

The Philippine Update

OIL AND GAS SECURITY

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and

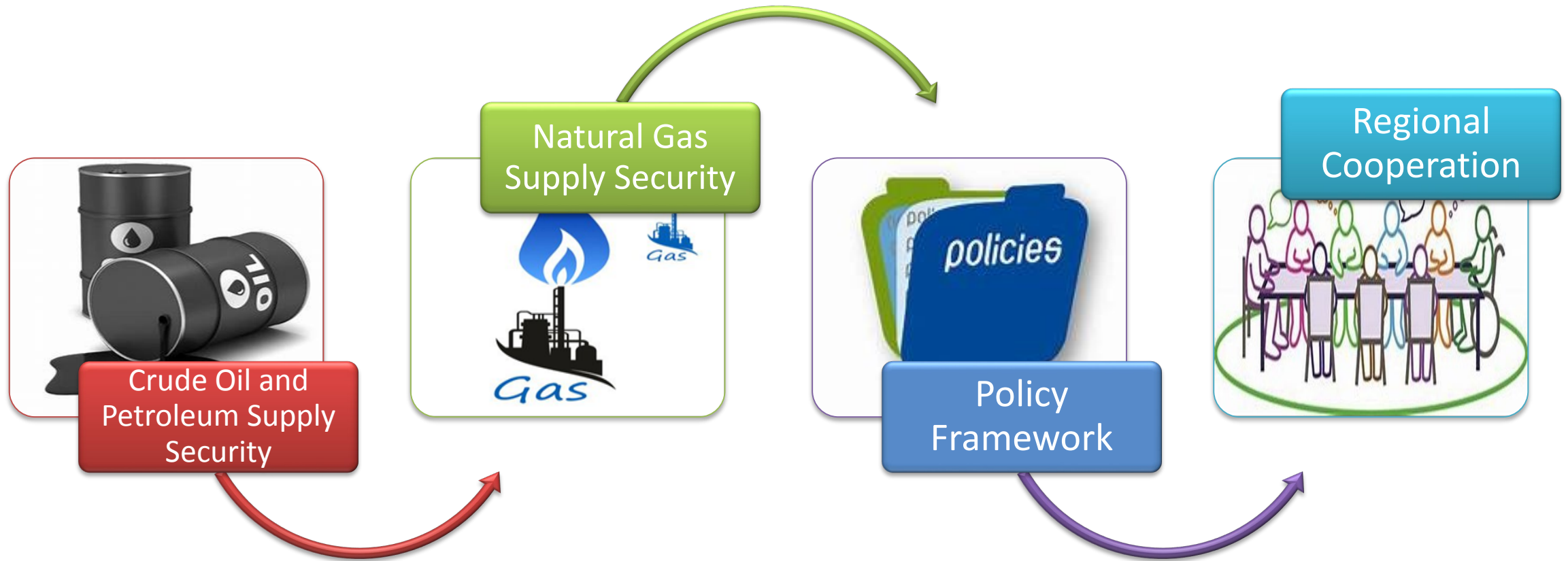
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5th Oil and Gas Security Network (OGSN) Forum

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Sendai City, Japan



OUTLINE



5-Year Historical Crude Oil Production, Import and Export

Crude Oil Production, Import and Export					
Year	Supply (MB)		Total Supply	% of Imports to Total Supply	Exports
	Local Production	Imports			
2018	1,264	85,753	87,017	98.5	1,066
2017	1,587	77,641	79,228	98.0	1,409
2016	2,014	78,772	80,786	97.5	1,804
2015	2,410	78,060	80,470	97.0	2,441
2014	3,079	65,015	68,094	95.5	2,833

2018 crude imports composition:

Sour - 16.6%; Medium - 28.8%; Sweet - 54.6%

Crude Exports by Destination and Percent Share						
Year	2014		2015		2016	
COUNTRY	Vol. in KB	% Share	Vol. in KB	% Share	Vol. in KB	% Share
Brunei	324	11.42		-		-
Korea	1,847	65.19	693	28.39	782	43.33
Singapore		-	696	28.50	340	18.83
Thailand	663	23.39	1,052	43.11	683	37.83
GRAND TOTAL	2,833	100.00	2,441	100.00	1,804	100.00
Year	2017		2018			
COUNTRY	Vol. in KB	% Share	Vol. in KB	% Share		
Brunei		-		-		
Korea	1,059	75.15	690	64.74		
Singapore		-	376	35.26		
Thailand	350	24.85		-		
GRAND TOTAL	1,409	100.00	1,066	100.00		

**data as of March 2019*



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Crude Oil Supply Security

Crude Imports by Source and Percent Share										
Year	2014		2015		2016		2017		2018	
COUNTRY	Vol. in KB	% Share	Vol. in KB	% Share	Vol. in KB	% Share	Vol. in KB	% Share	Vol. in KB	% Share
MIDDLE EAST										
SAUDI ARABIA	37,103	57.07	34,427	44.10	28,438	36.10	27,097	34.90	28,880	33.68
UAE	6,403	9.85	8,365	10.72	10,507	13.34	13,549	17.45	17,759	20.71
QATAR	5,579	8.58	7,464	9.56	2,618	3.32	2,999	3.86	4,235	4.94
OMAN					524	0.67	1,225	1.58	1,091	1.27
KUWAIT			16,877	21.62	26,448	33.57	24,475	31.52	22,589	26.34
SUB-TOTAL	49,086	75.50	67,133	86.00	68,537	86.99	69,345	89.31	74,554	86.94
ASEAN										
MALAYSIA	3,583	5.51	5,747	7.36	4,160	5.28	916	1.18	3,215	3.75
INDONESIA					396	0.50			221	0.26
BRUNEI	600	0.92			288	0.37	581	0.75	300	0.35
SINGAPORE									50	0.06
PHILIPPINES*	153	0.24	149	0.19	145	0.18	125	0.16	94	0.11
VIETNAM	248	0.38	261	0.33						
SUB-TOTAL	4,584	7.05	6,158	7.89	4,990	6.33	1,622	2.09	3,880	4.52
OTHER ASIA										
KOREA							150	0.19	31.00	0.04
TAIWAN							315	0.41	559.00	0.65
JAPAN							58	0.07		
RUSSIA	11,346	17.45	4,769	6.11	5,256	6.67	5,106	6.58	6,380	7.44
CHINA										
SUB-TOTAL	11,346	17.45	4,769	6.11	5,256	6.67	5,629	7.25	6,969	8.13
OTHERS										
AUSTRALIA							1,000	1.29		
NIGERIA									349.00	0.41
UNITED KINGDOM							45	0.06		
SUB-TOTAL	0		0		0		1,045	1.35	349	0.41
GRAND TOTAL	65,015	100.00	78,060	100.00	78,782	100.00	77,641	100.00	85,753	100.00



Refinery Production and Capacity; Product Imports and Exports; Petroleum Demand					
Year	Refinery Capacity (MBSD)	Refinery Production (MB)	Product Imports (MB)	Product Demand (MB)	Product Exports (MB)
2018	285	85,935	97,573	168,805	17,043
2017	285	75,981	97,415	166,539	14,599
2016	285	78,113	86,108	155,415	13,772
2015	285	75,751	76,276	143,226	13,988
2014	285	59,301	69,658	124,503	9,561

