

Coal-to-Clean Fuels and Power Projects Background Information

Prepared for:

Governor Brian Schweitzer



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By

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WMPI Pty., LLC – Company Location



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- WMPI Pty., LLC, based in Gilberton, Pennsylvania USA is organized to develop, own and operate advanced coal gasification facilities.
- The plants will typically use coal or other feedstock of little or no economic value.
- The end products of these facilities are:
 1. Ultra-low sulfur transportation fuels,
 2. Electric power,
 3. Thermal energy and
 4. Specialty products.
- WMPI Pty., LLC's first plant will be a 5000 Barrel/Day facility built on a 75-acre site adjacent to the existing Gilberton Power Plant. This plant will utilize proven technology from major international corporations such as Uhde, Shell Global Solutions, SASOL, Linde and ChevronTexaco.
- Construction will begin in 2005. Total estimated cost of the plant is \$612 million and will take approximately three years to build.
- Subsequently, WMPI Pty., LLC, will develop, own and operate advanced world-scale coal gasification facilities in other locations.

- **Environmental Beneficiation**
 1. Clean up Despoiled Lands
 2. Reduce Acid Mine Drainage
 3. Reduce emissions through Ultra-Clean Fuels
 4. Convert low-value materials such as coal refuse efficiently to clean and valuable products.
 5. Produce clean electricity.

- **Employment**
 1. Schuylkill County, the location of the Gilberton Coal-to-Clean Fuels and Power Project, is a severely economically depressed area. The WMPI Project will create 1,000 high paying jobs during construction, more than 150 high quality permanent jobs at the project site and approximately 600 permanent offsite jobs.
 2. According to the economic analysis done by the US Department of Energy, this project will create an additional 25,100 annual jobs.

