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Natural Power is an independent renewable energy consultancy and services provider with over twenty years of in-house project experience. We provide expertise at every stage of the project lifecycle: from feasibility, development, pre-construction, construction, operations to re-powering, and through all elements of due diligence.

Natural Power’s 360° lifecycle experience spans more than 800 projects, with a team of over 340 experts. Our approach to consultancy services allows us to focus on reducing interface risk and working smarter from day one of your power project, through:

- The application of pioneering new technologies, methodologies and best practices to tackle the most complex and challenging issues
- The provision of project management experience delivering both practical and innovative consulting
- Building wide and lasting relationships with our clients, who then benefit from our full lifecycle experience at every stage of their project
- Providing trusted, impartial due diligence services to financial investors that equal the breadth of services offered to development clients

"our mission and vision:

to create a better environment by providing market leading advice and services to our clients"

Stephen Trotter, Managing Director
Natural Power provides expertise in every stage of the project lifecycle; from site prospecting, constraints mapping and resource assessment, through consent, design and construction to operational asset management.

We are leaders in bringing new technologies, methodologies and best practice methods to the forefront of the hydro power industry in order to tackle our clients’ most complex and challenging issues. Our project management experience allows us to offer truly innovative yet practical consultancy.
Our team can design and undertake the required surveys and assessments which will successfully deliver the application throughout planning, post consent/pre-construction, construction and operation. All work is carried out in line with the guidelines produced by the relevant authorities: Scottish Environment Protection Agency (SEPA) and Environment Agency (EA).

Utilising its experienced team of construction project managers, design managers, planners, hydrologist and ecologists, Natural Power can ensure the scheme is buildable. By working across hydrology, geotechnics, civil engineering, pipeline design, electrical design and plant selection, Natural Power can enable landowners to take a scheme through the design and planning process right through to construction and operation.

Our services include:

- Hydropower assessment
- Grid connection study
- Access determination
- River gauging
  - Flow monitoring
  - Flow duration curve
- Topographic survey
- Catchment surveys
- Preliminary site layout design

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**Ken Taylor, Project Manager**
Development & consenting

Natural Power supports its clients through the project design and consenting process by bringing together cutting edge project knowledge and experience with a realistic approach to development and risk mitigation.

We take the opportunity to work with our clients to define and address every aspect of a potential project throughout the development phase; identifying risks and opportunities at the earliest possible stage.

Our aim, like our clients', is to efficiently manage costs and risks to help deliver consented projects ready for financing and construction, including, but not limited to:

- Environmental assessment
- Environmental scoping
- Site surveys
  - Hydrological
  - Ecological including:
    - River habitat
    - macroinvertebrate
- Peat
- Geotechnical
- Environmental Report/Environmental Impact Assessment (EIA)
- Consents
- Consultations
- Statutory bodies eg. SEPA, SNH, Natural England, Environment Agency and planning authorities
- Non statutory eg. RSPB, fisheries groups, local ecological study groups
- Abstraction licence
- Planning application

\[\text{\textit{We draw upon the expertise of our world class team of analysts, ecologists, construction managers, geologists and engineers to ensure the highest chance of achieving consent for our clients’ projects.}}\]

\textbf{John Woodruff, Principal Consultant}
Natural Power has extensive experience in progressing projects from gaining consent through to commencement of construction. We have supported a wide range of clients in the provision of required documentation, expert advisory and stakeholder liaison in order to meet with suspensive and ongoing planning conditions. As with all phases of development our approach is to mitigate risk for the client and seamlessly move the project from consent to a buildable asset.

Services include:

→ Contract procurement support, including:
  → Maintenance contracts
  → Civil, electrical, Balance of Plant (BoP) contracts
  → Grid connection contracts
  → Forestry contracts
  → Third party services and materials
  → Turbine supply contracts

→ Management of planning condition discharge, including:
  → Environmental compliance and surveys
  → Construction Environmental Management Plans (CEMP)
  → Health and safety management
  → Habitat Management Plans (HMP)
  → Geotechnical site investigation including drilling
  → Water quality, drainage management and flood protection
  → Traffic and transport planning
  → Contaminated land surveys analysis and mitigation

→ Interface and progress with grid connection
→ Geotechnical services including intrusive works, topographic survey and interpretive reporting
→ Civil design services
→ Health and safety consultancy

“we take a pragmatic approach to engineering timescales while remaining sensitive to the environment”

Chris Pendlebury, Director of Planning and Environment
Natural Power provides construction project management with an aim to construct clients’ projects on time, on cost and on specification. On behalf of the client we provide project management and monitoring during the construction phase.

