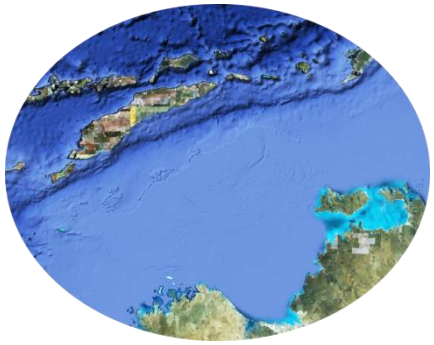
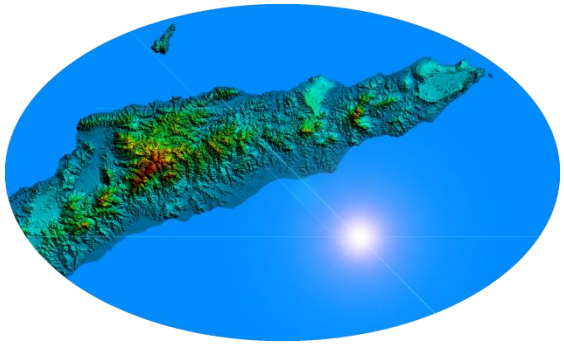




The C-GAS Natural Gas Project

A natural gas energy supply system for EDTL

Disclaimer

This presentation is intended for basic information and explanation and not for the purpose of soliciting funds without the provision of further and more detailed information

The C-GAS Gas Project

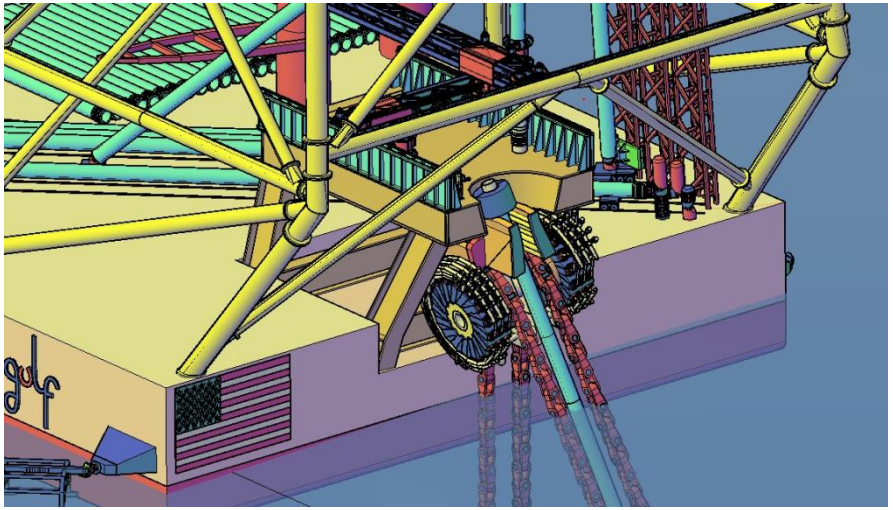
1. Bring natural gas to Timor-Leste in order to provide a much cheaper and cleaner fuel than either diesel, heavy fuel oil or coal to power the electricity generation system
2. Make part of the gas available to the cities, towns and the remote districts for industrial and domestic use, if required
3. Generate 1.2 to 3.6 million kWh of electrical energy daily

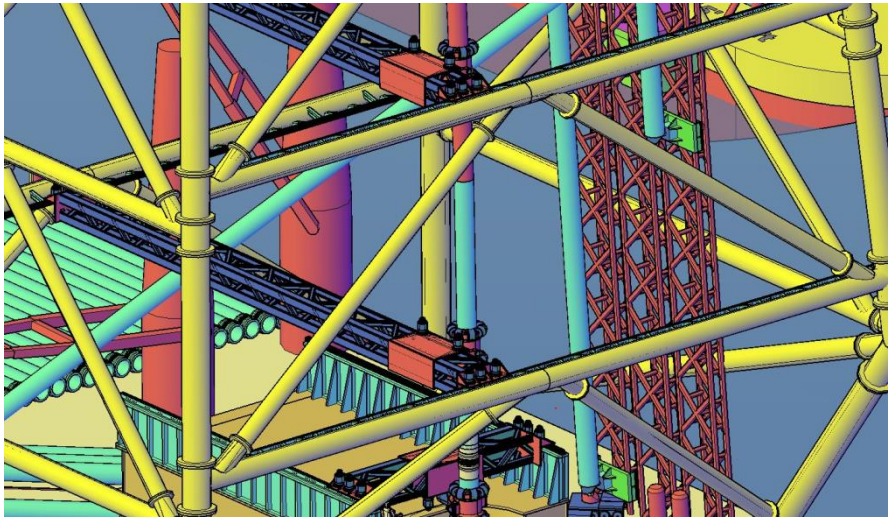
C-GAS

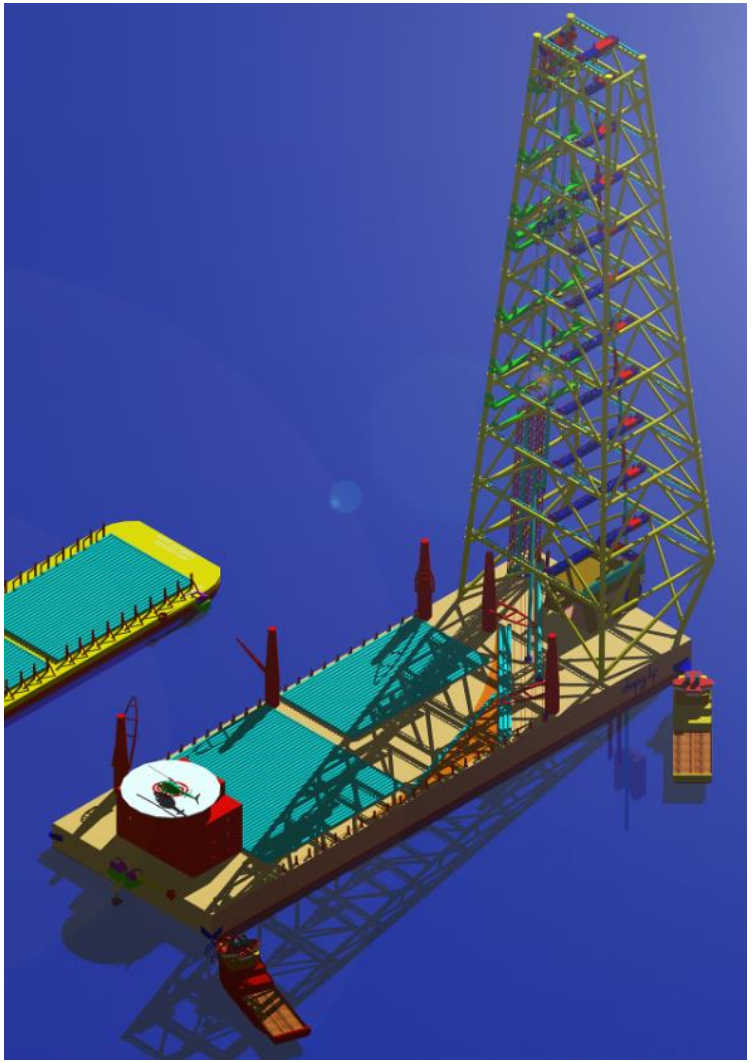
Equipment for the **C-GAS** Project will be designed and manufactured by **C-GAS** and **NK/ENK** of the Republic of Korea, under the leadership of **C-GAS**. Together **C-GAS** and **NK/ENK** will contribute their expertise to the **C-GAS Project**.

- **C-GAS** designs and builds energy production and transportation systems primarily for use in maritime environments
- **NK/ENK** is the world leading compressed gas containment system manufacturer, building systems and developing new technologies to create more efficient compressed gas systems

C-GAS







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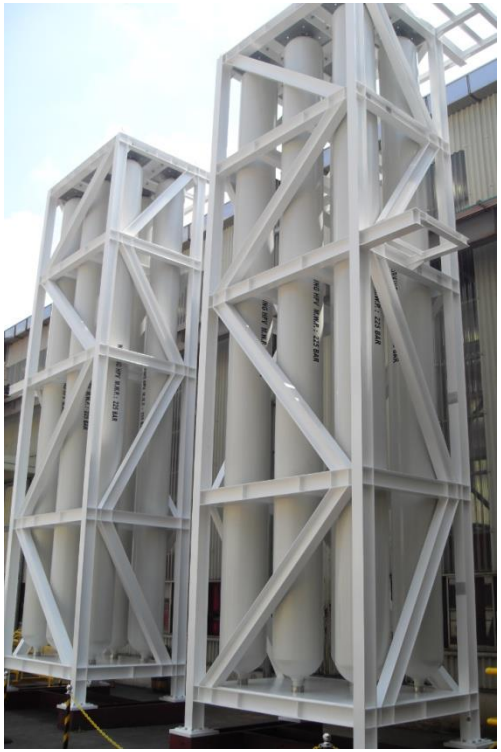
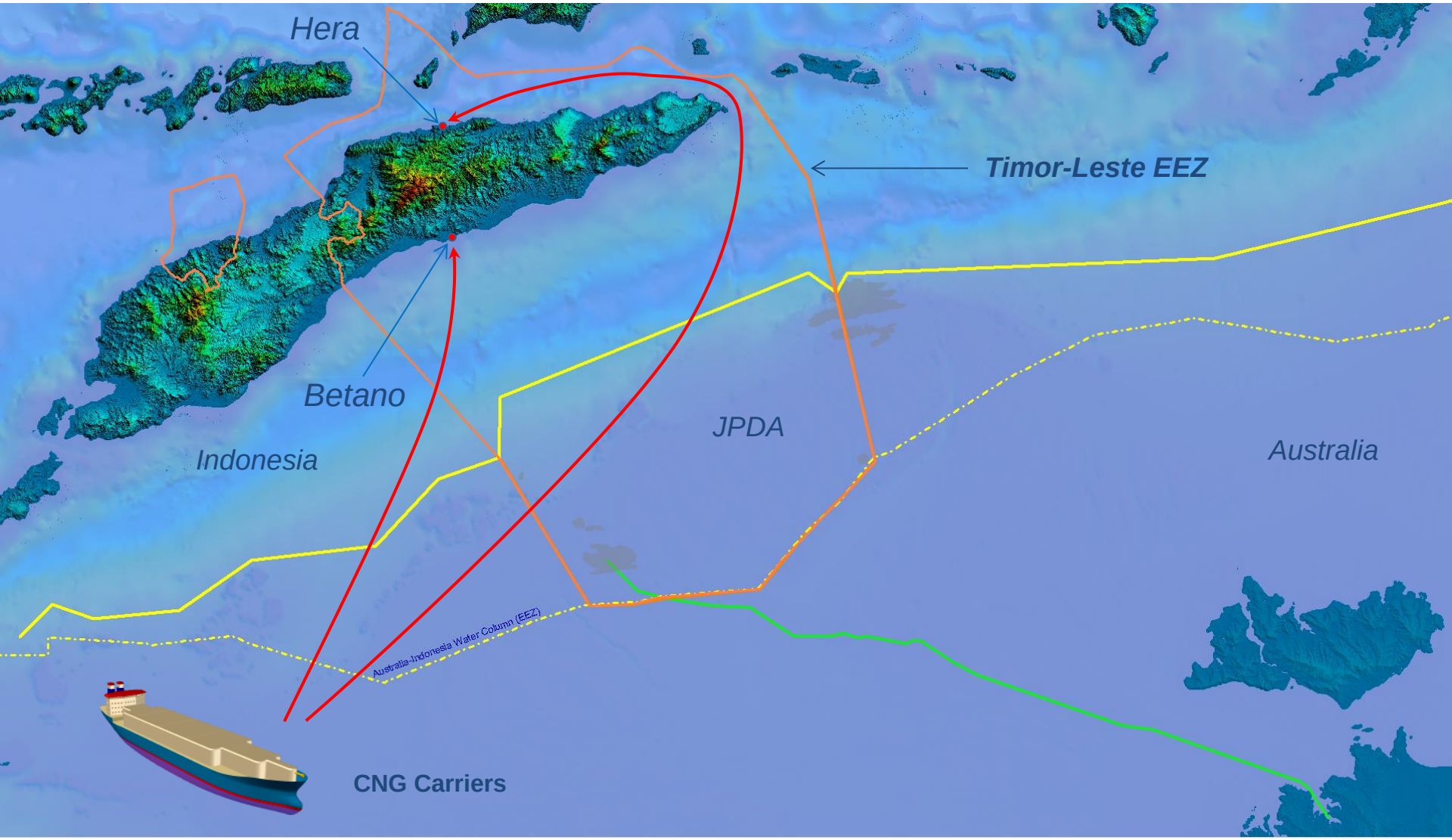
NK



Technical scope of the C-GAS Project



Technical scope of the C-GAS Project

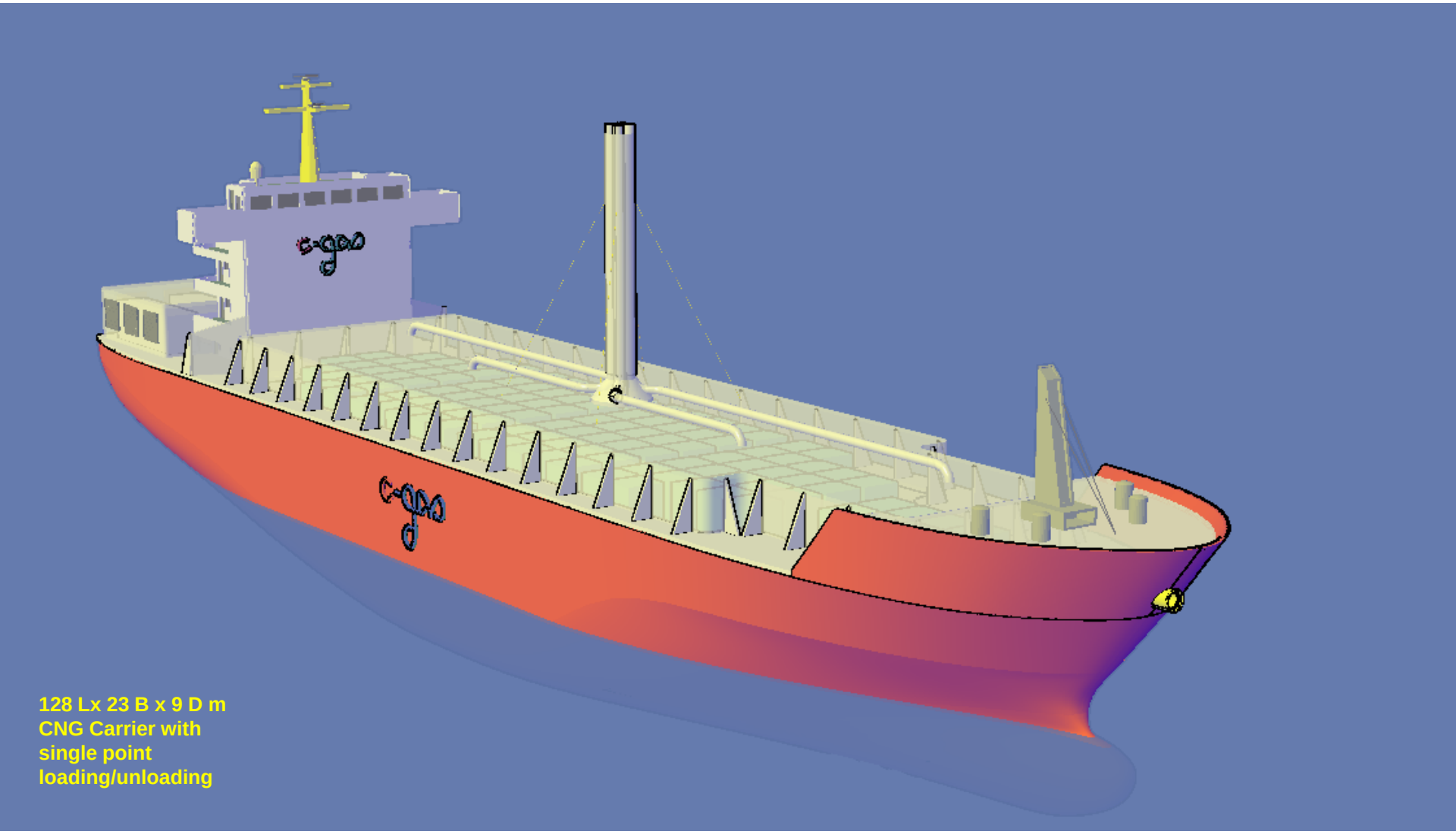
(see previous slide for map)

