



HELIUM SHORTAGE

UPCOMING PROJECTS

The worst of Helium Shortage 3.0 is behind us, but we're not out of the woods yet - helium supplies are still low, and this is expected to last well into 2020.

However, a light at the end of the tunnel is expected in 2021 and beyond – new projects in the next few years are expected to produce 3.5 billion cubic feet (bcf) of annual capacity in 2021-2025.

Where exactly is this additional supply coming from? Amongst the biggest of the projects are Air Products' expansion of its Arzew, Algeria helium fields, and the beginning of production for Qatar 3, set to add to the supply this year. If these alone aren't enough to end the shortage, Gazprom's Amur Project is also set to begin producing in 2021, and is predicted to boost the world's helium supply out of the shortage by the second quarter of 2021. Gazprom's project will extract helium from natural gas, which will be transported to China through the Power of Siberia Pipeline. This project is set to add 2.1bcf per year to the world capacity.

Other new helium sources are expected to add to the supply. Irkutsk Oil Company's plant, currently under construction, is expected to bring in 266mmcf per year, starting in 2022. Saudi Aramco is also planning a new plant, due to be completed in 2023, which will produce 230mmcf per year. Significantly, Qatar gas have announced their intention to add 33 million tons per annum to their LNG production capacity by 2024. While specifics of this expansion have not yet been revealed, it is widely expected that a Qatar 4 helium plant with a capacity of around 800-900mmcf will be announced shortly after the new LNG capacity is commissioned.

In addition to these larger projects, there are activities taking place to develop new helium sources. For example, in the Southwestern US, there are several start-up companies trying to recover helium from non-hydrocarbon sources. There are also several companies in the Four Corners area who currently produce around 100-150mmcf per year, and who are likely to increase production, although it is hard to pinpoint exactly how much their production will increase by.

Similarly, other companies are exploring Canada for helium sources. North America Helium is thought to be close to ordering its first large scale helium plant by the end of 2021. Weil Group Resources plan to restart their Mankota, SK, plant once they have sourced a supply of feed gas.

There's also a lot of potential on sub-Saharan Africa, for example, Renergen's Virginia Gas Project, which is planned to start producing both helium and LNG during 2021, is predicted to produce 25mmcf of liquid helium. The company are also evaluating an investment to increase the plant's helium production threefold by 2023.

While we've experienced three helium shortages since 2006, totalling 7 years of shortage between 2006-2019, these new projects and expansions of existing projects imply that the future of helium will be much brighter. Phil Kornbluth, President of Kornbluth Helium Consulting, asserts that "the world is not running out of helium any time soon," and that once the Amur Project has entered the market, there will be no more multi-year shortages.

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