B&P
BLACKHALL & POWIS

PPA COMMERCIAL ANALYSIS

Our Capabilities

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About Us

Blackhall & Powis: Delivering Expertise for a Sustainable Future

Blackhall & Powis is a trusted partner in property, planning and project management services, working alongside renewable energy developers and network operators to drive the energy transition. Our expertise spans the entire lifecycle of energy projects, from early-stage land assembly and rights acquisition to ongoing operational support and decommissioning.

As one of the **UK's leading renewable and infrastructure specialists**, we bring unrivalled expertise and commitment to delivering world-class energy infrastructure across the Renewable Energy, Oil & Gas and Utilities sectors. By navigating complex stakeholder relationships and ensuring compliance with environmental and regulatory frameworks, we create shared and enduring value for clients, communities, and the environment.

Our Track Record

We bring a strong understanding of the planning, environmental and technical considerations that influence the repowering and life extension of operational onshore wind farms. Our experience enables the **early identification of constraints, risks and potential showstoppers, supporting structured go/no-go decisions** and the development of viable project strategies from the outset.

Our site suitability model has supported the **origination of multiple gigawatts of renewable energy projects across onshore wind and other technologies**. For repowering and life extension opportunities, it combines GIS capability with planning and environmental expertise to evaluate existing sites, identify key constraints and opportunities, and assess the potential for enhanced generation capacity or extended operational life. The model supports high-level repowering scenario development and site suitability assessments aligned with consent-led design principles, providing a robust evidence base for strategic investment and development decisions.

General Market Strategy

Our strategy is to be the first choice for developers, network operators and employees in delivering energy, utilities and infrastructure projects. We want to be known for our agility, turn-key solutions, and unwavering commitment to delivering the best for our clients and our people. Our continued sustainable growth will include entering into new market segments (e.g. additional utility sectors) and new geographies including the establishment of international offices. We are presently a team of 100+ professionals with an aim to grow towards a team of 150 by 2030, whilst evolving our culture in a way that supports our people.

