



PTSC MECHANICAL & CONSTRUCTION
SOLUTIONS FOR THE OIL & GAS INDUSTRY

COMPANY PROFILE



Vietnam Oil & Gas Structure

PETROVIETNAM

Exploration & Production



PVEP, VSP, other JOCs

Refinery, Petrochemical, Bio-fuel



NSRP, BSR, PVOil,
PVFC, PVFCCo..

Petroleum Services



PV Trans, PV Drilling
PVC, PVE

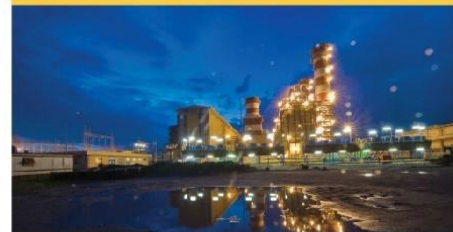
PTSC Corporation

Gas Industry



PV Gas

Power Generation



PV Power

PetroVietnam Technical Services Corporation (PTSC Corporation), a member of PetroVietnam, is a leading contractor in Vietnam providing diversified technical services for oil & gas and other industries in Vietnam and also in the region.

PTSC Corporation marks its nation-wide geographical presence from North to South of Vietnam and also in other countries with more than 25 subsidiaries & branches.

ORGANISATION

PTSC CORPORATION (HEAD QUARTER)

PTSC's Core Service

PTSC's Branch

PTSC's Subsidiary

PTSC's Affiliate

PTSC's Percentage Ownership

EPCI for offshore facilities

PTSC Mechanical & Construction

100%

PetroVietnam Marine Shipyard JSC

29%

EPC for industrial, plants

PTSC Power

PTSC Quang Ngai JSC

100%

Offshore Support Vessels

PTSC Marine

PTSC Labuan (Malaysia)

100%

Offshore Installation, O&M

PTSC Offshore Services JSC

95%

Port & Supply Base

PTSC Supply Base

PTSC Quang Binh

PTSC Phu My JSC

60%

PTSC Thanh Hoa JSC

55%

PTSC Dinh Vu JSC

51%

Sao Mai Ben Dinh JSC

51%

Seismic, GEO Survey & ROV

PTSC G&S

100%

FSO/FPSO

PTSC Production Services

85%

VOFT (Singapore), MVOT (Malaysia)

61%

PTSC AP, PTSC SEA (Singapore)

51%

MV12 (Singapore)

33%

Others

PTSC UAE

PTSC Ha Noi

PTSC Da Nang

PTSC PetroHotel

100%

PetroVietnam Security JSC

51%

PTSC M&C Overview

- A subsidiary of PTSC Corporation (wholly-owned)
- Established on May 15th, 2001
- Located in Vungtau City, Southern Vietnam.
- Amongst Top 500 largest companies in Vietnam

PTSC M&C is the leading turn-key contractor in Vietnam providing premium Engineering, Procurement, Construction, Installation, Transportation, Hook-up & Commissioning (EPC/EPCIC) services for the upstream, downstream & renewables energy sectors.

PTSC M&C has successfully served the local and regional oil and gas markets with more than 80 projects for a wide range of Oil & Gas facilities, including processing platforms, wellhead platforms, living quarters, subsea modules, FPSO modules, etc.



Core Services

UPSTREAM



- Processing Platform
- Wellhead Platform
- Living Quarter Platform
- Topsides Modules
- Subsea Structures

DOWNSTREAM



- Industrial Plants
- PAU/PAR Modules
- Construction Services (prefab, erection, construction, commissioning..)

RENEWABLES



- Substation Platform
- Foundation & Substructures
- Floating components

PTSC M&C Revenue (mmUSD)



STEADY & POSITIVE FINANCIAL STATUS

QHSE Management System

SAFETY

- Sustainable commitment to Health, Safety and the Environment
- Nearly 150 project safety procedures, instructions, plans.
- LTI frequency rate less than 0.15/1 million manhours
- TRCF rate less than 0.2
- No Fatality
- Various Safety performance & achievements awards

Having recognized the essence of Health Safety Environment (HSE) and Quality Management, PTSC M&C pays strict attention to fully complying with relevant national and international HSE and Quality legislation and standards such as ISO 9001-2015, ISO 14001-2015, ISO 45001-2018, ISO 17025..

PTSC M&C has established an effective management system measuring the project quality prior delivering to clients. As part of our commitment to preserving the environment, PTSC M&C has focused on utilizing advanced and environmentally friendly facilities during its operation and project execution.

QUALITY

- Integrated QHSE Management System
- Quality performance credited by worldwide operators
- Compliant to international standards
- Internal quality audits conducted twice/year
- Significant low welding repair rates
- Qualified with Low Alloy, Stainless Steel, Duplex, Super Duplex, Cuni and other exotic materials



Engineering Capability



- Engineering Center set-up and located at PTSC M&C' project office in Vungtau City, Vietnam; equipped with a library of Engineering Codes and Standards, Computer Aided Design, Engineering facilities and software.
- 300+ engineers and designers working across all disciplines from Process, Structural, Piping & Plant Layout, E3D (PDMS), Mechanical, Electrical, Instrumentation...
- Qualified to self-perform the detailed engineering for recent WHP projects (domestic & oversea)
- Worldwide relationships with engineering houses: Technip Energies, Aker Solutions, Worley Parsons, etc.