- The **C-GAS** project will use gas reserves located in the Timor Sea. Two fields hold together about 360 billion cubic feet of natural gas in reservoirs of good porosity and permeability, and in water depths of about 300 m. Another, in about 90 m of water depth, started producing associated liquids and has about 150 billion cubic feet available for export. There are eleven fields available in the area. At a delivery rate of 20 million cubic feet per day the combined lifetime is several decades
- Natural gas will be compressed to pipeline pressure and loaded onto a series of Compressed Natural Gas (CNG) carriers of **C-GAS**' exclusive design, with destination East Timor
- On shore, the gas will be delivered to **EDTL**'s electrical utilities via a 10" to 12" diameter steel pipeline (up to 250 MW peak electrical power)
- The progressive lead time for delivery will be 2 to 3 years

Risk Assessment

Risk	Nature of risk	Risk level	Mitigation
Field infrastructure	Technical	Low	Known technologies
Gas post-processing	Technical	Low	Known technologies
Loading facilities	Technical	Low to moderate	Known technologies, new component design
CNG Carriers	Technical	Low to moderate	New design, known technologies
Onshore pipeline	Technical	Low	Known technologies
Overall technological risk	Financial	Low	Covered by client through Infrastructure Capital Security (ICS)
Gas payments	Financial	Low	Guaranteed by client through Take-or-Pay Security (TOPS)

Carrier 22L



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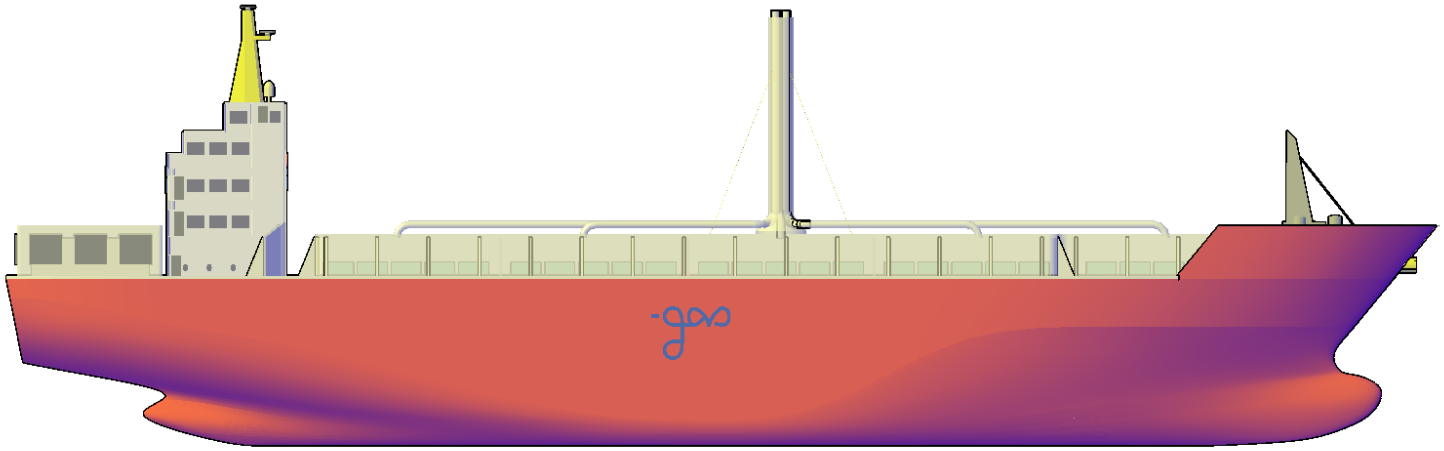
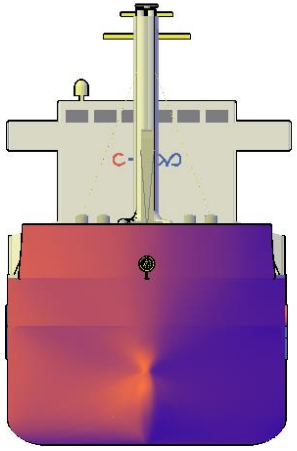
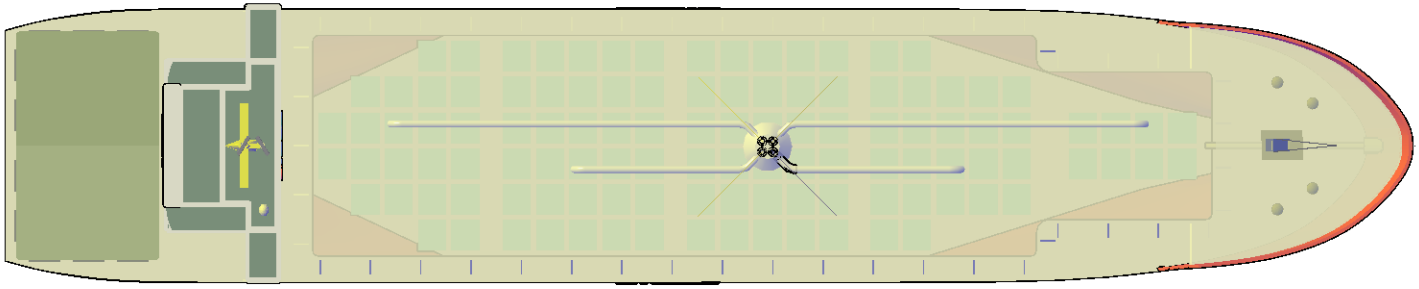
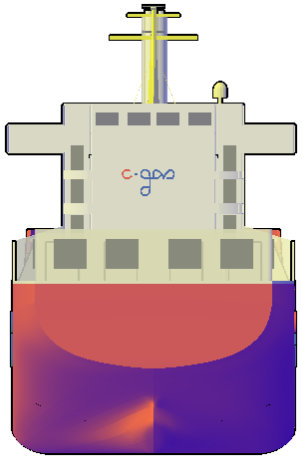
Carrier 22L



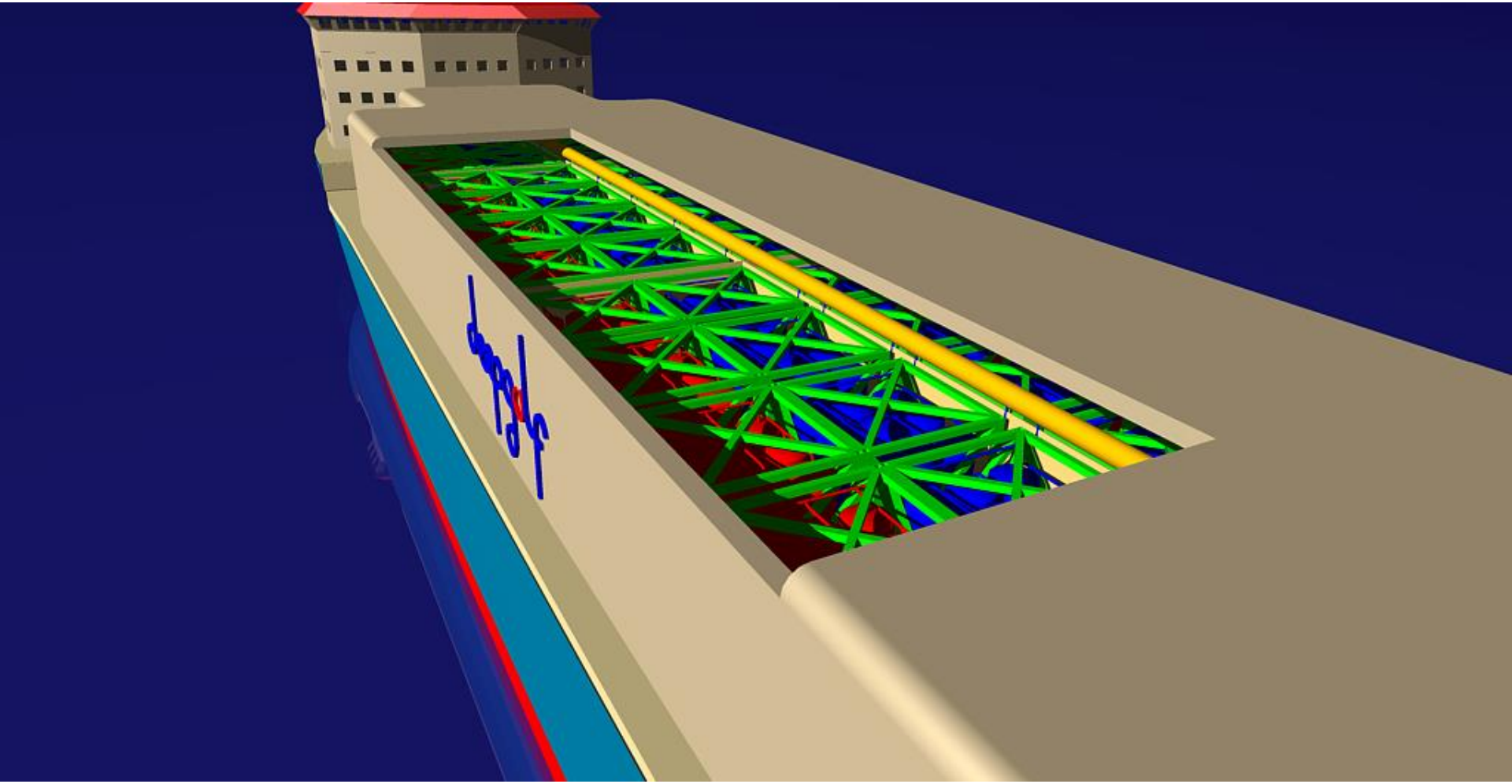






NOTE: For protection of intellectual property this diagram does not necessarily show all design features of the final engineered project model

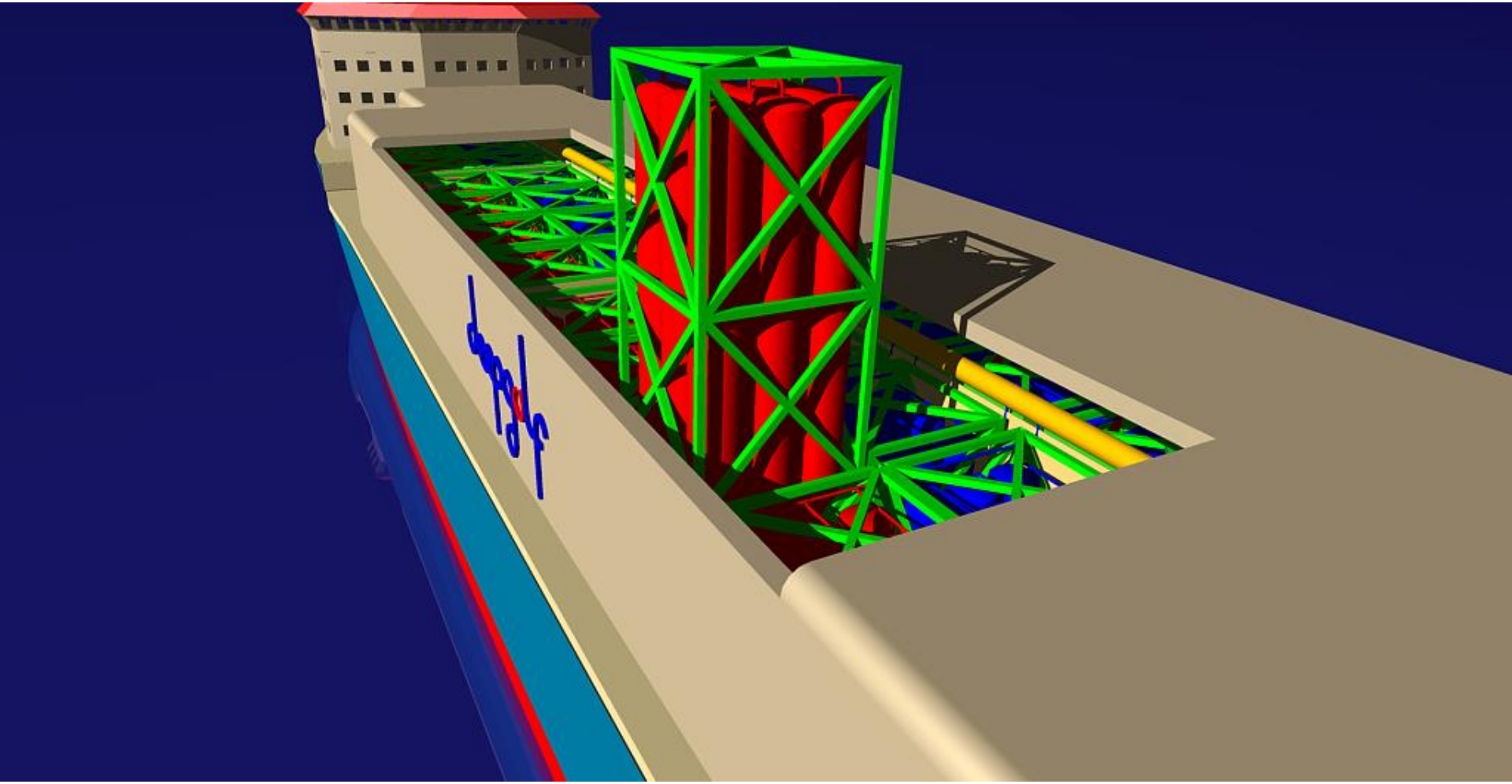
Carrier 78L: detail of containment



NOTE: For protection of intellectual property this diagram does not necessarily show all design features of the final engineered project model

