

City of Bethlehem, Pennsylvania

APPLICATION FOR CERTIFICATE OF APPROPRIATENESS (COA)

Building address 41 E Market St, Bethlehem, PA 18018  
Owner of building Christopher Fowler Phone [REDACTED]  
Owner's email & mailing address [REDACTED] (same)  
Applicant Christopher Fowler Phone: [REDACTED]  
Applicant's email & mailing address [REDACTED] (same)  
Street and Number City State Zip Code

**APPLICANT MUST ATTEND MEETING FOR CASE TO BE HEARD.**

**USE THE CHECKLIST ON THE BACK OF THIS APPLICATION TO ENSURE YOUR SUBMISSION IS COMPLETE.**

*Application form, photographs, and drawings must be submitted (see attached for deadline) prior to the regular scheduled meeting in order to be placed on the agenda for the next meeting.*

1. **PHOTOGRAPHS** - Photographs of your building and neighboring buildings **must accompany** your application.

2. **TYPE OF WORK PROPOSED** - Check all that apply. Please bring any samples or manufactures specifications for products you will use in this project.

<input type="checkbox"/> Trim and decorative woodwork	<input type="checkbox"/> Skylights
<input type="checkbox"/> Siding and Masonry	<input type="checkbox"/> Metal work
<input type="checkbox"/> Roofing, gutter and downspout	<input type="checkbox"/> Light fixtures
<input type="checkbox"/> Windows, doors, and associated hardware	<input type="checkbox"/> Signs
<input type="checkbox"/> Storm windows and storm doors	<input type="checkbox"/> Demolition
<input type="checkbox"/> Shutters and associated hardware	<input checked="" type="checkbox"/> Other <u>Solar Panels</u>
<input type="checkbox"/> Paint (Submit color chips - HARB only)	

3. **DRAWINGS OF PROPOSED WORK** - Required drawings **must accompany** your application. Please submit **ONE ORIGINAL AND TEN (10) COPIES OF DRAWINGS, PHOTOGRAPHS, APPLICATION FORM, AND ANY SPECIFICATIONS**

☐ Alteration, renovation, restoration (1/4 or 1/8"=1'0" scale drawings required IF walls or openings altered.)  
☐ New addition (1/4" or 1/8"=1'0" scale drawings: elevations, floor plans, site plan)  
☐ New building or structure (1/4" or 1/8"=1'0" scale drawings: elevations, floor plans, site plan)  
☐ Demolition, removal of building features or building (1/4" or 1/8"=1'0" scale drawings: elevation of remaining site and site plan)  
☐ A scale drawing, with an elevation view, is required for all sign submittals

4. **DESCRIBE PROJECT** - Describe any work checked in #2 and #3 above. Attach additional sheets as needed.

Installation of Solar Panels at 41 E Market St and 54 E Walnut St.

5. **APPLICANT'S SIGNATURE** Ch. J. Fowler **DATE:** 8/30/23

**OWNER'S SIGNATURE** Ch. J. Fowler **DATE:** 8/30/23

























# INVEST IN YOUR ENERGY FUTURE

A customized proposal for:

Chris Fowler

41 E Market St

Bethlehem, PA 18018



# Why go solar?

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## SAVE MONEY

Your home solar system generates electricity at a lower cost than if you were to purchase it from your utility. You keep the savings.

## REDUCE YOUR CARBON FOOTPRINT

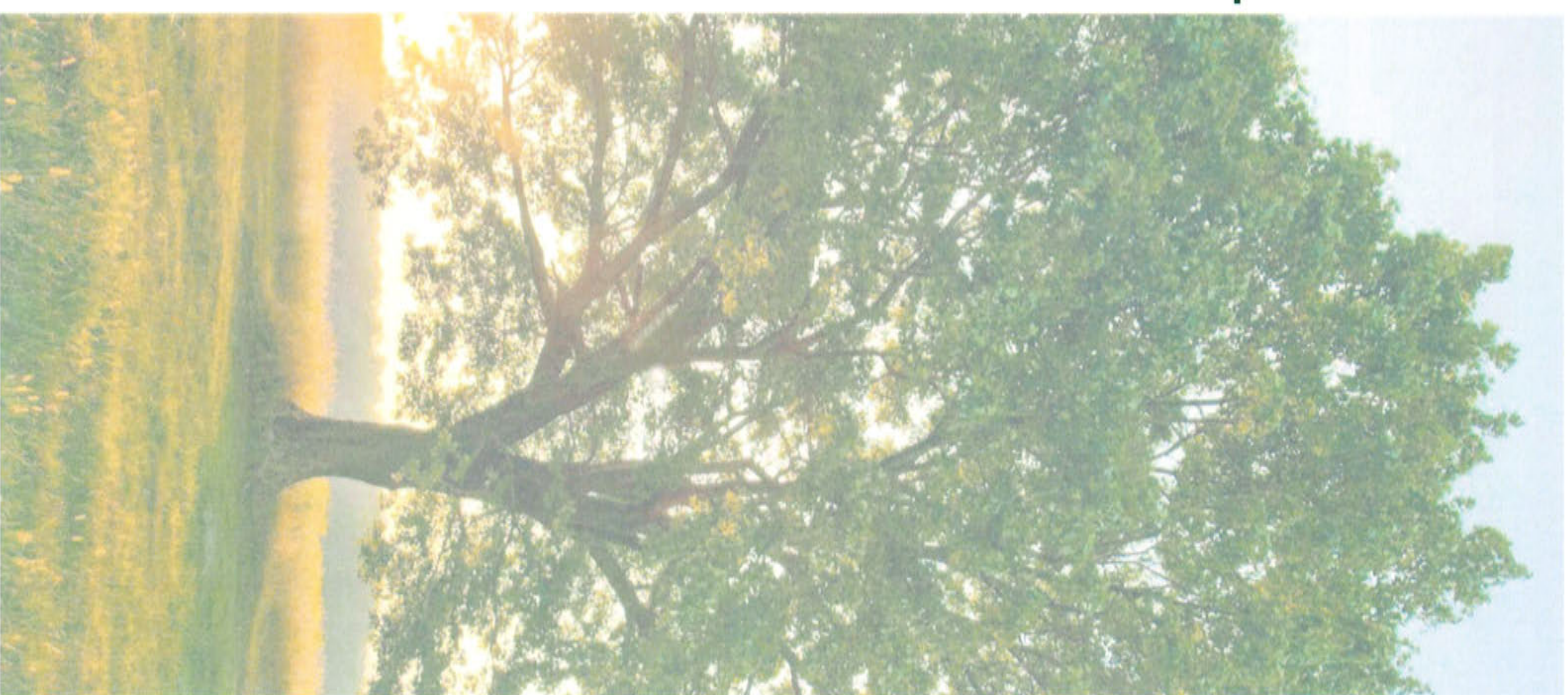
Power your home with sunshine.

## BE INDEPENDENT

Become less reliant on your utility by producing your own energy at home.

