



# SunCatch Ltd

## SAMPLE PROJECT PROPOSAL for installation of Concentrating Solar Thermal (CST) with Thermal Energy Storage (TES)

<b>PROPOSER:</b>	SunCatch Ltd
<b>In collaboration with:</b>	Jordan Energy
<b>CUSTOMER:</b>	Sustainable Dairy LLC*
<b>Location:</b>	123 Milky Way, Cowville, CO*
<b>System type:</b>	Concentrating Solar Thermal System (CST) with Thermal Energy Storage (TES)

\* The company's name and location are fictional, while the data is applied from a real dairy farm.

### Dairy farm thermal energy consumption data

Current expenses	Heating Electricity- Natural Gas- LP-	<b>4,884.32 monthly average</b> <b>1,933.55 monthly average</b> n/a (6,817.87 total monthly average)
Maximum consumption of thermal energy per day		<b>2,613.33 kWh/day</b>
Maximum hot water consumption		<b>900 gal. three times a day</b>
Annual thermal energy consumption		<b>351,120. kWh</b>
Maximum required temperature of hot water		<b>180 F</b>
Do you require CST to be off grid?		<b>off grid</b>

### PROJECT SUMMARY

Based on a professional evaluation of the data provided, site configuration and thermal energy demand, SunCatch Ltd proposes a freestanding Concentrating Solar Thermal (CST) system coupled with the Thermal Energy Storage (TES).

Sixteen solar modules built as a two-row CST will produce **224 kWh** of clean, renewable thermal energy under ideal circumstances.

TES of 3814 cubic feet volume will store enough thermal energy to guarantee a four-day consumption. This size of the system will be sufficient to supply all your thermal energy needs, account for low sunlight periods, and provide continuous operation and weather independence.

PROPOSED SCHEMATIC	SPECIFICATIONS
	<p><b>Freestanding Concentrating Solar Thermal System (CST)</b></p> <p><b>Design Notes:</b></p> <ul style="list-style-type: none"> <li>• Two rows of eight solar modules each.</li> <li>• Each row - 144 feet long.</li> <li>• Total area – 2,592 sq. ft</li> <li>• 224 kWh</li> </ul>



### Thermal Energy Storage (TES)

#### Design Notes:

- Material – SS 304
- 4” Styrofoam Insulation
- UV and weather resistant tent slipcover
- Size- 30’ x 13’ x 14’
- Total area – 390 sq. ft
- Volume – 3,814 cu. ft.
- Four-day thermal energy reserve (estimated).

### PURCHASE OPTION 1: Two-row CST (8 solar modules each) with TES and remote monitoring

COMPONENTS/SERVICE	COST, \$	NOTES
CST / Sixteen solar modules	\$ 177,212	built as a two-row CST system
Thermal Energy Storage (TES)	\$ 63,718	3814 cubic feet
Remote monitoring (IoT) <i>(OPTIONAL)</i>	\$ 500.00	Cloud monitoring service. One time setup fee
IoT service <i>(OPTIONAL)</i>	\$ 50.00 (first month service fee)	Network connectivity and a data transfer fee of \$50 will be applied monthly.
<b>SUBTOTAL:</b>	<b>\$ 241,480</b>	
Installation	\$ 30,634	Minimum cost. Subject to change depending on the landscape and ground condition.
<b>TOTAL:</b>	<b>\$ 272,114*</b>	<b>Tax is not included</b>

### PURCHASE OPTION 2: Two-row CST (8 solar modules each) with remote monitoring (WITHOUT TES)

COMPONENTS/SERVICE	COST, \$	NOTES
CST / Sixteen solar modules	\$ 177,212	built as a two-row CST system
Remote monitoring (IoT) <i>(OPTIONAL)</i>	\$ 500	Cloud monitoring service. One time setup fee
IoT service <i>(OPTIONAL)</i>	\$ 50 (first month service fee)	Network connectivity and a data transfer fee of \$50 will be applied monthly.
<b>SUBTOTAL:</b>	<b>\$ 177,762</b>	
Installation	\$ 20,000	Minimum cost. Subject to change depending on the landscape and ground condition.
<b>TOTAL:</b>	<b>\$ 197,762*</b>	<b>Tax is not included</b>

\* Due to the current inflation rate, market uncertainties, and projected price increases for major components of our technology, the quoted price is valid for the next 30 days only.

## EXPECTED PAYBACK PERIOD

	Cost of technology with installation	Current thermal energy expenses (based on monthly average database provided)	Payback period calculation	Payback period
<b>Purchase Option 1</b>	\$ 272,114	\$,4884.32 + \$1,933.55 heating electricity natural gas	\$272,114.00 / \$6,817.87 = 39.9 months / 12	<b>3.3 years</b>
<b>Purchase Option 2</b>	\$ 197,762	= \$ 6,817.87 monthly average thermal energy expenses	\$197,762.00 / \$6,817.87 = 29 months / 12	<b>2.4 years</b>

## WARRANTY

SunCatch Ltd provides a six-month manufacturing warranty.

In case when any manufacturing defects are discovered within six months of sale and installation, SunCatch Ltd will repair or replace components, resupply, or fix a problem with services at its own expense. This warranty covers only manufacturing defects and does not cover any damages caused by misuse, accidents, abrasion, exposure to solvents, acids, normal wear, or other man-related damages.

## SCOPE OF WORK

The quoted price for this system **includes** the following:

- Professional site review and assessment with shade analysis prior to installation
- System Design & Engineering
- Supply of all project related materials
- Project planning & controlling
- Technical & documentation support
- All labor required for installation.

The price **does not include**:

- Applying and receiving the Permit from local authorities.
- Taxes.
- Landscaping (can be quoted separately).
- Cutting / trimming the trees nearby installation area to avoid shading.

## PAYMENT TERMS

- 50% deposit is payable upon agreement of contract
- Balance due upon completed fabrication and prior to installation

### *Special Notes*

- System production predictions are based on weather data specific to your location and adjusted based on conditions at your site. Snow accumulation and shading of the array will affect system production. We have done our best to factor these into performance estimates, however production will vary from year to year. Data estimates are for informational purposes only. Due to the large number of variables.

Affecting efficiency and performance that are beyond SunCatch's control, SunCatch Ltd makes no warranty or guaranty that the equipment or system installed in accordance with this proposal shall perform in accordance with such estimates.

- For the off-grid operation of the proposed CST system, a 1 kWh supply of electric power from PV panels is required. PV technology can be quoted by our partner - Jordan Energy.

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