Procurement Capability

- Diversified experience following international practices & standards as well as developed comprehensive systems & procedures that benefit all procurement related activities.
- Worldwide network of valued vendors strongly maintained, enabling PTSC M&C to replenish accurate & qualified materials at competitive price level and with optimal delivery time.
- Professional logistic system, worldwide cooperation relationship with global forwarders and agents to flexibly apply of multimodal transportation services to ensure the safety, quality and timely for the project materials & equipment.



Construction Capability

PTSC M&C Fabrication Yard locates in the PTSC Downstream Port of Vungtau City, which is a dominant oil and gas hub of Vietnam. PTSC Downstream Port is also the main supply base for Vietnam offshore oil & gas activities.

- Main Yard Area: 30 ha
- Auxiliary Yard Area: 60 ha
- Covered workshops: 80,000 m²
- Office Area: 6,000 m²



LOADOUT BERTH & QUAYSIDE

- Quay length: 500m
- Quay width: 28m
- Water depth: 9.5-14m
- Jetty Distribution: Max 10.5 MT cargo/m²
- Yard Distribution: Max 70 MT/m²
- Quay designed for 60,000 DWT Vessels



Yard Facilities



PTSC M&C Fabrication Yard

PTSC Downstream Port, Vungtau City, Vietnam



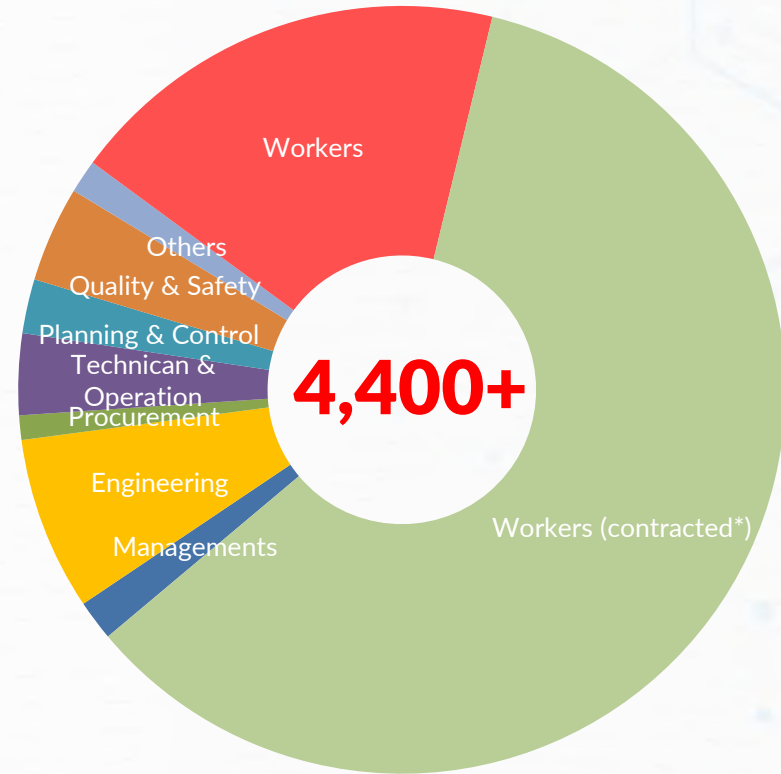
CONSTRUCTION FACILITIES

- Structural manufacturing
- Auto beam manufacturing
- Piping/ Mechanical/ Painting/ Auto Blasting/ X-Ray workshops, Warehouse
- Various types of construction equipment (cranes, handling equipment, Measuring Machine, Hydraulic Machines..

SKIDWAYS

- Skidway No. 1: 104mL x 61mW (25,000MT)
- Skidway No. 2: 260mL x 22/24mW (20,000MT)
- Skidway No. 3: 26mL (10,000MT)

Manpower Resources



Transportation, Installation, Hook-up & Commissioning

- Experienced in handling & managing EPCIC Projects, in which the offshore transportation & installation work is subcontracted to international T&I contractors.
- Experiences and relationships with global T&I subcontractors (Boskalis, Heerema, Saipem, McDermott, SapuraEnergy, Subsea 7/ Seaway Heavy Lifting, etc.)
- Hook-up & commissioning activities modification, integration activities: normally handled by PTSC Offshore Services.





PTSC Mechanical & Construction

OFFSHORE EXPERIENCES

Fengmiao OWF Project – Offshore Substation

- **Client:** Copenhagen Infrastructure Partners
- **Consortium Partner:** Semco Maritime
- **Project Location:** Taiwan
- **Project scope:** EPC
- **Duration:** Q4.2023 – Q4.2026 (*scheduled*)

