

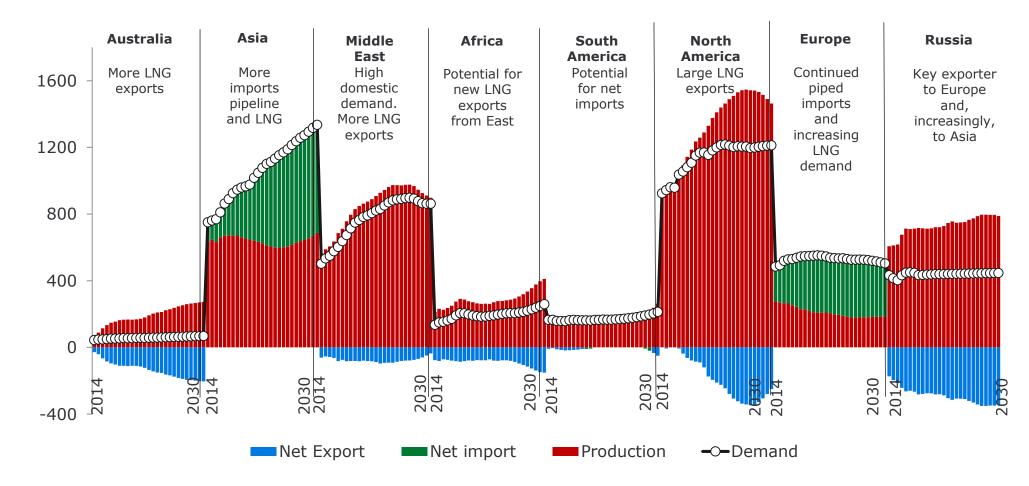
REGIONAL GAS DEVELOPMENTS

ADITYA SARASWAT, SENIOR ANALYST, RYSTAD ENERGY

Longer distances between supply and demand to facilitate more LNG trade

Supply and demand of natural gas by continent

Billion cubic meters

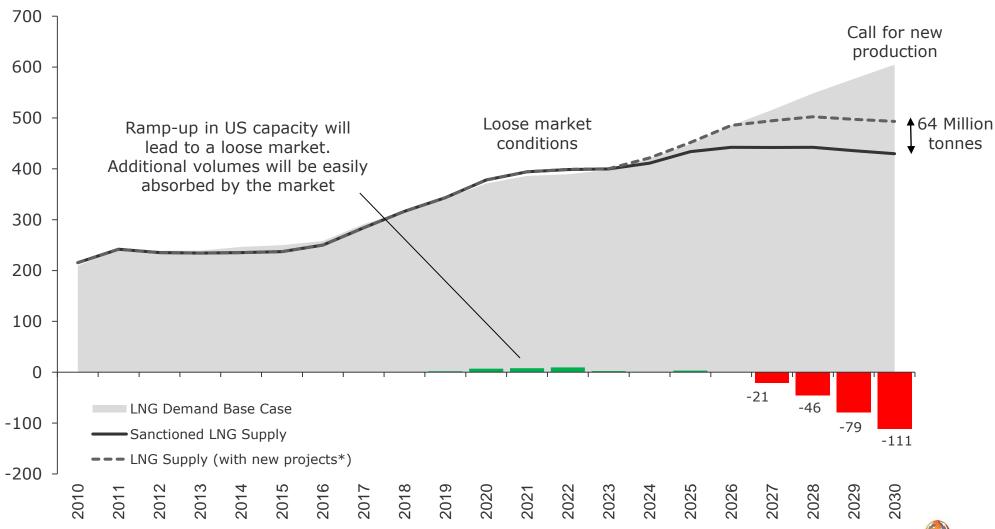


Source: Rystad Energy Research & Analysis, GasMarketCube



