

GAS Entec's Reference

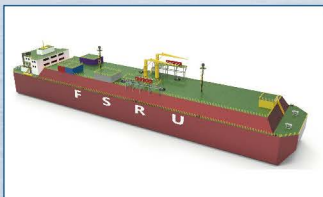
Project	Client	Scope ^{*)}
50 MMSCFD Floating Regas Unit	JSK, Indonesia	E/P/C
2,200 M ³ Bunkering Barge	Conrad, USA	E/P
26,000 M ³ Floating Storage & Regas Unit	JSK, Indonesia	E/P
21 MMSCFD Regas Module	Karpowership, Turkey	E/P/C
125 K LNGC Conversion to FSRU	KALMOL, Turkey/Japan	E/P
2,700 M ³ Bunkering Ship	JMU, Japan	E/P
32,000 M ³ LNG Feeder	GTT, USA	E
FGSS for 37.5 K Bulk Carrier	GTT, USA	E
85 MMSCFD Regas Unit	Woodside Energy, Australia	E
83,000 M ³ FSRU	BMT, Singapore	E

^{*)} E : Engineering , P : Procurement , C : Construction

LNG Fuel Gas Supply System



50MMSCFD FRU



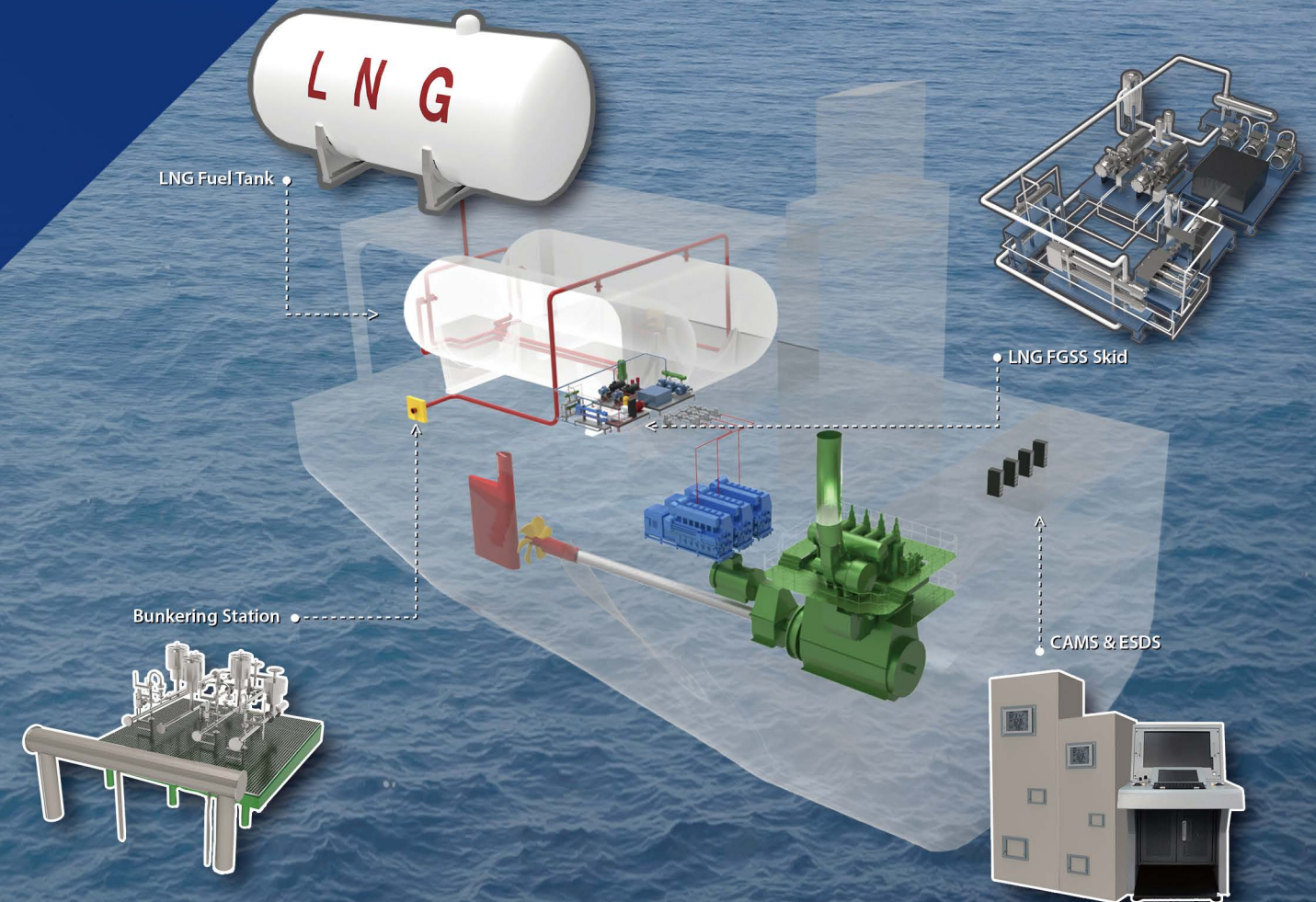
26,000M³ FSRU



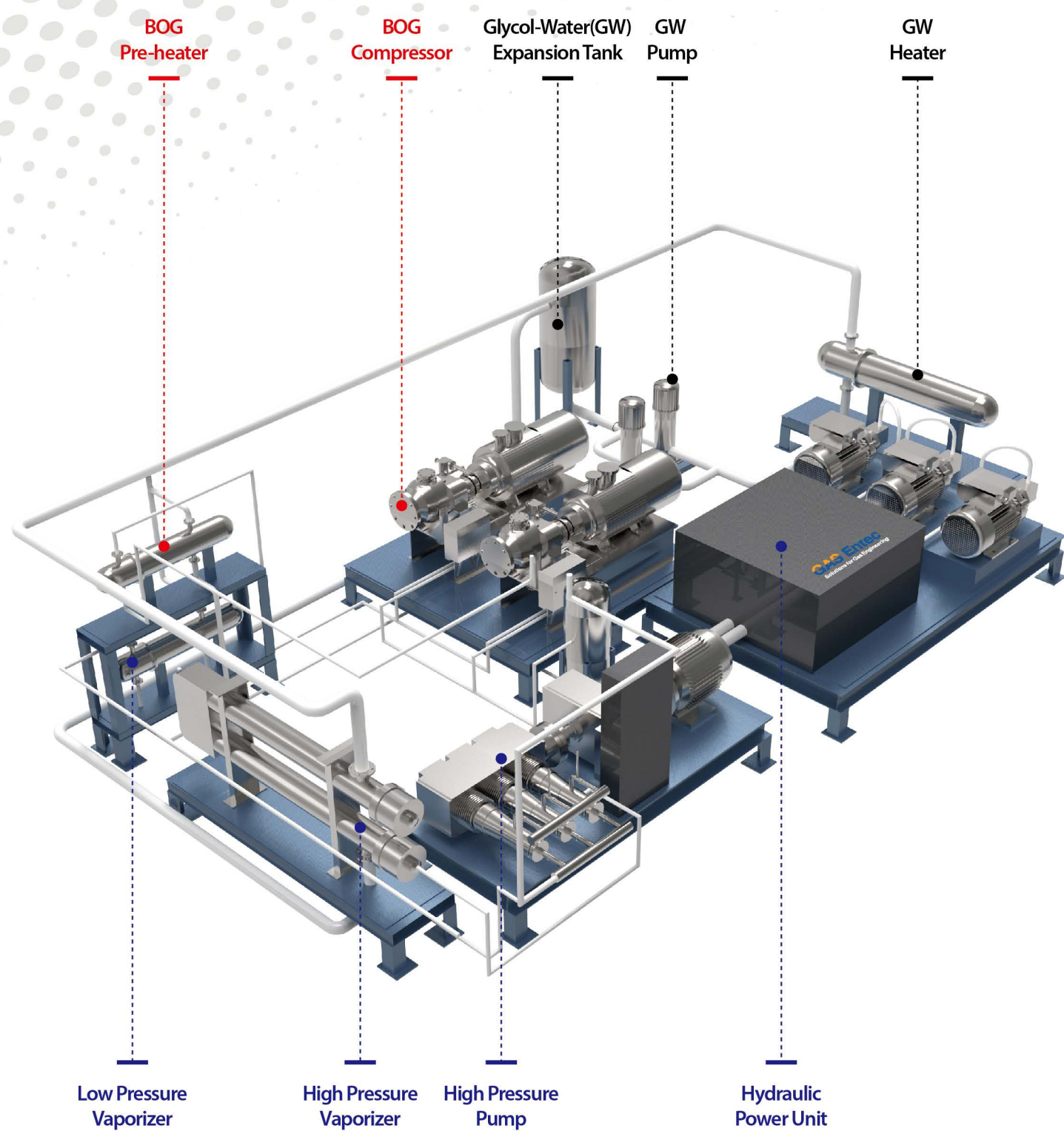
Regas Module for 125K FSRU Conversion

GAS Entec

GAS Entec Co., Ltd.
 # 2701-2709, KNN Tower, Centumseo-ro 30, Busan, Korea 48058
 Telephone: +82-51-714-3308 Fax: +82-70-7500-3979
 E-mail: gasentec@gasetnec.com



Fuel Gas Supply System Skid Model



*) This FGSS Skid is designed for ME-GI Dual Fuel Engines.

Clean LNG

Emission Gas	IMO Regulation	LNG	VLSFO
SOx	0.5% sulphur content - global	Meet	Meet
