



**MINISTRY OF ENERGY AND MINERAL RESOURCES
DIRECTORATE GENERAL OF OIL AND GAS**

I N D O N E S I A ' S

Downstream Prospect & Regulatory Incentives

By:

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Director of Oil and Gas Downstream Business Development

5th ASIA REFINING

Singapore, 20-21 October 2009



OUTLINE

- **NATIONAL ENERGY POLICY**
- **OIL AND GAS DOWNSTREAM REGULATION**
- **CURRENT CONDITION**
- **BUSINESS OPPORTUNITIES**
- **CONCLUSION**

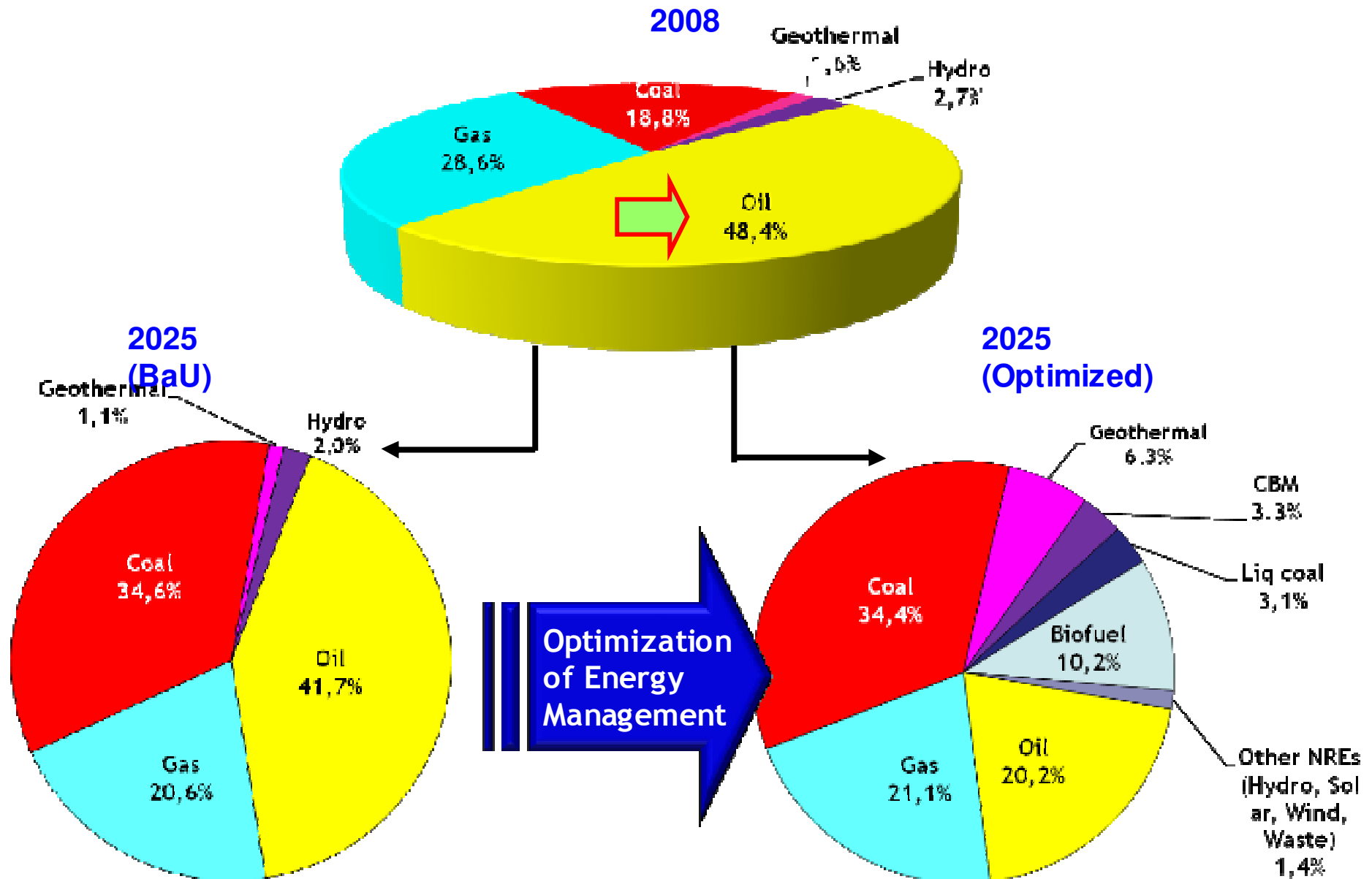


NATIONAL ENERGY POLICY



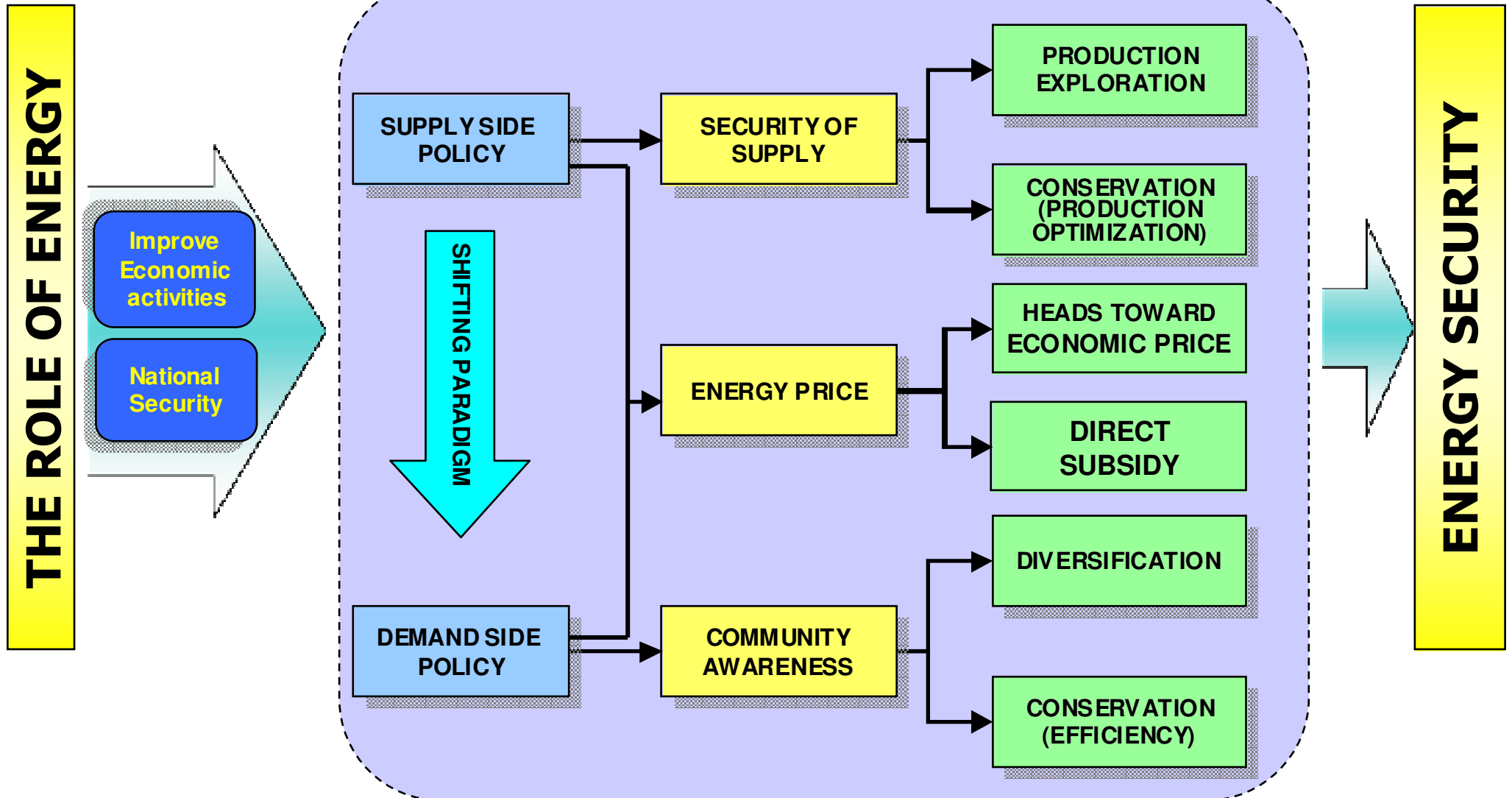


NATIONAL PRIMARY ENERGY MIX





INDONESIA'S ENERGY POLICY





ENERGY DIVERSIFICATION PROGRAM

ENERGY		Household	Transportation	Industry	Power Plant
• Gas					
➤	LPG	✓	✓	✓	-
➤	CNG	✓	✓	✓	✓
• Coal					
➤	Coal	✓	-	✓	✓
➤	Briquette	✓	-	✓	-
➤	Liquefied Coal	✓	✓	✓	✓
➤	Gasified Coal	-	✓	✓	✓
• Biofuel					
➤	Bio-ethanol	✓	✓	-	✓
➤	Bio-diesel	✓	✓	✓	✓
➤	Bio-oil	✓	✓	✓	✓
• Geothermal		✓	-	-	✓
• Other Renewable Energy					
➤	Biomass	✓	-	-	✓
➤	Nuclear	-	-	-	✓
➤	Hydro	-	-	-	✓
➤	Solar	✓	✓	-	✓
➤	Wind	-	-	-	✓
➤	Coal Bed Methane (CBM)	✓	✓	✓	✓
➤	Hydrogen / Fuel Cell	-	✓	-	✓
➤	Oil Shale/Oil Sand	-	✓	✓	✓
➤	Biogenic Gas	✓	-	-	✓