Additional 111 Mt needed by 2030 given new projects sanctioned by 2030

Global LNG sanctioned supply and demand balanceMillion tonnes

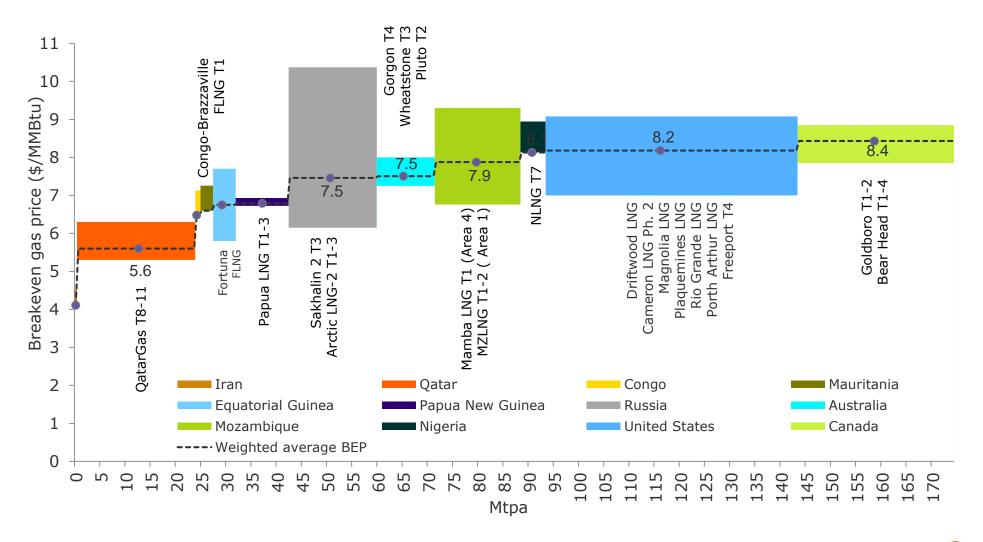


^{*} Pre-FID projects include the non-sanctioned liquefaction plants that are expected to get FID by 2020. Source: Rystad Energy GasMarketCube



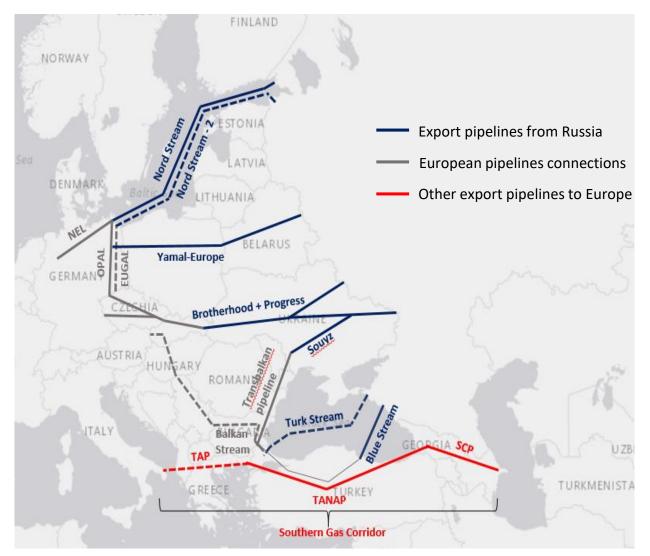
Commercial Qatari Supply can Potentially Create Trade Disruption