Standard self-contained modules are installed into carrier's holds

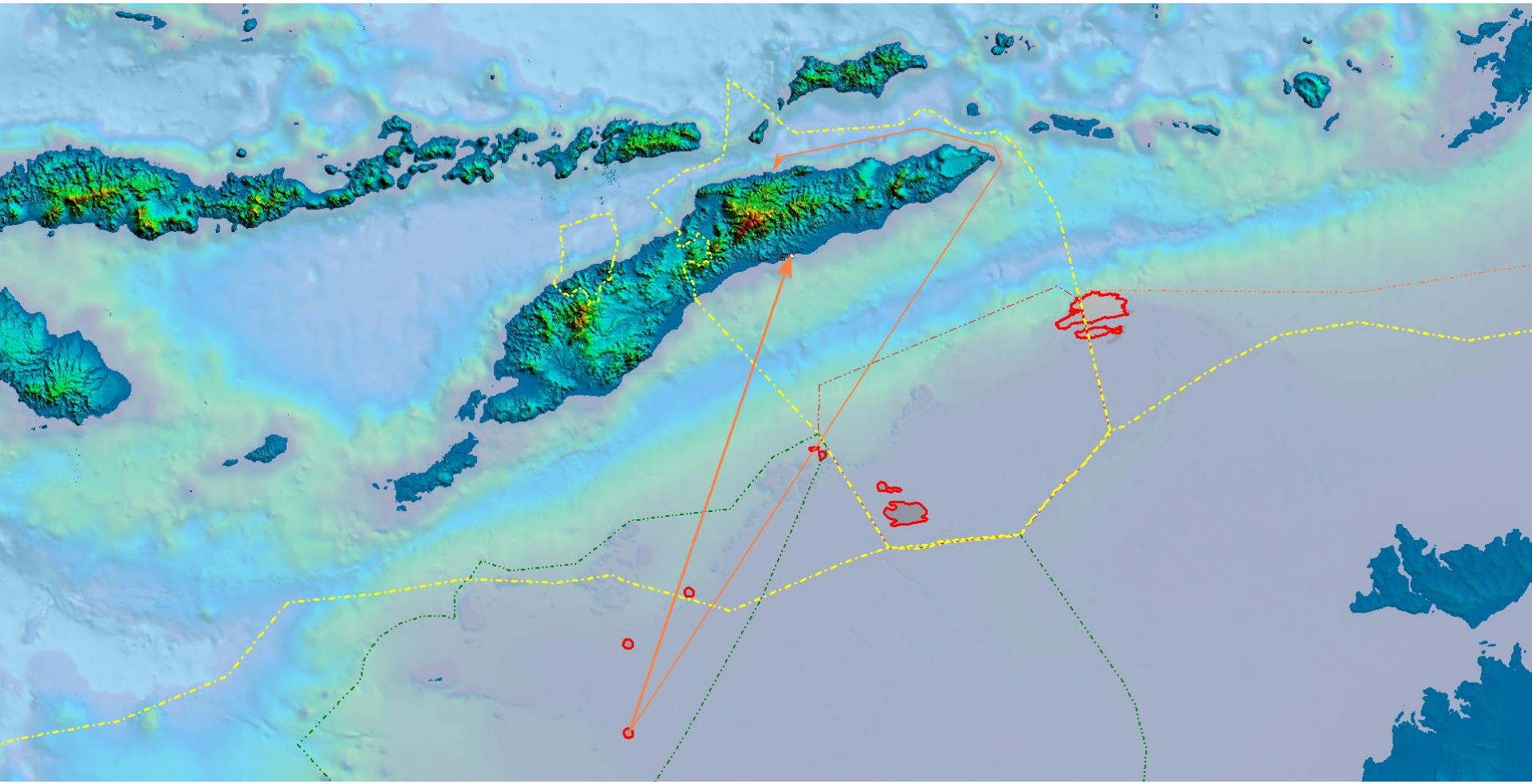
Carrier 78L: detail of containment unit



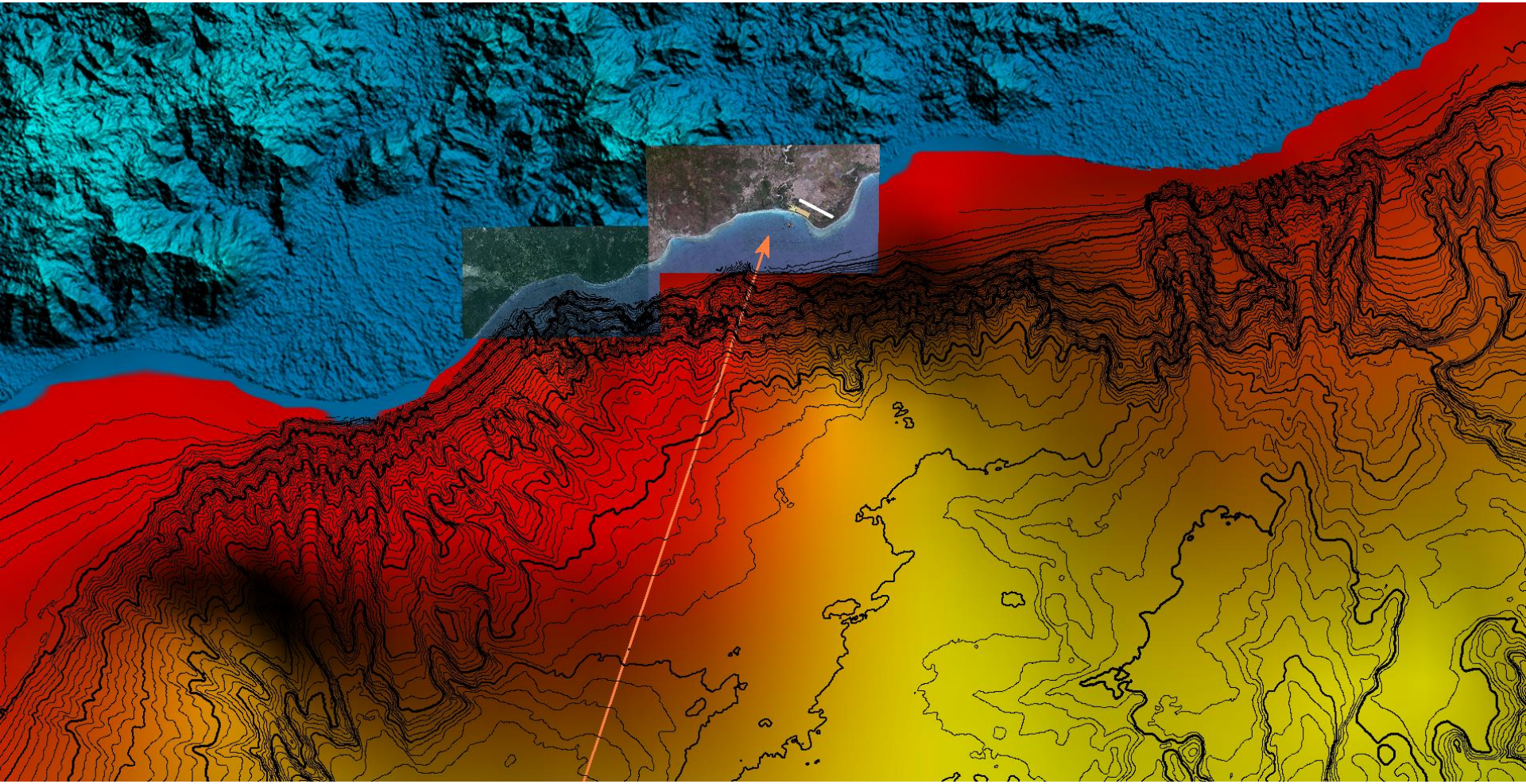
NOTE: For protection of intellectual property this diagram does not necessarily show all design features of the final engineered project model

Modules can be removed for maintenance or repairs

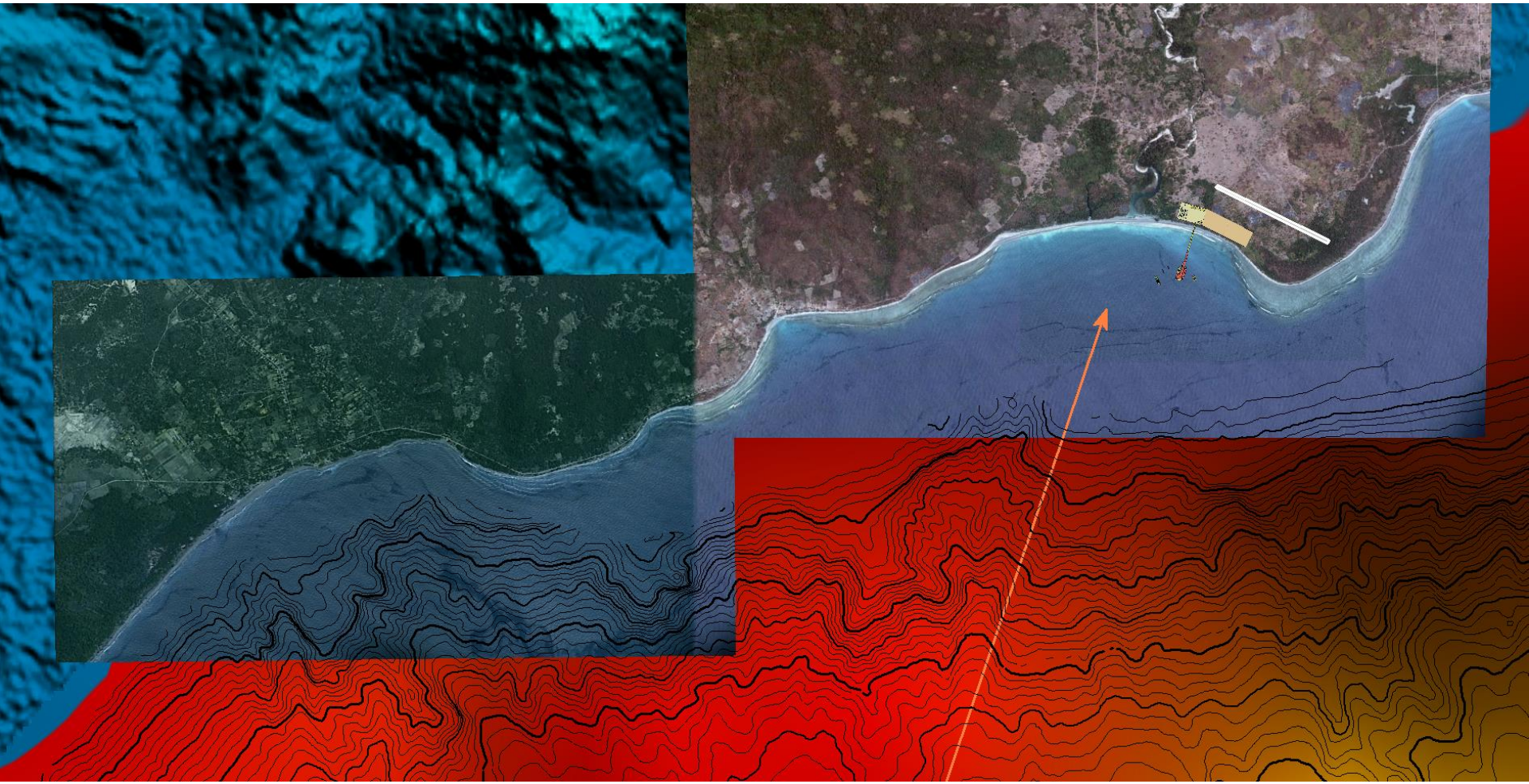
Routes



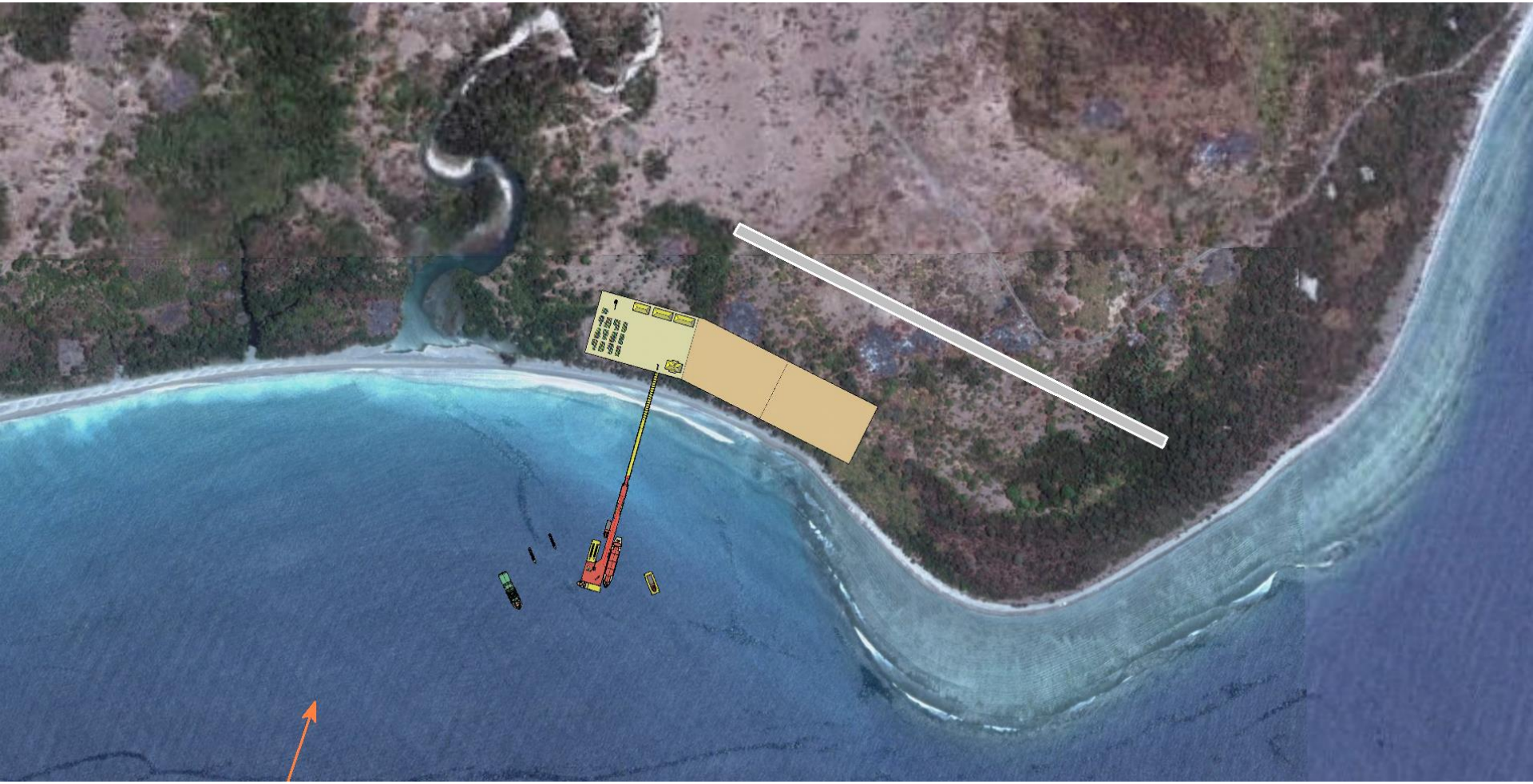
Approaches to Meti Bot



Betano to Meti Bot Area



Meti Bot Port and Airport



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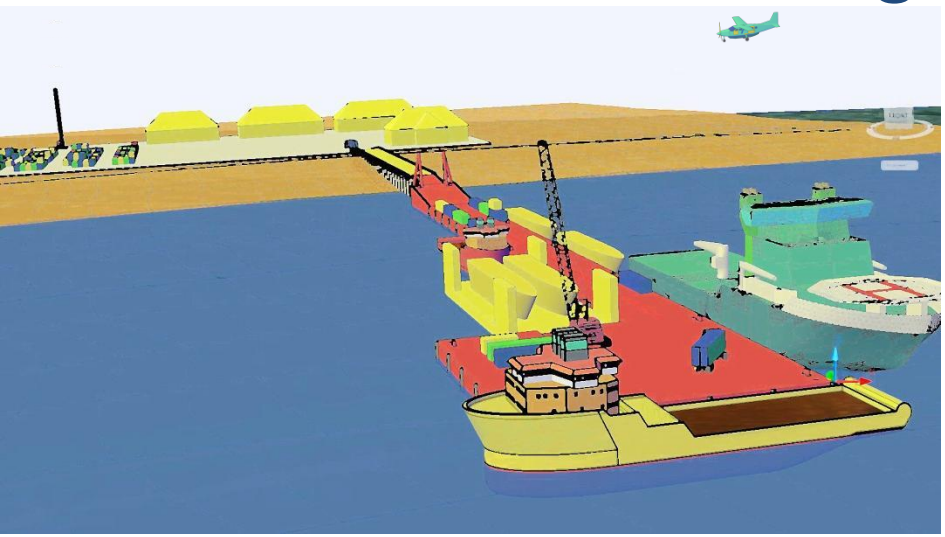
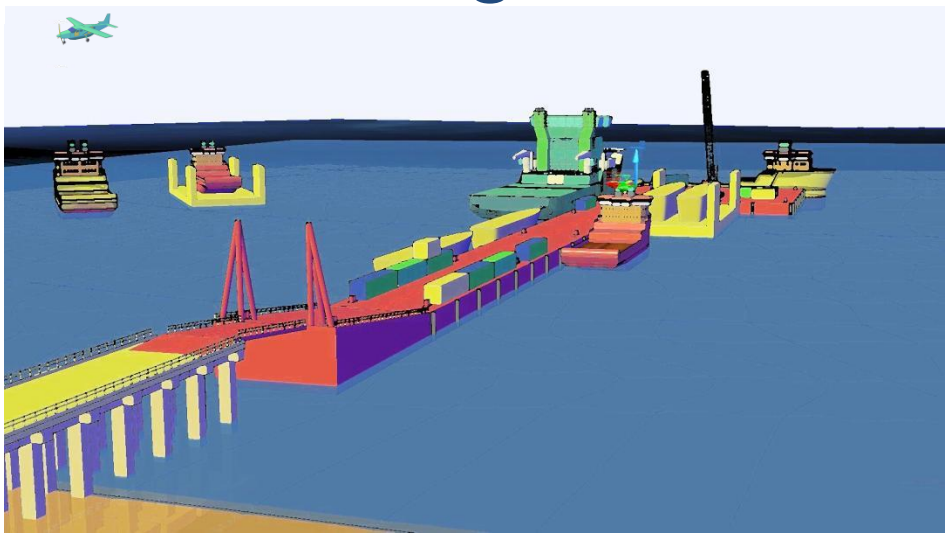
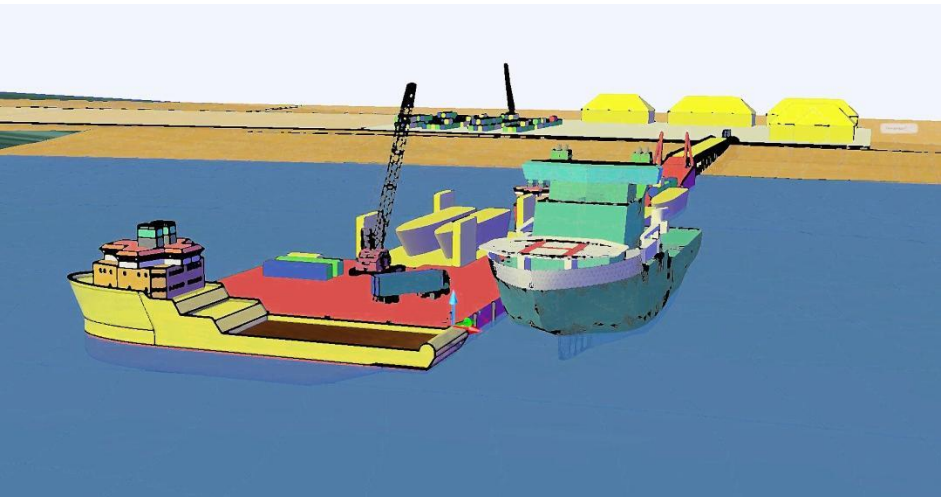
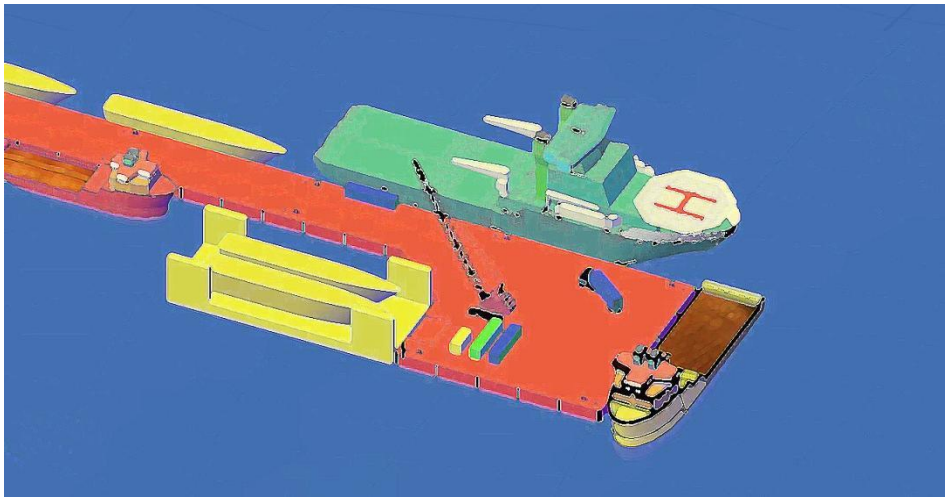
Marine Terminal general arrangement