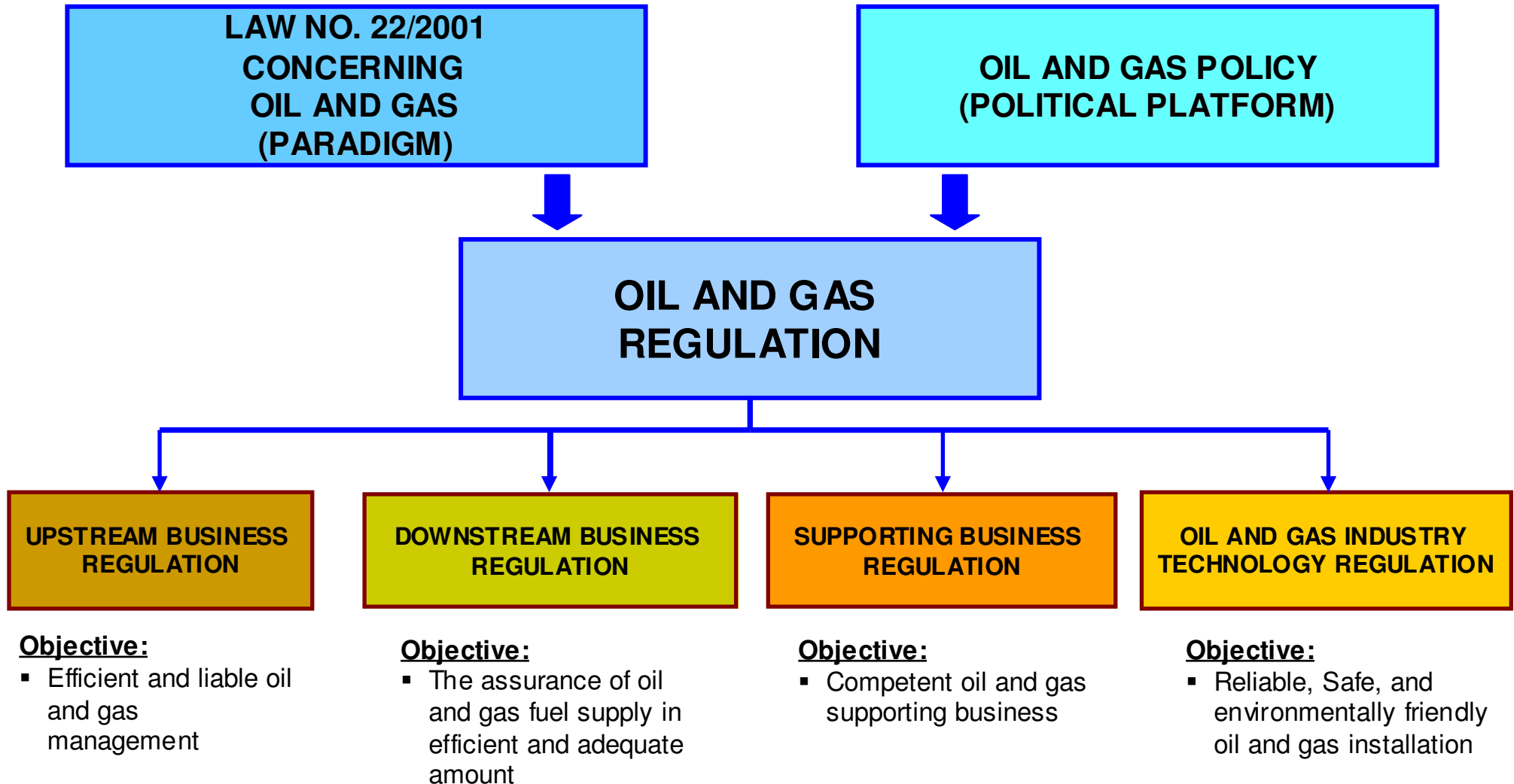


OIL AND GAS DOWNSTREAM REGULATION



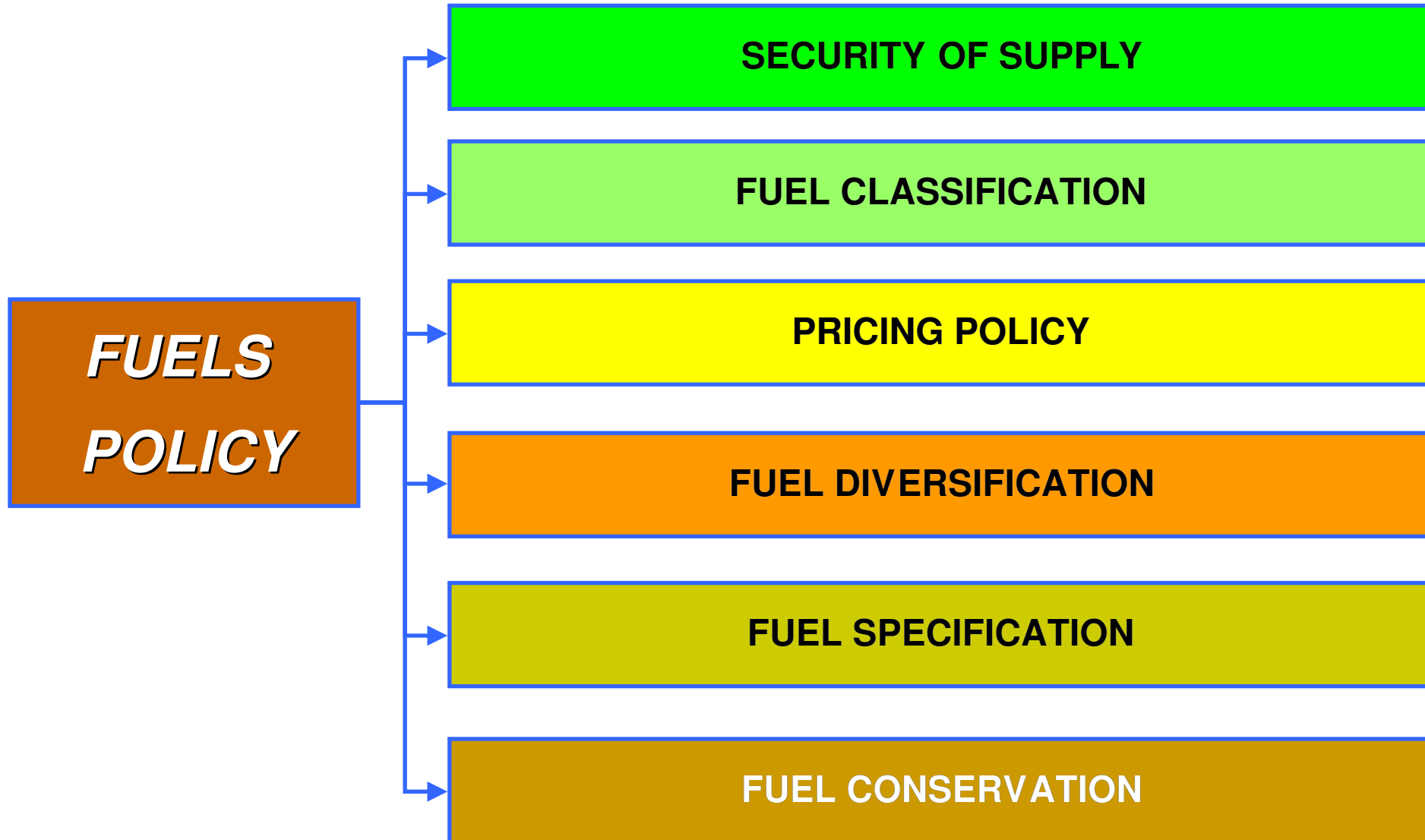


NATIONAL OIL AND GAS REGULATORY FRAMEWORK





FUEL POLICY





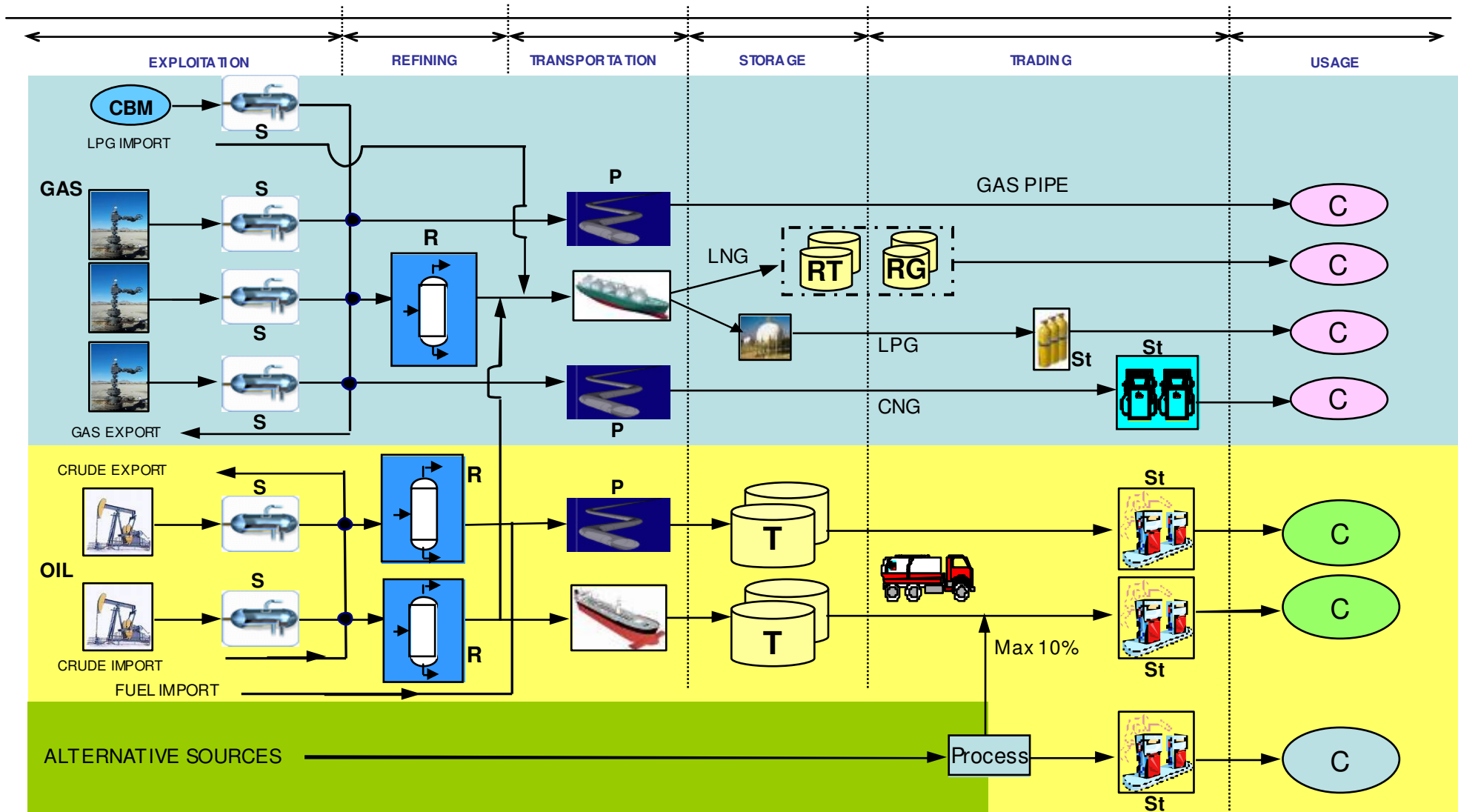
OIL AND GAS DOWNSTREAM BUSINESS

- **SINCE THE ENACTMENT OF LAW NO. 22/2001, PRIVATE BUSINESS ENTITIES ARE WELCOMED TO TAKE PART IN FULFILLING THE NEEDS OF HIGH GROWTH OF OIL AND GAS CONSUMPTION**

- **OIL & GAS DOWNSTREAM BUSINESS ACTIVITIES :**
 1. **PROCESSING**
 2. **TRANSPORTATION**
 3. **STORAGE**
 4. **MARKETING & TRADING**



NATIONAL FUEL SUPPLY SYSTEM



S = Separator
P = Pipe
R = Refinery
T = Tank
RT = Receiving Terminal
RG = Regasification
C = Consumers
St = Station
CBM = Coal Bed Methane



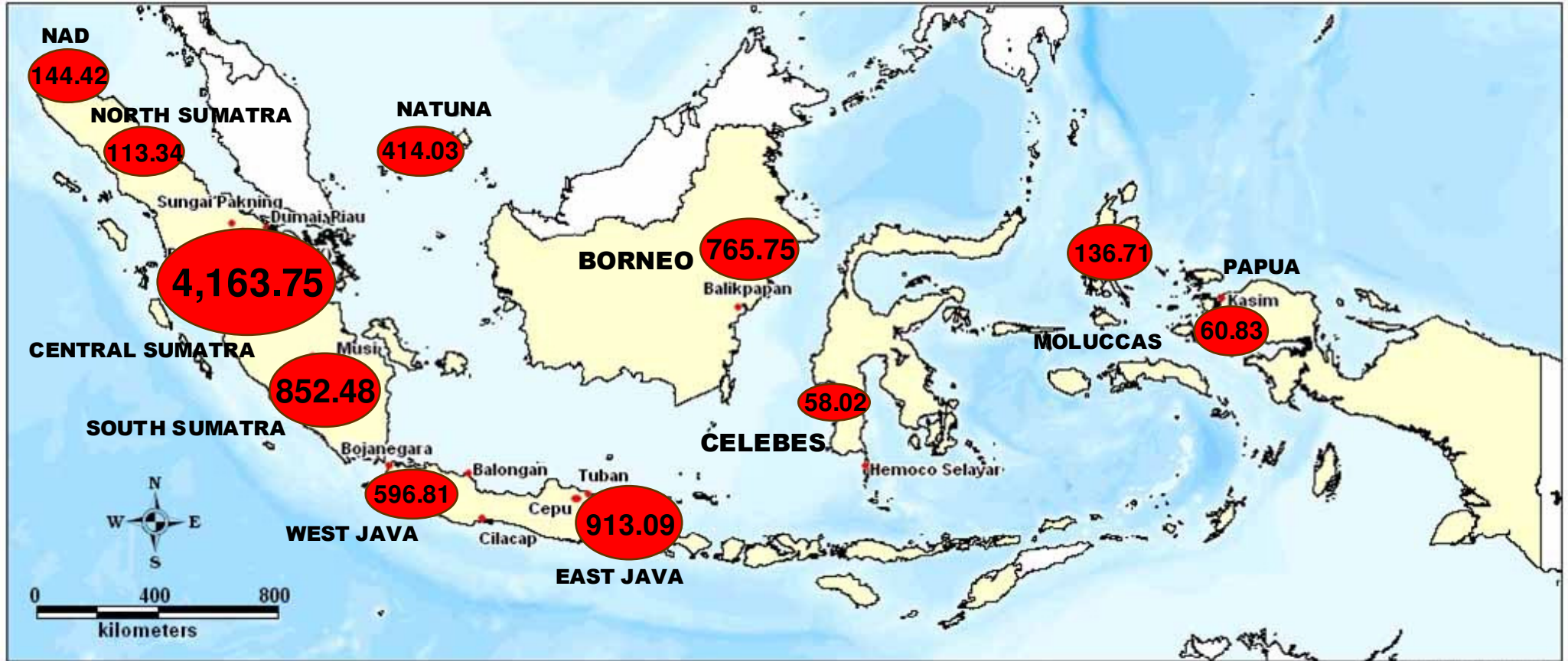
CURRENT CONDITION





OIL RESOURCES & RESERVES

(AS OF JANUARY 1st 2009)