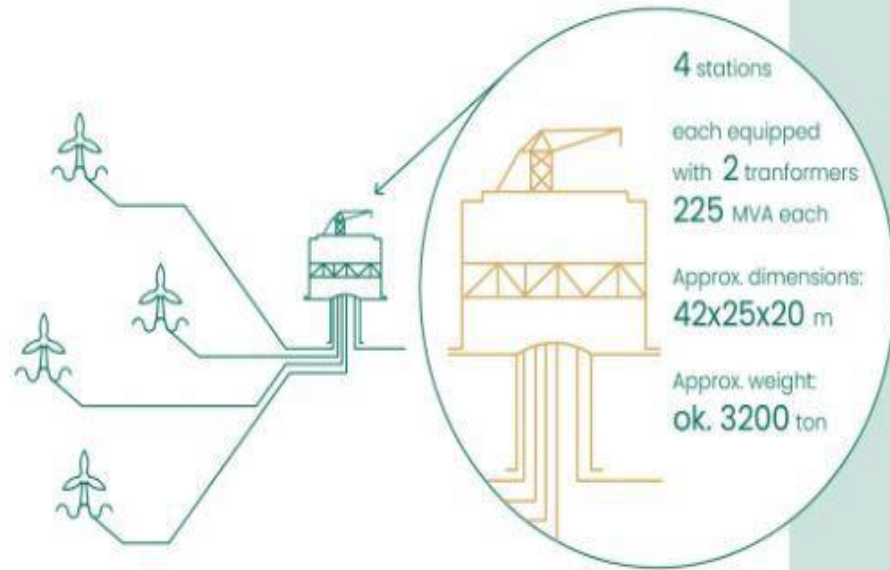


MAIN FACILITIES	WEIGHT (MT)
01 OSS Topsides	3,400 MT
Jacket & Piles	8,000 MT

Baltica 02 OWF Project - Offshore Substation

- Client: PGE Group - Ørsted
- Consortium Partner: Semco Maritime
- Project Location: Poland
- Project scope: EPCC
- Duration: Q2.2023 – Q4.2027 (scheduled)

Offshore substations for Baltica 2



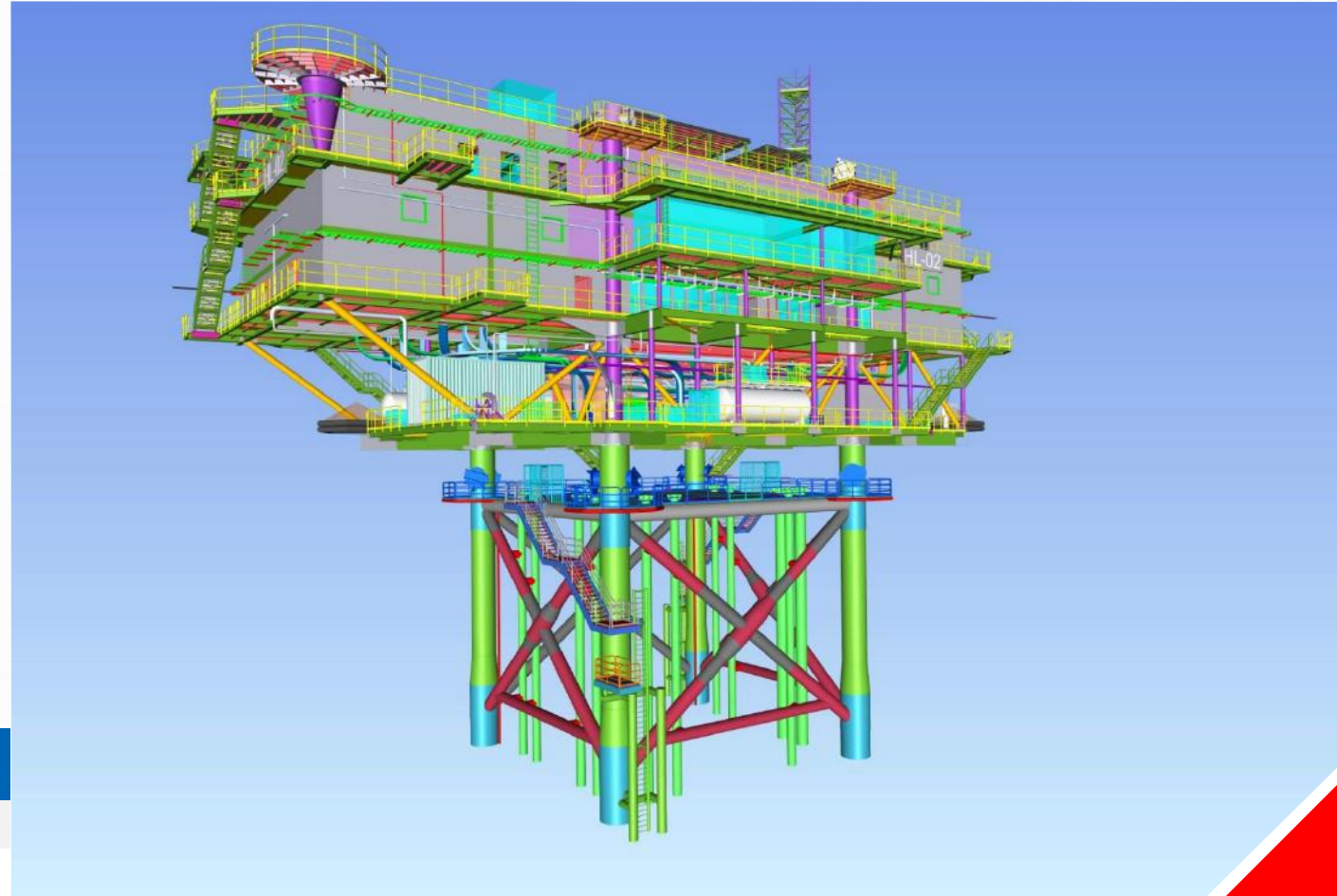
The total capacity of the Baltica wind turbines is **about 1.5 GW**. The electric energy produced by the turbines will reach the offshore substation via underwater cables, where it will be transformed and sent ashore by a combined cable corridor.

