

Ishikari LNG receiving terminal

~ Operation will be started in Dec. 2012 ~

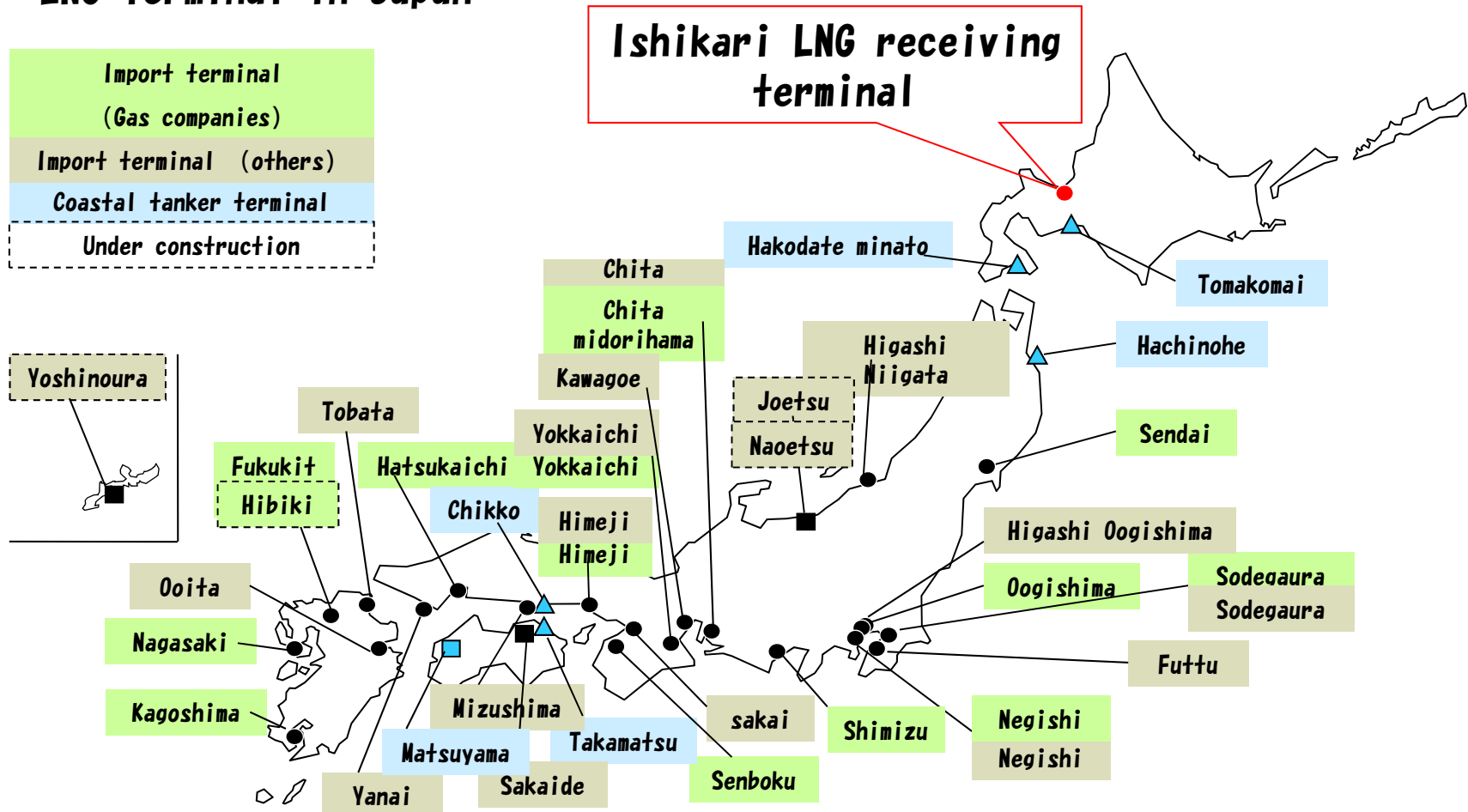
September 28th , 2012
Hokkaido gas

Positioning of Ishikari LNG receiving terminal

① To establish energy supply base

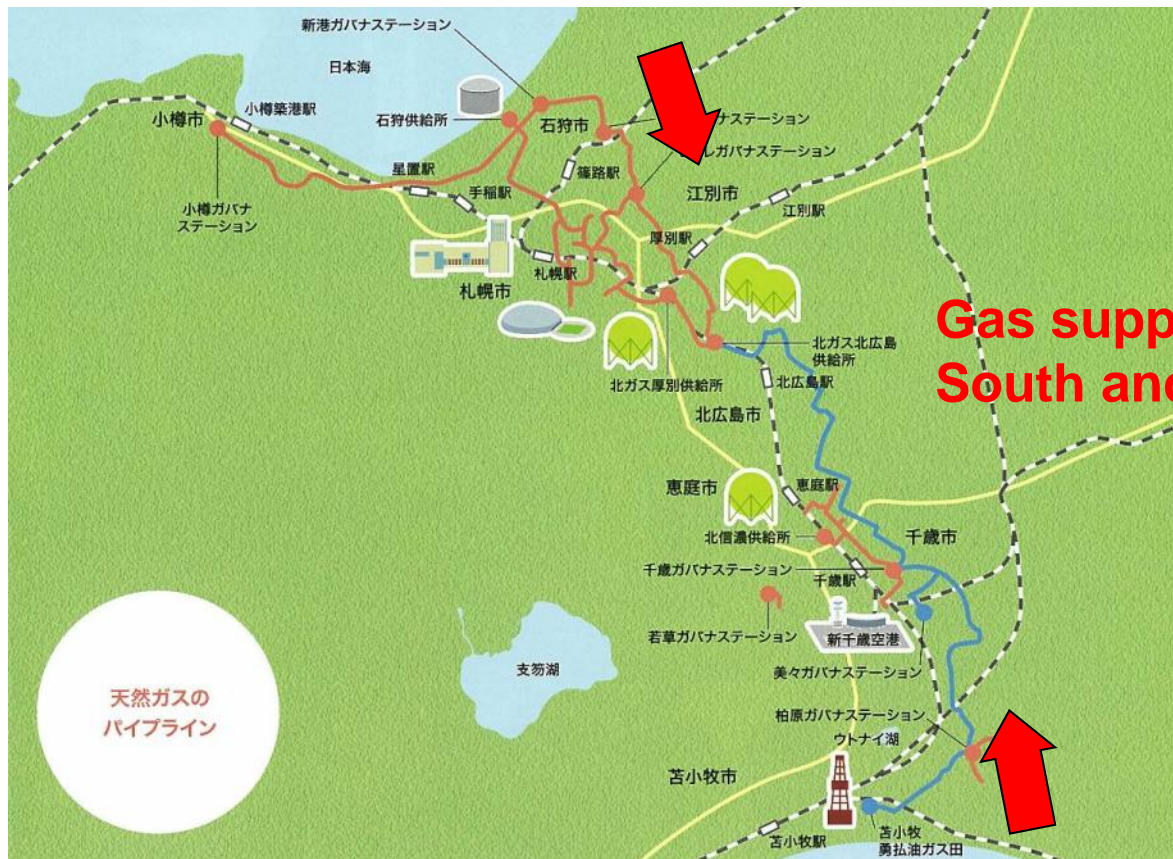
The first large LNG receiving terminal in Hokkaido

LNG terminal in Japan



② To improve our supply security by diversification of supply sources

In addition to the supply from South, it will be able to supply gas from North to Sapporo and Otaru area.