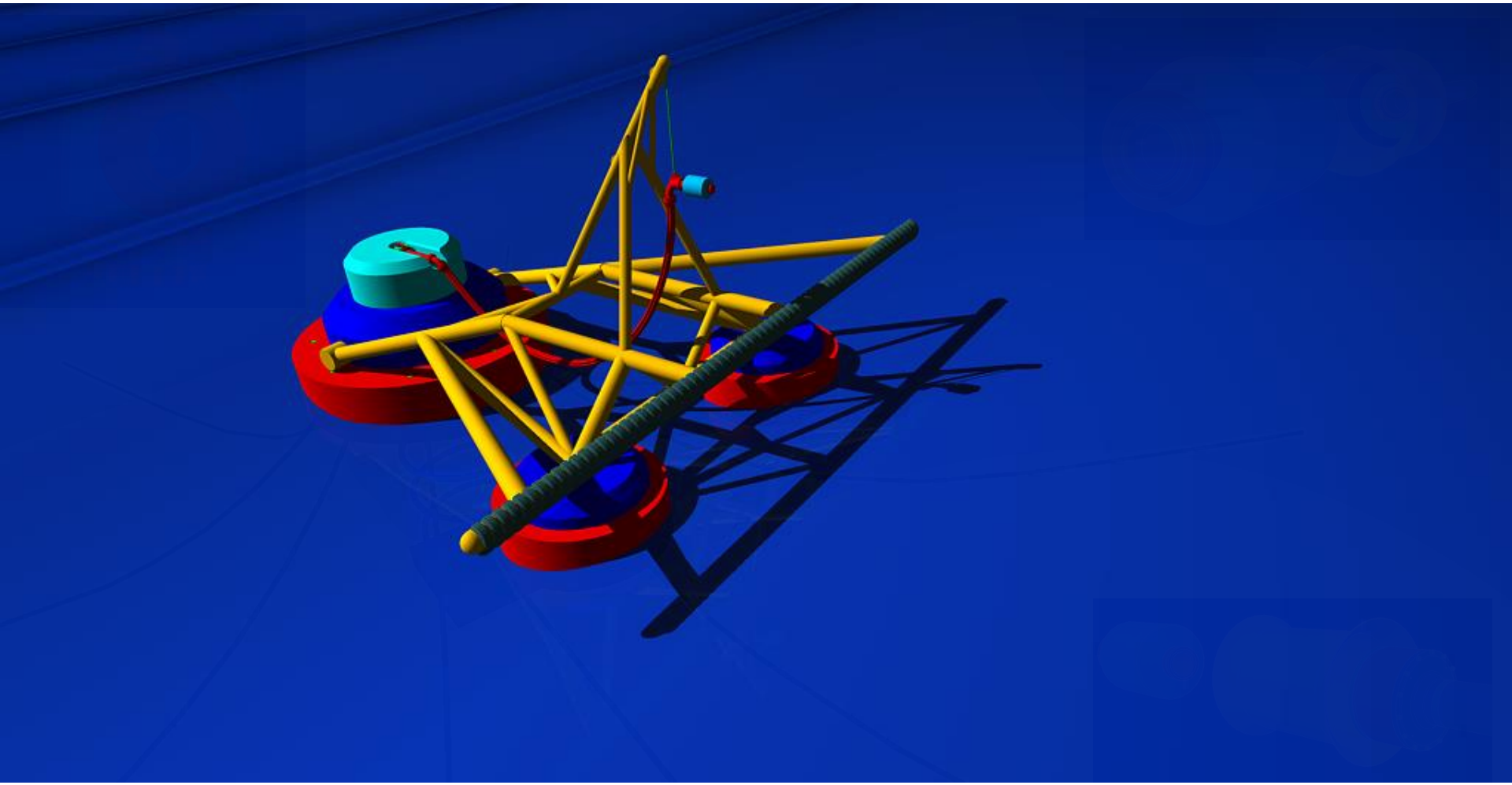




NOTE: For protection of intellectual property this diagram does not necessarily show all design features of the final engineered project model

370 meter long pier with 16 hectare storage facility

Gas Loading Facility



NOTE: For protection of intellectual property this diagram does not necessarily show all design features of the final engineered project model

Swiveled yoke and gas supply

Main technical features and benefits: hull and machinery

	C-GAS design	*Other designs*
Hull construction	Hull is hydrodynamically optimized, with no through-hull fittings and no rudder. Underwater hull growth is removed twice a year by divers. Thrusters are removable from under the hull for easy and frequent maintenance and replacement in order to reduce dry docking requirements.	*Classic hull design, with rudder and hull fittings. Carrier requires dry docking at least annually or once every two years, but will not be able to enter dry dock because depressurization other than to atmosphere is not possible.*
Ship propulsion and positioning	C-GAS uses Dynamic Positioning to enhance safety of repetitive tasks and avoid contact and chafing with piers or buoys. Operation of carriers is highly automated.	*Competing systems use regular mooring. Operations are manual. Highly repetitive tasks lead to heightened risk of major accident. Dock proximity increases risk of accidental collision and ignition.*
Inerting of cargo holds	+ Exclusive inerting system uses carrier generated nitrogen. 100% of hold volume is inerted and all oxygen is removed from holds. + Exclusive hold compartment design and fire extinguishing system prevents accidental combustion of accidental gas release, even in case of unplanned air ingress. + Venting of inert gas and accidental gas release is done through exclusive multi-hold venting mechanism, 18 meters (60 ft) above deck.	– *Competing systems have storage tanks installed above deck, to exploit a loop in DNV, ABS, and other classification societies, rules. Inerting is not possible. Technical choice is extremely unsafe and will not be allowed by authorities..*
Engines	C-GAS uses gas turbines exclusively. No under deck engine room, all engines are positioned in structures above deck for easy maintenance and replacement.	*Others use diesel engines or dual fuel engines in engine room, which poses severe safety risks and logistical concerns.*
Exhaust	Underwater. Safe in case of leak.	*Atmospheric. Very unsafe in case of leak.*
Fuel	C-GAS uses cargo natural gas as exclusive fuel during operations. Diesel fuel can be used without modification when repositioning light ship.	*Carriers must burn expensive diesel fuel, additionally creating severe logistical problems.*

Main technical features and benefits: natural gas containment and handling

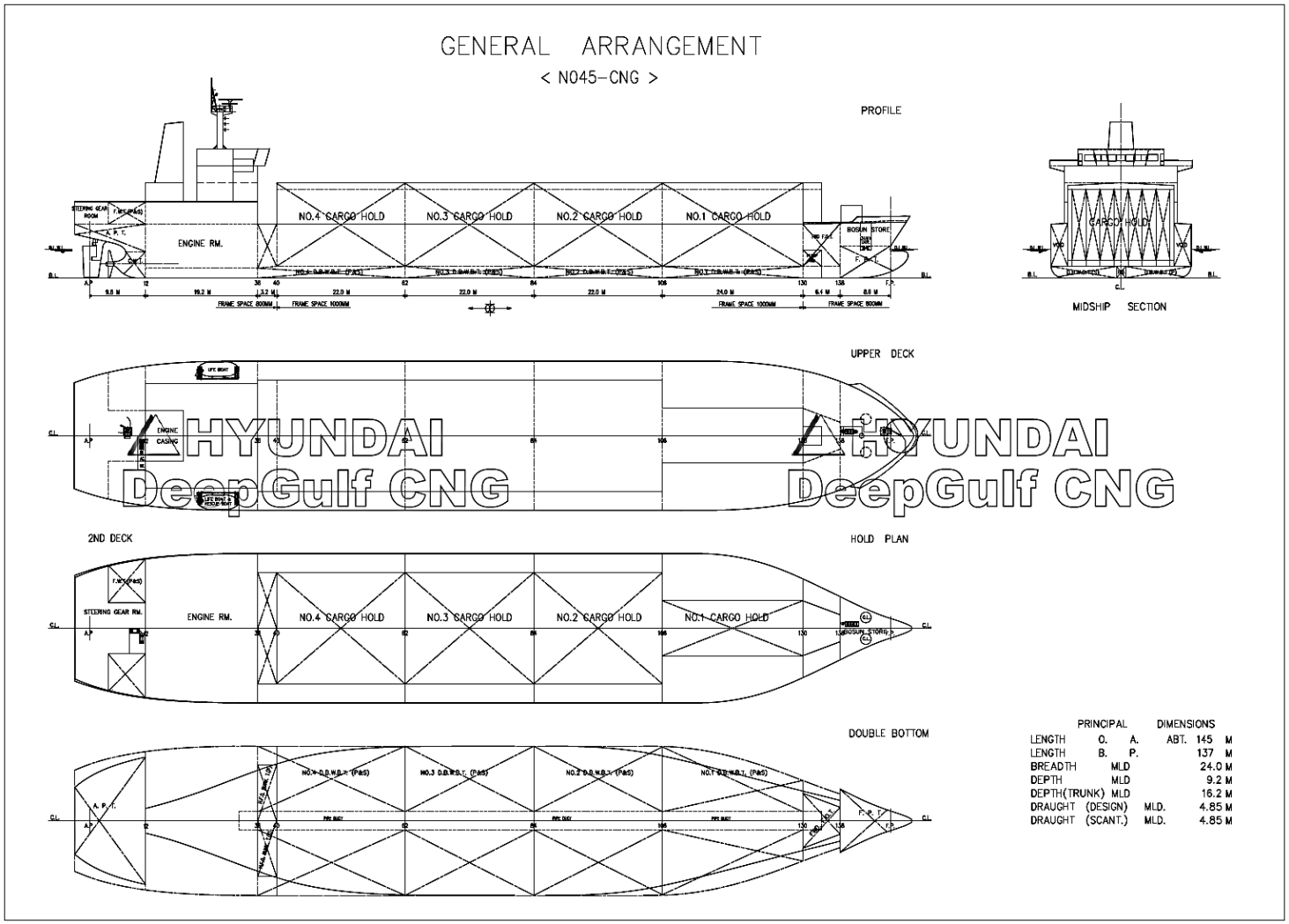
	C-GAS design	*Other designs*
Gas composition	C-GAS carriers can transport many combinations of wet and sour gas in different physical phases, thanks to its unique containment design.	*Carriers require absolutely dry and sweet natural gas, which seriously limits scope.*
Natural gas transfer	+ Exclusive swiveled buoy is used both for gas loading and offloading: gas carriers never enter port, mostly for safety reasons. + Uses proprietary loading/offloading quick connect/disconnect system. + Gas is transferred from production platform to buoy and buoy to power plant through underwater pipeline. + Single point of handling, external to ship's hull.	– *Others plan to load from and offload to piers in constrained busy channels. CNG carriers will not be able to obtain warrants and circumvent current regulations that prohibit gas carrier traffic in populated environments. For reference, current LNG carriers operate in specially designed facilities, far from general cargo ports, and do not transit through busy waterways, although LNG is inherently less hazardous than CNG.* – *Multiple points of handling, located amidships.*
Gas containment	+ Containment units are installed vertically deep in hold, which allows multiple phases in containment and easy servicing and maintenance. + Passive pressure cut-off system totally prevents natural gas discharge in case of collision.	– *Installed horizontally on deck or in holds. No frequent servicing and maintenance possible.* – *In case of a collision all affected containers will discharge their high pressure natural gas load to the atmosphere, creating a hugely hazardous situation.*
Containment system pressurization and depressurization	C-GAS uses proprietary transfer system to cancel residual pressure for complete transfer, thus allowing quick and total depressurization of gas.	*Uses expensive and energy intensive turbo-compressors. Only about 75% of cargo is transferred.*
Containment system maintenance	Maintenance is done on a cycle basis, units being transferred to shore shop regularly for inspection and maintenance.	*Total depressurization is impossible and maintenance of cargo containment system is therefore not offered.*
Gas pressure	Thanks to its sophisticated handling system, C-GAS uses a pressure of 150 bars (2,100 psi) only, with better compressibility factor and less hazard.	*250 bars (3,600 psi) pressure and higher*
Thermal performance	Exclusive design comprehensively prevents thermal shocks.	*Temperature drops of 60 to 80 degrees C (140 to 180 F) are unavoidable, thus affecting both material fatigue and safety, and creating unavoidable ice blockages, some irreversible.*

Main technical features and benefits: personnel safety

	C-GAS design	*Other designs*
Accommodation aftercastle	Front of aftercastle is blind and reinforced to prevent crew exposure in case of accident. All accommodations face aft, except the bridge, which is accessible separately..	*Others use regular accommodation design with no protection of personnel whatsoever.*
Deck work	C-GAS design does not require work on deck, and even prohibits it. Forecastle operations are either automated, or carried out by special shore crew from outside of carrier.	*Others need personnel to walk freely back and fro, which contravenes basic safety rules.*
Crew management	Carrier has a dual skippers and mates on board. Ship and on/off-shore crews alternate functions before or after each shore leave. Rotations are short, only a few weeks, to enhance performance and safety.	*Unknown.*
Training	C-GAS is setting up an exclusive and proprietary marine training academy located in Cebu, the Philippines, with Norwegian management.	*Unknown.*

Engineering exhibits

Carrier 78L



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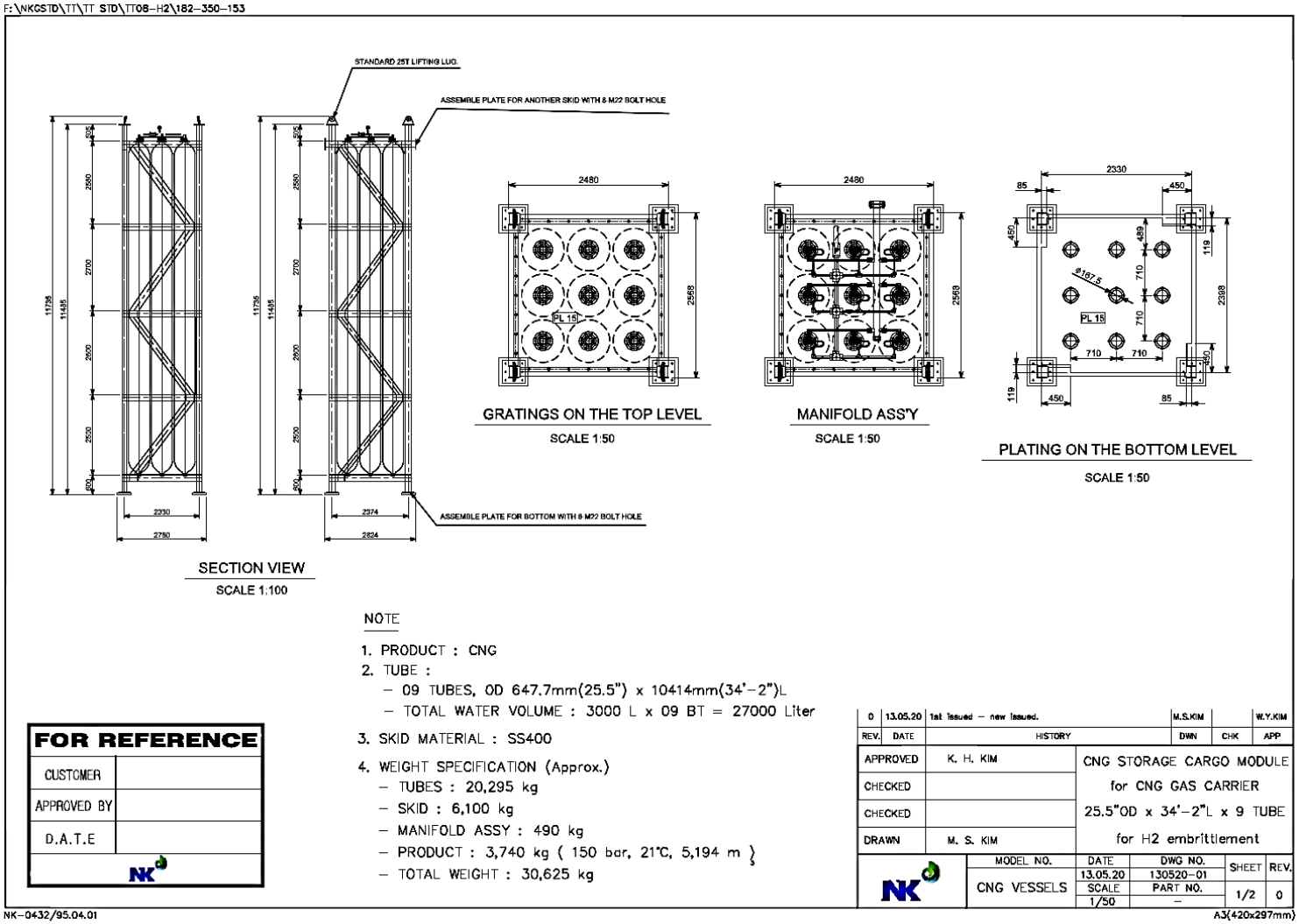
General arrangement

