

GasLink™ FGSS Global Services Network

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GasLink™ FGSS Spare Part Storage Station

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CSSC
中国船舶

青島双瑞
SUNRUI

GasLink™

Fuel Gas Supply System (FGSS)

SunRui Marine Environment Engineering Co., Ltd

Together We Steer Towards A Greener Future



Our Strengths 01.

SUBSIDIARY COMPANY OF CSSC



STATE-OWNED
HIGH-TECH ENTERPRISE



STATE KEY LABORATORY (SKL) OF
MARINE CORROSION & PROTECTION



DEGREE CONFERRING UNIT OF
MASTER'S & DOCTORAL PROGRAM
POSTDOCTORAL WORKSTATION
OF MATERIALS SCIENCE



WELL-ESTABLISHED
MANAGEMENT SYSTEM OF
QUALITY, ENVIRONMENT, AND
OCCUPATIONAL HEALTH & SAFETY



Our Products

1 LNG Storage Tank

2 LNG Bunkering Station

- ① Emergency Shutdown Valve
- ② Drip Tray
- ③ LNG Liquid Bunkering Line
- ④ NG Vapor Line

3 BOG Compressor Unit

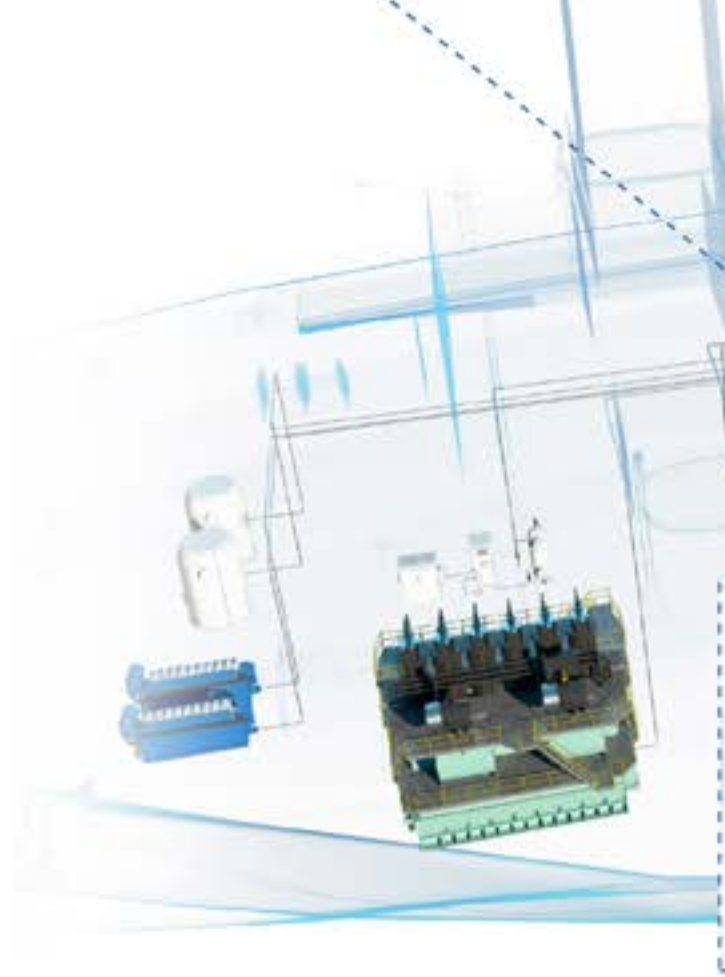
- ① BOG Compressor
- ② Explosion-proof Motor
- ③ Damper
- ④ BOG Pre-Heater

4 LNG Vaporizing and Heating Unit

- ① MP Buffer Tank
- ② LP Buffer Tank
- ③ ESD Valve
- ④ NG Vapor Line
- ⑤ Vaporizer

5 Water Glycol Circulation Unit

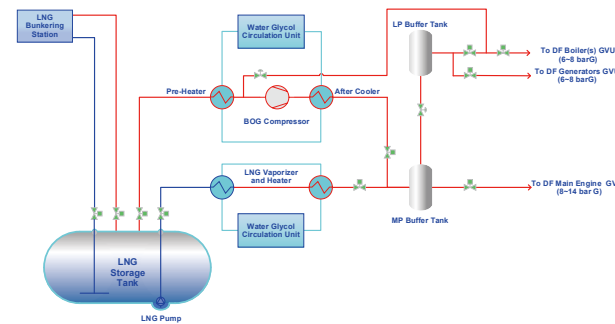
- ① Water glycol pump
- ② Temperature regulation valve
- ③ Heat Exchanger-NG
- ④ Heat Exchanger-Cylinder water



