

REFERENCE WORK LIST



Globally onshore & offshore.....Solely & Jointly conducted with our business associates

Client (s)/Project Name	Location	Summary of Work Scope	Equipment/Controls
GE Controls:			
NUR Generation/Malaysia/2019	KK/Malaysia	Mark V Health checkup (Block-II) for 2XGE Frame 6B gas turbine and steam turbine	GE Speedtronic Mark V Control system GE Frame 6B and Steam Turbine
AGOCO, Benghazi, Libya /2018	Libya	Frame V gas turbine, and generator protection control system upgrades as well as frame V major overhauling	Frame V Gas turbine with GE Mark VI and Brush control system
RASCO, Ras Lanuf, Libya /2018	Libya	Frame V gas turbine, and generator protection control system upgrades as well as frame V major overhauling and heat cooling system and atomizing air modifications	Frame V Gas turbine with Allen Bradley control system and ABB generator protection
PT Kontrol, Medan ,Indonesia/2018	Indonesia	GE Mark VI Troubleshooting and cards replacements.	GE Speedtronic Mark VI Frame VI gas turbine
Jeddah Refinery	Jaddah/Saudi	GE Mark V troubleshooting and health checkup	GE Speedtronic Mark VI on Frame V gas turbine
NUR Generation/Malaysia/2017	KK/Malaysia	Mark V Health checkup (Block-II) for 2XGE Frame 6B gas turbine and steam turbine	GE Speedtronic Mark V Control system GE Frame 6B and Steam Turbine
NUR Generation/Malaysia/2016	KK/Malaysia	Advance GE Speedtronic Mark-V Simulator based operation and maintenance training at training center in Glasgow, Scotland, U.K	GE Speedtronic Mark V Control system GE Frame 6B and Steam Turbine
NUR Generation/Malaysia/2016	KK/Malaysia	Mark V Health checkup (Block-II) for 2XGE Frame 6B gas turbine and steam turbine	GE Speetronic Mark V Control system GE Frame 6B and Steam turbine
NUR Generation/Malaysia/2016	KK/Malaysia	GE Speedtronic Mark-V Simulator based on-site operation and maintenance training	GE Speetronic Mark V Control system GE Frame 6B and steam turbine
NUR Generation/Malaysia/2016	KK/Malaysia	Mark V Health checkup (Block-I) for 2XGE Frame 6B gas turbine and steam turbine	GE Speetronic Mark V Control system GE Frame 6B and steam turbine
NUR Generation/Malaysia/2016	KK/Malaysia	Mark V HMI Upgrade for 4+2 gas and steam turbine	GE Mark V Control system. GE Frame 6B and steam turbine
NUR Generation/Malaysia/2015	KK/Malaysia	Mark V Health checkup (Block-II) for 2XGE Frame 6B gas turbine and steam turbine	GE Speetronic Mark V Control system GE Frame 6B and steam turbine
NUR Generation/Malaysia/2015	KK/Malaysia	Mark V Health checkup (Block-I) for 2XGE Frame 6B gas turbine and steam turbine	GE Speetronic Mark V Control system GE Frame 6B and steam turbine
Kapar Energy Ventures/Malaysia/2015	Kuala Lumpur, Malaysia	GE Speedtronic Mark-V Operation & Maintenance Training	GE Mark V Control system GE Frame 9E and steam turbine
GE Aero /Tripoli/Libya	Tripoli West P.P	Pre-commissioning and Commissioning of 4 GE TM 2500+Micronet Plus Control System	GE Aero Derivative TM 2500+ with MicroNet Plus Control System
GE Aero /Azzawia/Libya	Azzawia P.P	Pre-commissioning and Commissioning of 4 GE TM 2500+Micronet Plus Control System	GE Aero Derivative TM 2500+ with MicroNet Plus ControlSystem
SAFER/Yemen/TS&S	KPU & CPU Safer	Upgrading the control system of two GE turbo compressor frame 5 from Mark IV to Mark VIE, Bently Nevada, CCC and MCC panels.	GT Frame 5/ Speedtronic Mark IV to Mark VIE.
Sirte Oil Company	Attahadi Field	Troubleshooting Mark V control system	GT Frame 5/ Speedtronic Mark V
Sirte Oil Company	Marsa Elbrega	Monitoring & troubleshooting GT tripping	GT Frame 5/Speedtronic Mark II

