Electricity Act 1989
Town & Country Planning (Scotland) Act 1997
DPEA Code of Practice

Tealing to Kintore OHL proposal TRL-120-1

CHS Statement: <u>Technological Alternatives to TKUP by Brian Wade</u>

My name is Brian Wade, speaking on behalf of NOTKUP.

Our position is straightforward: SSEN has failed to properly examine modern, less damaging, and potentially more cost-effective alternatives to the proposed TKUP overhead pylon development. I have written an eight page paper on. this which was tendered, in time. It has been declined by the Reporters, which I find both frustrating and disappointing. Once again, it tells me that the interests of the public simply do not matter.

The proposal relies primarily on traditional overhead AC transmission technology — effectively a model that dates back almost a century — despite the availability of newer technologies already being used extensively across Europe.

The key issue for this Inquiry is not whether grid reinforcement is needed. We accept that reinforcement is required.

The issue is whether this specific solution — extensive new pylons and substations across north-east Scotland — is genuinely the best option. We do not believe that has been demonstrated.

Under NPF4 Policy 5, development on prime agricultural land should only proceed where there is a specific locational need and no suitable alternative. But alternatives do exist.

Under Policy 11, consideration should be given to underground connections where possible.Again, we say that has not been properly done.

And under Treasury Green Book principles, major infrastructure proposals should include a costed options appraisal.

To date, SSEN has not produced a transparent comparison of the alternatives to giant lattice towers and cables.

There are three main categories of alternatives which deserve serious consideration.

First, Grid Enhancing Technologies.

These include reconductoring existing lines using advanced high-capacity conductors, dynamic line rating using real-time weather data, and technologies such as FACTS and topology control.

These methods can significantly increase the capacity of the existing network while reducing environmental damage and avoiding the need for large new transmission corridors.

Evidence from the United States and Europe shows that reconductoring alone can sometimes double or even triple transmission capacity using existing infrastructure.

Second, High Voltage Direct Current — or HVDC.

HVDC technology is now widely used internationally because it offers lower transmission losses, greater efficiency over long distances, and less visual and environmental impact.

Importantly, HVDC underground cables require far narrower construction corridors than traditional underground AC systems.

Germany now treats pylons largely as a last resort and gives preference to underground HVDC systems.

Recent UK studies also show that HVDC can be highly competitive economically.

For example, studies connected with East Anglia and Eastern Green Link concluded that HVDC solutions could provide lower lifetime costs, lower delivery risk, and improved system control.

SSEN has repeatedly argued that undergrounding is prohibitively expensive.

But much of that argument is based on older assumptions about AC undergrounding — not modern HVDC technology.

Third, offshore integration.

Other North Sea countries, including Germany and Denmark, are developing integrated offshore HVDC grids rather than relying on multiple radial onshore connections.

A coordinated offshore approach keeps more infrastructure offshore, reduces impacts on communities and landscapes, and can lower long-term costs for consumers.

Even National Grid ESO has recognised that coordinated offshore systems are likely to deliver the greatest environmental and community benefits.

The concern here is that SSEN has only ever seriously advanced one option: more onshore pylons.

But planning policy requires proper consideration of alternatives.

The cheapest option for the developer is not automatically the best option for the public.

Communities, landscapes, agriculture, tourism, and long-term consumer costs must also be taken into account.

We therefore submit that the Inquiry should not simply accept the assumption that large new overhead lines are inevitable.

Modern technologies now exist which can reduce environmental damage, improve resilience, lower long-term costs, and make better use of existing infrastructure.

At the very least, these alternatives deserve proper, transparent, and independently assessed comparison before irreversible landscape impacts are imposed on north-east Scotland.

Brian Wade

11 May 2026