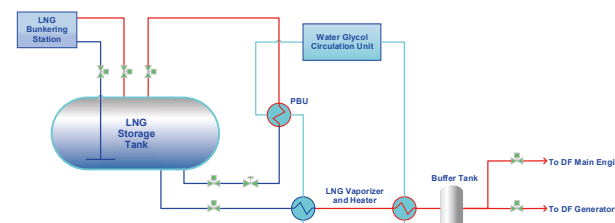
LNG FUEL GAS SUPPLY SYSTEM

System Solutions

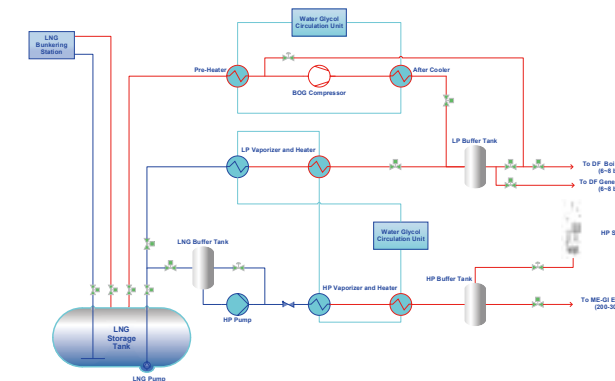
LP FGSS



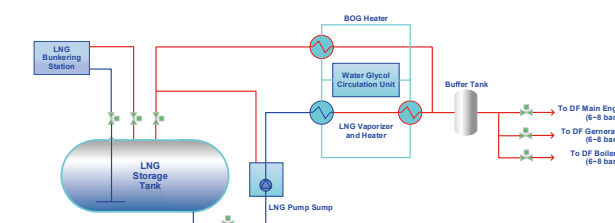
SELF-PRESSURIZED FGSS



HP FGSS



OUTSIDE THE TANK PUMP



Scope Of Supply List

Scope of Supply

- LNG Bunkering Station
- LNG Storage Tank
- LNG Vaporizing and Heating Unit
- BOG Compressor Unit
- Water/Glycol Circulation Unit
- High Pressure Pump Unit

- FGSS Control System
- FGSS Safety System

Optional

- Ship Shore/Ship Link System
- Gas Detection System
- Ventilation System
- N₂ Generator System
- Double-wall Pipe

