

# add energy





### Add Energy Group

Enhancing performance and assuring integrity for operating facilities across the globe



# Why Add Energy?

Add Energy is part of the global independent energy and marine consultants – ABL Group

### Maximize production with less investment

Increase production and avoid downtime with reduced investment to save cost and time

# Achieve performance excellence Exceed increasingly high quality and open

Exceed increasingly high quality and operational execution assurance requirements in the most effective and efficient way possible

### Unlock efficiencies to boost company profits

The efficiency of production wells and production operations are key to profitability; identify and implement efficiency gaining tactics recommended by experts



### Gain full visibility of your true risk profile

Make informed decisions driven by the increasing need to assess and address risk and profitability simultaneously

# Protect your people, business and environment

Implement risk mitigation tactics to preserve integrity and protect your people, the environment, your business and reputation



### Minimize operational expenditure

Supplement operations with specialist expertise only when you need it to remain competitive and effective

### Assure compliance with regulations and legislation

As legislation and regulation requirements become more stringent, rely on experts to assure compliance











Broader service offering, providing allround support, no matter the locations, size or type of project.





# ABL2030 – Sustainability

"At **ABL Group** we recognise that for our business to be successful in the age of climate crisis and energy transition, we must redefine what we do in a genuine way to put sustainability at the centre of all strategy and operations.

We published our first Sustainability Report in our 2019 Annual Report, this was really a statement and vision. A statement of intent with 5 key principals to guide and drive our journey. An outcome of this has been our commitment to achieve 50% renewables or energy transition driven revenues by 2025 and creating the foundation for our Environmental, Social and Governance ("ESG") reporting.

This year's Sustainability Report\* will describe our actions to continually improve the integration of the **United Nation Global Compact** and its principles into our business strategy, culture and daily operations. By including this in our Annual Report to shareholders, we also show our commitment to share this information with our stakeholders using our primary channels of communication.

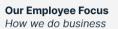
We launched a comprehensive process to establish best practice ESG reporting and to instil sustainability into the culture and forward strategy of the group last year calling it AqualisBraemar2030, I am delighted that I can rename this as ABL2030." \*







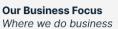






















# ABL Group's Markets







# The ABL Group Family

Through targeted acquisition and organic growth, the **ABL Group** have built a comprehensive family of branded energy and marine consultancy companies offering services that are both complementary and interconnected. This allows our business lines, branded service companies, and expertise to focus closely on delivering technical excellence in engineering and consultancy, loss prevention and loss management.





### **ABL Group**

ABL Group is a leading global independent energy and marine consultancy working in energy and oceans to de-risk and drive the energy transition across renewables, maritime and oil and gas sectors.



### owc

Project development services, owner's engineering and technical due diligence to the offshore renewables industry.



### **East Point Geo**

Expert Geoconsulting organization supporting all sectors; providing efficient client-focused deliverables including data assurance, ground models and quantitative risk assessment.



### INNOSEA

Engineering advisory, verification, research and development, concept development and consultancy for marine renewable energy.



### **Add Energy**

Asset integrity management and operations consultants.



An ABL Group Company

### Longitude Engineering

Independent engineering, design and analysis services for the marine, renewables, oil and gas, defence and offshore infrastructure industries.



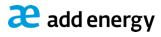
### OSD-IMT

Established in 1989, a specialist ship design house focused on offshore support vessels and clean shipping technology.



### **ABL Yachts**

Supervacht surveyors and consultants.



### A snapshot of our solutions

# Add Energy's capabilities



Asset and Integrity Management Enhancing plant and business performance in the safest and most efficient way possible



Well Engineering and Management
Assure safety, regulatory compliance and efficiency in
your drilling, production and decommissioning projects



Safety and Risk Engineering
Technical assurance of safety and mitigation of risks



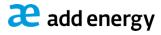
Training and Advisory
Access solutions to enhance performance, reduce cost and assure integrity



Decarbonization and Energy Transition Accelerating your transition to net-zero



Software
Unlock performance improvements opportunities,
optimize costs and assure integrity of your facility



