



All images courtesy Michael Singer Studio

cogeneration

TGE COGEN FACILITY

By making use of the heat typically lost in the production of energy, the TGE Cogeneration Power Facility demonstrates that we can wring still greater efficiencies out of fossil fuels.

PROJECT Cogeneration Power Facility
CLIENT TransGas Energy Systems
LOCATION New York, New York

- + Michael Singer Studio
- + Cannon Design
- + Oest Associates
- + William Reed
- + Sustainability Education Center

In the US, many power plants produce electricity by burning fuel to turn generators. Cogeneration practices collect excess heat, usually in the form of steam, to turn additional generators, achieving production efficiencies of 75 percent or more in the process.

HOW IT WORKS

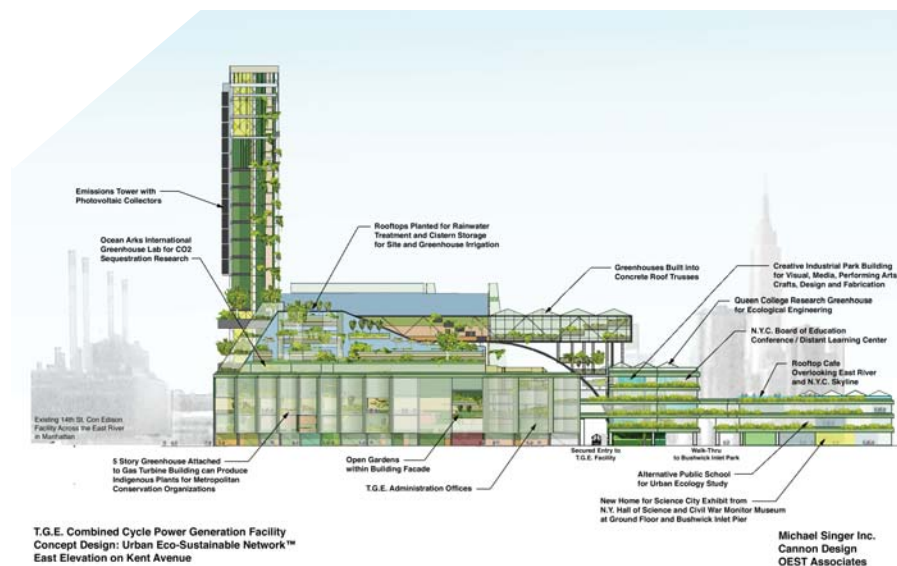
In 2002, Michael Singer was approached by TransGas Energy Systems to work on an early stage design for a new cogeneration facility. Singer's team explored how the new power plant could support the local community. It is designed to direct excess heat from the natural gas-fired generators and use it to warm public greenhouses, community spaces and administrative services in the building.

While not a carbon neutral solution, the Singer proposal demonstrates that we can wring still greater efficiencies out of the fossil fuels that we will likely rely on for years to come.

BENEFITS

The buildings and site of the facility were designed to become an armature for an "Urban Eco-Sustainable Network," including habitat creation, education, recreation areas, water preservation and growth of conservation plant material.

- + Increases efficiency of fossil fuels
- + Provides heated greenhouses
- + Creates community space



The proposed design, as shown in the aerial view above, included greenhouses that produced food and carbon capturing plants to filter emissions. The design section at right illustrates how public space was woven throughout the facility.