NETWORKS

DEVELOPMENT

LAND INFORMATION

LAND SERVICES ONSHORE

LAND SERVICES OFFSHORE

CONSTRUCTION

MARINE SERVICES

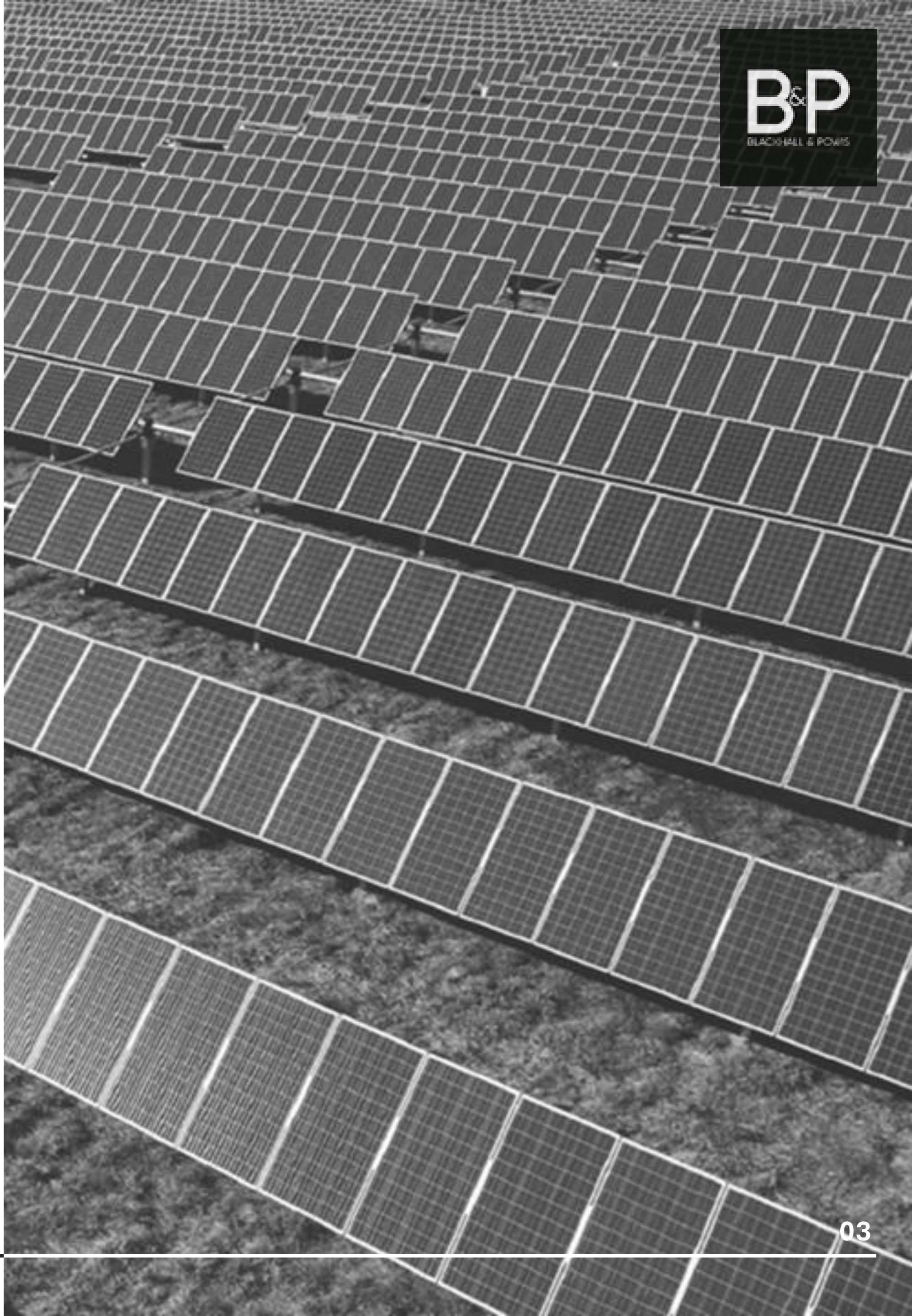
Executive Summary

As grid-connected renewable development becomes increasingly challenging, developers are increasingly exploring private wire and corporate PPA structures with commercial organisations, public bodies and institutional landowners. These proposals can offer attractive headline energy savings, but they can also involve long-term commitments, complex pricing mechanisms and significant commercial, contractual and property considerations.

The challenge is that the party presenting the opportunity is typically also the party developing the project.

Blackhall & Powis provides an independent assessment on behalf of the proposed energy consumer or landowner. Our role is to determine whether the underlying proposition genuinely works for our client before they commit to a long-term PPA, land agreement or detailed negotiations

By combining energy-market and PPA expertise with B&P's established land, property and commercial capability, we can review the whole transaction rather than considering the electricity proposition and property arrangements in isolation.



Commercial PPA Analysis

B&P provides an independent assessment of the underlying economics of a private wire proposal, testing whether the projected savings presented by the developer are realistically achievable and whether the proposed arrangement represents good long-term value for the energy consumer.

Our analysis considers the client's existing electricity costs and procurement arrangements alongside the proposed PPA price and structure. Historic consumption data can be assessed against the proposed renewable generation profile to understand how effectively generation matches demand and the potential implications of surplus generation.

We interrogate the developer's underlying assumptions and can test alternative scenarios around electricity pricing, indexation, system sizing, solar generation, BESS, curtailment and take-or-pay or pay-as-consumed structures.

Importantly, the analysis considers the private wire opportunity against the client's existing electricity procurement position and other potential commercial structures, rather than assessing the developer proposal in isolation. We would consider alternative PPA structures, system sizing and the alternative of retaining existing electricity procurement alongside a conventional land lease.

The resulting assessment provides the client with a clear, independent understanding of the anticipated costs, savings, risks and overall value proposition, creating an evidence base for deciding whether, and on what basis, the transaction should progress.

