

A Microgrid Solution For Your Pulp & Paper Facility

Microgrids with solar, cogeneration, and battery storage support energy resiliency and high-heat thermal processes at pulp & paper facilities.

As pulp & paper facilities evaluate their energy needs, energy and plant leaders typically face one or more of four challenges as they work to optimize their operations:



1. Resiliency

Ensure resiliency to allow for production even during long-duration outages



2. Sustainability

Meet evolving ESG and sustainability commitments of corporate leadership



3. Capex

Commit capital to upgrade infrastructure in order to increase plant capacity or maintain current production



4. Savings

Meet production cost targets by reducing the energy costs for the facility

Unison Energy

Unison Energy is enabling the energy transition for our customers. On-site microgrids support corporate ESG initiatives while providing resilient power — and our ESA model helps alleviate capital constraints and rising energy costs. A Unison microgrid allows plants to take control of their energy future:

- **Combined heat and power (CHP)** provides reliable, cost-effective electricity and can operate in island mode to provide power to the plant when the utility is down
- Using the **waste heat** to offset boiler usage improves efficiency and reduces the carbon footprint of the production process
- Adding in **solar** and **battery storage** where possible, including in parking lots, increases renewable energy
- Including **EV charging** stations for delivery vehicles or plant employees supports the energy transition



A Turn-Key Energy Solution

Unison Energy uses the Energy as a Service (EaaS) model to invest in facilities. We sign a long-term contract to provide electricity and thermal energy. We invest all of the capital required and handle permitting, engineering design, equipment, construction, and ongoing maintenance. We only bill for energy used by the facility.

Typically our clients see:

- 5-15% saved on total gas and electric bills
- 20-60% reduced CO2 emissions depending on location and thermal load
- 60-85% system efficiency vs. 38% grid efficiency

Our scope includes on-site microgrids using CHP, solar, and battery storage, but can be expanded to include energy infrastructure upgrades such as boiler upgrades, HVAC replacement, and EV charging stations.

An on-site microgrid is an investment in the future. As additional technologies and fuel sources become available, such as biofuels, renewable natural gas, hydrogen, and carbon capture, they can be incorporated into the existing infrastructure. Electrification of everything from vehicles to heat pumps can also be incorporated into the system.

Unison Energy as a partner:



Build

Our team has experience permitting, designing, and building hundreds of sites, including everything from utility power plants to fuel cells to small CHP installations



Operate

Our operations team leads the industry in uptime, with a 24/7 staffed monitoring center, dedicated field service technicians, large inventory, and proprietary technology



Energy as a Service

Our projects stay on our balance sheet. Under the terms of our 15- to 25-year energy services agreements (ESA), our customers make no initial investment and instead make payments based on their energy usage