ITPEnergised

Trusted Technical Advisor

Services to the Distilling Industry

"We believe passionately in the world's transition to net zero. We are a team of trusted technical advisors who meet and exceed our clients' aspirations."



In numbers



ITPEnergised



> 75% repeat business



Helped 190 clients achieve carbon targets in 2020



• 65 countries, > 30 developing countries



> 10 locations globally



Directly driving 7 of 17 UN SDGs

7. Clean energy 8. Economic growth 9. Industry and Infrastructure10. No inequality 11. Sustainability 13. Climate action17. Partnership



Our motivated staff are key to us and our clients



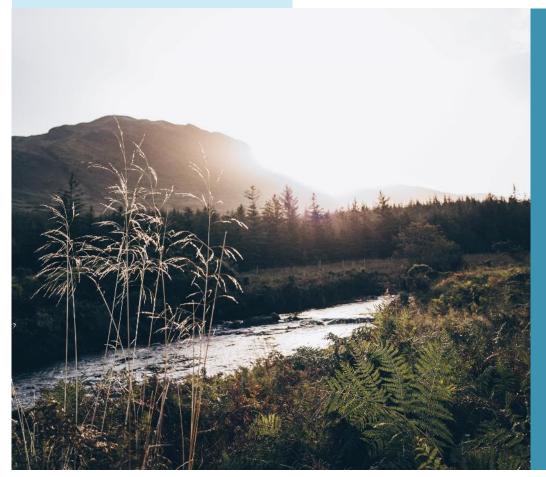
Delivered > 220 RE & storage projects in 2020

Commercially minded & technology-enabled

Passionate about net zero



Our passion



Your net zero and ESG delivery partner:

At ITPEnergised we're passionate about net zero. Our team of industry leading trusted technical advisors meet and exceed our clients' aspirations. Our agile and flexible delivery team works to refine and enable positive changes to environmental, social and governance (ESG) factors and decarbonisation strategies, and to deliver fully practicable solutions.

We work in partnership with our clients to optimise the efficiency of existing assets and facilitate transition to low and zero carbon energy at corporate and site level. In addition, our environmental compliance and impact assessment specialists reduce regulatory/planning burdens and provide exceptional advice and practical solutions.

Sectors:

- Corporate, Industrial & Manufacturing
- Property & Urban Regeneration
- Onshore Renewables & Storage
- > Offshore Wind & Marine Renewables
- Oil & Gas Transition

Expertise:

- Advisory
- Technical Safety and Risk
- Environmental Planning
- Technology
- ➢ P3M

Why we are different



Differentiation



We think outside the box to help you transform your business:

- Understanding your bird's eye view on wider goals and objectives
- Bringing our passion, commitment and focus to your projects
- > Delivering high quality, on time, on budget projects
- Bringing innovation and problem solving solutions
- Being confidently curious in all that we do
- Becoming an extended part of your inhouse team and advisors
- Understanding the commercial implications of technical discovery
- Challenging the status quo where it adds value revenue, cost, time
- > Thinking long term pipeline, portfolio, platform not just one project

How we work with you



Engagement



We think win-win and full project life cycle to help our clients grow:

- We identify relevant trends and innovation:
 - Emerging technologies and future best available techniques
 - Key regulations that drive investment opportunities and risks
 - Market size, growth and behaviour in short and medium term
 - Strategic actions of participants and our network
- > We are then better placed to understand your wider goals
- We provide expert and commercially focused guidance and scientific analysis
- We join the dots with other services that may be of benefit
- We close gaps in expertise needed with our comprehensive network

Our services to the distilling industry



Summary



We recognise that every client's requirements and challenges are unique and so offer a bespoke service according to individual needs.

Our ethos is to identify and work with clients where we can add most value, rather than fitting client predefined systems and processes. Our recent services to distilling industries include:

- Decarbonisation Strategy and Planning
- Net Zero Feasibility Studies
- Energy Efficiency Assessment
- Planning and Environmental Impact Assessment
- Development of Environmental and Social Governance (ESG) strategy and implementation

The following slides illustrate our expertise in these areas and include recent project examples from the distilling sector. We would be pleased to explore decarbonisation and any other environmental challenges with you.



Our Expertise: Decarbonisation - Energy Efficiency



Energy Efficiency



Minimising demand will play a huge part in decarbonisation

Energy efficiency measures can be examined and prioritised according to payback periods and are usually a "no regrets" step towards decarbonisation before renewables are considered. Minimising demand plays a huge part in any net zero journey.