Key Deliverables:

- Independent review of developer savings claims
- Analysis of existing and proposed energy costs
- Consumption vs. generation modelling
- PPA pricing and indexation analysis
- System sizing and BESS sensitivity testing
- Take-or-pay / pay-as-consumed assessment
- Long-term cost and savings appraisal
- Comparison with alternative procurement option
- Clear commercial recommendations

PPA Agreement & Land Lease Review and Negotiation

PPA Agreement Review & Negotiation

B&P provides independent commercial review and negotiation of private wire PPA agreements, ensuring the contractual structure reflects the underlying business case and appropriately protects the energy consumer. We review key provisions including contract duration, pricing and indexation, take-or-pay obligations, performance, termination, BESS and export arrangements, identifying areas of commercial risk and recommending appropriate amendments.

Working alongside the client's legal advisers, we can lead commercial negotiations with the developer from Heads of Terms through to detailed agreement, ensuring the final PPA remains aligned with the financial analysis and the client's wider commercial objectives.

Land Lease Review & Negotiation

B&P provides specialist land and property advice for private wire developments, reviewing and negotiating option, lease and associated land agreements on behalf of landowners and energy consumers. We consider the overall commercial package, including rent and consideration, land requirements, access and cable rights and the wider implications of committing land to a long-term energy project.

Our experienced land team can lead negotiations with the developer and work alongside legal advisers to ensure the property arrangements protect the client's interests and complement the wider PPA and commercial structure. This would include review and appraisal of the developer's proposed Option to Lease Heads of Terms alongside the PPA and commercial analysis workstreams.

B&P have negotiated hundreds of land agreements across the UK, covering solar PV, onshore wind, battery storage, grid connections and private wire schemes – so we can benchmark developer proposals against current market terms and negotiate from an informed position.

Other Services: Site Suitability Modelling

Our Site Suitability Model

Our site suitability modelling approach works in two ways: it can support discussions with a developer who has already approached you about a specific site, or it can be used independently to assess the development potential of an area of land.

The process begins with a constraints workshop, followed by a high-level hard constraints analysis to identify land that meets the minimum criteria for development. The resulting model gives a structured basis for prioritising the strongest sites, whether that means testing a developer's proposal or streamlining your own origination process.

The model is highly flexible and can be applied at any scale, from a single landholding to a national search, while accommodating a broad range of spatial factors relevant to development.

Step 1: Constraints Workshop

We facilitate a workshop with developers to agree on a list of hard and soft constraining factors:

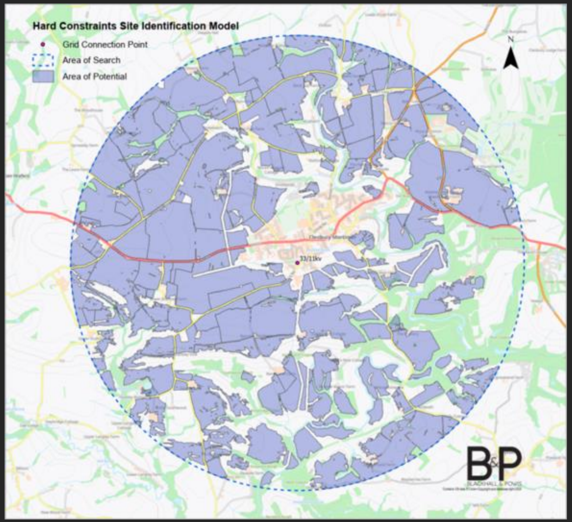
- **Hard Constraints:** areas where development will not be acceptable from a spatial planning perspective due to local, regional, national and international designations, and also any technically challenging areas.
- **Soft Constraints:** factors include further planning, environment and cultural designations and any other factors that that may not inherently disqualify a site but rather, increase the risk or complexity of the development by often requiring more detailed planning and mitigation measures.

