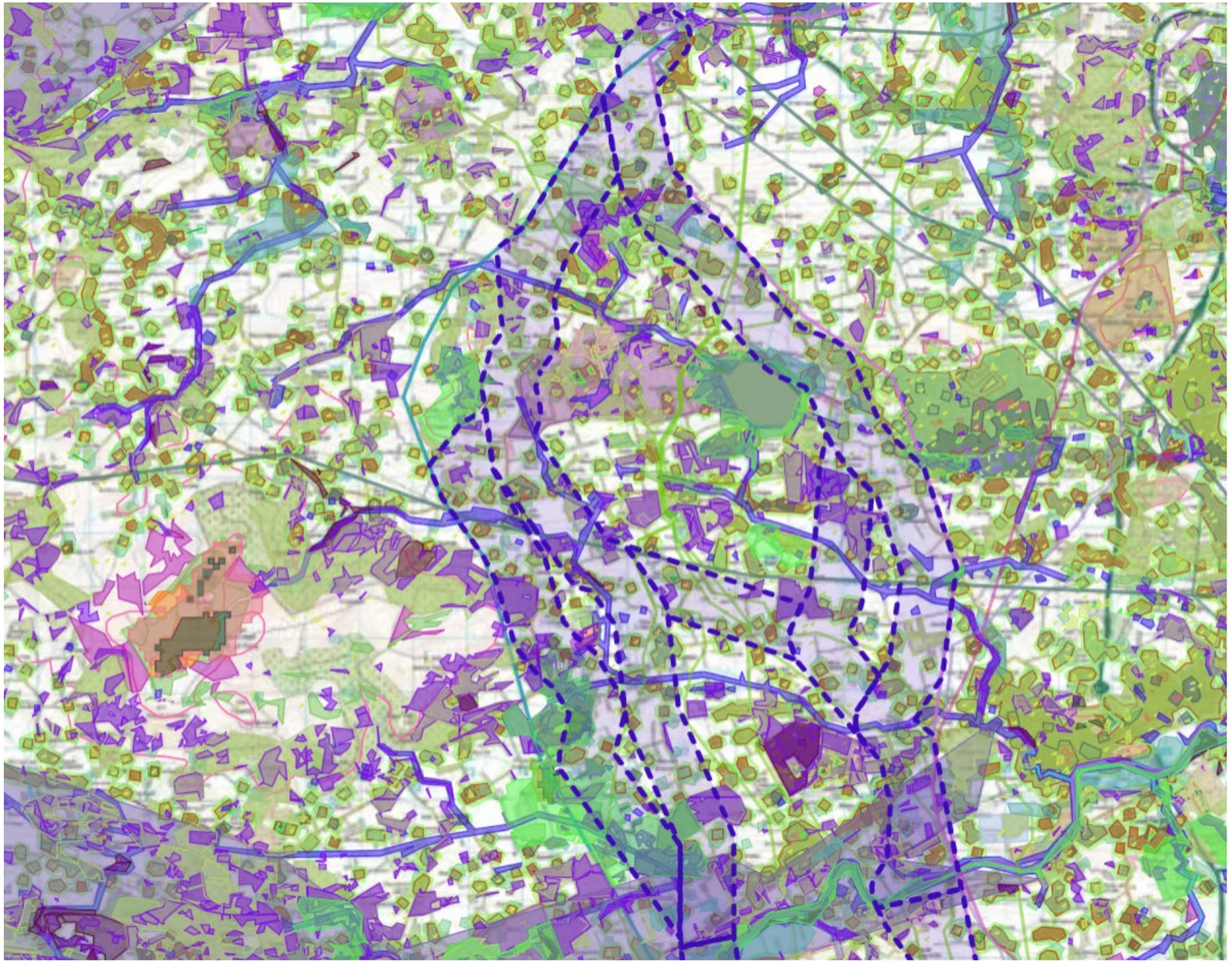
Constraints Mapping



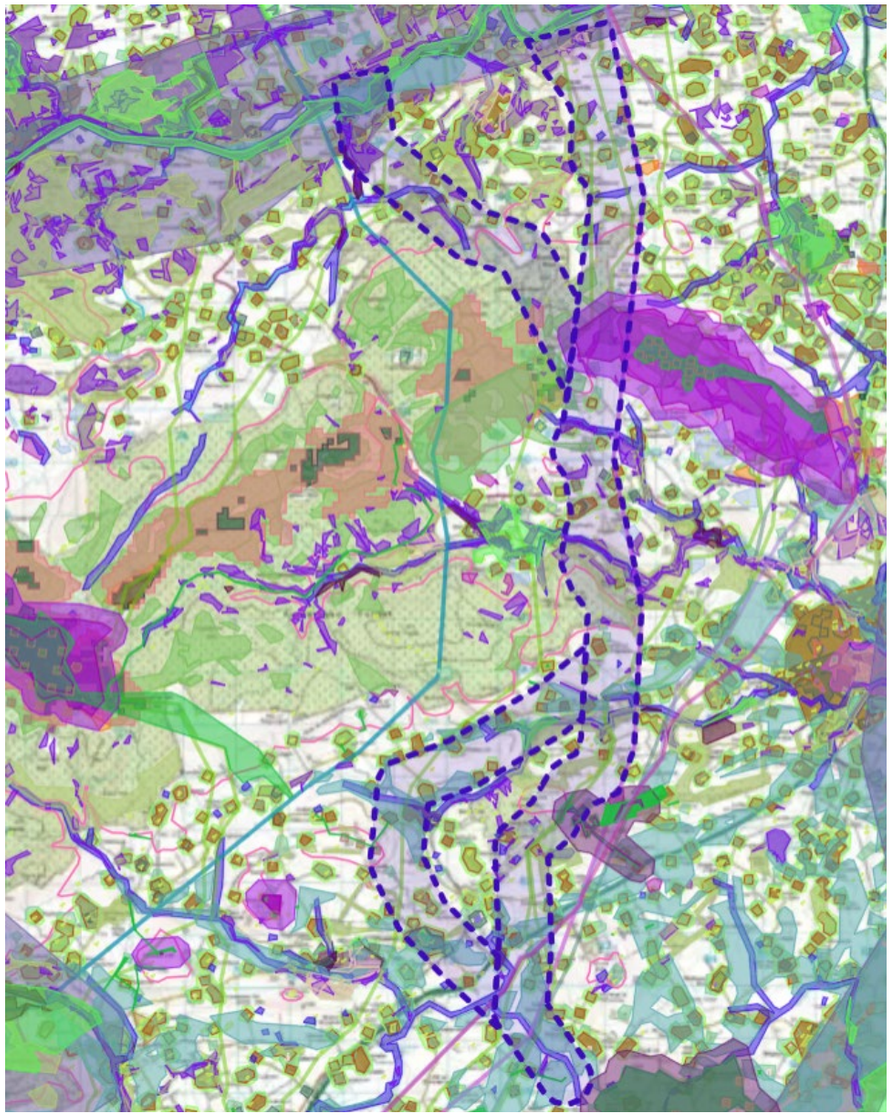
Example Constraints

- Existing Infrastructure
  - A90 dual carriageway
  - Gas Pipelines
  - Existing high voltage OHLs (132kV and 275kV)
  - Wind Farms
- Residential and Non-residential Properties
- Prime Agricultural Land
- Peatland
- Ancient and Native Woodland
- Designated Sites
  - Nature Conservation
  - Cultural Heritage

Section F Route Options and Constraints



Section E Route Options and Constraints



Key Environmental Topics

Landscape and Visual

- Landscape Designations
- Landscape fabric and character
- Key characteristics and special qualities of the landscape
- Visual amenity arising from changes to views

Residential and Visual Amenity

- Identify whether any of the properties would experience ‘overbearing’ or ‘overwhelmingly adverse’ visual effects on their residential amenity