Services include:

- Discharge of planning conditions
- Review of contracts for civil construction, turbine supply, pipeline supply
- Continued civil design support
- Monitoring of project progress and construction activities
- Monitoring of budget
- Review and approval of material/equipment orders and invoices/payment applications
- Liaison with project stakeholders and statutory authorities
- Reporting to the client on project progress and budget
- Advising the client on technical project proposals and decisions
- Advising the client on grid connection works
- Environmental Clerk of Works (ECoW)
- Water quality monitoring

"Our robust approach to project management and close relationship with our clients’ construction teams helps to minimise delays and ensures the safest possible work environment"

Ralph Spernagel, Director of Construction
Environmental Clerk of Works

Our team of fully qualified Environmental Clerk of Works (ECoW) act as the point of contact for all license condition discharge, construction & installation teams and statutory and non-statutory stakeholder liaison. This is a key knowledge transfer aspect from pre-construction to construction and post-construction and is a core area of Natural Power’s expertise.
Natural Power is one of the world’s leading independent providers of operational phase services for major utilities and independent power producers. We provide excellence in health and safety management combined with unique software tools and procedures to ensure maximum efficiency in our clients’ hydro projects. Our aim is to efficiently manage operating assets safely and efficiently while maximising production.

Offering a full range of services designed to meet the needs of our clients’ projects we ensure a consistent approach without compromising on health and safety, including:

- Operational control
- Access / egress and work flow management
- Emergency response
- Lone / remote working
- Site forecasting / outages
- Site supervision
- Control point services
- High-Voltage (HV) services
- Asset inspections
- Environmental monitoring

"we aim to get maximum revenue for our clients by optimising performance and reliability during the operational stage"

Euan Fenelon, Director of Operations and Asset Management
Due Diligence

Natural Power has completed due diligence services to assist major banks, investment funds, developers and Independent Power Producers (IPPs) across Europe and North America. With over 320 staff, we cover the widest range of activities that a due diligence project could require, from planning and development to ecology, from construction and energy assessment to operations.

- Review and check of Average Annual Energy Production (AAEP)
- Review of CAPEX / OPEX
- Programme review
- Review of ground conditions
- High level design review of intake, pipeline, powerhouse and tailrace structures
- Review of scheme power and control, including cross compliance of grid
- Review of grid offer
- Review of turbine supply, civil construction and pipeline supply contracts, including contract interfaces
- Review of compliance with projects consents including planning permission and water environment (Controlled Activities)(Scotland) Regulations (CAR) Licence;
- Provision of due diligence report highlighting and categorising identified project risks

our team of 50 due diligence specialists has worked across over 200 projects worldwide, giving us unparalleled experience of a range of transaction scenarios

Giles Dearden, Director of Due Diligence
<table>
<thead>
<tr>
<th>Project:</th>
<th>Allt Fionn HydroPower Scheme, Crianlarich, Scotland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client:</td>
<td>GCP Infrastructure Investments Limited</td>
</tr>
<tr>
<td>Project Description:</td>
<td>Allt Fionn is a 2.1MW operational hydro power project. Natural Power provided a range of due diligence services on behalf of our client.</td>
</tr>
</tbody>
</table>
| Services Provided: | - Review of planning and permitting conditions during operation  
                      - Contractual review (focusing on operation and maintenance contracts, but also considering any legacy from the construction contracts)  
                      - Review of operational performance since commissioning  
                      - Reappraisal of hydrology and annual energy production  
                      - Review of financial model inputs  
                      - Site visit conducted to inspect plant and equipment |
<p>| Added Value:      | Re-assessment and discussion of long-term Annual Energy Production (AEP) based on new hydrology data, operational data, and review of pre-construction AEP |</p>
<table>
<thead>
<tr>
<th><strong>Project:</strong></th>
<th>Derrydarroch &amp; Upper Falloch Hydro Schemes, near Loch Lomond, Scotland.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Client:</strong></td>
<td>Temporis Capital</td>
</tr>
<tr>
<td><strong>Project Description:</strong></td>
<td>Derrydarroch &amp; Upper Falloch Hydro Schemes, neighbouring hydro schemes near Loch Lomond north of Glasgow, Scotland. Designed to generate peak power of 3MW from a combined system that features six separate intakes, four main headraces, and two powerhouses. They are both high head run of river schemes, and will be connected to the 11kV local distribution grid.</td>
</tr>
</tbody>
</table>
| **Services Provided:** | Following the granting of planning consent, Natural Power was engaged to progress the schemes through to construction, including:  
- Intrusive site investigations and topographic surveys  
- A range of ecological and hydrological baseline surveys and construction phase monitoring  
- Concept designs were developed for the complete track and pipeline system, including several bridges, as well as the intakes and powerhouses  
- Tender and detailed civil design  
- Planning condition discharge  
- Project tendering and contract review  
- Construction project management including provision of resident engineer  
- Ecological Clerk of Works |
| **Added Value:** | Successfully managed the post-consenting process, providing early information on key environmental aspects such as protected species, deep peat management, and landscape and visual effects |
Natural Power delivers services and operates assets globally for our clients, with eleven offices across Europe and North America and agencies active in South America and Asia Pacific.
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Health & Safety