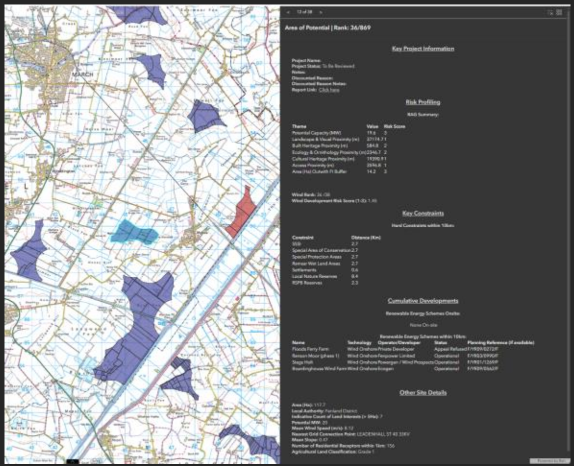
Step 2: Hard Constraint Analysis

We would run a hard constraints assessment to exclude areas fundamentally unsuitable for development. Building on this, residual areas from the hard constraints analysis will be subdivided or aggregated with reference to cross-cutting factors such as linear constraints (e.g. roads or OHL’s) and the distribution of land titles across viable parcels. This ensures that potential sites are assessed as coherent opportunities rather than fragmented/impractical units.

Step 3: Ranking and Site Selection

Building on the outputs of the site suitability modelling stage, we propose undertaking a structured ranking exercise to prioritise the strongest opportunities in a particular area of search.





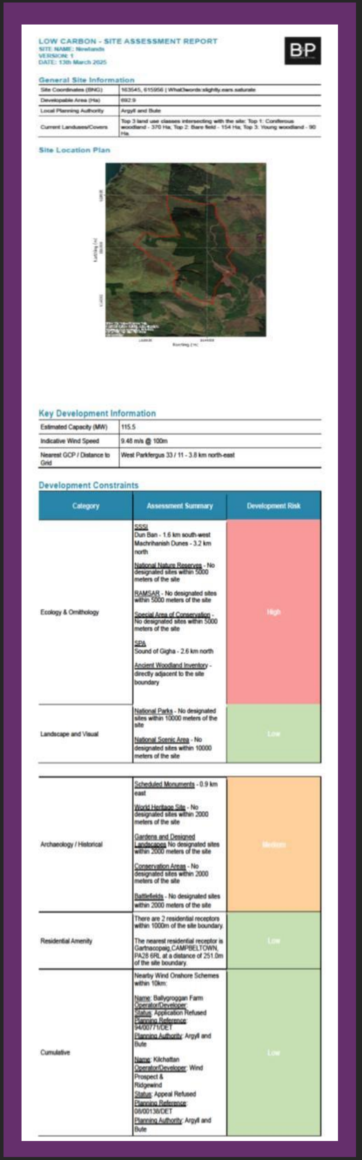
Other Services: Referencing and Reporting

Our dedicated land information specialists can carry out detailed land referencing and have extensive experience of working with HMLR data. Using advanced referencing techniques and investigative methods, **we identify land interests and track down accurate contact information**.

Blackhall & Powis can provide a summary report for each site (examples illustrated adjaced) that is recommended for progression from the modelling exercise. These reports would be autogenerated via a scripted tool, providing a high-level summary of the impact of constraints on the availability of land. This would enable you to demonstrate an initial level of due diligence has been undertaken on the site. These reports could provide the basis for more detailed planning appraisals, and could include information on land interests received during the land referencing exercise.

Transparent, structured and fully accessible client reporting supported by our web-hosted GIS platform. All opportunities, land interests and project land requirements can be uploaded to GIS. A live dashboard is maintained and updated in line with these milestones, with live reporting delivered to you to ensure consistent visibility of progress. We can supply spatial data in any format required for full integration into in-house GIS systems.

We can overlay any required constraint layers and title information, allowing you to **view all relevant spatial data in one place**. We can created dedicated portals illustrating the project land requirements, including all affected title boundaries and adopted road networks.