baltica2+3 by PGE & Ørsted

MAIN FACILITIES	WEIGHT (MT)
epC for 04 OSS Topsides	12,000 MT
EPC for 04 MSFs	2,000 MT

Hai Long 2 & Hai Long 3 OWF Project - Offshore Substation

- **Client:** Hai Long Offshore Wind
- **Consortium Partner:** Semco Maritime
- **Project Location:** Taiwan
- **Project scope:** EPCI
- **Duration:** Q3.2022 - Q1/2024 (*scheduled*)



MAIN FACILITIES	WEIGHT (MT)
EPC for 2 sets of Jackets & Piles	13,000 MT
epC for 2 sets of Offshore Substations	8,000 MT

Gallaf Project - Batch 3 (EPCI5)

- **Client:** North Oil Company (NOC)
- **Project Location:** Qatar
- **Project Scope:** EPCIC
- **Duration:** 06/2021 - 07/2024 (*scheduled*)



Main Facilities

WEIGHT (MT)

WHP Topsides (02 nos)	~8,400 MT
WHP Jackets & Piles (02 nos)	~11,000 MT

Gallaf Project - Batch 3 (EPCI6)

- **Client:** North Oil Company (NOC)
- **Main Contractor:** DSME
- **Project Location:** Qatar
- **Project Scope:** pC
- **Duration:** 09/2021 - 03/2023

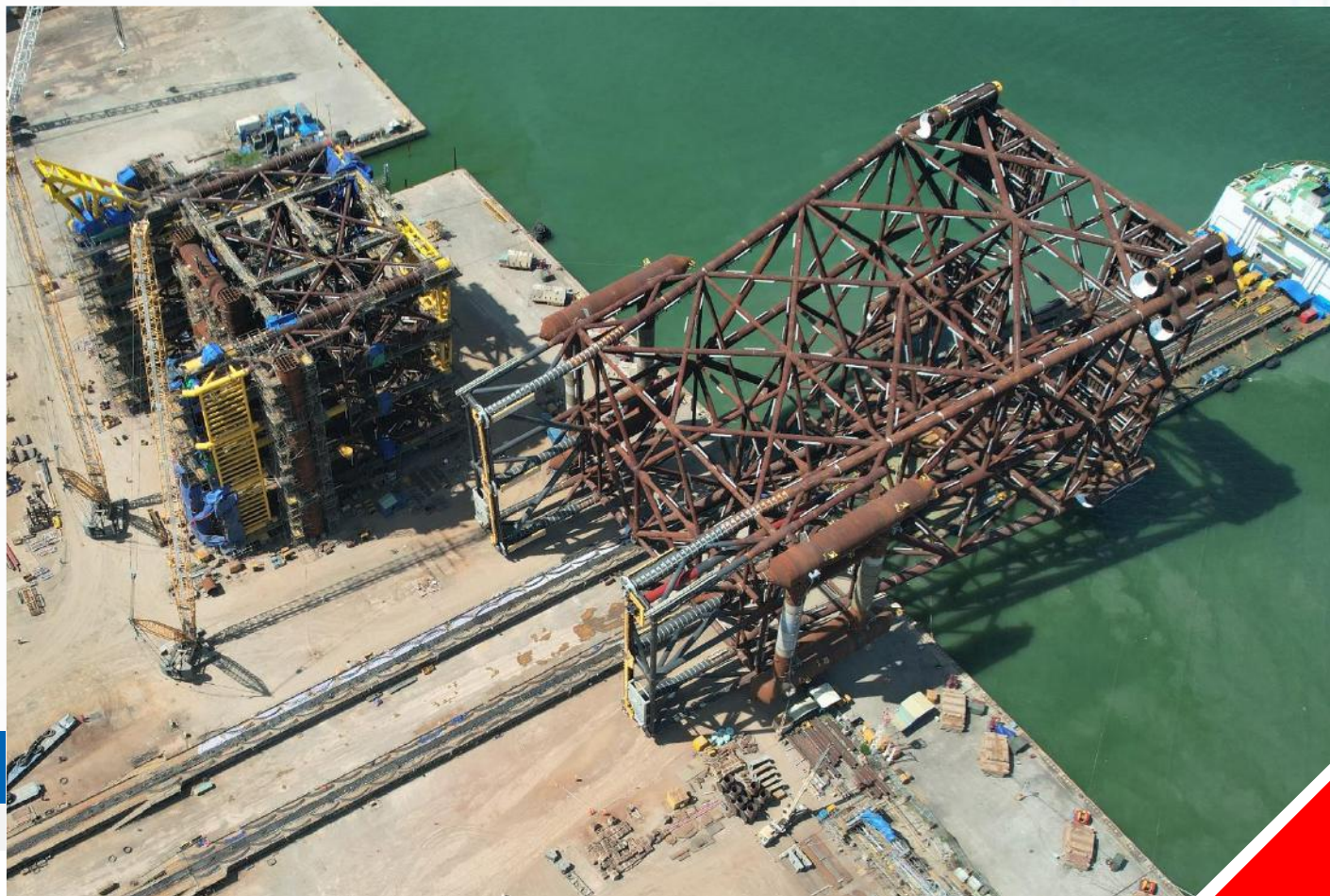


EPCI6 Facilities (Subcontractor under DSME)

