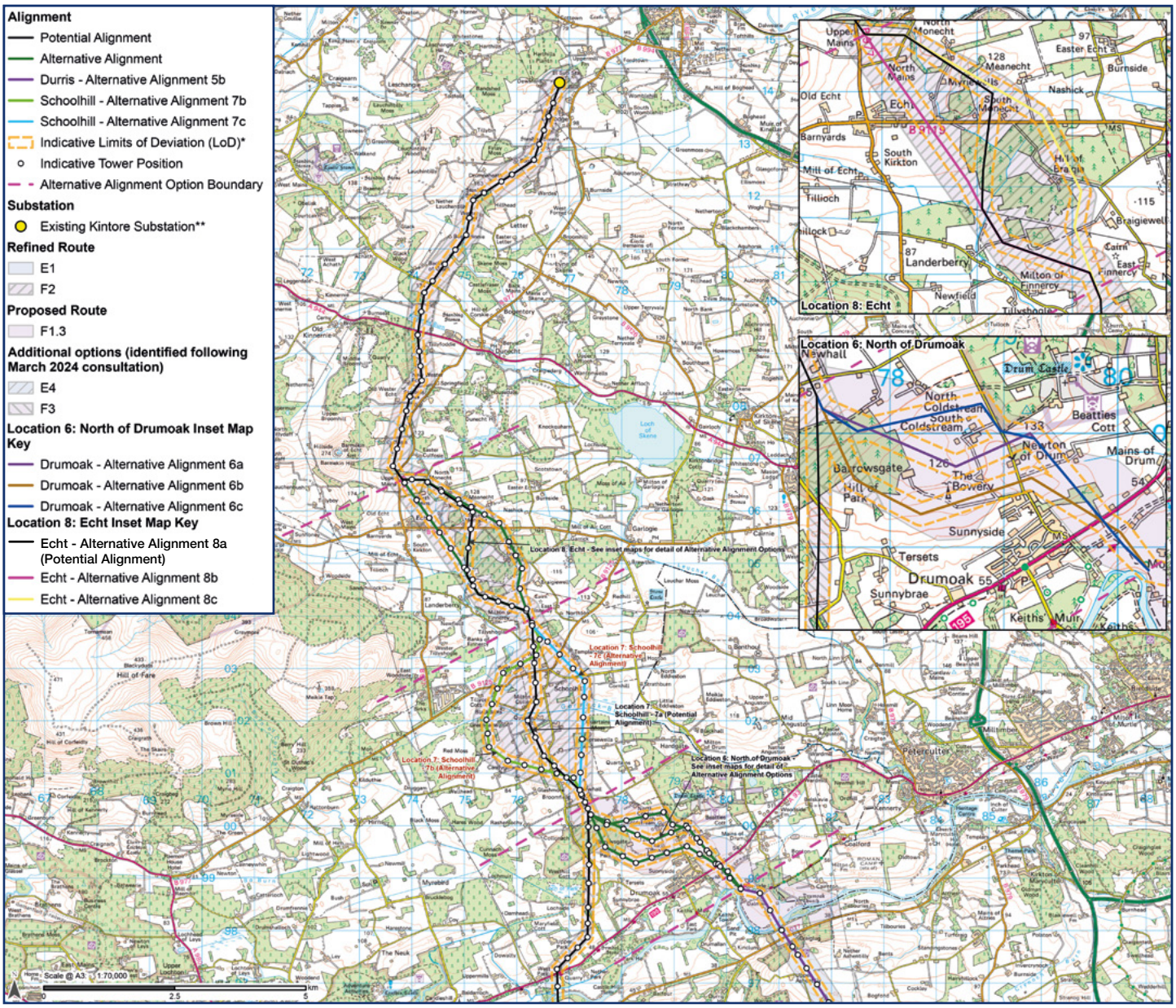
Scottish & Southern Electricity Networks

TRANSMISSION

Section F – River Dee to Kintore



This leaflet summarises the information provided in the Kintore to Tealing Alignment Consultation Document, which can be found here: **ssen-transmission.co.uk/TKUP.**

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Potential Alignment

The Potential Alignment in Section F (within Route F2 and F3) begins north of the River Dee having crossed at Wester Durris. The alignment crosses the A93 Aberdeen to Banchory public road between West Park and Nether Park, avoiding Park House Garden and Designed Landscape (GDL), before following a northerly course over gently rising ground adjacent to the Loch of Park Site of Special Scientific Interest (SSSI) (which would be avoided to the west of the alignment) and continuing through to Coldstream Plantation.