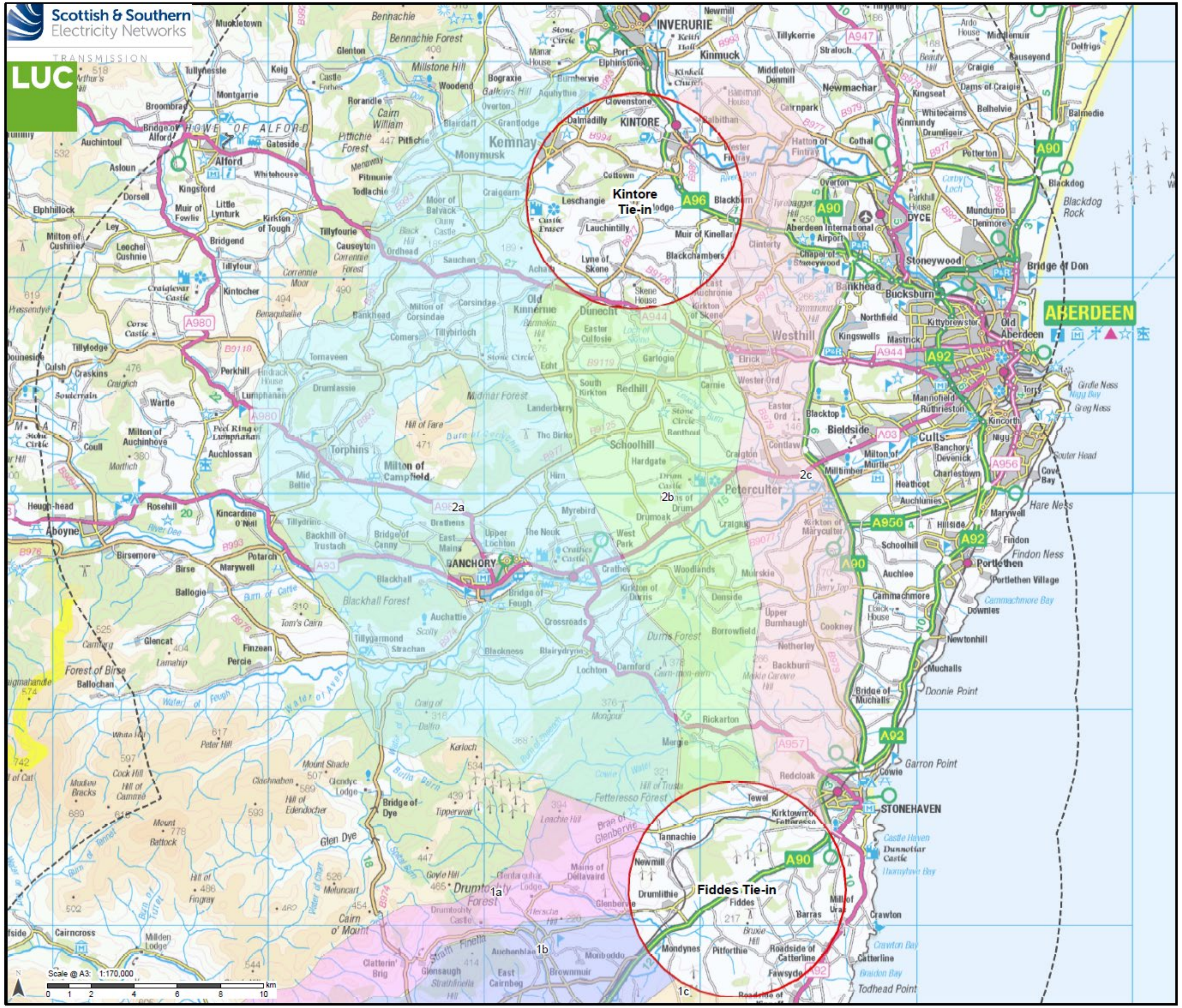
Cultural Heritage

- Heritage Assets, Scheduled Monuments (SM)
- Archaeological features, Listed Buildings (LB) and other buildings of historic or architectural importance
- Inventory Gardens and Designed Landscapes (GDL)

Habitats and Species (Biodiversity)

- Designated Sites and Qualifying Species
- Protected Species
- Irreplaceable Habitats – Ancient Woodland and Blanket Bog/peatland
- Opportunities for habitat enhancement

