COUNTY CLERK'S OFFICE

Julianne B. Winkelhorst, County Clerk
Lisa M. Henning, Chief Deputy County Clerk
Email: ctyclerk@co.ozaukee.wi.us
www.co.ozaukee.wi.us

The public can access the meeting by viewing the live stream at the link which will be opened five minutes before the call to order:
Energy Action Commission Meeting Live Stream

The public can submit comments here: Public Comment Form
& Instructions for Submitting Public Comments Online

ENERGY ACTION COMMISSION
ADMINISTRATION CENTER – ROOM A-200
121 W. Main St., Port Washington
MONDAY, JUNE 13, 2022 – 12:00 P.M.

AGENDA

1. **Call to Order**
2. **Proper Notice**
3. **Public Comment**
4. **Approval of Minutes from March 9, 2021 Meeting**
5. **DISCUSSION ITEM**
   a. Review Solar PV Site Assessments for Three County Building Rooftops (Admin, Hwy, Justice) - Arch Solar, Inc.
6. **ACTION ITEMS**
   a. Recommendation to the Public Works Committee to apply for use of County ARPA funds for three Solar PV Systems
7. **DISCUSSION ITEMS CONT.**
   a. 2021 – Review of County Energy Use – Taylor Snider, Administrative Intern
   b. Project Updates
8. **Next Meeting Date**
9. **Adjournment**

A quorum of members of committees or the full County Board of Ozaukee County may be in attendance at this meeting for purposes related to committee or board duties, however, no formal action will be taken by these committees or the board at this meeting.

Persons with disabilities requiring accommodations for attendance at this meeting should contact the County Clerk's Office at 262-284-8110, twenty-four (24) hours in advance of the meeting.

MINUTES
ENERGY ACTION COMMISSION
REGULAR MEETING
TUESDAY, MARCH 9, 2021 – 9:00AM
VIRTUAL MEETING

Draft Minutes Pending Committee Approval

The Energy Action Commission met virtually.

Present: Dave Henrichs (County Board Supervisor), Natalia Minkel-Dumit (County Board Supervisor), Joe Hicks (Administration Center Building Superintendent), Ryan Tackes (Justice Center Building Superintendent), Jay McMahon (Finance Director), Jon Edgren (Public Works Director), Monte Hale (Lasata Senior Living Campus Maintenance Supervisor), Andy Holschbach (Land & Water Management Director), Joy Neilson-Loomis (Transit Superintendent), and Tom Dragotta (Focus on Energy).

Others Present: Warren Guettel (Construction Superintendent), Matthew Uselding (DOA Intern), Jason Wittek (Policy & Budget Analyst), Jason Dzwinel (County Administrator), Keri Wallenkamp (Deputy County Clerk), Lorrie Lisek (Wisconsin Clean Cities), and Julie Winkelhorst (County Clerk).

Excused: Andrew Struck (Planning & Parks Director)

Absent: Karina Ward (Community Extension Educator)

Proper Notice: Ms. Neilson-Loomis called the meeting to order at 9:01 AM. The meeting was noticed as required.

Public Comment: None

Approval of Minutes from the January 12, 2021 Meeting: Motion made by Mr. Holschbach, seconded by Mr. Edgren to approve the January 12, 2021 minutes as submitted. All members present voting aye, motion carried. (10-0)

Presentation by Wisconsin Clean Cities: Ms. Lisek provided an overview on the Wisconsin Clean Cities program and different projects throughout the state of Wisconsin. Ms. Lisek also briefly discussed different types of grants and funding opportunities for future projects.

Annual Energy Report: Mr. Wittek and Mr. Uselding presented the Annual Energy Report. The presentation gave light to an overall decrease in Energy usage from 2019 to 2020, partially due to the COVID-19 pandemic. Ms. Neilson-Loomis noted that Transit's usage is lower this past year in part due to decreased ridership, and Mr. Edgren stated that fuel usage is on average higher in the months November and December due to snow plowing.

Project Updates: Solar Panels on County Buildings – obtaining quotes; Lasata Campus – lighting updates and Digital Control for boiler; Administration Center boiler engineering upgrade(s) – in progress; Sheriff's Department – purchased Hybrid SUV; and Transit – purchased Hybrid Retrofits for Shuttle Buses.

Mr. Dragotta took a moment to bring to the attention of the Commission, that he has nominated Ozaukee County for the Energy Forward Award.

Next Meeting Date: Tuesday, June 8, 2021.