Carrier 78L



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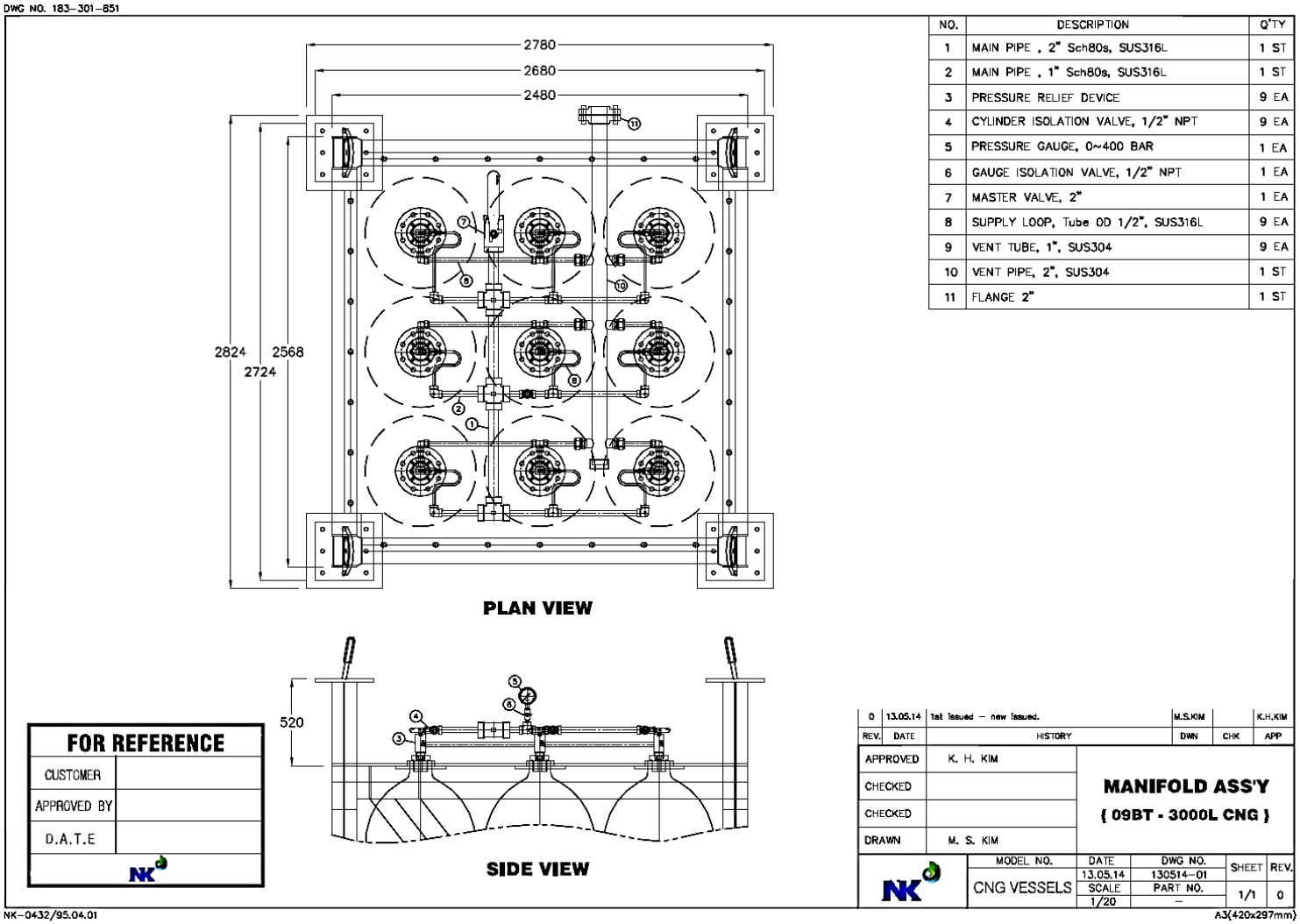
Carrier 78L



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Gas module detail

Notes on power and energy

Nature of electrical power and energy

Electrical daily consumption is the sum of near-constant and of variable consumptions. Near-constant consumption consists of energy consumed by electrical systems that operate around the clock, such as refrigerators, chargers, stand-by electronic appliances, water pumps, part of all air conditioning appliances, some lighting, traffic lights, hospital services, police stations, etc. Variable consumption relates to the systems that operate mostly when people are active during the day and evening but much less during the late hours of night, such as part of the lighting, TV and radio sets, office air-conditioning, cooking electric utensils, etc. In parts of the world where industrialization levels are high, or conversely in lightly industrialized regions where electricity supply is low, relative variable consumption tends to decrease: for example, if there is a lot of industries operating 24 hours a day, or if stand-by energy is a large part of overall available energy, variability will tend to decrease. Of course, wherever installed power greatly exceeds levels at which it can be utilized, the utilization rate in hours per day will decrease, whether the load is more variable or not.

Energy can be expressed in kWh, or, for convenience, GWh (one million kWh). Power can be expressed in kW, or also MW (one thousand kW). Energy is the product of power and time. If, with its 255 MW of installed power, the daily consumption in Timor-Leste was in 2013 around 0.9 GWh per day, it can be considered that the full installed power was operating, as an average, 3.5 hours per day, by dividing the daily consumption by the power, in equivalent units. It is convenient to express the energy delivered by a given electrical generating system as the product of its installed (or peak) power and a certain number of hours per day.

An alternative is to consider that 0.9 GWh results from operating an installed power of 37.5 MW during 24 hours, but relating to real peak power is in practice more useful.

A view of electrical power and energy

The table shows both installed electrical power and energy produced by all the U.S. power plants put together in 2010. The average load is 11.0 hours per day, while nuclear energy load is 21.9 hours and solar load is only 3.5, both figures being in accordance with the respective technical capabilities. It is reasonable to assume that in Timor-Leste future average load will exceed 12 hours per day, reaching perhaps 14 hours: power per one million population in Timor-Leste is 255 MW, as opposed to 3,566 in the U.S. An average load of 14 hours a day would translate into a daily consumption of 3.6 GWh.

	U.S. Net Generation					U.S. Net power capacity		
Fuel type	GWh/day average	Share of energy	GWh/day per million population	Hours per day average	Utilization rate	MW	Share of power	MW per million population
Coal	5,061.1	43.1%	16.9	16.0	66.6%	316,800	29.6%	1,056
Liquid petroleum	101.5	0.9%	0.3	1.8	7.6%	55,647	5.2%	185
Natural Gas	2,706.0	23.0%	9.0	6.6	27.7%	407,028	38.0%	1,357
Other Gases	31.0	0.3%	0.1	11.5	47.8%	2,700	0.3%	9
Nuclear	2,210.9	18.8%	7.4	21.9	91.1%	101,167	9.5%	337
Hydroelectric Conventional	712.9	6.1%	2.4	9.0	37.7%	78,825	7.4%	263
Other Renewables	465.1	4.0%	1.6	8.6	36.0%	53,886	5.0%	180
Wind	259.3	2.2%	0.9	6.6	27.6%	39,135	3.7%	130
Solar Thermal and Photovoltaic	3.3	0.0%	0.0	3.5	14.7%	941	0.1%	3
Wood and Wood Derived Fuels	101.8	0.9%	0.3	14.5	60.3%	7,037	0.7%	23
Geothermal	48.8	0.4%	0.2	20.3	84.5%	2,405	0.2%	8
Other Biomass	51.8	0.4%	0.2	11.9	49.4%	4,369	0.4%	15
All Energy Sources	11,753.6	100.0%	39.2	11.0	45.8%	1,069,940	100.0%	3,566
Population (millions)	*300*							

Active and reactive powers, load factor and overall efficiency

The national EDTL power grid operated in 2013 at an average load of 3.5 hours a day, or less than 15% of its total capacity. This low utilization rate negatively affected the overall efficiency of the system.

Most of the load was either domestic or mixed, consisting of domestic and small scale commercial loads. In addition to the low efficiency, it was noted that the power factor, which is a measure of the ratio between real and apparent power, was abnormally low, resulting in high transmission losses. This low power factor can be attributed to the fact that there is no sizeable industrial load, which usually comes with reactive power compensation. Domestic load is in part non-linear, due to the presence of uncompensated electronic and electric appliances, which severely contributes to an abnormal lowering of the power factor. In some cases it is suspected that overall efficiency fell below 50%, meaning that up to half the energy produced by the power plants was lost.

A standard way to correct the above problems would be to increase the ratio of industrial to domestic power but in the current environment domestic demand increases consistently while industrial demand is almost non-existent, the cost of energy being all but prohibitive to attract industries. It is hoped that cheaper energy prices will help alleviate the problem.

Lower energy prices will result in enhanced efficiencies which in turn will further reduce energy costs.

Tariffs

Tariff: plan 1

Notes: client may upgrade plan to a higher delivery rate at any time with a two year notice and the upgrade of the take-or-pay guarantee. All plans involve the same initial take-or-pay guarantee. Upgraded delivery rates within a plan will need to be confirmed with a two year notice, and may be cancelled on the same notice. Price includes delivery, storage and pilot diesel fuel (7.5% of energy). Lifetime is for 1st of 3 fields only

Capacity: 1.2 to 1.2 GWh/d

	Year	GWh/d	MW at 12 hours/d average load	$MM/y	$MM/GWh/d/y	Years to end	End year
1	2016	1.2	100	$70	*$58*	26	2042
2	2017	1.2	100	$70	*$58*	25	2042
3	2018	1.2	100	$70	*$58*	24	2042
4	2019	1.2	100	$70	*$58*	23	2042
5	2020	1.2	100	$70	*$58*	22	2042
6	2021	1.2	100	$70	*$58*	21	2042
7	2022	1.2	100	$70	*$58*	20	2042
8	2023	1.2	100	$70	*$58*	19	2042
9	2024	1.2	100	$70	*$58*	18	2042
10	2025	1.2	100	$70	*$58*	17	2042
11	2026	1.2	100	$70	*$58*	16	2042
12	2027	1.2	100	$70	*$58*	15	2042
13	2028	1.2	100	$70	*$58*	14	2042
14	2029	1.2	100	$70	*$58*	13	2042
15	2030	1.2	100	$70	*$58*	12	2042

Average: $58

$0.16 per kWh

$0.54 per liter diesel eq.

Tariff: plan 2

Notes: client may upgrade plan to a higher delivery rate at any time with a two year notice and the upgrade of the take-or-pay guarantee. All plans involve the same initial take-or-pay guarantee. Upgraded delivery rates within a plan will need to be confirmed with a two year notice, and may be cancelled on the same notice. Price includes delivery, storage and pilot diesel fuel (7.5% of energy). Lifetime is for 1st of 3 fields only

Capacity: 1.2 to 1.5 GWh/d

	Year	GWh/d	MW at 12 hours/d average load	$MM/y	$MM/GWh/d/y	Years to end	End year
1	2016	1.2	100	$70	*$58*	26	2042
2	2017	1.2	100	$70	*$58*	25	2042
3	2018	1.2	100	$70	*$58*	24	2042
4	2019	1.2	100	$70	*$58*	23	2042
5	2020	1.2	100	$70	*$58*	22	2042
6	2021	1.2	100	$70	*$58*	21	2042
7	2022	1.5	125	$89	*$59*	16	2038
8	2023	1.5	125	$89	*$59*	15	2038
9	2024	1.5	125	$89	*$59*	14	2038
10	2025	1.5	125	$89	*$59*	13	2038
11	2026	1.5	125	$89	*$59*	12	2038
12	2027	1.5	125	$89	*$59*	11	2038
13	2028	1.5	125	$89	*$59*	10	2038
14	2029	1.5	125	$89	*$59*	9	2038
15	2030	1.5	125	$89	*$59*	8	2038
				Average:	$59		
					$0.16	per kWh	
					$0.54	per liter diesel eq.	

Tariff: plan 3

Notes: client may upgrade plan to a higher delivery rate at any time with a two year notice and the upgrade of the take-or-pay guarantee. All plans involve the same initial take-or-pay guarantee. Upgraded delivery rates within a plan will need to be confirmed with a two year notice, and may be cancelled on the same notice. Price includes delivery, storage and pilot diesel fuel (7.5% of energy). Lifetime is for 1st of 3 fields only

Capacity: 1.2 to 1.8 GWh/d

	Year	GWh/d	MW at 12 hours/d average load	$MM/y	$MM/GWh/d/y	Years to end	End year
1	2016	1.2	100	$70	*$58*	26	2042
2	2017	1.2	100	$70	*$58*	25	2042
3	2018	1.2	100	$70	*$58*	24	2042
4	2019	1.2	100	$70	*$58*	23	2042
5	2020	1.5	125	$89	*$59*	18	2038
6	2021	1.5	125	$89	*$59*	17	2038
7	2022	1.5	125	$89	*$59*	16	2038
8	2023	1.5	125	$89	*$59*	15	2038
9	2024	1.8	150	$103	*$57*	11	2035
10	2025	1.8	150	$103	*$57*	10	2035
11	2026	1.8	150	$103	*$57*	9	2035
12	2027	1.8	150	$103	*$57*	8	2035
13	2028	1.8	150	$103	*$57*	7	2035
14	2029	1.8	150	$103	*$57*	6	2035
15	2030	1.8	150	$103	*$57*	5	2035
				Average:	$58		
					$0.16	per kWh	
					$0.54	per liter diesel eq.	

Tariff: plan 4

Notes: client may upgrade plan to a higher delivery rate at any time with a two year notice and the upgrade of the take-or-pay guarantee. All plans involve the same initial take-or-pay guarantee. Upgraded delivery rates within a plan will need to be confirmed with a two year notice, and may be cancelled on the same notice. Price includes delivery, storage and pilot diesel fuel (7.5% of energy). Lifetime is for 1st of 3 fields only

Capacity: 1.2 to 2.1 GWh/d

	Year	GWh/d	MW at 12 hours/d average load	$MM/y	$MM/GWh/d/y	Years to end	End year
1	2016	1.2	100	$70	*$58*	26	2042
2	2017	1.2	100	$70	*$58*	25	2042
3	2018	1.2	100	$70	*$58*	24	2042
4	2019	1.5	125	$89	*$59*	19	2038
5	2020	1.5	125	$89	*$59*	18	2038
6	2021	1.5	125	$89	*$59*	17	2038
7	2022	1.8	150	$103	*$57*	13	2035
8	2023	1.8	150	$103	*$57*	12	2035
9	2024	1.8	150	$103	*$57*	11	2035
10	2025	2.1	175	$119	*$57*	9	2034
11	2026	2.1	175	$119	*$57*	8	2034
12	2027	2.1	175	$119	*$57*	7	2034
13	2028	2.1	175	$119	*$57*	6	2034
14	2029	2.1	175	$119	*$57*	5	2034
15	2030	2.1	175	$119	*$57*	4	2034
				Average:	$58		
					$0.16	per kWh	
					$0.53	per liter diesel eq.	