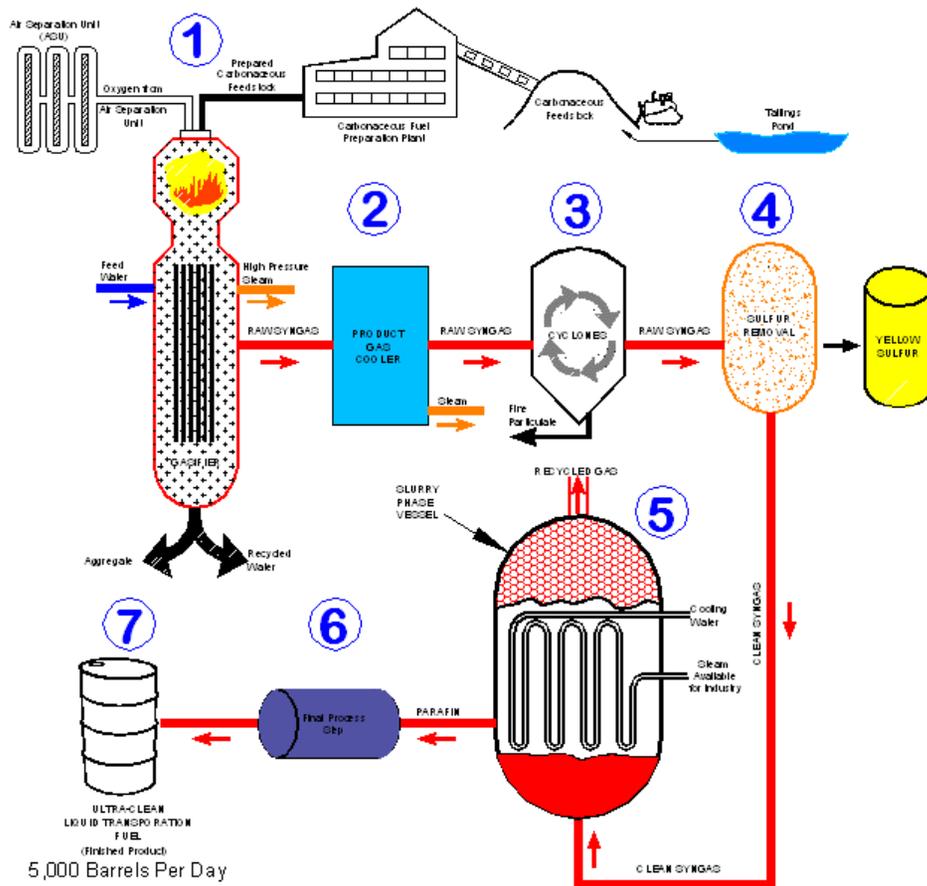
- **Reduce dependency on foreign oil**

- **Act as a key element in the President's plan to help America make the transition to a Hydrogen fueled society**

- **Sources of Funds:**

1. \$465 million in private financing – coordinated by the investment banking firm of Morgan Stanley and Co.
2. \$100 million in Federal participation through the US Department of Energy's Clean Coal Power Initiative ("CCPI")
3. \$47 million in Commonwealth of Pennsylvania participation through the Transferable Investment Tax Credit ("TITC") for Coal Waste Removal and Ultra-Clean Fuels.
4. The Federal government, in the recent Energy Bill, authorized and appropriated funding for a Federal loan guarantee for the debt portion of the Gilberton Project.

COAL GASIFICATION / LIQUEFACTION PROJECT Developer: WMPI Pty., LLC



www.ultracleanandiesel.com
www.ultracleanfuels.com

1. Carbonaceous feedstock and oxygen enter the gasifier.
2. Synthetic gas (syngas) is produced and cooled.
3. The syngas is cleaned of particulates.
4. Commercial Grade sulfur is removed (and later sold).
5. The syngas enters the Slurry Phase Vessel, is combined with catalysts, yielding paraffin.
6. The paraffin is processed, creating ultra-clean liquid fuels.
7. The completed liquid fuels are low in aromatics, sulfur and nitrogen with a Cetane Number greater than 70.

View of Gilberton Coal-to-Clean Fuels and Power Project Site

(seen from the existing Gilberton Power Plant roof)

