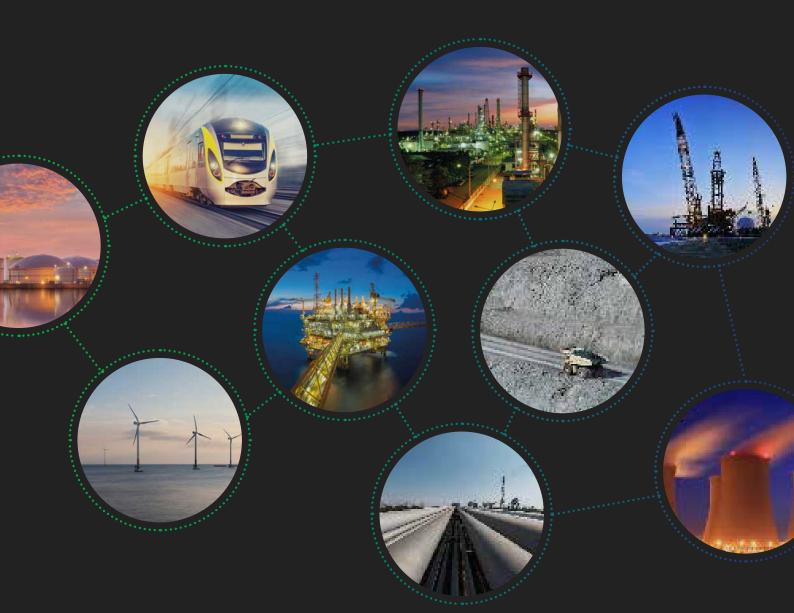


Safer • Smarter • Solutions



REDEFINING WHAT'S POSSIBLE

WELCOME TO OUR WORLD CRANES & LIFTING **TRAINING PIPELINES HYDRAULICS** & SUBSEA Safer, EQUIPMENT RENTAL INTEGRITY **Smarter** MANAGEMENT **Solutions** MAINTENANCE PROCESS, INDUSTRIAL & VALVES





WHO WE ARE

We are a specialist service company delivering integrated solutions for complex energy and infrastructure projects. Delivering value to our customers by combining experts, equipment, IP, and technology across the entire asset lifecycle.

Our offering is simple yet powerful: 10 key service lines delivered with a holistic view; so our customers benefit from fewer contract personnel on site, improved safety, and reduced complexity.

With more than 4,000 experts globally, we have the right capabilities and vision to serve the ever-changing needs of our industry with an extensive portfolio of services including Training, Hydraulics, Equipment Rental, Maintenance, Mechanical, Electrical and Instrumentation, Process and Pipeline, Commissioning, Integrity Management, Pipeline and Subsea, and Cranes and Lifting.

Carlyle & Enermech Partnership

Our CEO, Christian Brown, leads a strong senior leadership team who are galvanised by the full support of our investors, The Carlyle Group. With a collective vision and shared focus, we are looking to the future with confidence and positivity to explore new global markets, extend our portfolio and continue to deliver truly integrated solutions to our customers.

Founded in 1987 in Washington DC, Carlyle is one of the largest and most diversified global investment firms with 1800+ employees across 29 offices on five continents managing \$276 billion of assets under management across three business segments and 415 investment vehicles.

Carlyle Mission

To drive long-term value for our investors, companies, shareholders, people, communities and employees.

Sustainability Leadership

To pursue tailored ESG strategies that bring new ideas for operational efficiency and help unlock value.

Carlyle International Energy Partners (CIEP)

EnerMech became part of CIEP group companies in 2018.

WHAT MAKES US UNIQUE...





Local delivery, with global reach.

changing needs of our industry.

We innovate and adapt to meet the

AGILE



Our >4,000-strong workforce are experts in their field.

EXPERTS

IN EVERYTHING WE DO, WE WILL NEVER **COMPROMISE ON OUR VALUES OF...**

SAFETY

We will always put the health and safety of our people first above all else

RESPECT

We will respect our customers, our people, our suppliers, our communities, and our planet

INTEGRITY

We will empower our people and operate with the highest of integrity

QUALITY

We will deliver the highest of quality in everything we do

SOLUTION ORIENTATED

We will adapt to change, seize opportunities, continue to innovate, and be agile in creating new solutions

WE CARE...

BELIEVE IN DOING BETTER...

It's an ethos that is ingrained in our culture and defines how we treat others

WE DELIVER...

SAFE AND

The health and safety of our people, our customers and the planet are paramount

NURTURING AND SUPPORTING...

By nurturing and supporting every member of our global family, we operate collaboratively, with discipline, and deliver outstanding performance

CURIOSITY, **INNOVATION AND EXCELLENCE...**

We invest in, train and support our global workforce so they can build highly successful careers

INVESTING IN COMMUNITIES...

We promote an inclusive culture that is sensitive to, and supports the needs of the people and places in which we work

TRUSTED PARTNER...

WORKING COLLABORATIVELY...

By sharing lessons learned, adopting best practices, and innovative solutions

REDEFINING WHAT'S POSSIBLE...

We redefine what's possible for our customers, increasing accountability and reducing operating costs across the markets in which we operate

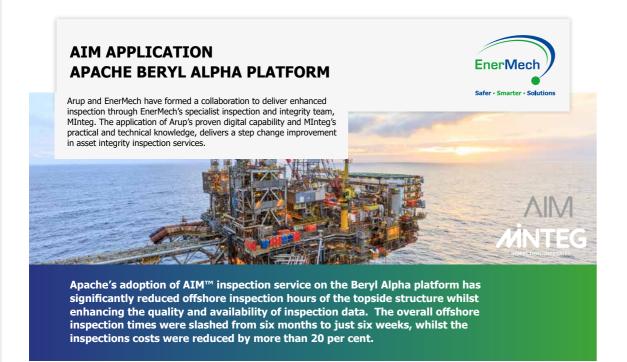
LOCAL APPROACH GLOBAL REACH...