		without alarm indication for Area 1 oil & gas station	
Trigunamandala, Indonesia	Jakarta	Mark VIe logic & HMI modification, engineering, commissioning and start up	Speedtronic Mark VIe on Frame 6 GE gas turbine
Sonatrach AGIP/Sulzer	Bir Rebaa Nord, Algeria	Operation & Maintenance	GT MS5002D, PGT10/ Speedtronic Mark V, Mk VI, PLC, Suvimach+
NAOC/Santos	OBI OBI, Nigeria	Revamping & technical assistance Speedtronic MK II to MK VI	GT MS5002, F2/ Speedtronic Mk VI
SNAM PROGETTI	MALBORGHETTO ITALY	Commissioning & start-up	GT LM 2500/Speedtronic Mark V
Exxon Mobil	Erpha Project Offshore Nigeria	Commissioning & start-up	GT LM2500/Speedtronic Mark V
Exxon Mobil	YOHO Project Offshore Nigeria	Commissioning & start-up	GT LM2500/Speedtronic Mark V
Gas Prom Saipem	Beregovaja, Russia	Commissioning & Start-up	GT LM 2500/Speedtronic Mark V
Shell	Brunei	<ul style="list-style-type: none"> Technical support on GT/centrifugal compressor installation, connection, calibration. Commissioning & Start-up 	GT LM2500/Speedtronic Mark V
Exxon Mobil	Johor Bahru, Malaysia	Pre-commissioning & commissioning, start-up, installation, connection & calibration	GT LM2500/Speedtronic Mark V
Shell	Moerdejk-Holland	Instrument calibration, vibration system calibration & troubleshooting	Centrifugal Compressor SRL
Atlantic ALNG	Trinidad and Tobago	Commissioning & start-up	GT MS5002/Speedtronic Mark V TMR
PEMEX	Akal B Offshore Mexico	Commissioning & start-up	GT :PGT10DLE/SUVIMAC2PLUS GT: PGT25DLN/Speedtronic MK 5LM
SIRIO SISTEMI ELETTRONICI	Prato, Italy	Execution on CAD designer, software development.	PLC GE Fanuc, Mark V & Cimplicity HMI
GE /NP	OBI OBI, Nigeria	<ul style="list-style-type: none"> Revamping 5 turbo compressor from MK II to MK VI Technical support & advisory 	5 turbo compressor/MK II 3 turbo-generators Frame V/Speedtronic MK V 7 GT Frame 3/Speedtronic MK IV/GE Fanuc PLC 5 GT Frame I / Speedtronic MK V
SWM	Munich, Germany	Support & Maintenance	GT Frame 9E dual Fuel DLE/ Speedtronic Mark V
Zotti Field, GE N/P	Sonahess Algeria	<ul style="list-style-type: none"> Pre-commissioning, loop checks & commissioning, start-up, installation, connection & calibration, modifications. Commissioning Fire & Gas Protection System & Flame Detection Monitoring Systems. 	4 turbo generators Frame V/ Speedtronic Mark VI
AEG Kanais	Brega & Attahaddy, Libya	<ul style="list-style-type: none"> Maintenance & troubleshooting Commissioning, start-up. Software installation & modification Instrument calibration & configuration PMS Brush & ABB SCADA Operation 	2 GT Frame V/Speedtronic MK II 2 GT Frame V/Speedtronic Mk V
China Petroleum/ Petrochina/GE Oil&Gas	China	<ul style="list-style-type: none"> Loop checks, Pre-commissioning, calibrations, commissioning, software modifications on MK VIe 	2 PGT 25 PLUS, Mark VIe