The alignment then follows a course in a north-northwestern direction crossing the B9125 public road to the west of the settlement of Schoolhill and passing to the east of the village of Echt, where it also crosses the B9119 public road. The alignment then follows a generally northeastern direction to the east of the prominent high ground of Barmekin Hill Fort Scheduled Monument, with its summit hilltop and parallel to the Dunecht Garden and Designed Landscape (GDL), with the Loch of Skene Special Protection Area (SPA)/SSSI/Ramsar site located further to the east. The alignment crosses the A944 Westhill to Alford public road on undulating ground to the west of Dunecht village and passes through an open agricultural landscape with occasional plantations for 5 kilometres before connecting with the existing Kintore Substation at the northern end of the section.

Alternative Alignment Options

There are three locations where Alternative Alignments have been considered in Section F; Location 6: North of Drumoak (three alternatives), Location 7: Schoolhill (three alternatives) and Location 8: Echt (three alternatives). The Alternative Alignments in Location 5: Durris are discussed in the separate handout for Section E, because whilst the northern end of these options lie within Section F, they are predominantly located in Section E (see separate handout on Section E available at ssen-transmission.co.uk/TKUP).

Section F Location 6 – North of Drumoak

The key environmental, technical and cost considerations which differentiate between Alternative Alignments 6a (the Potential Alignment), 6b and 6c North of Drumoak include:

Environmental

- Alternative Alignment 6a does not cross any wide floodplain areas, watercourses, known Private Water Supply (PWS) sources or known abstractions, however Alternative Alignments 6b and 6c are both constrained by potential PWS abstraction sources.
- All alternative alignments pass close to Drum Castle Garden and Designed Landscape (GDL) and within 2 kilometres of two Scheduled Monuments (Bogton Cairn, Field System and Trackway and Normandykes Roman Camp). Alternative Alignment 6c would cut across the southwest corner of the GDL and would disturb an area of ancient woodland. It would adversely impact upon the setting of the designated area and potentially on views from the nearby Category A listed Drum Castle. Although Alternative Alignment 6a and Alternative Alignment 6b may also compromise the setting of Drum Castle, they would be less likely to be visible in key views of the Castle compared to Alternative Alignment 6c.
- Alternative Alignment 6a is located at a greater distance from the settlement of Drumoak than Alternative Alignment 6b and is considered to have lower potential for changes to landscape character and woodland loss than Alternative Alignment 6c.

Technical

- All alternative alignments cross a number of major high pressure gas pipelines which would require mitigation to resolve interference through induced voltage. They also cross the A93 public road which would require mitigation.
- Alternative Alignment 6a and Alternative Alignment 6c require angle towers with steeper angles, with Alternative Alignment 6b requiring more towers, but with less steep angles. Alternative Alignment 6b has the highest number of residential properties in close proximity and also passes close to two communications masts on the hillside above Drumoak.

Cost

- There is no significant cost difference between the alternative alignments. Alternative Alignment 6a (the Potential Alignment) and Alternative Alignment 6c are slightly shorter in length than Alternative Alignment 6b but have additional angle tower requirements which include steeper angle structures.

Conclusion

Alternative Alignment 6a is considered to be the least constrained option from an environmental perspective. The technical preference is Alternative Alignment 6b due to having less steeper angle structures required. There is no significant difference in cost between the options. Alternative Alignment 6a would be taken forward as part of the Potential Alignment should Alternative Alignment 5b proceed instead of Alternative Alignment 5a at Location 5 Durris (see separate handout on Section E available at ssen-transmission.co.uk/TKUP).

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Section F Location 7 – Schoolhill

The key environmental, technical and cost considerations which differentiate between Alternative Alignments 7a (the Potential Alignment), 7b and 7c at Schoolhill include:

Environmental

- Alternative Alignment 7b is constrained by Candyglirach Local Nature Conservation Site (LNCS) where some tree felling would be required to install an OHL. The other two alternative alignments would not be constrained by this site.
- Although all alternative alignments cross watercourses and the floodplain of the Gormack Burn, there is more opportunity in Alterative Alignment 7a to avoid the flood risk area and associated watercourses.
- Alternative Alignment 7b has the potential to compromise the setting of two Scheduled Monuments, at Tillyhorn Moated Homestead and East Finnercy Cairn, to a greater extent than Alternative Alignment 7a and Alternative Alignment 7c due to its closer proximity.
- The effects of woodland loss associated with Alternative Alignment 7b would have greater constraints on landscape character than for the other two alternatives.