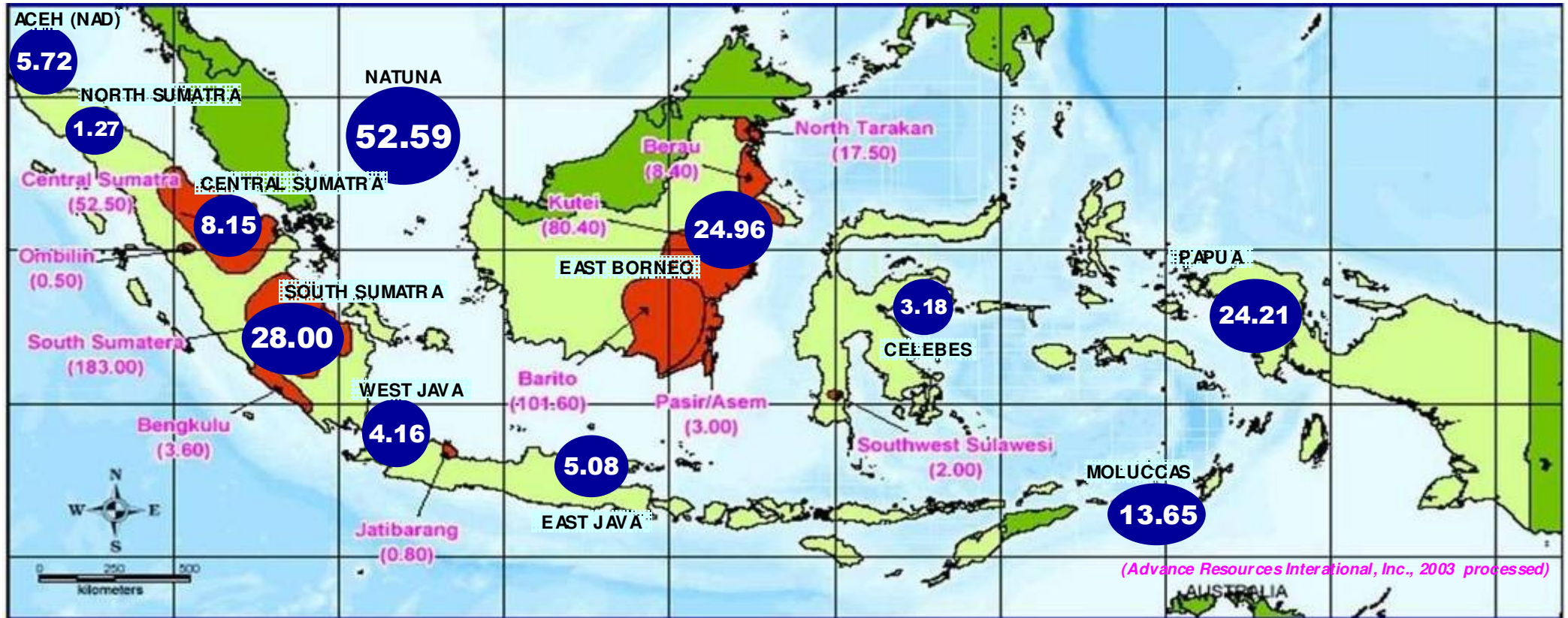
● OIL RESERVES (MM STB)

PROVEN = 3,747.50 MM STB RSV/PROD RATIO = 23 years
POTENTIAL = 4,471.72 MM STB
TOTAL = 8,219.22 MM STB

MM STB : Million Stock-Tank-Barrel
B STB : Billion Stock-Tank-Barrel



NATURAL GAS RESOURCES - RESERVES & CBM RESOURCES IN INDONESIA



GAS RESERVES (TSCF)

PROVEN = 112.47 TSCF R/P RATIO= 59 years

POTENTIAL = 57.60 TSCF

TOTAL = 170.07 TSCF



CBM RESOURCES = 453.30 TCF

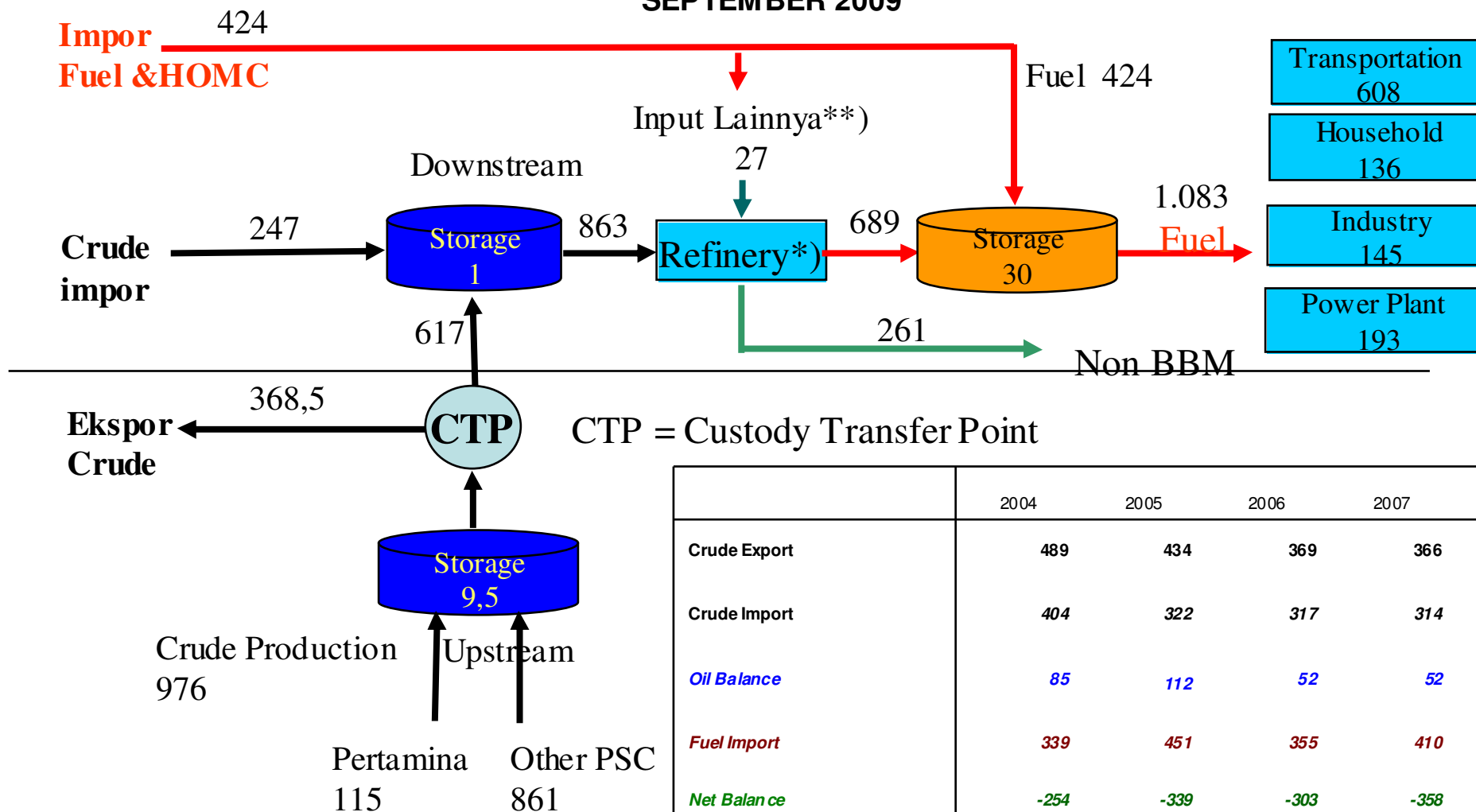
(AS OF JANUARY 1st 2009)



Oil Balance

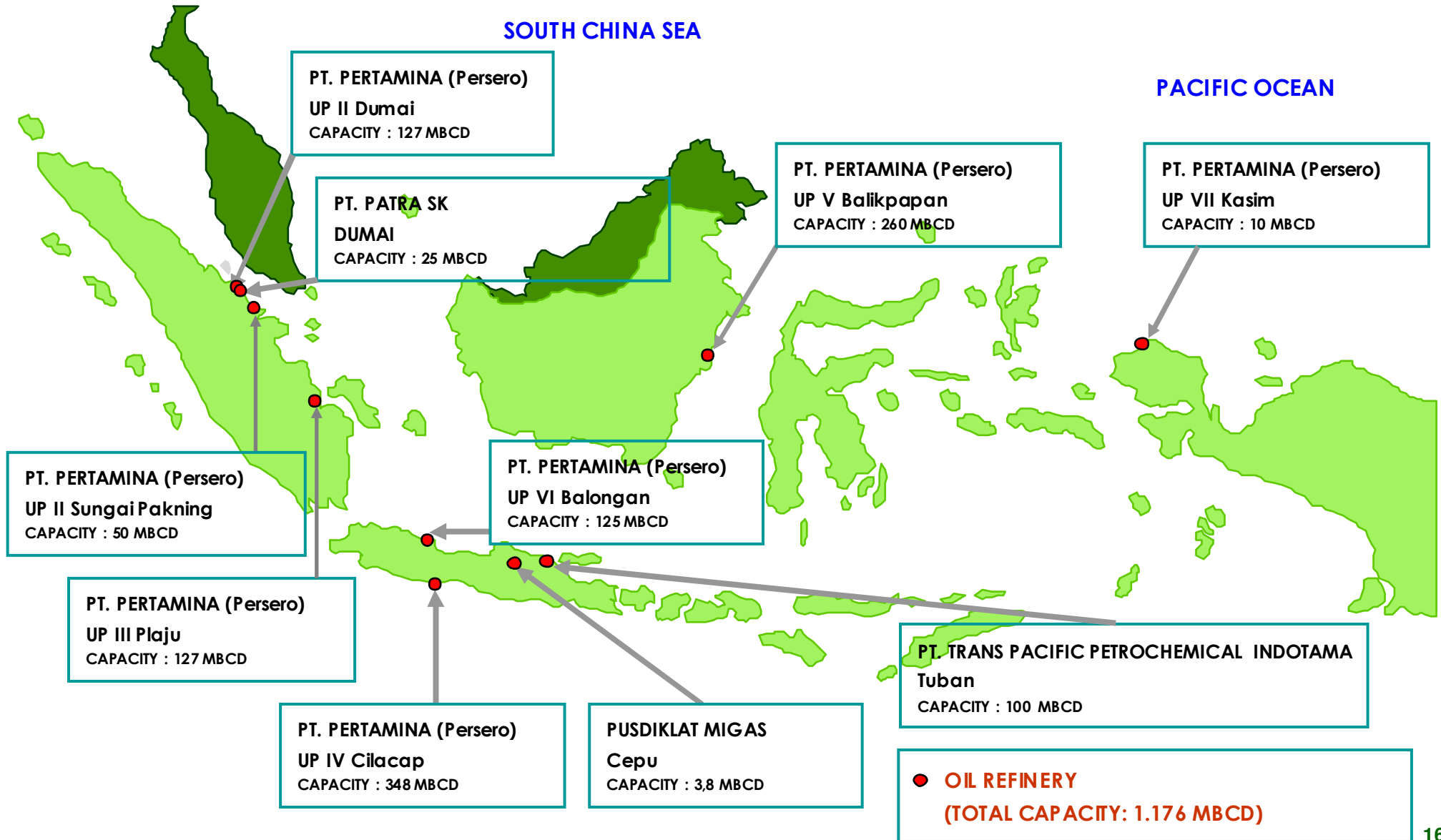
(Thousands barrel per day)