***What's got you interested?***

*(Hint: it doesn't have to be just one)*

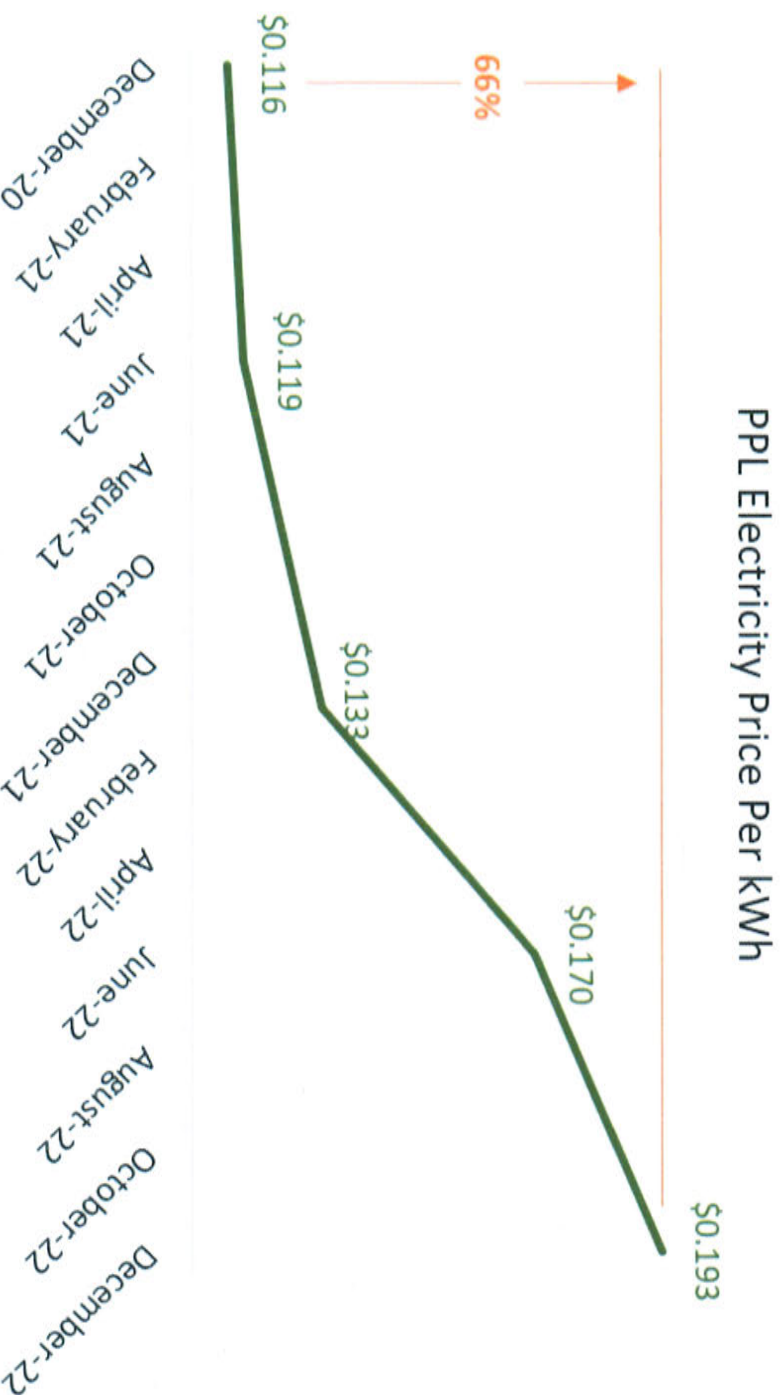




# Protect yourself from rising electricity rates

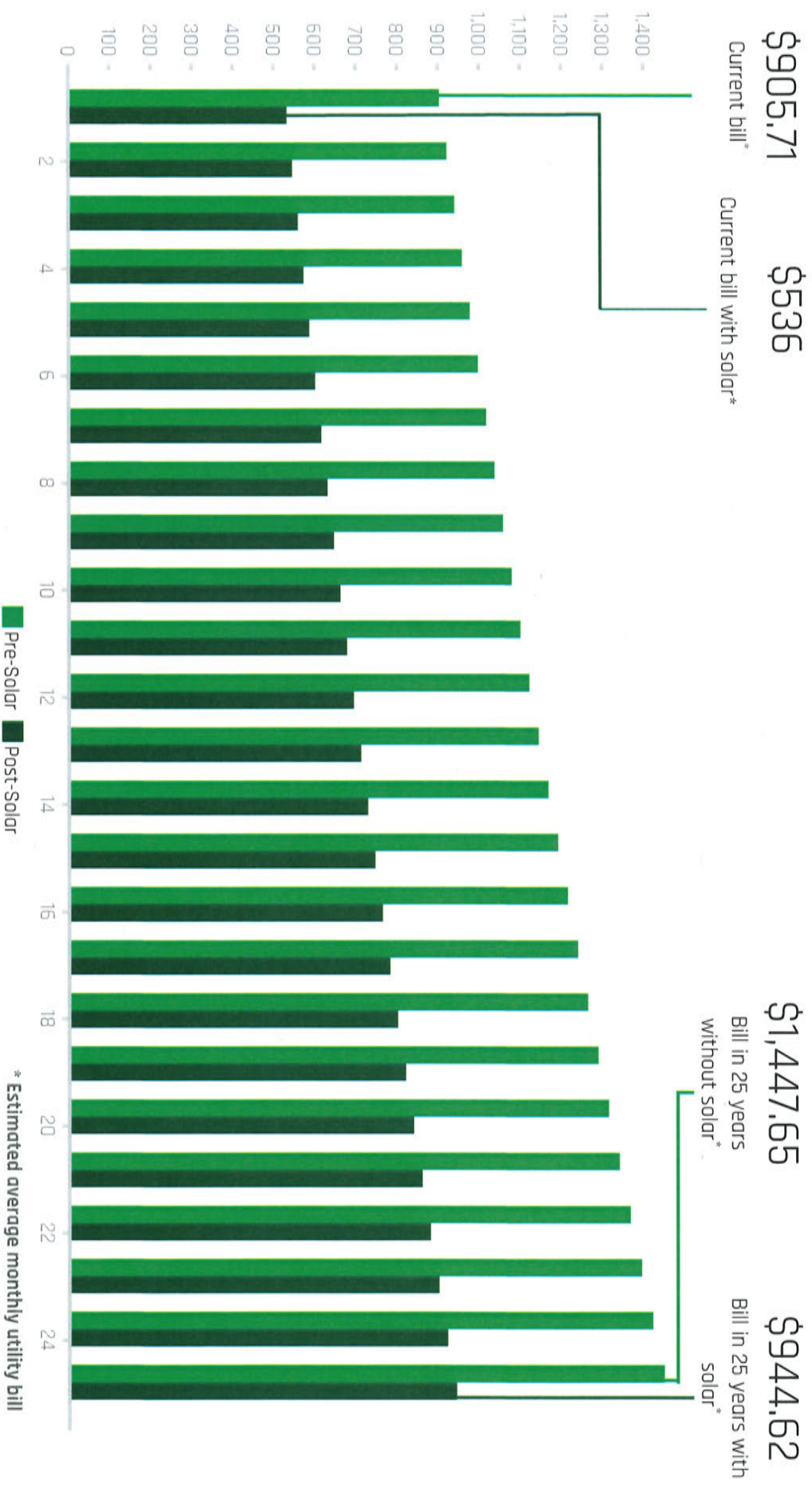


A solar investment generates **MORE VALUE** for you as electricity prices rise.





# Lock in your electricity cost today





# You have a choice



Assuming that electricity rates only rise 2% per year, here's how much you'd pay for electricity if you:

Continue to buy electricity from your utility

**\$346,857**

Estimated 25-year electric bill without solar

Invest in solar and generate your own electricity\*

**\$240,226**

Estimated 25-year electric bill with solar + solar investment

INVESTING IN SOLAR WOULD REDUCE YOUR  
ELECTRICITY COST BY

**\$106,631**

\*Cash or home equity purchase



# How we design & model home solar systems

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## YOUR SYSTEM DESIGN

Using high quality aerial imagery, we model your roof space and your surrounding property. A sunlight model is generated and shows us where the sunniest places are on your roof or property. We place solar panels in the best locations and calculate how much energy they'll produce.

## ENERGY SAVINGS AND SRECS

Using your current electricity costs, projected future electricity costs and the results of our energy model, we project how much you'll save from generating your own solar energy.

