



Putting our energy into
safe, predictable &
sustainable solutions

Capability and Experience



PD&MS Decommissioning Offering 2024



About Us



PD&MS has been engineering solutions in the energy industry and beyond since 2002.

PD&MS was established as an engineering company specialising in brownfield topsides and drilling facilities modifications and upgrades. More than 20 years on, our ability to combine innovative ideas with technical expertise still sets us apart.

We keep growing in stature and scope too, having acquired Synergie Environ and Optimus Plus (Aberdeen), thereby adding specialist engineering, consultancy, low-carbon and cleantech knowledge to our existing expertise in the EPCC space.

In 2023, we confirmed our acquisition by RSK Group – a global leader in the delivery of sustainable solutions. This further boosted our ambition to be at the forefront of producing creative, practical answers for the biggest challenges that businesses now face.



At PD&MS, we're determined to help drive the change that our world needs to see.

To support current and new customers to be part of the energy transition, through future-friendly solutions. And to ensure that we're looking after people, partners and the planet to the best of our abilities. Our innovative engineering and technical expertise has already enabled clients to provide power that's more cost-effective, sustainable and secure. Now, with our team's vast experience in the energy industry behind us, we're perfectly placed to play a leading role in the challenges that lie ahead.



About Us/Overview

2002

Founded in 2002, in Azerbaijan since 2013.



Mid Value Capital Projects, Modification & Upgrade Specialists.



Late Life Asset Management & Decommissioning Specialists.



Head office in Aberdeen. Office in Baku, Azerbaijan which services our projects in the Caspian Region.



Tier 1 Assurance at Tier 2 cost.



Our management Systems are certified By LRQA to ISO 9001:2015, ISO 14001:2015, ISO45001:2018 and ISO/TS29001:2011.



Transforming how modifications are delivered adding to decarbonisation, clean tech, low carbon expertise.



Full multi-discipline O&M and EPC capability.

650

650 onshore engineering and support personnel globally.



Sizeable offshore construction and commissioning personnel.



FPAL and SEQual verified.



Production Facilities, Drilling Facilities, Onshore Facilities.



We are proud of our HSE performance but recognise there is no room for complacency.

13

Excellent safety performance. 13 years without a lost time safety related incident (LTI).

11.5m+

11.5 million+ value adding onshore and offshore exposure-hours have been liquidated.