LOW CARBON - SITE ASSESSMENT REPORT
SITE NAME: Newlands
VERSION: 1
DATE: 13th March 2025

General Site Information

Site Coordinates (BNG)	163545, 615956 | What3words:slightly.ears.saturate
Developable Area (Ha)	692.9
Local Planning Authority	Argyll and Bute
Current Landuses/Covers	Top 3 land use classes intersecting with the site: Top 1: Coniferous woodland - 370 Ha; Top 2: Bare field - 154 Ha; Top 3: Young woodland - 90 Ha.

Site Location Plan

Key Development Information

Estimated Capacity (MW)	115.5
Indicative Wind Speed	9.48 m/s @ 100m
Nearest GCP / Distance to Grid	West Parkfergus 33 / 11 - 3.8 km north-east

Development Constraints

Category	Assessment Summary	Development Risk
Ecology & Ornithology	SSSI Dun Ban - 1.6 km south-west Machrihanish Dunes - 3.2 km north; National Nature Reserves - No designated sites within 5000 meters of the site; RAMSAR - No designated sites within 5000 meters of the site; Special Area of Conservation - No designated sites within 5000 meters of the site; SPA Sound of Gigha - 2.6 km north; Ancient Woodland Inventory - directly adjacent to the site boundary	High
Landscape and Visual	National Parks - No designated sites within 10000 meters of the site; National Scenic Area - No designated sites within 10000 meters of the site	Low
Archaeology / Historical	Scheduled Monuments - 0.9 km east; World Heritage Site - No designated sites within 2000 meters of the site; Gardens and Designed Landscapes No designated sites within 2000 meters of the site; Conservation Areas - No designated sites within 2000 meters of the site; Battlefields - No designated sites within 2000 meters of the site	Medium
Residential Amenity	There are 2 residential receptors within 1000m of the site boundary. The nearest residential receptor is Gartnacopaig,CAMPBELTOWN, PA28 6RL at a distance of 251.0m of the site boundary.	Low
Cumulative	Nearby Wind Onshore Schemes within 10km: Name: Ballygroggan Farm Operator/Developer: Status: Application Refused Planning Reference: 94/00771/DET Planning Authority: Argyll and Bute; Name: Kilchattan Operator/Developer: Wind Prospect & Ridgewind Status: Appeal Refused Planning Reference: 08/00138/DET Planning Authority: Argyll and Bute	Low

Our Role
B&P was instructed by a Scottish public-sector body to independently assess a proposed private wire solar and battery arrangement before the client committed significant time and cost to negotiating a 30-year PPA and associated land agreement.

The developer's business case indicated an attractive headline saving, but the client wanted an independent assessment of whether the proposition represented genuine long-term value.

Our Independent Analysis
The developer's modelling indicated a first-year saving of approximately £27,600. B&P independently rebuilt the commercial assessment from the consumer's perspective, focusing on four key areas: contract structure, system sizing and demand, existing electricity procurement and long-term regulatory risk.

A detailed modelling exercise used historic half-hourly consumption to assess solar production against the customer's actual demand profile, including the impact of system sizing, battery storage, self-consumption and curtailment. This was particularly important because the scheme had no export capacity, meaning surplus generation had to be consumed, stored or curtailed.

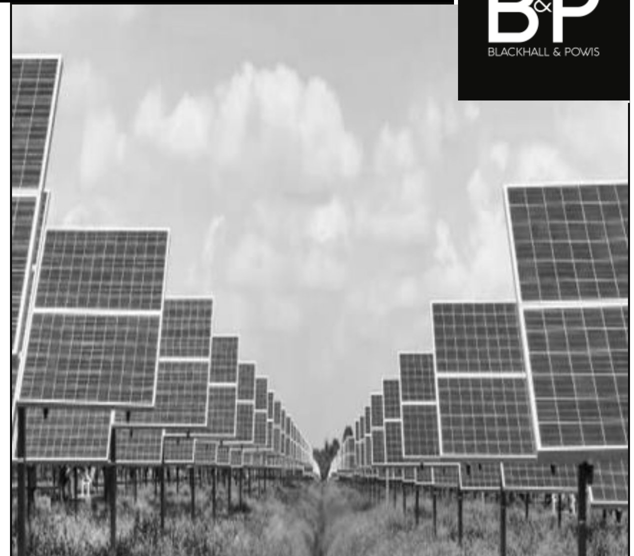
We modelled both Take-or-Pay and Pay-as-Consumed structures, with and without battery storage. Under Take-or-Pay, the customer carried the risk of paying for generation that could not be consumed, whereas Pay-as-Consumed materially changed this risk allocation.