with coal ash in foreground



*Project feedstock –
coal refuse, culm
and tailings*



*Project feedstock –
tailings pond*



*Fuel preparation
facilities
(left center)
and
power plant
(on ridge)*



*Project feedstock –
culm banks and
reclaimed area*



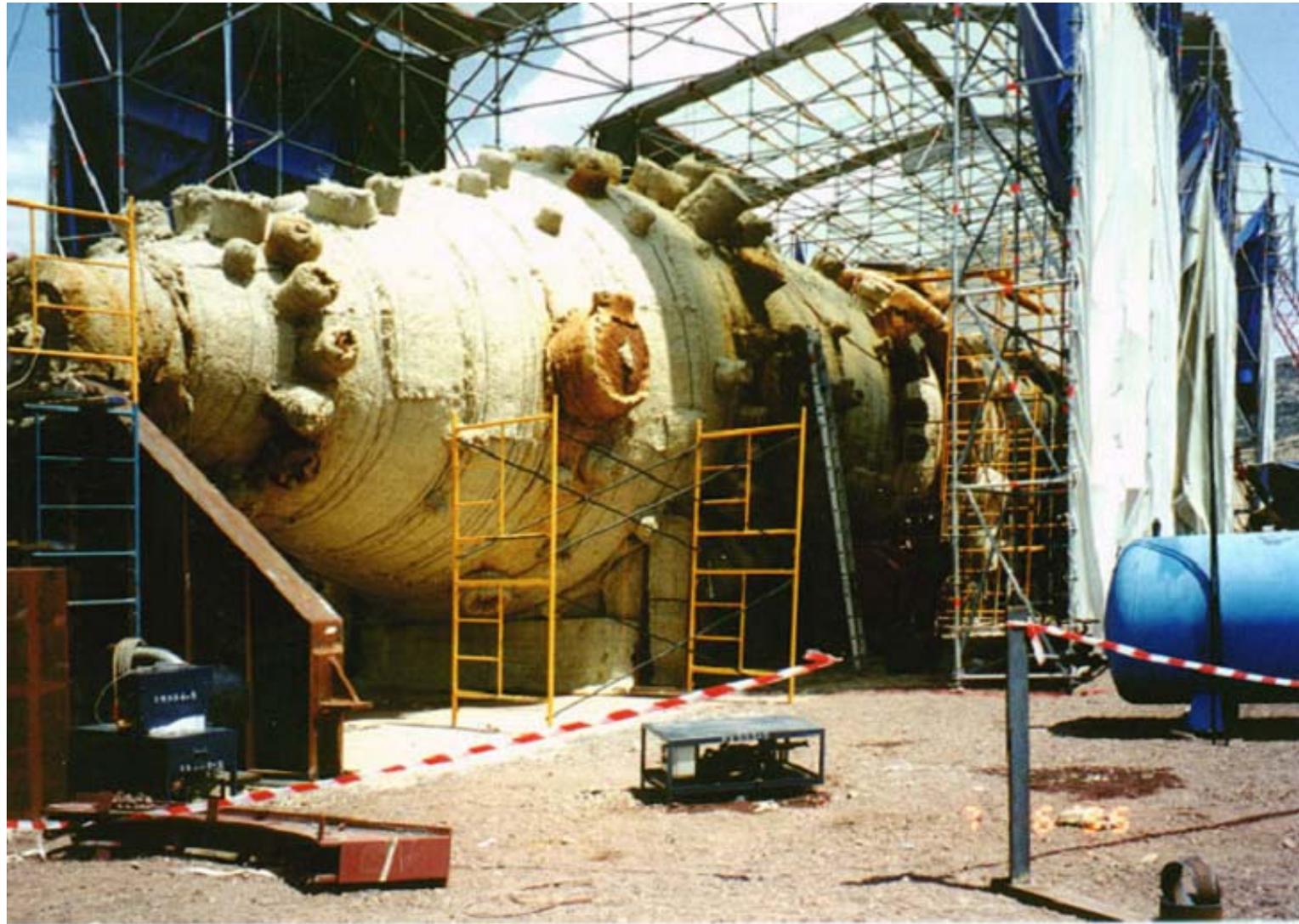
Mine pool pumps



Gasifier - Erection of Internals



Gasifier Vessel - Post Weld Heat Treatment



Lifting of Gasifier/HP-Boiler



***Transportation of
Slurry Phase
Fischer-Tropsch
Reactor***

(Source: Sasol Ltd.)



