

Converting High Hydrogen Fuel to Electricity

Some of Solar Turbines' customers have been operating on high hydrogen fuel (including coke oven gas) with greater than 50% hydrogen to generate power and steam over the past 10 years. Solar's combustion technology made use of high hydrogen fuel and turned it into sustainable energy, while reducing CO2 emissions in chemical and manufacturing industries.

Solar's Taurus 60 and Titan 130 gas turbine fleets, consisting of 46 units, have exceeded 2 million operating hours running on high hydrogen fuel. Our gas turbines successfully convert this fuel into clean sustainable power.

Shanxi Liheng Steel Co., Ltd. (Liheng Steel), a Solar customer, uses four Titan 130 gas turbines to burn high hydrogen fuel to produce electricity, and uses exhaust heat from the turbines to produce steam with more than 80% efficiency. As a result, Liheng's 55 megawatt CHP system has avoided CO2 emissions of more than



300,000 metric tons per year, compared with conventional energy sources and industry practices. This is equivalent to removing 55,000 passenger cars from the roads per year.

The company is one of the first companies in China to receive a Certificate of Avoided GHG Emissions from the U.S. Environmental Protection Agency Combined Heat and Power Partnership for its achievement in reducing carbon emissions with its combined heat and power (CHP) system.

Solar's experience with high hydrogen fuel will guide our customers to a more sustainable, decarbonized world.



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