Adjournment: Motion made by Mr. Holschbach, seconded by Mr. Edgren to adjourn. All members present voting aye, motion carried. (10-0) Meeting adjourned at 9:48AM

Keri Wallenkamp, Deputy County Clerk

Admin Building Solar

Prepared For

Ozaukee County Buildings
262 284 8324
jwittek@co.ozaukee.wi.us

Industry Leader

Arch Solar C&I is one of the most respected Energy Management companies in Wisconsin. Our company leaders are active instructors, inspectors, and consultants to many of the leading energy groups, including: Focus on Energy, Midwest Renewable Energy Association, North American Board of Certified Energy Practitioners, Wisconsin Sustainable Business Council, MMAC, Lakeshore Technical College, Sheboygan Sustainable Living Group, and many others.

Prepared By

6/1/2022

Andrew Holmstrom
920-838-0483
andrew@archelec.com

Table of Contents

The following proposal was created specifically for Ozaukee County Buildings, the proposal includes Arch Solar C&I's specific Trade Secrets that are confidential to Arch Solar C&I's employees and staff. This proposal should only be viewed by Ozaukee County Buildings employees and should not be divulged to outside resources without Arch Solar C&I's express written consent. Pursuant to Wisconsin Statute 19.36, please see below. This quote price is valid for 21 days.

WI Statute 19.36 Limitation upon access and withholding

(5) Trade secrets. An authority may withhold access to any record or portion of a record containing information qualifying as a trade secret as defined in s. 134.90 (1) (c).

134.90 Uniform Trade Secrets act

(1)(c) "Trade secret" means information, including a formula, pattern, compilation, program, device, method, technique or process to which all of the following apply:

1. The information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

2. The information is the subject of efforts to maintain its secrecy that are reasonable under the circumstances.

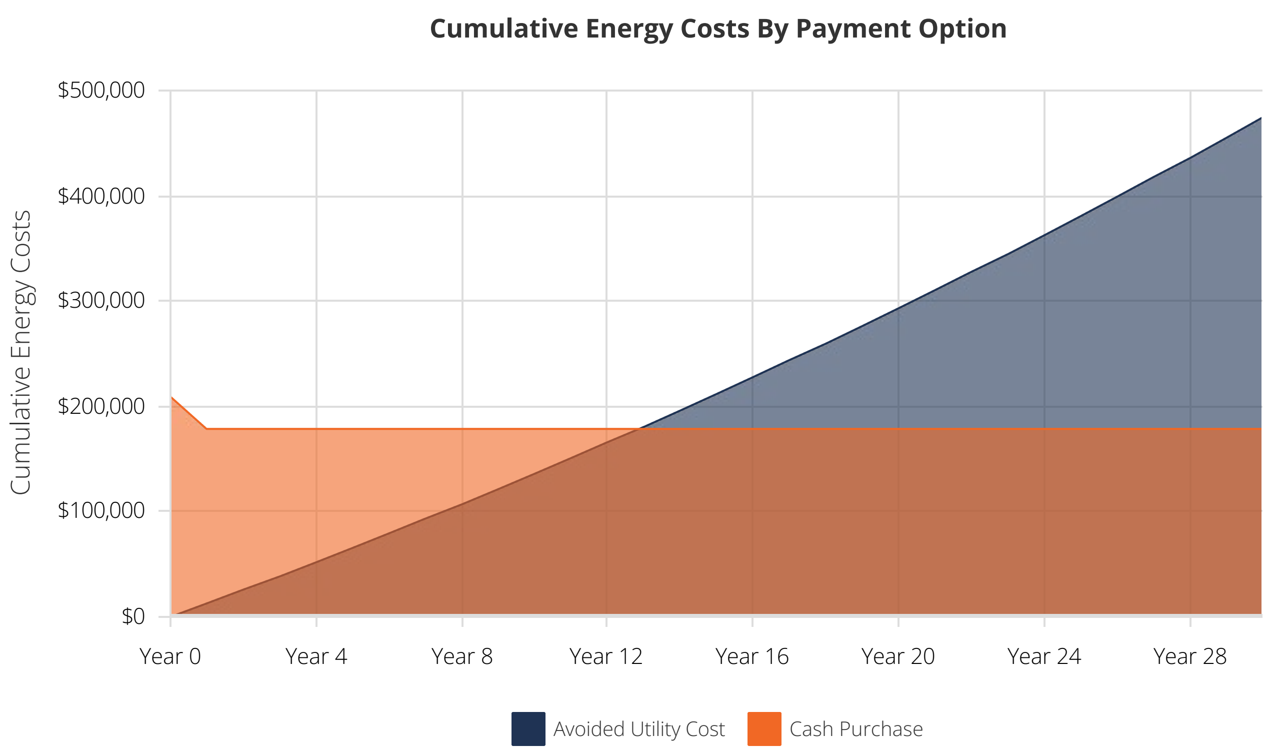
Any violation will be pursued to the fullest extent of the law.