OHL Corridor Selection



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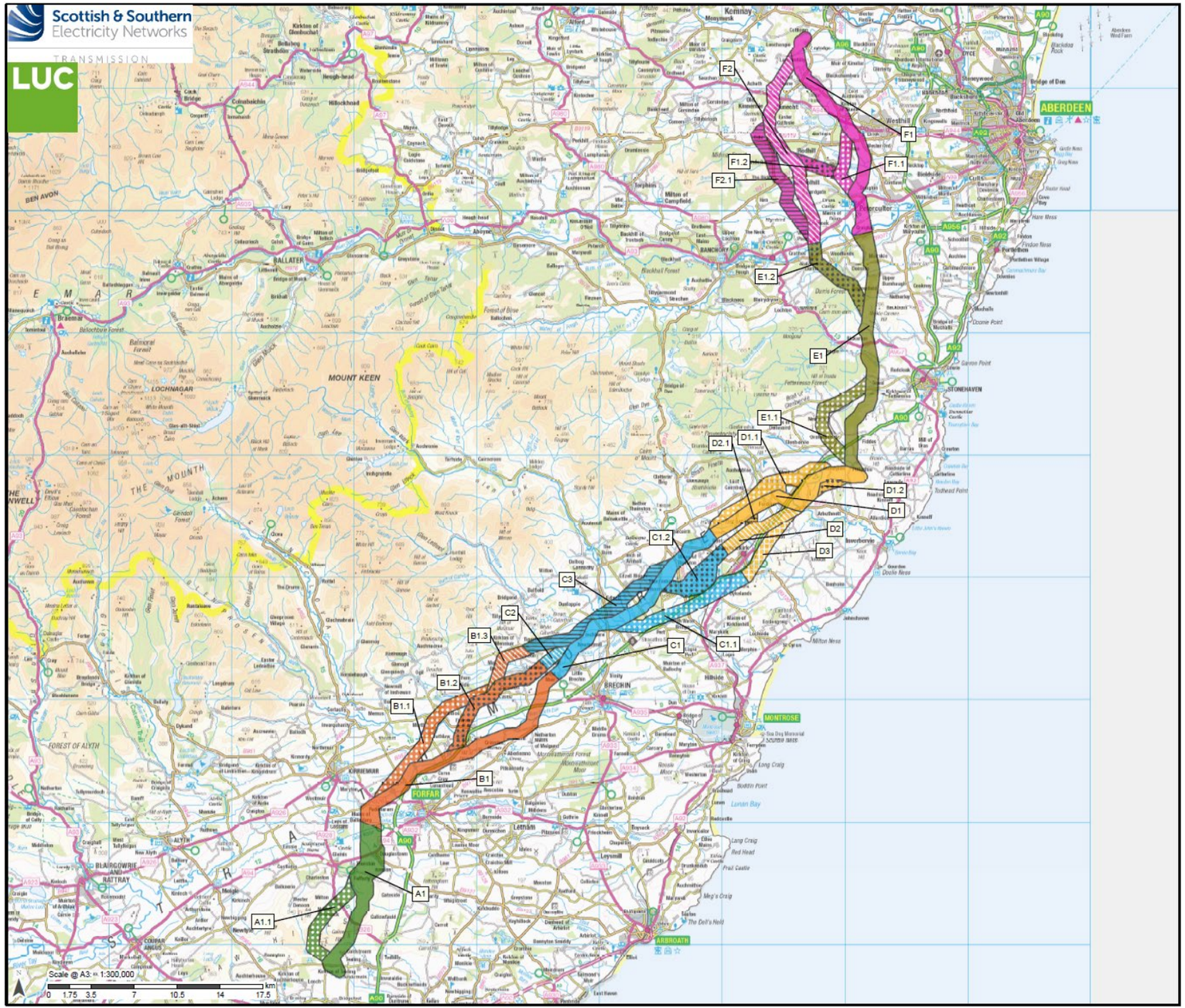
