

Cooling Tower Water and Energy Optimization



A multi-stage cooling tower optimization project improved energy efficiency by 75% and reduced well water consumption by 25% by involving rainwater harvesting and variable frequency drive (VFD) installation, saving about \$72,000 annually.

- ▶ Cooling tower has two 75 horsepower fans and prior to project implementation, accounted for about 50% of the site's total water consumption
- ▶ Additional benefits in reduced blowdown due to lower mineral content of rainwater, stormwater runoff, and volume to the on-site wastewater treatment plant
- ▶ Demonstrated the potential impact of project and set a precedent for expanding rainwater harvesting at the Manati site and replication at other sites