Current prices for SRECs in Pennsylvania are combined with our energy model to project how much SREC income you'll receive. We assume that the SREC program will be in place for 15 years and do not assume any future increase in SREC prices.

## INITIAL ESTIMATES VS. FINAL DESIGN

All initial estimates, including price, incentives, energy generation and energy savings are subject to change. If you're interested in home solar, we will conduct a site engineering audit in order to verify actual conditions on your property including roof space and dimensions, obstructions and shading, roof condition and structural soundness and capacity of your home's electrical system.

If we discover anything which changes our initial design during the site engineering audit, we will update our initial system design and estimates and present you with a final proposal.



# Your home solar system

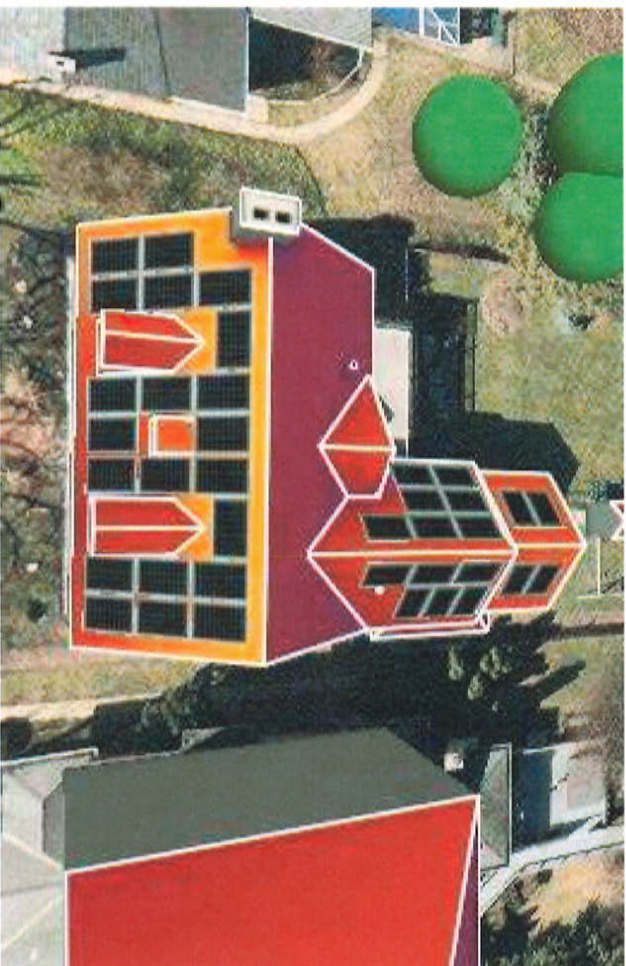


## SYSTEM SPECS

Number of solar panels	38
System capacity	15.20 kW
Annual energy generated	14,066 kWh

**42%**

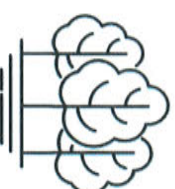
of your electricity from solar



## A NOTE FROM YOUR SYSTEM DESIGNER

I filled both your main front roof (southern-facing) and also the rear roofs that face east and west in order to generate as much electricity as possible.

## YOUR IMPACT ON THE ENVIRONMENT



The equivalent to planting  
5,284 trees



The equivalent to driving  
20,403 fewer miles per  
year

NOTE: Yellow roof areas indicate the most sunlight while dark red areas indicate the least sunlight.



# Estimated cost, incentives and savings



## SOLAR INVESTMENT

Project price	\$47,120
Solar tax credit	\$14,136
Total investment (NET OF TAX CREDIT)	\$32,984

## SOLAR VALUE GENERATED

25 yr energy savings	\$129,969
15 yr SREC income	\$9,646
Lifetime value generated	\$139,433

## RETURN ON SOLAR INVESTMENT\*

**\$106,631**

## SIMPLE PAYBACK

**6.3 yrs**

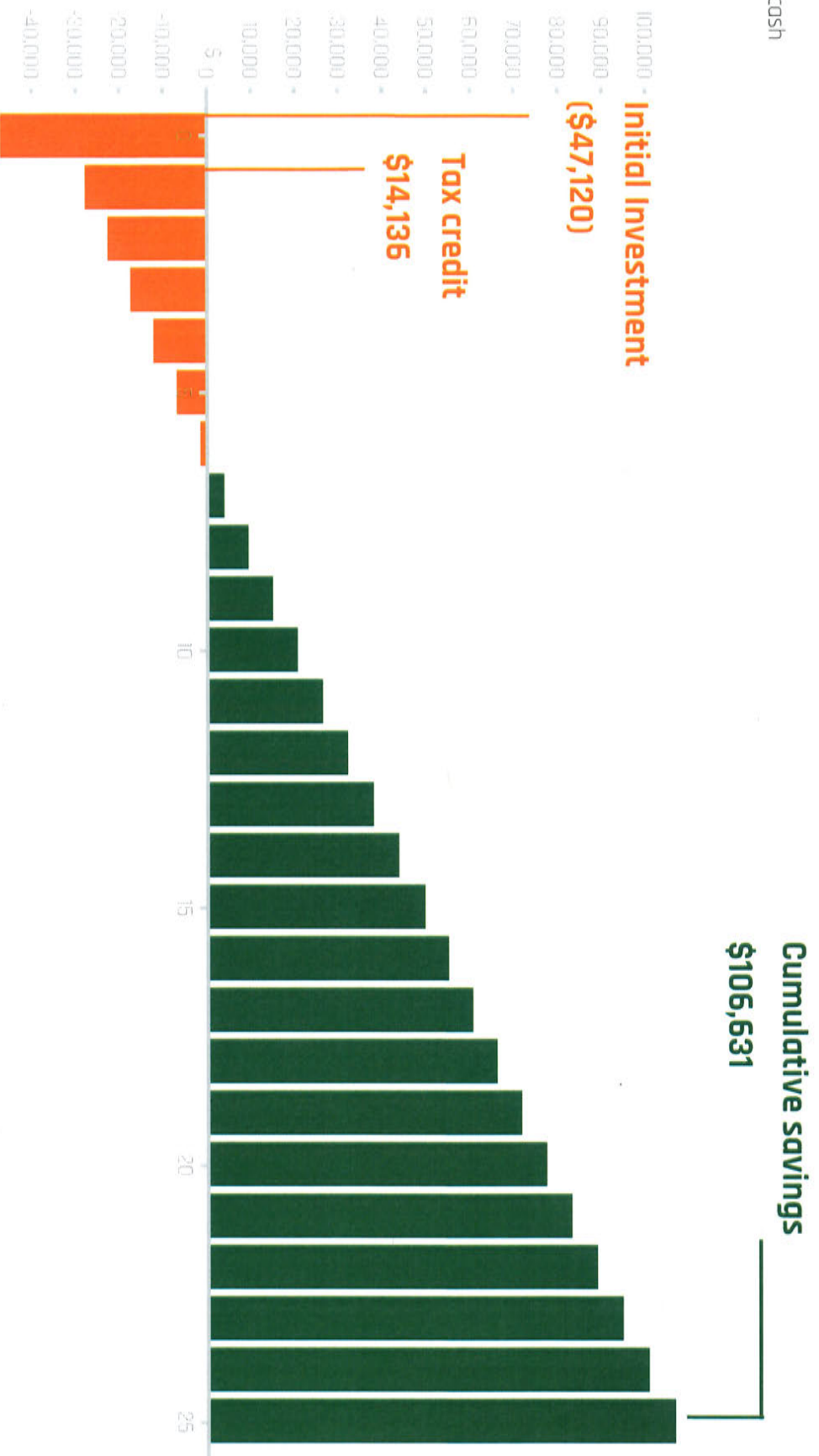
\*Lifetime solar value generated minus total investment net of tax credit