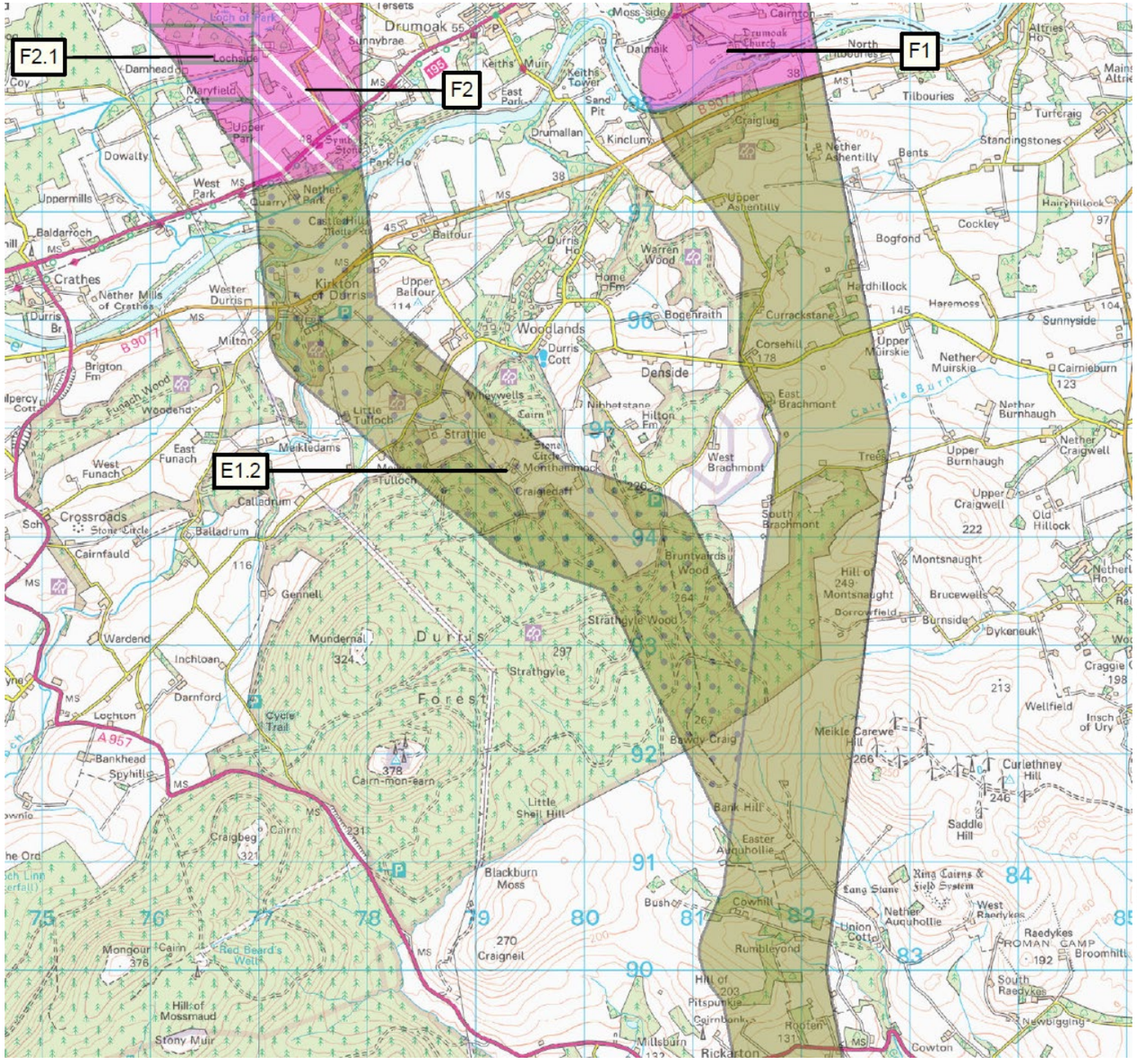
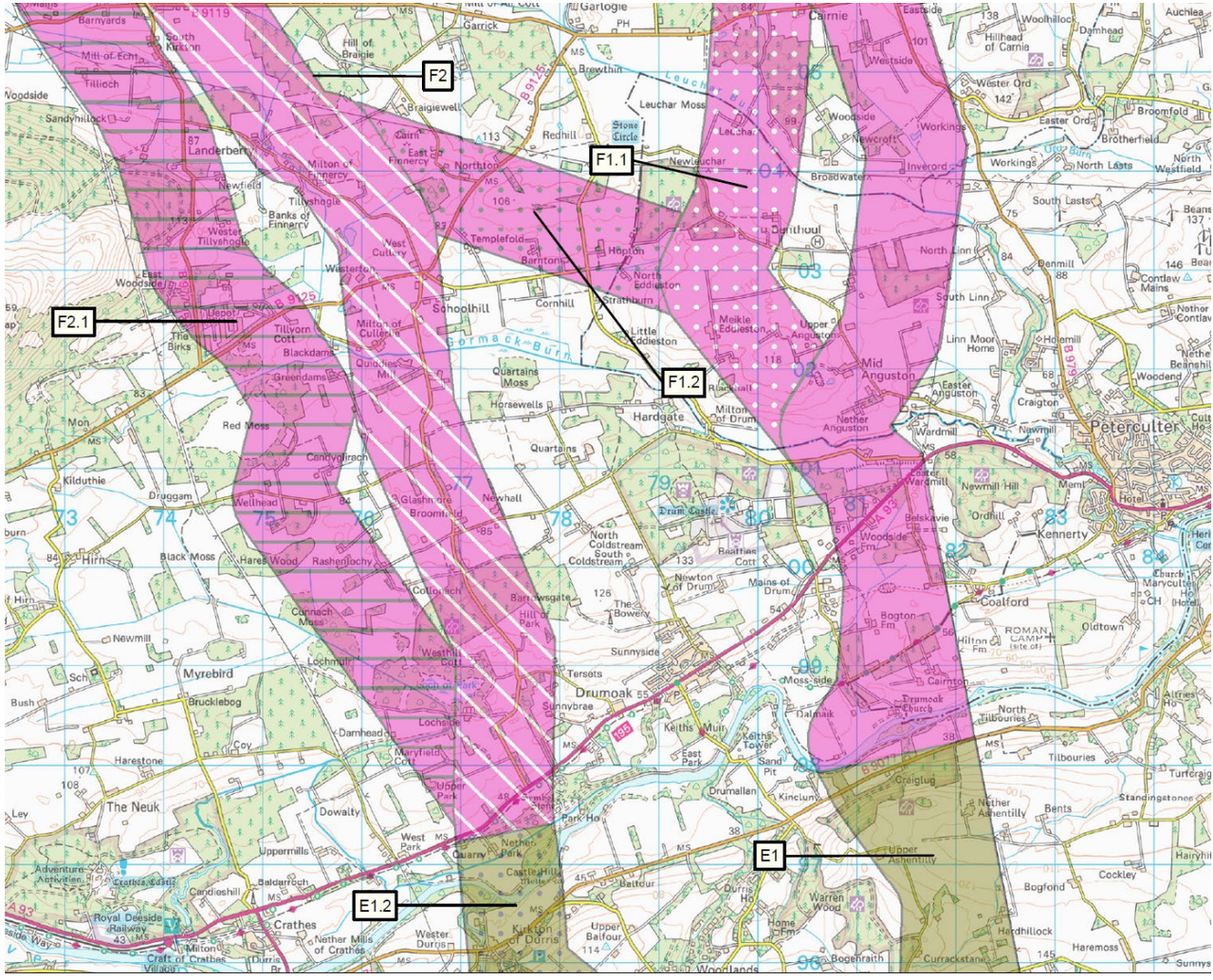
OHL Corridor Selection