		<ul style="list-style-type: none"> Commissioning Bentley-Nevada Commissioning Fire & Gas Protection System 	
OGD III (EPCL) For GASCO /GE Oil&Gas	Habshan Abu Dhabi	Technical support & advisory, start- up & operation	8 turbo-compressor GT Frame V
Qatar Gas II/GE Oil&Gas	Qatar	Technical support & advisory, start- up & operation	6 turbo-compressor Frame 9, Train IV & V 1 Frame VI turbo generator/Speedtronic Mk VI
Qatar Gas 3 & 4, Conoco Philips & Shell/GE Oil&Gas	Ras Laffan Qatar	<ul style="list-style-type: none"> Completed SAT, cold loop checks MK VI, Bentley-Nevada & Compressor Control Panels. Power-up all control panel 	GT 3 MS9001E /Speedtronic MK VI/DLN
ADGAS (Abu Dhabi Gas)/GE Oil&Gas	DAS Island, Abu Dhabi, UAE	Supervision, operation, advisory & MK VI logics modifications.	GT 1 MS5001B/Speedtronic MK VI
Qatar Gas I/GE Oil&Gas	Ras Laffan Qatar	Testing, calibrating instrument, supervising, hot loop checks.	GT 5 MS5002/Speedtronic MK V
SAPPI	Maastricht, Netherlands	Maintenance & Start-up	GT Frame 6/ Speedtronic Mark V
MGI/Sulzer	AGPS/Kurdistan Iraq	Mentoring/training & supervising O&M Maintenance & Start-up	GT Frame 9E/Speedtronic Mark VI
GTSI/Ge Oil&Gas	Houd Elhamra, Algeria	Technical support & advisory & troubleshoot MK V control panel and re-commissioning.	GT T3 PGT 10s/Speedtronic Mark V
Client (s)/Project Name	Location	Summary of Work Scope	Equipment/Controls
WOODWARD Controls:			
Client : PT Begania Prima Site : PT.PLN (PERSERO), Palembang.	Indonesia	<ul style="list-style-type: none"> Retrofit Woodward Netcon Controller to MicroNet Plus 	2 units TM2500 GT Generator
Shell/Philips/ Petroleum/BP/ Stena Line /Aramco/PM Control	Europe , Africa & Middle East	<ul style="list-style-type: none"> Service provider for Woodward on all WW turbine control systems for gas turbines & steam turbines. Official customer training for Woodward customers. Experience in steam turbine application with single extraction, double extraction, etc. Consultancy & assistance in commissioning – Belgium for SPE Service contact for schedule & unscheduled maintenance & support- Netherlands Onshore & offshore maintenance including modifications of LM6000 & LM2500 in the past few years. Did the first MicroNet Plus training course for a Woodward customer. 	GT LM1600/Woodward control systems/Micronet/Atlas/Netcon GT LM2500, LM5000 & LM6000 Rolls-Royce (RR Avon, RR RB211, RR Trent), etc.

Client : PT Begania Prima Site : PT.PLN (PERSERO), Bakin Baru	Indonesia	<ul style="list-style-type: none"> • Servicing MicronNet Plus installations in Europe, such as Spain and other parts of the world. 	Control System upgrade for 2 frame 5 gas turbines
GE Aero/ Tripoli West P.P	Libya	<ul style="list-style-type: none"> • Fuel system conversion and control system upgrade from Mark IV to TMS 1000 of 2 frame 5 GE gas turbine 	GE TM 2500+ with MicroNet Plus Control System.
P&W/ Tripoli West P.P	Libya	<ul style="list-style-type: none"> • Pre-commissioning and Commissioning of two TM-2500 	P&W FT8 with MicroNet Plus Control System.
		<ul style="list-style-type: none"> • Installation and Pre-commissioning and Commissioning of two P&W FT8 	
Client (s)/Project Name	Location	Summary of Work Scope	Equipment/Controls
SIEMENS Controls:			
Damietta CCPP 1230MW	Egypt	<ul style="list-style-type: none"> • Start-up & Shut-down, ET, daily monitoring • DCS Operating & monitoring • Software modification TLEPERM ME 	Siemens 135MW GTV.94.2 Steam Turbine 145MW & its auxiliary
Client : Sulzer Turbo Service Venlo Site : Dzerzhinsk Power Plant TGK-6	Russia	<ul style="list-style-type: none"> • Cold & Hot commissioning, start-up, calibration 	GT V92.4/Teleperm ME
Client : Sulzer Turbo Services Venlo B.V. Site : AL MIRFAA Desalination and Energy Centre	Abu Dhabi, UAE	<ul style="list-style-type: none"> • Commissioning & Start-up. • Inspection & maintenance 	TELEPERM M and SIMADYN 6D 16BIT
Client :Sulzer Turbo Services Venlo Site :AI EZZEL	Oman	Supporting partner to LTSA	<u>DCS Systems:</u> SIEMENS Teleperm XP (SPPA-T2000) <u>Control Systems:</u> GT Protection: SIEMENS S5-95F (PLC S5-155U CPU 948R) GT Control Governor: Simadyn D,PM6 Processor: SIEMENS
Client : Sulzer Turbo Services Venlo Site :Sohar	Oman	Supporting partner to LTSA	<u>DCS Systems:</u> SIEMENS Teleperm XP (SPPA-T2000) <u>Control Systems:</u> GT Protection: SIEMENS S5-95F (PLC S5-155U CPU 948R) GT Control Governor: Simadyn D,PM6 Processor: SIEMENS
			<u>DCS Systems:</u> SIEMENS Teleperm XP (SPPA-T2000)