Volumes and breakeven prices for unsanctioned LNG projects by 2025





Russia Gas Transit to Europe through Ukraine

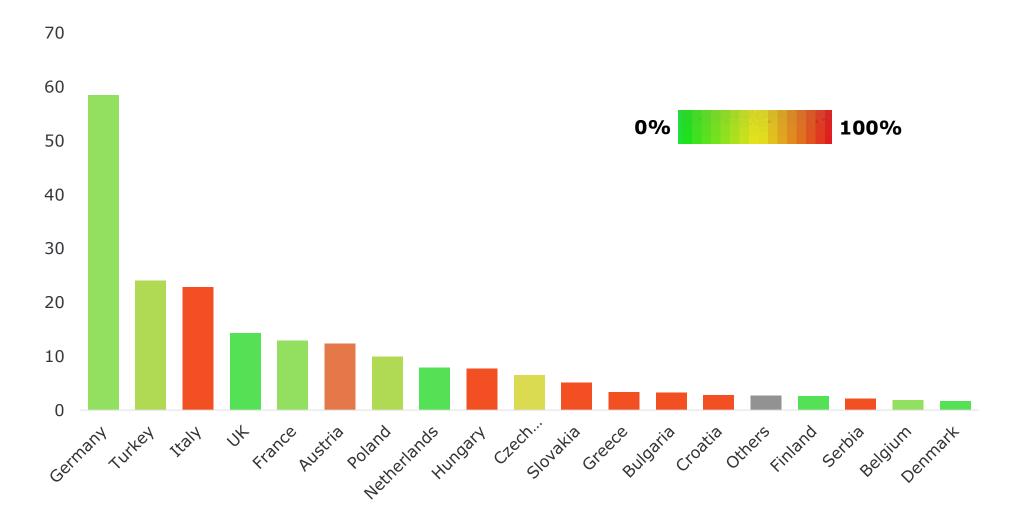


Pipeline	Capacity Bcm/y	Utilization rate 1Q-3Q 2019, %
Nord Stream	55	>100 (pre OPAL)
Nord Stream-2	55	-
Ukrainian transit system	142	63
Yamal-Europe	33	~100
Blue Stream	16	N/A
Turk Stream	31.5	-
TAP	10	-



Vulnerability of Russian gas importers if Ukraine transit halted

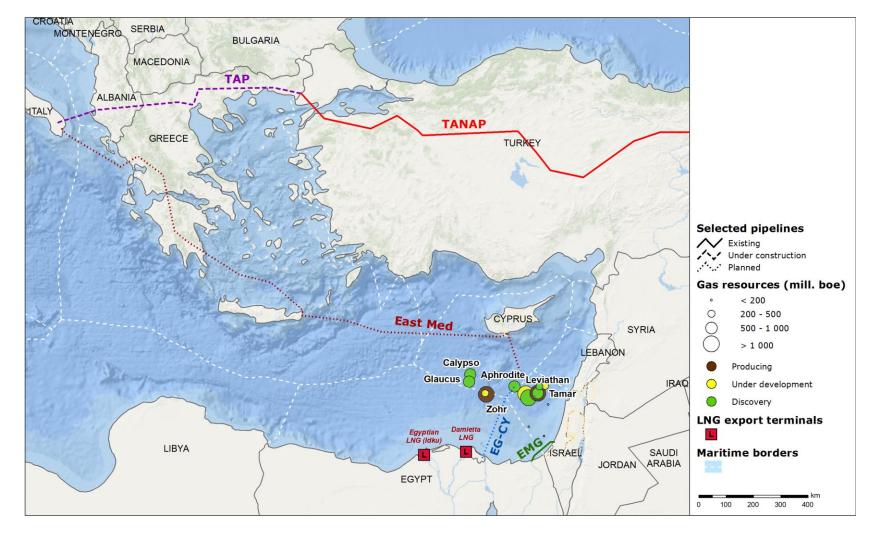
Estimated short-term vulnerability if Ukrainian transit is cut off