Technical

- All alignments cross flood risk zones, however Alternative Alignment 7a could be designed to span the floodplain whereas Alternative Alignments 7b and 7c would require towers to be sited within the floodplain.
- Alternative Alignment 7c requires a greater number of angle towers than the other options. All alternative alignments cross high pressure gas pipelines, however Alternative Alignment 7b crosses them at a preferable angle, compared to Alternative Alignment 7a and Alternative Alignment 7c which have a higher likelihood of requiring mitigation to resolve interference through induced voltage.

Cost

- Alternative Alignment 7a (the Potential Alignment) presents the lowest cost due to overall length and number of tower structures.

Conclusion

Alternative Alignment 7a is considered to be least constrained from both an environmental and engineering perspective and is the lowest cost option. It has therefore been selected to form part of the Potential Alignment.

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Section F Location 8 – Echt

The key environmental, technical and cost considerations which differentiate between Alternative Alignments 8a (the Potential Alignment), 8b and 8c at Echt include:

Environmental

- Although Alternative Alignment 8b has towers situated in the flood risk areas near Landerberry, there are opportunities to microsite towers outwith these areas. There are no associated sensitive habitats constraining the alignment. Alternative Alignment 8b intersects fewer areas of long-established woodlands of plantation origin (LEPO) in comparison to Alternative Alignment 8a and 8c and it is less constrained generally in relation to habitat sensitivity and biodiversity.
- All alternative alignments pass close to the southwestern edge of Dunecht House Garden and Designed Landscape (GDL). However, there is considered to be flexibility to position the alignments to avoid any direct impact on the designated area. Alternative Alignments 8a and 8b follow a course for a slightly greater distance than Alignment 8c to the south of the GDL.
- Alternative Alignment 8b is located closer to a larger number and density of residential properties at Echt (which includes a primary school), than Alternative Alignments 8a and 8c, and therefore is considered to be more constrained in relation to proximity to dwellings, sensitive receptors and visual amenity. There are also more sensitive visual residential receptors with potential views of an OHL for Alternative Alignment 8b, especially in the vicinity of Echt village, when compared to the other two alternative alignments.
- Alternative Alignment 8b partially intersects the boundary of a planning application within the northeast part of Echt village for 25 dwelling houses. There is limited flexibility to avoid this constraint and achieve, as far as possible, the target distance of 170 m between the OHL and the planned residential properties. Alternative Alignment 8a and Alternative Alignment 8c do not cross any locations with proposed or consented planning applications.

Technical

- All alternative alignments cross an existing 132kV overhead line near Landerberry which would require modification to both the existing and proposed OHL circuits to ensure they are easily maintained in the future. All alternative alignments also cross the B9119 public road which would require careful management during construction.
- Alternative Alignment 8b passes through more watercourse and surface water flood risk areas compared to Alternative Alignment 8a and Alternative Alignment 8c. However, it is expected that during micrositing no towers would need to be situated within the flood risk areas.
- Alternative Alignments 8a and 8c have a larger number of angle towers in total. This is technically more challenging from a constructability and maintainability perspective.
- Alternative Alignment 8b passes between the residential properties at Echt and South Monecht whereas Alternative Alignments 8a and 8c push the alignment further to the east, reducing the number of properties it interfaces with.
- None of the alternative alignments cross any high pressure gas pipelines, however Alternative Alignment 8c does run in parallel for approximately 1 kilometre which would require mitigation to resolve interference through induced voltage.

Cost

- Alternative Alignment 8b is the preferred alignment option from a cost perspective as it is the lowest cost with the lowest number of towers.

Conclusion

Alternative Alignment 8a is not considered to be the least constrained option from a technical and environmental perspective across all criteria. Alternative Alignment 8a would however be located close to fewer residential properties than Alternative Alignment 8b and is therefore less constrained in relation to proximity to communities, sensitive receptors, and visual amenity. On balance, Alternative Alignment 8a has therefore been taken forward as part of the Potential Alignment. Opportunities to mitigate environmental effects will be progressed through the detailed design and EIA.