SEPTEMBER 2009



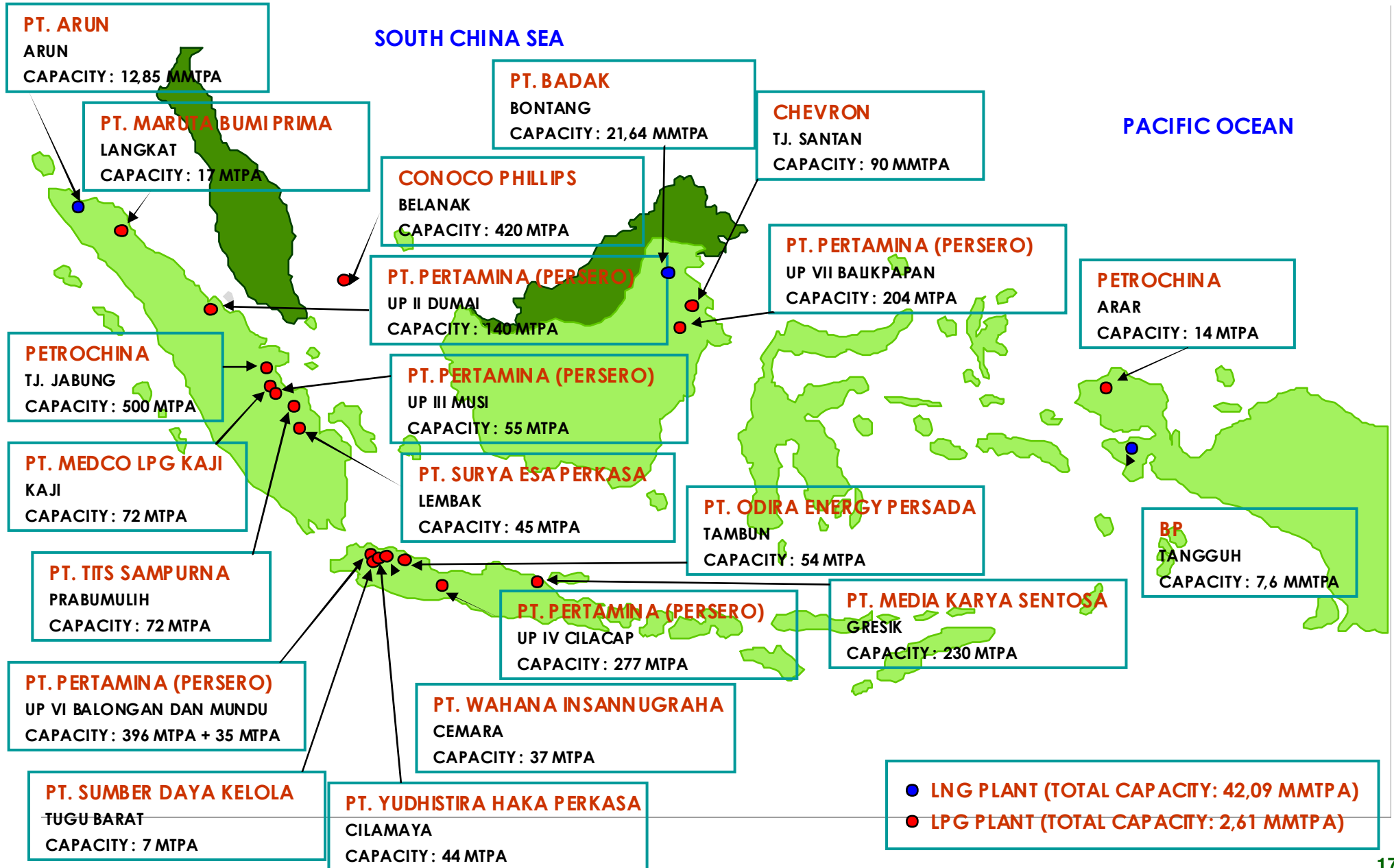


OIL REFINERIES IN INDONESIA



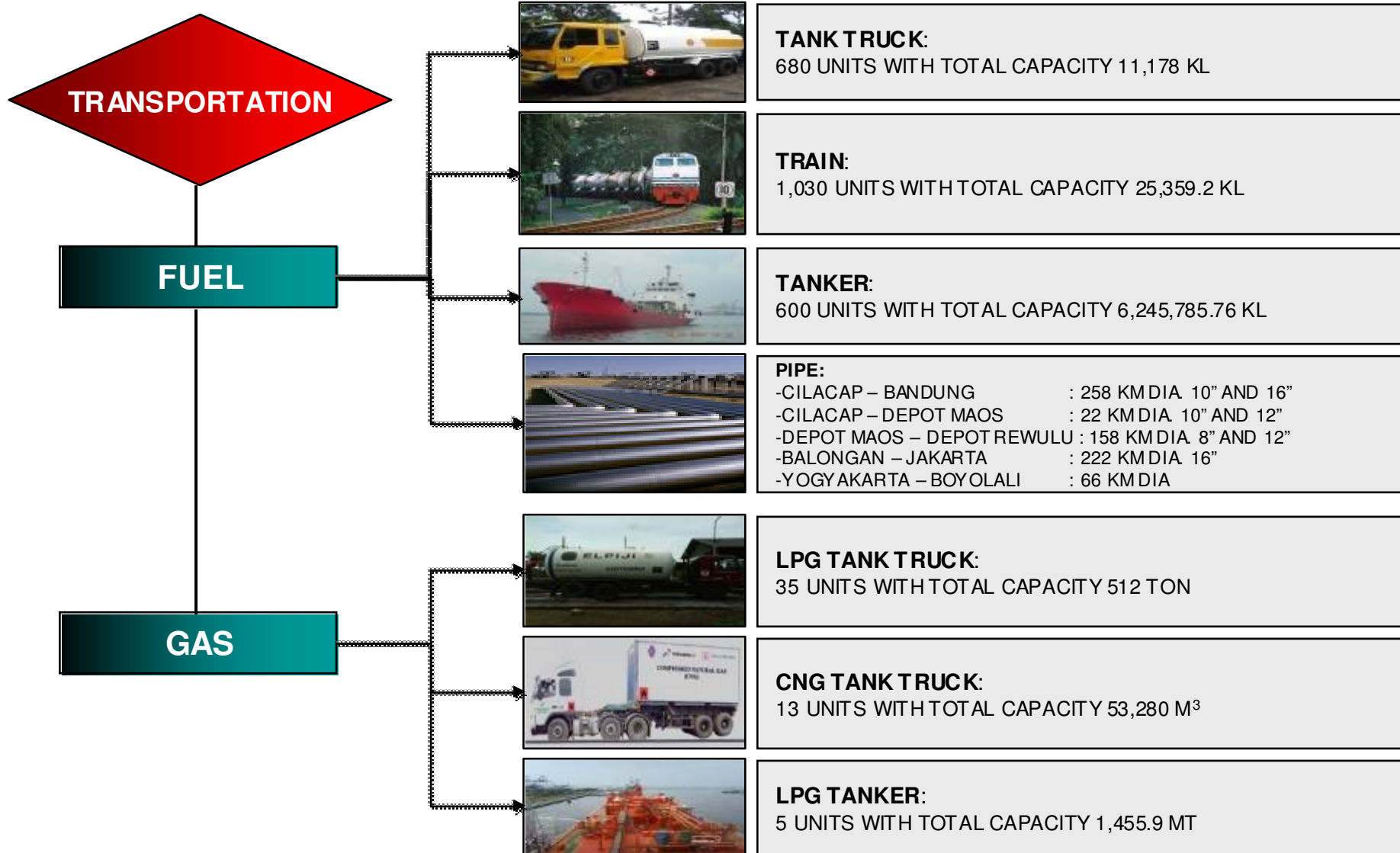


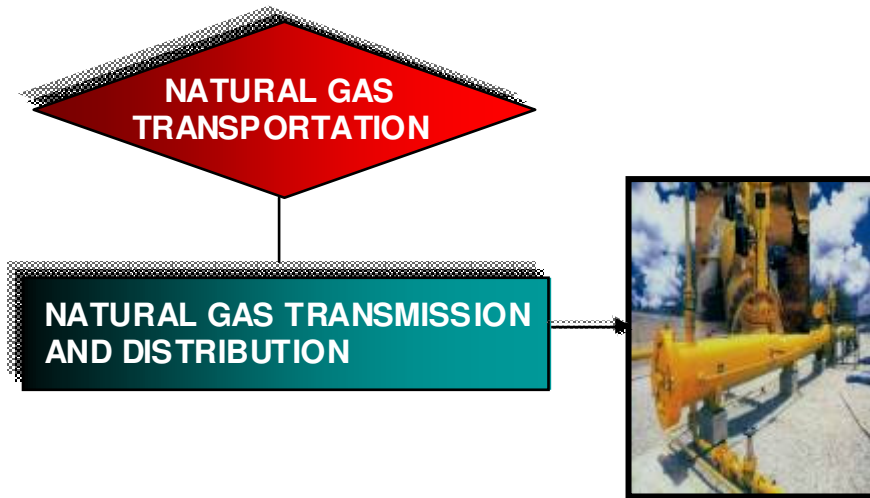
GAS PLANT IN INDONESIA





OIL & GAS TRANSPORTATION INFRASTRUCTURE IN INDONESIA





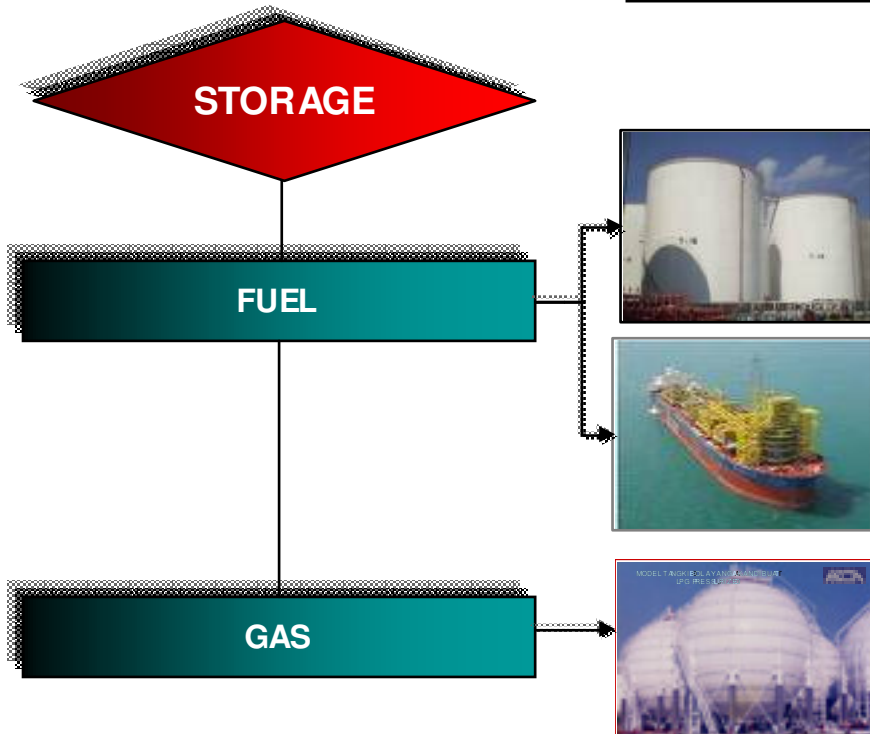
NATURAL GAS TRANSMISSION PIPE INSTALLED:

- 3,202 KM IN SUMATERA (NAD, NORTH SUM, RIAU, JAMBI, SOUTH SUM)
- 1,804 KM IN JAVA (WEST JAVA, DKI JAKARTA, BANTEN, EAST JAVA)
- 295 KM IN KALIMANTAN (EAST KALIMANTAN)

OPEN ACCESS PT PGN/PT TGI 46 % (2,469 KM)

NATURAL GAS DISTRIBUTION PIPE INSTALLED:

- 751 KM IN SUMATERA (NORTH SUM, SOUTH SUM, RIAU)
- 2,520 KM IN JAVA (WEST JAVA, DKI JAKARTA, BANTEN, EAST JAVA)



INLAND STORAGE INSTALLED:

1,575 TANK WITH TOTAL CAPACITY +/- 5,046,546 KL
+/- 54% CONCENTRATED IN JAVA, BALI, DAN NUSATenggara

FLOATING STORAGE (NON PERTAMINA) :

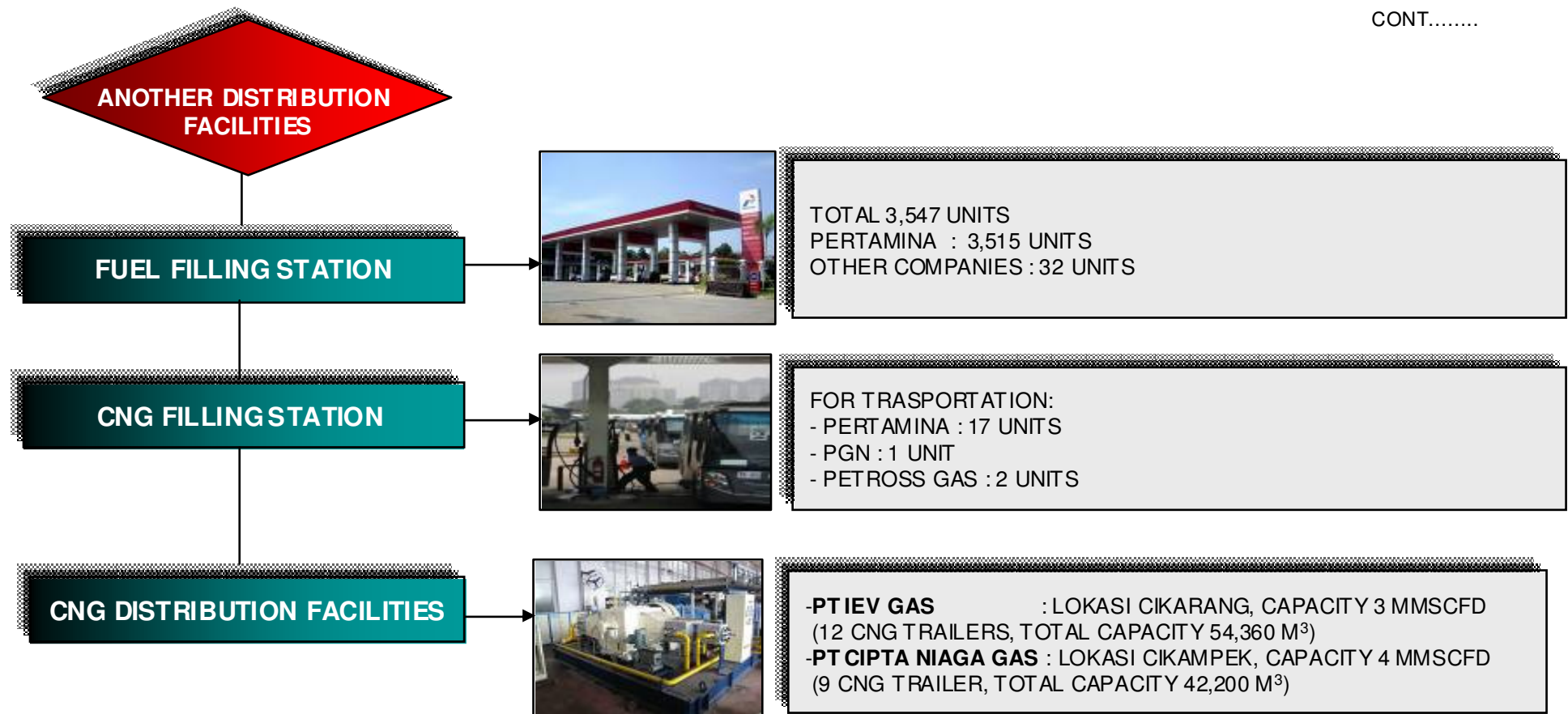
5 FSOB, TOTAL CAPACITY +/- 12,001 KL

LPG STORAGE INSTALLED:

PERTAMINA = 74.520 MT
PT BHAKTI MINGASUTAMA = 10,000 MT
LPG FILLING STATION = 48 UNITS

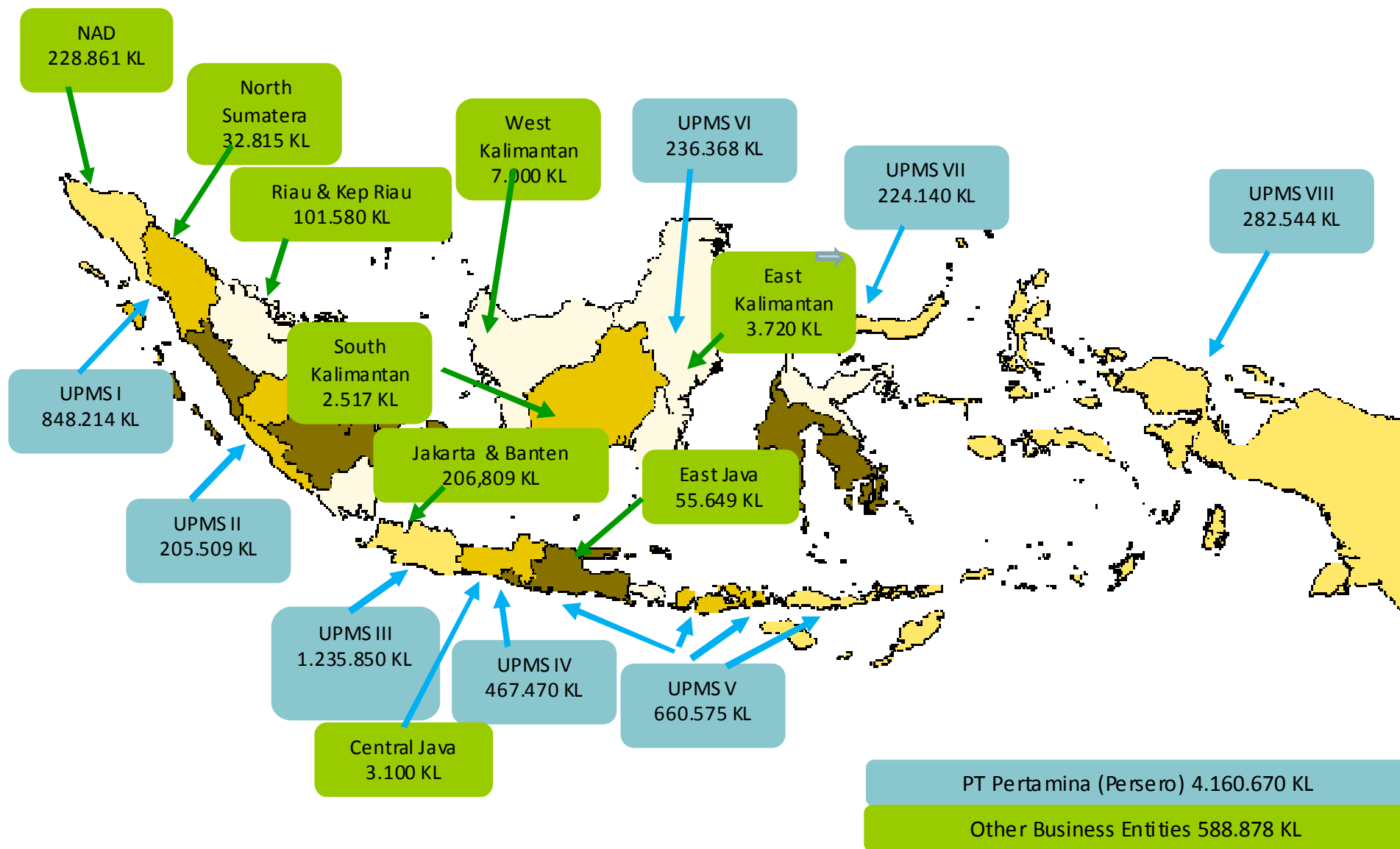


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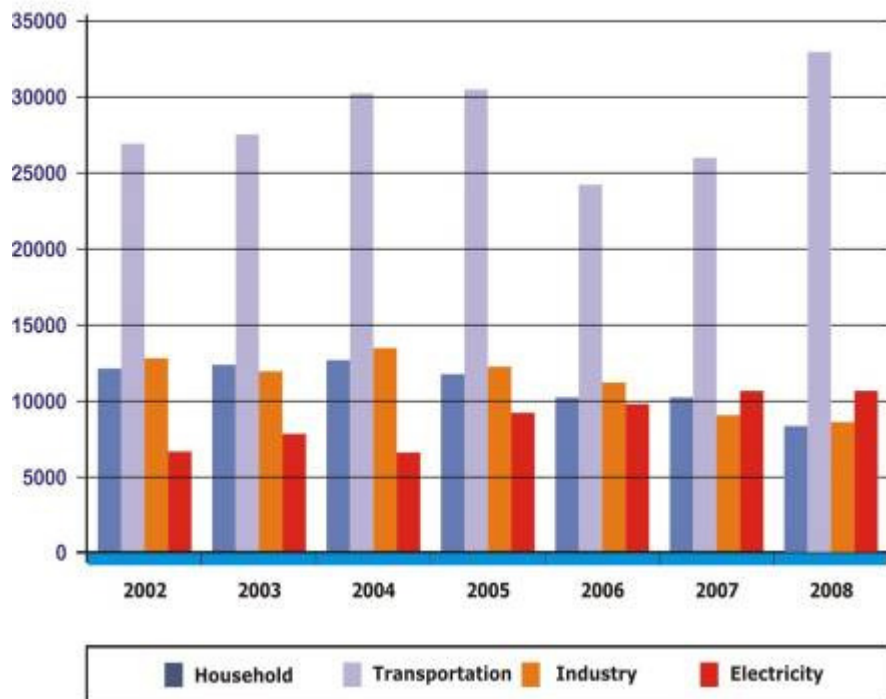


STORAGE FACILITIES

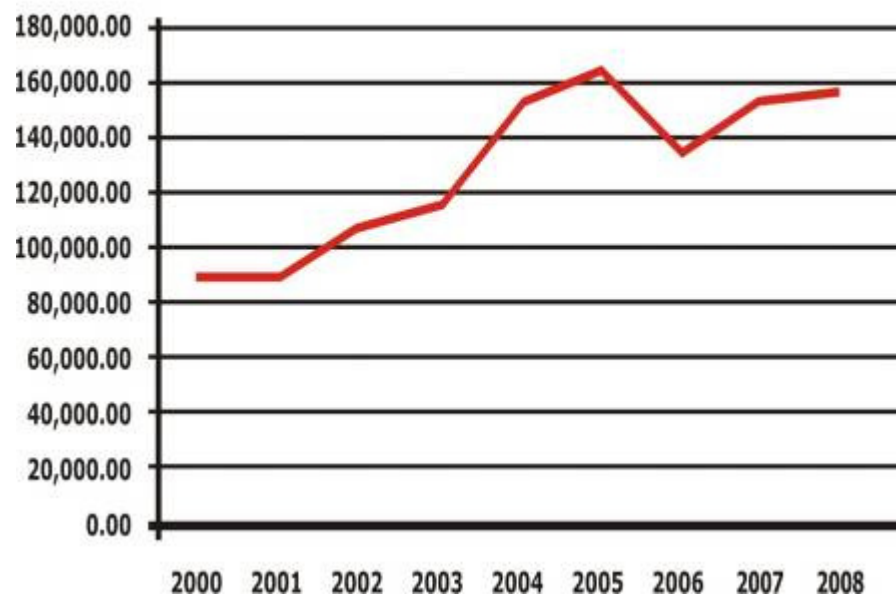




DOMESTIC FUEL CONSUMPTION BY SECTOR 2002 - 2008 (MILLION LITERS)

