

ITPEnergised

Trusted Technical Advisor

Services to the Space 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



ITP Energised



> 75% repeat business



Helped over 250 clients achieve carbon targets in 2021



> 65 countries, > 30 developing countries



> 10 locations globally



Directly driving 7 of 17 UN SDGs

*7. Clean energy 8. Economic growth 9. Industry and Infrastructure
10. No inequality 11. Sustainability 13. Climate action
17. Partnership*



Our motivated staff are key to us and our clients



Delivered > 600 projects in 2021

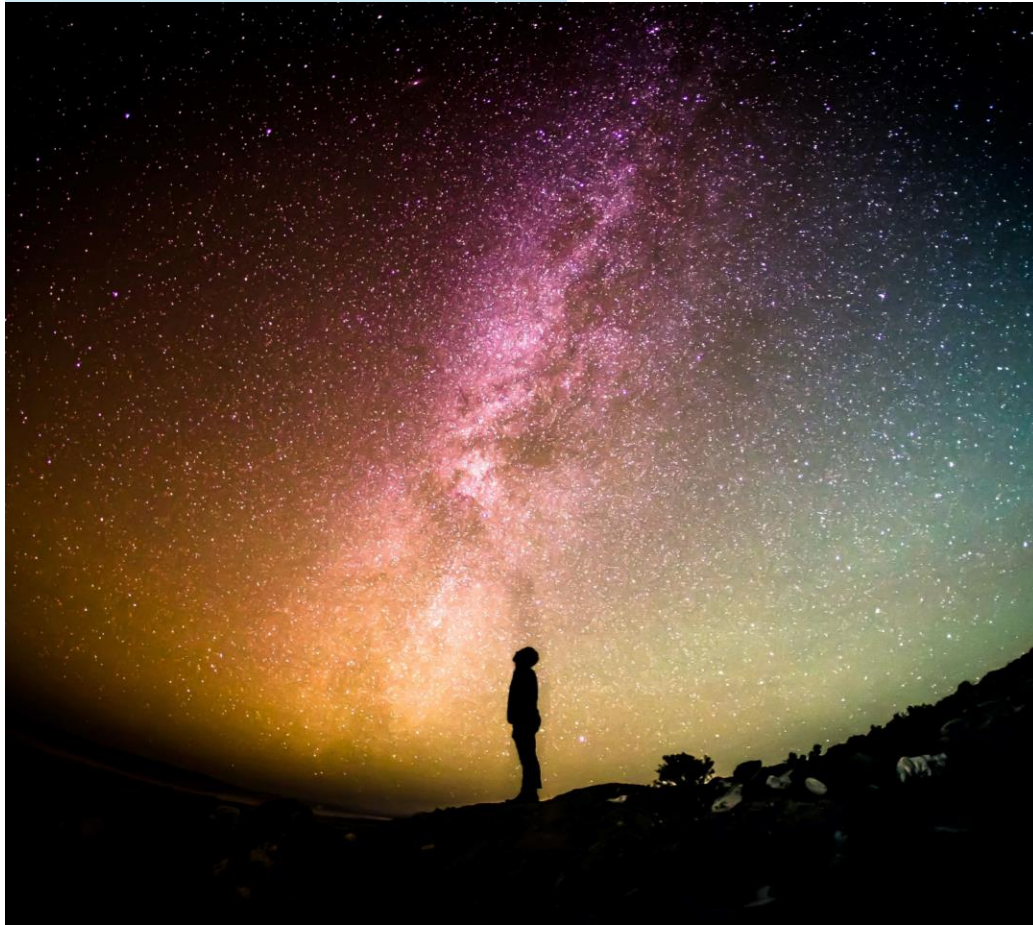


Commercially minded and technology-enabled

Passionate about net zero



Our passion



Your net zero and ESG delivery partner:

At ITP Energised 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
- 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 ITP Energised services that may be of benefit
- We close gaps in expertise needed with our comprehensive network

Our services to the space industry



Summary



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

ITP Energised is proud to be supporting the UK's emerging and fast developing space industry. Our specialist space industry services are offered from a position of direct, recent and relevant experience and draw on our multiple expert teams. We provide support tailored to your unique requirements, from help with individual specialist surveys to complete management of your environmental, planning and licensing processes.

Our ethos is to identify and work with clients where we can add most value, rather than imposing predefined systems and processes. Our services to the space industry include:

- **Environmental Impact Assessment (EIA) - for planning consent**
- **Assessment of Environmental Effects (AEE) – for spaceport and launch operator licence application**
- **Specialist assessments (noise, air, marine, transboundary climate)**

The following pages illustrate our expertise in these areas and more; and include recent project examples from the space sector.