Tariff: plan 5

Notes: client may upgrade plan to a higher delivery rate at any time with a two year notice and the upgrade of the take-or-pay guarantee. All plans involve the same initial take-or-pay guarantee. Upgraded delivery rates within a plan will need to be confirmed with a two year notice, and may be cancelled on the same notice. Price includes delivery, storage and pilot diesel fuel (7.5% of energy). Lifetime is for 1st of 3 fields only

Capacity: 1.2 to 2.4 GWh/d

	Year	GWh/d	MW at 12 hours/d average load	$MM/y	$MM/GWh/d/y	Years to end	End year
1	2016	1.2	100	$70	*$58*	26	2042
2	2017	1.2	100	$70	*$58*	25	2042
3	2018	1.2	100	$70	*$58*	24	2042
4	2019	1.5	125	$89	*$59*	19	2038
5	2020	1.8	150	$103	*$57*	15	2035
6	2021	1.8	150	$103	*$57*	14	2035
7	2022	1.8	150	$103	*$57*	13	2035
8	2023	2.1	175	$118	*$56*	10	2033
9	2024	2.1	175	$118	*$56*	9	2033
10	2025	2.1	175	$118	*$56*	8	2033
11	2026	2.4	200	$136	*$57*	6	2032
12	2027	2.4	200	$136	*$57*	5	2032
13	2028	2.4	200	$136	*$57*	4	2032
14	2029	2.4	200	$136	*$57*	3	2032
15	2030	2.4	200	$136	*$57*	2	2032

Average: $57

$0.16 per kWh

$0.53 per liter diesel eq.

Tariff: plan 6

Notes: client may upgrade plan to a higher delivery rate at any time with a two year notice and the upgrade of the take-or-pay guarantee. All plans involve the same initial take-or-pay guarantee. Upgraded delivery rates within a plan will need to be confirmed with a two year notice, and may be cancelled on the same notice. Price includes delivery, storage and pilot diesel fuel (7.5% of energy). Lifetime is for 1st of 3 fields only

Capacity: 1.2 to 2.7 GWh/d

	Year	GWh/d	MW at 12 hours/d average load	$MM/y	$MM/GWh/d/y	Years to end	End year
1	2016	1.2	100	$70	*$58*	26	2042
2	2017	1.2	100	$70	*$58*	25	2042
3	2018	1.2	100	$70	*$58*	24	2042
4	2019	1.5	125	$89	*$59*	19	2038
5	2020	1.5	125	$89	*$59*	18	2038
6	2021	1.8	150	$103	*$57*	14	2035
7	2022	1.8	150	$103	*$57*	13	2035
8	2023	2.1	175	$118	*$56*	10	2033
9	2024	2.1	175	$118	*$56*	9	2033
10	2025	2.4	200	$136	*$57*	7	2032
11	2026	2.4	200	$136	*$57*	6	2032
12	2027	2.7	225	$157	*$58*	5	2032
13	2028	2.7	225	$157	*$58*	4	2032
14	2029	2.7	225	$157	*$58*	3	2032
15	2030	2.7	225	$157	*$58*	2	2032
				Average:	$58		
					$0.16	per kWh	
					$0.53	per liter diesel eq.	

Tariff: plan 7

Notes: client may upgrade plan to a higher delivery rate at any time with a two year notice and the upgrade of the take-or-pay guarantee. All plans involve the same initial take-or-pay guarantee. Upgraded delivery rates within a plan will need to be confirmed with a two year notice, and may be cancelled on the same notice. Price includes delivery, storage and pilot diesel fuel (7.5% of energy). Lifetime is for 1st of 3 fields only

Capacity: 1.2 to 3.0 GWh/d

	Year	GWh/d	MW at 12 hours/d average load	$MM/y	$MM/GWh/d/y	Years to end	End year
1	2016	1.2	100	$70	*$58*	26	2042
2	2017	1.2	100	$70	*$58*	25	2042
3	2018	1.2	100	$70	*$58*	24	2042
4	2019	1.8	150	$103	*$57*	15	2034
5	2020	1.8	150	$103	*$57*	14	2034
6	2021	2.1	175	$118	*$56*	12	2033
7	2022	2.1	175	$118	*$56*	11	2033
8	2023	2.4	200	$136	*$57*	8	2031
9	2024	2.4	200	$136	*$57*	7	2031
10	2025	2.7	225	$157	*$58*	6	2031
11	2026	2.7	225	$157	*$58*	5	2031
12	2027	3.0	250	$177	*$59*	3	2030
13	2028	3.0	250	$177	*$59*	2	2030
14	2029	3.0	250	$177	*$59*	1	2030
15	2030	3.0	250	$177	*$59*	0	2030

Average:	$58	
	$0.16	per kWh
	$0.53	per liter diesel eq.

Tariff: plan 8

Notes: client may upgrade plan to a higher delivery rate at any time with a two year notice and the upgrade of the take-or-pay guarantee. All plans involve the same initial take-or-pay guarantee. Upgraded delivery rates within a plan will need to be confirmed with a two year notice, and may be cancelled on the same notice. Price includes delivery, storage and pilot diesel fuel (7.5% of energy). Lifetime is for 1st of 3 fields only

Capacity: 1.2 to 3.6 GWh/d

	Year	GWh/d	MW at 12 hours/d average load	$MM/y	$MM/GWh/d/y	Years to end	End year
1	2016	1.2	100	$70	*$58*	26	2042
2	2017	1.2	100	$70	*$58*	25	2042
3	2018	1.2	100	$70	*$58*	24	2042
4	2019	1.8	150	$103	*$57*	19	2038
5	2020	1.8	150	$103	*$57*	14	2034
6	2021	2.1	175	$118	*$56*	12	2033
7	2022	2.1	175	$118	*$56*	11	2033
8	2023	2.4	200	$136	*$57*	8	2031
9	2024	2.4	200	$136	*$57*	7	2031
10	2025	2.7	225	$157	*$58*	6	2031
11	2026	3.0	250	$177	*$59*	4	2030
12	2027	3.6	250/14 h	$206	*$57*	3	2030
13	2028	3.6	250/14 h	$206	*$57*	2	2030
14	2029	3.6	250/14 h	$206	*$57*	1	2030
15	2030	3.6	250/14 h	$206	*$57*	0	2030

Average: $58

$0.16 per kWh

$0.53 per liter diesel eq.

Core of the Contract

Core of the Contract

Definitions

MM: million

MMSCF: million standard cubic feet

MMSCFD: million standard cubic feet per day

TOPS: Take-or-Pay Security

ICS: Infrastructure Capital Security

EFS: Energy Fund Security

MW: megawatt (1,000 kW)

GWh: gigawatt.hour (1 million kWh)

TDED: metric ton of diesel equivalent per day

Core of the Contract

Contractual deliveries (based on plan 7)

	Year	MMSCFD	Contract value	EFS
			MM/year	MM
1	2016	11.6	$70	$290
2	2017	11.6	$70	$290
3	2018	11.6	$70	$290
4	2019	14.5	$103	$440
5	2020	17.4	$103	$440
6	2021	20.2	$118	$500
7	2022	20.2	$118	$500
8	2023	23.1	$136	$565
9	2024	23.1	$136	$565
10	2025	26.0	$157	$660
11	2026	28.9	$157	$660
12	2027	34.7	$177	$740
13	2028	34.7	$177	$740
14	2029	34.7	$177	$740
15	2030	34.7	$177	$740

Core of the Contract

Derived quantities

	Year	MW	GWh/day	TDED	Cost per kWh	EFS
			at 12 hours/day average load			% of total contract value
1	2016	100	1.2	298	$0.16	37%
2	2017	100	1.2	298	$0.16	37%
3	2018	100	1.2	298	$0.16	37%
4	2019	150	1.8	447	$0.16	37%
5	2020	150	1.8	447	$0.16	37%
6	2021	175	2.1	522	$0.16	37%
7	2022	175	2.1	522	$0.16	37%
8	2023	200	2.4	596	$0.16	37%
9	2024	200	2.4	596	$0.16	37%
10	2025	225	2.7	671	$0.16	37%
11	2026	225	2.7	671	$0.16	37%
12	2027	250	3.0	746	$0.16	37%
13	2028	250	3.0	746	$0.16	37%
14	2029	250	3.0	746	$0.16	37%
15	2030	250	3.0	746	$0.16	37%

Core of the Contract

Contract duration
15 years

Prices
Prices include delivery to the power plant in Betano, storage and pilot diesel fuel (7.5% of energy)

Payment frequency
Monthly

Downgrading option
Upgraded delivery quantities after year 3 will require confirmation with a two year notice, and may be reduced on the same notice to original delivery quantities, in which case EFS (Energy Fund Security) will be adjusted

Core of the Contract

Energy Fund

A newly created Energy Fund will be established with funds transferred from the Petroleum Fund. The initial amount of $290 MM represents 1.7% of the current value of the Petroleum Fund. The Energy Fund will remain in effect for the duration of the contract and will be released from contract commitments at the end of the term. The fund may optionally consist of a quantity of natural gas of equal value commited to C-GAS in the Bayu Undan reservoir by the Government of East Timor.

Infrastructure Security

EDTL will provide Infrastructure Security capital out of the Energy Fund for two thirds of the fund's amount. The Infrastructure Security Capital will be incrementally transferred back to the Energy Fund over the duration of the contract and matching liens on infrastructure and intellectual property will be provided to EDTL. The liens will constitute a performance bond for EDTL. The Infrastructure Security may optionally consist of a quantity of natural gas of equal value commited to C-GAS in the Bayu Undan reservoir by the Government of East Timor.

See details in following section: Securities

Core of the Contract

Options

Option	Infrastructure Security Capital	Initial Take-or-Pay Security in Energy Fund	Energy Fund total at commencement	Private equity required	Private equity total	Annual payment for gas	Total payments for gas over contract term	Security from C-GAS over capital equipment and IP - valued at cost	Overall additional cost for a diminished infrastructure security
	(by EDTL)	(by EDTL)	(by EDTL)	(in C-GAS)	(in C-GAS)	(by EDTL)	(by EDTL)	(by C-GAS)	(for EDTL)
	$MM	$MM	$MM	%	$MM	$MM	$MM	$MM	$MM
1	$160	$130	$290	0%	$0	$70	$1,050	$160	$0
2	$120	$170	$290	35%	$40	$87	$1,310	$120	$260
3	$80	$210	$290	50%	$80	$95	$1,430	$80	$380
4	$0	$290	$290	100%	$160	$119	$1,785	$0	$735

See details in following section: Securities

Securities

Take-or-Pay Security (TOPS)

1. To provide the benefits as defined in this presentation, C-GAS requires a Take-or-Pay Security (TOPS) for the duration of the contract
2. The Take-or-Pay Security will be progressively released over the duration of the contract
3. The Take-or-Pay Security may optionally consist of a quantity of natural gas of equal value committed to C-GAS in the Bayu Undan reservoir by the Government of East Timor.

Infrastructure Capital Security (ICS)

In addition to the Take-or-Pay Security (TOPS), an Infrastructure Capital Security (ICS) will be required by C-GAS to serve as collateral for infrastructure expenditures.

Together the TOPS and ICS constitute the Energy Fund Security (EFS), which may optionally consist of a quantity of natural gas of equal value committed to C-GAS in the Bayu Undan reservoir by the Government of East Timor.

Purpose of the Securities

1. The TOPS is used as a collateral for the payments by EDTL to C-GAS of the long term gas deliveries
2. The ICS is used as a collateral for the payments by C-GAS to the various manufacturers and developers of the transportation system (ships, loading buoys, port, storage facility, processing facility, etc.)

TOPS and ICS Securities

1. The TOPS remains untouched for as long as EDTL is able to make its payments for the delivery of the gas. In case of a failure by EDTL to make the payments, the TOPS will substitute for EDTL's payments.
2. The ICS remains untouched but serves as a security, or collateral, for the bank credit used to finance the construction of the transportation system. As the transportation system is progressively completed, a 100% security is given back to EDTL by C-GAS in the form of an irrevocable lien on the transportation system and all intellectual property associated with the construction and operation of the system.

Capital Expenditure

During the initial two years, during which the system will be built, the payments for principal and interest on its infrastructure financial commitments will be made by C-GAS out of its bank credit.

After C-GAS begins deliveries, the payments will be made using the proceeds from EDTL's payments to C-GAS, which are themselves guaranteed by the TOPS.

Energy Fund

The ICS and the TOPS are only available and applied on contract default by either party. Their sum total is $290 million, secured in the Energy Fund, or optionally consisting of a quantity of natural gas of equal value committed to C-GAS in the Bayu Undan reservoir by the Government of East Timor.

TOPS / ICS correlation

In case EDTL did not agree with providing the required $160 million ICS, the TOPS would increase from $130 to $290 million and C-GAS would obtain funds from venture capitalists. Venture capitalists require a 25% to 30% IRR (Internal Rate of Return), which is quite onerous and would result in a price increase for EDTL, from $70 to $119 million a year, with no additional benefit for C-GAS.

Over the 15 years of the contract, the total extra cost to EDTL for declining to provide the $160 million Infrastructure Security Capital would be $735 million.

Gas Swap

In case EDTL did not wish to proceed with cash disbursements for the payment of the securities and gas deliveries, C-GAS is prepared to accept a global security in the form of a Gas Security Reserve in the Bayu Undan reservoir and swap gas delivered to the power plants and gas at Bayu Undan.

The size of the required Gas Security Reserve would be based on the minimum anticipated valuation of Bayu Undan natural gas for the duration of the contract. Valuation is stated in the Bayu Undan operator's monthly records of payments to the Joint Authority.

Gas Security Reserve

For a 15 year contract based on “Tariff: Plan 1”, and assuming a $5 per GJ anticipated minimum valuation, the size of the required Gas Security Reserve would be:

0.2 tcf

This Gas Security Reserve would be used to cover all securities and all payments for the duration of the contract. At the end of the contract, the value of the unused Security Reserve would be returned to RDTL. The following table provides the amounts due to EDTL at end of contract, based on actual average valuation at Bayu Undan during the 15 year contract duration. The $8 valuation corresponds to the apparent average since 2006.

Actual price per GJ during contract	$5.00	$6.00	$7.00	**$8.00**	$9.00	$10.00
tcf unused	0.000	0.033	0.057	0.075	0.089	0.100
Amount due to RDTL (million)	$0	$200	$400	**$600**	$800	$1,000

Rate of Gas Swap

In the “Tariff: plan 1” option, the cost of natural gas delivered to the Betano power plant will be fixed for 15 years at the equivalent of:

$15.49 per GJ

In the Gas Swap scenario, Bayu Undan gas at the well will be exchanged for gas delivered to the power plants at the following rates of exchange, in units of Bayu Undan gas for units of C-GAS gas, delivered to the power plants. The $8 valuation corresponds to the reported apparent average since 2006.

Actual price per GJ during contract	$5.00	$6.00	$7.00	**$8.00**	$9.00	$10.00
Rate of exchange (unit of Bayu Undan gas per unit of C-GAS gas)	3.10	2.58	2.21	**1.94**	1.72	1.55

Picking up gas at Bayu Undan

Substantial savings can be achieved by allowing C-GAS to pick up gas at Bayu Undan for delivery to Betano.

