

Abstract
Process Economics Program Report 282
METHANOL TO GASOLINE
(December 2011)

Rising petroleum prices have once again focused global attention on using coal to manufacture liquid transportation fuels that can displace petroleum-derived gasoline and diesel. Interests in coal to clean transportation fuel technology will continue as an alternative to petroleum refining. ExxonMobil's commercially proven Methanol-to-Gasoline (MTG) technology, coupled with established commercial coal gasification and methanol technologies, provides an economically competitive and low risk option for the production of clean gasoline from coal.

Current interest in coal-derived liquid fuels has concentrated on approaches known as indirect liquefaction of which methanol to gasoline is a part. The other indirect technology for the production of transportation fuels from coal is known as Fischer-Tropsch.

This report highlights all major aspects of production of diesel, and/or gasoline as a fuel, along with long-term forecasts for the need for fuels on a global and U.S. basis. In addition to presenting our traditional techno-economic analyses to look at the current standalone methanol to gasoline and integrated options to produce gasoline from coal, we compare the integrated methanol-based route to the Fischer-Tropsch process to convert synthesis gas produced from coal gasification into a slate of fuel products including gasoline and diesel.



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METHANOL TO GASOLINE

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