



*“Our industrial processes needed a cooling solution that wouldn’t kill our costs. The Plug Smart engineers found a solution that was right under our noses – literally! The geothermal system works like a charm and cost less than the alternative from day one.”*

- Bob Michael, Plant Manager  
Crown Battery

### Technical Highlights

- Two 300-ft deep open-loop geothermal wells
- Two 15 hp pumps
- 720,000 gallons per day of 55 degree water

### Environmental Impact

- No need for harmful refrigerants
- 184,103 kWh annual savings
- Equivalent to removing 27 cars from the road

### Overview

**Project Type :**

**Commercial & Industrial**

**Facility Type:**

**Industrial Facility**

**Differential Cost:**

**\$25,000**

**Cost Savings:**

**\$13,000 Annually**

### The Client:

- Crown is a major manufacturer of industrial batteries, with a 170,000 square foot engineering and manufacturing facility located in Fremont, Ohio.

### The Problem:

- Crown had a need for process cooling for their battery charging stations. To accomplish this, they were contemplating the purchase of a 180-ton chiller to provide cold water.
- The chiller system was expensive and would have brought on consistently high operating costs.

### The Plug Smart Solution:

- Plug Smart found that drilling open-loop geothermal wells with plate and frame heat exchangers would deliver the right temperature ground water.
- The system had comparable upfront cost, and the two 15 hp pumps operate with 20% less energy than a chiller would have.
- The geothermal purchase allowed for \$32,000 in utility rebates.
- This project with was operational in less than ten weeks from the time that Crown gave their notice to proceed.