GE CPP Jacket	12,000 MT
Bridge	1,000 MT

SHWE Project

- **Client:** POSCO International Corp.
- **Main Contractor:** Hyundai Heavy Industries
- **Project Location:** Myanmar
- **Project Scope:** pC
- **Duration:** 05/2021 - 02/2023



MAIN FACILITIES

WEIGHT (MT)

CPP Jacket	14,000 MT
Bridge	1,000 MT

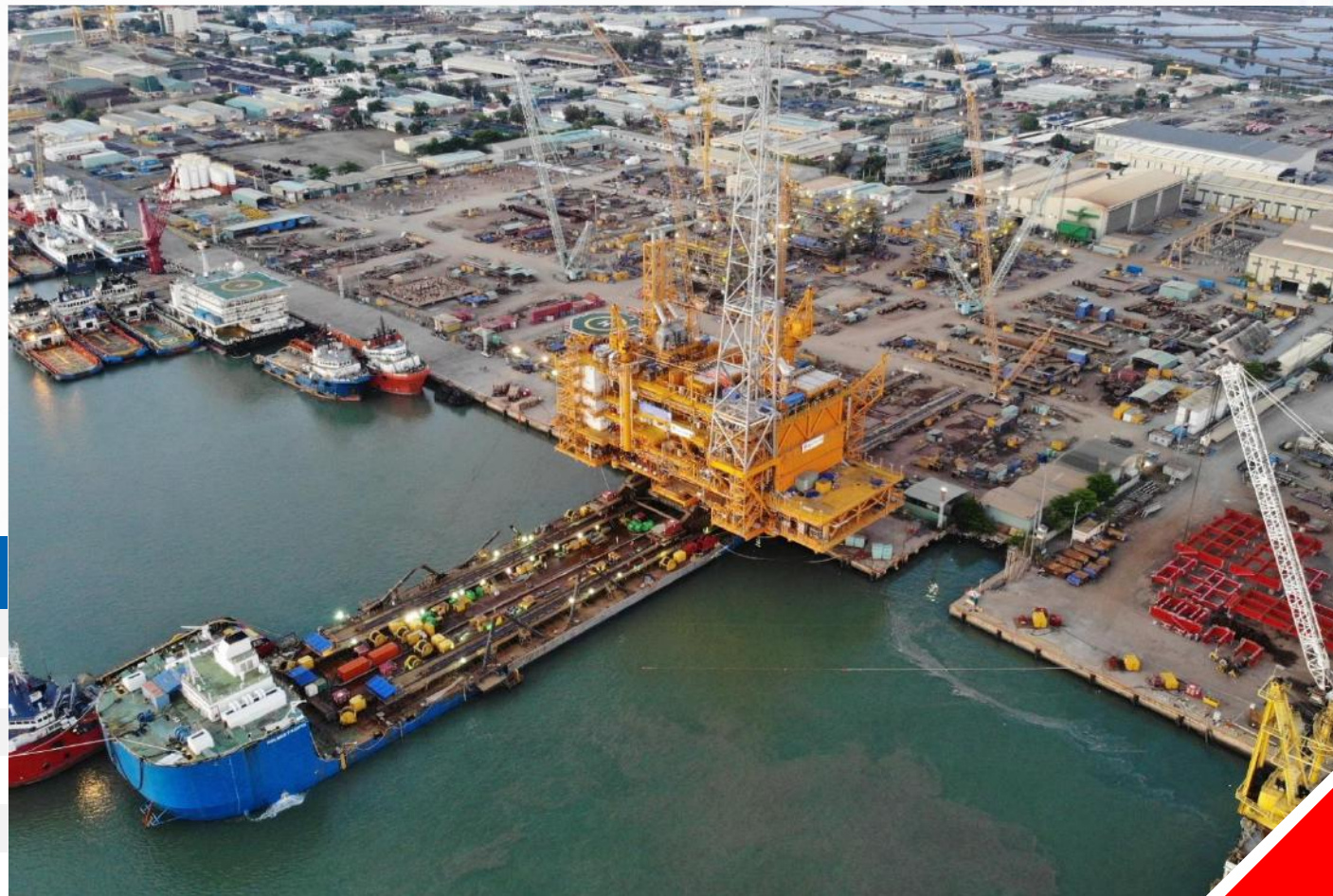
Sao Vang & Dai Nguyet Project

- **Client:** Idemitsu Kosan Co., Ltd (IKC)
- **Project Location:** Vietnam
- **Project Scope:** EPCIC
- **Duration:** 11/2017 - 10/2021

MAIN FACILITIES

WEIGHT (MT)

Sao Vang Processing Platform - Topsides	15,500 MT
Sao Vang CPP - Jacket & Piles	16,500 MT
Dai Nguyet WHP Topsides	1,500 MT
Dai Nguyet WHP Jacket & Piles	8,700 MT
Infield flexible pipeline, export pipeline	13 km
26" SSCV valve, subsea cable	10.4 km