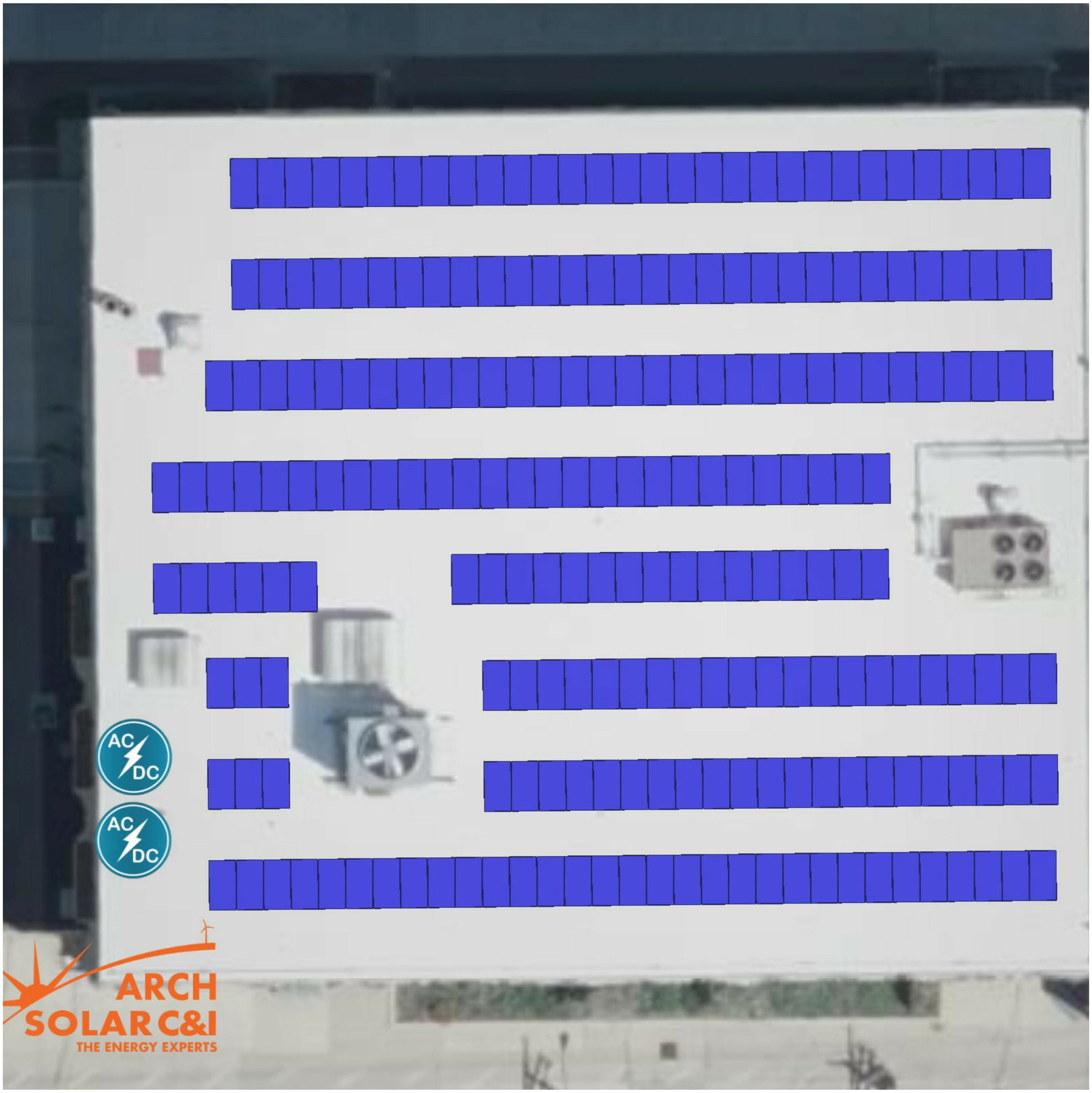
1 Project Summary

Payment Options	Cash Purchase
IRR - Term	7.1%
LCOE PV Generation	$0.052 /kWh
Net Present Value	$50,877
Payback Period	12.9 Years
Total Payments	$209,083
Total Incentives	$30,525
Net Payments	$178,558
Electric Bill Savings - Term	$474,410
Upfront Payment	$209,083