Gas supply from South and North

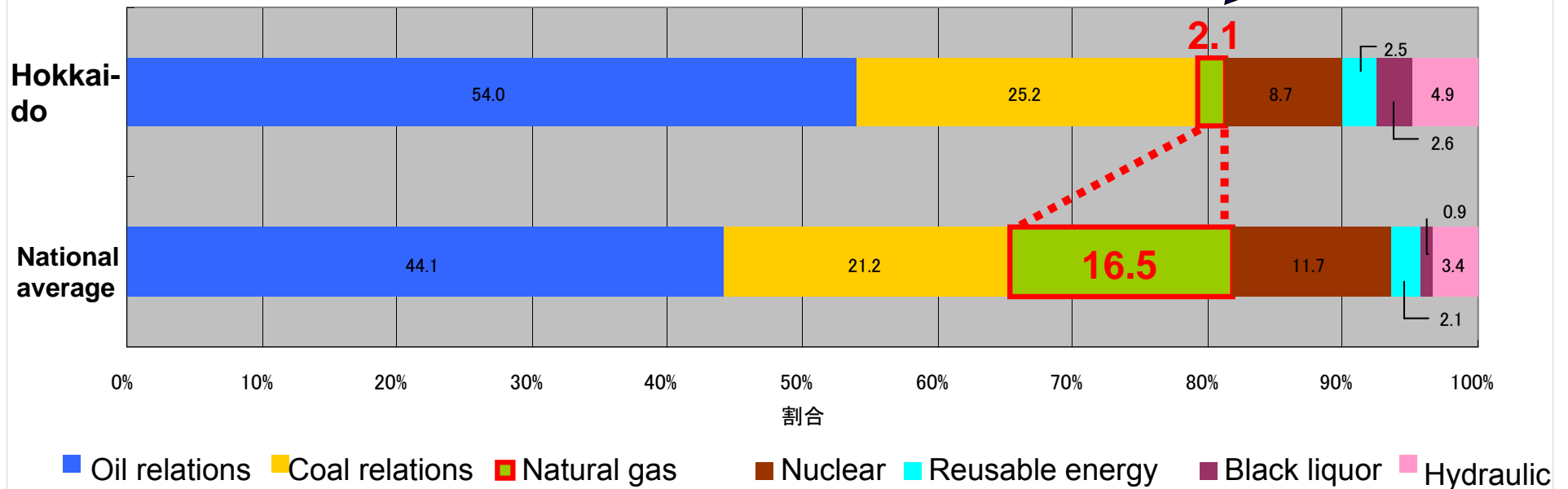
③ To enhance supply infrastructure for the future demand expansion

It is possible to spread Natural gas in Hokkaido

Constitution of energy supply (FY2006)