Product Exports by Destination and Percent Share										
Year	2014		2015		2016		2017		2018	
COUNTRY	Vol. in KB	% Share	Vol. in KB	% Share	Vol. in KB	% Share	Vol. in KB	% Share	Vol. in KB	% Share
Australia		-	862	6.16		-		-		-
Bangladesh		-		-		-	36	0.25		-
Belgium		-		-	6	0.04		-	2.73	0.02
China	717	7.50	1,441	10.30	1,897	13.77	2,670	18.29	3,986	23.39
Guam		-		-	10	0.07		-		-
Hongkong		-		-	3	0.02		-		-
Indonesia	21	0.21	98	0.70	67	0.49	119	0.82	252	1.48
Japan		-		-	20	0.15	62	0.42	60	0.35
Korea	2,284	23.89	3,453	24.68	3,385	24.58	2,645	18.12	1,911	11.21
Malaysia	679	7.10	2,416	17.27	1,259	9.14	2,131	14.59	1,319	7.74
Saipan	2	0.02	2	0.02	2	0.02	3	0.02	3	0.02
Singapore	3,704	38.74	3,066	21.92	2,711	19.68	2,818	19.30	5,103	29.94
Taiwan	643	6.72	1,539	11.00	2,424	17.60	1,523	10.43	1,083	6.35
Thailand	1,513	15.83	919	6.57	1,683	12.22	2,333	15.98	3,025	17.75
UAE		-		-		-	122	0.84		-
USA		-		-		-	45	0.31	154	0.90
Vietnam		-	192	1.37	308	2.23	93	0.64	144	0.85
GRAND TOTAL	9,561	100.00	13,988	100.00	13,774	100.00	14,600	100.00	17,043	100.00

*data as of March 2019



PETROLEUM

Petroleum Products Supply Security

Philippines

Product Imports by Source and Percent Share										
Year	2014		2015		2016		2017		2018	
COUNTRY	Vol. in KB	% Share	Vol. in KB	% Share	Vol. in KB	% Share	Vol. in KB	% Share	Vol. in KB	% Share
Algeria	-	-	129	0.17	123	0.14	588	0.60	-	-
Angola	-	-	-	-	-	-	123	0.13	139	0.14
Australia	335	0.48	486	0.64	-	-	915	0.94	779	0.80
Brazil	-	-	2	0.00	-	-	-	-	-	-
China	10,504	15.08	10,938	14.34	25,829	29.61	32,460	33.32	29,421	30.15
Congo	-	-	62	0.08	-	-	-	-	-	-
Croatia	-	-	-	-	-	-	-	-	-	-
E. Guinea	-	-	-	-	3	0.004	506	0.52	236	0.24
Egypt	-	-	23	0.03	-	-	-	-	-	-
France	-	-	0.49	0.001	-	-	-	-	-	-
Hongkong	1	0.001	-	-	51	0.06	158	0.16	-	-
India	1,064	1.53	3,258	4.27	2,763	3.17	4,686	4.81	2,682	2.75
Indonesia	697	1.00	228	0.30	1,576	1.81	1,186	1.22	539	0.55
Iran	-	-	-	-	1	0.00	3	0.00	0.674	0.00
Iraq	-	-	-	-	-	-	-	-	163	0.17
Italy	-	-	452	0.59	3	0.00	-	-	-	-
Japan	368	0.53	1,824	2.39	4,701	5.39	4,261	4.37	2,673	2.74
Korea	21,229	30.48	17,886	23.45	16,361	18.75	22,521	23.12	28,083	28.78
Kuwait	406	0.58	228	0.30	692	0.79	1,150	1.18	443	0.45
Malaysia	1,758	2.52	5,853	7.67	4,656	5.34	7,557	7.76	7,662	7.85
Netherland	-	-	-	-	-	-	-	-	19	0.02
New Zealand	27	0.04	-	-	-	-	-	-	-	-
Nigeria	291	0.42	1,258	1.65	548	0.63	-	-	351	0.36
Oman	-	-	135	0.18	-	-	90	0.09	3	0.00
Pakistan	177	0.25	975	1.28	471	0.54	1,002	1.03	333	0.34
Philippines*	805	1.15	-	-	-	-	-	-	-	-
PNG	18	0.03	-	-	1,237	1.42	1,095	1.12	160	0.16
Qatar	450	0.65	-	-	1,490	1.71	1,263	1.30	1,265	1.30
Russia	-	-	605	0.79	-	-	-	-	-	-
Saudi Arabia	551	0.79	1,085	1.42	1,418	1.63	1,081	1.11	1,204	1.23
Singapore	9,982	14.33	10,323	13.53	12,213	14.00	10,273	10.55	7,910	8.11
South Africa	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	2	0.00	18	0.02	38	0.04	8	0.01
Srilanka	-	-	-	-	-	-	-	-	271	0.28
Taiwan	16,993	24.39	17,674	23.17	9,204	10.55	2,216	2.27	1,028	1.05
Thailand	2,473	3.55	1,272	1.67	36	0.04	377	0.39	930	0.95
UAE	559	0.80	231	0.30	2,695	3.09	1,684	1.73	8,442	8.65
USA	162	0.23	702	0.92	0	0.00	1,842	1.89	1,549	1.59
Vietnam	808	1.16	644	0.84	1,151	1.32	340	0.35	1,281	1.31
GRAND TOTAL	69,658	100.00	76,275	100.00	87,240	100.00	97,415	100.00	97,573	100.00