Combined Solar PV Rating
Power Rating: 98,100 W-DC
Power Rating: 67.3 kW-AC

Combined ESS Ratings
Energy Capacity: 0.0 kWh
Power Rating: 0.0 kW




AC DC
AC DC
ARCH SOLAR C&I
THE ENERGY EXPERTS

2.1.1 PV System Details

General Information
Facility: Admin Building
Address: 121 W Main St Port Washington WI 53074

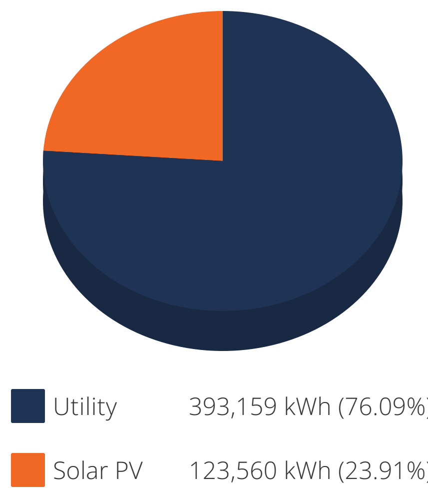
Solar PV System Rating
Power Rating: 98,100 W-DC
Power Rating: 67,300.0 W-AC

Solar PV Equipment Description

Solar Panels:	(218) Znshine Solar ZXM6-NHLDD144-450/M
Inverters:	(1) SolarEdge SE50KUS, (1) SolarEdge SE17.3KUS (2021)

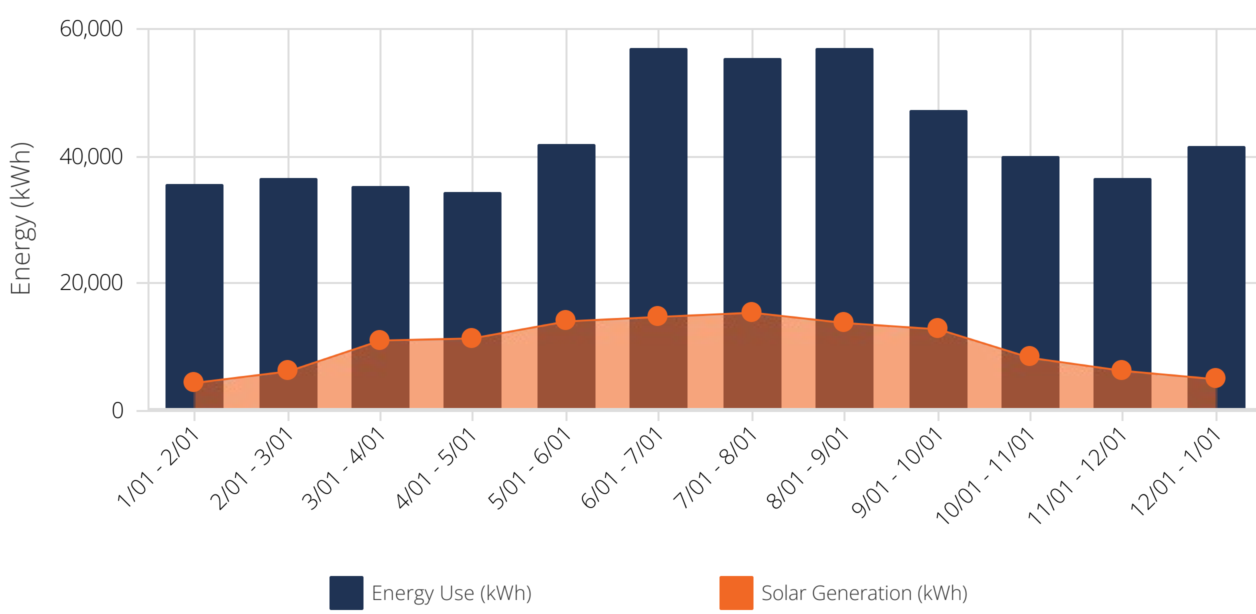
Solar PV Equipment Typical Lifespan
Solar Panels: Greater than 30 Years
Inverters: 15 Years

Energy Consumption Mix
Annual Energy Use: 516,719 kWh



Solar PV System Cost and Incentives	
Solar PV System Cost	$209,083
Incentive Amount	-$30,525
Net Solar PV System Cost	**$178,558**

