

MENA 2020-24 Gas & Petrochemicals Outlook

October 2020

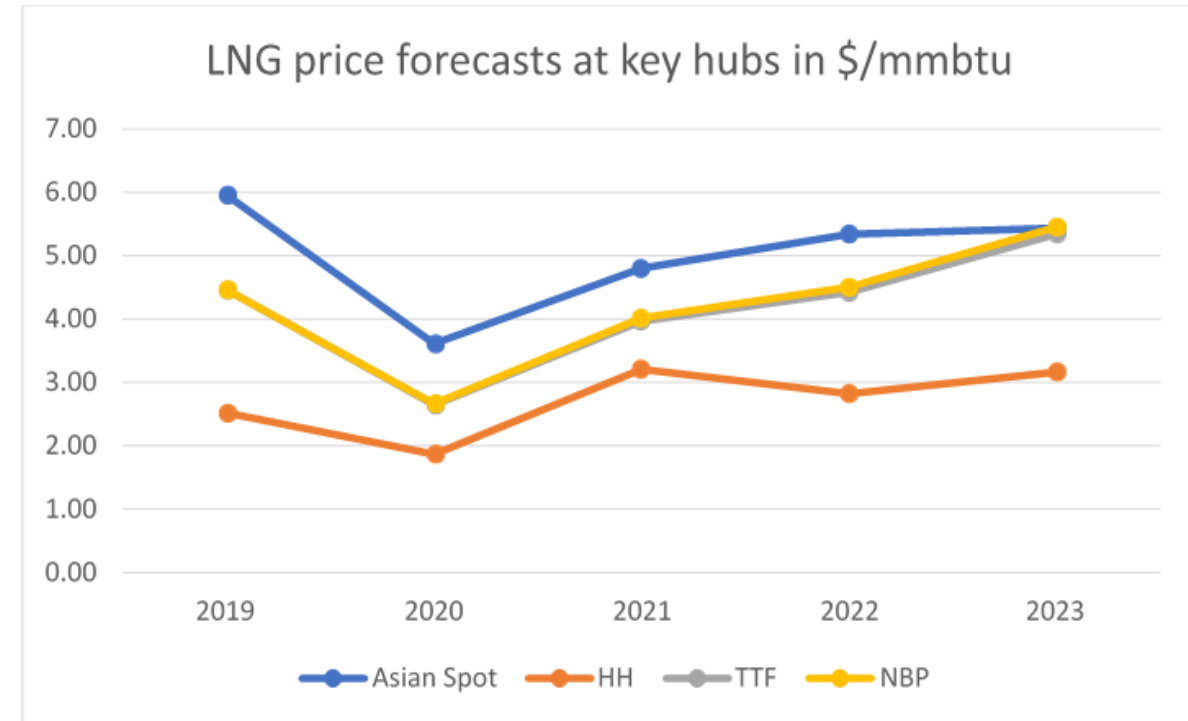
ARAB PETROLEUM INVESTMENT CORPORATION



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APICORP

Key Global Gas and Petrochemicals Trends: Effect of 2020 crisis

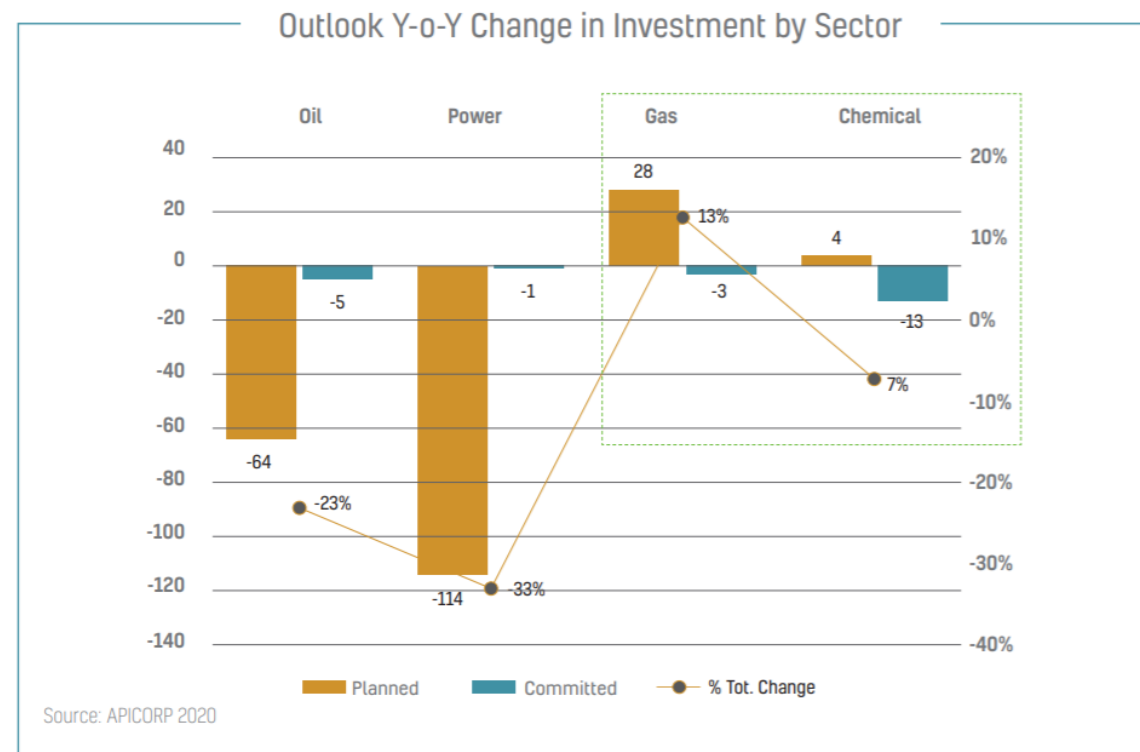
- 2020: historic gas demand shock with a (3%) 4% Y-o-Y reduction. Annual growth rate for 2020-25 global gas demand 1.5% vs pre-COVID 1.8%.
- Risk of prolonged overcapacity in LNG. HH USD3-4/MMBtu to 2023.
- Payments, supply chain issues and delays. Planned projects closely scrutinized, questioned or postponed. By 2030, the petrochemical sector to be main driver of oil demand.