Financial and Commercial Mechanism

THE CAST

Energy Fund
International

Government Fund. Funds the two Security Reserves

Infrastucture Capital Security Reserve

Guarantees the capital loan to C-GAS Services

Take-or-Pay Security Reserve

Guarantees payments to C-GAS Oil & Gas

International Banking Institution
International

Lends capital funds to C-GAS Services, guaranteed by the Infrastructure Capital Security Reserve

EDTL
Timor-Leste

Buys natural gas and its transportation from C-GAS Timor-Leste

C-GAS

C-GAS Contracting

A subsidiary of C-GAS and Co-Venture Contracting, builds the infrastructure for C-GAS Services

C-GAS Services

A subsidiary of C-GAS, transports natural gas and sells it to C-GAS Timor-Leste

C-GAS Timor-Leste

A subsidiary of C-GAS and Empressa X., sells natural gas to EDTL

EMPRESA X
East Timor

Co-owns C-GAS Timor-Leste with C-GAS

C-GAS Oil & Gas Ashmore and Cartier Australia

A subsidiary of C-GAS, sells natural gas to C-GAS Services

CO-VENTURE Contracting
International

Co-owns C-GAS Contracting with C-GAS

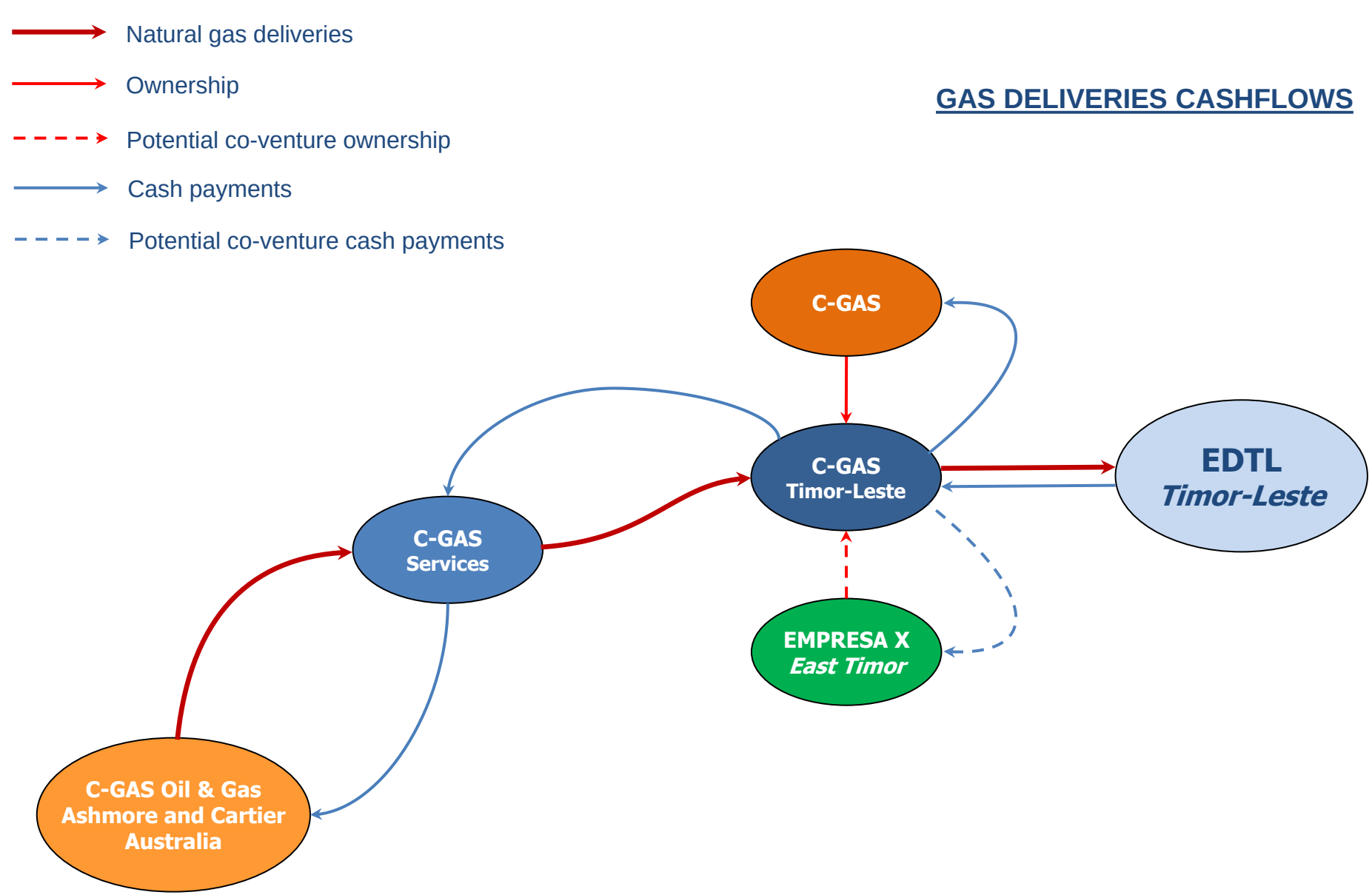
Various Manufacturers
International

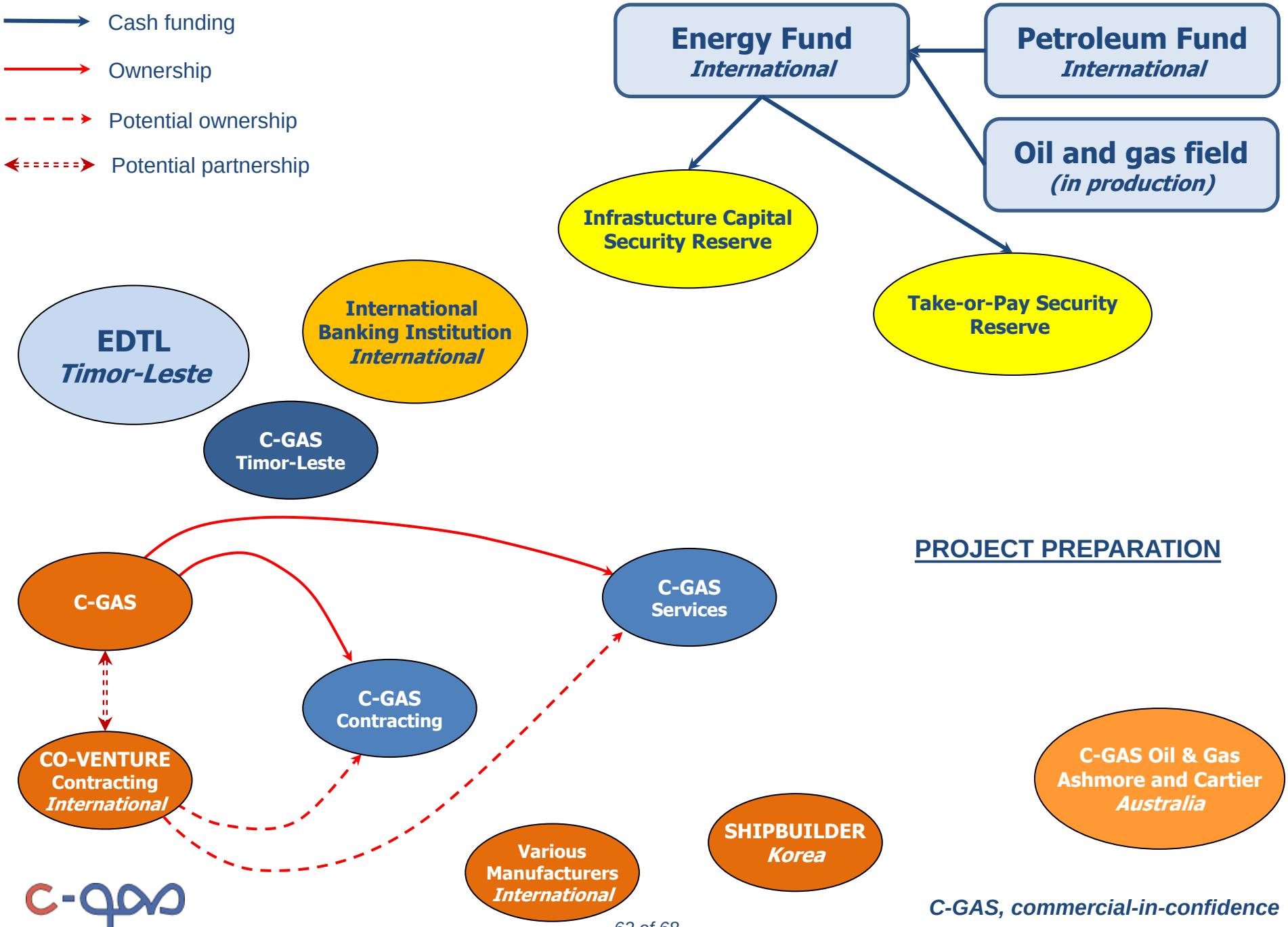
Manufacture the industrial systems for C-GAS Contracting