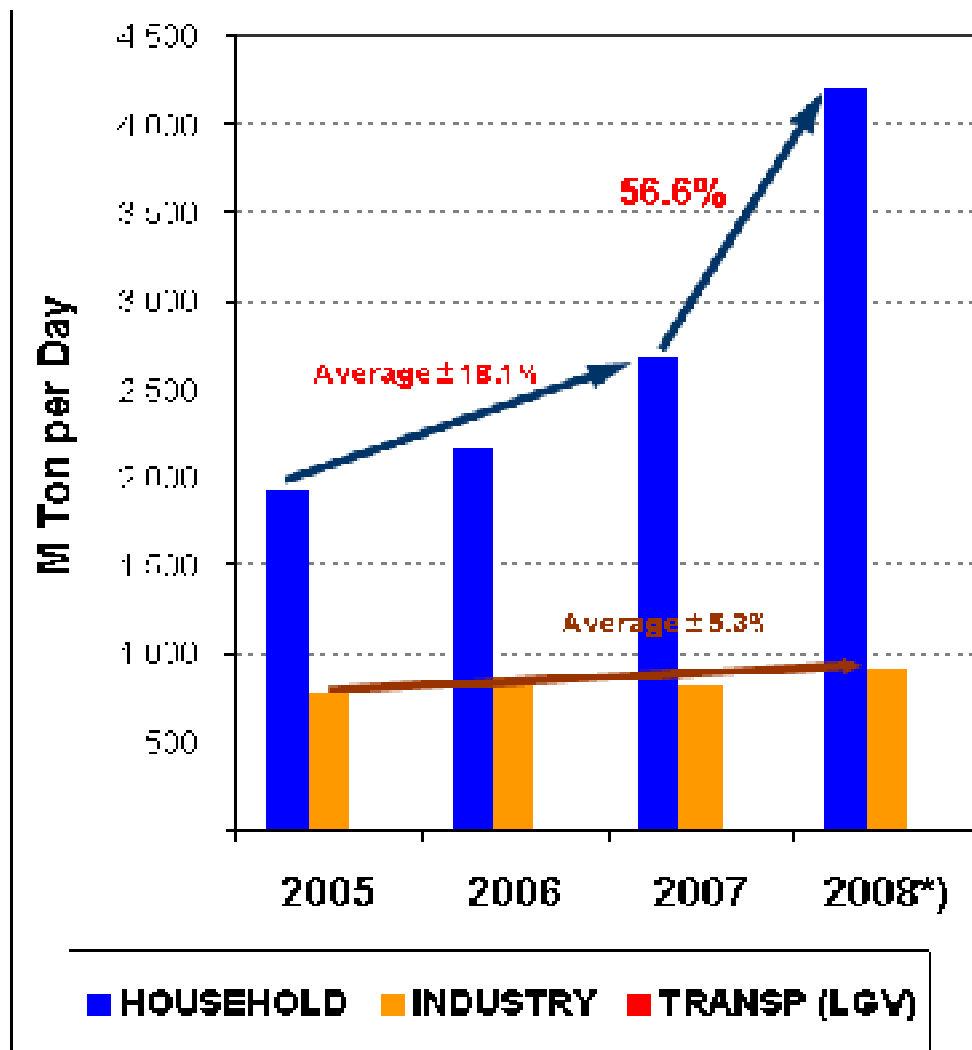


IMPORTS OF OIL PRODUCT



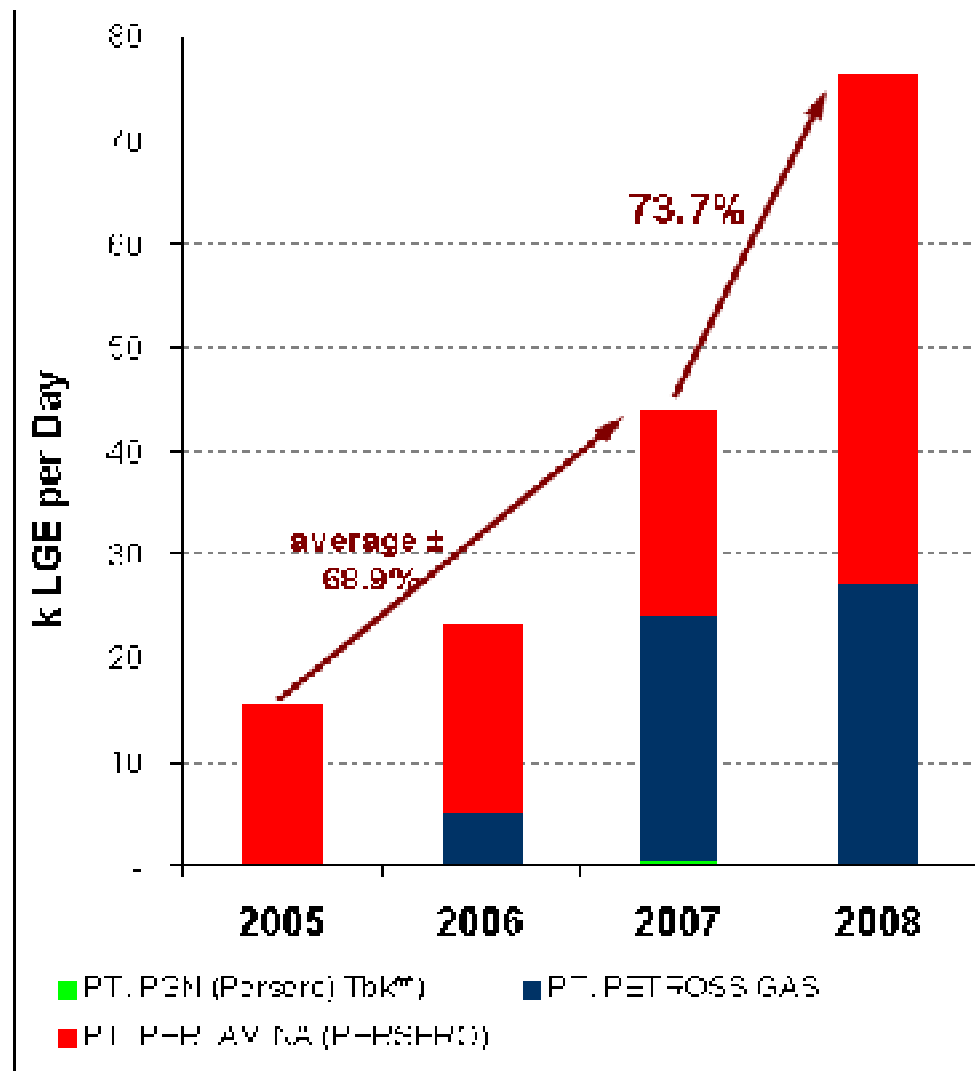


LPG FOR DOMESTIC



*) unreconciliation number

CNG FOR TRANSPORTATION

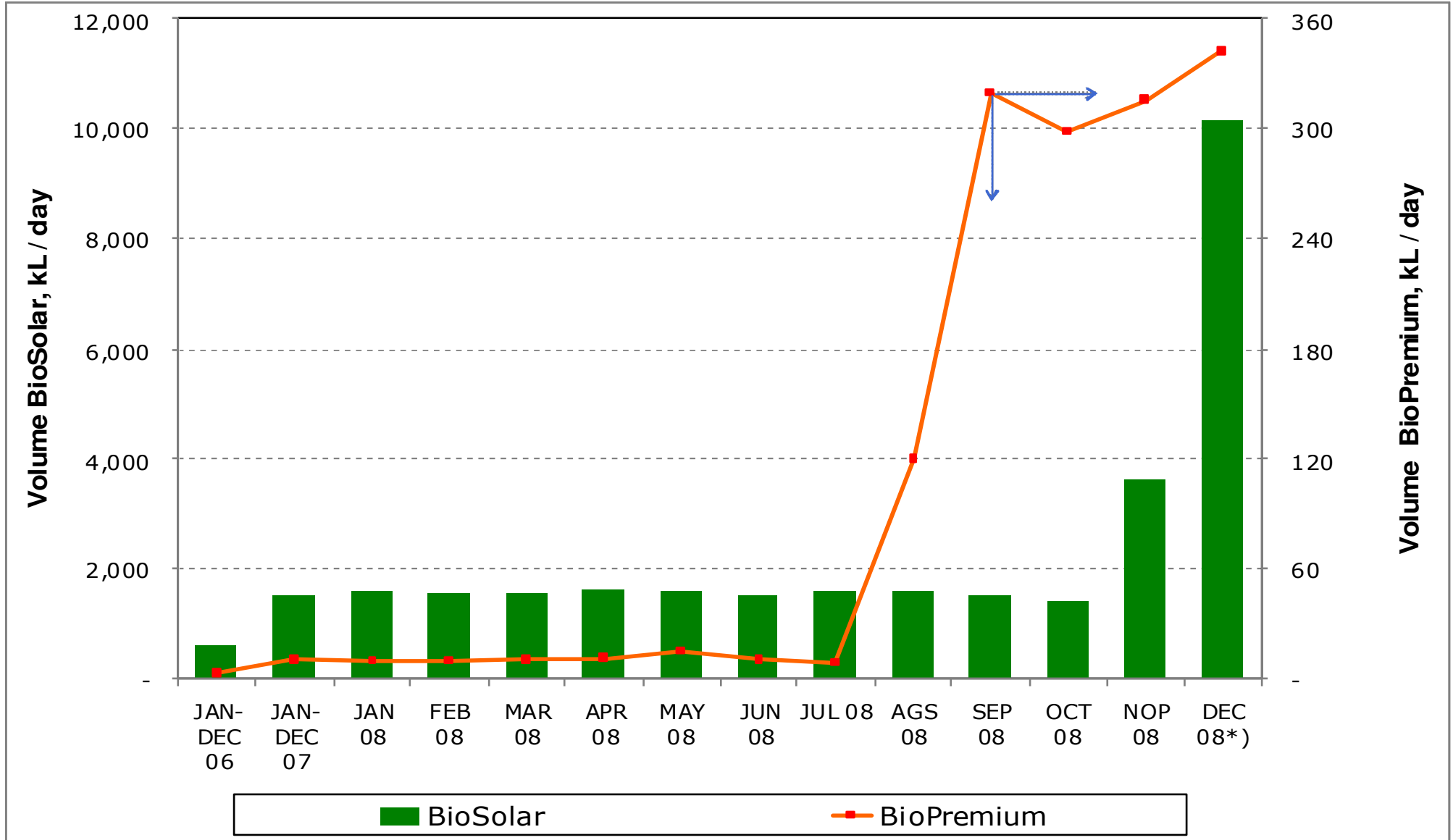


**) 2008 n.a.

kLGE = kilo Litre Gasoline Eq.



BIOFUEL CONSUMPTION





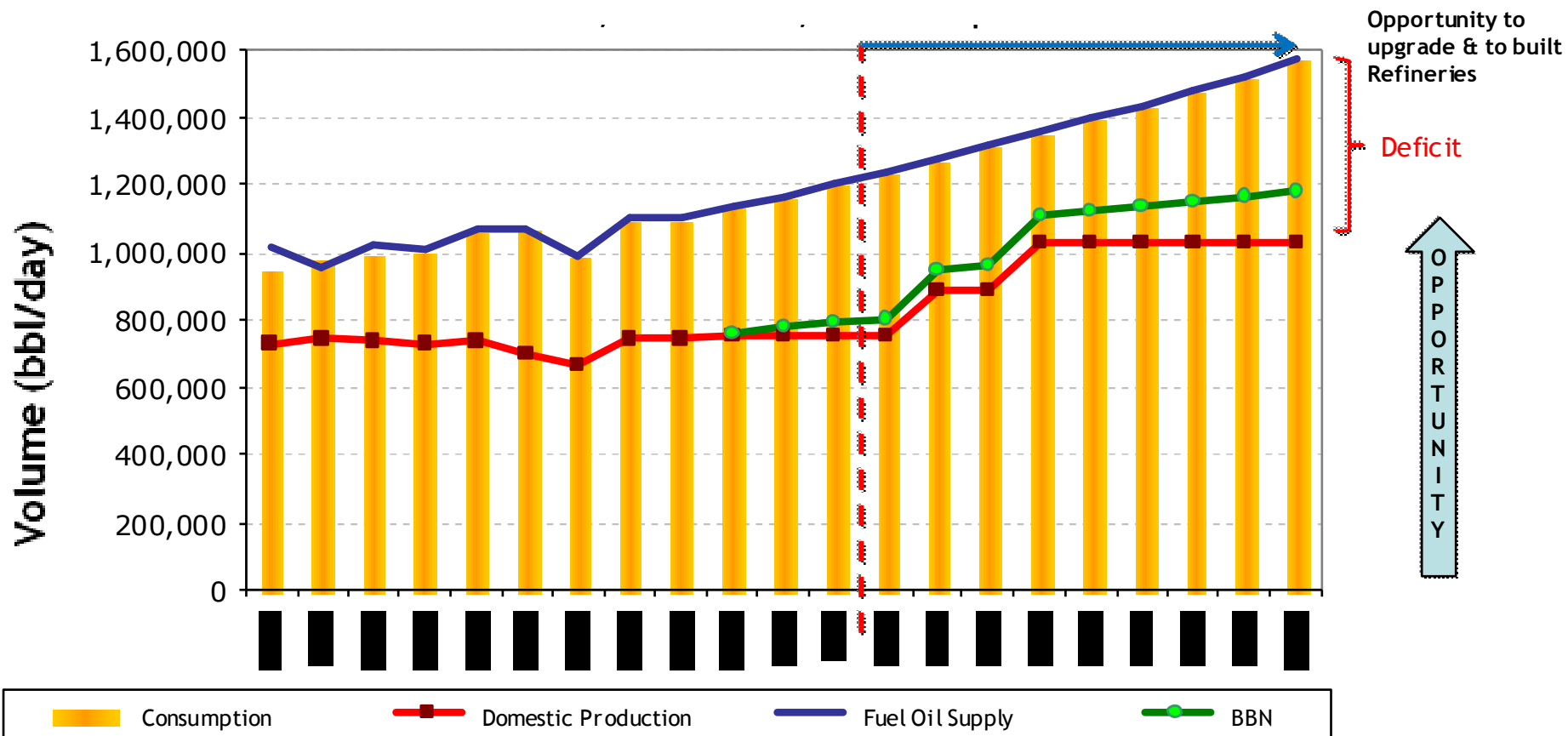
BUSINESS OPPORTUNITIES





FUEL OIL SUPPLY – DEMAND

Fuel Consumption, Production, Import Prediction
(Gasoline, Kerosene, Diesel Fuel, Diesel Oil, Oil Residue)

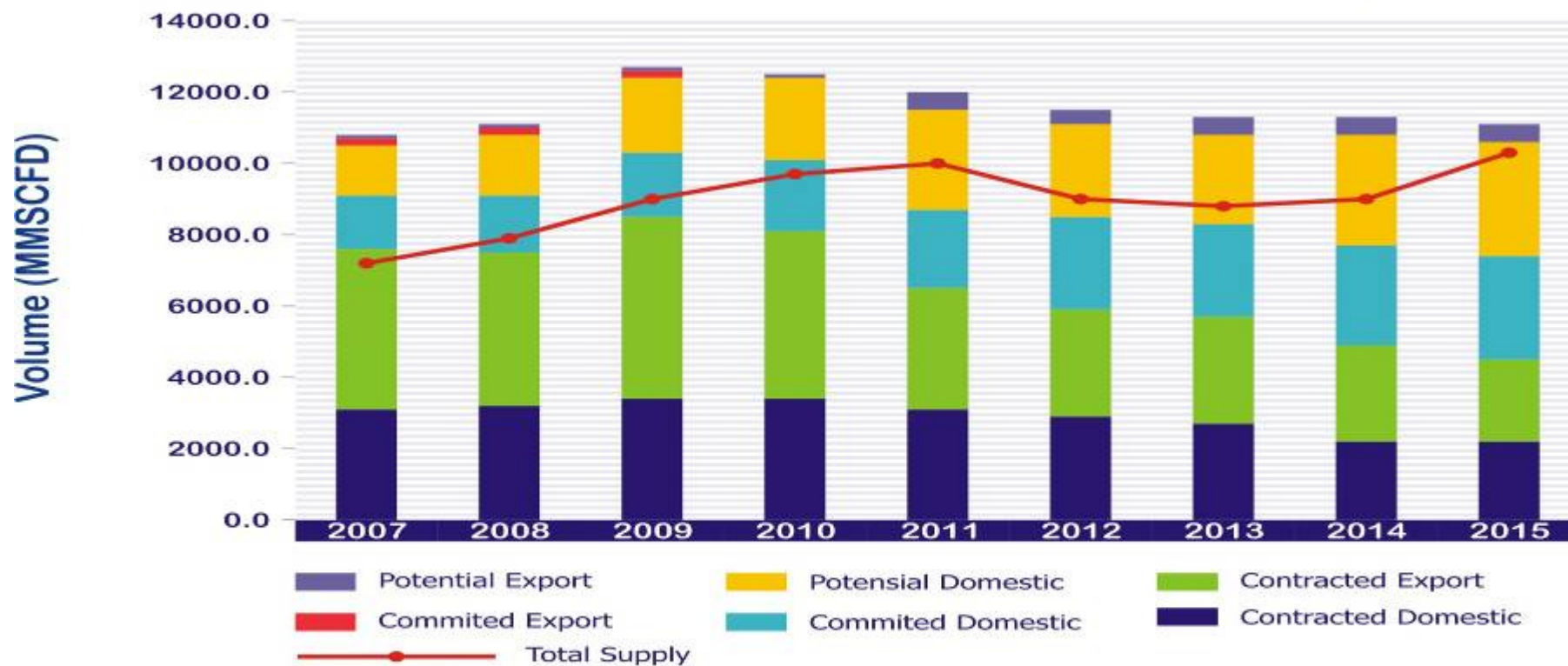


Note:

- Fuel Supply = Domestic Production + Import
- PT. Tri Wahana Universal (East Java, 6 MBSD) and PT. Kilang Muba (South Sumatera, 0,8 MBSD) will operate at the end of 2009
- PT. Pertamina (Persero) (West Java, 150 MBSD) will operate in 2014



INDONESIA GAS SUPPLY AND DEMAND (2007-2015)



Deficit of Natural Gas Create Business Opportunities

- New Reserves
- LNG Plant
- LNG/CNG Receiving Terminal
- Pipeline

MASTER PLAN ON NATIONAL NATURAL GAS TRANSMISSION AND DISTRIBUTION NETWORK (MPNNGTDN)

INDONESIA

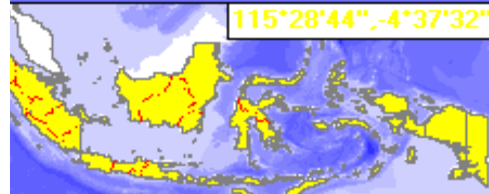
INVESTMENT OPPORTUNITIES



600 1200

Scale 1 : 20,886,543 Kilometer

115°28'44" - 4°37'32"



LEGENDA

Kategori 1: Open Access (Tidak Tender)

- Pipeline rencana (plan)
- Persewaan P. Pembangunan
- Persewaan P. dan lempasan
- Wilayah yang tidak masuk rencana (plan)

Kategori 2: Open Access

- Pipeline yang lebhada (existing)
- Pipeline rencana (plan), Tender
- Wilayah yang tidak masuk rencana (plan)
- Wilayah yang tidak masuk rencana (plan), Tender

Kategori 3: Dedicated Hilir

- Pipeline yang lebhada (existing)
- Pipeline rencana (plan)

Kategori 4: Dedicated Hulu

- Pipeline yang lebhada (existing)
- Pipeline rencana (plan)

■ Sumber Gas

⊕ Fasilitas

▲ Kompresor

⊕ Regulator

⊕ Kota

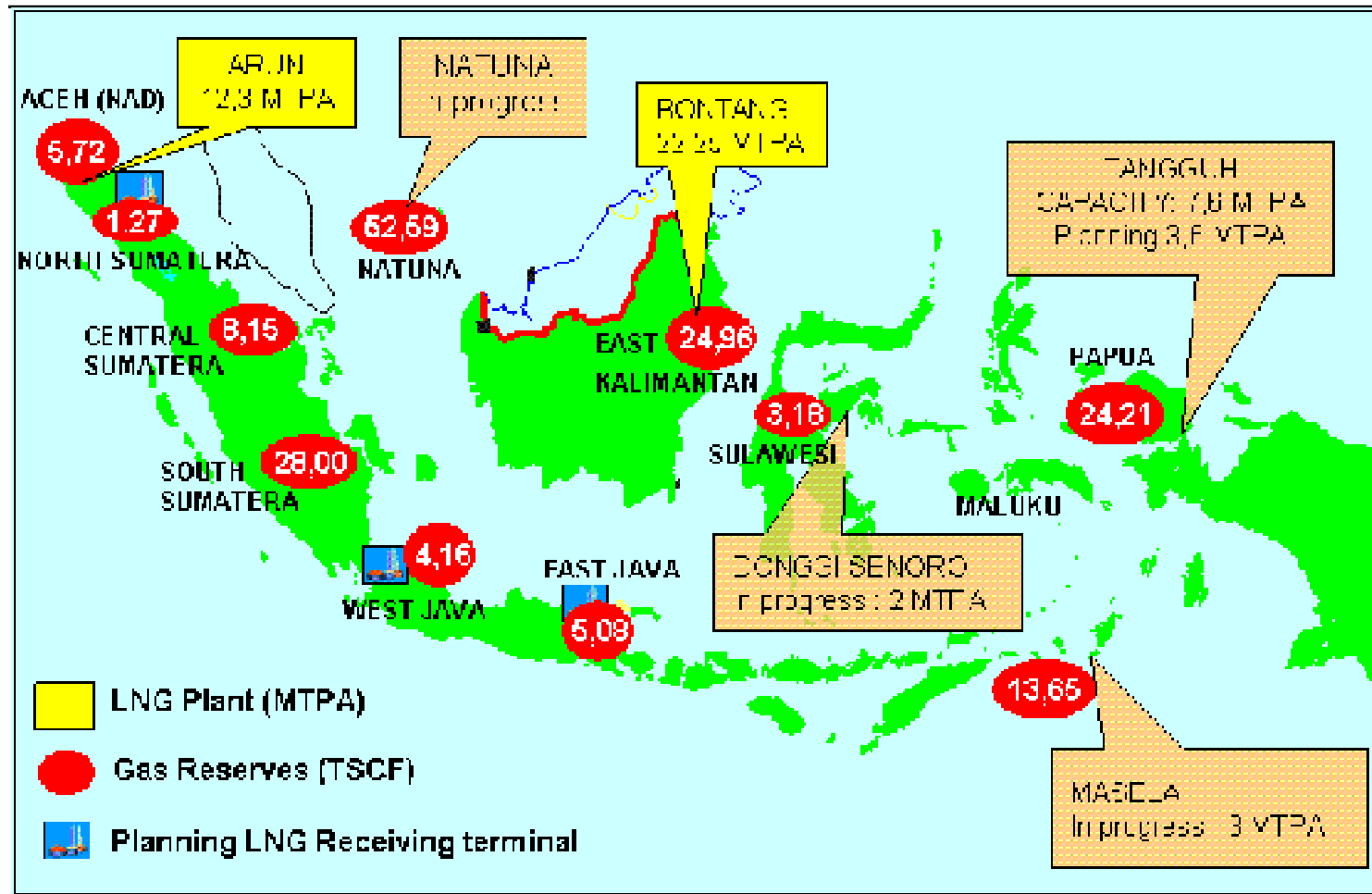
⊕ Kilang

⊕ Pembangkit Listrik

⊕ Petrokimia, Industri Besar



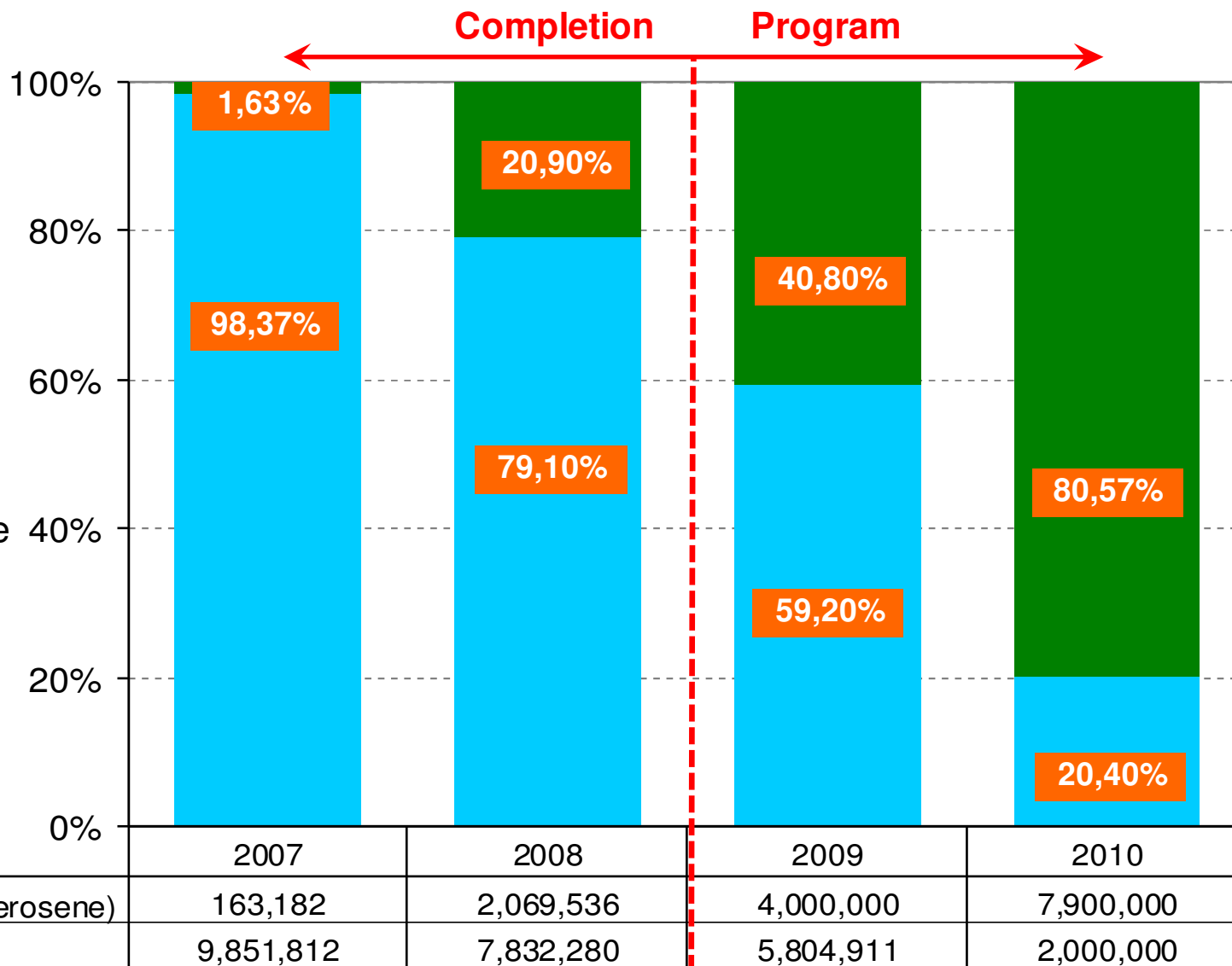
LNG RECEIVING TERMINALS PLANNING



- Based on Indonesia Gas Balance 2009 - 2020, North Sumatra, West Java, and East Java are needed additional gas supply which cannot fulfill from its areas;
- Therefore, Government plan to built LNG Receiving Terminal in Medan, West Java, & East Java.



SUBSTITUTION OF KEROSENE TO LPG FOR HOUSEHOLD AND MICRO BUSINESS

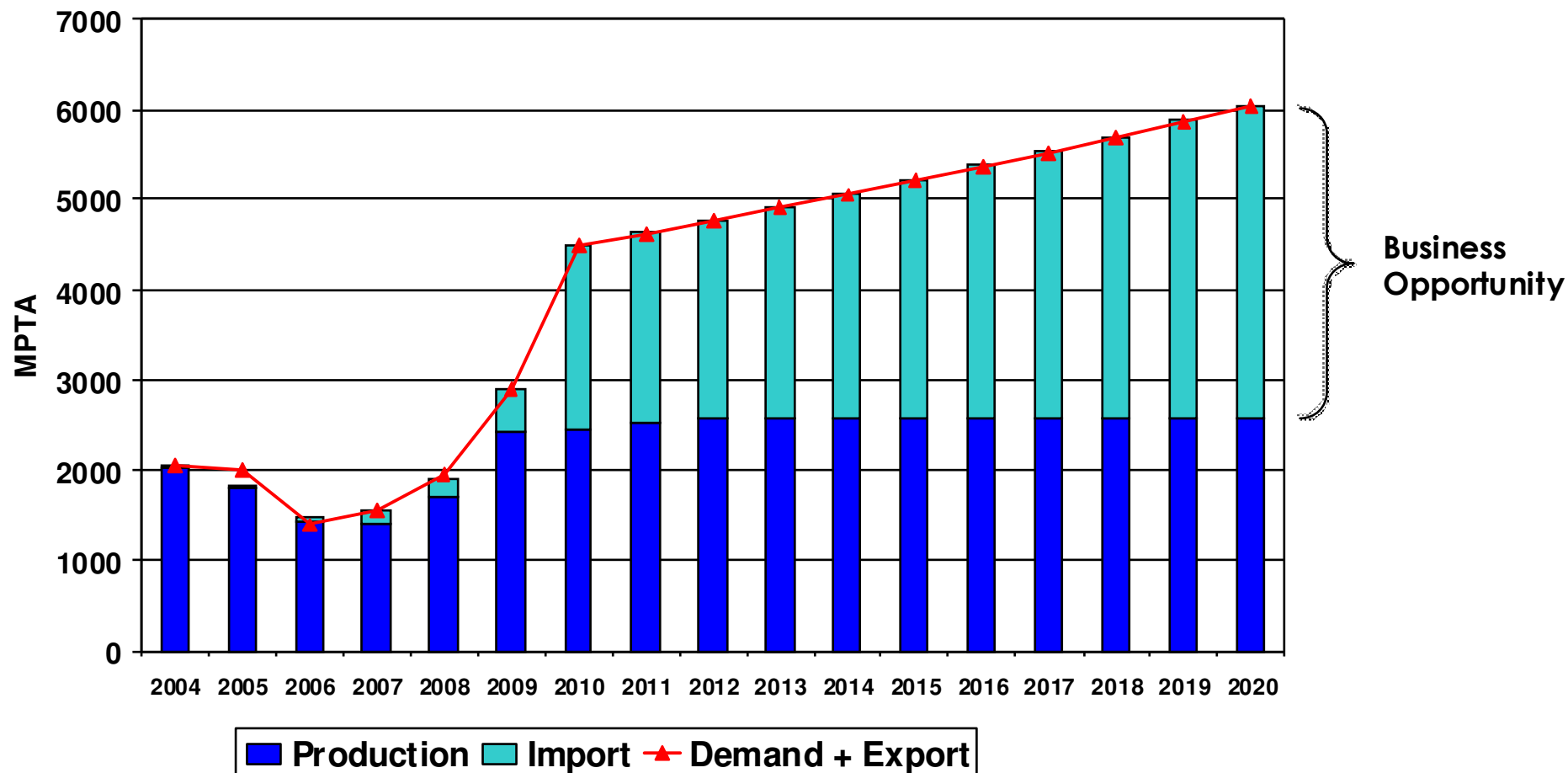


Note:

In 2010, subsidized kerosene remained in the market used only for household in remote area, small business and house lighting.