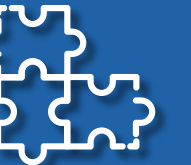
Our Advantages

Control System
Analog simulation technology



Stable Gas Supply
Intelligent stepwise control technology

Skid Design
Integration and miniaturization



Operation Interface
One-Key Auto Start

System Security
Authorized by the international TUV

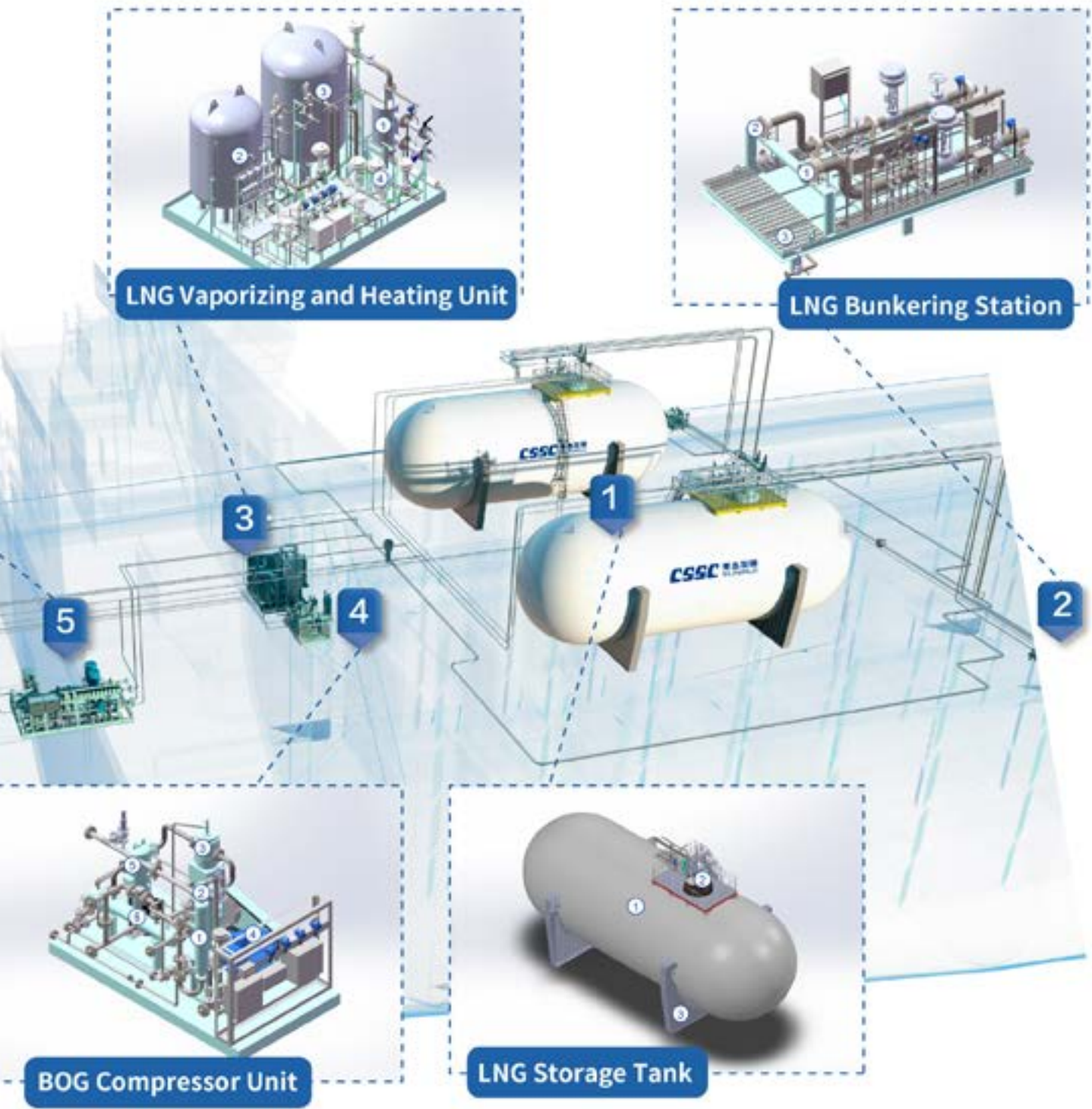


Turnkey Solution
Integration of FGSS+SCR

After-sales Service
Global service network



Our Case Study.



7000CEU PCTC (High-Pressure FGSS)

Type	Capacity (kg/h)	Quantity (Set)	Equipment	Parameters
Main Engine 6S60ME-C10.5-GI	1951	1	LNG Storage Tank	Type: Single Walled Insulated Type C Tank Tank Geometric Volume: 2×1675 m ³ Design Pressure: 4 bar G Design Temperature: -196 °C Static BOR@95%: ≤0.4%/d
Generator	301	3		
Boiler	120	1		
			LNG Bunkering Station	LNG Bunkering Pipe Diameter: DN200 Vapor Returning Pipe Diameter: DN150 Max Bunkering Rate: 930 m ³ /h
			LNG Supply Pump	Capacity: 0.5-6.5 m ³ /h Differential Head: 10 bar G Rated Power: 15 kW
			HP LNG Pump	Capacity: 0.5-5 m ³ /h Differential Head: 320 bar G Rated Power: 90 kW
			HP LNG Vaporizer and Heater	Type: Shell & Tube Capacity: 388 kW
			LP LNG Vaporizer and Heater	Type: Shell & Tube or Shell & Plate Capacity: 149 kW
			High-Pressure Buffer Tank	Geometric Volume: 0.5 m ³ Design Pressure: 350 bar G
			Low-Pressure Buffer Tank	Geometric Volume: 0.8 m ³ Design Pressure: 10 bar G
			BOG Compressor	Capacity: 2×319 kg/h Discharge Pressure: 7 bar G (at 1 bar G suction pressure)
			BOG Pre-Heater	Type: Shell & Tube Capacity: 54 kW
			BOG After-Cooler	Type: Shell & Tube Capacity: 38 kW