We are a global business with expertise and roots in local markets



Customers are seeking benefits that are achieved by modernizing and transforming integrity management, delivering improved efficiencies, improved safety, reduced risk, and cost.

Our experts provide ground-breaking integrity management services to achieve these benefits through utilising our AIM™ inspection tool, providing you with a fuller, more reliable understanding of your asset so you can respond faster, more intuitively and with reduced operating costs. Combined with our lean and automated processes, we deliver gamechanging services to keep assets running safely and productively.



Transforming inspections reducing risk and costs

Gaming technology was used to create a baseline geometric digital twin of the Beryl Alpha platform to sufficiently capture inspection data, without the need for rope access work. More than 60,000 images, including 360° panoramic views, captured ultra-high-resolution inspection data. These enhanced records have contributed to improved reporting reliability and the 3D model-based tablet application, which in the future, will help Apache on its journey to adopting a digital approach for

reduction in inspection costs

25% reduction in reporting time

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30% reduction in team size

Key Benefits

Risk reduction through less time at site and reduced time working at height

Reduced inspection costs by more than 20 per cent

Overall offshore inspection times reduced from six months to six weeks

Improved safety by replacing high risk offshore working at height inspection methods with the application of remote visual inspection tools

Secure and cloud based with data available anytime and anywhere

"Deploying AIM™ achieved the requirements of our inspection plans while significantly reducing the risk profile of the activity. The enhanced data capture and storage within the 3D model has aided our post-inspection review by removing any ambiguity and enabling users to challenge information beyond what is captured in reports. We can see opportunities of this data enhancing the quality and efficiency of our inspection plan going forward and is already aiding day-to-day communications."

Integrity Manager for Apache's North Sea Operations



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ROYAL DUTCH SHELL AUSTRALIA PRELUDE FLNG FACILITY

Prelude FLNG is a liquid-rich gas field located in North-West Australia, 475 km North-North East of Broome, in 240m water depth. The field subsea development includes 7 subsea wells, 4 production risers, and the world's largest umbilical.



EnerMech secured the contract to provide services and equipment to undertake the pre-commissioning works on the risers, electro-hydraulic umbilical (EHU), electrical steel flying lead (ESFL), and electrical flying lead (EFL).

Client: Technip Australia Pty Limited

Year: 2016 - 2017

Product/Service: Integrated services

Scope of Work

EnerMech performed the Multi Service Vessel (MSV) Scope which comprised of the following:

Design and supply of Riser Pig Receivers (2 off); Flexible Risers (4 off) flooding during transit from Singapore to Prelude FLNG location; ESFL & EHU monitoring during installation, Chemical: 18 off 1" lines, 13 off 1/2" lines; Hydraulic: 13 off 1/2" lines; Electrical: 6 off Electric cores, Fibre Optic: 2 off cores. ESFL pre-laydown

Project Delivery

EnerMech were able to respond at very short notice to assist with Umbilical repair work required in Singapore, documentation and equipment fast

Additional Turret work scopes awarded with short notice prior to execution (also long lead times on special custom made fittings).

Kev Benefits

EnerMech was subcontracted to perform the subsea commissioning and throughout the engineering phase identified a gap between the subsea and topside scopes where the two did not connect.

As EnerMech Project team has the specialised knowledge of the subsea field in both Flowline and Umbilical systems, Shell requested The EnerMech team to commission the Well jumpers to assist with bringing on first gas to the Prelude Installation. Works successfully completed with no LTI's; additional contracts awarded with Shell including Hose Management, Hydraulics and Subsea Commissioning works

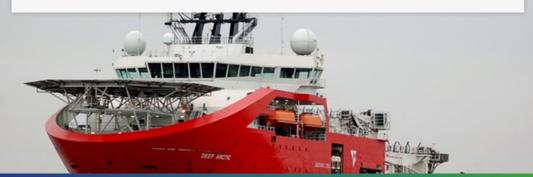


We begin with the end in mind. This ethos is the backbone of our delivery, and through early engagement we improve efficiency, reduce costs, and minimise disruption with a proven and reliable approach that leads to successful start-ups.

Our integrated approach includes specialist commissioning and start-up personnel, project-specific system completions and technical field services. Working across a wide range of markets, in a variety of large, complex, or remote locations, we empower our experts to successfully deliver projects using methodologies and systems that are proven and trusted by customers worldwide.

TECHNIPFMC PRE-COMMISSIONING FRAME AGREEMENT





Working in partnership with TechnipFMC, EnerMech has established an industry-leading frame agreement (FA) to deliver high-performance pre-commissioning services across TechnipFMC's asset portfolio in the North Sea.

Client: TechnipFMC

Year: 2016 - ongoing

Product/Service: Process, Pipeline, Umbilicals and Pre-commissioning services

Frame agreement philosophy

Through close collaboration, EnerMech has been able to deliver performance excellence across the entire programme scope working on a wide range of TechnipFMC assets

Additionally, as a result of understanding TechnipFMC's specific performance criteria. EnerMech was able to tailor a safer, smarter solution that optimised equipment and personnel utilisation across multiple projects alongside setting new standards for safety and risk mitigation.

Key benefits

Savings on time and cost through use of multi-skilled teams

Optimisation of equipment and consistency of personnel across projects

Reduced risk in terms of logistics, engineering, consistency of approach

Greater flexibility and improvements in equipment utilisation

Sharing of knowledge and lessons learned across multiple projects

1200+ Operational man days offshore and on-site

Multiple Collaboration workshops (R&D and technology)

> 25+ Procedures and processes delivered on time

Reduction In risk and improved efficiency across departments

Zero Hours downtime for equipment breakdown

the contract award extends our

partnership with TechnipFMC to over a

Zero HSE incidents during operations

>60% Savings on tendering man hours across both companies



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ICTHYS (INPEX) ONSHORE LNG PROJECT

INPEX's Ichthys onshore LNG processing facility is located at Bladin Point, Darwin, Australia, comprising 2 LNG trains, storage tanks, condensate and LPG plants, a 500MW combined-cycle power plant (CCP) and a jetty. This is one of the most significant onshore LNG facilities in the world, producing 8.9MTPA of LNG, 1.6MTPA LPG per





EnerMech provided integrated specialist pre-commissioning and commissioning of some 2,500 process, electrical and instrumentation, and associated pipework systems for the construction and commissioning stage. This was delivered via project management of a large multi-skilled workforce in excess of 700 people.

