



SHIFTING THE INDUSTRY FOCUS

Petrochemical majors SABIC and Exxon Mobil are rolling out a project to build the world's largest cracker on the Gulf Coast. This is just one of the key drivers behind the migration of petrochemical manufacturing from the Middle East to the U.S. Gulf Coast.

In the first decade of this century, the Middle East was the locus of global petrochemical growth. The Middle Eastern boom was fuelled by cheap natural gas, a feedstock for plastics and other materials used in the construction and consumer goods segments. During the same period, U.S. gas prices were skyrocketing, which forced manufacturers to move production from the United States to Saudi Arabia and Qatar.



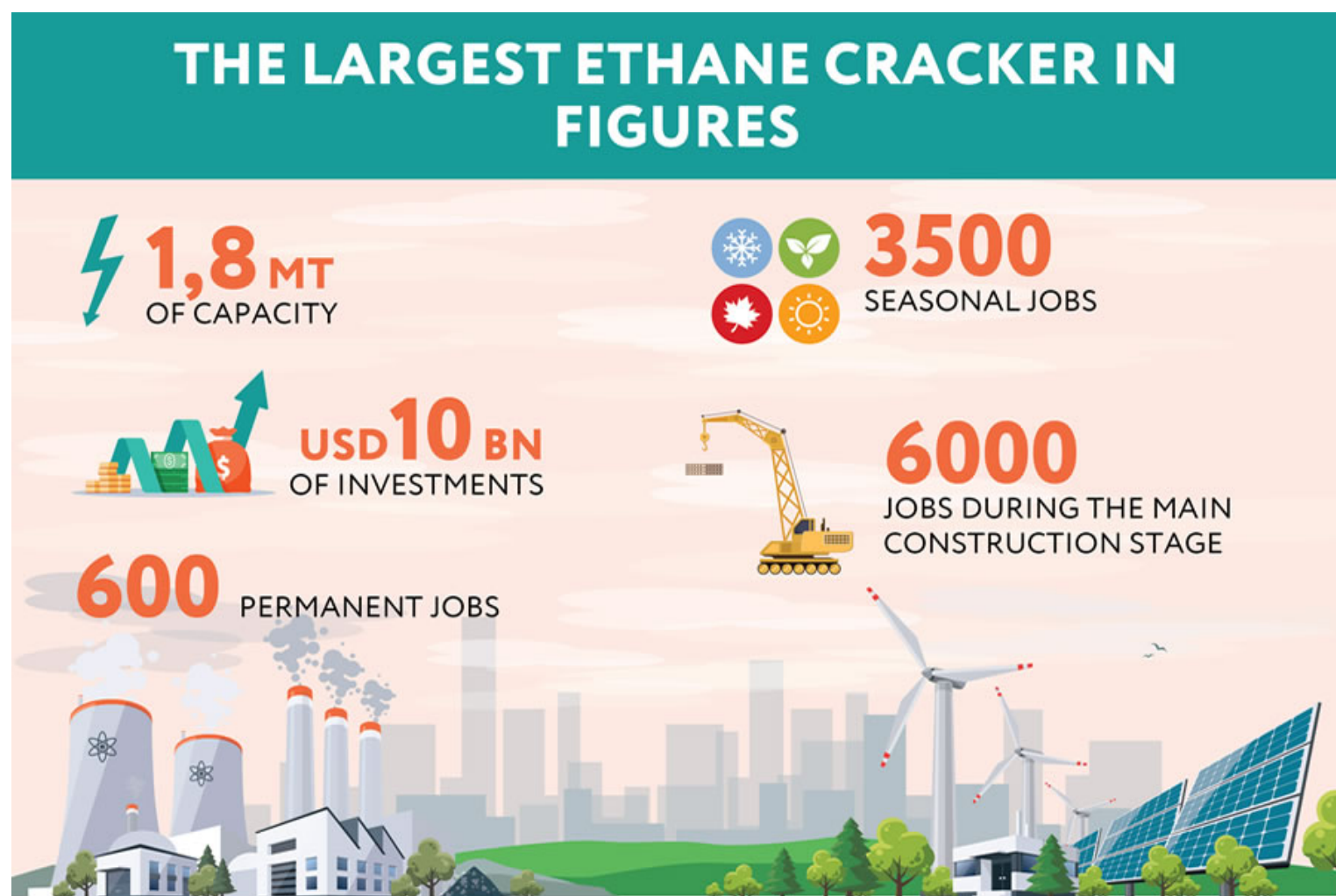
FROM 2011 TO 2017, PETROCHEMICAL OUTPUT IN THE USA INCREASED BY SOME 14 MTPA, WHICH IS SLIGHTLY LOWER THAN IN THE MIDDLE EAST, ACCORDING TO IHS MARKIT.

The next decade, however, turned the tables. The Middle East is currently facing a shortage of natural gas that caused producers to substitute dwindling supplies of ethane with more expensive feedstock derived from crude oil. Meanwhile, the U.S. shale revolution unleashed by the start of shale gas production from the vast deposits of West Texas and other regions, boosted NGL reserves and flooded the market with cheap petrochemicals. From 2011 to 2017, petrochemical output in the USA increased by some 14 mtpa, which is slightly lower than in the Middle East, according to IHS Markit. This year may well be a turning point, with the U.S. expected to further ramp up its production capacities by 14 mtpa towards 2020, which is twice as much as slated for commissioning in the Middle East.

In shale we trust

Market players believe that the shale boom is likely to continue. This is confirmed by experts, with IHS Markit, for one, predicting that by 2021, ethane production in the USA will grow by 60% to 2 mbpd. With this in mind, the Middle Eastern majors have turned to the Gulf Coast aiming to diversify production.

For example, SABIC and Exxon Mobil Chemical recently announced the launch of Gulf Coast Growth Ventures. The project provides for the construction of a 1.8 mtpa ethane steam cracker in San Patricio County (Texas, USA). The world's largest plant of its kind will process ethane into ethylene, the main component of most plastics. Slated for launch in 2021–2022, it will become part of a USD 10 bn petrochemical complex near Corpus Christi, Texas.



Ambitious plans

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Recently, Exxon Mobil has launched two 650 ktpa polyethylene lines at its plant in Mont Belvieu, Texas. In addition, the company revealed its plans to put on stream a new 1.5 mtpa ethane cracker in Baytown, Texas, as early as in mid-2018.

Phillips 66 and Chevron Phillips Chemical also plan to commission an ethane cracker on the Gulf Coast in late 2019 and are currently waiting for the final investment decision to proceed with the construction.

Motiva Enterprises, a subsidiary of the state-owned Saudi Aramco engaged in oil refining is weighing the launch of a Texas-based mixed-feed ethylene production line and a petrochemical facility using oil provided by Honeywell UOP. The projects expect some USD 8–10 bn worth of investments.



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“Today, the Middle East is having a hard time attracting investors,” said Alex Lidbak, head of global chemicals, polymers and fibers for research firm Wood Mackenzie.

“The feedstock is nowhere near as advantaged as it once was. Many petrochemical companies are looking at the United States for their next growth phase. The Gulf Coast is particularly attractive because of its established network of pipelines and production facilities adjacent to major export hubs,” he added.