The assessment also benchmarked the private wire proposition against the customer's existing competitive 100% renewable electricity supply arrangements and considered the inherent risk of entering into a 30-year commitment, during which electricity markets, regulation, policy and the customer's operational requirements could change materially.

PPA & Land Agreement Review
Alongside the financial modelling, B&P reviewed the proposed PPA and land Heads of Terms, considering pricing and indexation, contract duration, Take-or-Pay exposure, rental, landowner obligations, and the wider commercial terms of the land agreement. This allowed the financial proposition, contractual risk and property arrangements to be considered together, rather than as separate elements of the transaction

Potential Commercial Exposure Identified
Our independent modelling identified a materially different commercial picture from the developer’s headline business case. Under the proposed Take-or-Pay structure, the client could be required to purchase electricity generated even where it could not be consumed, materially transferring volume and electricity price risk to the consumer.

While the developer’s assessment indicated a first-year saving of approximately £27,600, B&P’s analysis identified a potential first-year cost of approximately £176,000 and a negative financial outcome of approximately £8.4 million over the proposed 30-year term under the Take-or-Pay scenario. The assessment also demonstrated that alternative Pay-as-Consumed structures could significantly improve the commercial position by limiting the client’s payment obligation to electricity actually consumed



Appointment Date
2026

Services Provided
PPA Commercial Analysis and PPA/Land Agreement Review

Client Reference
Confidential - references available on request.

APPENDIX A – Our Team

Profile

Jake is a senior energy markets and commercial development professional with over 35 years' experience across UK power and gas markets, energy procurement, trading, PPAs, flexibility and energy storage.

Jake leads B&P's commercial PPA analysis, independently testing private wire and corporate PPA propositions against a client's actual demand, existing supply arrangements and the proposed commercial structure. This includes modelling of Take-or-Pay and Pay-as-Consumed structures, generation-versus-demand profiling, system sizing and whole-life cost and savings analysis.

Jake has extensive experience of PPA origination and structuring, having established Vattenfall's UK third-party PPA business and executed over 200 MW of PPAs. He delivered the UK's first co-located wind + battery and first co-located wind + solar projects, and has acted as lead commercial adviser on a 525 MW offshore wind project covering CfD-backed supply, private wire PPAs, merchant exposure and grid imports.

Jake advises across solar, battery storage, hydrogen and private wire developments on route-to-market, optimisation and commercial risk, and is particularly strong at translating market complexity into clear commercial outcomes for clients and senior stakeholders.

General Experience

Director / Owner, Cotswold Energy Consulting Ltd (2022 – Present)

Senior advisory services on energy procurement, PPAs, flexibility and complex asset integration. Lead commercial adviser on a 525 MW offshore wind project, designing and negotiating multi-component procurement structures including CfD-backed supply, private wire PPAs, merchant exposure and grid imports.

Advises on tariff structures, market exposure, ancillary services and Capacity Market participation, and designs behind-the-meter solutions enabling private wire supply alongside CfD volumes, including verification frameworks linking consumption, billing and contracts. Also supports co-located battery optimisation strategies alongside long-term corporate solar PPAs, including metering design for solar and BESS systems.

Director / Owner, Kernow Renewable Developments Ltd (2022 – Present)

Development of green hydrogen and solar PV projects, including a 32 MW joint development solar project with a Premiership football club and a white-label supply concept providing discounted power to season ticket holders.