Emission Gas	EEDI (Energy Efficiency Design Index)	Meet	Not meet
Emission Gas	EEDI (Energy Efficiency Design Index)	Meet *1)	Not meet
Emission Gas	EEDI (Energy Efficiency Design Index)	Less	More

*1) Low pressure fuel gas engine

Engineering

• GAS Entec provides **design engineering service** as follows;

Dicipline	Design Development	Remark
Before shipbuilding contract		
LNG & Fuel Gas	BOG management calculation	
	Capacity calculation	
	Building spec for FGSS	
	Process flow diagram	
	General arrangement including LNG tank	
	Hazardous area plan	
	Steam heat balance	
Electric	Machinery arrangement in E/R	Option
	Fuel gas pipe arrangement in E/R	Option
	Electric load analysis	
After shipbuilding contract		
LNG & Fuel Gas	P & ID	
	Piping practice	
	Arrangement of LNG & fuel gas piping	
	Production drawing	Option
Electric	Wiring diagram	
	Control & alarm system	
	Cable layout plan	

Procurement

• GAS Entec supplies **equipment and material** as follows;

Equipment & Material	Remark
All equipment for FGSS	
Valves and instruments	
Stainless steel pipe spool with insulation	Option
All electric and control equipment for FGSS	

Test & Trial

• GAS Entec provides **test and trial** as follows;