We have experience in carrying out energy efficiency audits across maltings, maturation sites, bottling plants and grain and malt whisky distilleries. We also work to implement ISO50001 Energy Management systems and have achieved yield savings of up 15% for no capital outlay. Example measures include:

- Boiler optimisation and instrumentation / controls
- > Thermo-compressors for stills
- Heat and water recovery across the distillery processes
- Lagging and insulation
- Electric motor variable speed drives
- LED lighting and intelligent control systems
- > Compressed air systems leak minimisation and controls

Our Expertise: Decarbonisation - Optioneering renewables



Renewables Optioneering



Onsite Renewable Energy

Assessment of established renewable energy technologies can be undertaken to evaluate the suitability, both technically and commercially, of one or more energy generating solutions. This can be undertaken for both operational facilities and greenfield developments. Technologies that can be assessed include:

- > Wind
- Solar Photovoltaics & Solar thermal
- > Hydro electric
- Biomass CHP and Heat only
- Heat pumps (water, air and ground)

Storage technologies, both thermal and electrical can also be included. We will work with you to evaluate the solutions most appropriate to your needs and ambitions and provide clear commercially focused advice to meet your objectives.

Our Expertise: Green Distilleries / Hydrogen



Energy Transition



Hydrogen

Hydrogen presents a significant opportunity for the whisky industry as a critical step forward in enabling net zero, particularly for those clients in remote locations and/or with pre-existing grid limitations. Working with trusted partners we can provide:

- Strategic advisory and grant funding advice
- Options identification and assessment
- Technical services during feasibility, design and construction
- Planning and permitting support

ITPEnergised is currently working on a project funded via the Green Distilleries Competition to deploy a Deuterium Dynamic Combustion Chamber (DCC[™]) as a viable mechanism to meet Bruichladdich's heating requirements. This revolutionary technology generates high temperature steam, using only oxygen and hydrogen that is combusted in a vacuum. The process creates only water, which can be recycled and crucially, eliminates emissions of greenhouse gases (CO₂) and oxides of nitrogen and sulphur.

Our Expertise: Environmental, Social and Governance



ESG



ESG

An embedded, value creating and progressive Environmental, Social and Governance (ESG) framework is no longer a nice to have... rather a must have! Effective ESG strategies manage risk, add value and build company resilience. They also create opportunities to benefit from the greening of the distillery sector and the demand from society for more sustainable products.

We work with our clients, helping them to navigate the ESG landscape and develop strategies bespoke to their specific risks and needs, including:

- ESG framework development and implementation
- Climate resilience strategy development including TCFD reporting
- Carbon and offsetting strategy development
- ESG reporting and stakeholder engagement
- Materiality assessments
- ESG footprinting, benchmarking and framework alignment
- Lifecycle and supply chain management

Our Expertise: Technical Safety and Risk



Technical Safety and Risk



Technical Safety and Risk

When developing new sites or transitioning existing facilities to net zero, it is imperative for distillers to ensure and demonstrate that safety, environmental and asset integrity risks are managed effectively and reduced As Low As Reasonably Practicable (ALARP).

Our Technical Safety and Risk team develops and implements robust and proportionate risk management processes to help our clients ensure compliance with legislation and maintain best practices. Our services include:

- Hazard identification (HAZID, HAZOP etc.)
- Physical effects consequence modelling
- Functional safety (SIL, LOPA etc.)
- DSEAR assessments
- > COMAH safety reports

Our Wider Capabilities: Corporate Advisory



Corporate Advisory



ESG & Sustainable Development and Finance

- ESG strategy and performance
- Impact investing
- Stakeholder engagement
- Carbon strategy
- Compliance and diligence
- TCFD alignment
- Benchmarking (CDP, SDGs)
- GHG reporting and verification
- Programme management
- Capacity building and training



Energy and Low Carbon Transition

- Energy management system design and auditing
- Energy and carbon permitting
- Decarbonisation and net zero strategy planning
- Technical and commercial feasibility assessments
- On-site energy generation feasibility
- Energy Performance Certificates
- Behavioural change
- programmes



EHS, Permitting & Compliance

- Applications, variations and surrenders
- Emissions monitoring and assessment
- Air Quality modelling (ADMS, Aermod, Puff)
- Environmental
 Management Systems
- Regulator and stakeholder liaison
- Compliance support
- Improvement conditions



Asset Management & Technical Due Diligence

- Technical asset management
- Financial asset management
- Technical due diligence
- Technical advisory and Client's Engineer
- Solar design



Air Quality & Acoustics

- Odour and Noise monitoring
- Modelling and interpretation
- Liaison with stakeholders
- Odour and Noise control and abatement
- Best Available Techniques assessment and justification
- Cost benefit analysis
- Private nuisance support

Our Wider Capabilities: Environmental Planning



Environmental Planning



Environmental & Social Impact Assessment

- Constraints assessments
- Feasibility, screening, scoping
- ESIA project management
- Regulatory consultation
- Technical disciplines
- Stakeholder engagement
- Public inquiry
- Expert witness

Ecology & Ornithology

- Habitat and botanical survey
- Preliminary Ecological Assessment
- Specialist species surveys
- Biodiversity enhancement
- Habitat management plans

Construction Environmental Management

- Licensing support
- CEMP
- Environmental monitoring
- Habitat management
- Environmental clerk of works
- Ecological clerk of works