Client : Sulzer Turbo Services Venlo Site :Barka 2	Oman	Supporting partner to LTSA	<u>Control Systems:</u> GT Protection: SIEMENS S5-95F (PLC S5-155U CPU 948R) GT Control Governor: Simadyn D,PM6 Processor: SIEMENS
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Client (s)/Project Name	Location	Summary of Work Scope	Equipment/Controls
ABB 800XA DCS			
West Coast Power (pvt) Ltd, CCPP	Sri Lanka	<ul style="list-style-type: none"> Maintenance and troubleshooting DCS Operating & monitoring Operation and maintenance training 	GE Frame 9E GE Speedtronic Mark Vie Control System GE Steam Turbine & its auxiliary

Mechanical field services worldwide experiences* :

Client (s)/Project Name	Summary of Scope of Works	Equipment
PG/HOO , Libya (On going)	GE Frame V gas turbine and Generator major inspection	GE Frame V, Brush Generator
RASCO, Ras Lanuf , Libya	GE Frame V gas turbine and Brush Generator major inspection	GE Frame V, Brush Generator
AGOCO, Benghazi, Libya	GE Frame V gas turbine and Brush Generator major inspection	GE Frame V, Brush Generator
GE Oil & Gas/ Mellitah complex	GE Frame V Major overhaul	GE Frame V Gas Turbine
GE Oil and Gas/AbuAltiful field/Mellitah/Libya	GE Frame V Major Overhaul	GE Frame V Gas Turbine
GE Oil and Gas/Buri Offshore/Mellitah/Libya	GE Frame V Major Overhaul	GE Frame V Gas Turbine
Scirocco Limited (GECOL Libya)	Two P&W FT8 Units & Balance Of Plant Installation	2XP&W FT8 Units in Tripoli West, Libya
PT Alstom Grid (GE Grid Solutions)	Site coordination for 18 X GE TM2500+ (Installation & Commissioning support) at four different sites. Field support on high voltage switch yard, transformer and PMS.	18X TM2500+ at four different sites in Indonesia
GE Oil and Gas/Green stream/Mellitah/Libya	Gas turbine Rotor replacement and alignment	GE Frame V Gas Turbine
Hauroge Oil Company /HPI-Mayar, Amal Field	Gas turbine Major Overhaul	GE Frame V Gas Turbine
Hauroge Oil Company/ Amal Field	Load Gear box overhauling	GE Load Gear Box
HAMs Energy/Saudi Arabia	Commissioning support for HAMS energy (GE subcontractor) in Saudi Arabia for 5 TM2500+ Gas turbine in Duba , Tabarjal and Madinah	5X TM2500+ at three different sites in Saudi Arabia
GE Oil&Gas/Wafa Field Mellitah/Libya	Major overhaul for 2 Frame 5 Gas turbine at Wafa Field for Mellitah Oil &Gas	GE Frame V Gas Turbine
Libya Iron and Steel	Troubleshooting and Start up for Mark II control	GE Frame V with spintronic Mark

