

NATURAL GAS SITUATIONER REPORT
FULL YEAR 2019

OVERVIEW

The Philippines continued to be self-sufficient in natural gas supply with 100% of its production amounting to 155,495 million standard cubic feet (mmscf) is mainly sourced from the offshore Malampaya gas field. Total volume of indigenous natural gas supplied to power and industrial sector accounts for 149,007 mmscf reflecting a 2.57 percent increased against the year ago level of 145,273 mmscf. Power generation accounted for the highest share in usage of 98 percent and the remaining 2 percent is utilized by the industrial sector.

This year, natural gas contributes 29.72 percent of the Luzon generation mix alongside other energy sources such as coal, geothermal, hydro, oil and other renewable energy sources like wind, solar & biomass.

Remarkably, there is a volume disparity of 6,488 mmscf between what has been produced from the Malampaya gas field against the actual recorded demand. The difference can be attributed to flaring, gas heating, venting and purging of natural gas at the platform, onshore-gas-Plant (OGP) facility, own use power plants, and linepack in the 504 km natural gas pipeline. Table 1 shows the details.

Table 1. Natural Gas Supply and Demand
Full Year 2019-2018
(in mmscf)

	Quantity		Inc./ (Dec.)	% Change	Percent Share	
	2019	2018			2019	2018
Supply:	155,495	150,804	4,691	3.11	100%	100%
Malampaya Production	155,495	150,804	4,691	3.11	100%	100%
Demand:	149,007	145,273	3,734	2.57	100%	100%
Power	146,365	142,723	3,642	2.55	98%	98%
Industrial	2,642	2,550	92	3.60	2%	2%

PRODUCTION

Aggregate domestic natural gas production during the year 2019 stood at 155,495 mmscf or a 3.11 percent rise in the country's natural gas supply compared to the previous year's actual of 150,804 mmscf, despite the implementation of a five-day maintenance activity in the platform. The increase in the production volume was the outcome of the 97.3 percent availability of the Malampaya's facility, providing a daily average of gas delivered to customers amounting to 410 mmscf.

CONSUMPTION

For the year 2019, total natural gas utilized was recorded at 149,007 mmscf, registering a 2.57 percent growth against 2018 actual volume of 145,273 mmscf. The overall increase in consumption was due to the continuous operation of the five (5) natural gas fired power plants and the refinery located in the province of Batangas.

Power Sector

Total demand of natural gas in the power generating sector for 2019 was reported at 146,365 mmscf, showing a 2.55 percent increase in consumption against the 2018 volume of 142,723 mmscf. The overall increase in the natural gas usage in this sector is attributed to the growth in utilization of Kepco Ilijan by 2.35 percent, San Gabriel by 25.73 percent and Avion power plant by 65.50 percent. Also, these natural gas fired plants are dependably available throughout the year despite the annual implementation of its respective preventive maintenance shutdown.

Industrial Sector

Comparative with its year ago level, Pilipinas Shell Refinery's overall gas consumption for the year 2019 accounted for 2,642 mmscf, indicating a 3.60 percent rise in utilization alongside the 2,550 mmscf usage in 2018 actual. The recorded increase was brought about by the refinery's high gas off-take despite its intermittent use of LPG to run the furnaces and diesel to fuel its turbine.

SUPPLY AND DEMAND OUTLOOK FOR FULL YEAR 2020

SUPPLY

Domestic Production

Domestic production of natural gas for the year 2020 is seen to drop by 4.49 percent or 148,502 mmscf, compared from the 2019 volume of 155,495 mmscf (details is shown in Table 2). Reduction in supply is primarily due to the implementation of the scheduled five-day maintenance shutdown at the Malampaya Platform in October this year, coupled with the unpredicted implementation of the enhanced community quarantine (ECQ) in Luzon in the first quarter of 2020 brought about by the Coronavirus Disease 2019 (COVID 19) pandemic to curtail and eliminate the Covid-19 spread. Further, there will be an expected gas restriction in the second quarter of 2020 as gas nomination will be expected surge for more demand of electricity, and the operation of the Gas Export Pipeline (GEP) from the platform to the onshore gas processing plant will meet some challenges in view of its capacity limitation and distance. These events are perceived to impact in the nomination on the volume of natural gas from the Malampaya gas field by the identified customers and/or end-users.

DEMAND

Projected demand of natural gas for 2020 will reach at 142,808 mmscf against the 2019 level of 149,007 mmscf or a plunge by 4.16 percent (Table 2 provides the details). The decline is likewise attributed to the impact of the implementation of the planned five-day shutdown at the Malampaya platform in the 4th quarter of 2020, the observation of the ECQ in Luzon that started

in the first quarter of the year and the expected implementation of the maintenance activities of the respective consumer of natural gas.

Power Sector

Natural gas consumption for the power generation sector for full year 2020 is projected at 140,304 mmscf or a 4.14 percent lower than the 2019 level of 146,365 mmscf. The decline in utilization of power generation is attributed to the implementation of major maintenance program of the respective natural gas power plants such as Kepco Ilijan, Sta. Rita and San Lorenzo within the year.

Also, the implementation of the ECQ in Luzon that started in the first quarter of the year has enhanced the impact in the consumption level of natural gas in this sector resulting to the low demand of electricity generated by these gas fired power plants as most of the industrial and commercial sectors partially ceased their operations. However, the demand for natural gas in the second quarter is expected to soar as there were several coal plants undergoing outages coupled with higher temperature brought about by El Nino. Demand for power from the residential sector is high and the gas fired power plants has to generate electricity to meet the expected demand as well as to fill in the generation loss caused by coal plants on outages. Nevertheless, the expected growth in natural gas usage during the second quarter is not enough to cope with the declining consumption level by 4.14 percent as the Malampaya platform will be implementing its five-day maintenance shutdown during the 4th quarter. Despite, the natural gas fired power plants will still operate using an alternate fuel such as diesel and condensate. Table 2, provides the supply and demand projections for the year 2020.

Table 2. Projected Natural Gas Supply and Demand, 2020
(in mmscf)

	FY 2019	FY 2020 Projected	Inc / (Dec)	% Change
Supply:	155,495	148,502	(6,993)	(4.49)
Production:				
Malampaya gasfield	155,495	148,502	(6,993)	(4.49)
Demand:	149,007	142,808	(6,199)	(4.16)
Power	146,365	140,304	(6,061)	(4.14)
Industrial	2,642	2,505	(137)	(5.18)

Industrial Sector

The industrial sector's forecasted demand for 2020 totaled to 2,505 mmscf reflecting a 5.18 percent dip from the previous year's actual utilization of 2,642 mmscf. The decrease in utilization is the outcome of the refinery's economic shutdown in May as an effect by the implementation of the ECQ in Luzon. Demand for petroleum products is seen to drop as operations of all types of public transportation services and private vehicles were suspended as majority of the general public were required to stay at home to control the spread of Covid 19.

Additional factor that will trigger the decline in the natural gas consumption is the anticipated five-day maintenance shutdown at the Malampaya platform and also the expected implementation of the PSPC refinery maintenance activities.