SHIPBUILDER
Korea

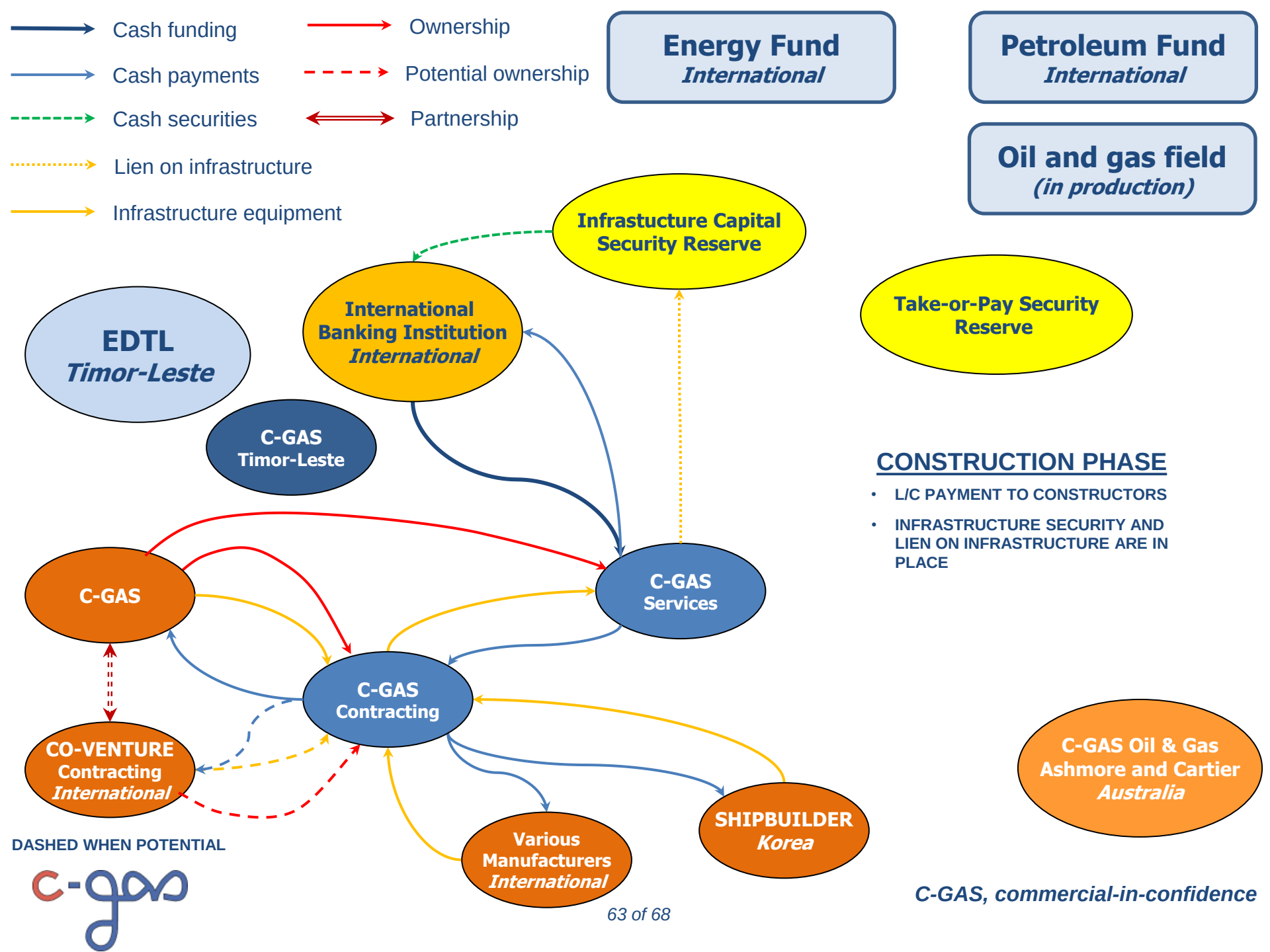
Builds the ships for C-GAS Contracting

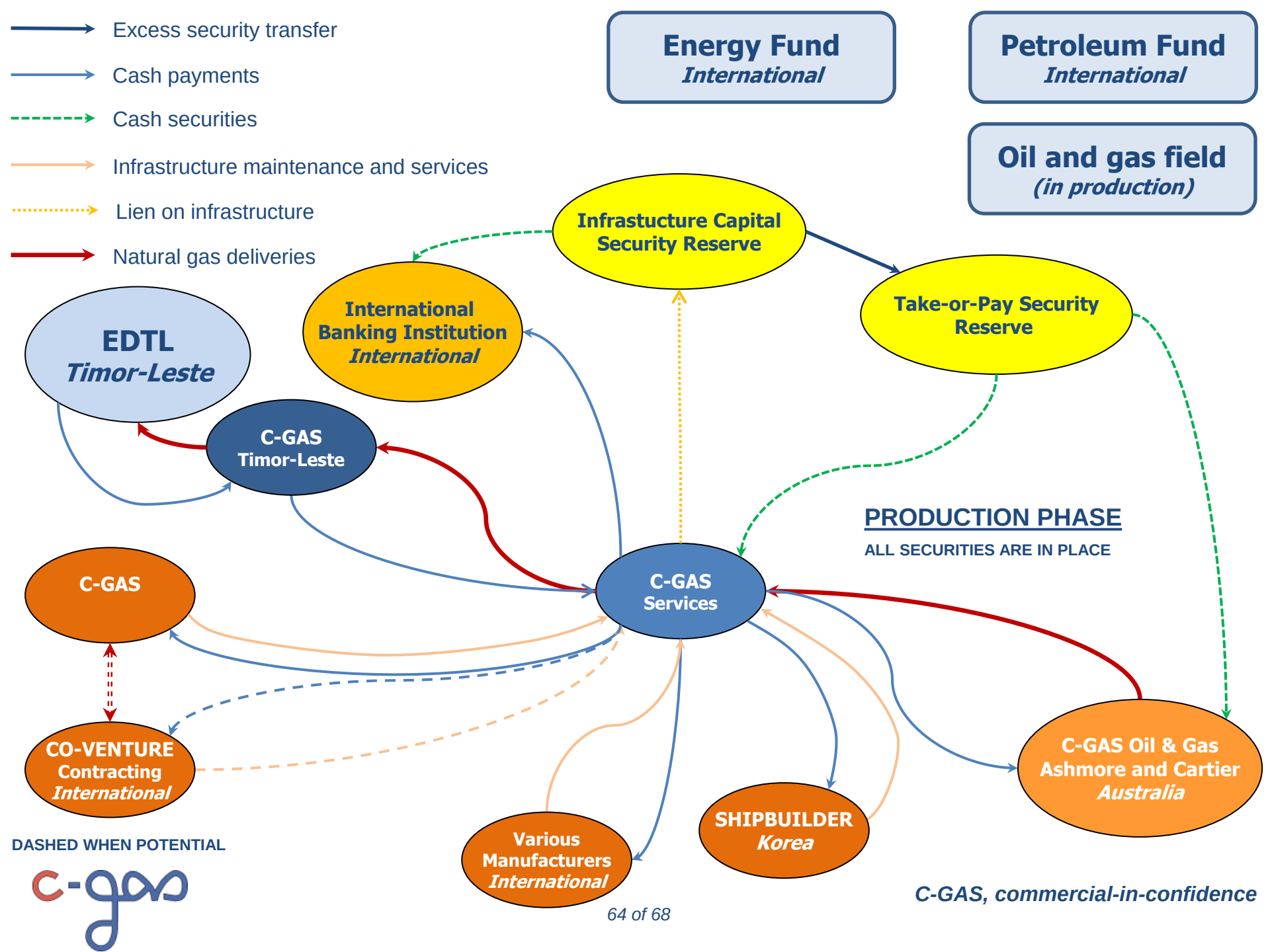
GAS DELIVERIES CASHFLOWS

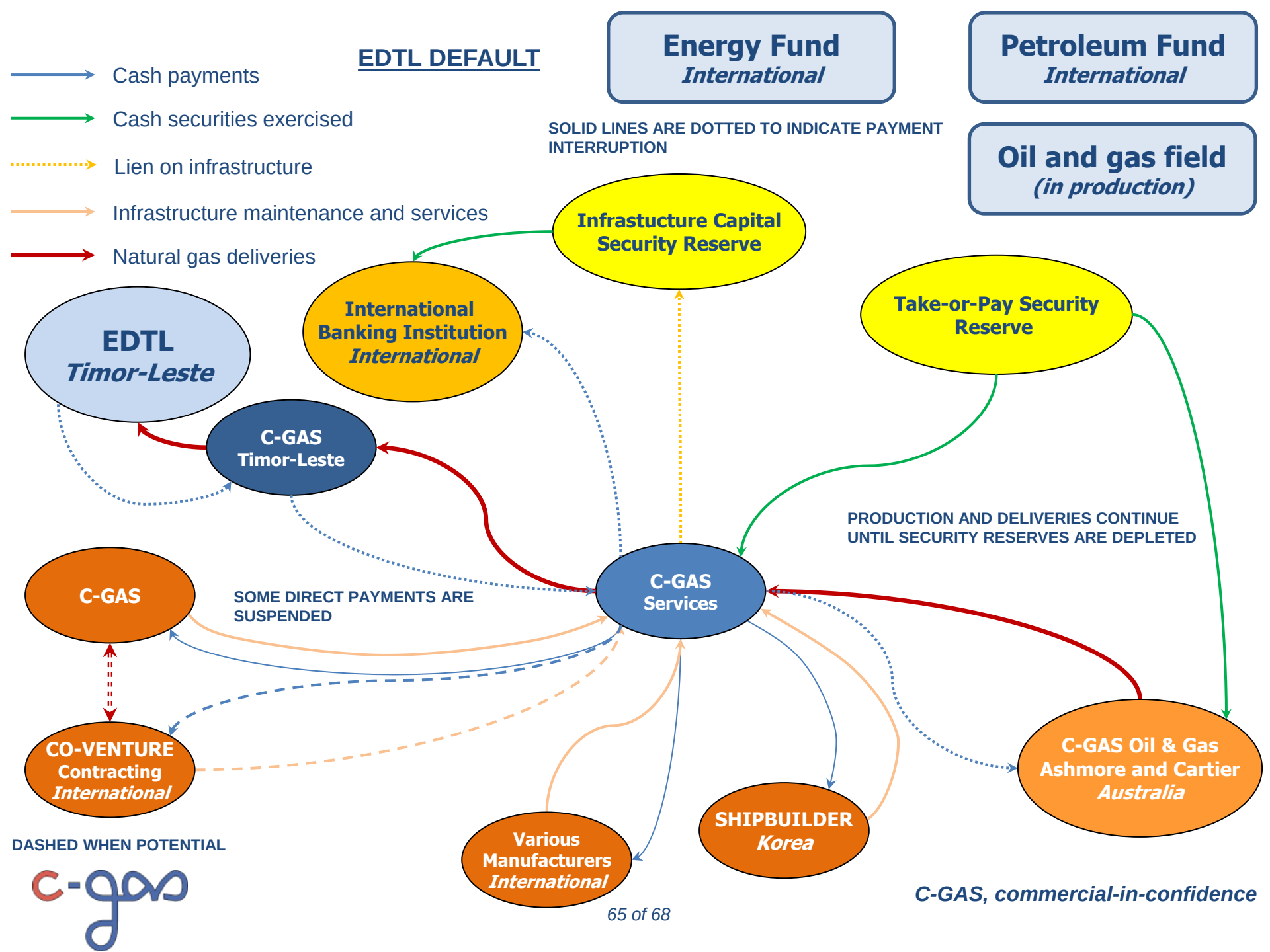


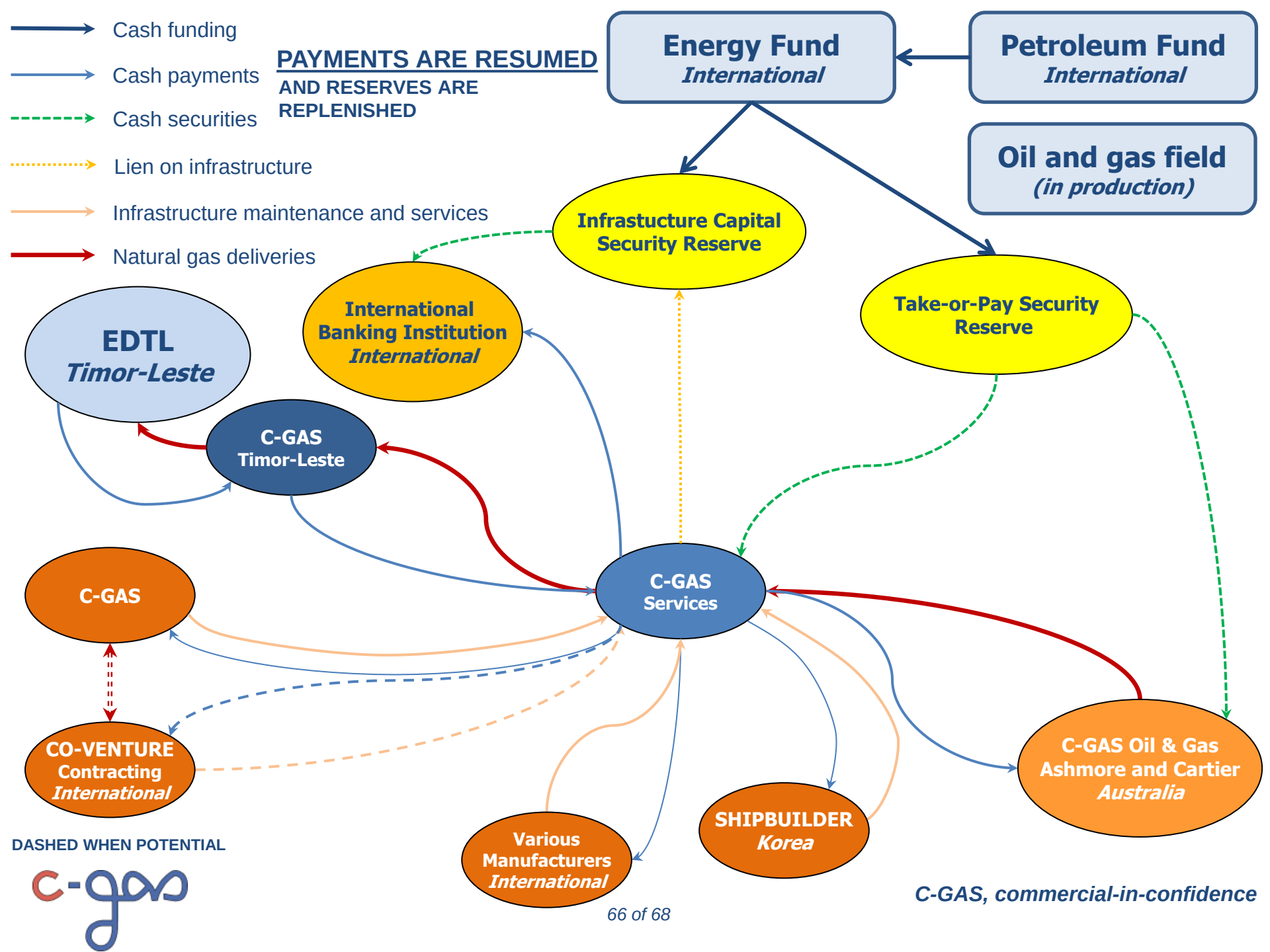


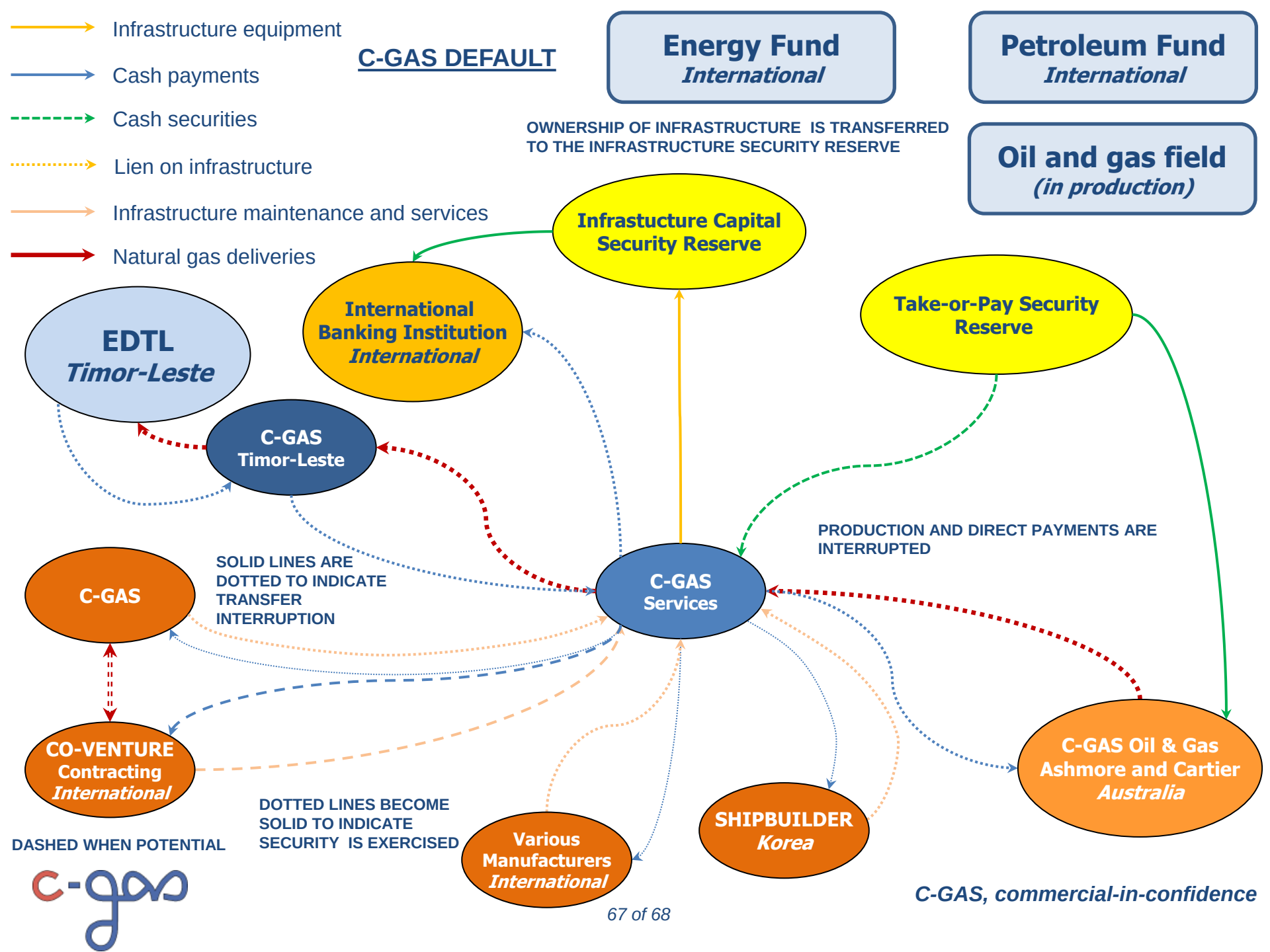
PROJECT PREPARATION

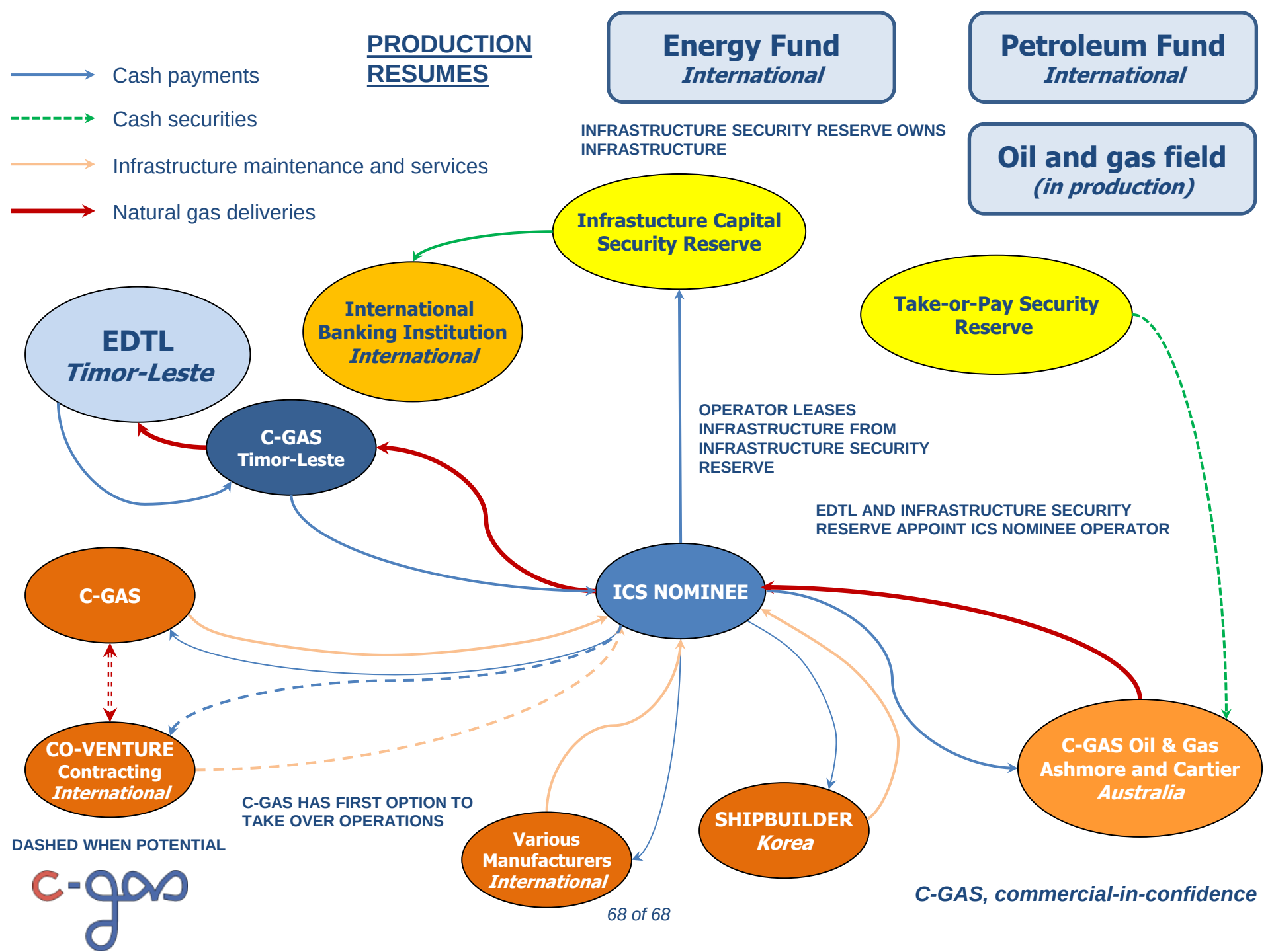





EDTL DEFAULT
Energy Fund
International
Petroleum Fund
International
Cash payments
Cash securities exercised
Lien on infrastructure
Infrastructure maintenance and services
Natural gas deliveries
SOLID LINES ARE DOTTED TO INDICATE PAYMENT INTERRUPTION
Oil and gas field
(in production)
Infrastucture Capital Security Reserve
International Banking Institution
International
Take-or-Pay Security Reserve
EDTL
Timor-Leste
C-GAS
Timor-Leste
PRODUCTION AND DELIVERIES CONTINUE UNTIL SECURITY RESERVES ARE DEPLETED
C-GAS
SOME DIRECT PAYMENTS ARE SUSPENDED
C-GAS
Services
CO-VENTURE
Contracting
International
C-GAS Oil & Gas
Ashmore and Cartier
Australia
SHIPBUILDER
Korea
Various
Manufacturers
International
DASHED WHEN POTENTIAL
C-GAS, commercial-in-confidence




Infrastructure equipment
Cash payments
Cash securities
Lien on infrastructure
Infrastructure maintenance and services
Natural gas deliveries
C-GAS DEFAULT
Energy Fund
International
Petroleum Fund
International
OWNERSHIP OF INFRASTRUCTURE IS TRANSFERRED TO THE INFRASTRUCTURE SECURITY RESERVE
Oil and gas field
(in production)
Infrastucture Capital Security Reserve
International Banking Institution
International
Take-or-Pay Security Reserve
EDTL
Timor-Leste
C-GAS
Timor-Leste
PRODUCTION AND DIRECT PAYMENTS ARE INTERRUPTED
SOLID LINES ARE DOTTED TO INDICATE TRANSFER INTERRUPTION
C-GAS
C-GAS
Services
CO-VENTURE
Contracting
International
C-GAS Oil & Gas
Ashmore and Cartier
Australia
DOTTED LINES BECOME SOLID TO INDICATE SECURITY IS EXERCISED
DASHED WHEN POTENTIAL
Various
Manufacturers
International
SHIPBUILDER
Korea
C-GAS, commercial-in-confidence


PRODUCTION RESUMES
Cash payments
Cash securities
Infrastructure maintenance and services
Natural gas deliveries
Energy Fund
International
Petroleum Fund
International
Oil and gas field
(in production)
INFRASTRUCTURE SECURITY RESERVE OWNS INFRASTRUCTURE
Infrastucture Capital Security Reserve
International Banking Institution
International
Take-or-Pay Security Reserve
EDTL
Timor-Leste
C-GAS
Timor-Leste
OPERATOR LEASES INFRASTRUCTURE FROM INFRASTRUCTURE SECURITY RESERVE
EDTL AND INFRASTRUCTURE SECURITY RESERVE APPOINT ICS NOMINEE OPERATOR
C-GAS
ICS NOMINEE
CO-VENTURE
Contracting
International
C-GAS HAS FIRST OPTION TO TAKE OVER OPERATIONS
DASHED WHEN POTENTIAL
Various Manufacturers
International
SHIPBUILDER
Korea
C-GAS Oil & Gas
Ashmore and Cartier
Australia
C-GAS, commercial-in-confidence