# Estimated cumulative savings from solar

cash





# Next steps



**If you're interested in exploring your solar options...**

**1**



**We schedule a meeting with one of our solar advisors**

**2**



**We schedule a site engineering audit**

**3**



**Based on the results of the audit, we may update your solar design, price and savings estimates**

**4**



**We send you a final proposal**

**Interested in home batteries? Ask us for an estimate**



# What our customers are saying

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*My husband and I wanted custom installation of solar panels with a backup battery system. O'Donnell Solar was extremely professional and helpful. The system has provided us 100% energy independence in the initial use. The inspector told us that he was impressed with the quality of their work. Communication with O'Donnell Solar has been excellent. I would definitely recommend them for your solar needs.*

**-Doreen S**

*I chose to use O'Donnell Solar Co. due to their years of experience in both roofing and solar and being a local small business. Overall, I'm very satisfied with their performance and my 8.8kW system and battery backup. I'm very satisfied with the quality of the installation and the manufacturers products installed so far. The features for monitoring and controlling the system through both browser and smartphone app work great. I highly recommend this company.*

**-Christian T.**





# Why choose O'Donnell Solar?

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## LOCAL CLEAN ENERGY AND CONTRACTING EXPERTISE

Since 1924, O'Donnell Roofing has provided quality roofing, siding and carpentry to Delaware County and the upper main line. As a sister company, O'Donnell Solar combines its solar and energy expertise with O'Donnell Roofing's local knowledge and contracting expertise to deliver quality projects with personalized service.

## WE KNOW WATERPROOFING

Installing solar panels on your roof can require 50-100 attachment points. With nearly a century of roofing experience, there's no one better to make sure those attachment points are correctly waterproofed.

## NO FINGER POINTING

O'Donnell Solar installs your home solar, batteries, EV charger and / or roof, you won't have to worry about the one contractor blaming another for any issues. You'll have one point of contact and we'll take care of any issues quickly and professionally.

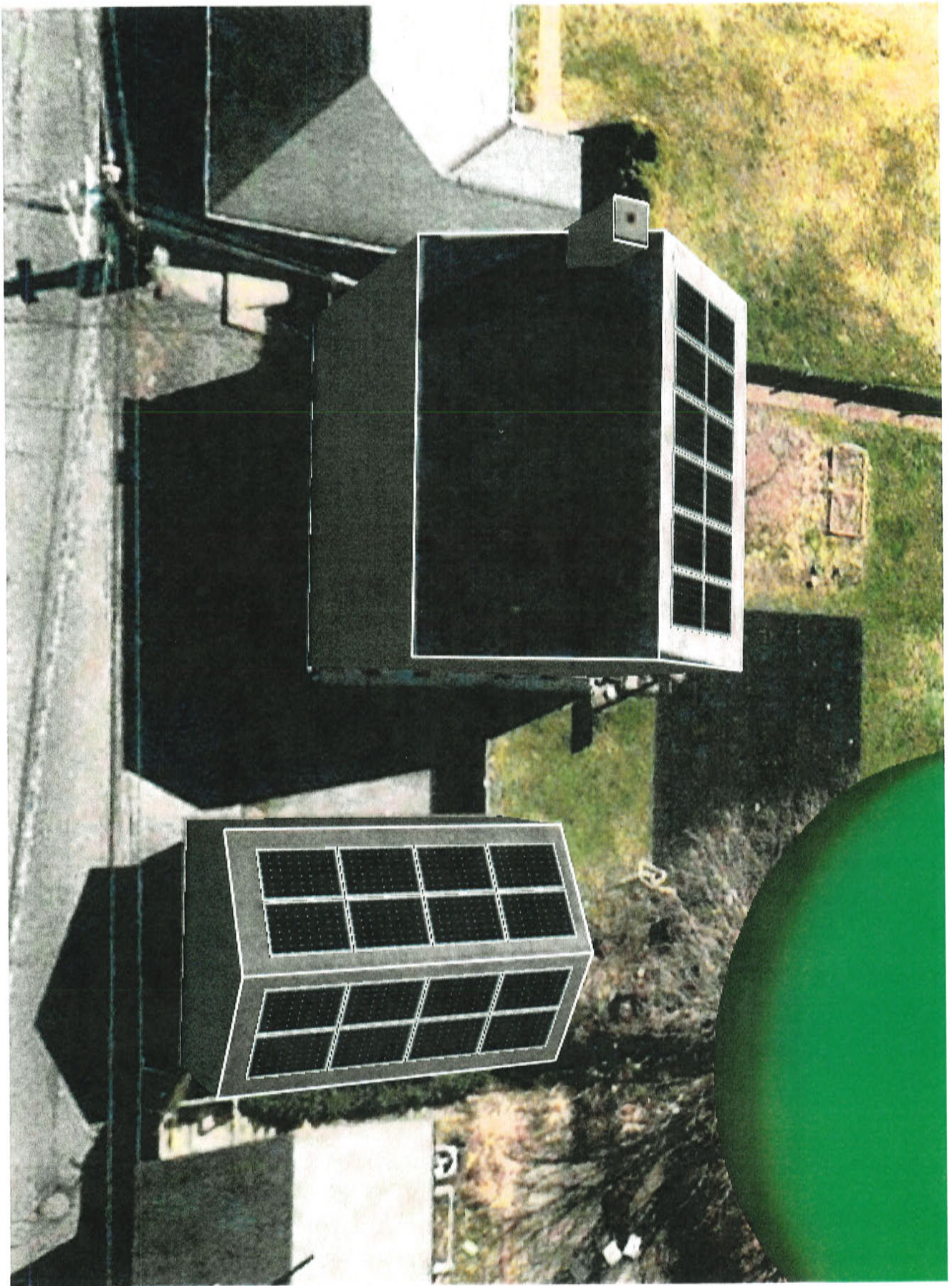














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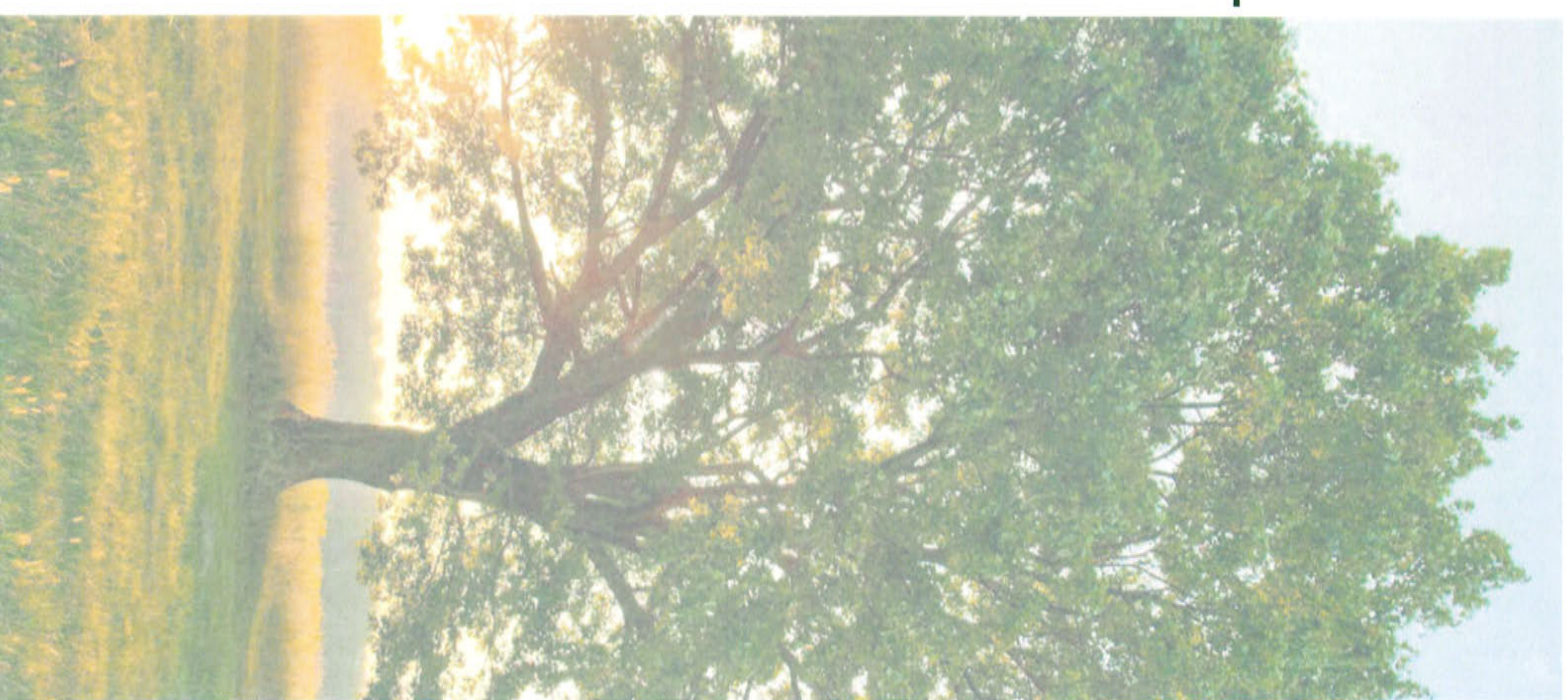
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***What's got you interested?***

