

# **GOOD ENERGY FOR**

# FOOD PROCESSING HEATING

SAVE ON HEATING REDUCE EMISSIONS IMPROVE BRAND VALUE







# BETTER HEAT FOR FOOD PROCESSING OPERATIONS

Food processing requires heat - lots of heat, reliably, consistently, and often at high temperatures. Facility owners looking to save on heating costs, or exposure to variable energy prices, face a challenge: How can I improve profits and sustainability without disrupting my finely-tuned operations?

SunDrum Solar provides a solution. Our suite of technologies combines photovoltaic solar, solar thermal, and heat pump technology into integrated systems that provide high-volume, high-quality, consistent & reliable heat at a cost that saves food processin owners thousands of dollars over time.

# **IMPACT**

SunDrum Solar substantially reduces the cost of heating for food processing facility operations compared to natural gas, propane, or electrical resistive heating. A SunDrum Solar system improves the sustainability of your facility operations while increasing profits by thousands each year.





# BENEFITS FOR PROCESSING FACILITIES

SunDrum Solar provides the heat hospitality operations need at a lower and more consistent price than natural gas, propane, or electrical heating.



#### Spend less on heating

Delivers heating at a lower lifetime cost than natural gas, propane, or electricity - improving profitability



#### Meet your heating and cooling needs

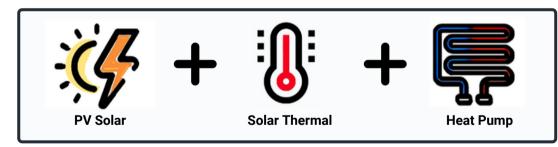
Provides 24/7 heating up to 160°F - enough to offset the majority of heating demand - alongside highly efficient cooling



#### Take advantage of incentives

Offers federal and state energy rebates to offset more than 40% of the cost of a well-qualified system

## **HOW DOES SUNDRUM SOLAR WORK?**



SunDrum Collectors mount directly behind conventional photovoltaic (PV) panels. A heat transfer fluid (propylene glycol) moves heat from the panels to an integrated heat pump to provide water heating.

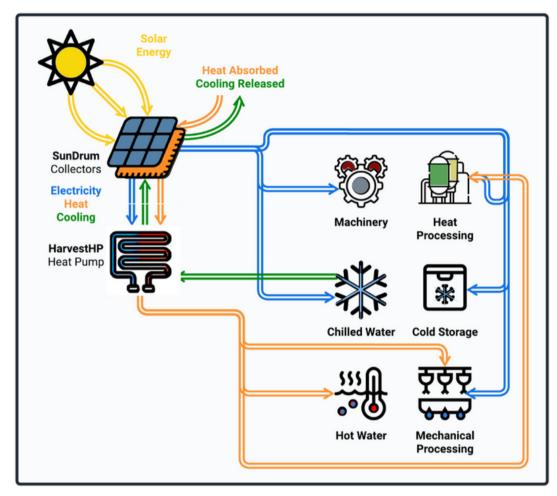
When the sun is bright, the sunlight on the panels provides a direct source of heat for high-temperature, continuous water heating. When the sun is dim, the integrated heat pump pulls heat from the surrounding air, providing ondemand heating at high efficiencies 24/7.

The result: 8x more solar energy capture than conventional solar with the same number of panels.





# INTEGRATING SUNDRUM SOLAR



SunDrum Solar integrates directly with your existing food processing operations, combining solar thermal, photovoltaic, and heat pump technology to provide 24/7, reliable water and space heating at temperatures high enough to support processing operations.

In operations requiring simultaneous heating and cooling - such as chilled water and heating - SunDrum Solar can operate at coefficients of performance (COPs) as high as 16 - delivering more heat with less energy than any other system on the market.

In other words, SunDrum Solar dramatically reduces food processing heating and cooling expenses, while eliminating associated emissions.

SunDrum Systems are designed specifically based on each client's goals, priorities, and resources.





## **EXAMPLE SYSTEM**

Consider a food processing facility with 15,000 annual therms of heating demand. This client aims to offset 60% of their thermal load using SunDrum Solar. They are also installing new PV panels.

**Heating Goal:** 9,200 Therms

**SunDrum System Size:** 130 Collectors

PV System Size: 150 PV Panels

**Annual Therm Savings:** 9,200 Therms

Annual kWh Savings: 99,000 kWh

**Annual Savings Value:** \$70,000

**Annual Financing Cost:** \$30,000

Net Annual Savings: \$40,000

Annual kg CO2 Avoided: 48,000

Net Lifetime Savings: \$1,500,000

SunDrum Solar would reduce their net heating expense by nearly 24% in the first year, with this benefit increasing over time. In addition, the site would significantly reduce its cooling and chilled water expense. Note each client's benefit will depend on energy prices, financing terms, and incentive eligibility.

# IMPROVING FACILITY PROFITS

SunDrum Solar provides continuous, reliable heat that meets the ondemand heating needs of food processing operations. SunDrum Solar significantly reduces lifetime expenditure on heating, markedly improving profitability while reducing operational cost variability.

SunDrum Solar can also help increase the share of total emissions offset by sustainable and renewable solutions, improving eligibility for incentive programs like REAP and other grants and opportunities targeting sustainability.

# **NEXT STEPS**

Contact SunDrum Solar today to begin the process of engineering your system and taking advantage of reduced heating costs, increased incentives, and improved system profitability.

Our proven system has been installed at over 200 sites nationwide, and our systems have reduced carbon emissions by over 17 million pounds - and counting. **Make SunDrum Solar a part of your sustainability strategy today.** 