Commercial Development Manager, Vattenfall Wind Power Ltd (2016 – 2022

UK lead for non-wind renewables, co-location and flexibility-linked commercial strategies. Negotiated complex PPAs and battery optimisation contracts for co-located wind, solar and storage assets, and delivered the UK's first co-located wind + battery and first co-located wind + solar projects. Integrated trading, flexibility and asset control considerations into long-term procurement strategies, with regular senior interface with investors, asset managers and internal trading desks.

Jake Dunn
Specialist Adviser – Energy Markets & PPAs

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Qualifications

- LLM Commercial Law
- BSc Management Science

Discipline

Energy Markets & Commercial

Areas of Specialism

- PPA & Private Wire Energy Developments
- Renewable Developments
- Route-to-Market Solutions

Profile

Ralph is a Chartered Surveyor and RICS Registered Valuer involved in a range of land and property related consultancy work.

Ralph has **vast experience of site origination and land agreement negotiations for onshore renewables** projects across the UK. Where he frequently acts on behalf of onshore wind developers, looking to build their portfolio of wind sites, focussing mainly across northern and remote areas of Scotland. This work starts from initial site selection and is taken all the way to option and lease and then construction. This includes negotiations for ancillary rights, such as grid connections and access rights over third party land.

Ralph has **experience of a wide range of valuation work** for a range of purposes. This includes rural, residential and renewable assets. He has also been involved in valuation for CPO purposes, including feeding intro valuations for compulsory purchase of windfarm access.

Ralph is also experienced in landlord and tenant matters, including agricultural holdings, crofting matters and access rights over land including wayleaves, servitudes and compensation.

General Experience

Director, Onshore Renewables, Blackhall & Powis (July 2021 – Present)

Director, Chartered Surveyor and RICS Registered Valuer at Blackhall & Powis. Head of Onshore Renewables, based in the Inverness office.

Predominantly provide technical and commercial input for onshore and offshore renewable energy projects, and other infrastructure projects. Work primarily on onshore renewable projects, including site origination, landowner engagement and commercial negotiations for sites, grid and access.

Experienced with compensation and injurious affection claims, access rights, commercial forecasts, landlord and tenant matters, Agricultural Holdings legislation, peatland restoration and negotiations relating to renewable energy. Experienced in valuing most rural and residential property, including rural estates, land, farms and renewable energy assets.

Associate Director, Strutt & Parker (2014– 2021)

Chartered Surveyor and RICS Registered Valuer with Strutt & Parker (part of the BNP Paribas Group) in their Inverness office, within their consultancy department.

Involved in a range of land and property related consultancy work including compulsory purchase and compensation, landlord and tenant matters, utilities, and professional valuations for a range of assets. Also involved in peatland restoration and the emerging market for carbon trading.

Ralph Smith
Director – Onshore Renewables

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Qualifications

- MRICS
- RICS Registered Valuer
- Master of Land Economy (2014)
- MA (Hons) Geography (2012)

Discipline

Chartered Surveyor

Areas of Specialism

- Onshore Renewables
- Valuation
- Access Rights

Profile

Rick is an experienced, MBA qualified Project and Programme Director, operating in the renewable energy industry since 2006. Rick has experience working across all stages of energy project design and permitting activity from onshore and offshore site identification to post-consent compliance.

Rick has led, and supported leasing process applications, project development and construction activities on a global basis throughout his career and has a strong network in global energy marketplace.

- Expanding offshore wind businesses **defining and implementing strategies**, as project developer and service provider.
- **Strong technical knowledge** for planning and permitting of energy projects and associated infrastructure.
- **Multiple leasing applications fulfilling the role of project lead** to drive stakeholder and supply chain engagement. Securing compulsory rights within DCO applications.
- **Stakeholder and landowner engagement** – first contact to completed negotiation.
- Extensive experience in **managing internal and external multi-disciplinary project teams**.