Gallaf – Batch 1 Project

- **Client:** North Oil Company (NOC)
- **Project Location:** Qatar
- **Project Scope:** EPCIC
- **Duration:** 11/2018 - 03/2021

MAIN FACILITIES	WEIGHT (MT)
03 WHP Topsides (EG, FC & DC)	~9,000 MT
03 bridges	~3,000 MT
Offshore modification and integration	



Bien Dong 1 Project

- **Client:** Bien Dong POC
- **Project Location:** Vietnam
- **Project Scope:** EPCIC
- **Duration:** 03/2010 – 11/2012

MAIN FACILITIES	WEIGHT
PQP-HT Processing Platform - Topsides	13,600 MT
PQP-HT CPP Jacket	11,500 MT
PQP-HT CPP Piles	4,800 MT
WHP-HT1 Topsides	3,200 MT
Bridges	320 MT
Subsea: 12" Cladded pipe x 21km, 26"x3.5km, 20"x45km, 20" & 26" SSVI and Umbilical, Flexible Pipelines x 6km, Subsea cable x 12km	





Heera Development Project

- Client: ONGC (Operator) – AFCONS (Main Contractor)
- Project Location: India
- Project Scope: pC
- Duration: 04/2013 – 11/2014

MAIN FACILITIES	WEIGHT
Heera Central Processing Platform - Topsides	8,500 MT

Maharaja Lela South Project

- Client: Total EP Borneo BV
- Project Location: Brunei
- Project Scope: EPCC
- Duration: 01/2014 – 07/2015

MAIN FACILITIES	WEIGHT
MLS Topsides	1,600 MT
Jacket & Piles (<i>fabricated in Brunei</i>)	2,350 MT
Telecom Modification	



Su Tu Trang FF (Phase 1) Project

- **Client:** Cuu Long JOC
- **Project Location:** Vietnam
- **Project Scope:** EPCIC
- **Duration:** 01/2015 – 11/2016

MAIN FACILITIES	WEIGHT
Topside ST PIP (2 modules)	5,000 MT
Jacket ST PIP & Piles ST	3,500 MT
Topside ST LQ	1,250 MT
Jacket ST LQ + Piles	1,500 MT

Daman Development Project Phase 2

- **Client:** Oil and Natural Gas Corporation (ONGC)
- **Project Location:** India
- **Project Scope:** EPC
- **Duration:** 04/2017 – 02/2018

MAIN FACILITIES	WEIGHT
Topsides (5 nos)	1,600 MT/ each
Jacket (5 nos)	1,250 MT/ each
Boatlanding (5 nos)	120 MT/ each

Other Offshore Experiences

Project	Client	Scope	Facilities	Weight (MT)	Duration
Greater Enfield SURF	Client: Woodside Contractor: TechnipFMC	pC	Fabrication subcontract for ILTA, HOP, FLET (Subsea Structures)	1,000	2018
Te Giac Trang H5	HoangLong JOC (Vietnam)	EPCIC	01 Wellhead Platform, Drilling Wellbay Module, 21km pipelines	4,000	2014 – 2015
Su Tu Vang SW	CuuLong JOC (Vietnam)	EPCIC	01 Wellhead Platform	3,000	2013 – 2014
Su Tu Nau	CuuLong JOC (Vietnam)	EPCIC	02 Wellhead Platforms, 02 Jackets, Piles, 60km Pipelines	8,000	2013 – 2014
Dua Subsea	Premier Oil (Vietnam)	ePCI	PLEM, TPAM Manifold, Multi Weld Production Guide, Umbilical system, flexible risers	500	2012 - 2013
Hai Su Trang/ Den	Thang Long JOC (Vietnam)	EPCIC	02 Wellhead Platforms, Drilling Deck, In-field pipelines, subsea templates	9,000	2011 - 2013
Thang Long Dong Do	LamSon JOC (Vietnam)	EPCIC	02 Wellhead Platforms, PLEMs/ PLET and 2km (12"-MPF); 5km (8"-WIF); 5km (6"-GLF); 2km (10"-MPF) and 6km Umbilical	8,500	2011 – 2013
Su Tu Trang	CuuLong JOC (Vietnam)	EPCI	01 Wellhead Platform, 01 Jacket, 17km pipeline (12")	3,600	2011 – 2013
Te Giac Trang	HoangLong JOC (Vietnam)	EPCIC	01 Wellhead Platform, 02 jacket, 01 drilling deck, infield pipeline x 35km (6", 8",10",16"), 8"SSIV	6,000	2009 - 2011
Su Tu Den NE	CuuLong JOC (Vietnam)	EPCIC	01 Wellhead Platform, In-field pipelines, subsea cables,	6,000	2008 - 2010
Chim Sao	Premier Oil Vietnam	EPCIC	01 Wellhead Platform, 01 Jacket & piles, pipeline 10" X 96 km , 16km (4", 6" 10"), 02 Plems & Umbilical	7,500	2008 – 2010