Source: IHSM forecasts, APICORP visualisation

MENA Gas & Petrochemicals Investments in a Post-COVID-19 World: Investments Continue for Strategic or Demand Reasons, with Rationalization

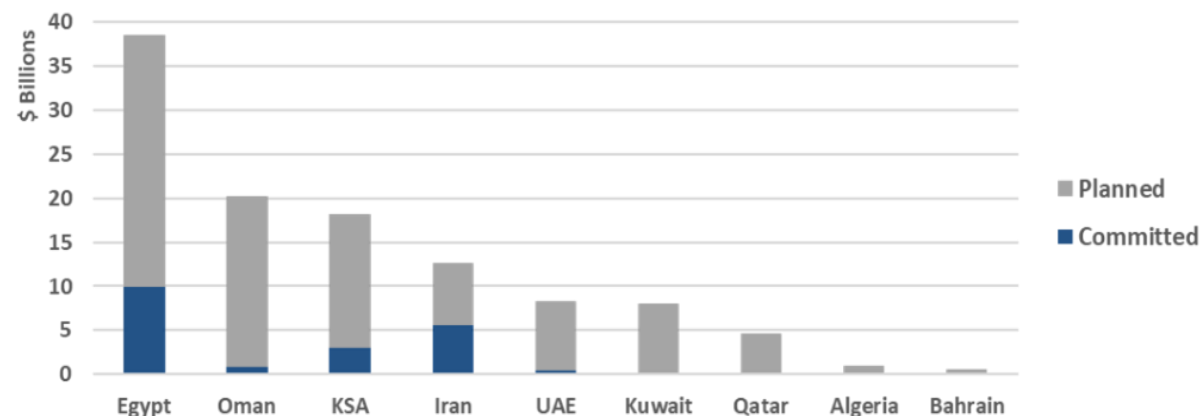
- Gas demand is expected to grow by approximately 3.8%-4% on average MENA-wide vs. 6% estimate in 2019.
- Downward revision: slower GDP growth and industrial output, price reforms, increased share of nuclear and renewables.
- Committed gas investments in MENA held steady vs. 2019-2023, while planned investments increased by 29%.
- Gas-to-power projects, improved monetization, strategic market share positioning.
- MENA petrochemicals committed projects decreased USD13bn year-on-year (y-o-y) due to completion of several projects in 2019.



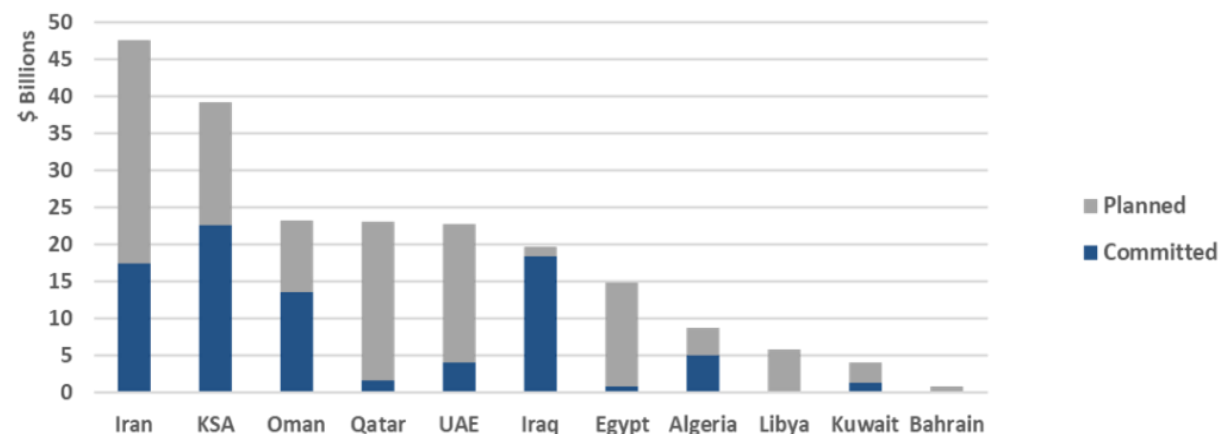
MENA 2020-24 Committed and Planned Investments: Key Highlights

