

Petrovietnam and Gas Business

PETROVIETNAM
Energy for National Development





Mission

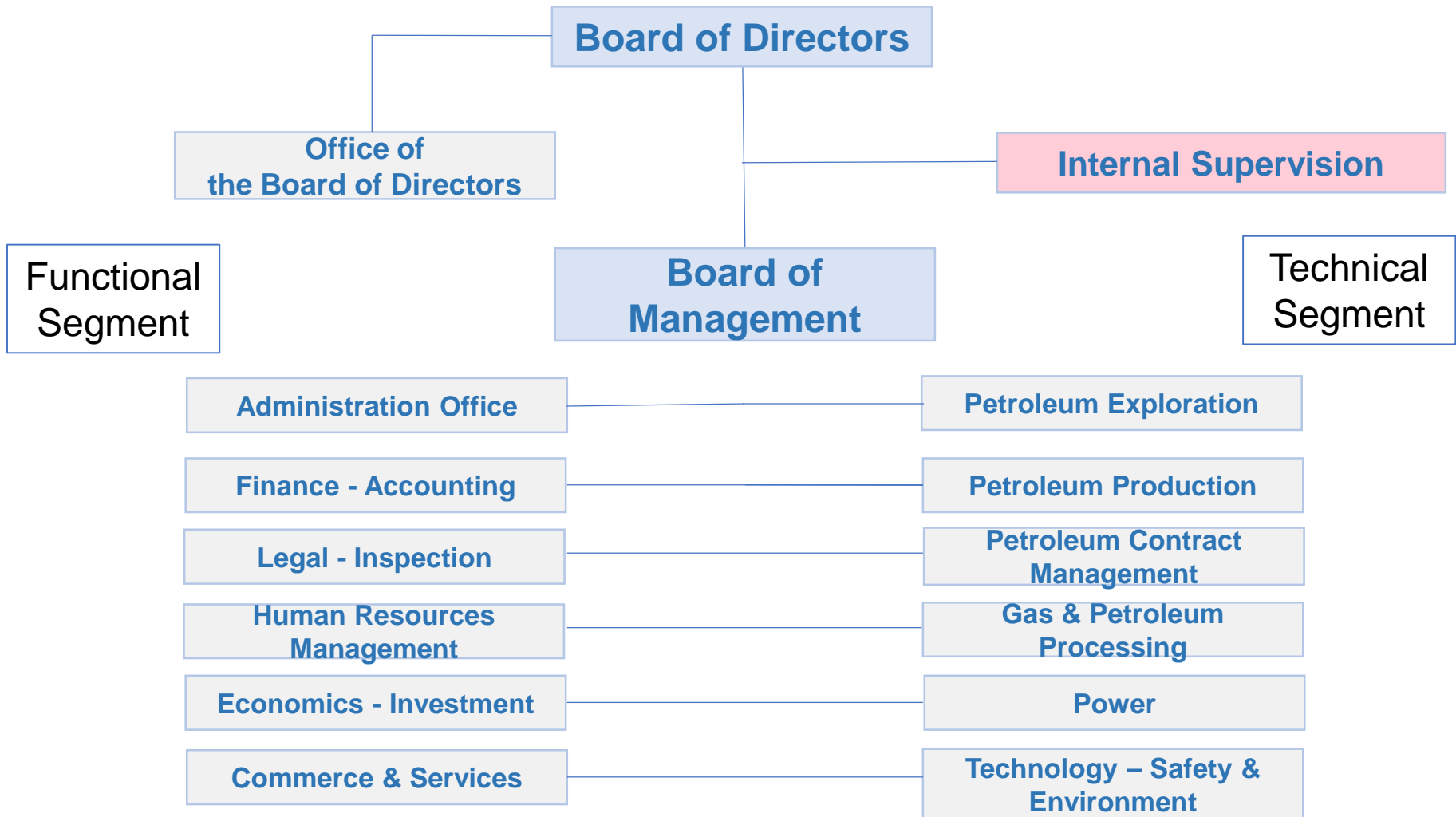
Contribute to ensure national energy security and as a leading business group contribute to build & develop Vietnamese economy