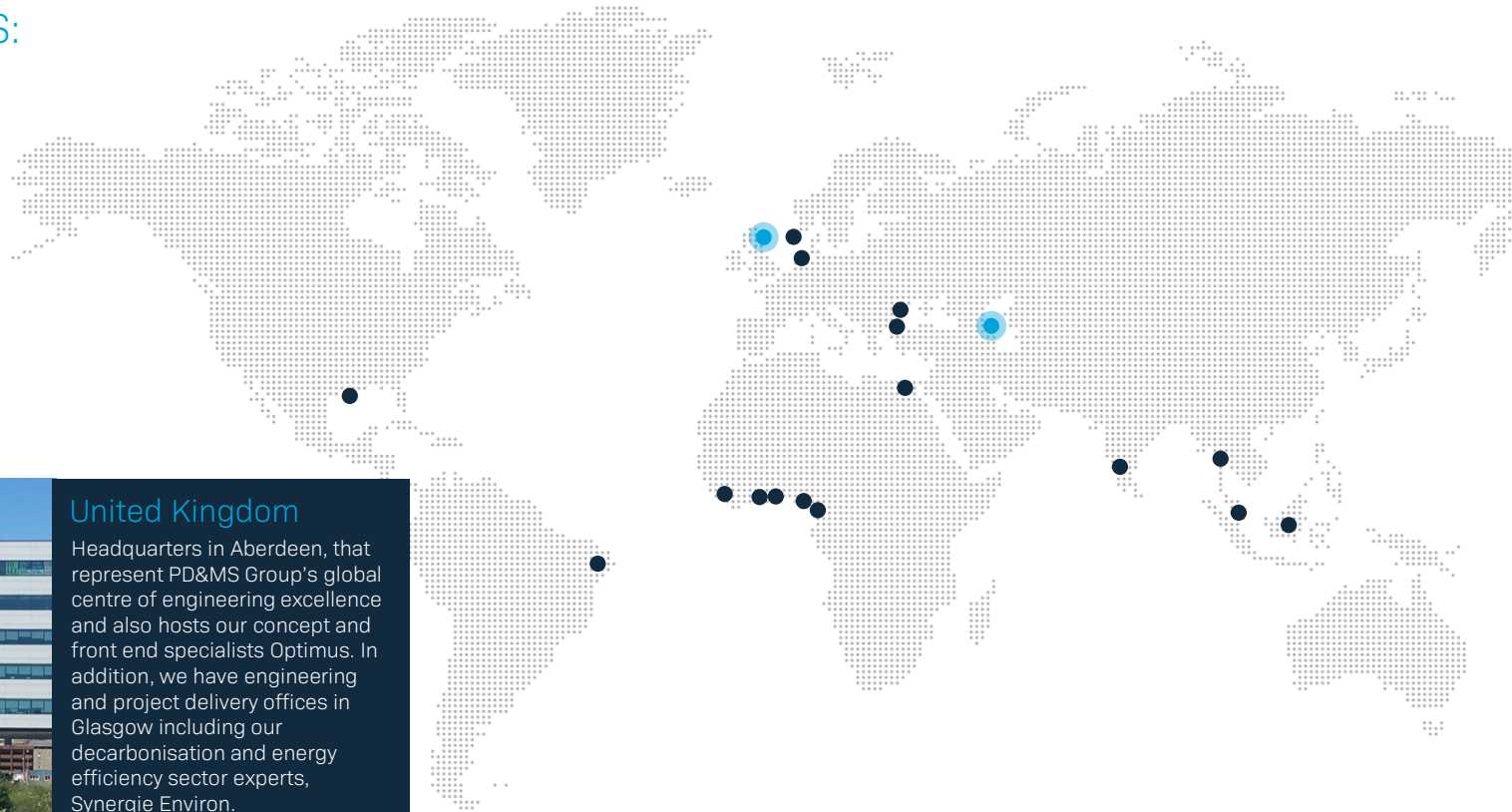
Continually challenging convention to make our operations as green as possible.



About Us / Locations

HEADQUARTERS: ABERDEEN

- Operational offices
- Working locations



United Kingdom

Headquarters in Aberdeen, that represent PD&MS Group's global centre of engineering excellence and also hosts our concept and front end specialists Optimus. In addition, we have engineering and project delivery offices in Glasgow including our decarbonisation and energy efficiency sector experts, Synergie Environ.



Azerbaijan

Regional Office in Baku delivering Engineering, Procurement Construction and Commissioning services in Azerbaijan, Georgia and Turkey (AGT), Eastern Europe and the Middle East.

PD&MS Decommissioning

In the domain of decommissioning, PD&MS offers a scalable and tailored proposition that's fit for purpose and allows us to take responsibility for key activities, from initial safety case compliance and SECE reduction through to additional support activities such as the remote monitoring of warm and cold stacked assets.

Our engineering team plays a significant part in supporting preparation for decommissioning, with a typical suite of activities covered by their capabilities.

PD&MS has vast experience in late-life management and decommissioning, spanning a multitude of phases and tasks. Our multi-skilled team consists of a wide range of experienced specialists with extensive operations and decommissioning experience, both as operators and as engineering services providers.