Client: JKC Date: 2017 - 2018

An adaptive, agile and integrated service offering

EnerMech's integrated approach and ability to deliver complex project demands led to better overall outcomes, with exemplary safety stats and efficiencies delivered at every phase of the project.

As one of the tier one contractors on site, we quickly mobilised in excess of 700 technical and operational staff across multiple work scopes. This included the pre-commissioning of the combinedcycle power plant (CCPP), involving chemical cleaning, Aqua Milling® and air blowing of steam piping. Other work scopes included mechanical and electrical construction and commissioning, as well as welding and fabrication, valve overhauls and PRV certification, waste management and disposal, NDE and commissioning works over a four-year period.

>700 multi-skilled, specialist

1.1 million person-hours delivered over 4 years

5,250m

38 systems completed

Four

Integrated delivery

testing more than

2,500

PROCESS

SYSTEMS

set to move between work scopes

were driven in a timely fashion and

Strong OHSE culture ensuring all scopes

Schedule and costs reduction. All systems commissioned and delivered to schedule. Membrane filtration system led to cost

Key to a successful project execution

- Previous experience of working on large scale integrated projects
 - Ability to adapt to changing work scope requirements and resource accordingly Integrated service offering from

pre-commissioning through to mechanical,

electrical, construction and commissioning

- activities Optimisation through multi-skilled team having the knowledge and required skill
- Interfaces at all levels to ensure scopes communication remained throughout
- carried out to the highest standards



From niche individual services to fully integrated contracts, our specialist process, industrial and valves team build bespoke solutions to support your pre-commissioning, commissioning, maintenance, and shut-down services across the globe.

Our process services are a broad range of complementary services used on process facilities from offshore platforms, to onshore terminals, through to downstream processing.

WHEATSTONE ONSHORE & OFFSHORE LNG PROJECT



The Wheatstone Project is one of Australia's largest resource developments. Located in Pilbara Coast of Western Australia, the project includes two liquefied natural gas (LNG) trains with a combined capacity of 8.9 million metric tons per annum and a 6,0



As the multidisciplinary commissioning and start-up contractor, EnerMech provided integrated speciality services during the construction, pre-commissioning and start-up phases of the project, achieved by bundling multiple speciality services for the safe start up and operation of the facility.

Client: Bechtel & Clough Date: 2017 ongoing

An adaptive, agile and

integrated service offering
EnerMech's integrated approach and ability
to ramp up to meet project demands led
to better overall outcomes, with exemplary
safety stats and efficiencies delivered at
every phase of the project both on and

The specialist services delivered consisted of lube oil flushing, chemical cleaning, acid gas removal unit (AGRU) degreasing, nitrogen services and leak testing. This led to:

- Long-term system and oil purity
 Reduced wear of lubricated parts and
- Reduced wear of lubricated parts and extended mean time between repairs
- Significant increase in oil durability
- Significant reduction of filter insert consumption
- Reduced total operation costs

0

flushing units used for Flushing operations were Zone 1 compliant

ISO 446 17/15/13

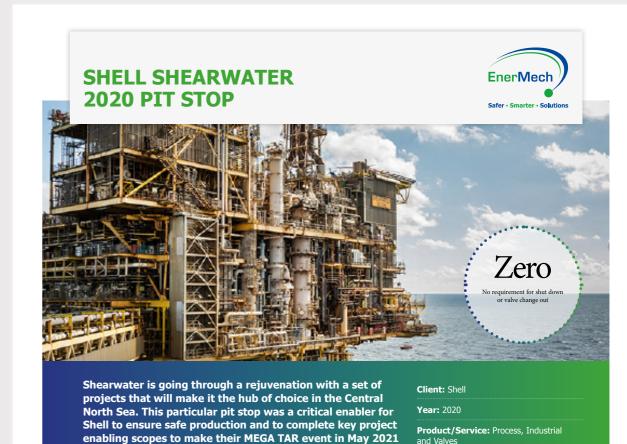
synthetic oil flush of condensate export pumps interconnecting and on the skid pipe work was cleaned to ISO 446 17/15/13 standards, preventing any reduced outages due to dirt in the oil system

Key to a successful project

- Previous experience of working on large scale integrated projects to successfully deliver project management, precommissioning, and commissioning support for the installation of two LNG process trains.
- Ability to adapt to changing work scope requirements and resource accordingly for on and offshore.
- Integrated service offering from ME&I pre-commissioning through to mechanical, electrical, construction and commissioning activities
- Optimisation through reduced interfaces and multi-skilled teams having the knowledge and required skill set to move between work scopes



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Scope of work

Provide a solution to gain a positive isolation on the 24" ESDV on the Condensate Pig Launcher to allow the removal of an upstream chemical quill which was preventing a planned plug in the MEGA TAR Turnaround.

successful and robust.



Project Delivery

Our onshore engineering and project management team worked closely with the client to understand their particular requirements in order to provide the optimum solution. They also provided 24/7 technical support.

As one of only two companies globally with the IP rights to stock and inject Sealweld's Chameleon Sealant the EnerMech team opted to use this emergency sealant to gain a positive isolation on the 24" ESDV without the need for shut down/valve change out.

Our ValvePro trained personnel provided 24/7 cover on board Shearwater to inject sealant, confirm integrity and monitor for scope duration. As well as breakdown/removal of sealant on completion.