Strategic Vision through 2025

Be a leading petroleum group in the region - a pride of Vietnam

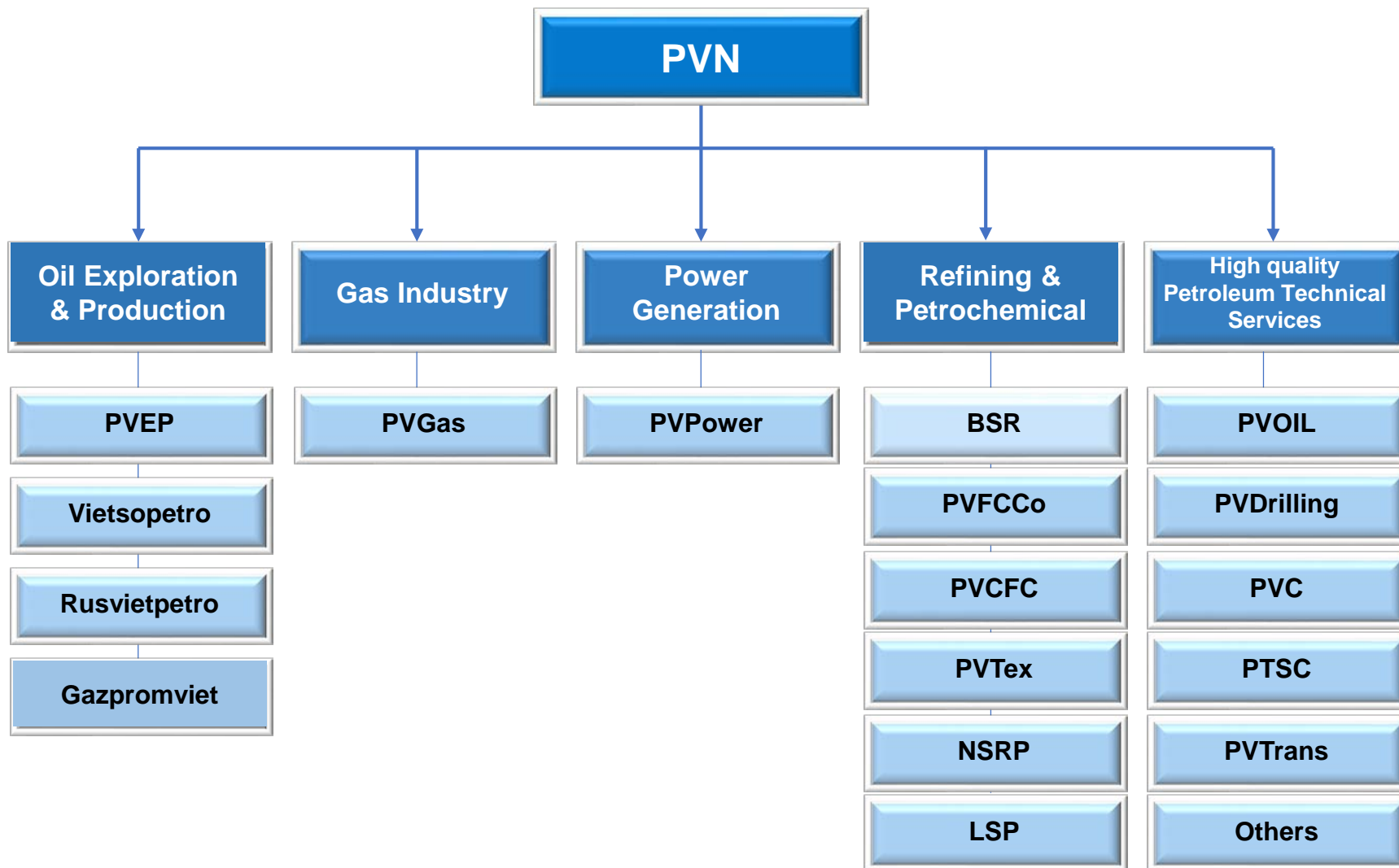
Petrovietnam restructure:

Re-size from 22 Technical/Functional Divisions to 13 Divisions



Petrovietnam:

28 subsidiaries & affiliates and 3 science research/training institutions.