OHL Route Selection





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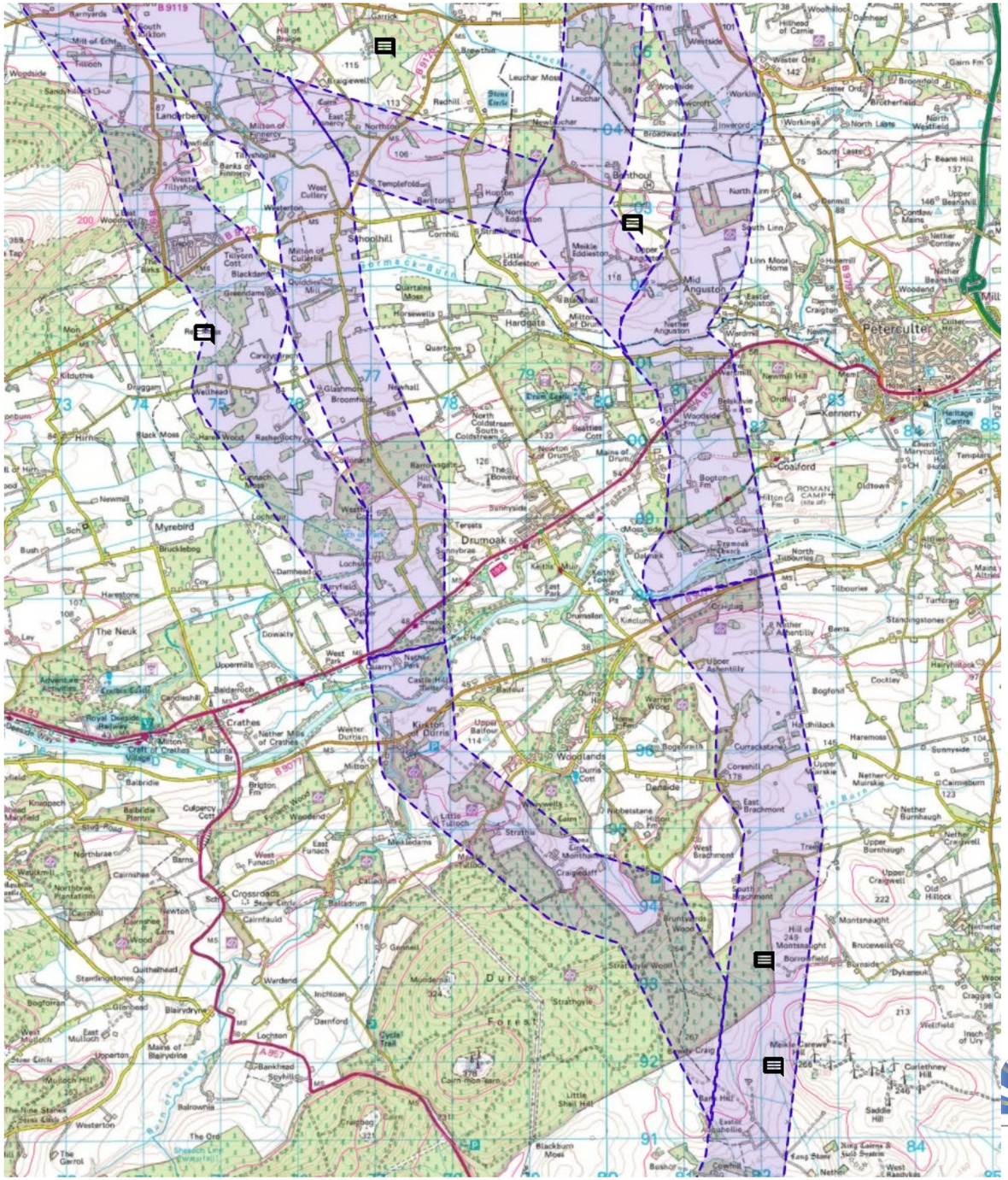
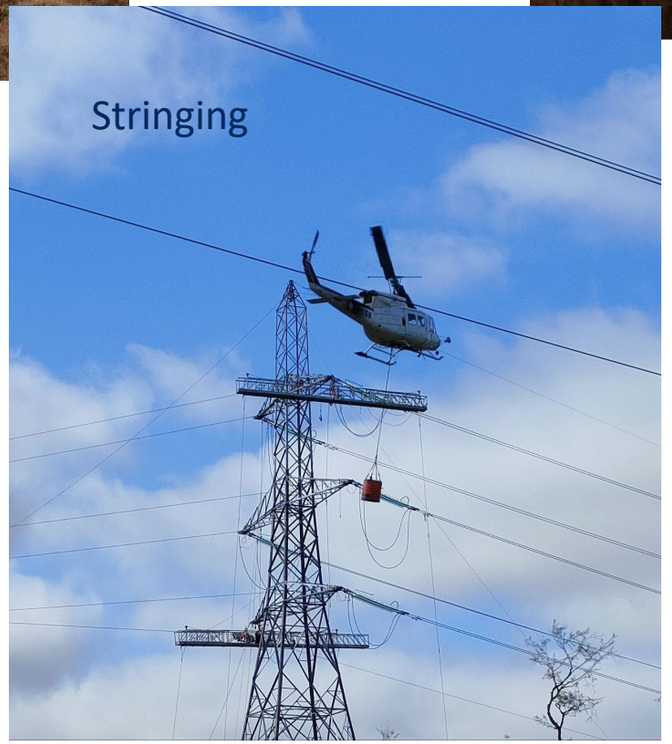
OHL Route Selection



