

POWERING **ONSHORE RENEWABLES** WITH CLARITY AND CONFIDENCE

Industry-leading Landscape and Visual Impact Assessments (LVIAs) and integrated environmental solutions supporting onshore wind, solar and energy storage projects.

As the UK and Ireland accelerate towards ambitious renewable energy and net-zero targets, developers face increasing complexity in planning, landscape and visual considerations for onshore wind, solar PV and co-located battery storage.

APEM Group, incorporating the specialist LVIA expertise of Macro Works, delivers industry-leading Landscape and Visual Impact Assessments, visualisation, GIS and mitigation design services that de-risk planning, optimise design and accelerate project delivery.

With over two decades of experience across 200+ onshore wind projects, 250+ solar schemes and extensive grid, transmission and substation infrastructure, we provide fully integrated, regulator-ready support for onshore wind expansion, solar and storage development, renewable-grid interface projects, transitional gas storage and future nuclear-adjacent environmental services.

APEM GROUP SOLUTIONS

Confident, Well-Prepared Planning Applications

Early-stage feasibility and constraints analysis, detailed visibility mapping (DTM & DSM), collaborative design optimisation and early identification of potential 'red flag' planning risks, give clients clear foresight - reducing risk and strengthening applications before they reach the regulator.

Clear, Accessible Visual Communication for Stakeholders

High-quality, verifiable photomontages, CGI, animated fly-throughs and interactive consultation tools present proposals accurately and proportionately - improving transparency, strengthening understanding and reducing objections

Seamless, Integrated Environmental Support

Fully integrated APEM Group delivery combining LVIA, ecology, hydrology and planning support into one coordinated strategy for cohesive project delivery.

Evidence-Led Design Aligned With Landscape Policy Requirements

Leveraging extensive LVIA expertise in Ireland, the UK and overseas, we align proposals precisely with national and local landscape policy - converting guidance into evidence-based design solutions that deliver successful planning outcomes.



KEY SERVICES

Landscape & Visual Impact Assessments (LVIAs)

Comprehensive, policy-aligned landscape and visual assessment for wind, solar, storage, and grid projects, delivering robust and landscape led developments.

Advanced Visibility and GIS Modelling

Zone of Theoretical Visibility (ZTV) mapping using high-resolution DSM and DTM datasets, providing early insight into potential visibility - informing design development and reducing planning risk.

Digital Visualisation

Regulator-compliant, verifiable photomontages, CGI, animated fly-throughs and 360° interactive tools that communicate visual effects with clarity and support effective consultation.

Solar Glint & Glare Assessment

Ireland's only proprietary Glint and Glare analysis software integrates high-resolution DSM data with landscape design proposals, to deliver robust assessments for both ground-based and aviation receptors.

Shadow Flicker Assessment

Robust, standards-compliant shadow flicker modelling for wind energy developments, combining detailed turbine data, high-resolution terrain modelling and receptor mapping.

Landscape-led Mitigation Proposals

Design-led, biodiversity-aligned mitigation and screening strategies embedded within LVIA outputs - strengthening planning outcomes and demonstrating assimilation with the receiving landscape character.

PROJECT HIGHLIGHT

Castlebanny Wind Farm

FuturEnergy Ireland and ART Generation

Project Description: A 21-turbine wind farm (185m tip height) Strategic Infrastructure Development with the capacity to power 70,000 homes

Services: Landscape and Visual Impact Assessment, Verifiable Photomontages, Zone of Theoretical Visibility (ZTV) Mapping, Theoretical Visual Intensity (TVI) Mapping, DSM-base Route Screening Analysis (RSA) and interactive consultation

Status: Consented



APEM Group

For over four years, Macro Works have provided trusted expert assessments for Terra Solar's planning applications. Their expertise and advice have been a significant factor in our successful planning track record.

Donal Fewer, Project Director
Terra Solar



500+

Renewable Energy
Developments supported
across Ireland, the UK and
overseas



WHY CHOOSE APEM GROUP



Proven Reputation in Renewables - Over two decades supporting renewable energy planning across the UK and Ireland, with one of the most established LVIA track records in the sector.



Deep Technical & Digital Expertise - Dedicated LVIA specialists supported by in-house GIS, 3D modelling and software development teams, enabling innovative and defensible outputs.



Trusted by Developers & Regulators - Long-standing relationships with planning authorities, consultants and energy developers, built on quality, transparency and regulatory alignment.



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enquiries@apemgroup.com