- Saudi Arabia, Iran and Iraq top 3 committed gas investments.
- Qatar’s North Field Expansion (NFE) and the UAE’s gas development masterplan USD20-22bn each of total planned gas investments.
- Egypt, Iran and Saudi Arabia top 3 committed petrochemicals investments, driven by localization of specialty chemical industries and feedstocks import substitution.
- Prolonged depression of LNG prices will put additional pressure on a few exporters in the MENA region.

TOTAL 2020-24 MENA Petrochem Investments



TOTAL 2020-24 MENA Gas Investments



A few exporters under additional pressure

Egypt Average LNG Netback Calculation				Algeria Average Netback Calculation				Qatar Gas Average Netback Calculation			
	TTF	JKM	INDIA		TTF	JKM	INDIA		TTF	JKM	INDIA
Upstream	4.5	4.5	4.5	Upstream	4.13	4.13	4.13	Upstream	0.5	0.5	0.5
Liquefaction	1.75	1.75	1.75	Liquefaction	0.8	0.8	0.8	Liquefaction	1.86	1.86	1.86
FOB cost	6.25	6.25	6.25	FOB cost	4.93	4.93	4.93	FOB cost	2.36	2.36	2.36
Shipping	0.5	0.5	0.9	Shipping	0.45	1.7	1.1	Shipping	1.7	0.8	0.28
Delivered costs	6.75	6.75	6.75	Delivered costs	5.38	6.63	6.03	Delivered costs	4.06	3.16	2.64
Hub spot gas price	4	5.5	5.5	Hub spot gas price	4	5.5	4.5	Hub spot gas price	4	5.5	4.5
Net back	-2.75	-2.25	-2.65	Net back	-1.38	-1.13	-1.53	Net back	-0.06	2.34	1.86

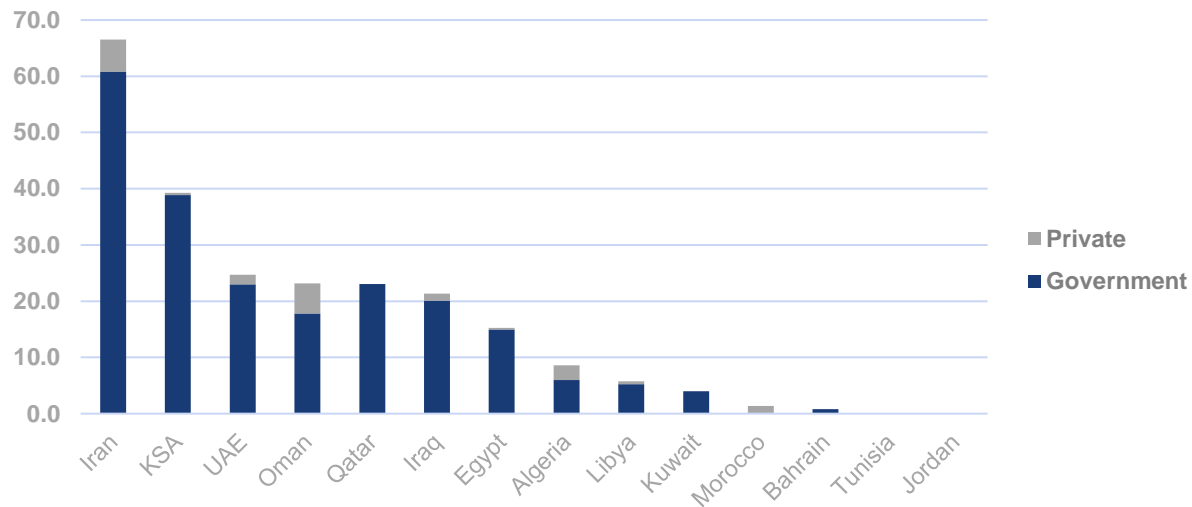
Source: APICORP 2020

Note: India is taken as an export market example due to its rising status as an LNG importer and its location as midway Western Europe and Japan/Korea

An Increasing Role for Private Sector?

- Share of government investments in gas projects at 91.5%, 96% for committed gas projects only.
- 72% share in committed and planned petrochemicals projects, and 50% for committed.
- Downstream account for 71% of planned investments, 36% for projects currently under execution.
- Upstream largely financed by equity. Increasing wave of petrochemical megaprojects and few LNG terminals typically 70:30 to 80:20 debt/equity ratio.
- Downstream integration drive continues, including in conjunction with Asia. More consolidation coming.

MENA Committed and Planned Gas investments by Developer in \$ Bn



MENA Committed and Planned Petchem investments by Developer in \$ Bn

