

EASTERN GREEN LINK 1

EGL1 Converter Station Platform

Engineered earthworks platform and foundation formation for a nationally significant HVDC converter station.

CLIENT		VALUE	ROLE	LOCATION	DATES
Metlen Energy & Metals S.A., assets: SP Energy Networks & National Grid ET		Circa £9.7 million	Principal earthworks & geotechnical contractor: design, verification & delivery of the engineered platform	Tomess, Dunbar, East Lothian	Sep 2025 to Jun 2026 (completed)
70,000m ²	192,000m ³	98,000m ³	36wks	Zero	<25mm
ENGINEERED PLATFORM	BULK CUTS FILL	FORMATION RE- ENGINEERED	VS 45-WEEK PROGRAMME	RIDDOR / 26,000 HRS	SETTLEMENT VERIFIED

THE CHALLENGE

Founding nationally significant HVDC converter plant on a former landfill of heterogeneous, non-engineered made ground carrying a collapse-compression risk. The platform had to achieve a maximum 25mm total settlement without recourse to wholesale piling.

THE SOLUTION

GDL's in-house geotechnical team statistically quantified the collapse-compression risk, enabling a performance-based excavate, modify and replace design in place of blanket piling. Reusing 100% of site-won soils as engineered structural fill met the 25mm settlement criterion while eliminating imported fill, and was verified through phased settlement release against the geotechnical design model.



Site layout: HVDC platform, SUDS, access road and retaining-wall backfill zones.

VERIFICATION

Settlement verified against the pre-construction geotechnical model through phased monitoring. Structural fill compliance confirmed by independent UKAS testing of density, air voids and stiffness. Phase 1 acceptance achieved; platform released for permanent piling and concrete-frame works.

DELIVERY OUTCOMES

Programme 36 weeks against a 45-week programme: 9 weeks ahead, releasing the platform early to follow-on works.	Engineering assurance Measured settlement verified against the pre-construction model; platform accepted for permanent works.	Safety Zero RIDDOR-reportable incidents in 26,000 man-hours; zero community complaints.
Carbon & circularity 100% site-won soils reused; no bulk import or offsite disposal; circa 20,000 HGV movements avoided.	Client value No wholesale piling and no imported fill, reducing cost and critical-path risk; NEC4 delivered with no disputed CEs.	Local delivery Circa 90% Stage V self-delivered plant; 60% local EH-postcode workforce; further works secured at EGL1 Murton.