Monthly Energy Use vs Solar Generation



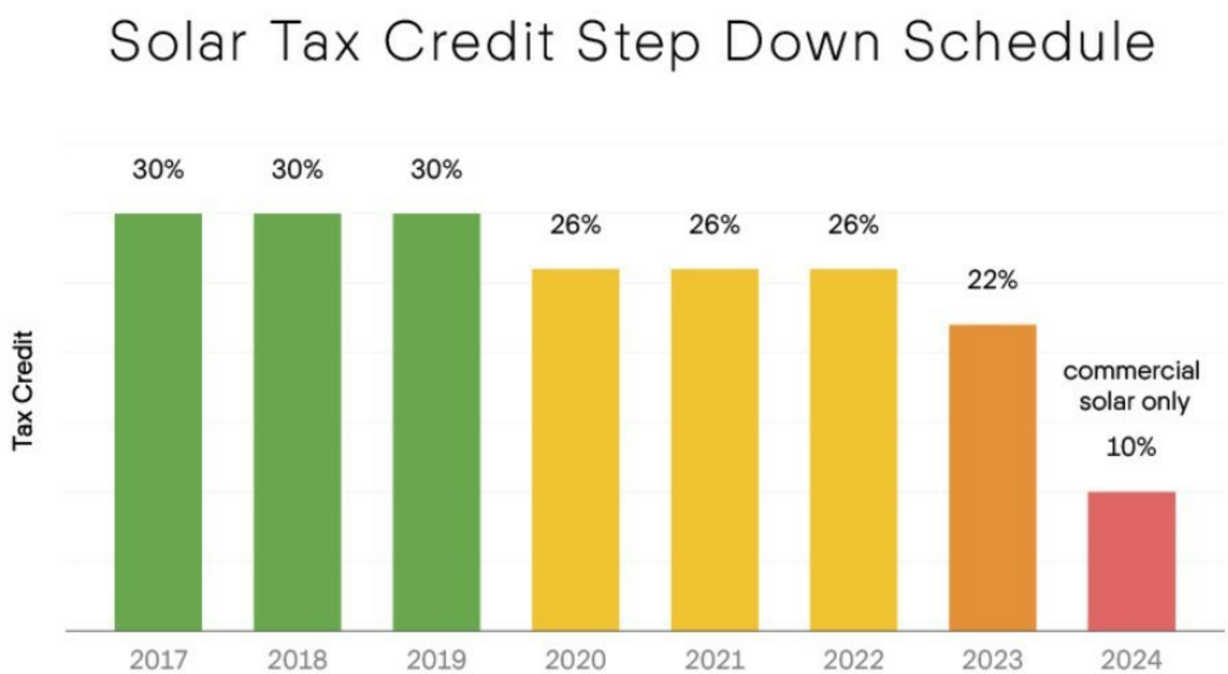
2.1.2 Rebates and Incentives

This section summarizes all incentives available for this project. The actual rebate and incentive amounts for this project are shown in each example.

FOE Special Sector Solar PV Incentive

This incentive helps organizations that do not qualify for the solar investment tax credit (ITC) to offset the cost of installing solar electric systems. The table below provides an incentive overview, and additional details can be found at focusonenergy.com/solar. We are excited to introduce a new Special Sector Solar Incentive for nonprofits, schools, government and Native American tribes and nations that goes into effect September 1, 2021.

Total Incentive Value: $30,525



2018 Tax Reform
"The corporate tax reduction from 35% down to 21% has enabled companies to invest these savings into expense-reducing assets, such as solar energy. For example, with a proposed net investment of $200,000, a company with approximately $1.1 million of taxable income could pay for the entire solar investment in 2 years."
Example: $200,000(net project investment)
Yr 1: $1.1 million taxable income $100,000 (savings from 9% tax reduction)
Yr 2: $1.1 million taxable income $100,000 (savings from 9% tax reduction)

Sales Tax Exemption
Solar PV (photovoltaic) installations are exempt from paying Wisconsin state sales tax.

Property Tax Exemption
Solar PV (photovoltaic) installations are exempt from increasing property taxes.

2.1.3 Utility Rates

The table below shows the rates associate with your current utility rate schedule (CG-3). Your estimated electric bills after solar are shown on the following page.