Business activities focus on 5 lines as follows:



**Refinery
petrochemical
and bio-fuel**



Gas industry

**Oil and gas
exploration
and
production**

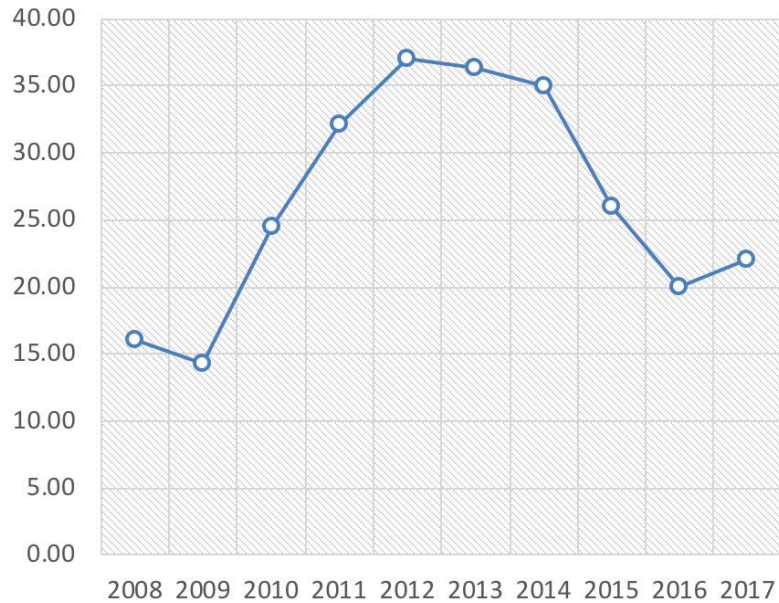
**Power
generation**



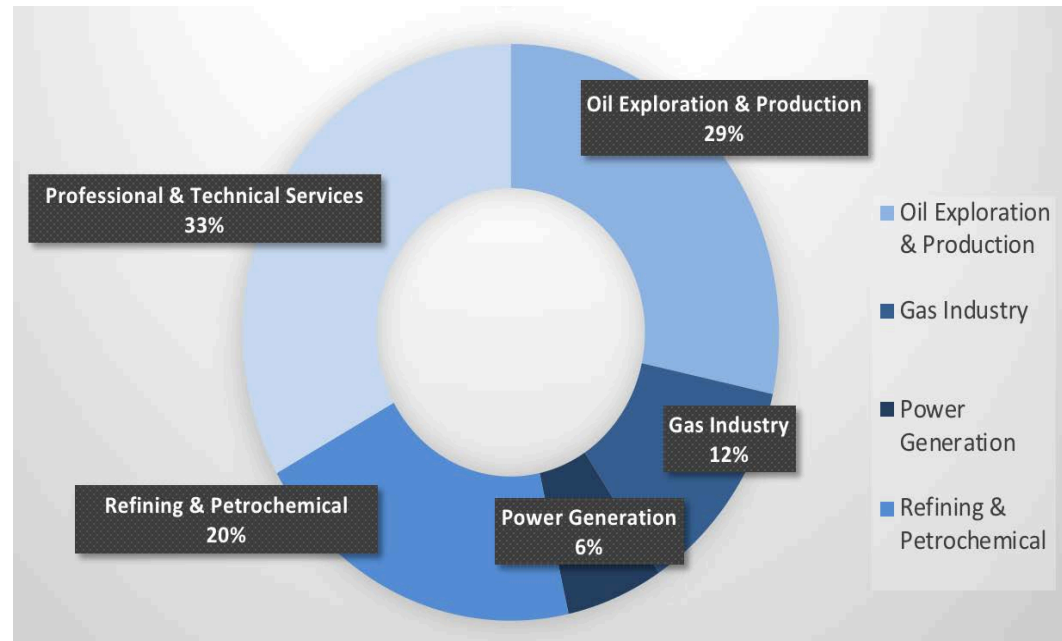
**High quality
Petroleum
Technical
Services**