Company/Libya	Syetem of GE Frame V gas turbine	II
GE Digital Energy /Egypt	Field support on high voltage switch yard, transformer and PMS site coordination for 6 LM6000 Power plant in each site at Hurgada and Sharm Elshik power plants	Switch year and transformers for 6XLM6000 gas turbine at two different sites
GE Digital Energy/Libya	BOP of pipes and electrical scope of 100 MW mobile power plant in Azzawia and Tripoli West P.P including Gas turbine installation , gas and liquid skids, pipes erections, hydro testing, x-rays, logistic, and high voltage cable terminations and testing.	4 GE TM 2500+ Gas Turbines
Sirte Oil Company/Libya	Troubleshooting of liquid fuel system skid/change over operation, commissioning and start up	One units of GTG-B frame V GE gas turbine with Mark V control system
Sirte Oil Company/Libya	GCV/SRV major overhaul , commissioning and start up for 2 frame 5 GE gas turbine in Atthadi Field.	2 frame V gas turbine with Mark V control system
MTU Friedrichshafen	<p>@Smurfit, Mengibar Spain. Part of engineering, installation and commissioning.</p> <p>@Michelin, Aranda Spain. Commissioning and start up complete combined heat and power plant.</p> <p>@Pinasa, Cuenca Spain. Part of engineering, installation and commissioning.</p> <p>@Solvay Martorell, Barcelona Spain. Commissioning complete combined heat and power plant.</p> <p>@Talosa, Soria Spain. Part of engineering, installation and commissioning</p>	<p>LM 2500 and ABB generator</p> <p>LM 2500+</p> <p>LM 2500 and ABB generator</p> <p>LM 2500 DLE</p> <p>LM 2500 and ABB generator</p>
BBP Rheden	<p>@Terra-nova New Foundland (off shore)</p> <ul style="list-style-type: none"> • Inspection main gearbox and change out the bearings from the pinion shaft. • Change out bearings from the generator. <p>@ Doga Esenyurt Istanbul-Turkije. HGP inspection.</p> <p>@ Dalkia –Parijs. HGP inspection and change out second stage blades.</p> <p>@ Cerestar, Sas van Gent HGP inspection.</p> <p>@ Isla- Curacao Ned Antillen</p> <ul style="list-style-type: none"> • Major inspection. • Change out blades and nozzles, repair exhaust. 	<p>MS6001</p> <p>MS6001</p> <p>MS6001</p> <p>MS3002</p> <p>GT 9 MS5001</p>
BBP Rheden	<p>@Isla Curaçao Major inspections on turbines and balancing the rotors.</p> <p>@Esenyurt Turkije Repair gearbox, install new bearings in main oil pump.</p>	<p>2 Frame MS 5 turbines</p> <p>Frame 6B</p>
MTU Friedrichshafen	<p>@Smurfit, Mengibar Spain. Part of engineering, installation and commissioning</p> <p>@Pinasa, Cuenca Spain. Part of engineering, installation and commissioning</p> <p>@Solvay Martorell, Barcelona Spain. Commissioning and start up complete combined heat and power plant.</p> <p>@Talosa, Soria Spain.</p>	<p>LM 2500 and ABB generator</p> <p>LM 2500 and ABB generator</p> <p>LM 2500 DLE</p>

	Part of engineering, installation and commissioning	LM 2500 and ABB generator
VBR Turbine parts / MTU Ludwigsfelde	<ul style="list-style-type: none"> • GE Aero derivative Industrial Gas turbines (On and Off shore) • On call services worldwide, Trouble-Shooting, Engine and Hot Sections Changes. • Bores cope inspections. 	
Electrabel Belgium	<ul style="list-style-type: none"> • Service contract: GE Aero derivative Industrial Gas turbines. • On call services, all over in Belgium. (Office in Belgium planning and coordination) 	
Elbar – Sulzer	@Elsta Terneuzen Major inspection.	Frame 9E
Electrabel Belgium	<ul style="list-style-type: none"> • Service contract: Industrial Gas turbines. • On call services, all over in Belgium. • Office in Belgium planning, coordination and • Training of local staff and employers. 	GE Aero Derivative LM6000PB and PD
BBP Rheden	@Electrabel Harculo Major inspection.	FS9001B
Elbar – Sulzer	Project manager for Rurhgas major overhaul. Project manager for Zliten in Libya major overhauls	Frame 3 Frame 5
Elbar – Sulzer	<ul style="list-style-type: none"> • Project manager for Elsta, HGP inspection. • Project manager for Corby Power, HGP inspection 	GE Frame 9E
Thomassen Turbine Systems	<ul style="list-style-type: none"> • Commission engineer at Terra Nova FPSO, Rotterdam to Canada(offshore) • Technical advisor, Turkey, Major Overhaul & Upgrade • Technical advisor, Terra Nova FPSO, after fire in starter skid, Fuel Gas issues • Project manager, Roquette France, Major Overhaul • Project manager, Germany, reassembly Frame 3. 	Frame 6 Frame 6B Frame 6 Frame 6B Frame 3
Maintenance Partners	Project manager, Nerefco , Comb. Inspection & Gearbox modifications. Technical advisor, Egypt reassembly F5	Frame 5
Stork	Service engineer, Essent Helmond , repair works.	GT 10
Air New Zealand	Service engineer, Denmark , Bores cope inspections on fast ferry.	
Trans Canadian Turbines	Service engineer, Denmark , Borescope inspections	
Tames Power services	Outage lead Major inspection.	Frame 9E
Elbar – Sulzer	<ul style="list-style-type: none"> • Project manager for Elsta, HGP inspection. • Project manager for Maastricht HGP inspection 	Frame 9E Frame 6001