What to expect from PD&MS

Our assistance has spanned a multitude of phases and tasks, including:

- Green decommissioning strategy (in line with NSTA requirements)
- Abandonment support
- Interface with operations teams and other stakeholders
- Provision of production personnel and deck crew
- Pre-NUI and NUI (NNA) interface
- Provision of temporary power generation
- Inspection, maintenance and anomaly management
- Facilities make-safe
- DFPV Support Engineering Down & Clean
- Carbon assessment of decommissioning operations
- Preparation of topsides
- Separation of modules (process and utilities)
- Installation of temporary utilities
- Facilities – topsides removal pre-works
- Structural separation for removal preparation
- Removal vessels and HLVs
- Site remediation and monitoring lighthouse mode/NUI preparation



Late Life Operations and Decommissioning Services

At PD&MS we offer a wide range of services within Late life Operations and Decommissioning.

Services we provide:

- Late of field extension
- Late life asset cost and energy optimisation, and emissions reduction
- Decommissioning preparation and removal services
- Full decommissioning package management
- Shutdown phasing
- Reactivation of drilling facilities for P&A
- Joint service Operator (JSO) – full operations management of late life assets





PD&MS Decommissioning

Experience

Case Study: Allseas Ninian North Topsides for Decommissioning

Allseas Ninian North

Topsides for
Decommissioning

DURATION: 26 Weeks

VALUE: £1.7 Million

KEY ACHIEVEMENTS:

- Overall project saving of 40%
- Project delivered against an aggressive fast-track schedule
- Engineering and construction delivered in parallel
- Over 15,000 direct person-hours liquidated with no LTIs

The Operator and client provided positive feedback in recognition of PD&MS and how the team's work resulted in an overall project saving of 40%.

SCOPE:

- The Ninian North Platform formed part of a three-platform facility in conjunction with Ninian Central and Ninian South located in the East Shetland Basin. It was a combined drilling, production and accommodation platform.
- The Ninian North Topsides Removal Preparation Project consisted of completing all necessary modifications to facilitate the topsides removal by Allseas' Pioneering Spirit Heavy Lift Vessel. This fast-tracked project commenced in November 2017, with engineering and implementation completed by April 2018.

KEY CHALLENGES:

- As a fast-tracked project, time was particularly tight on the Ninian North Topsides Removal Preparation Project
- The delivery of fabrications was required in a short time frame and offshore implementation was unfortunately severely restricted by adverse weather from November 2017 to January 2018. Additionally, the work scope also grew as the project unfolded, with the client continuing to mature their design
- However, remaining agile and with onshore and offshore personnel closely collaborating throughout, the PD&MS team was able to work around these challenges and ensure the work scope and its additions were completed on schedule.





Case Study: Spirit Energy DP3 and DP4 Decommissioning Services

Spirit Energy

DP3 and DP4
Decommissioning Services

DURATION: 15 Months

VALUE: £16 Million

SUMMARY:

Provision of engineering, project management, and offshore services to prepare DP3 and DP4 topsides for lighthouse mode and future removal, including full decommissioning services support, and the provision of intervention teams to operate the asset alongside Spirit Energy as the Joint Services Operator (JSO)

The Operator and client provided positive feedback in recognition of PD&MS and how the team's work resulted in an overall project saving of 40%.

SCOPE:

- PD&MS began working with Spirit Energy by supporting them through financial investment decision gate into detailed design. This was followed by PD&MS providing detailed onshore engineering, Safety Case updates and the simultaneous execution of preparatory scopes on Normally Unmanned Installations before providing all support services offshore during a one-year drill rig campaign to plug and abandon platform wells and two remote subsea wells.
- The mindset of the project is 'design for decommissioning', and throughout the engineering phase, the team was encouraged to challenge the traditional approach. Approved and empowered by Spirit Energy, PD&MS provided Project Engineering Authorities across key technical disciplines to oversee the engineering design.

SCOPE OF WORK ACTIVITIES:

The DSC contract initially entailed the following core activities, oriented toward taking the DP3 and DP4 assets to a safe state, ready for the removals contractor:

Asset integrity scopes

Ensuring the platform's secondary and tertiary steelwork and any ancillary is in a suitable condition for safe access up to and throughout the achievement of global isolations and lighthouse mode. This activity also considers any dropped objects or anomalies which would have the prospect of introducing risk to topside removal within the two years from lighthouse mode to removal.