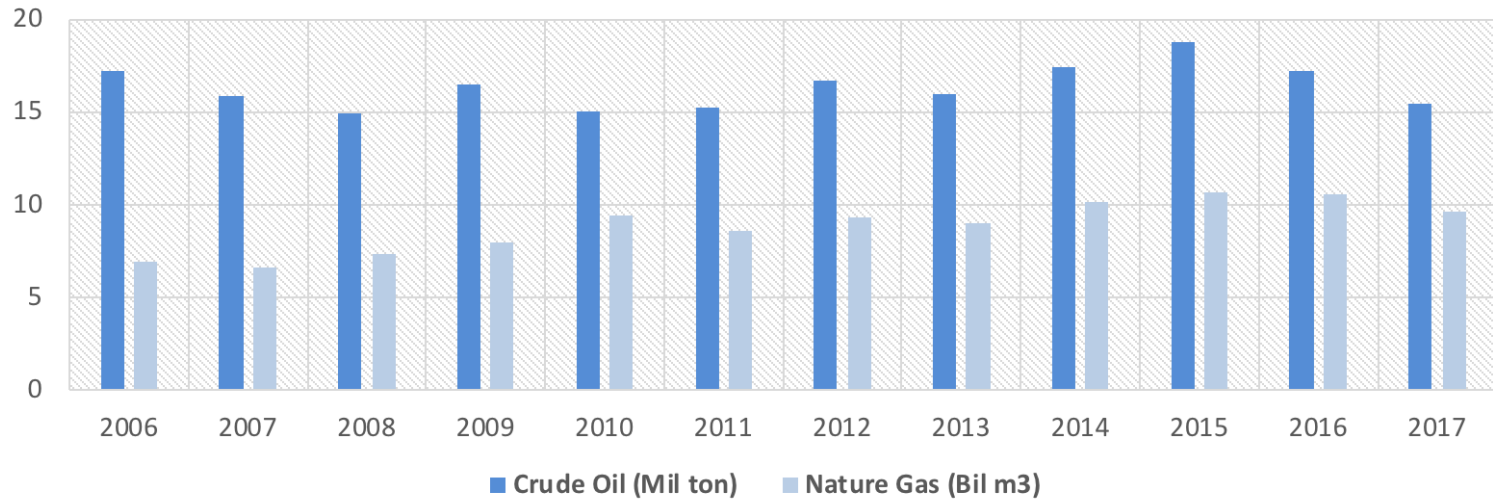
➤ Group revenue (USD bil)



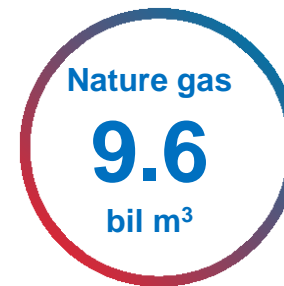
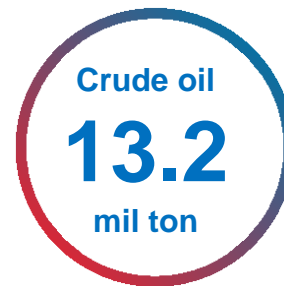
➤ Main business segments



Production 2006 - 2017

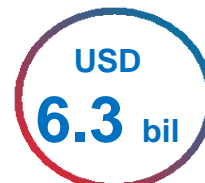


2018 Production forecast

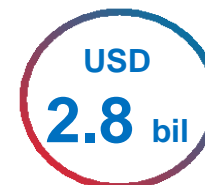


PVN revenue of main business segment in 2017

E & P revenue:



Gas revenue:



Refining & Petrochemical:



PVPower revenue:



Petroleum Technical
service revenue:

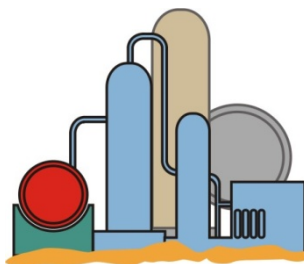
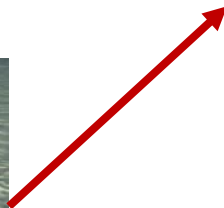