TypeCapacity (kg/h) Quantity (Set)

Type	Capacity (kg/h)	Quantity (Set)	Equipment	Parameters
Main Engine WinGD 7X72DF	3212	1	LNG Storage Tank	Type: Single Walled Insulated Type C Tank Tank Geometric Volume: 2 × 3000 m ³ Design Pressure: 4 bar G Design Temperature: -196 °C Static: BOR@95%: ≤0.3%/d
Generator	220	3		
Boiler	173	1		
			LNG Bunkering Station	LNG Bunkering Pipe Diameter: DN200 Vapor Returning Pipe Diameter: DN150 Max Bunkering Rate: 800 m ³ /h
			LNG Supply Pump	Capacity: 1-10 m ³ /h Differential Head: 14 bar G Rated Power: 15 kW
			LNG Vaporizer and Heater	Type: Shell & Tube or Shell & Plate Capacity: 936 kW
			Middle-Pressure Buffer Tank	Geometric Volume: 2 m ³ Design Pressure: 20 bar G
			Low-Pressure Buffer Tank	Geometric Volume: 0.5 m ³ Design Pressure: 20 bar G
			BOG Compressor	Capacity: 2 × 320 kg/h Discharge Pressure: 14 bar G
			BOG Pre-Heater	Type: Shell & Tube Capacity: 29 kW
			BOG After-Cooler	Type: Shell & Tube Capacity: 20 kW





17K Bitumen & Oil Product Tanker (Outside Pump FGSS)

Type	Capacity (kg/h)	Quantity (Set)	Equipment	Parameters	
Main Engine WinGD 6X40DF	616	1	LNG Storage Tank	Type: Double Walled Vacuum Type C tank Tank Geometric Volume: 2×330 m ³ Design Pressure: 7 bar G Design Temperature: -196 °C Static BOR@95%: ≤0.2%/d	
Generator	123	3			
				LNG Bunkering Station	LNG Bunkering Pipe Diameter: DN150 Vapor Returning Pipe Diameter: DN100 Max Bunkering Rate: 300 m ³ /h
				LNG Supply Pump	Capacity: 0.5-3 m ³ /h Differential Head: 14 bar G Rated Power: 15 kW
				LNG Vaporizer and Heater	Type: Shell & Tube or Shell & Plate Rated Power: 205 kW
				Middle-Pressure Buffer Tank	Geometric Volume: 1 m ³ Design Pressure: 20 bar G
				BOG Pre-Heater	Type: Shell & Tube Rated Power: 21 kW





PSV (Self-Pressurized FGSS)

Type	Capacity (kg/h)	Quantity (Set)	Equipment	Parameters	
Main Engine L6230/S	188	2	LNG Storage Tank	Type: Double Walled Vacuum Type C tank Tank Geometric Volume: 1 X 50 m ³ Design Pressure: 10 bar G Design Temperature: -196 °C Static BOR@95%: ≤0.2%/d	
Generator	20	1			
				LNG Bunkering Station	LNG Bunkering Pipe Diameter: DN50 Vapor Returning Pipe Diameter: DN40 Max Bunkering Rate: 60 m ³ /h
				Self-Pressurized Unit	Type: Shell & Tube or Shell & Plate Capacity: 7.6 kW
				LNG Vaporizer and Heater	Type: Shell & Tube or Shell & Plate Capacity: 100 kW
				Low-Pressure Buffer Tank	Geometric Volume: 0.5 m ³ Design Pressure: 10 bar G



Our Services.



5
MAJOR
SERVICE CENTERS



34
SERVICE STATIONS
WORLDWIDE



CALL CENTER &
AFTER SERVICE TEAM
24 / 7
HOT-LINE ON CALL
12 / 7
QUICK RESPONSE



Our Products 02.