Other Offshore Experiences

Project	Client	Scope	Facilities	Weight (MT)	Duration
Topaz	Petronas Carigali (Vietnam)	PCC	01 Wellhead Platform, 01 Jacket, Piles & Conductors	4,000	2009 – 2010
Pearl	Petronas Carigali (Vietnam)	PCC	01 Wellhead Platform	600	2008 – 2009
Bunga Orkid	Talisman Malaysia (Malaysia)	EPC	03 Wellhead Platforms	4,000	2006 - 2008
Song Doc A	Truong Son JOC (Vietnam)	PC	01 Wellhead Platform	600	2007 - 2008
Bunga Tulip A	Talisman Malaysia (Malaysia)	C	01 Wellhead Platform, 01 Mono-pod Jacket	900	2005 - 2006
C1/CLPP/NBR3	JVPC (Vietnam)	C	02 Wellhead Platforms, 01 bridge	1,500	2004 - 2005
Ruby B	Petronas Carigali (Vietnam)	EPC	01 Wellhead Platform	1,300	2004 - 2005
Rang Dong-S1	JVPC (Vietnam)	C	01 Wellhead Platform	450	2002
Su Tu Den SW	CuuLong JOC (Vietnam)	EPCI	01 Wellhead Platform, 20"x 20km pipeline	2,200	2002 - 2003
PTSC-01 Barge	PTSC (Vietnam)	EPC	5,000DWT Ballast Barge for transporting topsides, jackets,..	2,400	2008 - 2009
3509 Tug Boat	PTSC (Vietnam)	EPC	02 tug boats with capacity 3,500 BHP and 4,750 BHP	1,000	2009 – 2010

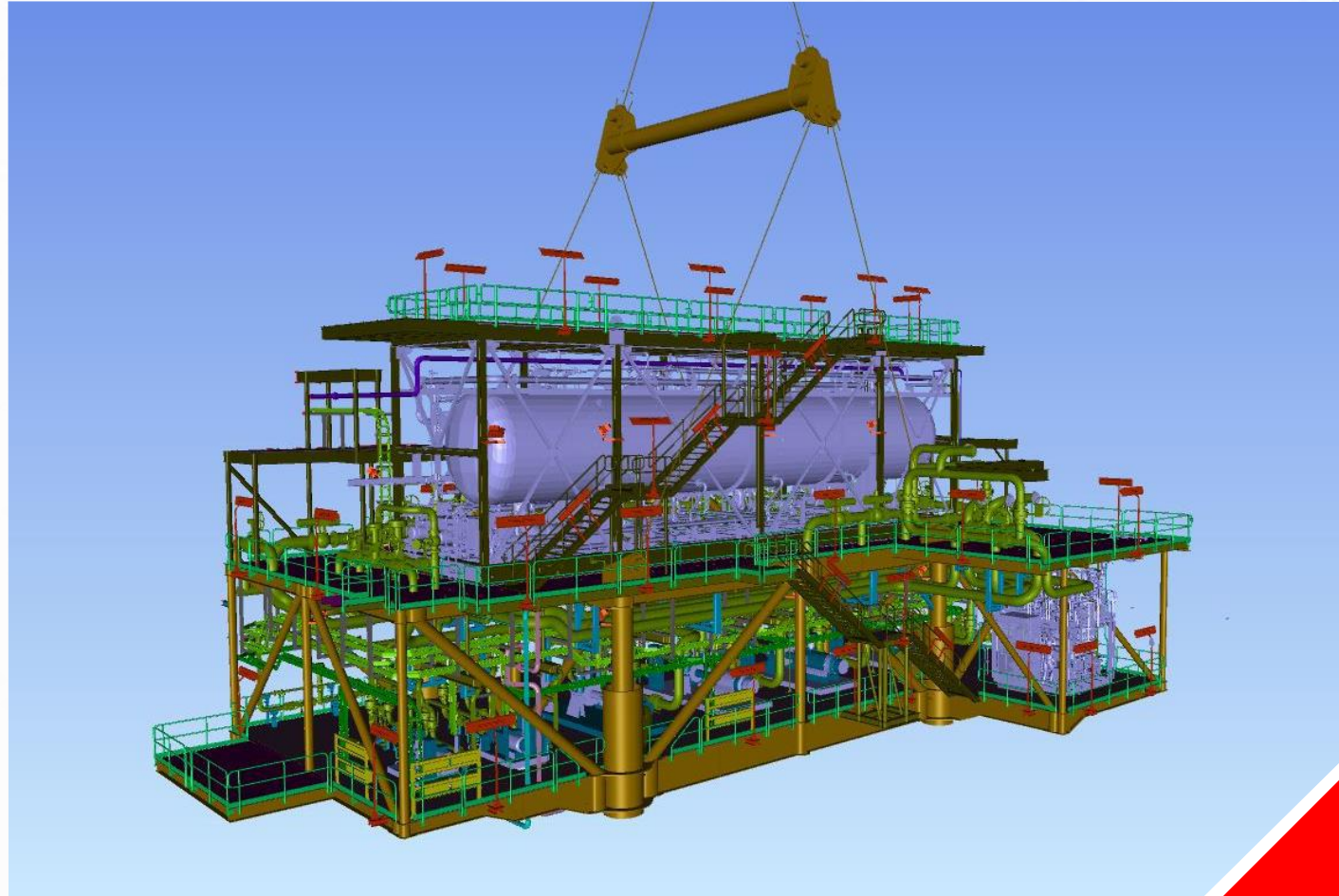


PTSC Mechanical & Construction

MODULE EXPERIENCES

DBN PWM Project – Modules & Jacket

- **Client:** North Oil Company
- **Main Contractor:** Ponticelli Upstream LLC
- **Location:** Al-Shaheen Oil Field (Qatar)
- **Project Scope:** pC
- **Duration:** 03/2022 - 10/2023 (*scheduled*)
- **Key Facilities:** A & B Modules, Jacket & Piles
- **Total weight:** ~ 4,000MT



