Air Products Syngas Solutions
Providing turnkey solutions to convert hydrocarbon feedstocks into synthesis gas for high-value products and power

What differentiates us?

- **Air Products Syngas Solutions** offers complete turnkey gasification complexes under an Air Products-owned “Sale of Gas” model.

- **Air Products Syngas Solutions** has a multi-decade experience base at the world’s largest scales and highest efficiencies for each of the technologies.

- Air Products has proven technology that meets all cleanliness specifications required around the world.

- Optional carbon capture technologies are available from Air Products that have demonstrated cost-effective carbon capture at the million-ton-per-year scale.

- By providing the complete syngas ‘island,’ Air Products can optimize water, steam and optional power generation to best suit your requirements.

Air Products Syngas Solutions—experience and technology that deliver a steady revenue stream...and peace of mind.

Air Products Syngas Solutions offers complete turnkey gasification complexes under a “Sale of Gas” model, where Air Products builds, finances, owns, and operates the syngas production facility. We pioneered this industrial gas financial model allowing customers to focus valuable capital, management and personnel on their own primary value-added products. Our experience is in industrial gases...so let us take care of the complexities of running the syngas island.

We can provide a variety of highly reliable and low-cost syngas solutions tailored to convert hydrocarbon feedstock for your process requirements. These include:

- **Solid hydrocarbons**: coal, petcoke or biomass via gasification

- **Liquid hydrocarbons**: refinery bottoms via residue gasification

- **Gaseous hydrocarbons**: natural gas, ROG via SMR.
Air Products Syngas Solutions: converting feedstock to syngas

Solid hydrocarbons: Coal, Petcoke or Biomass—via Gasification
For over 40 years, Air Products has successfully built and operated world-class gasification plants to convert the most commonly used solid feedstocks for coals-to-chemicals, synthetic fuels or power. We can convert the widest range of solid hydrocarbon feed types from lignite to anthracite, including petcoke and biomass blends into clean syngas.

Liquid hydrocarbons: Refinery bottoms—via residue gasification
Air Products can tailor a cost-efficient, high-value solution for the “bottom of the barrel” residue in a refinery complex. This adds extra value and profit to the refinery as the world transitions away from high-sulfur fuel oil and bunker fuel.

Air Products Syngas Solutions combines Shell’s residue gasification technology with Air Products’ world-recognized air separation technology to convert a wide range of low-value refinery residues and asphaltenes into syngas for:
- Integrated gasification combined-cycle power generation with optional carbon dioxide capture;
- Hydrogen production via water–gas shift
- Petrochemical production.

Gaseous hydrocarbons: Natural Gas, ROG—via SMR
Air Products’ high-efficiency steam methane reforming plants produce syngas and/or hydrogen in volumes ranging from 1000 to 100MM standard cubic feet per day. As the world’s leading hydrogen supplier, we have the technologies and experience to develop optimized solutions to improve process efficiency, optimize gas usage, and improve safety. Whether you buy gaseous hydrogen under an on-site agreement or purchase the hydrogen plant, you will join customers in over 40 countries who count on Air Products. (www.airproducts.com/h2solutions).

For more information, please contact us:
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Air Products Syngas Solutions is part of Air Products and Chemicals, Inc.
The Air Products GP solid gasification technology was acquired from Shell Global Solutions International B.V. by Air Products and Chemicals, Inc. in 2018 and Air Products and Shell agreed to a global strategic alliance for residue gasification.

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