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South East Anglia Link

Dear Sea Link Case Team,

With reference to Secretary of State's paragraph 12, on Agriculture and Soils, Kent.

The generic plan to dig up the topsoil, store it in a heap, then return to the land will not work on this soil type. The converter station location sits on a former sea channel separating Thanet from the rest of Kent that silted up over centuries, it is not compressed by a glacier and therefore very soft, sinking, fine soil. The detailed soil survey (Agricultural Land Classification, ALC) only happened after pressing National Grid to test the fields instead of relying on old map data. This therefore arrived too late for Natural England to comment.

What an ALC survey will not show:

A standard soil plan is for normal soil which you can dig, pile up and put back without much harm. The marshes are different a fair description used is a "crust on custard". There is a thin, slightly firmer layer at the surface and underneath it, soft clay.

The soil collapses when heavy construction machinery or water in temporary ponds drives or stands on it, the weight presses down through that soft clay. Tiny air and water spaces collapse. The clay does not and can not spring back. (Farmer has stated archaeological surveys on the converter site have left his land unfarmable for many many years.) National Grid's own engineers describe the same ground, in more technical surveys, which are easy to overlook but the evidence is all there:

- Mott MacDonald's Ground Investigation Report – Kent
- Siemens Energy's preliminary ground investigation scope for the Minster converter station, which draws on and quotes that report;
- National Grid document 9.99, which confirms the site sits on Tidal Flat Deposits of clay and silt over Thanet Formation and Chalk.

High sulphates. National Grid's ground investigation records aggressive sulphate conditions naturally occurring in this clay type. Which is why special concrete is needed for the construction. While the clay stays buried, wet and undisturbed harmful compounds, including pyrite, stay locked up. Construction digging, draining the area and drying it out allows chemicals to attack ordinary concrete and metal, which is why the engineers flagged them, dug clay may fail the tests for soil that is safe to spread back on farmland, mixed into the thin crust, it will harm roots and soil health.

What the late ALC soil survey found - National Grid's detailed Kent ALC survey (document 9.31) found about 76.5 hectares of Best and Most Versatile land (Grades 1, 2

and 3a) within the Kent Order Limits, about 45% of that area. Permanent loss of BMV land was already judged significant. A significant increase from desktop study.

This clay is not only soft when wet. In dry weather it shrinks and cracks; when it wets again it swells. That cycle matters for stockpiles, for a 2 m platform, drainage ponds, and putting farmland back. Soil stored dry will not occupy the same profile when replaced. Reinstatement and aftercare have to allow for that movement, not assume a stable loam.

Wantsum sea channel. Because this ground formed in tidal, marine conditions, salt is a risk that requires frequent testing. Pumping groundwater, digging the clay, and raising a platform can move water through the profile and affect the root zone of crops in neighbouring fields and enter reservoirs for irrigating high value crops.

Parts of this land which I farm are farmed minimum-till for more than fifteen years. Roots and biodiversity hold the structure and let water in. If the crust is stripped, heaped, driven over, then loosened with construction machinery or filled with drainage ponds - that structure is lost.

The engineering reports and the outline soil plan do not match. National Grid has said the converter station needs a stone platform of up to about two metres raised above flood level. Its own ground engineers say the site will also need piled foundations or other strengthening, **because the clay is too weak to build on**, and that quantity of the excavated clay cannot be reused as fill. However, the outline soil management plan still describes an ordinary soil process: strip, store, put back, loosen, replant.

To ensure best soil protection. Please do not treat paragraph 12 as answered via a grading table and a generic soil plan. If the project is approved, the certified Kent Soil Management Plan and REAC should require:

- no topsoil stripping until a detailed, site-specific plan - checked by a specialist in alluvial clay, covering strength, wetness, sulphate, salinity and contaminant testing.
- strip-and-store will not work on former sea channel alluvial soil - a suitable plan for this soil type approved by alluvial soil specialist.
- a rule that this clay must never be reused as farm topsoil.
- no moving or travelling on this soil when it is wetter than an agreed limit.

- a detailed plan showing how temporary drainage ponds and construction tracks on this agricultural land will be re-instated back to farmland.
- aftercare that brings the land back to farming at its original ALC grade, with checks on salt, acidity, drainage and contaminants over ten growing seasons and environmental observations on future converter station drainage and contamination of farmland.
- reservoir contamination testing and contamination prevention method,
- a duty to fix what has been damaged.

Yours sincerely

Pippa Southorn