

Agricultural Energy Technical Services

Client: Critz Farms

Critz Farms is an “agritainment” farm in upstate New York that grows pumpkins, apples, berries, and conifer trees and invites families to harvest the agriculture. The farm includes a cider mill, barn, and café/ tasting room. About 70,000 people visit the farm each year to pick berries in the summer, apples and pumpkins in the fall, Christmas trees in the winter, and visit the tasting room or attend an event. The farm also produces 1,500 gallons of cider and 400 barrels of beer sold at the tasting room and distributed locally. The farm also has 2,000 maple syrup tree taps on 325 acres of land, and produces and sells 600 gallons of pure maple syrup annually.

Critz Farms wanted to reduce energy costs by making energy efficiency improvements to the cider mill (on one electricity account) and the barn, and café (on a second account). The farm was specifically interested in upgrading the cold storage—which was about half of their electricity load—and LED lighting and engine block heater timers. Both accounts have solar PV with net metering.

Frontier Energy conducted a Level 2–Detailed Energy Audit to evaluate the facilities on both electrical accounts. The cider mill has a tasting room, production room, warehouse, cold storage, brew house, kitchen, and cidery. The barn and café that includes a gift shop, equipment shop, cold storage, cider storage, and commercial foodservice equipment.

Based on the audit, Frontier recommended Energy Conservation Measures (ECMs) for the cider mill that amounted to total annual savings of 4,654 kWh, which is 26% of the cider mill’s total electric usage. For the barn, the total savings from recommended ECMs amounted to 2,634 kWh annually, which is 33% of the barn’s total electric usage.



FRONTIER ENERGY:

- Conducted a site visit and analyzed monthly utility bills
- Identified electric loads based on equipment and operating specifications
- Investigated measures the farm had identified as most desirable
- Investigated other measures that have been successful in other agricultural and foodservice operations
- Recommended specific measures based on cost-effectiveness and energy savings