Key Benefits

Bespoke and tailored solutions, increasing efficiencies and minimised overall cost

Early engagement with Pit Stop planning allow for efficient execution of work scope

Specialist product knowledge enabled proactive approach and quick response / turnaround for client

Chameleon Sealant does not solidify, enabling product to be broken down/ removed with solvent and the valve returned to its original state with no impact on downstream filters and instrumentation.

Application of sealant is achievable whilst the system is live, therefore preventing a potential shut down/valve change out

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CURTIS ISLAND GLNG TRAIN 1 TAR 2019 CATALYST SERVICES





The Santos GLNG Project is one of Queensland's largest LNG processing facilities. Train 1 had reached its periodic MRU and Dehydrator reactor inspection and catalyst change out. EnerMech was engaged to conduct the catalyst change out on Train 1 utilising innovative technologies.

Client: Santos GLNG

Year: 2019

Product/Service: Catalyst change out services – Molecular sieves dehydrators and MRU's

Scope of work

To deliver catalyst change out without traditional reliance on confined space entry during inert conditions.

Implement process for catalyst change out without the need for manual handling of materials or extensive lifting operations utilising cranes.

Remove catalyst handling off the critical path.

Project Delivery

The EnerMech team utilised two industry leading technologies to successfully complete the change out.

These in-house designed technologies provide catalyst unloading and loading without confined space entry (CSE) or the need for crane lifting operations during loading activities:

- EnerVac® catalyst unloading tool (unloading speeds ≈8 m3/hour)
- ENCAT® remote catalyst loading tool (1,826 drums loaded with zero crane lifts)

As an option to catalyst decontamination by water flooding EnerMech has pioneered the use of Zymeflow®. This patented chemical decontamination method allowed us to deactivate catalyst within 12 hours.

Key Benefits

Waste water reduction by avoiding water flooding when Zymeflow® option is

Elimination of inert entry and reduced Confined Space Entry

Demonstrated 40% quicker unloading and loading technology than manual techniques

Continued loading in high winds

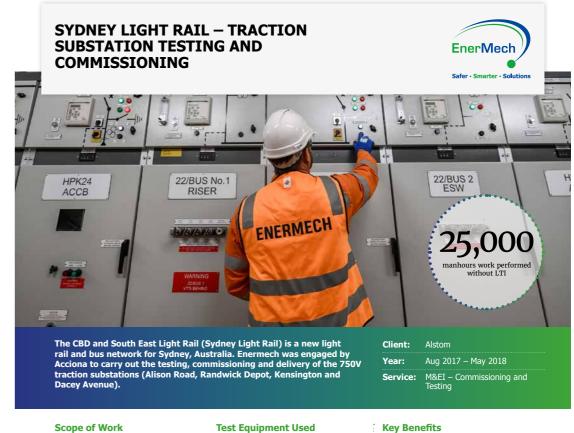
Elimination of 1000+ crane lifts compared to traditional methods

Improved catalyst turnaround schedule through superior unloading and loading rates of the ENCAT® innovative

We have a world-class reputation for providing smart, seamless solutions to the most complex mechanical, electrical and instrumentation projects.

Our experience includes leaders in the fields of oil and gas, petrochemicals, materials handling, power generation, heavy fabrication, road and rail infrastructure, water, and mining, which means we understand the unique challenges and complexities in the field. This enables us to deliver a fully integrated mechanical and electrical service that brings together solutions for all aspects of electrical and instrumentation projects and hazardous area installations, including construction verification, quality assurance, completions (handover and turnover) pre-commissioning, commissioning, energisation, operations, and maintenance.





Test Equipment Used

Project Delivery

- Development and management of OA completions process for specialised traction equipment
- Provision of highly competent multiskilled personnel to perform testing and commissioning services

Commissioning

- 11kV GE Switchboard C
 750V HESOP (Harmonic and Energy Savings)
- Optimiser) system

 750V Sécheron switchboard
- 11/0.4kV Distribution transformer
 UPS Commissioning including Battery
- discharge testing Low voltage distribution board
- Emergency tripping system RONIS key interlocking system
- Traction distribution, isolation, bypass switch

- GE Multilin protection relay
- Current transformer Voltage transformer
- 11kV/0.6kV Traction transforme
- Sécheron ptotection relay
 PCS testing from field equipment to Substation HMI
- High voltage cable

- Omicron CCPC100
 Omicron CMC356
 Omicron CMLIB A
 10kV IR tester
 200A Ductor Tester
 60kV VLF Tester
- Omicron CT analyser Battery Discharge Omicron TD1 Tester (Torkel Omicron Cibano 500
 AC Hi-pot tester

EnerMech developed and implemented comprehensive commissioning package that ensured the successful completion of the work and delivered traction supply to the network enabling the client to cor the first light rail vehicle on schedule.

Our highly skilled and competent workforce developed safe work methods to perform the testing, commissioning and delivery of the four 750V traction substations, as well as managing the QA completions process.

Key Benefits

Over 25.000 manhours worked with no safety incidents

Comprehensive comprehensive commissioning package development and implementation

Seamless Operations Handover and Technical Support

Highly skilled and competent workforce and modern test equipment technology



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WESTCONNEX M4 EAST TUNNEL PROJECT





EnerMech played pivitol role in the project through the management, co-ordination, administration, supervision and incorporation of all commissioning activities, for the entire mechanical, electrical, communications and controls system and equipment.

Client: CPB Samsung John Holland JV

Year: 2017 to May 2019

Product/Service: Electrical & Instrumentation

EnerMech

Scope of Work

- Level 1 to 6 commissioning and start-up.
- Switchgear and transformer installation and testing.
- · Construction and commissioning planning and progress reporting.
- Design review and change recommendations.
- Tunnel and open route electrical system installation.
- Cable Containment systems including crown, sidewall ladder, traverse ladder and cross passage ladder installations.
- · HV/MV/LV Electrical Systems
- Mechanical and deluge commissioning.
- Communication system installation and testing.
- ITS (Intelligent Transport Systems) Installation. RAG's, ISLUS/TMS signage, moveable median strips and CCTV systems.
- AVIDS (Automatic Vehicle Incident Detection System) camera
- installation and commissioning. Low point sump installation and

- Tunnel lighting and emergency lighting installation and commissioning.
- Cross passage equipment installation and commissioning. Traffic lights installation and
- commissioning. Boom gates installation and
- Procurement and logistics.
- Carry over and punch listing of other contractors work.