# The management team

# Leading in niches, unique in combination

### Corporate Add Energy Group



Ole B. Rygg Chief Executive Officer



Harald Justnæs
Chief Financial Officer



Terje Løkke-Sørensen Chief Technical Officer

### Business Unit Management



Eduardo Robaina
Well Engineering,
Well Management and Safety & Risk



Peter Adam
Asset and Integrity Management



Morten Emilsen Well Control and Well Kill Support

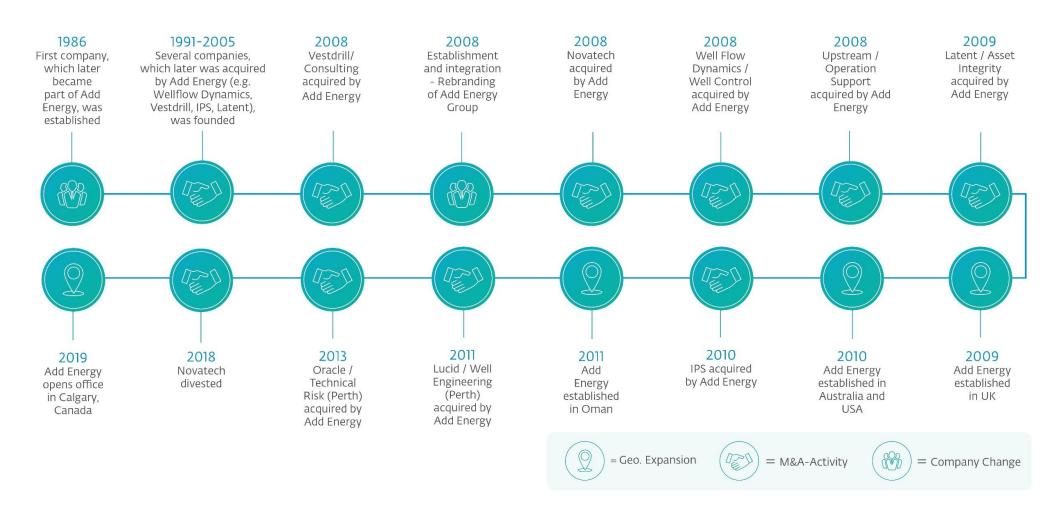






# The formation of Add Energy Group

Created on a foundation of individual energy service companies that each possess specialist knowledge within their niche





# Our key clients

Delivering solutions across multiple sectors, environments and regions

































Oil and gas



Chemicals



Energy transition



Power generation & renewables



Manufacturing



Service companies



Marine



Healthcare





# How we can add value

### Our solutions and services

### **Asset and Integrity Management**

As s et Management
Maintenance Optimization
Business Performance Insights
Master Data Build and Optimization
Inventory Management
Operation and Maintenance Support
Safety Integrity and Risk Management

Well Engineering

WellIntegrity

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Well Management

Well Examination

Well Kill Support

**Production Optimization** 



### **Decarbonization and Energy Transition**

Well Integrity for CCS and Geothermal wells

We II Management and Well Engineering of CO2 storage and Geothermal wells

Safety audits and HSE planning and reviews

Maintenance, Integrity and Inventory Management for Renewable Energy Plants

### The Add Energy Academy

Operations and Maintenance Training Drilling and Well Engineering Training Safety and Risk Management Training Leadership Training eLearning

### **ADDVisor**

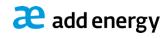
Adhoc Technical Consultancy Support Workshop Facilitation Independent Technical Review Technical Response Independent Technical Studies

### Well Control Blowout Contingency Reservoir and Flow Simulations

**Well Engineering and Management** 

### Safety and Risk Engineering

Safety and Risk Management Technical Risk Evaluations and Safety Cases Assistance with Regulatory Approvals and Compliance Processes HSEQ Training



# Asset and Integrity Management

We combine our award-winning technology and subject matter expert consultants, engineers and data scientists to deliver strategic asset management and performance optimization solutions to:

### Protect your people, plant, and the environment

Safeguard critical assets through implementation of risk mitigation barriers, enhanced competency of your people and compliance with regulations