Customer Charges				Energy Charges				Demand Charges			
Season	Charge Type	Rate Type	CG-3	Season	Charge Type	Rate Type	CG-3	Season	Charge Type	Rate Type	CG-3
S1	Flat Rate	per day	$2.00	S1	On Peak	Import	$0.07957	S1	Flat Rate	Import	$2.55
				S1	Off Peak	Import	$0.0591	S1	On Peak	Import	$15.18

2.1.4 Current Electric Bill

The table below shows your annual electricity costs based on the most current utility rates and your previous 12 months of electrical usage.

Rate Schedule: WE - CG-3

Time Periods	Energy Use (kWh)		Max Demand (kW)		Charges			
Bill Ranges & Seasons	On Peak	Off Peak	NC / Max	On Peak	Other	Energy	Demand	Total
1/1/2022 - 2/1/2022 S1	17,458	18,027	228	110	$62	$2,455	$2,298	$4,814
2/1/2022 - 3/1/2022 S1	17,566	18,744	228	106	$56	$2,506	$2,237	$4,798
3/1/2022 - 4/1/2022 S1	18,082	17,033	228	107	$62	$2,445	$2,252	$4,759
4/1/2022 - 5/1/2022 S1	18,034	16,342	228	114	$60	$2,401	$2,358	$4,819
5/1/2021 - 6/1/2021 S1	20,831	20,858	228	225	$62	$2,890	$4,044	$6,996
6/1/2021 - 7/1/2021 S1	30,638	26,210	246	246	$60	$3,987	$4,363	$8,409
7/1/2021 - 8/1/2021 S1	29,249	25,966	246	201	$62	$3,862	$3,679	$7,603
8/1/2021 - 9/1/2021 S1	30,593	26,130	246	227	$62	$3,979	$4,074	$8,115
9/1/2021 - 10/1/2021 S1	26,256	20,948	246	195	$60	$3,327	$3,588	$6,975
10/1/2021 - 11/1/2021 S1	20,313	19,486	246	156	$62	$2,768	$2,996	$5,826
11/1/2021 - 12/1/2021 S1	18,837	17,684	246	126	$60	$2,544	$2,540	$5,144
12/1/2021 - 1/1/2022 S1	20,428	21,005	246	118	$62	$2,867	$2,419	$5,348
Total	268,285	248,433	-	-	$730	$36,030	$36,848	$73,608

2.1.5 New Electric Bill

Rate Schedule: WE - CG-3

Time Periods	Energy Use (kWh)		Max Demand (kW)		Charges			
Bill Ranges & Seasons	On Peak	Off Peak	NC / Max	On Peak	Other	Energy	Demand	Total
1/1/2022 - 2/1/2022 S1	14,698	16,392	228	107	$62	$2,138	$2,252	$4,452
2/1/2022 - 3/1/2022 S1	13,813	16,281	228	90	$56	$2,061	$1,994	$4,111
3/1/2022 - 4/1/2022 S1	10,449	13,611	228	88	$62	$1,636	$1,963	$3,661
4/1/2022 - 5/1/2022 S1	11,073	11,909	227	96	$60	$1,585	$2,085	$3,730
5/1/2021 - 6/1/2021 S1	12,128	15,496	192	192	$62	$1,881	$3,543	$5,485
6/1/2021 - 7/1/2021 S1	20,512	21,570	192	191	$60	$2,907	$3,527	$6,494
7/1/2021 - 8/1/2021 S1	19,341	20,445	212	193	$62	$2,747	$3,558	$6,367
8/1/2021 - 9/1/2021 S1	21,318	21,592	211	186	$62	$2,972	$3,452	$6,486
9/1/2021 - 10/1/2021 S1	17,496	16,891	242	189	$60	$2,390	$3,497	$5,947
10/1/2021 - 11/1/2021 S1	14,748	16,718	246	138	$62	$2,162	$2,723	$4,946
11/1/2021 - 12/1/2021 S1	15,112	15,099	246	117	$60	$2,095	$2,404	$4,559
12/1/2021 - 1/1/2022 S1	16,675	19,791	246	97	$62	$2,496	$2,100	$4,659
Total	187,363	205,795	-	-	$730	$27,071	$33,097	$60,898

Annual Electricity Savings: $12,709

3.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	7.1%	Net Present Value	$50,877	Payback Period	12.9 Years
ROI	141.5%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$209,083				