Construction Process



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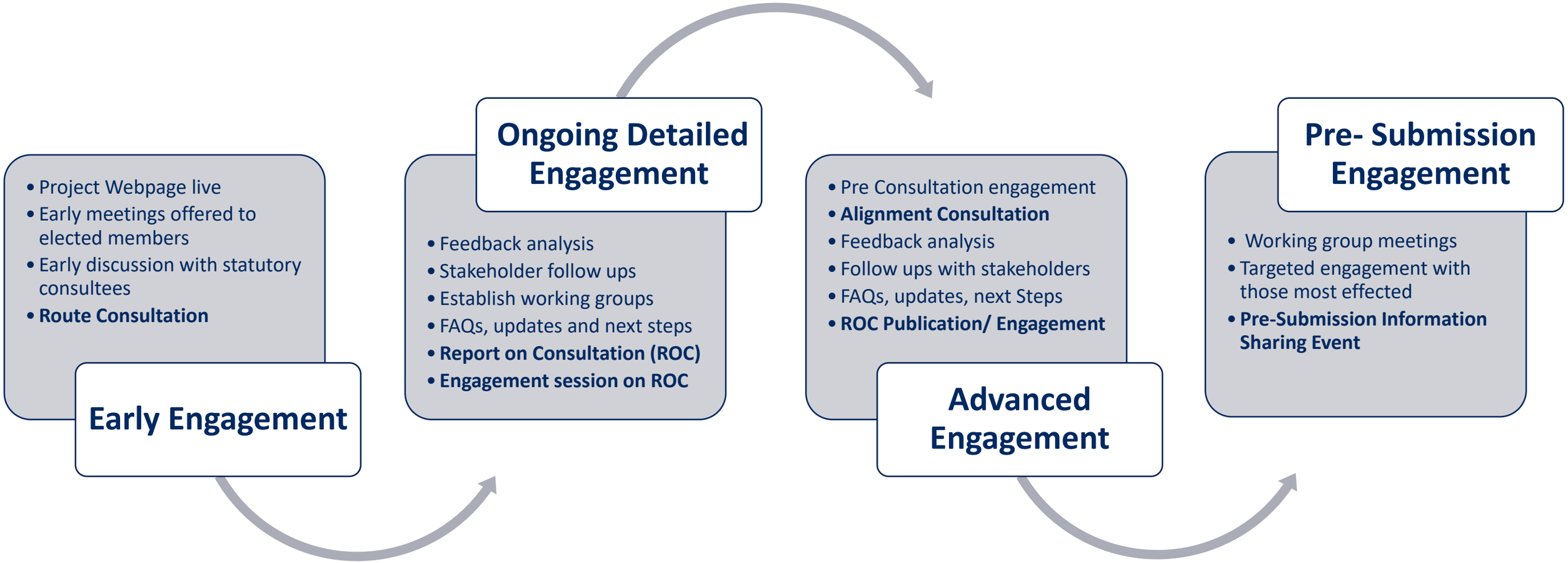
Our consultation and engagement process



Our continuous engagement process

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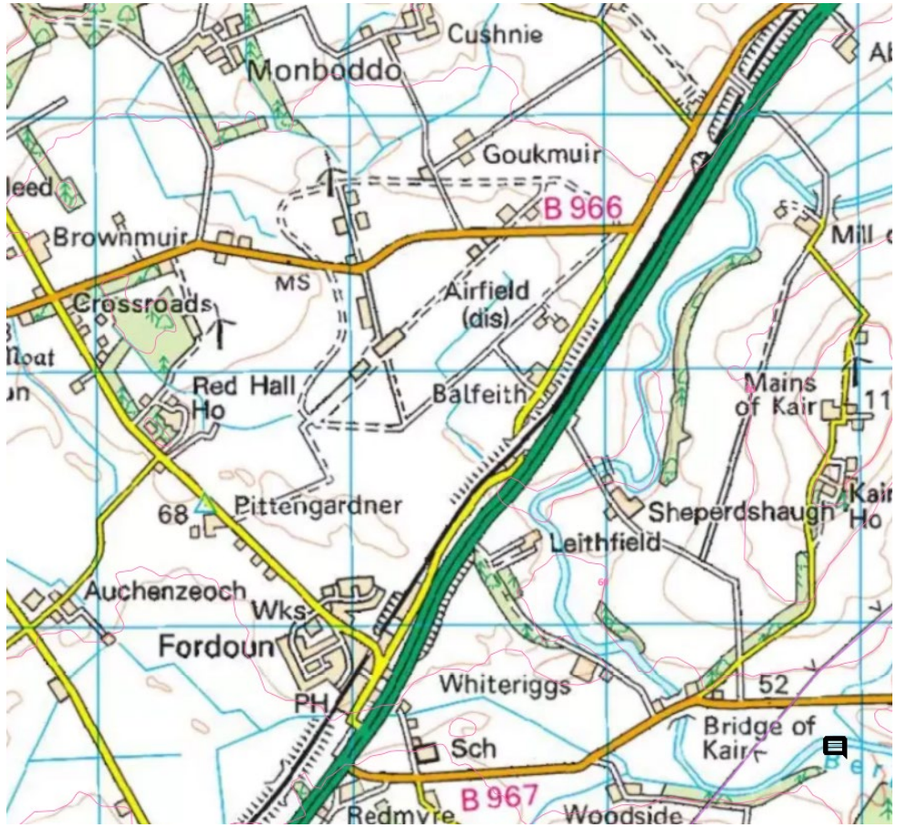
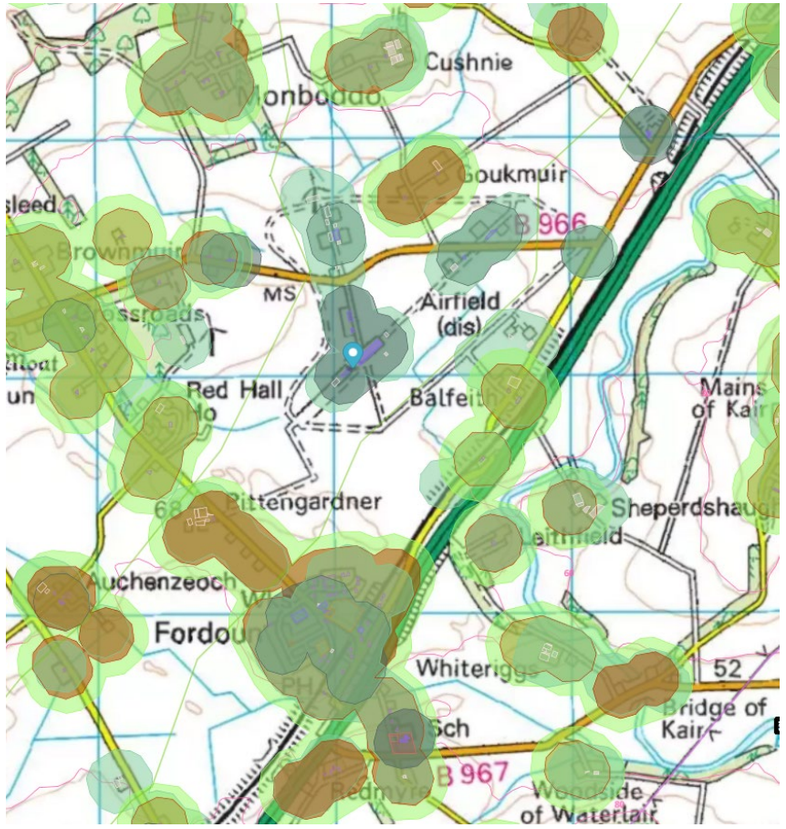
Work underway based on community feedback