	<ul style="list-style-type: none"> Project manager at Germany Major inspection Project manager maintenance Support complete oil and Gas plant Algeria 	Frame 3001
Capital turbines	Gas turbine and generator inspection Japan , for sale to Australia	
Electrabel The Netherlands	Technical advisors Harculo the Netherlands CI inspection	Frame 9B
T.C.Power	Combustor change	LM2500
ABB Egypt	Rotor repair at customers site in Cairo (Change out broken Turbine section and balancing rotor at local shop).	
T.C.Power	Combustor change. Install liquid fuel system.	LM2500 LM6000PC Sprint
Mols Linien	Service contract for inspections and troubleshooting.	5 GE LM1600 Engines
NAM / Stork The Netherlands	Currently Project Manager, TA and supervisors for installation, commissioning of complete new GE Frame 9E plant. Package is new and will be inspected by GE quality for the guarantee.	Frame 9E
Simebest Malaysia	Repair and test of supplied engine, after test engine was installed and commissioned at site in Malaysia . LM 2500 Engine inspection in Abu Dhabi to advice the condition to buy.	LM2500
Standard Aero Spain	Power turbine change at Erfei Barcelona Spain . <ul style="list-style-type: none"> Alignment at LM 1600 package Erfei Barcelona Spain Engine change LM 1600 Erfei Barcelona Spain 	LM 1600
Ansaldo Thomassen	<ul style="list-style-type: none"> Technical advisor, Turkey, Major Overhaul & Upgrade Project manager Electrabel Belgium, Major inspection. Site manager at AES Kilroot for the relocation of including one major overhaul. Technical advisor / trainer / parts management for project in Bangladesh. Technical advisor for package upgrades and training of local employees in the UK. Major overhaul at Egypt Bapetco. Major overhaul including new exhaust Senegal. Major overhaul in Belgium. Auxiliary repair of the AA compressor, liquid fuel pump and flow dividers at The Netherlands Borescope inspections at the FPSO Canada. 	Frame 6B Frame 6B 2 Frame 6B 3 Frame 6B 4 GE Frame 9E Frame 6 Frame 5 GE Frame 5 GE Frame 3
Siemens / Santos Australia	Rotor and bearing repair, borescope inspection in Australia .	Frame 5002
Alstom Germany	<ul style="list-style-type: none"> Rotor repair and balancing at workshop in The Netherlands. Technical advice and troubleshooting during vibration problems with engine. 	GE Frame 6B GE Frame 6B

Nuon power	<ul style="list-style-type: none"> Maintenance contract to inspect and trouble shoot in The Netherlands. Engine change, PT inspection alignment parts support and technical advice. 	LM 5000
Lahmeyer	Handover inspection after the power plant was finalized by GE in Pakistan .	GE Frame 9E
Electrabel Belgium	<ul style="list-style-type: none"> Service contract On call services all over in Belgium, Germany and the Netherlands for the total of 28 Plants. 	GE Aero Derivative LM 6000PB Pratt and Whitney
Emmtec	<ul style="list-style-type: none"> Two CI Inspections and alignment of main coupling to generator in The Netherlands. Major Overhaul Frame 6B in the Netherlands 	GE Frame 5001 Frame 6B
KLM The Netherlands	Long term agreement for two shop engineers to building the engines, modules, rotors, balancing, etc.	GE CF6
Noske Skog	HGP Inspection and overhaul advise at paper factory in The Netherlands .	GE Frame 5

SIEMENS/ABB services experiences Some Experience is through TCS partners

Customer	Location	Description
Siemens	Algeria	SGT400 - Installation of 7 x gas turbine compressor packages
Siemens	Bangladesh	SGT400 & SGT100 - Installation of gas turbine compressor packages
Siemens	Ukraine	SGT300 - Installation of gas turbine compressor package
Siemens	Saudi Arabia,	SGT500 to 800 – Mechanical installation of various units with subsequent pre-commissioning and commissioning of package systems and turbines.
Siemens	Western Australia	SGT800 – Installation and commissioning of gas turbines, waste heat recovery systems and steam turbines
Siemens	Kazakhstan	SGT600 – Installation and commissioning of gas turbine compressor package
Bechtel	Angola	SGT400 – Core engine builds and installation on 2 x gas turbine gensets
Siemens	Venezuela	SGT400 – Installation and commissioning of gas turbine gensets
Aramco	Saudi Arabia	Tornado gas turbine major onsite overhaul on both gas generator and power turbine
Single Buoy Moorings	Singapore	Laser Alignment on 9 x gas turbine packages for certifying authority approval on a FPSO