Case Study: Shell Brent Alpha Decommissioning

Shell

Brent Alpha Decommissioning

DURATION: 12 months

VALUE: £10 Million

KEY ACHIEVEMENTS:

- Extensive below-deck rope access work scope
- Installation and welding of twelve number bearing blocks with zero defects
- Scope of work completed on schedule

PD&MS received excellent feedback from Shell representatives regarding its safety record, QHSE performance and offshore supervision throughout the project.

SCOPE OVERVIEW:

Management and delivery of full appraise, define, execute, implementation, commissioning and close out of the MLXP Project.

THE SCOPES INCLUDED:

- Conductor cutting and removal
- Riser cutting and removal
- Installation of a temporary generator
- Modular Drilling Unit (MDU) installation
- Seawater and firewater caisson guide installation
- BA-BB power cable and umbilical removal
- BAR riser removal
- 20" gas riser removal
- 16" western leg riser removal
- 18" service water line removal
- NavAids installation

KEY ACHIEVEMENTS:

- Extensive below-deck rope access work scope
- Installation and welding of twelve number bearing blocks with zero defects
- Scope of work completed on schedule





Case Study: BP Clair Carbon Management and Reduction Plan

BP Clair

Carbon Management
Reduction Plan

DURATION: 3 months

VALUE: £30,000

KEY ACHIEVEMENTS:

- Identified a potential 120,681 tonnes of CO₂e savings, predicted to save between £2M and £13M per year, depending on fuel prices.
- Targeted scope 1 emissions through identifying ways to reduce energy generation systems on board the asset.
- Implementation of offshore wind to power the asset accounted for a potential saving of 60% of overall emissions.
- Other options which involved a direct reduction in scope 1 emissions included a load reductions opportunity study, water source heat pump, and a lighting replacement scheme.
- Viability of SCR (Selective Catalytic Reduction) assessed, which could potentially reduce NO_x emissions by 90%.

SCOPE:

As part of BP's ambition to be a net zero organisation by 2050 or sooner, BP appointed SEL to carry out a Carbon Management and Reduction Plan (CMRP) on Clair Phase 1.

SEL conducted a comprehensive study to assess the emission baseline for a BP owned asset in the Clair oilfield, Clair Phase 1. This included mandatory scope 1 and 2 emissions, plus scope 3 emissions associated with personnel transfer and support vessels.

From this study, SEL identified and carefully evaluated opportunities to reduce the carbon footprint, and to improve the energy efficiency of the Clair Phase 1 asset. These potential improvements could lead to significant environmental and operational benefits.

ENVIRONMENTAL IMPACT:

The CMRP developed by Synergie Environ has allowed BP to plan and prioritise their wider environmental, social and governance (ESG) strategy implementation as part of their road map to net zero by 2050. Moreover, it equips BP with the necessary insights to explore potential avenues for minimizing emissions across all their owned assets.

CLIENT VALUE:

We received excellent feedback from BP, who noted that the independent verification of the asset's carbon baseline was extremely valuable for credibility of reporting.





Case Study: Well Safe Solutions Carbon Management and Reduction Plan

Well Safe

Carbon Management Reduction Plan

DURATION: 6 months

VALUE: £56,000

KEY ACHIEVEMENTS:

- Identified 4,000 tonnes of CO2e savings, and a 20% reduction in NOx emissions. Carbon tax savings worth £200k-£300k per year.
- Provided business case for load reduction assessment, battery storage systems, electrical motor improvements and various heat recovery opportunities.
- A range of recommendations for Well-Safe to better control and reduce scope 3 emissions, such as internal data gathering advances, and improvements to their supplier selection process.
- Technical optioneering of items such as sustainable fuels and support vessel engine upgrades
- Energy efficiency and onsite generation by photovoltaics assessed for onshore head office.