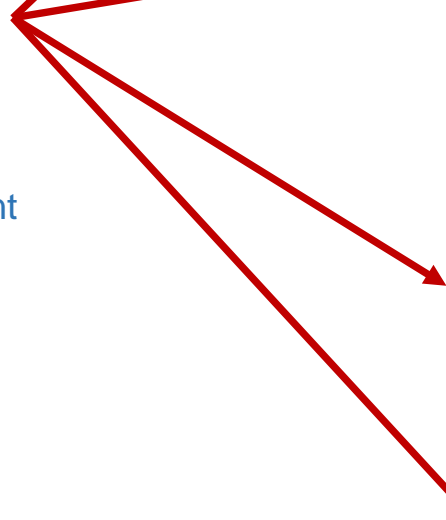
Oil and Gas fields



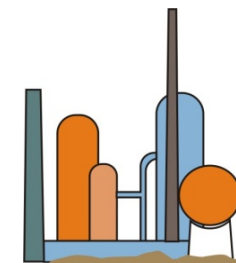
Gas Gathering



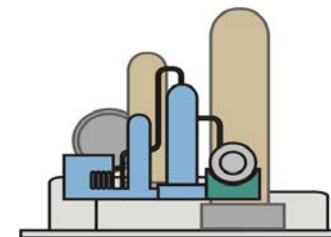
Gas Processing Plant
(Condensate,
LPG, Dry Gas)



Power Plant



Fertilizer Plant



Industrial Customers



Household consumption
low-pressure gas

Current Gas pipeline systems:

➤ **Cuu Long Basin gas pipeline system:**

2
billion
m³

of gas/year

➤ **Nam Con Son gas pipeline system**

7
billion
m³

of gas/year

➤ **Ca Mau - PM3 gas pipeline system:**

2
billion
m³

of gas/year

➤ **Phu My - Nhon Trach gas pipeline system:**

2
billion
m³

of gas/year

➤ **Phu My - My Xuan - Go Dau low - pressure gas pipeline system:**

1
billion
m³

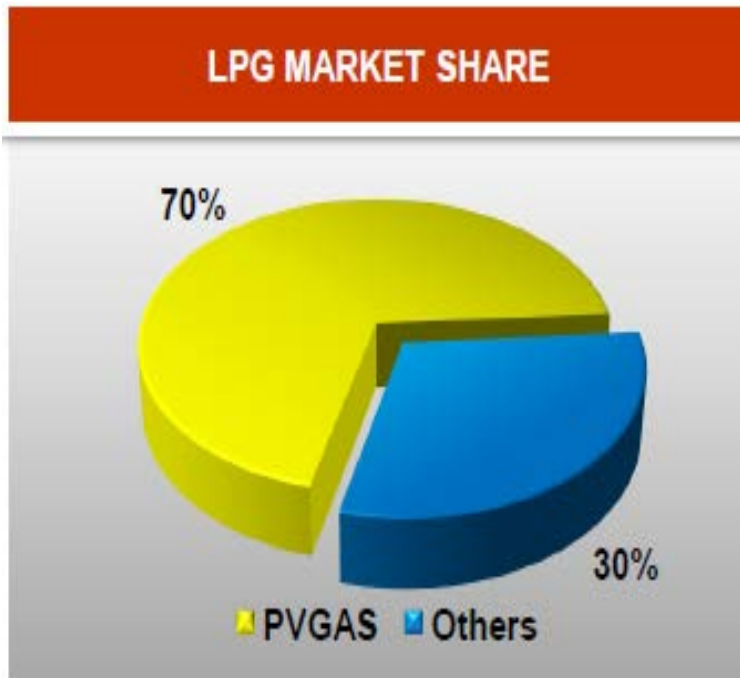
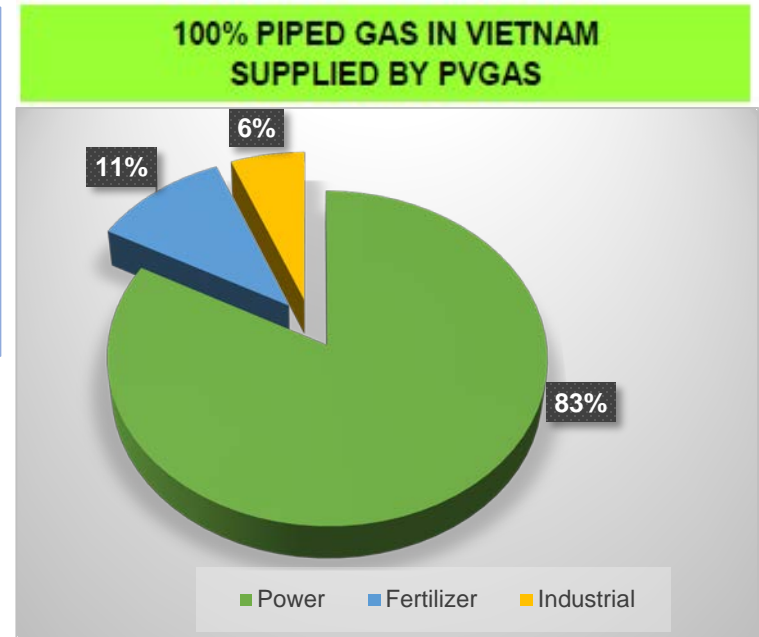
of gas/year

