

## Onshore and Offshore Cable Design Capability

**ITPEnergised** is a trusted advisor providing client-focused, reliable, commercially minded, environmental and energy consulting services.

ITPEnergised (ITPE) has been working for the renewable energy industry since 2006 and extends worldwide. ITPE specialises in the grid connection of renewable energy and low carbon projects, undertakes electrical studies and design, conducts due diligence review and is active in wider political and regulatory areas.

ITPE has significant experience of work related to electrical cables. Our knowledge covers different types of cable types and designs including submarine three-core cables, onshore single-core cables, different types of conductor, and insulation, screen, armour and serving materials.

We have conducted design studies for export and array cable systems for offshore renewables and have provided detailed cable rating services for offshore wind developers in installation conditions ranging from the project's onshore substation to the cable entry to the offshore platform.

ITPE has also provided support on various new and extension offshore wind projects including detailed front-end concept design work and planning support work for offshore transmission systems, tendering support and due diligence review, connection agreements and construction and operational work.

**Our recent projects cover a wide range of grid connection issues and include:**

- Large offshore wind (Round 4 / Scotwind).
- Onshore wind, solar and tidal generation.

**We cover a range of sectors and developments:**

- Onshore and offshore Renewable Energy Generation Projects
- Hydroelectric, Hydrogen and Battery storage
- Wind, PV, Bio-Mass & Tidal Projects

**Our services include:**

- Feasibility and planning support including grid integration, optioneering studies, electrical design studies, application of Grid Codes and cost analyses.
- Procurement Support for electrical plant and submarine cables
- Construction and operational appraisals and physical inspections of projects both in construction and operation.
- Business strategy advice: Developments in energy policy and regulation; offshore transmission tendering regulations; offshore regime issues; project planning; policy consultations.
- Due diligence reviews for investors, owners, offshore transmission owners in GB (OFTOs) and other stakeholders.
- Owners engineer
- Procurement and tendering support