1 LNG Storage Tank

2 LNG Bunkering Station

- ① Emergency Shutdown Valve
- ② Drip Tray
- ③ LNG Liquid Bunkering Line
- ④ NG Vapor Line

3 BOG Compressor Unit

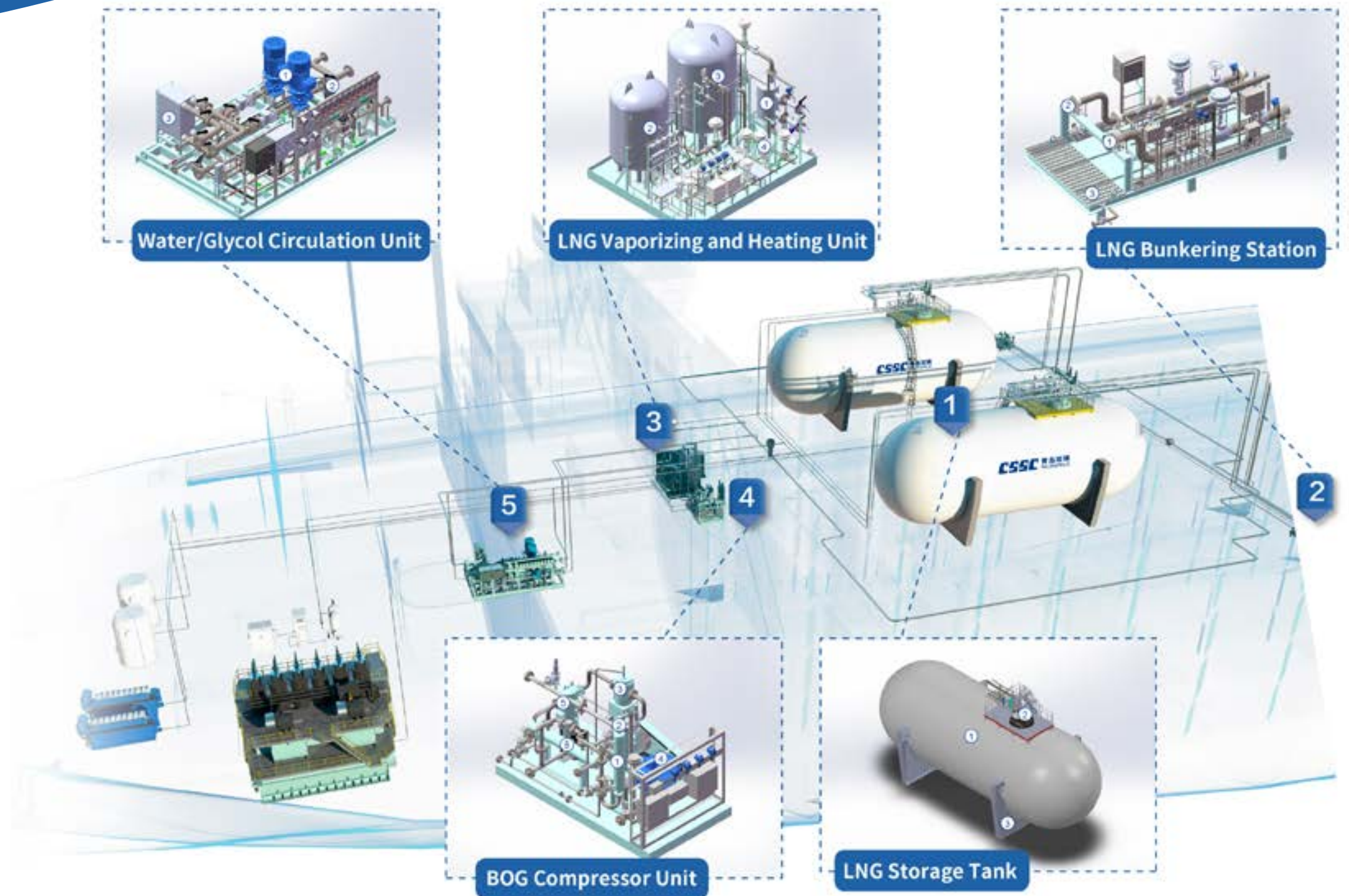
- ① BOG Compressor
- ② Explosion-proof Motor
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- ④ BOG Pre-Heater

4 LNG Vaporizing and Heating Unit

- ① MP Buffer Tank
- ② LP Buffer Tank
- ③ ESD Valve
- ④ NG Vapor Line
- ⑤ Vaporizer

5 Water Glycol Circulation Unit

- ① Water glycol pump
- ② Temperature regulation valve
- ③ Heat Exchanger-NG
- ④ Heat Exchanger-Cylinder water



LNG FUEL GAS SUPPLY SYSTEM