Our Expertise: Environmental Impact Assessment (EIA)

EIA for Spaceports



EIA for Planning Applications

ITP Energised's team has substantial experience in managing EIAs for a wide range of energy and industrial developments, including spaceports. A full EIA package of support may include:

- Consultation with statutory consultees, Screening and Scoping
- EIA project management
- Landscape, Seascape and Visual Impact Assessment
- Ornithology and Ecology
- Marine and Transboundary
- Noise
- Air Quality
- Cultural Heritage and Archaeology
- Traffic and Transport
- Geology and Peat
- Climate Change
- Major Accidents and Disasters
- Defence, Telecommunications and Aviation



Our Expertise: Assessment of Environmental Effects (AEE)

AEE for Spaceports and Launch Operator Licences



Assessment of Environmental Effects

Building from our experience of providing spaceport EIA services, ITP Energised has undertaken and delivered an AEE Report, required as part of the spaceport license application process, for a UK based vertical spaceport. Throughout the process we liaised with the CAA / UKSA to agree our approach on this new and developing type of assessment.

Our AEE covered all principal operational effects of the spaceport using established impact assessment procedures.

ITP Energised has the benefit of direct discussions with the Department for Transport, the UK Space Agency and the CAA on emerging expectations.

Our team can also support with AEE public consultation and post-licensing requirements such ongoing environmental compliance documentation and the discharge of license conditions.

Our Expertise: Specialist Noise Assessment



Noise Assessments for the Space Industry



Rocket Noise

We can help you identify noise assessment requirements bespoke to your project or development, including:

- Baseline noise monitoring and characterisation
- Prediction of rocket engine static testing noise, including directivity
- Compliance monitoring for operational noise (launches and engine testing)
- Prediction and evaluation of construction and traffic noise
- Modelling predictions of launch noise and sonic booms
- Evaluation of launch noise in the context of UK planning and legislative guidance

ITP Energised provided a response to the CAA to the consultation on draft '*Guidance for the assessment of environmental effects*' and has subsequently consulted with the CAA / UKSA on how the guidance should be interpreted.

Our Expertise: Marine & Transboundary and Air Quality Assessment



Marine and Air Quality



Marine / Transboundary Assessment

With our partner network we can examine the effects of returning launch vehicles and jettisoned material and produce bespoke risk assessments for effects on the marine environment (including pelagic fish and cetaceans) within and beyond UK waters to meet planning and licensing requirements.

Air Quality Assessment

Our specialist air quality team delivers modelling and evaluation of novel pollutant sources. In particular for the space industry, we specialise in 'puff model' prediction and analysis of potential carbon monoxide and other emissions from launch events and rocket engine static testing. We can also provide:

- Evaluation of potential road traffic air quality impact
- Construction dust impact evaluation and minimisation
- Construction Environmental Management Plans
- Evaluation of electrical/combustion plant emissions during the operational phase

Our Expertise: Climate Change Assessment



Climate Change



Climate Change

Space infrastructure and hardware is a long term investment, and operators will wish to be assured of their asset's resilience in a changing climatic and meteorological environment increasingly beset by extreme events.

We assess these risks using the extensive range of baseline meteorological data and future climate scenario models produced by the Met Office to inform how design tolerances must be adapted to cope with the "new normal" and potential climate deterioration, in terms of changes to operations and physical resilience measures such as flood water management.

Construction phase and operational greenhouse gas emissions can be calculated to existing methodologies (e.g. GHG Protocol) for compliance purposes under the UK Emissions Trading Scheme where required or ESG-driven carbon footprinting and disclosure requirements.

We also track regulatory requirements in emerging space travel impact areas such as upper atmospheric chemistry effects and transient ozone depletion.

Client Testimonials



What clients say about us

- “I would like to properly extend my thank you to each and every member of the team involved with moving the planning forward. We have had some hard timescales to hit and you have all been outstanding in helping Skyrora get to where we needed to be. So a big thank you from me and on behalf of the company.” – Derek Harris, Business Ops Manager, Skyrora
- “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. ITP Energised 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
- “Excellent - impressed, added-value, easy to work with” – Bruichladdich Distillery



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ITP Energised Group offices in:

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

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Onshore Renewables & Storage | Offshore Wind & Marine Renewables
Oil & Gas Transition

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