Years	Cash			Total Cash Flow	Cumulative Cash Flow
	Project Costs	Incentive Amount	Electric Bill Savings		
Upfront	-$209,083	-	-	-$209,083	-$209,083
1	-	$30,525	$12,709	$43,234	-$165,849
2	-	-	$12,899	$12,899	-$152,950
3	-	-	$13,091	$13,091	-$139,859
4	-	-	$13,285	$13,285	-$126,575
5	-	-	$13,482	$13,482	-$113,093
6	-	-	$13,681	$13,681	-$99,411
7	-	-	$13,883	$13,883	-$85,528
8	-	-	$14,088	$14,088	-$71,440
9	-	-	$14,295	$14,295	-$57,145
10	-	-	$14,505	$14,505	-$42,639
11	-	-	$14,718	$14,718	-$27,921
12	-	-	$14,933	$14,933	-$12,988
13	-	-	$15,151	$15,151	$2,163
14	-	-	$15,372	$15,372	$17,536
15	-	-	$15,596	$15,596	$33,131
16	-	-	$15,822	$15,822	$48,954
17	-	-	$16,051	$16,051	$65,005
18	-	-	$16,283	$16,283	$81,288
19	-	-	$16,518	$16,518	$97,807
20	-	-	$16,756	$16,756	$114,563
21	-	-	$16,997	$16,997	$131,560
22	-	-	$17,240	$17,240	$148,800
23	-	-	$17,487	$17,487	$166,287
24	-	-	$17,737	$17,737	$184,024
25	-	-	$17,989	$17,989	$202,013
26	-	-	$18,245	$18,245	$220,258
27	-	-	$18,503	$18,503	$238,761
28	-	-	$18,765	$18,765	$257,525
29	-	-	$19,029	$19,029	$276,555
30	-	-	$19,297	$19,297	$295,852
Totals:	-$209,083	$30,525	$474,410	$295,852	-

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	7.1%	Net Present Value	$50,877	Payback Period	12.9 Years
ROI	141.5%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$209,083				

Years	Upfront	1	2	3	4	5	6	7	8	9	10	11	12
Cash													
Project Costs	-$209,083	-	-	-	-	-	-	-	-	-	-	-	-
Incentive Amount	-	$30,525	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	-	$12,709	$12,899	$13,091	$13,285	$13,482	$13,681	$13,883	$14,088	$14,295	$14,505	$14,718	$14,933
Cash Total	-$209,083	$43,234	$12,899	$13,091	$13,285	$13,482	$13,681	$13,883	$14,088	$14,295	$14,505	$14,718	$14,933
Total Cash Flow	-$209,083	$43,234	$12,899	$13,091	$13,285	$13,482	$13,681	$13,883	$14,088	$14,295	$14,505	$14,718	$14,933
Cumulative Cash Flow	-$209,083	-$165,849	-$152,950	-$139,859	-$126,575	-$113,093	-$99,411	-$85,528	-$71,440	-$57,145	-$42,639	-$27,921	-$12,988

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	7.1%	Net Present Value	$50,877	Payback Period	12.9 Years
ROI	141.5%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$209,083				

Years	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Cash														
Project Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Incentive Amount	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	$15,151	$15,372	$15,596	$15,822	$16,051	$16,283	$16,518	$16,756	$16,997	$17,240	$17,487	$17,737	$17,989	$18,245
Cash Total	$15,151	$15,372	$15,596	$15,822	$16,051	$16,283	$16,518	$16,756	$16,997	$17,240	$17,487	$17,737	$17,989	$18,245
Total Cash Flow	$15,151	$15,372	$15,596	$15,822	$16,051	$16,283	$16,518	$16,756	$16,997	$17,240	$17,487	$17,737	$17,989	$18,245
Cumulative Cash Flow	$2,163	$17,536	$33,131	$48,954	$65,005	$81,288	$97,807	$114,563	$131,560	$148,800	$166,287	$184,024	$202,013	$220,258

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	7.1%	Net Present Value	$50,877	Payback Period	12.9 Years
ROI	141.5%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$209,083				

Years	27	28	29	30	Totals
Cash					
Project Costs	-	-	-	-	-$209,083
Incentive Amount	-	-	-	-	$30,525
Electric Bill Savings	$18,503	$18,765	$19,029	$19,297	$474,410
Cash Total	$18,503	$18,765	$19,029	$19,297	$295,852
Total Cash Flow	$18,503	$18,765	$19,029	$19,297	$295,852
Cumulative Cash Flow	$238,761	$257,525	$276,555	$295,852	-

5 Arch Solar C&I: Commercial References

References

Mike Nicholson, President of Ampco Pumps
Phone: (414) 643-1852 ext. 125

Ty Weinhold, Chief Operating Officer at Viking Masek
Phone: (920) 564-5331

Bob Travis, President of InkWorks Printing
Phone: (414) 430-2635

John Edlebeck P.E. Director of Public Works, Village of Whitefish Bay
Phone: (414) 962-6690 ext. 114

Ken Manninen, President of Alliance Manufacturing, Inc.
Phone: (920) 922-8100

Larry Bierke, Iowa County Administrator
Phone: (608) 935-0318

Don Marx, President of Milwaukee Plate Glass Company
Phone: (414) 771-5660

Out of courtesy, please let us know if you'd like to call one of our references to discuss their solar system. We will call ahead and make sure that they are aware of an incoming call.

