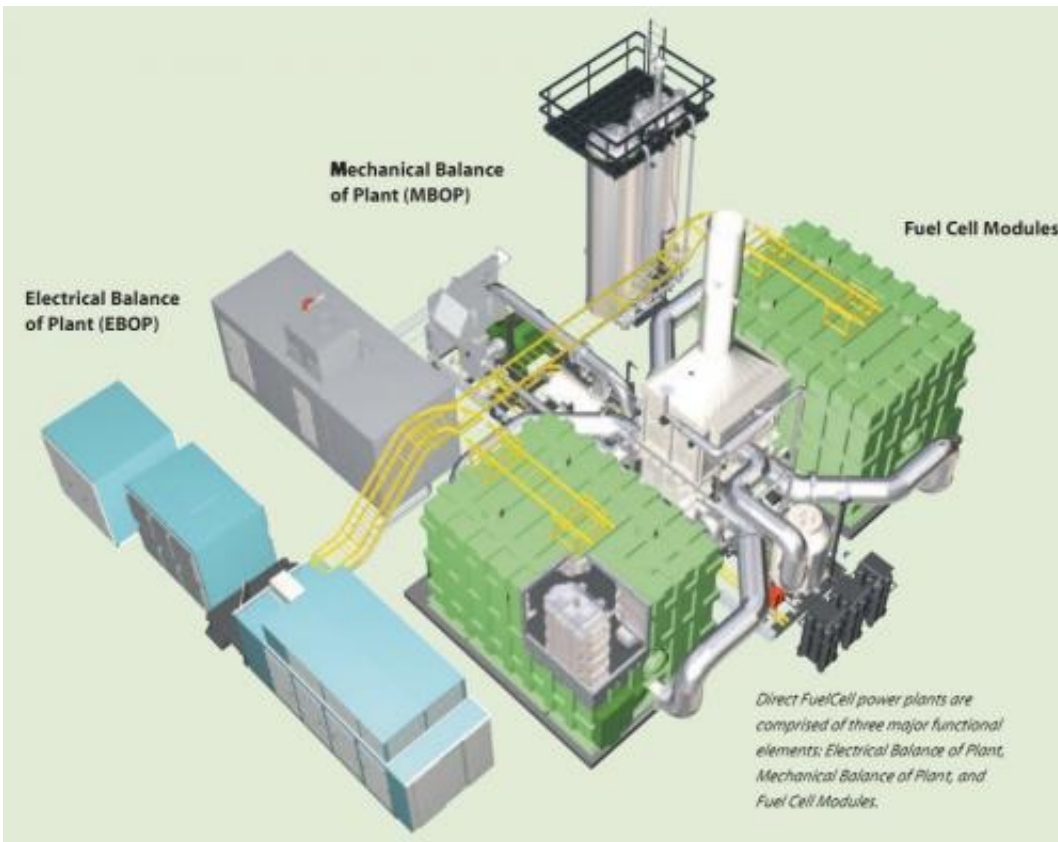


Fuel cell park in Connecticut is on board for 2013

December 19 2012, by Nancy Owano



(Phys.org)—North America's biggest fuel cell power plant is coming to Connecticut, and construction is to begin immediately. Dominion Resources, an energy company based in Virginia, and FuelCell Energy, a Connecticut manufacturer of fuel cell power plants, have announced the

fuel cell project. The facility is to go into operation next year. Dominion Resources has agreed to buy the fuel cell site in the city of Bridgeport, with the first plant installation starting up in the summer of 2013. The remaining plants will be installed in stages. Dominion will oversee the development and owns the facility. FuelCell Energy is to build, operate, and maintain the installations. The power-generating project is to feed the local grid in Bridgeport.

The process involves connecting this fuel cell park to electrical substations in the city. The project is to make use of natural gas as the [fuel source](#), transforming the natural gas into electricity. FuelCell Energy's technology uses a proprietary molten carbonate process to reform natural gas into a basic hydrocarbon, followed by an [electrochemical process](#) where hydrocarbon energy is converted into electricity. [Waste heat](#) from the [chemical conversion](#) process will be used to drive a turbine on the site.

The deal is attracting attention in view of a big utility buying into the potential of fuel cell technology. Dominion Resources is one of the country's biggest energy companies and is backing the planned 14.9-megawatt site which will produce electricity for approximately 15,000 homes. Connecticut Light & Power Company will buy the electricity under a 15-year purchase agreement.

FuelCell Energy, in its announcement of the project, presented reasons why fuel cell parks bring clear advantages.

Multi-megawatt fuel cell parks solve power generation challenges for utilities in urban locations, with lower pollutants, modest land-use needs, and quiet operating nature of the [power plants](#). "Fuel cells generate ultra-clean power and heat electrochemically, without combustion. The power is termed ultra-clean reflecting the dramatically lower quantity of pollutants in the power generation process such as nitrogen oxide (NO_x),

sulfur dioxide (SO_x) and particulate matter, pollutants that cause smog and public health issues."

They also said that generating power near the point of use lessens the need for electric utilities to invest in costly transmission and distribution grids.

Dominion owns renewable energy facilities in the United States, including wind farms in West Virginia and Indiana, a biomass power station in Virginia with three more under construction and hydroelectric power stations in Virginia and North Carolina. The company received permission from Virginia regulators to lease rooftops from commercial and industrial companies to build solar-powered generation as a pilot project. [Fuel cell technology](#) is now part of its portfolio as well.

More information: dom.mediaroom.com/2012-12-14-D...ect-In-North-America

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