Selective Route to meet the Increasing European Gas Demand

Infrastructure Update – Success story in the making





Pipeline Competition – Enough Room to Spare for East Med

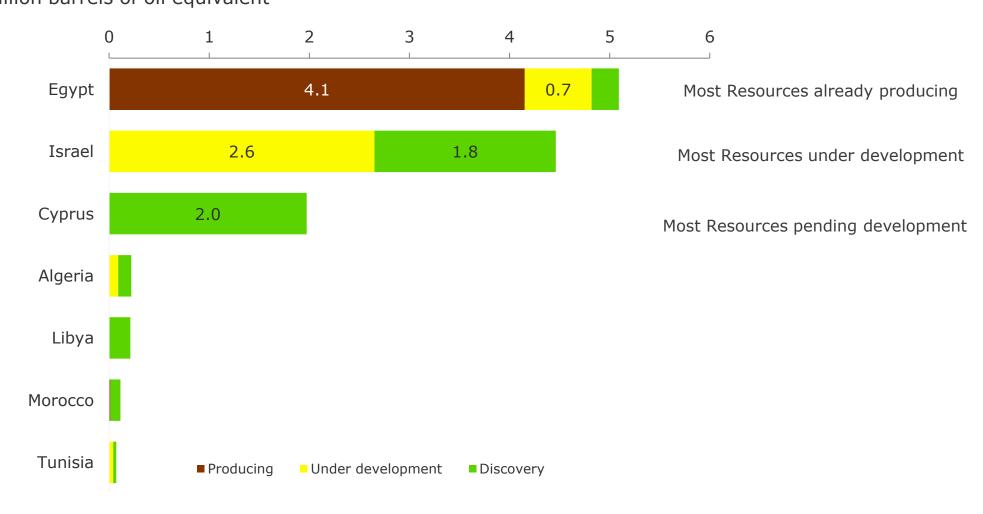
Italy's Gas Imports split by Export Countries

Billion cubic meters 80 5.4 5.8 70 3.1 5.8 12.2 10.7 11.6 12.7 10.2 11.0 13.3 13.4 60 Azerbaijan - TAP 50 40 Russia 30 20 Algeria 10 Qatar 0 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030



Proximity to Infrastructure crucial for Realizing the Discoveries

Discovered Resources in the Mediterranean Region split by Life Cycle 2010-19
Billion barrels of oil equivalent





Cypriot Promising Prospects awaiting Gas Route

2011: Aphrodite Discovery

Noble Energy discovered the Aphrodite field off the eastern

March'2015 - Block 11

Cyprus and Total signed an exploration agreement, which Total will undertake to study further

August'2015- Zohr

Eni confirmed the Zohr gas discovery as the biggest ever natural gas field in the Mediterranean.

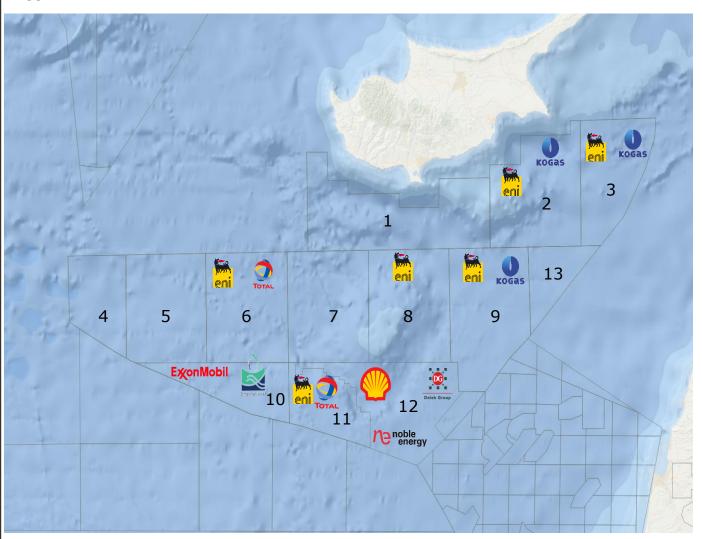
February'2018 - Calypso

Eni announced the gas discovery, Calypso and confirmed the extension of the "Zohr like" play.

