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NATURAL GAS

Fueling Egypt's Journey to Energy Transition

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Key Takeaways

6.6 bcf/d
Average Natural Gas Production in FY 2022/23

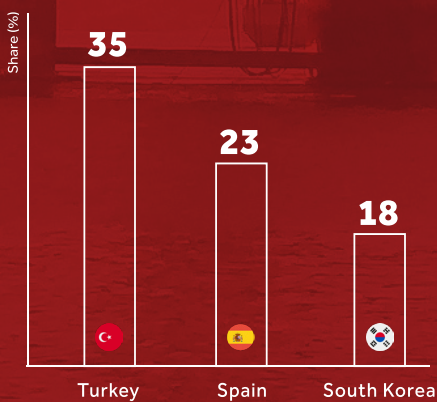
LARGEST PRODUCING AREA

76% Mediterranean Sea

ELNG and DLNG Plants Exports in 2023

Volume (bcf)	293
Cargoes	80

Top Three Egypt's LNG Importers in FY 2022/23



56.85% Electricity Share from Natural Gas Consumption

Egypt intensifies its focus on energy transition and decarbonization, and using cleaner, less carbon-intensive, and more environmentally friendly fuels. In accordance with that, Egypt's oil and gas sector put a comprehensive strategy for energy transition and enhancing decarbonization. In this regard, natural gas increasingly became Egypt's first fuel choice to

complement its renewable energy generation. Achieving self-sufficiency and recent discoveries paved the way for natural gas to be a reliable source for power generation plants in Egypt. It became the most important fuel in Egypt's energy mix, accounting for 55% in 2022, according to the 2023 Statistical Review of World Energy Report.

This report covers a comprehensive overview about the natural gas market in Egypt, highlighting production, consumption, main discoveries, and exports. Furthermore, it reflects the efforts made by the state to enhance decarbonization through exploiting natural gas.

Natural Gas Market Overview in FY 2022/23

Natural Gas Production

Egypt's natural gas produced from all fields averaged around 6.6 billion cubic feet per day (bcf/d).

The year witnessed drilling and commencing production from 36 producing wells including 33 development wells and 3 new wells from projects, according to the Egyptian Natural Gas Holding Company (EGAS) Annual Report 2022/23.

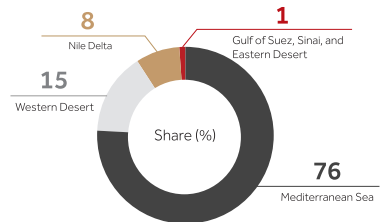
6.6 bcf/d
Average Production

6.2 bcf/d
Average Sales Gas Production

Areas' Share in Total Production

The Egyptian natural gas production scores in six main regions: the Mediterranean Sea, the Western Desert, the Nile

Delta, Sinai, the Eastern Desert, and the Gulf of Suez. However, these regions contribute to unequal production volumes. It is worth mentioning that the Mediterranean Sea is the largest natural gas producing area, according to EGAS Annual Report 2022/23.



Natural Gas Discoveries

Moving on to exploration activities, 3D seismic surveys in Nour Offshore, N. Rafah Offshore, and Nargis Offshore areas were carried out with a total of 3,964 km².

As a result of these successfully implemented surveys, Egypt witnessed 18 natural gas discoveries in different regions in FY 2022/23, according to EGAS Annual Report 2022/23.

Discoveries

2	3	13
Mediterranean Sea	Nile Delta	Western Desert

Added Reserves

1.98 tcf	17.39 mmbl
Natural Gas	Condensates

Nargis Discovery in 2023

Location	Eastern Mediterranean Sea
Reserves (tcf)	2-2.5
Operator	Chevron

Sectors' Reliance on Natural Gas

Natural gas local consumption reached about 2,136 bcf with an average amount of 5,853 mmcf/d. The electricity sector is the largest gas consumer, where natural gas consumption reached about 1,214.5 bcf, representing 56.85% of total local natural gas consumption. This is followed by the industry sector which represents 25% of total consumption, according to EGAS Annual Report 2022/23.

Exports

Egypt put itself among the world's leaders in liquified natural gas (LNG) and Natural gas exports. The State allocated investments heavily in transnational pipelines and LNG terminals. It seeks to become a regional energy center for the neighboring countries, through the two liquefaction plants located on the Mediterranean in Idku and Damietta.

In FY 2022/23, most of Egypt's LNG went to Turkey as it is the largest LNG importer with an average amount of 1,388 million cubic feet (mmcf), followed by Spain which reached about 903 mmcf, in addition to South Korea, Netherlands and China, with an average amount of 697 mmcf, 522 mmcf and 457 mmcf respectively, as the five largest importers, according to Central Agency for Public Mobilization and Statistics (CAPMAS).

Natural Gas Exports



To
Jordan

Through
Arab gas pipeline

Volume (bcf)
19.85

LNG Exports



	Cargoes	Volume (bcf)
ELNG	39	139.7
DLNG	41	153.2

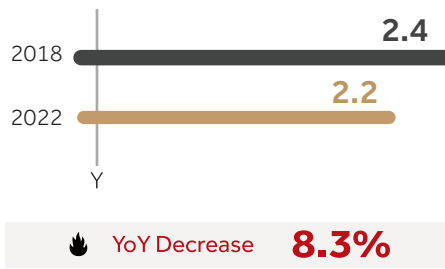
The Role of Natural Gas in Decarbonization

Gas Flaring

Egypt aims to significantly expand zero-flare projects, aligning with the World Bank's Zero Routine Flaring by 2030 (ZRF) initiative. The oil and gas sector has successfully implemented 30 zero-flare projects. This has contributed to reduce emissions by 1.4 million tons per year (mmt/y) of CO₂ equivalent and saved about \$200 million annually, according to the Ministry of Petroleum and Mineral Resources (MoPMR).

Moreover, the intensity of gas flaring declined to 9.50 cubic meters per barrel (m³/bbl) in 2022, a 2.4% decrease compared to 2018, according to Global Gas Flaring Data from the World Bank (WB).

Natural Gas Flaring Volume (bcm)



Source: 2023 Statistical Review of World Energy Report

Emissions Reduction

The sector adopted a clear vision and action plan for curbing emissions from all crude oil and natural gas activities. This vision focuses on expanding the use of natural gas as a low-carbon transitional fuel, optimizing production processes, and boosting energy efficiency and decarbonization.

Co₂ Annual Emissions Reduction in 2023

Volume (mmt)	Through
0.9	Delivery of Natural Gas to about 14.5 million Residential Units
+2	Converting about 534,000 Cars to Run on CNG*

*Since Starting the Activity



The natural gas market in Egypt has witnessed significant expansion, fueled by remarkable discoveries. Committed to the global energy transition, Egypt aims to rely on diverse energy sources including using natural

gas as a cleaner transition fuel. Natural gas acts as a powerful engine for Egypt's energy transition, bringing the gap until renewables take over.



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