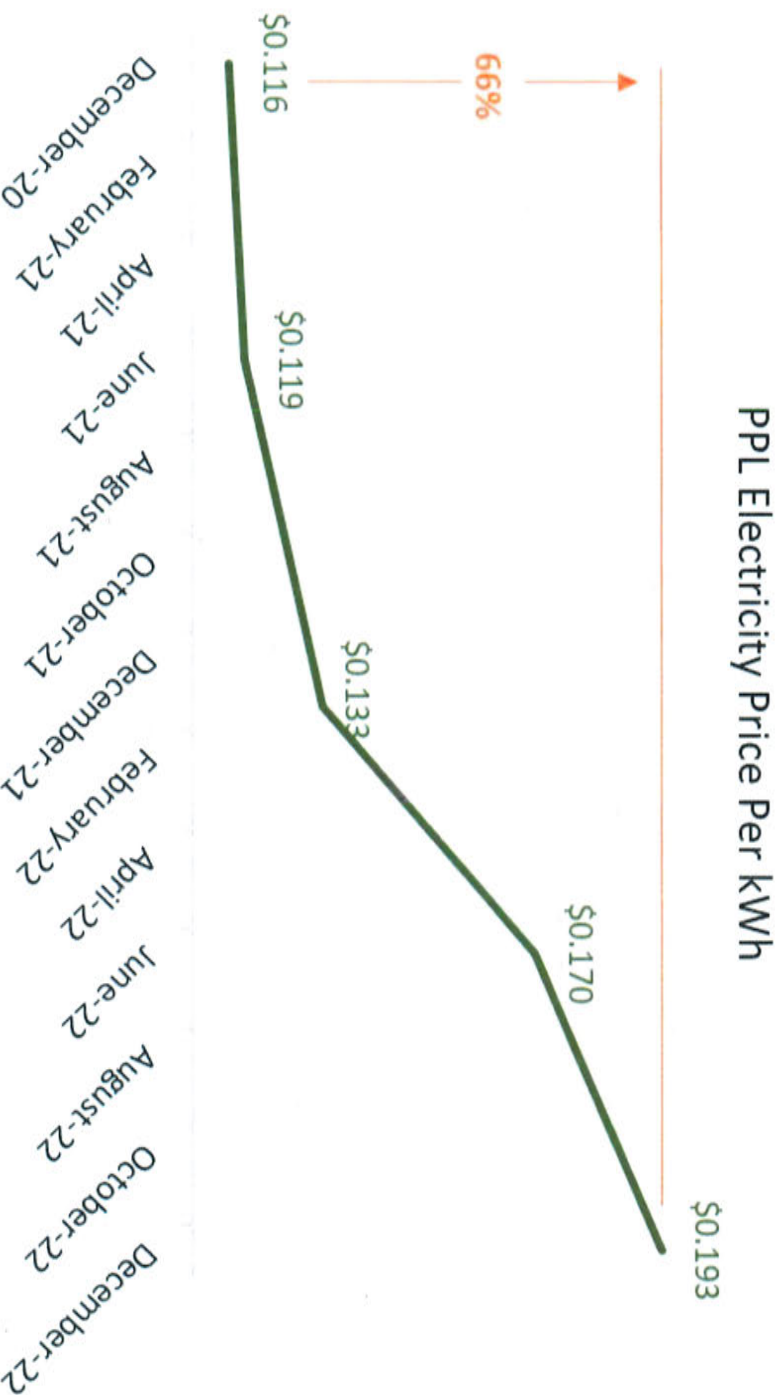
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# Protect yourself from rising electricity rates