February'2019 - Glaucus

Encouraging initial seismic results. In place gas resource – 5-8 tcf

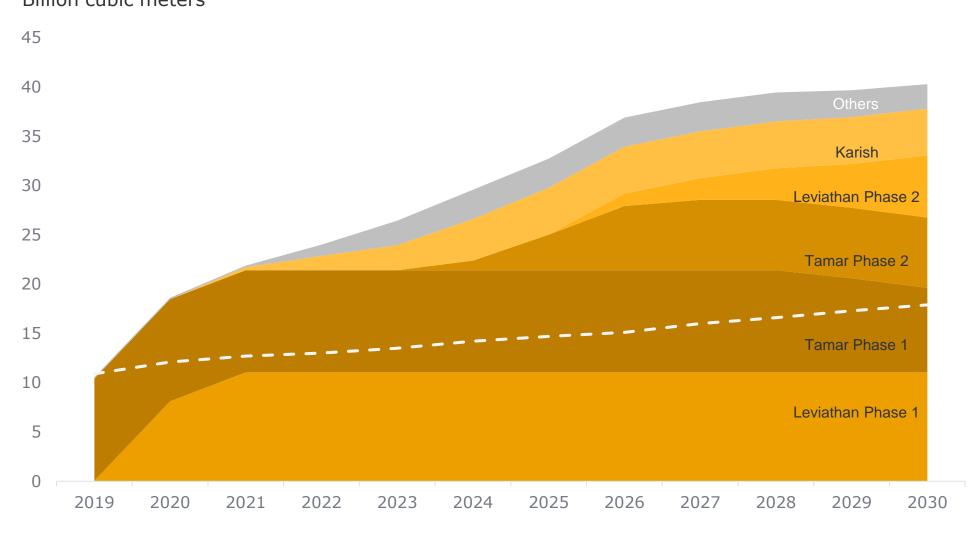
Cyprus Offshore Blocks





Israel – Bright Gas Export Outlook Contingent on Export Routes



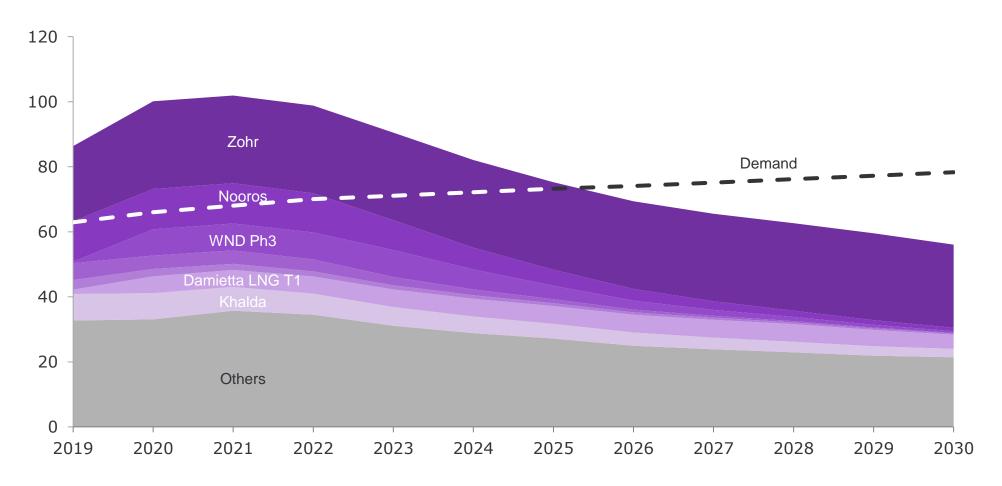




Egypt Gas Export Potential – Short Lived Peak

Egypt's gas supply-demand balance

Billion cubic meters





Opportunity lies in Co-operation

Regional gas supply-demand balance

Billion cubic meters Zohr **Aphrodite** Regional Gas Demand Nooros Leviathan **Tamar** Others



Thank You



Rystad Energy is an independent energy consulting services and business intelligence data firm offering global databases, strategy advisory and research products for energy companies and suppliers, investors, investment banks, organizations, and governments. Rystad Energy's headquarters are located in Oslo, Norway.

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