

Introducing Petrofac

Petrofac is a leading international service provider to the energy industry. Around 10,700 Petrofac people support our operations in over 29 countries worldwide.

IDENTIFY

APPRAISE

SELECT

DEFINE

EXECUTE

OPERATE

ABANDON

We provide a complete spectrum of services across the life cycle of oil and gas assets that help our clients unlock value; from project start-up to late life asset management (LLAM), abandonment, decommissioning and everything in between. Whether projects are onshore or offshore, greenfield or brownfield, we have the skills, capabilities and experience to drive efficient and value-focused outcomes.

Our extensive track record spans three decades and includes the completion of a number of high profile multi-well plugging and abandonment and well decommissioning campaigns. Our operations and engineering teams have led various discrete topsides preparatory and decommissioning works. And, as Duty Holder we have helped clients drive down OPEX in preparation for Cessation of Production, as well as overseeing eventual decommissioning, dismantling, removal and disposal. In a world where service companies are talking about decommissioning, Petrofac is delivering.

We believe that distinction is important. The knowledge amassed through our operations and projects, uniquely places Petrofac to develop a safe and technically robust execution plan underpinned by commercial frameworks that provide surety of cost. This includes lump sum execution elements.





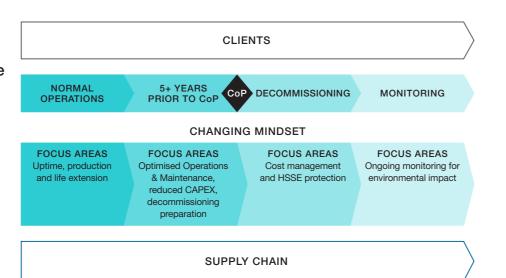
Our approach

At this end of the asset life cycle, we understand that the focus on cost and schedule is more acute than ever.

With our 'operations' mind-set and an appetite for challenging the norm, we have a proven reputation for delivering safe and fit-for-purpose outcomes.

As a long-term provider of UK Duty
Holder, Pipeline Operator and Well
Operator services, from operations
into decommissioning, we maintain
full capability for health, safety and
environmental protection. Our competence
spans occupational, industrial and
process safety relevant to Operations &
Maintenance (O&M) and Engineering &
Construction (E&C) through to regulatory
compliance and we maintain positive
relationships with regulatory bodies.

Our technical safety specialists will prepare safety cases and undertake risk assessments and studies across the life of an asset, including decommissioning. Our environmental specialists are responsible for Oil Pollution Emergency Plans and we can also manage specialist scopes such as decommissioning programmes, comparative assessment, environmental impact assessment, risk analysis, and waste management duty of care.





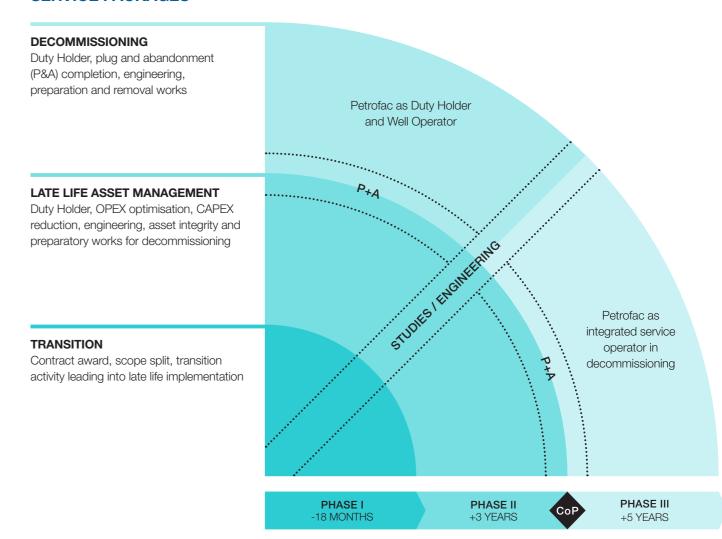
their journey: whether that's at project start up, or through ongoing and late life operations into decommissioning.

