

Air Products and Chemicals, Inc.

The following comments are being submitted on the proposed New York State Energy Plan on behalf of Air Products and Chemicals, Inc.

Air Products operates an air separation facility in Glenmont, NY and has a presence in twelve NYS communities through its health care subsidiary which provides home health care services. We employ approximately 350 people in NYS. Head-quartered in Allentown, PA, Air Products is the world's largest supplier of merchant hydrogen and is the leader in producing and distributing hydrogen safely and economically.

New York State should include the use of hydrogen as a fuel in its Energy Plan for the future. Hydrogen is renewable, abundant, efficient and is produced primarily from North America feedstocks. And, unlike other alternatives, it produces zero emissions when processed in a fuel cell. Many believe this versatile molecule will become the primary fuel and energy carrier of the future.

Currently there are a variety of investments and projects in NYS, which include major companies, that are demonstrating the validity of hydrogen as a fuel. Examples include: the NYSERDA funded HCNG station in Hempstead; GM is placing fuel cell vehicles and Shell is building hydrogen fueling stations; Honda has a fuel cell vehicle in Albany; and, there are fueling projects in Albany and Rochester. Additionally, hydrogen is being used in fork lift applications in warehouses and mass transit. Based on current energy prices, hydrogen can be produced and delivered, in large quantities, at prices that are competitive with gasoline. And, the supply of hydrogen is unlimited. Right now the United States could power 1 million cars with hydrogen from natural gas using the excess capacity of the steam methane reformers in operation today. The hydrogen produced in the steam methane reforming process is 50% derived from natural gas and 50% from water. One could consider this process 50% renewable.

Additionally, a changing portfolio of energy feedstocks will emerge in the future. Unconventional oils, biomass and biogas, as well as nuclear, solar, geothermal and wind power all have the potential to produce electricity AND hydrogen. This makes hydrogen and electricity the energy carriers of choice for the long-term. Moreover, hydrogen generation is clean. From "well to wheel" (that is through the entire product lifecycle), generating hydrogen from natural gas reduces GHG emissions 50% compared to gasoline.

As one of the fundamental energy carriers of the future, hydrogen can and should play a significant part in New York State's energy future. With sufficient demand for hydrogen fuel, the hydrogen fueling infrastructure can be built at a price that is competitive with the gasoline infrastructure. NYS can and should play a key role in making that demand happen. Therefore, we urge that hydrogen be included as you develop and finalize the NYS Energy Plan.