Natural Power operates a Safe System of Work procedure, this procedure outlines the requirements and guidelines required for safety in the workplace and mitigation of risk.

Health & safety is the number one priority for Natural Power both from an operational and management point of view. The safety of our staff, contractors, and the public must come before any technical or commercial considerations.

In accordance with statutory requirements, for all routine and non-routine activities undertaken by employees and others working on behalf of Natural Power, a risk assessment must be undertaken and sufficient controls introduced to manage the risk. Method statements are activity specific and are prepared where their absence would adversely affect the ability to exercise the controls identified by risk assessment.

The ControlCentre is an industry leading innovation providing 24/7 monitoring and communication services through trained operatives in our control room, ensuring our field staff have round the clock access to log on and off of the remote / lone working system. This combined with our hand-held SPOT devices ensures staff members working in the field have a safe environment to operate in.

Quality

Natural Power has established rigorous procedures and work instructions for all aspects of our business. All staff currently work to a list of core procedures for quality control and business management as part of our on-going commitment to our Quality Management System (QMS).

A totally integrated project management system is used throughout all departments, that includes file tracking and back-up along with resource management, document checking and authorisation, providing a full audit trail for all documents and project activities.

All data and reports are subject to a minimum two stage quality assurance process in line with ISO 9001:2008 procedures where documents are produced by a technical specialist then checked by another specialist before being checked and approved by a senior manager, ensuring a consistently high quality output to clients at all times.

Our asset management, construction and ecology management group, technical services and development consultancy services have all achieved the ISO 9001:2008 certification and Achilles Verify Category B2. Full details of our QMS are available on request.
Environment
Natural Power has internal goals with regards to environmental practice relating to energy use, carbon footprint reduction and recycling. We have had an Environmental Management System (EMS) in place since 2001 and have progressed our EMS to an integrated Quality and Environmental Management System and now hold ISO 14001:2004 certification.

All policies and arrangements are reviewed on an annual basis by our Quality and Environmental Manager and the management team.

The processes required for the Quality and Environmental Management System, their sequence and interaction have been identified along with the criteria and methods required to ensure their effective operation and control. All subcontractors would be expected to work to the Natural Power Environmental Policy Statement; evidence of this is required on appointment. Before each project commences an environmental risk assessment is carried out covering all aspects required for the scope of work.

Disaster recovery
Natural Power recognises the need for our clients’ projects to have robust systems and processes in place to ensure that data, documents and key staff continuity are retained in the event of a major incident.

Natural Power’s electronic Document Management System ensures that project documents are stored in a secure and ordered location on a central server which is backed up regularly to off-site storage.

All emails are archived in a cloud based system which allows recovery of deleted mail and also provides email continuity in the event of a failure of Natural Power’s servers or internet connection.

Hard copies of key documents are stored in a fireproof safe.

Multiple office locations assist in provision of continuity in the event of a major incident, such as fire, affecting any particular location.
what we do

→ Leading independent renewable energy consultancy

→ Analysis, engineering, planning & permitting, environmental, project management and due diligence services

→ Onshore wind, offshore renewables, solar, hydro, renewable heat and grid & infrastructure

→ Established in 1995, 11 offices globally, 340+ staff

For full details on our ISO and other certifications, please visit: naturalpower.com/company