We have the capability and experience

to help existing and new clients on

Mature basins require new service sets and approaches; as the project phases evolve, so too do the business drivers. We strive to maximise economic recovery, extend asset life and set in place the enablers for effective decommissioning. We believe this is a two-step process, from LLAM into eventual decommissioning.

SERVICE PACKAGES



6 DECOMMISSIONING

Our services

We look to bring new solutions to the decommissioning market by challenging traditional methodologies to help us improve schedule and provide our clients with cost certainty.

Our strength lies in our proven project execution capability with project-led operations, combined with our strong Group capabilities.



DECOMMISSIONING STRATEGIES

We tailor our decommissioning solutions to provide targeted support aligned to our clients' asset strategies.

As decommissioning services provider, our role is to match the solution to the challenge, tackling these on our clients' behalf, in the safest, most efficient, and predictable method possible.

Early engagement is key to the successful execution of any project. By working with operators to eliminate waste and inefficiencies we can support the reduction of end of life OPEX and ABEX through manpower optimisation, maintenance simplification and implementation of our onshore support hub.

We can also take a 'park and defer' approach, where we establish effective de-manning and remote intervention strategies, including safety case management, for assets where a decommissioning strategy is yet to be fully defined.

Through our successful delivery of decommissioning projects, Petrofac has developed a range of early-interventions and cost-effective measures to reduce the overall cost of decommissioning throughout the project life cycle.

Our decommissioning strategies are complemented by innovative commercial models that are aligned to our clients' requirements. Using these strategies, Petrofac has developed and executed lump sum brownfield projects and well decommissioning and is leading the industry's challenge to reduce the overall cost of decommissioning by 35%.

ENGINEERING

Our engineering capability supports clients at concept and feasibility stage, delivering decommissioning studies covering power generation, structural analysis and lifting analysis. Decommissioning cost estimates can be prepared using an in-house software tool that allows for easy comparison of competing asset retirement technologies.

Petrofac has a strong track record in technical safety spanning topsides, jackets, pipelines, subsea infrastructure, and terminals. Our solutions are fully scalable, and enhanced by our offshore construction experience providing clients with brownfield engineering support to enable topside engineer down clean (EDC), pipeline drain purge vent (DPV), heavy lift preparation and the installation of navigational aids for light house mode.

WELL ENGINEERING

Our well engineering capability comprises a full suite of project management services supporting the life cycle of a well, from feasibility to well decommissioning. This capability covers decommissioning studies, detailed design, and planning through to full execution project management.

SUPPLY CHAIN MANAGEMENT

We have strong supply chain management capabilities and an extensive vendor and subcontractor network. This covers waste and logistics management through to major decommissioning subcontracts such as rig, subsea infrastructure removal, heavy lift vessel and disposal yard selection.



We have an appetite for innovation and developing new ways of working with our clients and the supply chain.

Flexible solutions

Our teams are committed to delivering what we promise, in the timeframe agreed and within the allocated budget, whilst maintaining the highest levels of technical certainty and HSE performance.

We enhance value and significantly reduce risk for our clients as a result of our competitive advantage, real life experience and transparent approach.

As a Tier 1 global contractor, Petrofac has a broad supply chain and existing, longterm strategic alliances underpinned by innovative commercial terms, challenging traditional reimbursable models by successfully delivering decommissioning scopes on a lump sum turnkey basis.

Our team of experienced decommissioning specialists provide targeted solutions aligned to our clients' project objectives. These solutions range from discrete services to fully-integrated turnkey solutions.



Discrete examples:

- > Well Engineering (P&A) > Decommissioning
- studies and estimates

DISCRETE

SERVICES

Bundled example:

- > Well decommissioning and cleaning/flushing
- Integrated well decommissioning and decommissioning projects

Integrated examples:

decommissioning

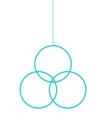
> Duty Holder in

Turnkey decommissioning **solutions** provided by Petrofac and

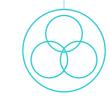
selected partners



BUNDLED SERVICES



INTEGRATED **SERVICES**



TURNKEY DECOMMISSIONING SOLUTIONS

DECREASING TOTAL COST OF OWNERSHIP



We enhance value and significantly reduce risk for our clients as a result of our competitive advantage, real life experience and transparent approach.

