

HYDROGEN TO POWER

Newpoint Gas, LLC converts retired coal-fired power plants (CFPP) to use blue/green hydrogen as fuel with three precedent-setting results. In upcycling the retired generation station, Newpoint achieves (1) net zero carbon dispatchable power, (2) provides employment opportunities in cutting edge hydrogen energy technology to the CFPP's displaced workforce and (3) includes the ability to supply commercial scale clean-fresh water, which is produced during hydrogen combustion in power generation.

Blue hydrogen is derived from methane with the carbon captured and sequestered pre-combustion. The blue hydrogen process is proving its worth as a foundational, go-to hybrid energy source supporting the transition to an eventual green hydrogen economy as the technology advances. Newpoint's blue/green hydrogen technology platform has the capacity to merge the low environmental impact of renewable power with the reliable dispatchable generation of a natural gas fired power plant. This approach produces hydrogen that can also be distributed to support the emerging hydrogen economy which includes zero emission trucks/cars (without batteries) and fuel cells. Economic impact for a 225 MW facility follows below.

One-Time Construction Phase Economic Impacts

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	2,093	\$82,040,583	\$127,229,829	\$250,000,005
Indirect Effect	263	\$9,720,509	\$21,018,971	\$48,873,677
Induced Effect	344	\$12,647,005	\$26,086,299	\$48,005,676
Total Effect	2,700	\$104,408,096	\$174,335,099	\$346,879,359
Multiplier	1.29	1.27	1.37	1.39

Annual Operations and Maintenance Phase Economic Impacts

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	155	\$22,480,397	\$78,109,807	\$214,000,005
Indirect Effect	199	\$11,944,806	\$35,814,008	\$92,517,773
Induced Effect	128	\$4,706,003	\$9,707,777	\$17,871,111
Total Effect	483	\$39,131,207	\$123,631,592	\$324,388,889
Multiplier	3.10	1.74	1.58	1.52

Newpoint Gas, LLC

Innovative Oil & Gas Solutions

Newpoint's process incorporates methane reforming with hydrogen purification to separate the hydrogen and carbon dioxide pre-combustion. The carbon is sequestered underground and the pure hydrogen is used as fuel to produce steam-driven dispatchable power generation.

About Newpoint Gas, LLC is a privately held multi-fuels processing, conversion, and purification company. A design and build firm with over two decades innovating zero emissions oil & gas production and processing plant sites. Contact: Wiley Rhodes @ wiley.rhodes@newpointgas.com

KEY DEFINITIONS: The Multiplier is the ratio of the Total Effect to the Direct Effect. Employment is annual average jobs of full and part-time employees and self-employed people. Labor Income is composed of both the wages and benefits paid to employees, and the profits earned by self-employed people. Value Added (or Gross Regional Product) is the combination of Labor Income plus corporate profits, interest income, rental payments, sales tax, excise tax, property tax, fees, fines, and licenses. Finally, Output is the combination of Value Added plus the materials and services (other than employment) required by an industry to create its products.

One-time construction phase economic impacts were modeled using IMPLAN Sector 52: Construction of New Power and Communication Structures, and an assumed \$250M total construction cost. Annual operations & maintenance phase economic impacts were modeled using IMPLAN Sector 40: Electric Power Generation, and an assumed \$214M in total annual electricity sales. The geographic unit of analysis is Cibola and McKinley Counties, New Mexico. Outputs are displayed in 2021 dollars. Multipliers describe how, for a given change in a particular industry, a resulting change will occur in the overall economy. For instance, employment multipliers describe the total jobs generated as a result of 1 job in the target industry. Developed by Gilbert Michaud, Natalie Wilson, and David Jenkins, Ohio University's Voinovich School of Leadership and Public Affairs. For more information, please contact michaudg@ohio.edu.

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