The source : Meti 「General energy statistics 2006」

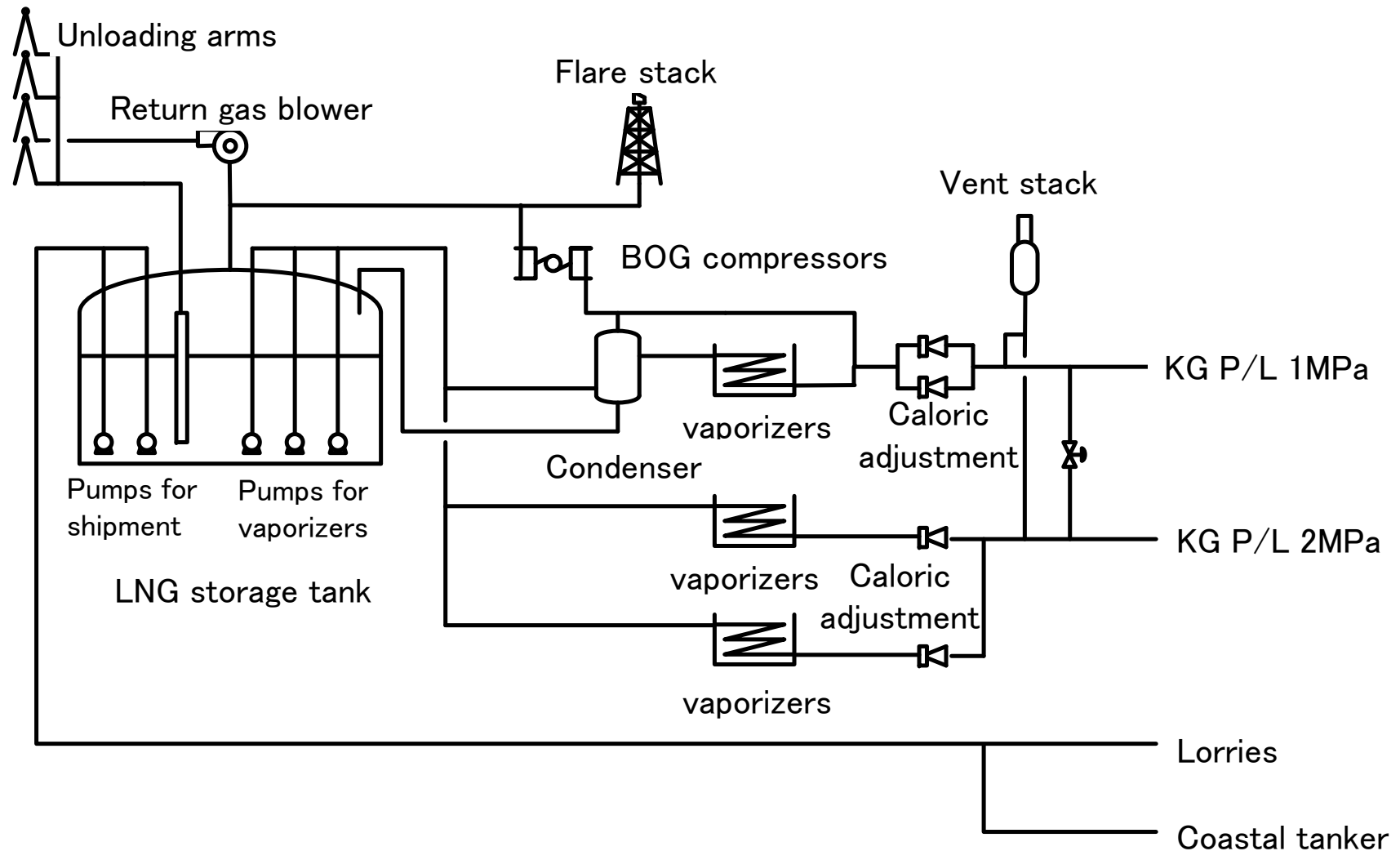
Diffusion rate is much lower than national average.



Outline of Ishikari LNG receiving terminal



Process Flow Diagram



Main equipment

Equip.	Spec.	Remarks
LNG storage tank	Aboveground Pre-stressed Concrete (180,000kL)	One of the largest aboveground PC tank in Japan
LNG vaporizer	SEV 40t/h (1MPa) SEV 80t/h (2MPa) SMV 80t/h (2MPa)	The hot water type is adopted in consideration of the sea water temperature in winter
BOG compressor	Reciprocating type (11,000m ³ /h × 2)	To utilize the boil off gas from storage tank for city gas.
LPG storage tank	499 t × 1	To store LPG for calorie adjustment
Ocean tanker berth	For standard ocean tankers	Capacity of tankers is 19,400m ³ ~177,000m ³
Coastal shipping	For coastal shipping	Capacity of tankers is 2,500m ³ ~ 3,500m ³
Lorry shipping	10 lanes	Rating of LNG shipping is 20 ton/h each lane.
Central Control Center	Control function for all of this terminal	Including a community relation center that is located at 3F

Construction view of Ishikari LNG receiving terminal

LNG storage tank



Whole view



Inside of tank



Inner wall (yellow)



Starting to water injection for loading test

Berth



Piles with angle



Concrete casting



Bases for unloading arms



Installation of arms



LPG storage tank



Vaporizer(this side)
Building for utility. (other side)



Coastal shipping berth
& truck scale for lorry



Lorry shipping



BOG comp.



Heavy snowing in winter

Construction schedule

年	2008	2009	2010	2011	2012	2013
Milestone	▼ Apr. publication	▼ construction plan application Storage (Jan.) Other (Jul)	Roof A/R ▼ Nov.		Oct. 7 th ▼ The first ship In operation ▼ Dec. 1 st	Coastal shipment ▼ May
Sand compaction	■					
LNG storage tank		■	■	■	■	
Arch/civil		■	■	■	■	
berth			■	■		
Mech./Piping			■	■	■	
Elec./inst.				■	■	
Start-up					■	

Thank you for your kind attention.