### Comply with international standards

Gain access to world-class maintenance, materials and integrity standards, strategies and technology developed by one of the largest pools of asset management subject matter experts in the industry

### Boost company performance and profits

Deploy fully optimized maintenance, integrity, and materials management tactics to cut costs without compromising safety and integrity

### Minimize plant and equipment downtime

Assure reliability and availability of your assets by executing maintenance at the right time, with the right materials, no more — no less, derived from independent experts



### Services offered by Add Energy

- Asset Management
- Maintenance Optimization
- Business Performance Insights
- · Master Data Build and Optimization
- Inventory Management
- Operational Support
- · Safety Integrity and Risk Management
- Operations and Maintenance Training

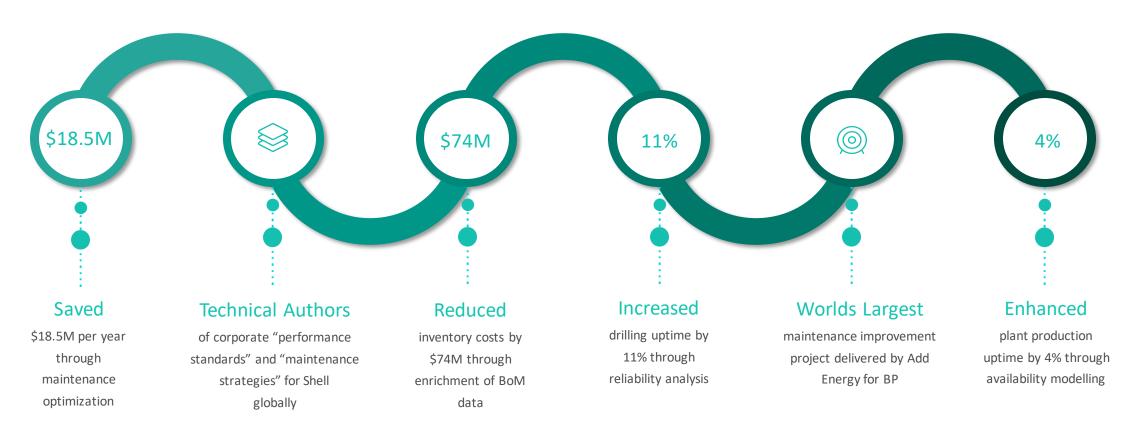
### Software solutions

- RFID Asset Tracking and Management of Change
- Digital Inventory Management Optimization
- Maintenance Data Build and Optimization
- Audit, Verification and Data Collection



# Our experience

Our asset and integrity management experience spans across multiple sectors, including but not limited to oil and gas, power generation, renewable energy, drilling, mining and FPSO facilities. Some of our highlights include:





# Well Engineering and Management

We offer onsite and remote world-class consultancy services and engineering support to enable both onshore and offshore drilling, production and decommissioning projects designed to:

### Assure compliance with standards and regulations

Utilize independent subject matter experts to determine how to assure compliance with international standards and local regulations to mitigate risk, preserve integrity, optimize production, and avoid penalties

### Reduce your carbon footprint

Kickstart, facilitate or accelerate your decarbonization journey by relying on subject matter experts to assess, evaluate, and support the implementation of your carbon reduction initiatives through proven processes and independent verification.

### Protect your people, assets, and the environment

Safeguard critical assets through the implementation of well integrity risk mitigation barriers, effective contingency planning, and enhanced competency of your people

### Minimize well costs

Identify cost saving opportunities derived from decades of experience, design improvements and utilization of proven technology



### Optimize production

Maximize your economic return by identifying and implementing designs and techniques to enhance production through expert assessment and recommendations

### Prepare and respond effectively to the unthinkable

Minimize business, safety, and environmental impact by implementing proven measures to prepare your organization for an incident, and regain control of an uncontrolled hydrocarbon release effectively



### Services offered by Add Energy

- Well Engineering
- Production Optimization
- Well Integrity
- Well Control
- Well Kill Support
- Blowout Contingency Planning
- Reservoir and Flow Simulations
- Independent Verification
- Well Examination
- Well Management



# Our experience

Our well engineering and management experience spans across decades and have been applied globally for onshore, offshore, HPHT, ultradeep-water, highly regulated and remote locations and environments. Some of our highlights include:



# Safety and Risk Engineering

Our safety and risk management experts offer onsite and remote strategic advice, systems and training designed to minimize exposure to risk and management of safety for operating assets within the energy and maritime industries.