Key Benefits Delivered

- Mobilised 250+ Commissioning Electricians and Technicians.
- Integrated team with client and SICE to deliver level 1 to 6 commissioning and start-up.
- Developed and operated the project's Permit to Work system.
- Provided comprehensive cost planning and cost mitigation strategies.

Project Delivery

EnerMech were awarded the contract to provide the management, coordination, administration, supervision and labour of all commissioning activities for the entire mechanical, electrical, communications and controls system and equipment for the project.

EnerMech also provided the Joint Venture detailed commissioning procedures and plans, operating and maintenance procedures for all equipment installed, developed and operated the entire permit to works system including training of all personnel required to safely deliver the WestConnex project.

> Mobilized 250+ Commissioning **Electricians & Technicians on** site





>2,000

Vopak Terminals Australia are expanding their Botany Site to include new tanks on land on the East side of Friendship Rd also referred as B4A Expansion Project. EnerMech was engaged to deliver the Brownfield contracts for the structural, mechanical and pipeline (SMP) and the electrical and instrumentation (E&I) works to modify the existing terminal. This work provided connections from the existing terminal to the new Greenfield project.

Project Delivery

completions process.

on site.

EnerMech's highly skilled and competent

workforce with experience in working in major

methods to perform the construction, testing

and commissioning of all interconnecting works

as well as managing the quality assurance (QA)

During the project over 2000 metres of pipe was

installed and hydrostatic tested. This involved

and 1300 fit-ups with 0% NDT fail rate. The

team also provided flange management and

traceability of over 300 flange joints installed

On the electrical and instrumentation scope

over 7000 metres of power and control cable

was installed and more than 70 hazardous area

inspections carried out with complete QA dossiers

more than 800,000 linear metres of pipe welding

hazard facilities (MHF) developed safe work

Vopak Terminals Australia

2020 - 2021 Year:

Service: Mechanical, Electrical and Instrumentation

Scope of Work

Structural, mechanical and pipeline (SMP) Supply, installation, testing and commissioning of

- the following:
- Densitometers on wharf lines B4A transfer lines TL1 (500NB) and TL2 (400NB) CTP connection and flushing loop
- Manifold receipt headers and pipe modifications Slops piping and equipment relocations
- Structural platforms and pipe bridge
- Hydrostatic testing of all pipework
- Flange management of all flanges NDT on all welding
- Coatings and painting Fabrication of all spooling off site · Civil works - footings and bunds

Electrical and Instrumentation (E&I)

Supply, installation, testing and commissioning of the following:

- Disconnection and removal of VRU control panel Modifications to existing main switchboard
- Low voltage cabling
 Power cabling
 30kVA uninterrupted power supply (UPS) and distribution board
- Cable ladder installation
- Cabling and field junction boxes for 24 new actuated valves
- Cable terminations
- Equipment and cable labelling

handed over to Vopak. The team also carried out testing and commissioning of all electrical and instrumentation to relevant specifications, standards, regulations and codes.

Equipment earthing

All work was delivered on time and of a EHA installation and inspection for all equipment that exceeded the client's expectations

Key Benefits

EnerMech was able to assist the client in resolving design issues and being able to propose a valuable solution with no impact

Seamless operations handover and technical support

Energisation of systems in the required time

Implementation of EnerMech's quality and completions system

All work was delivered on time and of a quality

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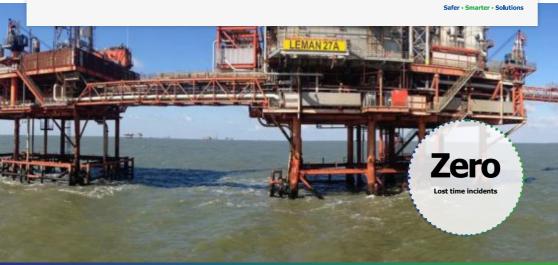


Reducing interfaces, fewer contract personnel on-site, increased safety and enhanced efficiency with our fully integrated maintenance solutions.

We work closely with you to understand your unique equipment and system challenges then use our broad experience in maintenance methods and techniques to build concise and precise proposal that clearly outlines deliverables and an appropriate cost structure. Whether it is planned shutdowns/turnarounds, emergency or routine maintenance, our unique integrated approach can save you on both time and cost and minimizing downtime.

PERENCO - LEMAN 27A TURNAROUND **SERVICES**





The Leman Gas Plant is a natural gas field in the North Sea that produces 200 million cubic feet per day. This particular block produces and condensates gas to Bacton gas plant via two 30 inch pipelines. The Leman 27A is a critical asset that EnerMech have maintained as fit for purpose.

Client: Perenco UK

Year: 2019

Location: UK

Product/Service: Process, Industrial & Valves

Scope of work

Valve / PSV removal and recertification

Nitrogen/Helium leak testing

Flange management

Controlled bolting

Nitrogen purging

Machining

Project Delivery

EnerMech provided a range of services specifically tailored to assist Perenco with their annual Leman 27A Turnaround.

A core multi-skilled crew of 7 personnel was used to deliver Nitrogen purging, Nitrogen/Helium testing, controlled bolting, flange management, pressure safety valve (PSV) overhaul and maintenance, and flange face machining services as required.

Additionally, the majority of the crew were already familiar with the asset, all of which ultimately resulted in savings on

The project was successfully delivered without incident and on schedule.