- Undertaking a wider site selection process considering potential sites beyond the previous 5k search area
  - Options must be considered in relation to wider network requirements
  - Comparative appraisal approach against previous sites identified
  - Requires updated OHL route options to be potential sites to be developed
- Undertaking a more detailed assessment of potential site at Fetteresso
- Giving consideration to any site or OHL route suggested by the public





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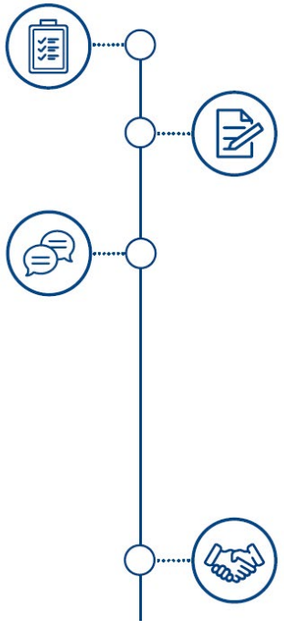
Undergrounding

- No 275kV or 400kV underground cable on the SSEN Transmission network, only 132kV and HVDC
- Due to the voltage and capacity of the proposed circuits it could lead to more infrastructure required:
- Reactive compensation compounds
- Substation like compounds to stabilise the network
- Could be a frequent as every 10-15km of UGC
- Suitable compound locations may drive the cable route
- Joint bays, testing locations and cable sealing end compounds will be required
- Longer construction timescales
- Wider construction corridor creating potential for greater impact

Next Steps

2022
- Projects' need and scopes confirmed.
- Site selection for substations started.
- OHL corridor and route options appraisal started.

2024
- Environmental and engineering surveys continue.
- EIA/EA Report preparation.
- Pre-application Consultation 1 - OHL and substations.
- Pre-application Consultation 2 - OHL and substations.
- Planning applications submitted – substations.
- Section 37 application submitted - OHL.



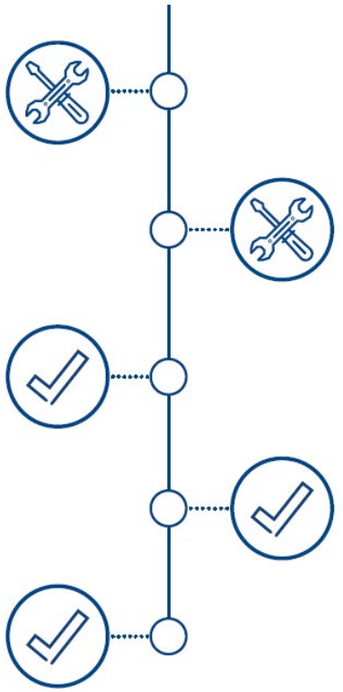
2023
- Consultation 1 (May 2023) - OHL routeing, substation site selection and reconductoring.
- Finalisation of proposed OHL corridor, route and substation sites.
- Environmental and engineering surveys.
- (April – Dec) substation detailed design and connections' routeing.
- OHL alignment selection.
- Consultation 2 (Autumn/ Winter 2023) - OHL alignment and substations.
- EIA Screening/Scoping.

2025
- Receive consents.
- Condition discharge.

2026
- Construction start – Tealing and Fiddes 400kV Substations.
- Construction start – Kintore – Fiddes – Tealing 400kV OHL.
- Construction Start – Alyth – Tealing and Tealing Westfield 400kV OHL Upgrades.

2028
- Construction complete - Tealing and Fiddes substations.
- Construction complete - Alyth – Tealing and Tealing Westfield 400kV OHL Upgrades.

2030
- Construction complete and energisation - Kintore – Fiddes – Tealing 400kV OHL.
- Energisation – Fiddes 400kV substation.



2027
- Construction works ongoing.

2029
- Energisation – Tealing 400kV substation.
- Energisation – Alyth – Tealing and Tealing Westfield 400kV OHL Upgrades.

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Q&A

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