### Implement effective barriers of protection

Gain full clarity of your risk profile and implement barriers of protection aligned to your operating environment



### Boost performance and reliability

Assure your critical assets perform when you need them through quality data, decisions and safety barriers implemented and managed by competent systems and people

## Comply with legislation and regulations

Understand what you need to do to comply with legislation and regulations to mitigate risk and avoid penalties

### Create and manage a safety culture and competence

Minimize your exposure to risk and maximize effectiveness through fit for purpose training and competency assurance programs



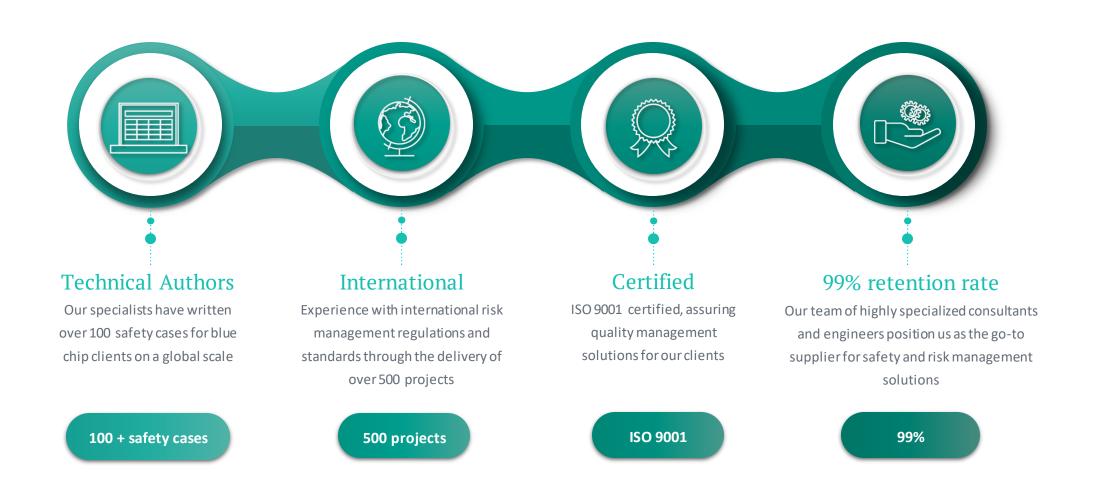
### Services offered by Add Energy

- Development of HSEQ Management Systems
- Assistance with Regulatory Approvals Process
- Risk Assessments HAZID, HAZOP, SIMOP, ALARP workshops
- Technical Risk Evaluation
- Safety Case Development and Assessment
- · Crisis and Emergency Management
- HSEQ System Audits
- Strategic Security Management
- Fire and Explosion Analysis
- Performance Standard Development
- Development of HSE documentation
- Facility Surveys and Audits
- HSEQ Training



# Our experience

Showcasing safety and risk management expertise through proven results and track record





# Decarbonization and Energy Transition

Assure your renewable energy projects are effective or accelerate your transition to net-zero by relying on subject matter experts to assess, evaluate, and support the implementation of your carbon reduction initiatives through proven processes and independent verification.

### Viable Options

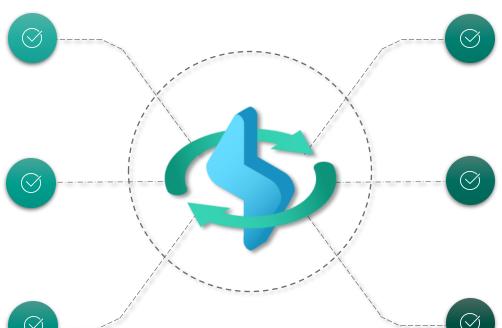
A conclusive business case detailing feasible decarbonization strategies for your business