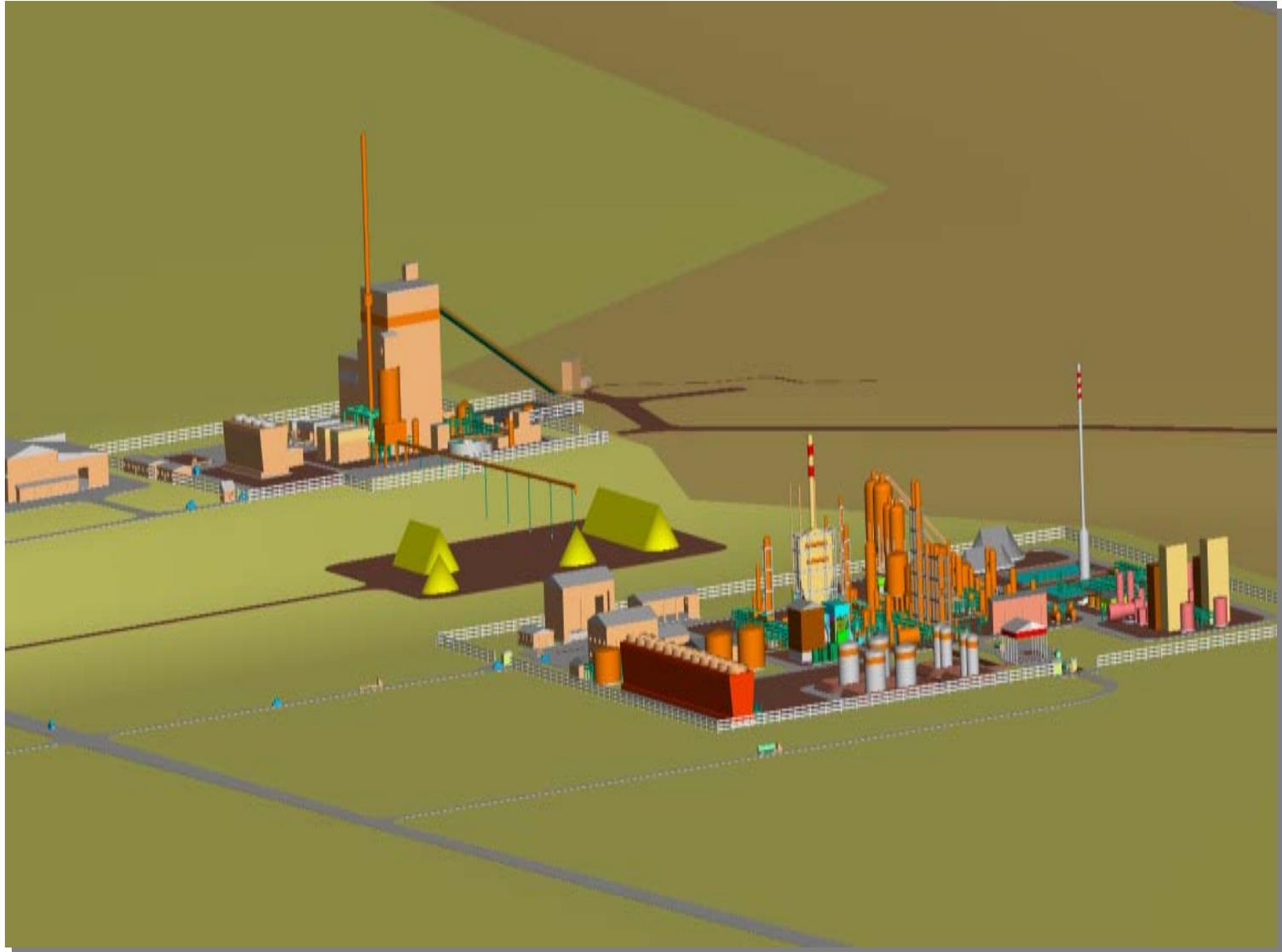
***Night View of the
Slurry Phase
Fischer-Tropsch
Reactor***

(Source: Sasol Ltd.)



Existing Gilberton Power Plant and Gilberton Coal-to-Clean Fuels and Power Project

Artist Rendering of the Existing Gilberton Power Plant (background) and the Coal-to-Clean Fuels and Power Project (foreground)



- Capacity: 57,000 barrels/day clean liquid fuels + 100 MW electric power
- Site Location: Mine mouth, run-of-mine coal
- Site Size: 1000 acres
- Feedstock Requirements
 - Quantity:
 - 1,000,000 Tons/month (10,000 BTU/lb.) - adjustments made on actual heating value
 - 400,000,000 Tons, total (35 years) – reserves of 100-400 million tons can be considered for smaller capacity projects
 - Quality: 10,000 BTU, run-of-mine coal
- Water: approximately 16,000,000 gal./day - usage can be reduced to optimize for site conditions
- Employment: Expected to be
 - 5,000 during construction (approximate, peak);
 - 400 during operation, onsite (approximate)
 - 2,400 during operation, offsite (approximate)
- Power Transmission: Enough for 100MW export
- Transportation: Barge, rail line and highway
- Permitting: Mining & heavy industrial as applicable and required
- Incentives:
 - Capital Equipment Support
 - Financial Incentives
 - Employee Training
 - Land, water, zoning