* Subic



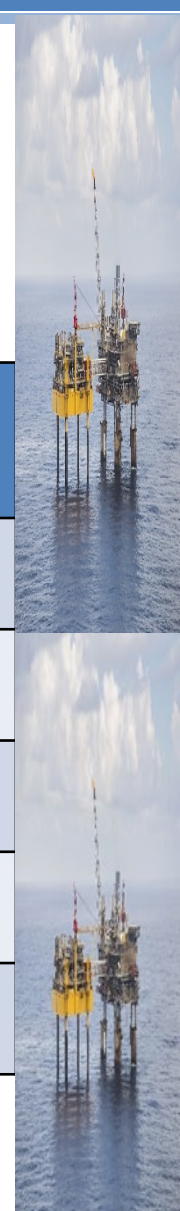
Historical Natural Gas/Condensate Production and Condensate Exports 2014-2018

Year	Natural Gas Production (in mmscf)	Condensate Production (Gross in Barrels)	Condensate Lifting (Net Export (in Barrels)
2018	150,804	3,627,652.50	3,627,521.51
2017	139,209	3,907,135.74	3,906,985.78
2016	140,516	4,146,201.77	3,732,006.11
2015	122,541	3,767,030.12	3,764,871.94
2014	130,351	4,172,730.00	4,113,519.79
Total	683,421	19,620,750.13	19,144,905.13

% Share in Condensate Export by Destination 2014-2018

Port of Discharge	2014	2015	2016	2017	2018	Total	% Share
Thailand	0	0	0	270,286	0	270,286	1.59
Singapore	887.096	600.016	0	310.107	615.646	2,412.87	0.01
Thailand	1,492,736	842,918	1,976,519	2,393,073	2,711,826	9,417,072	55.29
South Korea	2,032,033	2,321,937	1,755,487	933,521	300,049	7,343,027	43.11
Total	3,525,656.10	3,165,455.02	3,732,006	3,597,190.11	3,012,490.65	17,032,797.87	100.00

Natural gas supply is 100 % self- sufficient...



I. Historical Share of Natural Gas in Power Input Fuel Mix : 2013-2017

	2013	2014	2015	2016	2017
Fuel Input, MTOE	2.71	2.85	2.70	3.08	3.08
Self-sufficiency %	56.61	56.62	52.43	53.86	50.95

II. Historical Share of Natural Gas in Power Generation Mix: 2013-2017

	2013	2014	2015	2016	2017
Power Generation Mix, Gwh	18,791.29	18,690.08	18,877.92	19,853.78	20,547.24
Share of Gas %	24.97	24.19	22.91	21.87	21.77