**Investment Strategy** 

Gain a clear understanding of

the investment requirements for

carbon reduction and how they



### Compliance Assurance

Assure compliance with international standards relating to integrity, decarbonization and asset management

### Cost and Time Efficiencies

Rely on experts to deliver a cost and time effective solution for kick starting or accelerating your decarbonization journey, without impacting day to day operations

### Safety Integrity

Develop and implement decarbonization tactics that assure safety integrity through use of proven processes

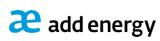
### Services offered by Add Energy

- Technical and Commercial "green energy" Feasibility Studies (cost benefit analysis)
- Review of Existing Infrastructure to Determine Options to Reduce Carbon Footprint
- Well Integrity for CCS and Geothermal wells
- Well Management and Well Engineering of CO2 storage and Geothermal wells
- Safety audits and HSE planning and reviews
- Maintenance, Integrity and Inventory Management for Renewable Energy Plants

### **Project Sanction**

can be optimized

Identify viable options to reduce carbon emissions to get new projects sanctioned and optimize investment

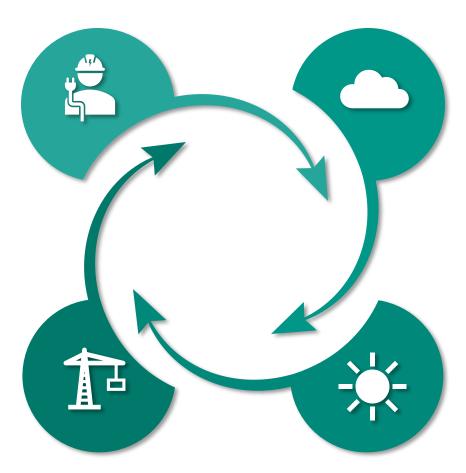


# Our experience

Showcasing our decarbonization expertise through proven results and track record

### Geothermal

Experience in delivering well planning end execution concepts for geothermal wells



### CCS

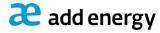
Currently delivering concept and well specific evaluations for CO2 storage

### Biomass and waste to energy

Extensive experience of delivering asset management, maintenance, integrity and materials management regimes for multiple renewable energy power plants

### Solar and Microgrid

Experience of developing asset management strategies and systems for microgrids generated by solar power



# The Add Energy Academy

We offer learning and development programs, tailored to different levels in an organization, from leadership to front line workers, delivered online and in-person, guaranteed to:

### Cost-effective

Our subject matter expert instructors offer a cost-effective and proven solution to enhancing the knowledge and skills of a workforce

### Assure an ROI

We verify learning through instructor led testing and assignments to assure merit

### Optimize spend

We can conduct competency gap as sessments to identify risk and determine where investment should be made to assure ROI



### Offer versatility

We provide training tailored for different levels within an organization to enhance the relevance and the overall learning experience

# Align to your business

We can align and develop learning materials to your company standards, goals, procedures, and local regulations

# Assure contingency and preparedness

We can identify future knowledge requirements and develop road maps to avoid loss of experience and skill



# Course topics offered by the Add Energy Academy

- Operations and Maintenance
  Training
- Drilling and Well Engineering Training
- Safety and Risk Management Training
- Leadership Training
- E-learning



# **ADDVisors**



We offer face-to-face and remote adhoc technical guidance, studies, assurance, verification and advice ranging from a 1 hour video conference to workshop facilitation and project consulting to gain support for an immediate issue or a business improvement initiative. Our ADDVisor solution will enable:

# Access to expert advisory across multiple functions

Access a pool of consultants, subject matter experts, technical authorities and seasoned engineers across different facets of a business, including asset management, process safety, risk management, drilling, well engineering, well management and energy transition.

# Independent expertise and verification

Utilizing expert knowledge and invaluable insights gained from decades of experience, our ADDVisors can offer guidance, validation and verification on existing initiatives or consultancy advice to identify and implement optimization opportunities.



# A cost effective solution to manpower and expert needs

Choose when you need support, how long for, what type of support you need and what you need us to do to meet your project and business objectives in the most efficient and cost effective way possible.