Experience

Director, Blackhall & Powis (2024-Present)
Rick is responsible for defining and delivering development services activities for the Blackhall and Powis business. Alongside this he acts as an advisor to all offshore activities, drawing on his experience as a developer.

Kontiki Winds (2022-24)
Rick had overall responsibility for defining and delivering the strategy for commercial scale offshore wind development, including market assessment, site identification, partner engagement and securing appropriate levels of support for development activities.

Natural Power (2020-2022)
Rick had responsibility for growing Natural Power's offshore renewables services and acted as Project Director/Manager on a range of activities including several ScotWind tender applications. He led the INTOG Offshore Market Review on behalf of Crown Estate Scotland.

ScottishPower Renewables (2010-20)
Rick held multiple roles in Scottish Power Renewables' offshore wind development team. Key roles included leading the land, stakeholder engagement and consent compliance teams, engaging in new market identification and tender preparation, preparing the Development Consent Order for East Anglia 3 and extensive management of internal and external teams.

SSE Renewables / Airtricity (2006-10)
Key activities involved development of onshore and offshore windfarm projects; supporting Round 3 and Scottish Territorial tender activities; financial modelling of development and construction projects.

Rick Campbell

Director – Development

LAND SERVICES OFFSHORE

Qualifications

- Master of Business Administration with Distinction (2016-20)
- BSc (Hons) Mathematics with Statistics (2003-2006)

Discipline

Project and Programme Director in the Renewable Energy Industry

Areas of Specialism

- Offshore Wind Design
- Permitting Activity
- Supporting leasing process applications, offshore wind development and construction.

Profile

Phil is a Geographer and GIS professional with **over 12 years' experience in both public and private sectors** having previously achieved an MSc with distinction in Geographical Information Science. Phil received a PhD for his research investigating the renewable energy potential of vacant and derelict land in Scotland. Phil is adept at spatial problem solving with vast experience using a variety of GIS tools and software. Phil has provided tuition to Engineering students and contributed to several academic publications.

Initially joining Blackhall & Powis as a GIS Consultant, Phil gained experience across a range of renewable and infrastructure projects, leading on land referencing and GIS service provision including supporting the development of some of the country's biggest offshore wind farms. Now, as Director of Land Information, Phil leads a team of skilled GIS Analysts and investigative Land Referencers, whilst keeping a keen eye on research and development opportunities, including the implementation of automated workflows to improve project efficiency.

Experience

Director, Land Information, Blackhall & Powis (Feb 2021 – Present)

- Managing team of geospatial and land referencing professionals supporting all B&P functions
- Site origination and Grid/Access route land assembly for a range of Onshore Renewable developers, across a range of technologies, scales and geographies
- GIS support, Land Referencing and Web-App Development on nationally significant Offshore Wind projects including INTOG projects
- GIS Analysis and legal plan production for Network infrastructure clients

GIS Consultant, Blackhall & Powis Ltd. (Sept 2019 – Feb 2021)

GIS Officer – The City of Edinburgh Council, (July 2019 – November 2019)

Conducted data editing and management in response to new guidelines provided by Zero Waste Scotland regarding land zoning under the Code of Practice on Litter and Refuse (CoPLAR). Additionally, helped to solve routing issues using RouteSmart for ArcGIS.

PhD Researcher - University of Strathclyde (2014-2018)

Exploring the opportunity that could be provided by underutilised non-agricultural land in Scotland, in terms of the role it can play in the provision of renewable energy and green infrastructure.

Phil Mellor

Director – Land Information

B&P Blackhall & Powis

LAND INFORMATION

Qualifications

- PhD - Civil and Environmental Engineering (2014-2018)
- MSc Distinction - Geographical Information Science (2012-2013)
- BSc Geography (2008 – 2012)

Discipline

Geographer and GIS Professional

Areas of Specialism

- GIS
- Renewable Energy
- Spatial problem solving
- Land referencing
- Energy infrastructure projects

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