



Husky Power Meets Storrs Campus Energy Requirements

Electric Capacity 24.9 Megawatts/Hour
Steam Capacity 565,000 Pounds/Hour
Chilled Water Capacity 12,000 Tons/Hour

UConn's energy requirements are growing as the University continues to construct a number of new buildings as part of its *UConn 2000* and *21st Century UConn* projects.

UConn's state-of-the-art Cogeneration Facility began operation March 15, 2006, replacing several oil-fired utility boilers and enabling the University to meet its own energy needs at the main campus.

Cogeneration is defined as the sequential production of both electrical or mechanical energy and useful thermal energy from a **single energy source**.

This allows over 80% of the fuel energy to be harnessed, versus 33% from a conventional electric power plant.

The Co-Generation facility provides a two-fold reduction in emissions:

-Natural gas, a cleaner burning fuel, is used by the facility to generate electricity and steam.

-Steam production in the process removes the need to construct separate steam-production facilities that would burn their own fuel and have their own emissions.

Most power plants on the electric grid are considerably less efficient than cogeneration facilities because they do not capture and utilize the steam for heating and cooling. Also, "distributed generation", like UConn's Husky Power, prevents the efficiency loss and congestion that occurs during transmission and distribution of electricity from the point of generation to distant electricity customers.

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Welcome

To



UNIVERSITY

OF

CONNECTICUT

**CENTRAL UTILITY PLANT AND
COGENERATION FACILITY**

POSITIVES FOR OUR ENVIRONMENT

Husky Power meets the Storrs Campus projected 2025 energy needs with high reliability while producing fewer emissions than comparable commercial grid generation.

Husky Power actively contributes to reducing greenhouse gas emissions and has reduced 30,000 metric tons CO2 equivalent each year of operation since 2007.

Husky Power also supports the Connecticut Clean Energy Fund providing 25% of the credits for statewide energy conservation and carbon mitigation programs.

Husky Power generates Connecticut Class III Renewable Portfolio Standard credits due to the highly efficient cogeneration of thermal and electrical power. 75% of the credits are used to fund additional on campus conservation and carbon mitigation programs.

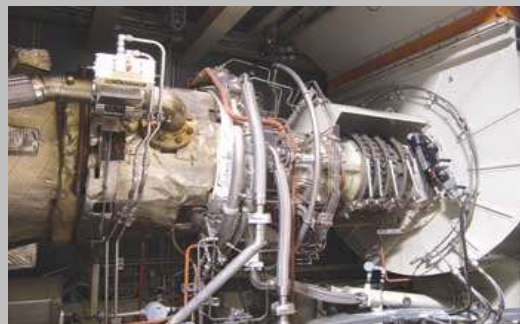
An average U.S. household uses about 11,000 kilowatt-hours (kWh) of electricity each year. UConn's commitment to STEM education, research, and economic development in Connecticut requires the equivalent of 20,000 household's energy

Additionally, the facility decreases energy costs over the operational life expectancy avoiding nearly \$180 million in additional energy costs while providing resiliency to protect essential research, housing, data centers, and community assets from climate change impacts



ELECTRICAL EFFICIENCY

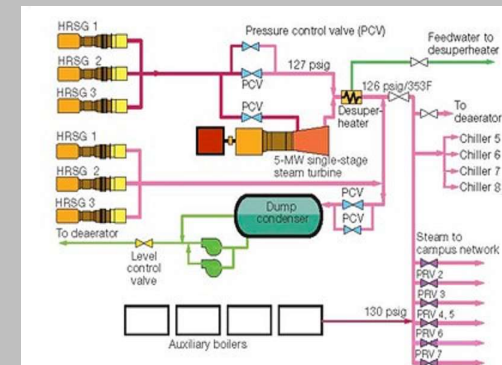
Husky Power uses low emitting natural gas for 98% of operations with ultra-low sulfur oil as a reliability insurance back up. Solar Taurus 70 turbine generators with environmental control packages produce the electricity. The turbines have an efficiency of 34%, with the remaining energy captured to produce steam. Additional efficiency is gained by passing high pressure superheated steam from the RenTech Heat Recovery Steam Generators through a steam driven turbine generator to produce additional electricity.



7.5 MW gas turbine at the UCONN Central Utility Plant viewed in the sound- and fire-proof enclosure.

THERMAL EFFICIENCY

Husky Power uses reduced pressure saturated steam to provide campus heating steam and / or to provide Chilled Water via the four York steam turbine driven chillers. The steam distribution network provides heating to over 50% of the Storrs Campus more efficiently than standalone boilers increasing the overall Husky Power efficiency to 62% annually.



For more information view the online

Energy Services Dashboard

<https://sustainability.uconn.edu/category/uconn-facilities/>