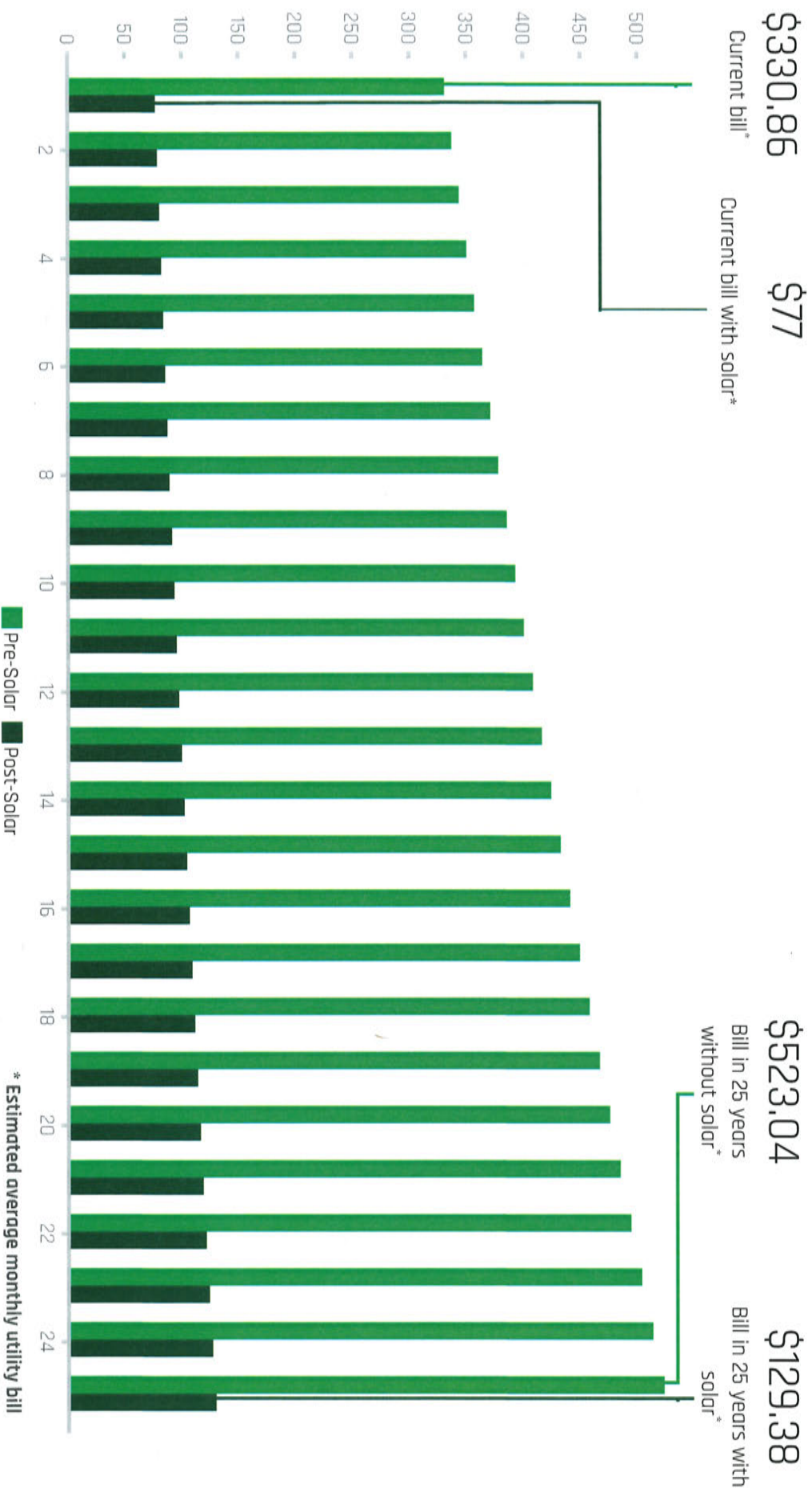


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# Lock in your electricity cost today





# You have a choice



Assuming that electricity rates only rise 2% per year, here's how much you'd pay for electricity if you:

Continue to buy electricity  
from your utility

**\$125,905**

Estimated 25-year electric bill without  
solar

Invest in solar and generate  
your own electricity\*

**\$46,324**

Estimated 25-year electric bill with solar +  
solar investment

INVESTING IN SOLAR WOULD REDUCE YOUR  
ELECTRICITY COST BY

**\$79,581**

\*Cash or home equity purchase



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# Your home solar system



## SYSTEM SPECS

Number of solar panels	28
System capacity	11.20 kW
Annual energy generated	11,997 kWh

100%

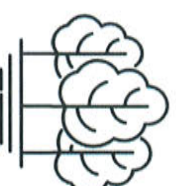
of your electricity from solar



## A NOTE FROM YOUR SYSTEM DESIGNER

We used the southern roof space on the main structure and both east and west roofs on the garage in order to supply all of your estimated electricity use for this property.

## YOUR IMPACT ON THE ENVIRONMENT



The equivalent to planting  
4,507 trees



The equivalent to driving  
17,402 fewer miles per  
year

NOTE: Yellow roof areas indicate the most sunlight while dark red areas indicate the least sunlight.



# Estimated cost, incentives and savings



## SOLAR INVESTMENT

Project price	\$34,720
Solar tax credit	\$10,416
Total investment (NET OF TAX CREDIT)	\$24,304

## SOLAR VALUE GENERATED

25 yr energy savings	\$95,658
15 yr SREC income	\$8,227
Lifetime value generated	\$103,885

