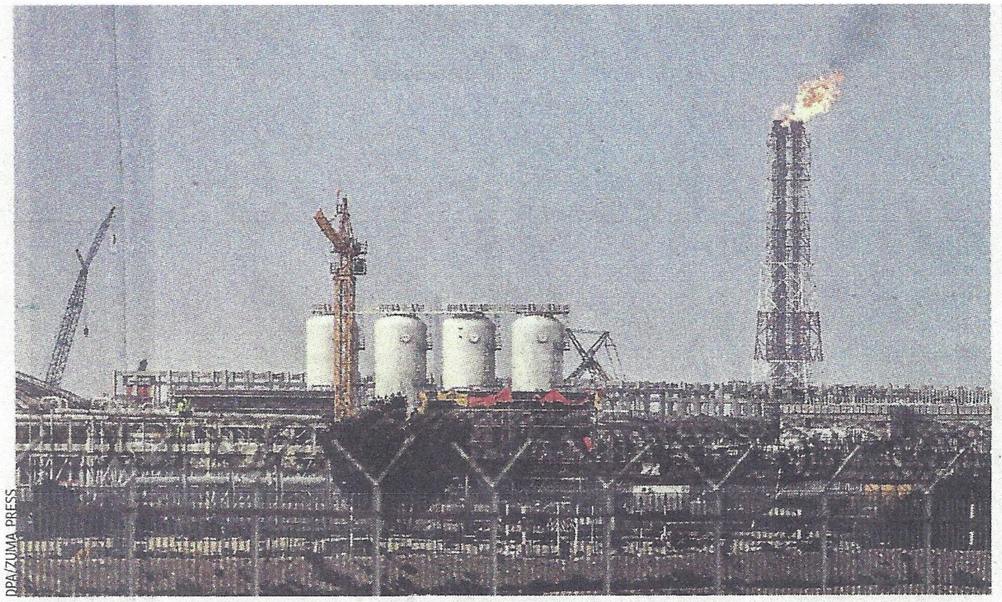


DPA/ZUMA PRESS

Qatar's Ras Laffan liquefied natural gas facility. Helium is a byproduct of LNG production.

How the Iran War Could Hit Big Tech: A Helium Shortage

Last severe shortage in 2022 involved Russia-Ukraine conflict

Helium, a gas that is critical for semiconductor manufacturing, is in the crosshairs of the Middle East conflict. That is bad news for a global tech supply chain that is already straining to meet demand for artificial intelligence.

Most helium supply is a byproduct of natural gas production. Iran's strike on Qatar's Ras Laffan complex—the world's largest LNG export facility—has closed off a key source.

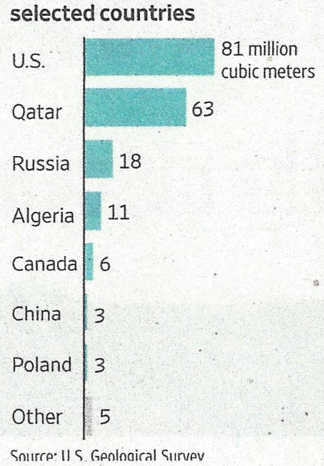
All three helium production facilities in Qatar are shut down at the moment: One of the plants was already closed because of a pipeline repair, while the other two stopped production as a result of the Iranian strike, according to Phil Kornbluth, president of Kornbluth Helium Consulting.

Qatar produces about a third of the world's helium, making it the second largest producer after the U.S.

Spot prices of helium are up 35% to 50% compared with a week ago, said Kornbluth. That spot price won't flow through to all buyers immediately, as most helium is secured through long-term contracts rather than spot markets, he noted. The last severe shortage was in 2022, when the Russia-Ukraine conflict affected helium supply from Russia, worsening already-tight market conditions. Russia is the third largest producer of helium.

The severity of impact on helium markets will depend in part on how long the Ras Laffan repairs take. But the bigger question is when the Strait of Hormuz will open up because most Qatari helium ships go through there, Kornbluth said.

Helium production in 2025, selected countries



Source: U.S. Geological Survey

Helium is critical for chip manufacturing, MRI machines, scientific research and even national defense. It is inert, meaning it doesn't react with other elements, and has high thermal conductivity, which make it ideal for a wide range of uses including semiconductor manufacturing.

Earlier this week, a top South Korean politician warned that a prolonged Middle East conflict could hurt the country's chip industry, noting that its firms source helium from the region. Samsung Electronics and SK Hynix are two big chip-makers that dominate the country's stock exchange.

Helium's sudden importance is a reminder that the longer the conflict goes on, the more dominoes will fall in the global economy.

—*Jinjoo Lee*