Key Benefits Multi-skilled team provided safe, efficient and cost-effective turnaround services Zero Lost Time Incidents Use of core crew familiar with platform reduced requirement for site familiarisation



Scope of work

- Mobilize 10 x UHP water jetting equipment, internal and external bundle cleaning – Rigid and Flexi Lance Eq for Tube and Fin Fan Cleaning Automated – 3D nozzles for vessel and columns.
- · All major units were taken out of operation, cleaned and checked for defects in order to guarantee the reliability and safe operation of the refinery on start-up,
 - · 52 Heat Exchanges
 - · 33 air coolers
 - 40 vessels • 11 columns

Project Delivery

of Paramaribo in February 2020. This was the refinery's first shutdown

EnerMech mobilized a local and international crew to deliver multiple

inspection and industrial cleaning scopes during the shutdown

since it started production in 2015 and the biggest of its scale in Suriname.

- Mobilization of local and international crew and equipment to remote location completed in a timely
- Multi-skilled personnel working 24/7 across various scopes to minimize delavs.
- All Industrial units cleaned and inspection completed to the clients satisfaction.
- · Client satisfied with quality of work
- · Work was completed ahead of

Key Benefits

Year: 2020

Product/Service:

Competed project ahead of schedule. Quality of work and HSE performance met client standards.

EnerMech's team of quality control and assurance personnel ensured that the expedited schedules were met and often times exceed to ensure minimal

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Trusted and experienced equipment rental experts work closely and collaboratively with you to understand your challenges and provide an integrated approach that meets your requirements.

With a combined experience of more than 60 years, you will benefit from tailor-made Online Asset Management solutions for the management of all your equipment needs. Through ongoing major investment, you will have access to high-quality equipment that is fully compliant with HAVS, PUWER, ATEX and hazardous area regulations.

PETROFAC - LAGGAN TORMORE RENTAL OF PLANT & EQUIPMENT





EnerMech successfully delivered on the rental of hand tools and rigging equipment to eight different locations across the Laggan Tormore fields, off the coast of Shetland, providing full time, on site support that ensured clarity and visibility on all aspects of the project every step of the way.

The Laggan Tormore gas fields are situated off the West coast of Shetland, where the conditions are renownedly challenging with some of the deepest and coldest waters in the UK.

Client: Petrofac

Year: 2016

Product/Services
Equipment rental

Scope of work

Provision of hand tools and rigging equipment on six-monthly rotations

Produce weekly reporting, tracking and KPI management

Coordinate scheduled delivery deadlines

Contract management

Project Delivery

EnerMech delivered on a scope of rental of plant and equipment to the Laggan Tormore project.

The team allocated a dedicated focal point, who was located in the client office to provide full time technical and commercial support, as well as ensuring attendance of monthly KPI and invoicing meetings to ensure prompt responses and close-out of any of the client's enquiries.

Our approach allowed for rapid response times, minimised disruption in the equipment changeout process. Monthly reporting gave the client total visibility of the spend on each of the eight assets.

Key Benefits

Clear, upfront costings with no hidden charges

On-site support ensured the project ran smoothly, with no delays

Rapid responses to queries on any aspect of the project, from equipment to invoicing and payment

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AKER SOLUTIONS PROVISION AND MANAGEMENT OF RIGGING AND TOOLING EQUIPMENT





EnerMech provided a turnkey solution to Aker Solutions by delivering rigging and tooling equipment on the Mariner hook-up in the North Sea.

The team implemented a barcode system and secure online database to provide the client with 24/7 visibility of the equipment and works on the project as a safe and effective, modern solution to dated paper trails.

Client: Aker Solutions

Year: 2017

Product/Service: Equipment rental

Scope of work

Deliver a turnkey, managed solution to support the project with tooling and equipment

Provide a web-based database for online traceability and equipment certification

Provide on-site equipment management

Project Delivery

EnerMech delivered an efficient and effective solution to the client by implementing EnerMech Live, a webbased database that can be accessed 24/7 from any web browser.

The team implemented a bar code system that allowed for the digital control and tracking of the equipment, which could then be easily accessed online at any time.

Key Benefits

Implementation of state-of-the-art tracking, which allowed the client to have constant visibility of both the work in progress, and work history

Removal of ineffective paper trails for equipment, with a safer and more

Provided a competitive cost model, saving the client on cost

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Our multi-skilled engineers and technicians deliver the right solutions to fluid transfer and hydraulic power and control requirements.

Drawing on more than four decades' experience, our teams provide a turn-key approach to hydraulics through their ability to install, test and flush systems utilizing multi-skilled personnel. From complex system flushing operations to total fluid cleanliness, hydraulic engineering to hydraulic products and hose integrity management, your project will be supported by an unrivalled technical project management team from start to finish.

ZOHR SUBSEA PRODUCTION MODULE





Located in the offshore Shorouk Block, the Zohr gas field is Egypt's largest gas discovery in Egypt and the Mediterranean sea. EnerMech was contracted by Baker Hughes to provide project support and hydraulic services on the Phase 1 Production Module. Client: Baker Hughes

Year: 2018 - 2019

Location: UK / Egypt

Product/Service:Hydraulic Services

Scope of work

Project management and engineering of pre-commissioning services

On site installation of small bore tubing ranging from 3/8" to 11/2" OD 316/316L Austenitic Stainless Steel, 6MO Stainless Steel and 60K Nickel Alloy 625

Pressure test systems ranging from 518 bar to 1035 bar utilising EnerMech highly trained multi-discipline teams.

Flush systems to SAE 4059B-F Class 6 or better classification using EnerMech's purpose built HPUs and dedicated feam.

Commissioning and onshore testing of complete subsea modules

Purging systems with Nitrogen

Project Delivery

EnerMech provided project support from the UK and an on-site project team in Alexandria, Egypt. These teams were responsible small bore tubing manufacture and installation, precommissioning and commissioning services. Additionally, they provided control documentation/certification packages for the functioning of 10 off HIPPS modules, 4 off Production Modules and 4 off SDU modules to comply with client specifications. Due to EnerMech's exceptional performance, additional work-scopes were awarded.

The 40-person EnerMech team installed more than 2.8km of pipework over 58,500 man-hours without an LTI.