## RETURN ON SOLAR INVESTMENT\*

**\$79,581**

## SIMPLE PAYBACK

**6.4 yrs**

\*Lifetime solar value generated minus total investment net of tax credit

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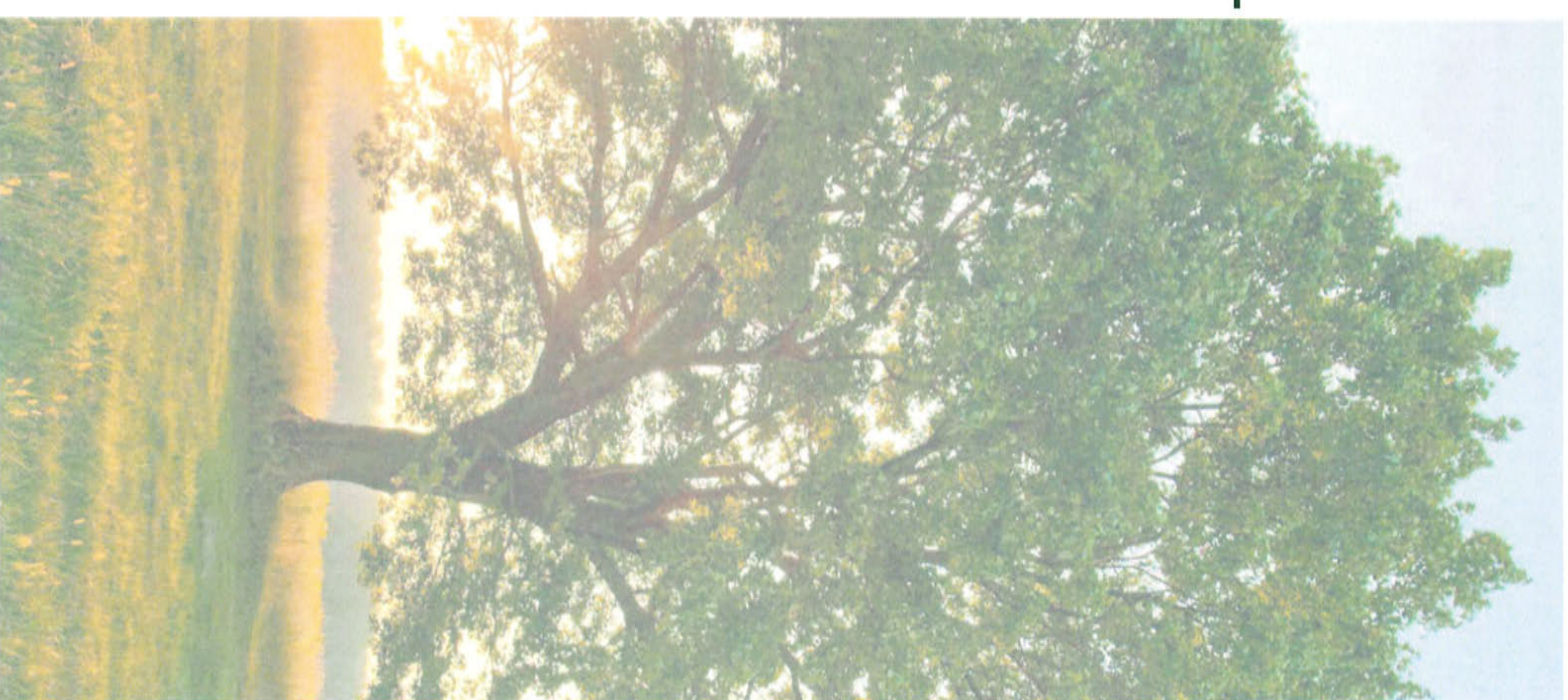
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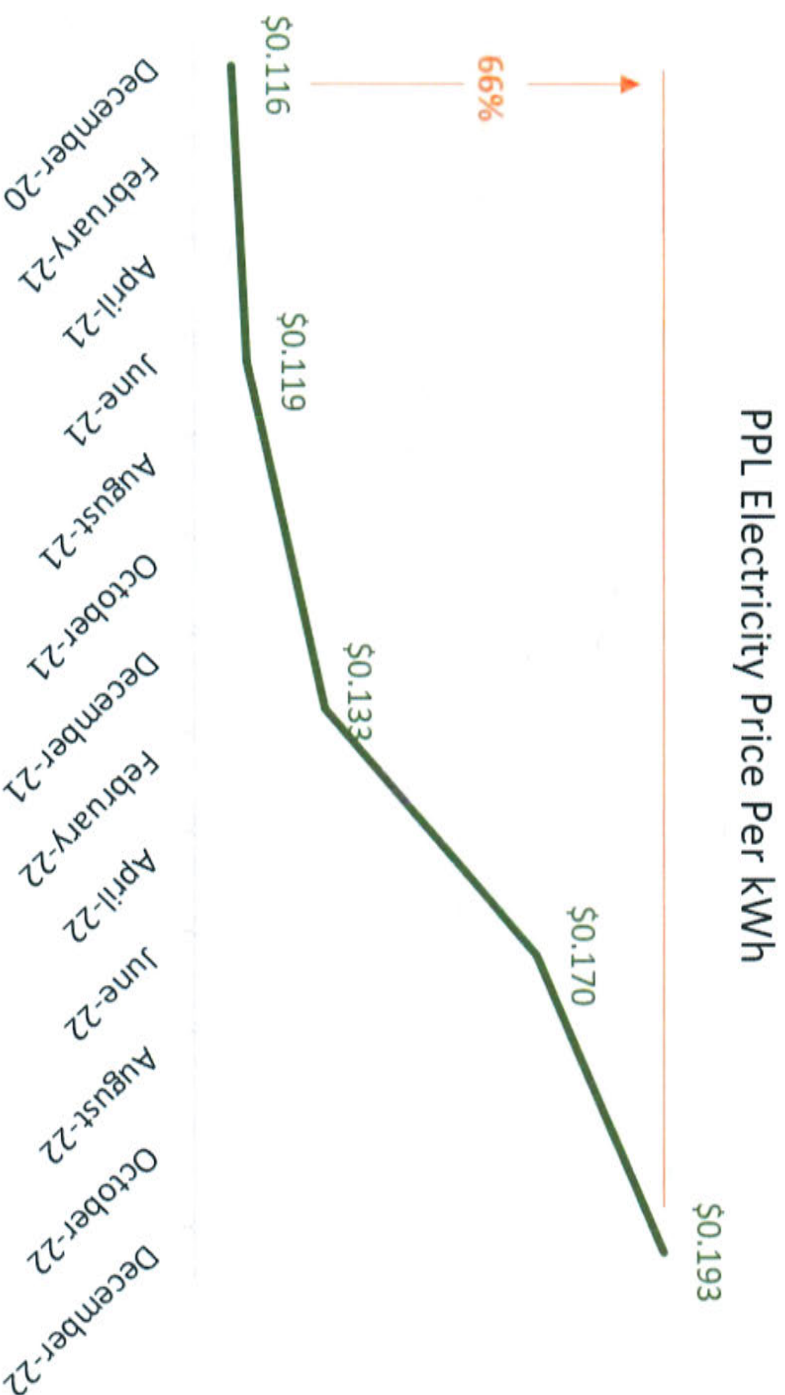
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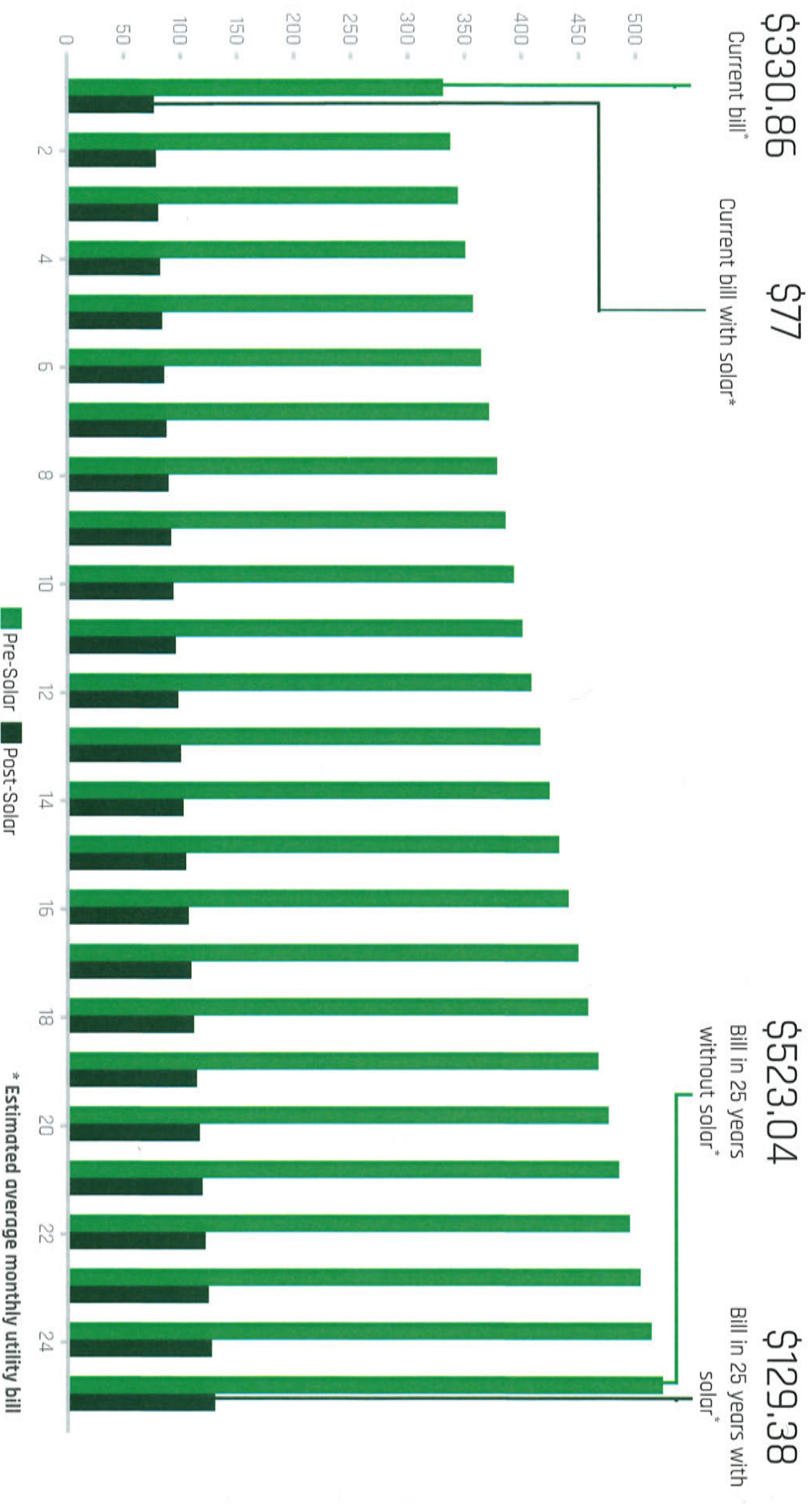


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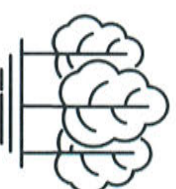
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## SIMPLE PAYBACK

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\* Lifetime solar value generated minus total investment net of tax credit

CertainTeed Solar

# CT SERIES M10 108 HALF-CELL SOLAR MODULES



## Half-Cell Monocrystalline Type

CTM10400HC11-06

See reverse for  
product specifications



## Features and Benefits

### High Quality / High Power

- 400W with black backsheet
- UL listed (61730-1, UL 61730-2)
- Positive power output tolerance

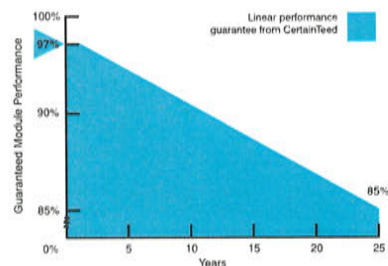
### Limited Warranty\*

- 25-year linear power output warranty

\*See CertainTeed's limited warranty for details



## Power Output Warranty







## Electrical Characteristics

400W

Nominal Output (Pmpp)	W	400
Voltage at Pmax (Vmpp)	V	31.01
Current at Pmax (Impp)	A	12.90
Open Circuit Voltage (Voc)	V	37.04
Short Circuit Current (Isc)	A	13.79
Output Tolerance	W	-0 / + 5
No. of Cells & Connections	108 half-cells with 3 bypass diodes	
Maximum Series Fuse Rating	25A	
Cell Type	Monocrystalline	
Module Efficiency	%	20.5
Temperature Coefficient of Pmpp	%/C	-0.35
Temperature Coefficient of Voc	%/C	-0.27
Temperature Coefficient of Isc	%/C	+0.05