SCOPE:

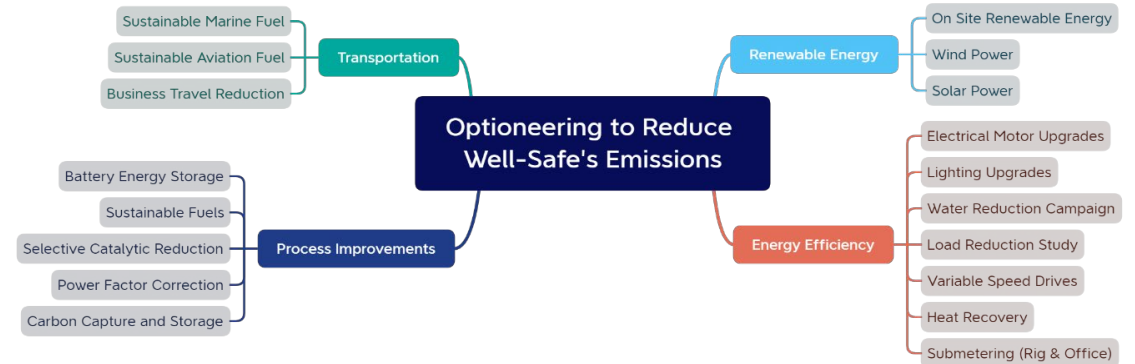
Synergie Environ conducted a comprehensive study to assess Well Safe's emission baseline, against which potential improvements could be compared. This included mandatory scope 1 and 2 emissions, plus scope 3 emissions associated with business travel, personnel transfer, and support vessels.

Potential opportunities were identified and evaluated to reduce the overall carbon footprint and optimise energy efficiency of all Well Safe assets, including the *Well Safe Guardian*, *Well Safe Protector*, and *Well Safe Defender* plugging and abandonment assets, as well as the company's Aberdeen headquarters.

A full site survey of the *Well Safe Defender* was conducted in port. A range of options for future improvements were then assessed and the most beneficial opportunities were presented as an action plan, with recommendations tailored for each asset.

ENVIRONMENTAL IMPACT:

The CMRP developed by Synergie Environ has allowed Well Safe Solutions to plan and prioritise their wider environmental, social and governance (ESG) strategy implementation, as part of their road map to enabling enhanced delivery of well plugging and abandonment for its clients.



Case Study: Spirit Morecambe Hub – Repurposing and Decommissioning Strategy

Spirit Energy

Repurposing and Decommissioning Study

DURATION: 4 months

VALUE: £63,000

KEY ACHIEVEMENTS:

- Fulfilled NSTA requirements under Stewardship Expectation 11.
- Examined potential for onshore green hydrogen generation
- Examined potential to utilise land or repurposed rigs for wind farm infrastructure, and for using the onshore terminal area for wind or solar PV installations following a planned upgrade to the local electrical substation.
- Strong ESG policy recommended, and to ensure that scope aggregation was made a high priority.
- Various ports evaluated for logistical and environmental merits, and various technologies for energy-efficient decommissioning operations were explored.

SCOPE:

As part of the Spirit Energy ambition to be a net zero organisation and satisfy the NSTA Net Zero Stewardship Expectation, Synergie Environ was appointed to provide a report analysing potential repurposing options and methods of decarbonising the decommissioning process of the SE assets at Morecambe Bay hub. These assets included offshore platforms and onshore terminals.

Synergie Environ conducted a comprehensive two-part study which looked to firstly identify reuse and repurposing options for the Morecambe Bay assets and their various components, and then secondly to review the decommissioning process and identify options to decarbonise the process through different techniques or new technologies.

ENVIRONMENTAL IMPACT:

The carbon reduction options proposed by Synergie Environ has allowed SE to plan and prioritise their wider environmental, social and governance (ESG) strategy implementation with regards to the decommissioning of these assets. Moreover, it equips SE with the necessary insights to explore potential avenues for minimizing emissions across all their owned assets and start to seek collaboration opportunities with other sectors.



Thank you for your time

We welcome any questions



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