Key Benefits

Savings on time and cost through use of multi-skilled teams

Single point of contact for all activities ensured project efficiencies

Collaboration assured safe, reliable and efficient operations





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BP SHAZ DENIZ 2 HYDRAULIC SERVICES



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EnerMech worked on BP's \$28 billion project, the Shah Deniz 2 project, which is the first subsea development in the Caspian Sea. Production from Shah Deniz Bravo now has a production of 20 billion cubic metres per annum.

EnerMech successfully completed small-bore tubing, fabrication, installation and flushing of over 8km on tubing on the Shah Deniz 2 project, with exceptional safety and operational standards.

Client: B

Product/Service: Hydraulic services

Scope of work

To ensure precise fabrication on site as per client drawings followed by accurate installation in a complicated and challenging environment

High pressure testing, flushing and preservation to client requested standard Fabrication and installation of all Twin Ferrule and Autoclave tubing ranging from 1/2" to 1 1/2"

Pressure test systems ranging from 580bar to 1350bar

Flush systems to SAE 4059B-F class 6 or better

Purge systems with Nitrogen

Project Delivery

EnerMech successfully delivered small bore tubing, fabrication, installation and flushing of over 8km on tubing on the Shah Deniz 2 project.

EnerMech provided highly trained testing team, accomplished flushing personnel, and trained and utilised 95% of national pipe fitters in line with client targets. We also provided EnerMech purpose built HPUs to ensure that the systems met given requirements. A single point of contact was dedicated to streamline contact for the client for all activities.

The project was delivered to exceptional safety and operational standards, and the commercial model used delivered significant cost savings to the client.

Key Benefits

Over 55,000 man-hours without any lost time or safety incidents, delivering excellent safety and operational standards

High local content - 95% national personnel to meet client targets

Provision of a highly skilled team and purpose built equipment to ensure standards were met

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With over 26 years' experience in training, we have unrivalled experience and depth of knowledge.

We deliver 116 courses from Joint Integrity, to Training at Height, Cranes and Lifting to Hydraulics. From our Aberdeen headquarters and six training centres around the world we serve large organisations in high-risk industries as well as self-employed individuals working within them.

OKHA FPSO PROJECT- SEMBCORP MARINE **REPAIRS & UPGRADE PTE LTD**





EnerMech was awarded Flange Management and Flange Machining Services for the OKHA FPSO repairs and upgrade project in Sembawang Shipyard, Singapore on Feb 2016 for a tight duration of 14 days at dock.

Client: Sembawang Shipyard and Woodside

duct/Service: Project Engineering Services nge Management, Bolt Torque, Flange Machining and Pipe Cutting.

Our multi-skilled team of experts carried out Project Engineering Services, Flange Management, Bolt Torque, Flange Machining and Pipe Cutting.

Flange Management & Flange Machining

EnerMech supplied personnel and joints population of EnerMech's bespoke Flange Management database SIM (System Integrity Management). SIM was also used to engineer of all project documents, work packs and calculations for bolt load and stress of over 800+ broken joints in 14

personnel were integrated within Sembawang piping teams to ensure 800+ bolted connection completed in 14 days and meets the client's quality

800 +

calculations for bolt load and stress of over 800+ broken joints in 14 days.

flange Machining and Pipe cutting

Key Benefits

Recording of the full life cycle of the bolted connection from assembly, controlled tightening through to leak

Training Sembawang employees in control bolting practices in accordance with the industry standard equivalent to ECITB.

All technical and mechanical data was compiled during operations and allowed critical time-saving information for future planning of maintenance, shutdowns and



ONSHORE LIFTING TRAINING

SCOTTISH & SOUTHERN ENERGY (SSE)





Using OPITO criteria as the benchmark for knowledge and skill, and including SSE's systems for the control and conduct of lifting operations, two bespoke lifting training programmes were developed and rolled out over a six months period.

Client: SSE

Developing competence, reducing risk

At EnerMech, we have built our reputation on trust, integrity and honesty. We drive a culture that incorporates transparency, responsibility and the belief that we accept nothing but the best across our business. Competence development plays a big part in our culture and it is this insight that gives us a unique ability to provide first-class advice and guidance for our customers' own workforces.

The two bespoke training courses developed for SSE

 Control & Supervision of Lifting Operations Conducting Lifting Operations

Courses took place at EnerMech Aberdeen, Shetland Power Station and at various remote, West Coast of Scotland power generation sites.

BESPOKE

26 YEARS

116 courses availble

100% focus on quality

Key to a successful project execution

- Relevance Training tailored to trainees equipment and location used by trainees resulting in 100% positive feedback
- Competence No wasted time learning about equipment the client don't have more time focussed on competence for what they do
- Quality Courses delivered in line with recognised awarding body criteria - client assurance of robust skillsets
- Safety Safer fleet of lifting equipment due to improved knowledge of pre/post use inspection & discard criteria
- Cost-savings Client-site courses saved in travel costs alone, in addition to normally payable training day-rates.

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Our cranes and lifting division works collaboratively across specialisms to offer a comprehensive package of services, including installation, operation, maintenance, engineering and inspection.

Offshore crane operators and mechanics are bolstered by our teams of field support engineers, technicians and inspectors who can be mobilized at short notice, meaning that our customers' projects are delivered on time, within budget, every time.





The Grudie Bridge Power Station is located at Loch Luichart in the Scottish Highlands. The overhead crane currently in operation dates back to 1946 and was last subject to a maintenance overhaul and electrical upgrade in 1994.

Client: Scottish and Southern Energy (SSE)

Product/Service: Repair and overhaul of station overhead 50Te crane

Scope of work

Pre-works survey and structural inspections

Removal and installation of new ropes and hook blocks

Removal, refurbishment and installation of cross and long travel motors

Structural inspections

Installation of wireless remote-control system to replace old pendant control

Commissioning, function, and load testing of refurbished crane

Project Delivery

EnerMech developed a programme of work to upgrade the overhead crane in a way that minimised disruption to the ongoing live operation of the Grudie Bridge Power Station. This was effectively co-ordinated in parallel with the major generator upgrade work underway.

