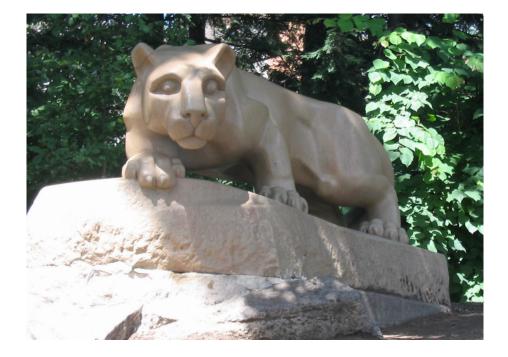
# RWE

## The Pennsylvania State University

**Energy Savings Performance Contract (ESPC)** 



Pennsylvania State University wanted to reduce both its energy consumption and its impact on the environment. In 2002, The University began the Guaranteed Energy Savings Program to reduce the university's energy use and carbon footprint at its many campuses and colleges around the Commonwealth.

There were four initial projects—Penn State Beaver, Penn State Erie (the Behrend College), Penn State Harrisburg and Pennsylvania State University (West Halls Residential Complex)—encompassing a total of 87 buildings and 2,459,916 square feet.



## **PROJECT DATA**

## LOCATION

Seven campuses in Pennsylvania

## CONSTRUCTION DATES

May 2006 to July 2009

## **CAPITAL COSTS**

\$8,399,593

ANNUAL SAVINGS

Energy Savings: \$953,468

## **ENVIRONMENTAL BENEFITS**

8,061 tons of harmful greenhouse gas emissions reduced annually

Equivalent to:

- Preserving 51.1 acres of forest from deforestation\* or
- Conserving 17,006 barrels of oil\*

## \*Sources:

• Leonardo Academy's Cleaner & Greener<sup>SM</sup> Emissions Reduction Calculator: http://www.cleanerandgreener.org/resources/ pollutioncalculator.html

. U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator: http://www.epa.gov/cleanenergy/energyresources/calculator.html

## RWE Clean Energy, LLC 844.896.2614

\*Please note that this project was completed under the name "Consolidated Edison Solutions, Inc." which was aquired in a stock sale by RWE AG on March 1, 2023, and is now part of RWE Clean Energy.



Three more campuses were added: Penn State Abington, Penn State Brandywine, and Penn State Great Valley.

Beginning work in 2006, RWE Clean Energy, through its subsidiary, Custom Energy Services, has completed seven projects to date for the university, including campus-wide projects at the facilities listed above.

Each project was developed to meet the unique needs of the campuses and were paid for with guaranteed energy savings.

> "RWE Clean Energy has been an excellent partner in our efforts to advance our energy efficiency goals throughout the Pennsylvania State University system. Partnering with RWE Clean Energy has allowed Penn State to develop and implement self funding environmental solutions at four campuses."

> > Bruce J. Smith Energy Program Engineer The Pennsylvania State University



## ENERGY CONSERVATION MEASURES/IMPROVEMENTS (ECMs)

## Lighting and Lighting Controls

- High efficiency lighting
- LED exit signs
- Occupancy sensors

### **Heating and Cooling**

- Variable air volume
- Steam system improvements
- Demand control ventilation
- Air handling units

### **Building Envelope**

- Weatherization
- Roof Insulation

## Water Conservation

Low-flow water fixtures

### **Renewable Energy and Other Upgrades**

- Electric rate switch and meter installation
- Mechanical system improvements
- Building controls and systems optimization
- Wind Turbine
- Retro-commissioning

RWE Clean Energy 100 Summit Lake Drive Valhalla, NY 10595 914.286.7000

## RWE Clean Energy, LLC 844.896.2614

\*Please note that this project was completed under the name "Consolidated Edison Solutions, Inc." which was aquired in a stock sale by RWE AG on March 1, 2023, and is now part of RWE Clean Energy.