PVGas revenue
in 2017:
USD 2.8 bil

Future key projects:

- Blue Whale (Ca Voi Xanh) gas field & pipeline
- B-Block gas field & pipeline
- Nam Con Son 2 pipeline

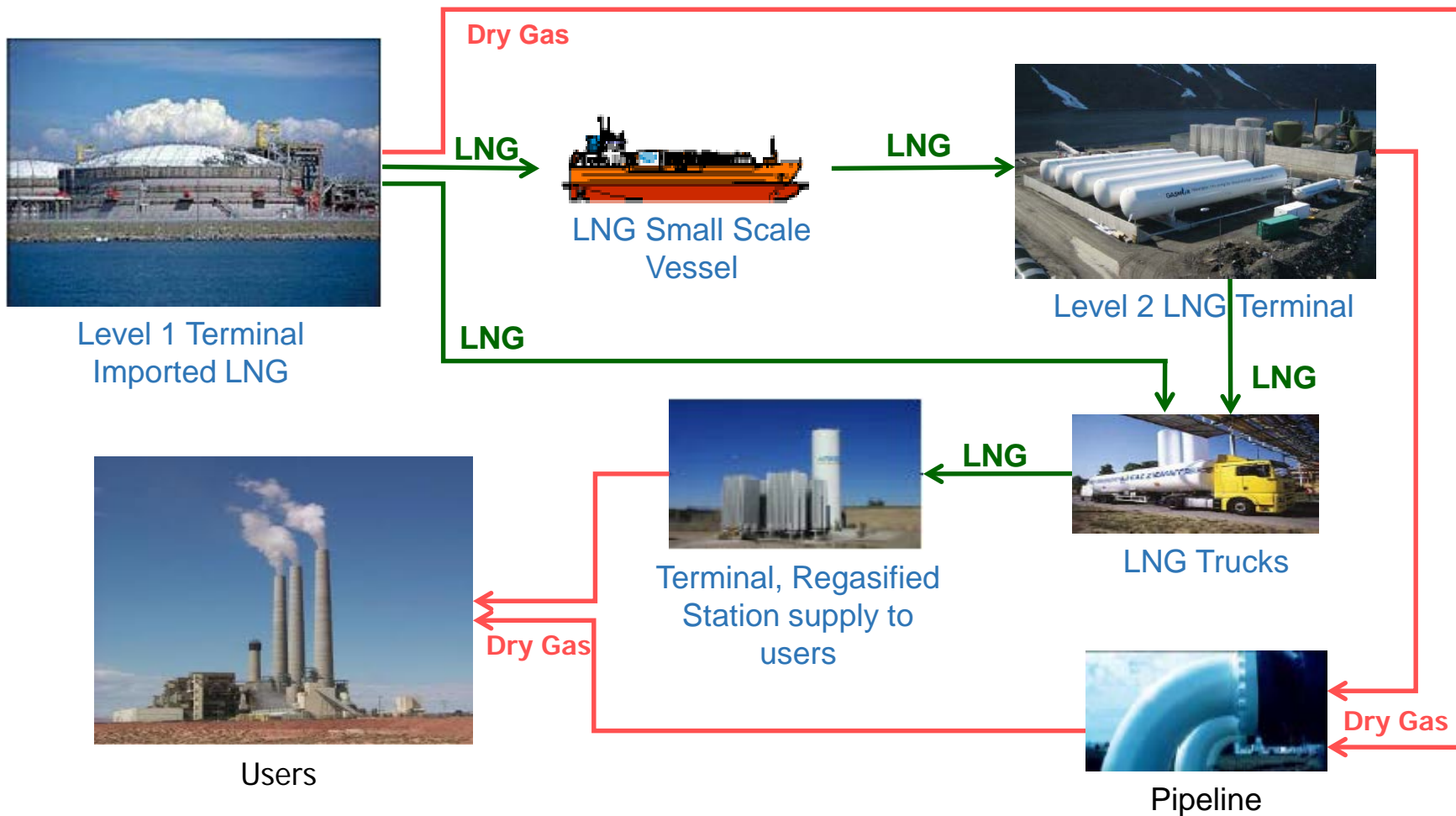
- Proportion of Gas supply: 83% for power plant, 11% for fertilize plant, 6% for industrial customers. In the future gas volume for Fertilize and Industrial usage will be increasing.