		CNOOC China Vibration Analysis and Trim Balancing on 2 x Typhoon gas turbine generator packages
Siemens	Australia	SGT400 – Installation of 9 x gas turbine gensets and 6 x compressor sets
Siemens	Venezuela	SGT300 – Installation and commissioning of 3 x mobile gas turbine gensets at different sites
Petrobras/Oderbrecht	Singapore	SGT300, inspections, servicing, fault diagnosis, and commissioning of 3 x gas turbine generators following a period of 3 years in unprotected storage
Siemens	Brazil	SGT200 & Rolls-Royce RF3BB-20 centrifugal compressors – Installation supervision for 11 compressor trains at 3 stations
Siemens	Egypt	MAN Turbo motor driven gas compressors – Installation, commissioning and acceptance of 4 compressor trains and
Siemens	Middle east	SGT400 – Installation of 3 x gas turbine gensets, controls, electrical and balance of plant
Siemens	Korea	Gas turbine installation and commissioning
Siemens	Angola	SGT400 – Gas turbine preservation services
Siemens	Brunei	Gas turbine installation and commissioning
Siemens	Ukraine	SGT300 – Installation of 2 x gas turbine gensets
SBM	Singapore	Installation of various steam and gas turbine power generation packages (SGT100, SGT200 and SGT400), compression modules and water injection packages SBM Singapore Dismantling, inspection, repair/rebuild and recommissioning of gas turbine core engine, driven compressors, pumps and associated plant SBM Singapore Gas turbine borescope services Global Process
Systems - GPS	Malaysia	Installation and commissioning of 5 x diesel generator packages and 2 x Solar Saturn gas turbine generator packages Mobile Production Units and Drilling Platforms

EPC services experiences in Libya*:* Experience through TCS potential acquisition/merging partner

Client (s)/Project Name	Summary of Scope of Works	Year
Libya Holding Company/GECOL	<ul style="list-style-type: none"> Turnkey, civil work, installation, pre-commissioning , of 60 MW mobile power plant 	2017

GE Digital Energy/GECOL	<ul style="list-style-type: none"> • Turnkey, civil work, installation, pre-commissioning , commissioning and startup of 100 MW mobile power plant 	2014-2015
	<ul style="list-style-type: none"> • On-site Inspection & Outsourcing. • QA/QC Site inspectors supervising the construction work of the pipeline. • .Civil Engineering Site inspectors supervising the civil work of the pipeline & other Projects. • Welding inspectors supervising welding activities. • NDT “RT Interpretation” Inspectors supervising the welding quality. • Support and assistance by performing destructive testing for Welding Procedure Qualifications Record PQR as per the required code. • Hydrostatic engineer supervising the hydrostatic testing of the pipeline. • HSE supervisors for the pipeline project and safety department. 	<u>2006</u>
Mabruk Oil Operations	<ol style="list-style-type: none"> 1.Provision of QA/QC Inspectors coordinators to supervise the quality actions at site for construction of phase IV Mabruk Development Project. 2.Provision of welding inspectors painting, coating & insulation inspector, supervising construction activities for phase IV Mabruk Development Project. 3.Welder's qualifications test “Sicim”. Review and assessment of welders in accordance to WPS. 4.Radiologist engineers to perform and carry out detection and measurements of possible natural radioactive existence at offshore AlJurf field and onshore Mabrouk field. 5.Surveyors engineers to gather the noise levels data to be evaluated, and carry out an assessment of the collected data, to Mabruk Oil Operations Company, offshore AlJurf field and onshore Mabrouk field.. 6.An Ultrasonic inspection survey in order to determine the remaining thickness of 82 selected locations at some of Mabruk field flow lines. 7.X-Ray spot survey for some of Mabruk flow and trunk lines to assess in confirming presence of deposit and the possibility of determining the amount of these deposits “accumulation”. 8.Inspection of the jet fuel tank 	2005-2010
General Company for Transmission and Distribution	<ol style="list-style-type: none"> 1.QA/QC Site inspector supervising the construction work of pipeline. 2.Welding inspectors supervising welding activities. 3.NDT”RT Interpretation” Inspectors supervising the welding quality. 4.Support and assistance by performing destructive testing for welding procedure Qualifications Record 	2010
Pont celli.	NDT inspection involves provision of level two inspector and an assistance with gamma ray projector, dark room equipments ,MPI yoke consum.	2009-2011
<ul style="list-style-type: none"> • Express Train Company For 	<ul style="list-style-type: none"> • Inspection of Laboratory equipment at UK for the Express Train Company. Supplier Tummo Ltd. 	2009-2010