Ghana FPSO Modules

■ Package 1

- Client: ENI (Ghana) SPA
- Main Contractor: Yinson Production
- Project Scope: EPC
- Duration: 03/2015 - 03/2016
- Key Facilities: 02 modules (MM1, MM2)
- Total weight: ~ 3,000MT

■ Package 2

- Client: ENI (Ghana) SPA
- Main Contractor: Kanfa Group
- Project Scope: pCT
- Duration: 03/2015 - 04/2016
- Key Facilities: 04 modules (MG1, MP1, MU1, MI2)
- Total weight: ~ 2,000 MT





Rong Doi Booster Compressor Modules

- **Client:** Korea National Oil Company
- **Project Location:** Vietnam
- **Project Scope:** EpC
- **Duration:** 07/2011 – 07/2012
- **Key Facilities:** 02 compressor modules
- **Total weight:** ~ 500 MT



Lan Tay Compression Module

- **Client:** British Petroleum (BP) Vietnam
- **Project Location:** Vietnam
- **Project Scope:** PC
- **Duration:** 07/2006 – 08/2007
- **Key Facilities:** 01 Compression Module
- **Weight:** 2,000 MT



CPP-99 Living Quarter Module

- Client: VietsovPetro JV
- Project Location: Vietnam
- Project Scope: EPC
- Duration: 12/1999 – 12/2000
- Key Facilities: 02 LQs (70 men each)
- Total weight: ~ 2,300 MT



Bunga Raya-A Living Quarter

- Client: Talisman Malaysia Limited
- Project Location: Malaysia
- Project Scope: EPC
- Duration: 03/2002 – 07/2003
- Key Facilities: 01 LQ (48 men), 01 Bridge
- Total weight: 1,000 MT



NU Living Quarter Module

- Client: Japan Vietnam Petroleum Company
- Project Location: Vietnam
- Project Scope: EPC
- Duration: 02/2002 – 08/2003
- Key Facilities: 01 LQ (63 men), 02 bridges
- Total weight: 1,400 MT



PTSC Mechanical & Construction

ONSHORE CONSTRUCTION EXPERIENCES



Long Phu 1 TPP Project

- **Client:** PV Power
- **Main Contractor:** PTSC
- **Duration:** 2016 – 2018
- **Project Scope:** Prefabrication, Erection & Installation of SPMEI
- **Location:** Soctrang province, Viet Nam



Ca Mau Gas Processing Plant

- **Client:** PV Gas
- **Main Contractor:** PTSC
- **Duration:** 08/2016 – 04/2017
- **Project Scope:** Commissioning
- **Location:** Ca Mau, Vietnam



NCS Condensate Storage Project

- **Client:** PV Gas
- **Project Scope:** EPC
- **Duration:** 11/2001 – 11/2003
- **Key Facilities:** Two condensate tanks, condensate pumps, metering skid system, floating roofs
- **Capacity:** 16,500 m3/each



NPK Fertilizer Project

- Client: PVFCCo
- Main Contractor: PTSC
- Licensor: Thyssen Krup (India)
- Duration: 08/2015 – 01/2018
- Project scope: Prefabrication, Erection & Installation of SPMEI
- Location: Ba Ria – Vung Tau Province



NH3 Revamping Project

- Client: PVFCCo
- Main Contractor: PTSC
- Duration: 06/2015 – 09/2017
- Project scope: Prefabrication, Erection & Installation of SPMEI
- Location: Ba Ria – Vung Tau Province



GPPIC Project

- Client: PV Gas
- Duration: 08/2001 – 02/2002
- Project scope: Installation for 04 compressors
- Location: Ba Ria – Vung Tau Province



Nghi Son Refinery Project

- **Client:** NSRP
- **Main Contractor:** JV of JGC, Chiyoda, SK and Technip
- **Location:** Thanh Hoa Province
- **Duration:** 07/2012 – 04/2015
- **Project Description:**
 - Fab. & Installation (civil works included) of under ground piping works (CS/GRE/GRP/GRV).
 - Prefabrication of ~400,000DI Piping & Installation of 28,000MT of Structure, Mechanical Equipment and Piping



Dung Quat Refinery Project

- **Client:** Dung Quat Refinery PMT
- **Project Scope:** EPC
- **Location:** Dung Quat, Quang Ngai Province
- **Duration:** 06/2006 – 12/2007
- **Key Facilities:** Berth 1 to 6 of Product Export harbor for Dung Quat Refinery Harbor Project.
- **Other auxiliary systems for the harbor such as:** Cathodic protection, ship lanes with dividing buoys, and turning area

Clients & Partners



PTSC MECHANICAL & CONSTRUCTION

No. 31, 30/4 Street, Ward 9, Vungtau City, Vietnam

Tel: +84-254- 357 7888

Fax: +84-254-383 8170

Email: ptscmc@ptsc.com.vn ; ptscmc@gmail.com

Website: <http://mc.ptsc.com.vn>