- Taking 70% LPG market shares in Vietnam (Production – 35%, Import & international trade – 65%)
- Providing gas to produce 40% of total National Electricity Output and 70% of fertilizer national Output;

Project Name	Investment Form	Current Status	Total Investment		Cooperation Opportunity
			Capital (million USD)	Owner	
Son My LNG Terminal	Project	Under study - FS	1,350	PV Gas	Build new terminal 3-6 MTPA in Son My – Binh Thuan province; Project Investment: Offer up to 49% of Equity ownership; - Equipment & Finance Supply
B-Block pipeline system	Project	Under construction	1,118	PVN & PV Gas	Equipment & Finance Supply
Nam Con Son 2 (phase 2) pipeline	Project	Prepare for construction	946	PV Gas	Equipment & Finance Supply
Thi Vai LNG Terminal	Project	Under construction	620	PV Gas	Upgrade the existing terminal in Thi Vai to import 1-2 MTPA; Equipment & Finance Supply
Su Tu Trang pipeline	Project	Prepare for construction	~ 160	PV Gas	Equipment & Finance Supply
Sao Vang – Dai Nguyet pipeline	Project	Under study	~ 150	PV Gas	Equipment & Finance Supply

PVN's LNG Value chain/Transportation





Current key issues and challenges in selected subjects

Current key issues:

- Gas products mainly are NG and LPG, condensate;
- LNG projects are on-going.

Challenges:

- Lacking practical & experiences in managing LNG project:
 - *Measure LNG in and out;*
 - *Anti ice-block;*
 - *Flare system.*
- Lacking practice & experiences in operating LNG facilities:
 - *Vacuum condition inside LNG tanks, Testing LNG tanks as function of temp., sensors located...;*
 - *Safety in vent NG/LNG;*
 - *LNG leakage;*
 - *LNG unloading line;*
 - *Typical hazard in LNG terminal and how to prevent these hazard.*
- Designing and building master program for developing HR in operation and maintenance LNG facilities;
 - *Training roadmap;*
 - *Developing key experts (training program, requirements, recognized...).*

Key agenda for cooperation with JCCP through HRD Programs and Technical Cooperation

Interested subjects:

- LNG and NG value chain of Gas Companies in Japan;
- Experiences in managing LNG projects:
 - *The difference in managing LNG projects (compare with NG projects);*
 - *The difficulties (problems) in managing LNG projects (compare with NG projects).*
- Experiences in operating LNG facilities:
 - *The difference and difficulties (problems) in operating LNG projects (compare with NG projects);*
 - *The most difficulties (problems) in LNG business as LNG contracts, imported LNG price and retail LNG price, transportation time ...;*
- Experiences in maintaining LNG facilities;
- Experiences in developing staff for operating & maintenance LNG facilities, especial technical staff and experts: Career Road map/Individual Development Plan, master training program, Coaching & Mentoring, OJT...;

Expectations of JCCP Programs & Japanese Petroleum Companies in future

Expectations:

- Provide technical exchange and sharing experiences in managing LNG projects;
- Provide technical exchange and sharing experiences in preparing and developing human resources of key positions in LNG business;
- Provide technical exchange and sharing experiences in operation and maintenance in Gas Processing Plans: corrosion in pipeline & plan, incident/accident control, training programs for developing key technical experts ...;
- Focused subjects in technical exchange and HRD program in LNG & NG:
 - Terminal and storage;
 - Distribution system: shipping, pipeline, LNG trucks;
 - Regasified station operation;
 - Operation and maintenance in GPP and LNG facilities .

THANK YOU

Contact Detail: Administration Office

Address: 18 Lang Ha Street, Ba Dinh, Hanoi, Vietnam

Tel: (84-24) 38252526 | Fax: (84-24) 38265942

Website: <http://pvn.vn>



2018年7月25日プレゼンの様子@JCCP