### Guaranteed results

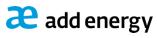
Being able to utilize a flexible ad-hoc service as opposed to recruiting additional resources. We enable our clients to have full control over the duration and support deliverables required, assuring spend is minimized.

### **ADDVisor topics**

- Asset management
- Maintenance and materials
- Integrity management
- Process safety
- Risk management
- Drilling
- · Well design
- Well engineering
- Well management
- Well integrity
- Blowout contingency
- Well kill
- Decarbonization
- Energy transition
- Production optimization
- Decommissioning

### ADDVisor support methods

- Hourly remote advice
- Workshop facilitation
- Technical reviews
- Technical response
- Technical studies



# Our software and hardware solutions

# Our commitment to innovation

Collaborating with experts to revolutionize the way businesses operate



Add Energy's innovation experts utilizes decades of experience to design technology solutions that help businesses drive performance and minimize risk.

As a consultancy and engineering business we are uniquely positioned to gain access to insights into challenges plant operators and businesses face, enabling us to research, design and develop software and hardware solutions that are capable of solving real-world industry challenges.

We work in collaboration with industry and academia to assure our solutions are at the forefront of technology and innovation. Our affiliates include:



### Academia

The University of Salford who specialize in developing world-class software engineers and cyber security systems



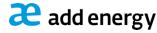
### Industry

Oil and gas operators, power generation facilities and subsea hardware manufacturers including Shell, Uniper, Stena Drilling, SBM and Trendsetter Engineering



# Government and industry organizations

Knowledge Transfer Partnership, Innovate UK and Step Change for Safety



# The value our software delivers

Solving problems and enhancing experiences through the development of innovative technology



### Safety assurance

Using analytics and insights to help businesses identify and mitigate risk

### Business efficiencies

Harnessing technology and data to unlock opportunities to save time and money

### Production and profitability

Gaining access to the insights required to optimize performance and mitigate non-productive time

### Environmental protection

Channelling data insights to make informed decisions to reduce the environmental impact of operations

### Contingency and control

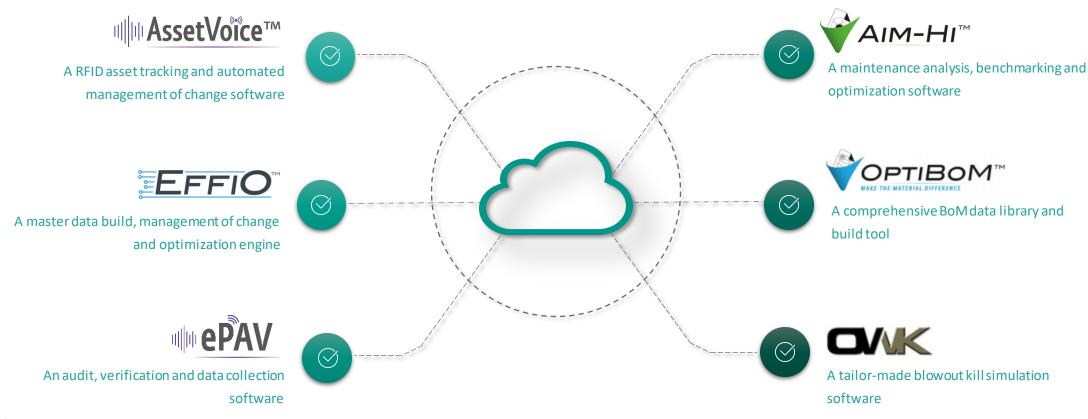
Optimizing response time and minimizing impact during a hydrocarbon release



# Our software



Our suite of award-winning software has been designed to improve the interface between people and data, harnessing machine learning and industry 4.0





# Our hardware

Cutting edge engineering and hardware with dual functionality

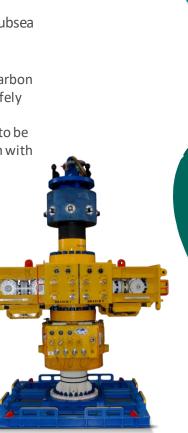


Add Energy, in collaboration with Trendsetter Engineering, has designed and built the worlds only single relief well kill hardware, the RWIS (Relief Well Injection Spool).