General Construction.	<ul style="list-style-type: none"> • Inspection of two complete crushing plants at USA for the Express Train Company. Supplier TechnomaxTrading Ltd. • Inspection of Hydraulic Excavator, Heavy wheel loading trucks, Dump trucks, Ambulance truck, 4 WD Land cruiser, and Highlux trucks. In various locations in Europe and UAE. • Inspection of compete camp facilities consist of 22 containers for living and offices with power plant generators and water treatment plant.. 	
Enka Teknik.	<ul style="list-style-type: none"> • N.D.T Radiography inspection and Ultrasonic flow detection for cement company at Souk Elkhamis plant. KILN # 1 & 2. • Radiographic inspection for welders qualification testing. • N.D.T Radiography inspection and Ultrasonic flow detection at Sosa Derna Zewitina and Azzawia Tanks construction. 	2007-2010
Sicim s.p.A	<ul style="list-style-type: none"> • Radiographic Examinations by utilizing an Iridium Ir 192, gamma source and x-ray equipments for different Production Welds, at Great Mabruk Development Project. • RadiographicExaminations by utilizing Se 75, gamma source For 6", 8" and 10" piping, Production Welds. • 3.Inspection certification of 35 ton telescopic mobile crane. 	2007-2010
J&P.	<ul style="list-style-type: none"> • 1.Radiographic Examinations by utilizing an Iridium Ir 192, gamma source for different Production Welds, at Great Mabruk Development Project. • 2.Radiographic Examinations by utilizing an Iridium Ir 192, gamma source & Magnetic particle inspection and testing of JP-158-tanks and associated piping at Azzawiya –Libya. 	2006-2007
Linde Cryo.	<ul style="list-style-type: none"> • Radiographic Examinations for Oxygen plant at new Benghazi Central Hospital -Plants. 	2007
PEPSOL REMSA .	<ul style="list-style-type: none"> • Lifting and Handling equipment inspection and certification for three (3) rigs working for REPSOL REMSA at AL-Shrara field. 	2007
ENI Gas BV	<ul style="list-style-type: none"> • Ultrasonic flow detection survey on #1 Trunk line, at Wafa field. 	2006
Vasavi-BHEL	<ul style="list-style-type: none"> • Radiographic Examinations by utilizing gamma source for Tank, and piping joints at western mountain power plant. 	2005-2006
Subsea 7 (ex. DSND Co).	<ul style="list-style-type: none"> • Support and assistance to DSND Co. for the overall Underwater Inspection project of the Bouri AGIP Oil & Gas-Libya Co. 	2005

High Voltage/Substation *: *Experience through TCS potential acquisition/merging partner

Projects & Substation Testing						
No	Substation Name	Voltage	OEM	Area	Project Description	Year
1	GE Power Grid/Wind farm substation	11.5/220KV	GE	Thailand	Supervision of Site Erection, assembly , testing of cables installation, termination, testing, transformer and bus-bar installation, testing	2017/ 2018
2	Tripoli west/GECOL	11.5/220KV	P&W	Tripoli	Turnkey project of Erection, assembly , testing of cables installation, termination, testing, transformer and bus-bar installation, testing	2017
3	PLN Indonesia	11.5/220kv	GE/ABB	Indonesia	Supervision of Site Erection, assembly , testing and design of cables installation, termination, testing, transformer and bus-bar installation, testing	2016
4	Hurgada/Sharm /Egypt	11.5/220kv	GE/ABB	Egypt	Power plant installation site support	2015/ 2016
5	Buatni	220/30 KV	Siemens	Benghazi	Relay Tests and Troubleshooting	2000
6	Benghazi North P.P	220/30 KV	BBC	Benghazi	Relay Tests and Troubleshooting	2001
7	Benghazi North New P.P	220/30 KV	Cogalex/Areva	Benghazi	Installation and Commissioning	2006
8	Benghazi Center P.P	220/30 KV	ABB	Benghazi	Installation and Commissioning	2007
9	Gwarsha P.P	220/66/30KV	ABB	Benghazi	Relay Tests and Troubleshooting	2004
10	Benghazi South	220/30 KV	BBC/Medelec	Benghazi	Commissioning & Testing	2003
11	University	30/11 KV	Medelec	Benghazi	Commissioning & Testing	2002
12	Central Hospital	30/11 KV	Medelec	Benghazi	Commissioning & Testing	2002
13	Ghot Soltan	66/11 KV	Medelec	Benghazi	Commissioning & Testing	1999
14	Agdabia/Libya	220/30 KV	Siemens	Agdabia	Relay Tests and Troubleshooting	2003
15	Kufra/Libya	66 KV	Energovist	Kufra	Relay Installation& Testing	1999
16	Azzawia Power Plant	11/66 KV	ABB	Azzawia	Equipment Installation and Testing	2013
17	West Tripoli Power Plant	11/220 KV	ABB	Tripoli	Equipment Installation and Testing	2014