Flooding & Hydrology

- Flood risk assessment
- Hydrological assessment
- Peat management
- Surface water management
- Groundwater Dependent Ecosystems

Our Wider Capabilities: Technology and Grid Services



Technology

Engineering

- Technology review
- Engineering review of systems design
- Substation site selection and routing designs
- Cable design including dynamic loading and asset reliability
- Substation layout design
- Grid connection concept
- Micro grid concept costing
- Private wire design

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Power Systems

- Load flow studies and reactive power capability, compensation equipment specification and optimisation
- Short circuit (fault level) equipment rating
- Transient network strength studies and stability (SCR, weak grid)
- Electrical losses assessment and design optimisation
- Grid Code compliance tests, studies and model validation
- Cable rating, including offshore dynamic cable rating
- Network constraint modelling

Development Project Management & Grid Services

- Project design development and management
- Site finding and resource assessment
- Grid application preparation, support and due diligence
- Network connection costing
- Procurement support
- Programme management

Regulation Services

- Licensing, exemptions, regulatory requirements, metering systems, obligations and arrangements.
- Grid connection costs
- System charges (TNUoS, GDUoS)
- Balancing charges (BSUoS)
- Transmission loss multipliers, benefits and credits, underwriting and security requirements.
- Charging arrangements for transmission and distribution connected projects.
- Provision of consultation briefings and responses to help our clients be heard and protect their projects.

Our Wider Capabilities: Technical Safety and Risk



Technical Safety and Risk



Risk Assessment

- Hazard Identification
- Failure Modes and Effects Analysis (FMEA)
- Physical Effects Consequence Modelling
- Qualitative/Deterministic Risk Assessment
- Quantitative/Probabilistic Risk Assessment
- Environmental Risk Assessment



Risk Management

- Risk Reduction and ALARP Assessment
- Bowtie Risk Management
- Process Safety Management
- Functional Safety
- Reliability, Availability and Maintainability (ARM) Assessment
- Safety Assurance
- HSSE/Safety Cases
- HSSE Management Systems

Helping our clients...

...implement the systems (Plant, Processes and People) to reduce the associated risks As Low As Reasonably Practicable (ALARP).



Risk Control

- Asset Integrity Management
- Independent Review and Verification
- Competence Management
- Culture and Behavioural Safety

...ensure these systems work effectively throughout the lifecycle of the asset to support safe, effective and sustainable operation and minimise loss.

...understand what can go wrong and the consequences of this to people, the environment, business, assets and reputation.

Our Wider Capabilities: Project Management



P3M



Project Management

- Setting project brief
- Business case support
- Appointing, leading and motivating the team
- Managing risk, change, finances and progress
- Service agnostic leadership & drive
- Managing progress vs plan
- Procurement and contract management
- Stakeholder management
- Guardians of guidelines and quality
- Controlled project closure & recycling LfE



Programme Management

- Coordinated management of interrelated projects
- Time, resource and capital management
- Matching team & technology to strategic vision
- Providing interdisciplinary input
- Stakeholder management
- Using lessons learned to add efficiency
- Managing relationship between
- projects and programme
- Delivering the big picture



Portfolio Management

- Selection & prioritisation of opportunities through the funnel
- Developing & managing portfolio roadmap and plan
- Establishing suitable governance framework
- Developing portfolio team
- Maintaining whole portfolio overview
- Coordinating interdisciplinary expertise
- Identifying Lessons Learned and harnessing LfE
- Delivering better overall outcomes



Development Management

- Full wraparound service for whole development process
- Holistic whole project overview
- Client's advisor
- Collaborative project brief setting
- Coordinating multidisciplinary teams
- Managing stakeholders, public consultations
- Full appraisal of new opportunities (due diligence, feasibility studies etc)

Client Testimonials



What clients say about us

- "Excellent impressed, added-value, easy to work with" Bruichladdich Distillery
- "The unique nature of this development meant we were looking for people who could adapt their skills to a new environment and were not afraid of learning something new outside of their comfort zone. ITPEnergised proved to be our perfect partner, bringing their established credentials whilst remaining sensitive to the development's peculiar needs" – Shetland Space Centre
- "The engagement throughout has been superb. Advice over the phone and the comprehensive nature of the site engagement was exemplary " Coller Capital
- "ITPEnergised not only delivered the services we needed but they provided added-value in terms of knowledge and contacts to help us to build useful relationships. ITPEnergised were easy to work with and communication was excellent throughout - the team was available when we needed them" - Global Distiller

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ITPEnergised Group offices in:

Bristol, London, Edinburgh, Glasgow, Aberdeen, Lisbon, Madrid, Delhi, Beijing, Canberra and Auckland

Corporate, Industrial & Manufacturing | Property & Urban Regeneration Onshore Renewables & Storage | Offshore Wind & Marine Renewables Oil & Gas Transition

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