The RWIS is a patented specialist subsea hardware that enables:

 Rapid control and kill of a hydrocarbon blowout via a single relief well safely and effectively

 Completion size of the well bore to be increased, to increase production with less resource



### Quadruple well kill injection rates

Pumping in excess of 200 barrels of kill mud per minute through a single relief well, four times as much kill fluid as typically achievable



To comply with legislations and regulations to assure projects are sanctioned

### Increase production

Increase the size of your completions bore to maximize well flow and enhance production through access rights to the RWIS

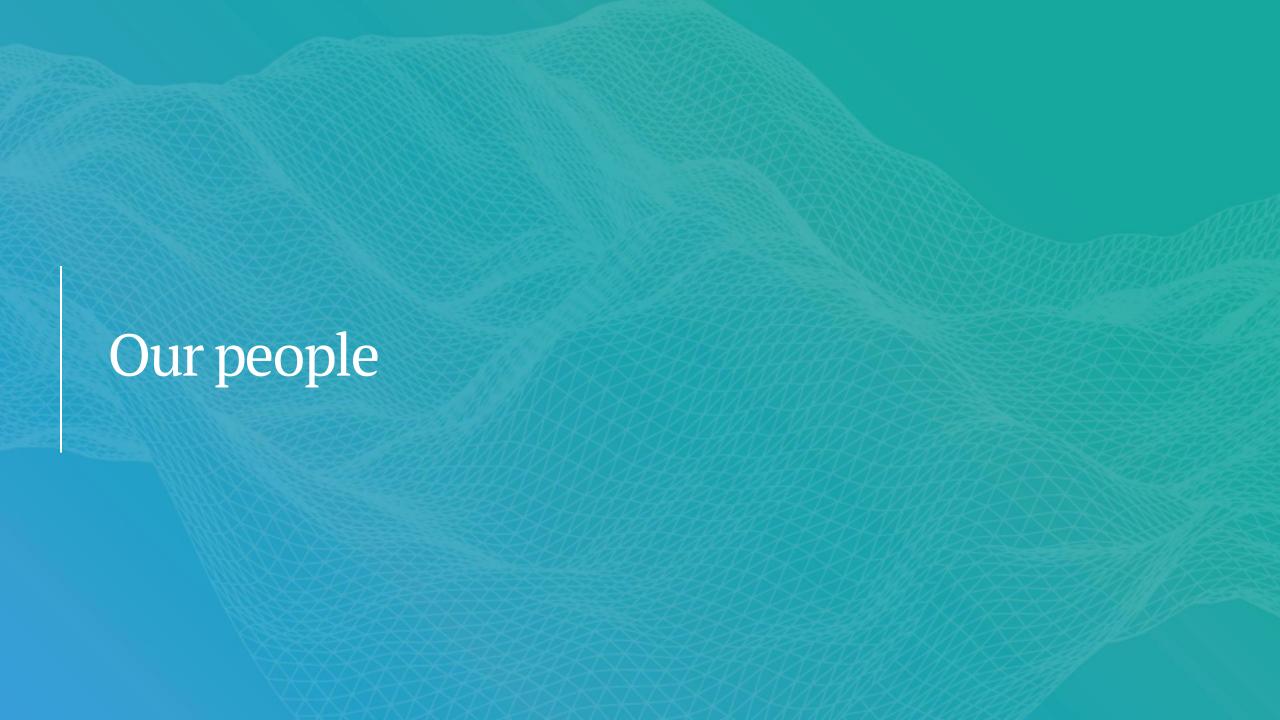


Reduce construction costs by reducing the number of wells required to meet your production target









# Expertise and experience



A global team of 175 technical experts with over 2,500 years of experience combined. Our team comprises of:



### **Technical and Engineering Specialists**

- Technical Authorities, Subject Matter Experts and ADDVisors
- Consultants
- Senior Engineers
- Engineers and Graduate Engineers



### Data, Technology and Innovation Specialists

- Data Scientists
- Data Analysts
- Software Engineers
- Research and Development Specialists
- Technical Assistants