LPG SUPPLY - DEMAND

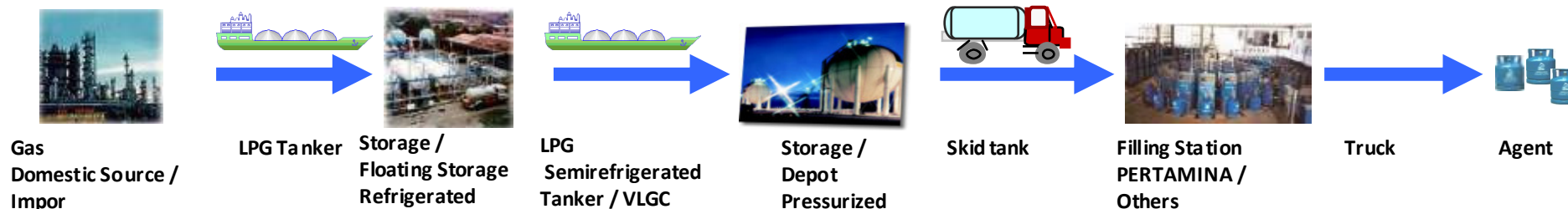


Note:

- Conoco Phillips (Natuna, 420 MTPA), Hess (Ujung Pangkah, 90 MTPA), PT. Media Karya Sentosa (Gresik, 58 MTPA), PT. Yudhistira Haka Perkasa (Cilamaya, 44 MTPA), PT. Wahana Insannugraha (37 MTPA) and PT. Badak (Bontang, 1.000 MTPA) are operated by 2009
- PT. Gasuma Federal Indonesia (Tuban, 22 MTPA) will start to operate in 2010.
- PT. Tuban LPG Indonesia (Tuban, 131 MTPA) will start to operate in 2011



LPG INFRASTRUCTURE PLANNING



Infrastructure	2009	2010	2011	2012
1 LPG Supply - Subsidized (3kg) - Non Subsidized (12kg,50kg, Buk)	3.056.051 Ton 1.667.233 Ton 1.338.818 Ton	3.817.922 Ton 2.404.800 Ton 1.413.121 Ton	3.951.549 Ton 2.488.580 Ton 1.462.580 Ton	4.089.853 Ton 2.576.082 Ton 1.513.770 Ton
2 Storage	149.173 Ton (4 x 40.000 Floating Storage)	154.394 Ton (4 x 40.000 Floating Storage)	159.797 Ton (4 x 40.000 Floating Storage)	165.390 Ton (4 x 40.000 Floating Storage)
3 Tanker	5 Tanker Semiref @10.000 MT 2 – 3 Tanker VLGC @ 45.000MT	5 Tanker Semiref @10.000 MT 2 – 3 Tanker VLGC @ 45.000MT	6 Tanker Semiref @10.000 MT 2 – 3 Tanker VLGC @ 45.000MT	6 Tanker Semiref @10.000 MT 2 – 3 Tanker VLGC @ 45.000MT
4 Skid Tank	620 @ 10 ton	642 @ 10 ton	664 @ 10 ton	687 @ 10 ton
5 Filling Station (SPBE)	310 unit @ 30 Ton	321 unit @ 30 Ton	332 unit @ 30 Ton	344 unit @ 30 Ton

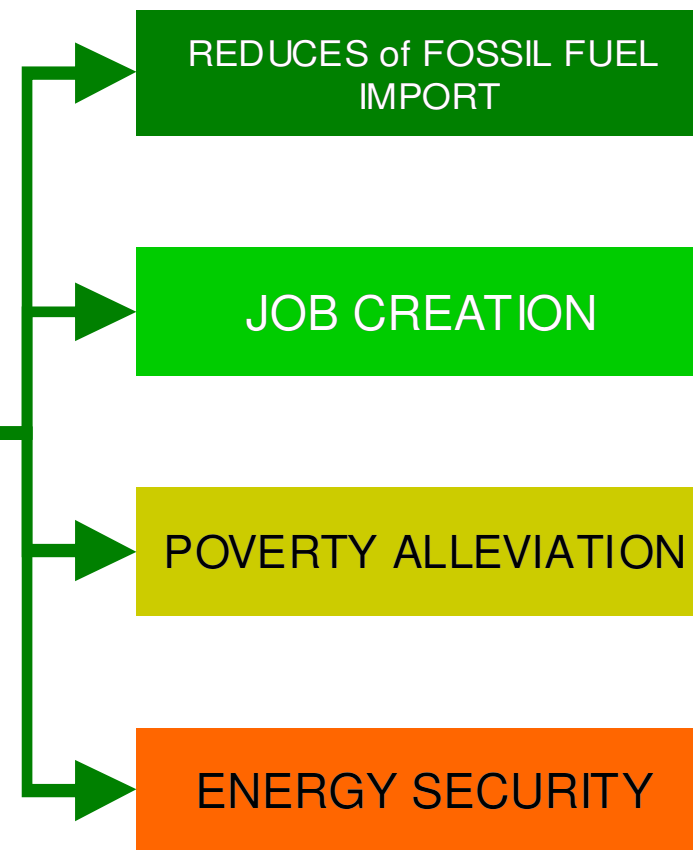
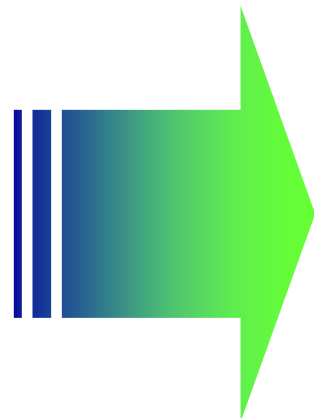


DIMETHYL ETHER (DME) UTILIZATION

- DME CAN BE USED AS DIESEL SUBSTITUTE AS WELL AS LPG SUBSTITUTE
- SIMILARITY OF DME CHARACTERISTIC WITH LPG ENABLES IT TO BECOME LPG SUBSTITUTE OR AS LPG/DME BLENDS. DME CAN BE BLENDED UP TO 20% WITH LPG WITH ALMOST NO SYSTEM MODIFICATION
- INCREASING LPG DEMAND DUE TO KEROSENE - CONVERSION TO LPG REQUIRES MORE LPG SUPPLY. ASSUMING 20% OF LPG SUPPLY SUBSTITUTED BY DME. IN 2010 INDONESIA WILL NEED 960.000 TONS OF DME



ENCOURAGING BIOFUEL UTILIZATION





MANDATORY FOR BIOFUEL UTILIZATION



MANDATORY for BIODIESEL UTILIZATION (MINIMUM PERCENTAGE)

SECTOR	October 2008 till December 2008	January 2009	January 2010	January 2015**	January 2020**	January 2025**	REMARK
Household	-	-	-	-	-	-	Not determined yet
PSO Transportation	1 % (existing)	1 %	2,5 %	5 %	10 %	20 %	* Based on Total Needs
Non PSO Transportation	-	1 %	3 %	7 %	10 %	20 %	
Industry and Commercial	2,5 %	2,5 %	5 %	10 %	15 %	20 %	* Based on Total Needs
Power Plant	0,1 %	0,25 %	1 %	10 %	15 %	20 %	* Based on Total Needs

** Specification is adjusted in line with global specification and domestic interests



MANDATORY for BIOETANOL UTILIZATION (MINIMUM PERCENTAGE)

SECTOR	October 2008 till December 2008	January 2009	January 2010	January 2015**	January 2020**	January 2025**	REMARK
Household	-	-	-	-	-	-	Not determined yet
PSO Transportation	3 % (existing)	1 %	3 %	5 %	10 %	15 %	* Based on Total Needs
Non PSO Transportation	5 % (existing)	5 %	7 %	10 %	12 %	15 %	* Based on Total Needs
Industry and Commercial	-	5 %	7 %	10 %	12 %	15 %	* Based on Total Needs
Power Plant	-	-	-	-	-	-	Not determined yet

** Specification is adjusted in line with global specification and domestic interests



MANDATORY for PURE PLANTATION OIL UTILIZATION (MINIMUM PERCENTAGE)

SECTOR	October 2008 till December 2008	January 2009	January 2010	January 2015**	January 2020 **	January 2025 **	REMARK
Household	-	-	-	-	-	-	Not determined yet
Industry and Transportation (Low and medium speed engine)	Industry	-	1 %	3 %	5 %	10 %	
	Marine	-	1 %	3 %	5 %	10 %	
Power Plant	-	0,25 %	1 %	5 %	7 %	10 %	* Based on Total Needs

** Specification is adjusted in line with global specification and domestic interests





CONCLUSION

- **A new legal framework of oil and gas law No. 22/2001 gives an open opportunities to business entities in participating on oil and gas downstream business.**
- **Domestic fuel consumption continually increase while fuel production relative constant. Consequently, total fuel imported is estimated to be continually increase. Development and expansion of existing oil refineries as well as construction of new refineries would be useful to reduce domestic dependency from imported fuel.**
- **Constraints regarding investment of oil and gas processing : low refining margin, fiscal, offtaker, crude oil supply for feed of refinery, national fuel oil price, and financing.**
- **POLICY REGARDING INVESTMENT OF OIL AND GAS PROCESSING:**
 - **Fiscal (Government Regulation No. 62/2008 as amandemend of Government Regulation No. 1/2007 about tax income for investment in certain business sector and/or certain area):**
 - **30% net income reduced from capital investment amount for 6 years period (equal to 5% per annum).**
 - **Accelerated depreciation and amortization up to 0 years.**
 - **10% income tax charged for overseas tax-payer on dividend bill or lower tariff according to the Double Taxation Agreement.**
 - **Loss compensation with period between 5 to 10 years with some specific stipulations.**



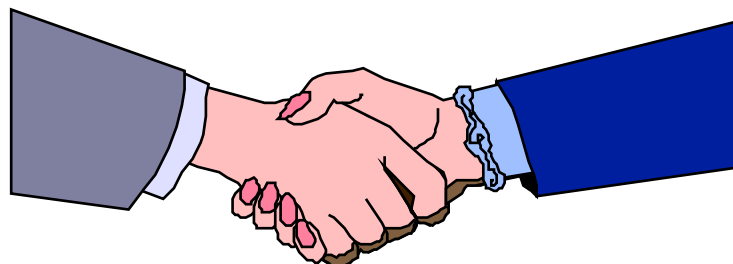
- **Energy diversification program is implemented in order to conserve limited fossil fuel source. Natural gas, biofuel and coal utilization are main issue in the substitution of conventional fuels (gasoline and gasoil).**

- **FACILITIES AND INCENTIVES FOR BIOFUEL DEVELOPMENT**
 - **Government Regulation No. 1/2007 concerning Income Tax Facility for Capital Investment in certain Business Sectors and/or Areas;**
 - **Minister of Finance Decree No. 117/PMK.06/2006 concerning Credit for Bioenergy Development and Revitalization of Plantation (KPEN-RP);**
 - **Minister of Finance Decree No. 79/PMK.05/2007 concerning Credit for Food and Energy Security (KKPE)**

- **THE LAST PROGRESS ON BIOFUEL DEVELOPMENT POLICY**
 - **Value Added Tax Breaks (PPN DTP) for Biofuel product;**
 - **In progress, determine biofuel price based on South Asia Price Index for Biodiesel and Bioethanol, additionally for Bioethanol price also refer to feedstock;**
 - **The Government of Indonesia in the mean time is establishing Biofuel Pricing Team and Biofuel Supervising Team.**
 - **The Government of Indonesia purposed the possibility to get subsidy for biofuel if the price of biofuel higher than fossil fuel.**



THANK YOU



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