



#FossilToClean

CASE EXAMPLE

Roche Diagnostics

CO₂-free site expansion in New Jersey



AT A GLANCE

BACKGROUND

The Roche campus in Branchburg, New Jersey, is an operations center where innovative medical diagnostic assays are developed and manufactured for use in clinical research in centralized labs and hospitals and in industrial settings. It employs 1,000+ staff and operates 24 hours per day, 6 days per week, to produce molecular diagnostic solutions for patients worldwide. The project was awarded Association of Energy Engineers Midwest US Region Energy Project of the Year 2024.

PROJECT IMPLEMENTATION

Roche wanted their site expansion to support the company's shift to CO₂-free electricity consumption. The site spanned a new 172,000 square-foot production building, warehouse and central utility plant was supplied with 100% sustainable electricity, representing a significant step toward creating a CO₂-free site.

CLEAN SOLUTIONS

Geothermal Energy Storage

Sixty probes were installed to cut down reliance on conventional energy. A 300,000-gallon thermal storage tank was installed to reduce reliance on natural gas, aligning with Roche's CO₂ reduction targets. Plans are underway to determine the feasibility of geothermal-based heating and cooling systems and other technological options for the remainder of the site.

Heat Pump Chillers

Heat pump chillers provide heating and cooling utilizing environmentally friendly R-1233zd(E) refrigerant to minimize additional energy consumption and environmental impact.

Triple Glazing Windows

These help reduce heat loss, enhancing energy efficiency.

QUICK STATS

- 60 geothermal probes
- 300,000-gallon thermal storage
- 600-ton heat pump chillers
- 98% of windows triple-glazed

KEY SUCCESS FACTORS

- Environmental compliance of geothermal probes to prevent groundwater contamination
- Collaboration with partners to ensure delivery on schedule
- Innovative problem-solving to meet sustainability objectives

Find more information at:
<https://www.wemeanbusinesscoalition.org/fossil-to-clean-business-action-checklists/>