### Leadership and Business Support

- Executive Vice Presidents
- Vice Presidents
- Business Development and Marketing
- Project Support and Document Control
- Finance and Administration

### Corporate highlights



30 + years of experience in well engineering and drilling operations management



70 + maintenance, integrity and materials management experts located across the globe

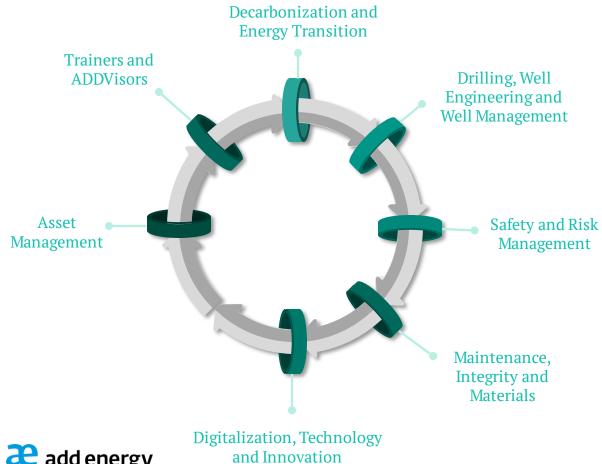


80+ well kills and investigations, including being senior advisors for the Macondo, Montara, and Elgin Franklin blowouts



# One team, one progressive energy

One team with a shared vision who are progressive forward-thinking people that are energized to deliver across multiple facets:



### People highlights



Extremely low employee turnover with half of our work force being with us since the original companies' inceptions



A workforce of highly competent and educated personnel possessing PHDs, Masters and **University Degrees** 



90% of our business is repeat business, delivered by loyal people for loyal, and satisfied customers

# Our credibility and track record

# Client testimonials



### **Client: BP**

"Plant reliability is one of the most noticeable outputs of this project; not only are we setting record reliability statistics, but we are achieving this with optimized levels of maintenance, done at the right time, in a globally consistent manner."

Damien Dunne, Director of Maintenance



# **Client:** US Federal Court for the Macondo/Deepwater Horizon Investigation

"The court found Mr. Emilsen (Add Energy's Blowout Specialist) generally credible and believes that his modelling was accurate"

**Judge Barbier, Macondo Federal Court Case** 





"I'm very pleased with the process and the high quality of the report. Several very interesting and pertinent points that will highly benefit our organisation and our ability/willingness to continuously improve."

**Alex Schneider, Chief Operating Officer** 



**Client:** Woodside

"Add Energy has been a great partner for Woodside throughout the year and that is always due to good people working to do the right thing"

**Gary Jones, VP Drilling and Completions** 



# Our credibility and achievements

### Our credentials

- Delivered solutions in every region of the world
- ✓ Over **2500** projects delivered since our formation
- ✓ Transferred expert knowledge and proven processes to 15+ green energy production projects
- ✓ Providers of the world's largest asset management improvement project
- ✓ **Co-developers and designers** of an offshore CCS hub in Australia
- ✓ Winner of the prestigious Queens Award for International Trade
- ✓ An award-winning software innovation and development team
- ✓ **Trebled** our workforce over a period of 12 months

Delivered over 2500 projects

15+ green energy projects

Worked in every region of the world

### Our results

- ✓ Increased Oil production by over 50% through well modifications recommended by Add Energy
- ✓ Written over **100** safety cases for blue chip clients
- Reduced inventory costs by \$74M through enrichment of BoM data
- ✓ Increased drilling uptime by 11% through reliability analysis
- ✓ Identified ability to generate \$1.29M per year, per well through repurposing to Co2 storage
- Enhanced plant production uptime by 4% through availability modelling

Increased production by 50%

Reduced costs by \$74M

Over 100 Safety Cases



# Get in touch

Ole Rygg

Email:ole.rygg@addenergy.no





# Add Energy Office locations



STAVANGER, NORWAY



**OMAN, MUSCAT** 



HOUSTON, USA



PERTH, AUSTRALIA



**OSLO, NORWAY** 



ABERDEEN, UK



CALGARY, CANADA