III. Natural Gas Final Energy Demand by Sector in kTOE: 2013 - 2017

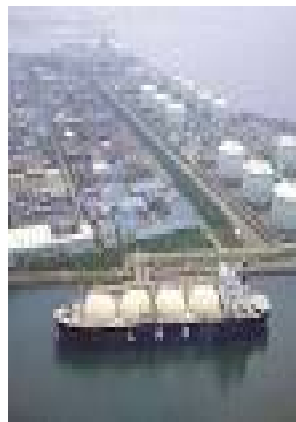
	2013	2014	2015	2016	2017
Industry	62.08	76.89	49.79	64.80	52.51
Transport	0.81	0.08	-	-	-
Total Final Energy Consumption	62.89	76.98	49.79	64.80	52.51



LIQUEFIED NATURAL GAS (LNG)

Proposed Regasification Facility

Proponent	Capacity	Target Operation
Energy World Philippines Corporation	2X130,000 m3	2020
Tanglawan LNG Philippines (CNOOC and Phoenix)	2.2 MTPA	2023
First Gen LNG Corporation (FGEN and Tokyo Gas)	5 MTPA	2023



UPDATE ON POLICY FRAMEWORK ON SUPPLY SECURITY

I. Oil Supply Security Policy Framework

Oil Supply Security Policy

- Republic Act No. 7638 – An Act Creating the Department of Energy
- Republic Act No. 8479 - An Act Deregulating the Downstream Oil Industry, and for other Purpose
 - *The Department of Energy is mandated to ensure sufficient, stable, secure and reasonably-priced energy supply*
- Republic Act No. 9367 - Biofuels Act

Strategic Oil Stockpiling (Commercial Stockpiling)

- EO 134 - Minimum Inventory Requirement
 - *Refiners – 30 days in-country stocks of crude/products*
 - *Importers – 15 days in-country stocks of finished products*
 - *LPG Importers – 7 days in-country stocks of LPG*
 - **UPDATE: Proposed to be reviewed/amended**

Indicators to Gauge Supply Security

- EO 134 - Minimum Inventory Requirement
- Oil Demand and Supply Monitoring through Oil Companies' Submissions of the following:
 - *Monthly Reports on Actual Imports, Exports, Refinery Production, Sales and other related data*
 - *Weekly and End-Month Inventory Report*



II. Natural Gas Supply Security Policy Framework

Gas Supply Security Framework

- Republic Act No. 7638 – An Act Creating the Department of Energy
- Administrative Order No 38 –Institutionalizing the Department of Energy
- Executive Order No. 66 - Designating the DOE as lead agency in developing the Philippine Natural Gas Industry
- Department Circular No. 95-06-006 (Policy Guidelines on the Overall Development and Utilization of Natural Gas in the Philippines)
- Department Circular No. 2017-11-0012 (Rules and Regulations Governing the Philippine Downstream Natural Gas Industry)
- Executive Order 60 Philippine Upstream Petroleum Taskforce ((Security, Environment of Upstream Facilities)
- Promote development of domestic oil/natural gas resources through the Philippine Conventional Energy Contracting Program (PCECP)
- Promote LNG Importation

Indicators to Gauge Supply Security

- Department Circular No. 2010-03-003-Directing all Power Generation Companies, Transmission Service provider and all DUs to ensure adequate and reliable electric power supply in the country
 - During scheduled maintenance of Malampaya gas facilities, all affected generation companies shall maintain at least 15 days running inventory of alternative fuel
- Natural Gas Supply/Demand Monitoring
 - Monthly Production
 - Monthly Consumption
 - PMS and Unscheduled Maintenance and Equipment Breakdown



Technical Assistance:

- Japan METI Assistance on Regional Oil Stockpiling
- United States State Department on the Implementation of the Downstream Natural Gas Regulation

Participation in ASEAN and ASEAN+3 Working Group meetings, Forum and Dialogue

- Development of Oil Stockpiling Roadmap (OSRM) in ASEAN+3
- Oil Market and Natural Gas Forum and Business Dialogue in ASEAN+3





Thank You !