EnerMech's pre-works survey and inspection work revealed the need to upgrade a range of essential crane equipment to bring it inline with latest performance and health and safety requirements. This was included in the EnerMech scope, all of which was delivered within the agreed timeframe.

SSE was exceptionally pleased with EnerMech's performance; the result being upgraded crane and lifting infrastructure, life extension of over 30 years and compliance with latest health and safety and performance requirements.

Key Benefits

Collaboration assured safe, reliable and efficient operations during critical generator changeout

Multi-skilled team enabled rapid response to changing work scopes

Crane life extended by a further 30 years

Safety system upgraded to meet latest Health and Safety legislation



WOODSIDE ENERGY LIMITED

GWA EAST CRANE REPLACEMENT

The Goodwyn-A (GWA) facility is an integrated production, utilities and accommodation platform situated 138km NW of Dampier WA. GWA began it's life cycle in 1991 and the facility withstands the marine nent with tropical strength Cyclones occurring annually.

rigging, transportation and lifting frames to Henderson. EnerMech performed a lifetime extension of the crane, upgrade of the hydraulics and performed all required FAT testing, and development of Inspection and Test Plans.

Project Delivery

The construction crane is currently in storage after a successful overhaul and is planned to be mobilised to site in early 2021. EnerMech will mobilise the crane and perform the necessary installation, commissioning and load testing of the construction crane on the Woodside GWA facility.

Having intricate knowledge of the construction crane from previous offshore mobilisations (for previous owner) has enabled EnerMech to prepare for mobilisation and accurately plan for interfacing with the platform to perform the future replacement of the GWA East Crane.

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Product/Service: Integrated services

Key Benefits

EnerMech's multi use facility in Henderson was the ideal place for the overhaul and storage of the crane whilst dismantled, the large laydown area provided a cost effective measure to the Client as the overhaul was completely conducted inhouse. The multidisciplinary team meant that NDT Technicians, Engineers, Crane. Hydraulics and Hose Specialists were readily available to support the completion of the project.

In delivering a fully functional crane EnerMech have gained significant insight into the construction crane which will ensure a smooth mobilisation and replacement of the aged Goodwyn East Crane.



EnerMech are the pioneers of ultra deep-water pre-commissioning.

Our legacy has taken us to unrivalled water depths (9,500ft) and our capabilities have been enjoyed by IOC's such as BP and Shell and deployed by Installation contractors such as Technip and SS7. As the deep water market has evolved, we have worked on the longest, largest, and most complex subsea architecture installed around the globe.

ANGOLA - FLEXIBLE RISER AND UMBILICAL TIE-IN PROJECT





EnerMech personnel were requested by Angoil Bumi JV LDA to carry out winch operations during the Angola Block 15/06 East hub development project. The experienced and knowledgeable team delivered unrivalled efficiencies on site, delivering a quick start-up.

Client: Angoil Bumi JV LDA

Product/Service: Operate and manage

The project consisted of an installation of four flexible risers and one umbilical to the FPSO Armada Olombendo.

EnerMech managed a 220 ton Turret Winch which required around-the-clock operations.

The team accurately monitored, recorded load and length pay out and monitored HPU during tie-in whilst delivering regular inspections on the

Project Delivery

EnerMech's project delivery was above the client's expectations and ahead of schedule. There were no major winch delays experienced during the project.

Sufficient crew size was utilized during a 24/7 operational rotation to ensure consistent movement on the project



Key Benefits

Experienced and knowledge of the system allowed for quick and efficient start up and operations

Future maintenance services and extended scope offered

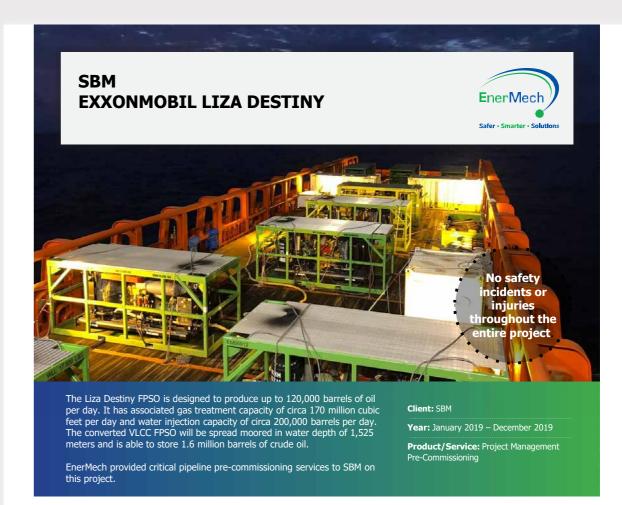
Critical spares identified and proposed to

EnerMech able to offer same services that of winch OEM, thus adding to existing



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Project Delivery

Project management and engineering of The project was managed by our local pipeline pre-commissioning services team based in Guyana supported by our wider Global operations.

Scope of work

Dewatering of the Gas Injection Flowline.

Leak testing of the three (3) Production EnerMech Americas designed and Flowlines, two (2) Water Injection fabricated the FPSO topside Gas Injection Flowlines, and one (1) Gas Injection pig launcher.

EnerMech Aberdeen retrofitted two (2) diesel driven WOMA pumps to be Zone II / Monitoring of the 501 Umbilicals during pull-in and laying operations. ATEX compliant as per Client deliverable.

Post installation testing of the 501, 501 & 502, and Full Field Umbilicals. Leak testing and umbilical equipment installed on the FPSO in Singapore.

> Regulatory permits obtained (through relationship with Alpha Chemicals) for importation of Umbilical fluids into Guyana.

On-site pre-commissioning scopes completed in Guyana

Key Benefits

On time and successful operational execution with no QHSE incidents.

Critical spares philosophy reduced the risk of operational down-time given the remote location of the project.

Received highest possible marks on Client Evaluation for project management and engineering, personnel, equipment and

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