Decommissioning in action

We have unrivalled experience in delivering a range of decommissioning scopes, from managing assets in late life, to well decommissioning, topside preparatory scopes through to removal of installations.



ITHACA/PETROFAC AH001, UKCS

Start date: 2011 End date: 2012

Scope: Quayside decommissioning of the AH001 floating production unit including project management of site activities and off-site vendors.

Key achievements:

- Removal of 3,400 tonnes of topsides and 150 tonnes of asbestos, Naturally Occurring Radioactive Material (NORM) and general waste
- Equipment repair for retention/ refurbishment/re-use and/or sale
- No LTIs and no spills to the environment
- On budget and on time
- Having refitted AH001 as floating production facility FPF1, we are now Duty Holder. It is now stationed in the UKCS to be used as a floating production unit for Ithaca on the Greater Stella Development



MILLER, UKCS

Start date: 2016 End date: 2018

Scope: Petrofac supported BP on the Miller decommissioning project with the provision of a range of multi-well plugging and Duty Holder services. This approach enabled abandonment campaigns as part of Tullow the client to remain focused on removal activities, whilst Petrofac focused on safe operations, asset maintenance and integrity throughout preparatory and removal works.

Key achievements:

- Accident and incident free throughout the transition period and through to completion of Miller final removal
- Project specific on and offshore management and delivery teams
- Implementation of fit-for-purpose control > Since 2016 we've plugged and of work and management systems
- Optimised maintenance programme, supported by a multi-skilled workforce
- Management and revision of the safety case on behalf of operator in line with project stages
- Decommissioning support services which include modifications and assurance activities
- Shared performance measures and project culture
- Successfully completed both topsides and jacket removal against budget and plan, just 24 months from contract award
- Shortlisted for Oil and Gas UK's 2018 'Excellence in Decommissioning' award

TULLOW THAMES DECOMMISSIONING PROJECT, UKCS

Start date: 2016 **End date: 2019**

Scope: Since 2016, we have undertaken Oil's Thames decommissioning project. In March 2019 Petrofac was appointed as Well Operator for the project's third phase of well decommissioning. This award followed the successful completion of a similar work scope as Well Operator in 2018, throughout which Petrofac decommissioned seven of Tullow Oil's subsea wells.

- abandoned 10 subsea wells and 2 platform wells over three campaigns
- Designed and executed the rig-less permanent abandonment of two gas condensate wells on the Horne & Wren
- Tailored approach resulted in more than US\$10 million in savings for our client
- Collaboration with supply chain to develop a shared approach to risk and reward, resulted in significant project savings
- Safety Case Management, Control of Works, offshore supervision, subcontractor and regulator liaison

HESS LIMITED RUBIE AND RENEE. UK CNS

Start date: 2019 End date: 2020

Scope: Well Decommissioning as Well Operator

In 2020, we completed the subsea decommissioning of four production wells on the Rubie and Renee fields in the UK CNS.

Our team had detailed knowledge of the wells which were inherited by Hess following a sale by our previous client. We secured the decommissioning work as Well Operator following a competitive tender.

With no permanent presence in the UK, Hess needed an organisation it could rely upon to manage all aspects of the multi-well campaign autonomously, under a single contract, with oversight from Hess directors in Houston.

Following a period of detailed planning, the campaign was successfully executed on a lump sum turnkey basis.

The right energy to drive superior performance

Our knowledge of both designing and operating assets across the world means we can support our clients throughout their decommissioning journey; from concept to removal.

- Our conceptual and engineering design capabilities are supported by a range of technical specialists including wells, structural and environment
- We take an operations and project mind-set to decommissioning projects to drive efficiencies and cost savings
- We are experts in outsourced asset management services
- A proven innovator, we have an appetite for creating new delivery and commercial models in response to market drivers
- Our in-house well engineering capability can support across the life cycle of a well, including plug and abandonment execution
- We have a regulatory capability as a UKCS Service Operator we are already working with the OGA to identify new ways forward in decommissioning
- As part of the Petrofac Group we have access to valuable data and wide ranging capabilities, at scale





When technical and commercial certainty matter, turn to Petrofac

With us delivery is always assured and ultra-efficient.



Contact us today:

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