

# NET Power

La Porte, Texas, USA



## SUMMARY:

NET Power, a company owned by Exelon Generation, McDermott, 8 Rivers Capital and Oxy Low Carbon Ventures, has developed a new natural gas generation technology that produces low-cost electricity while eliminating all air emissions.



**Location:** La Porte, Texas

**Owners:** NET Power LLC

## A New Era of Energy

NET Power has developed a novel power system that produces low-cost, reliable, and flexible electricity from natural gas, while generating no atmospheric emissions, including full CO<sub>2</sub> capture and no NOx production. As the world moves towards lower carbon energy sources, NET Power has the potential to provide carbon-free, affordable, and flexible power from natural gas.

## Benefits

- Produces low cost electricity from natural gas
- When using air cooling, operates water-free
- Eliminates virtually all carbon emissions, with full capture of CO<sub>2</sub> and no production of nitrogen oxides
- Generates an additional revenue stream from sale of co-produced CO<sub>2</sub>, nitrogen, and argon industrial byproducts

## Technology

NET Power uses a technology called the Allam Cycle, which is a direct-fired, oxy-combustion, supercritical carbon dioxide power cycle. In simplistic terms, this means it burns natural gas with pure oxygen and uses high-pressure, high-temperature carbon dioxide to turn a turbine. By using the Allam Cycle, NET Power inherently eliminates air emissions and produces all carbon dioxide at pipeline pressure and quality.

## Demonstration Plant

NET Power has built a 50 MWth facility that demonstrates a full Allam Cycle power process. The plant achieved first-fire in May and is currently undergoing a rigorous testing program. The plant will provide the data necessary to commence detailed engineering of 300 MWe commercial scale plants for major power, oil, gas and industrial customers around the world.

**MCDERMOTT**