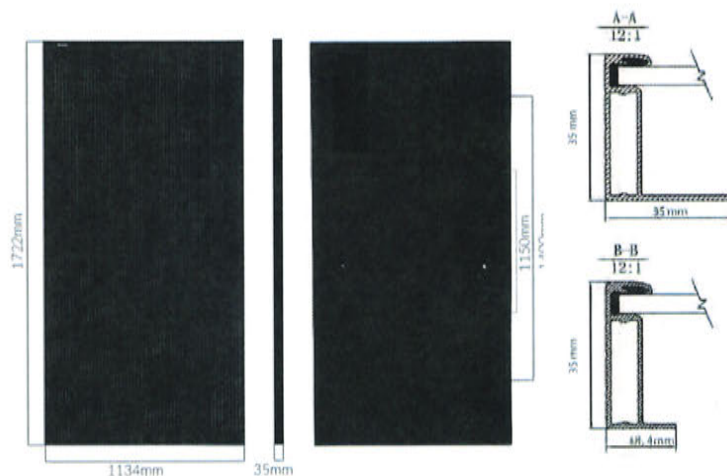


## Mechanical Characteristics

Glass	Glass: 3.2 high transmission, tempered
Frame	Anodized aluminum (Black)
Junction Box	IP68
Output Cables	4 mm <sup>2</sup> (12AWG) PV Wire, Length 1.2m (47.2")
Connectors	Polarized MC compatible
Weight	48.5 lbs (22 kgs)



## Dimensions



## Operating Conditions

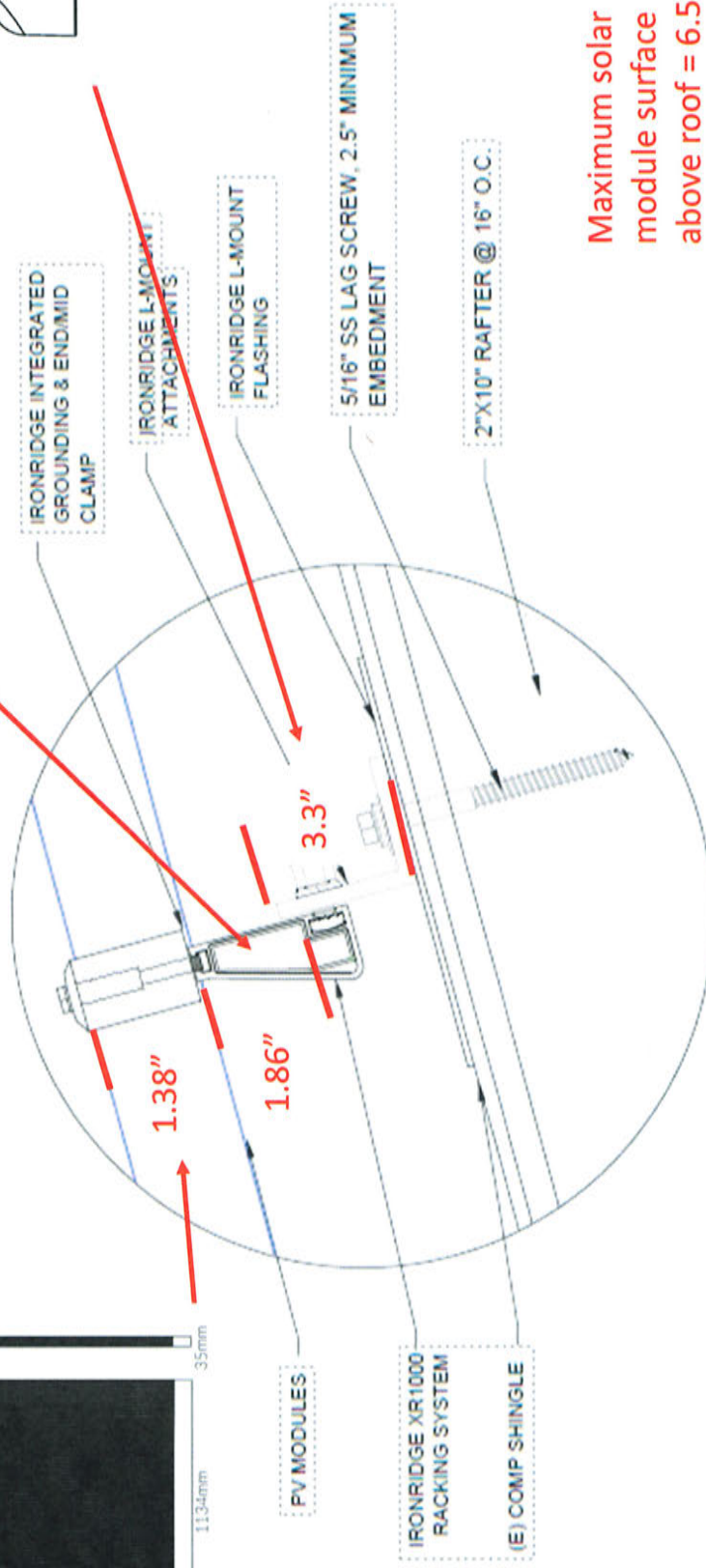
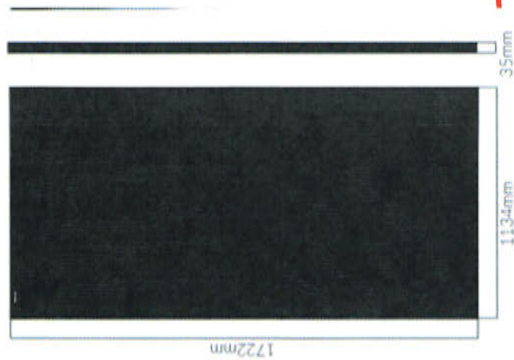
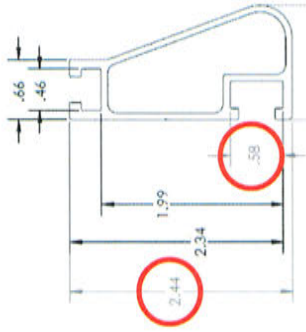
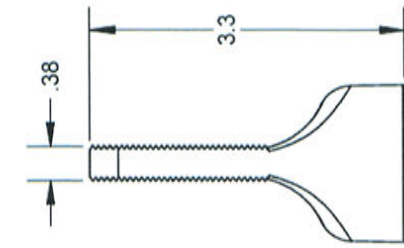
Dimensions	1722 x 1134 x 35mm
Nominal Operating Cell Temp.	45° C
Operating Temperature	-40 to 85° C
Maximum System Voltage	1,500V
Fire Performance	Class C / Type 1
Maximum Wind Load	112 lbs/ft <sup>2</sup> (5400 Pa)
Maximum Snow Load	112 lbs/ft <sup>2</sup> (5400 Pa)



**CertainTeed**

CEILINGS • DECKING • FENCE • GYPSUM • INSULATION • RAILING • ROOFING • SIDING • TRIM

20 Moores Road Malvern, PA 19355 Professional: 800-233-8990 Consumer: 800-782-8777 [certainteeted.com](http://certainteeted.com)



Maximum solar module surface above roof = 6.54"