Prepared For

Ozaukee County Buildings
262 284 8324
jwittek@co.ozaukee.wi.us

Industry Leader

Arch Solar C&I is one of the most respected Energy Management companies in Wisconsin. Our company leaders are active instructors, inspectors, and consultants to many of the leading energy groups, including: Focus on Energy, Midwest Renewable Energy Association, North American Board of Certified Energy Practitioners, Wisconsin Sustainable Business Council, MMAC, Lakeshore Technical College, Sheboygan Sustainable Living Group, and many others.

Highway Department Solar

Prepared By 6/1/2022

Andrew Holmstrom
920-838-0483
andrew@archelec.com

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2. The information is the subject of efforts to maintain its secrecy that are reasonable under the circumstances.

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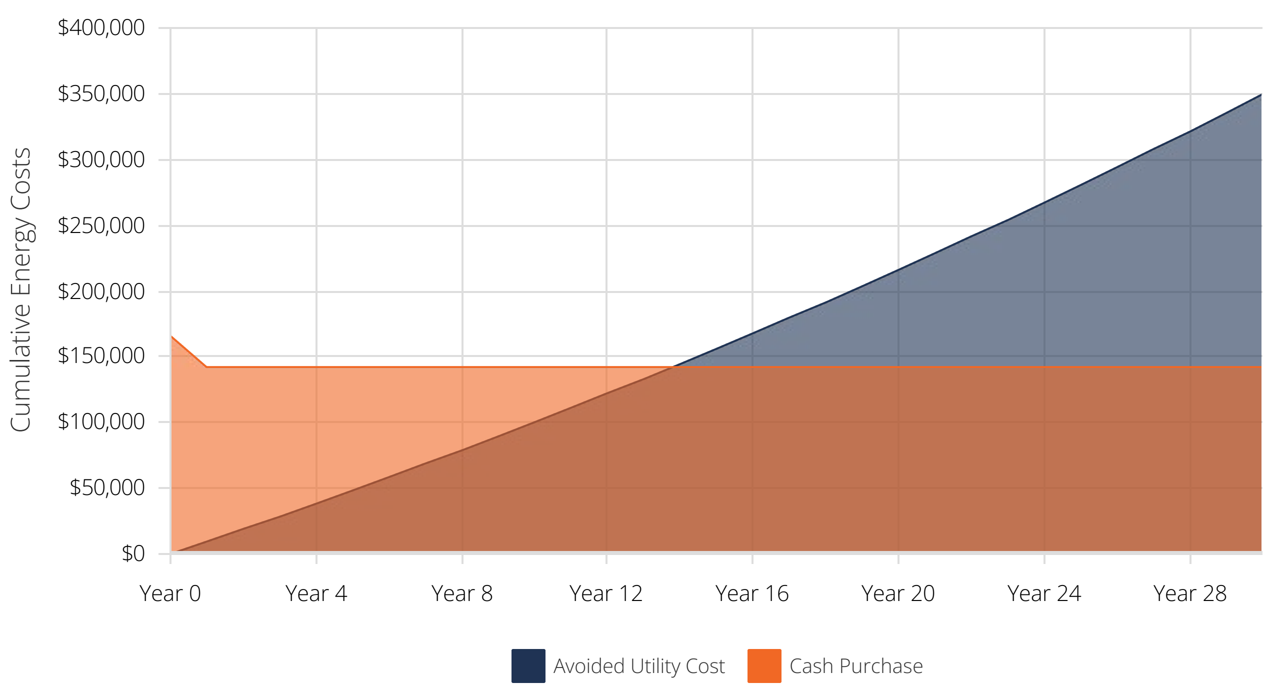
1 Project Summary

Payment Options	Cash Purchase
IRR - Term	6.4%
LCOE PV Generation	$0.062 /kWh
Net Present Value	$26,897
Payback Period	13.8 Years
Total Payments	$165,798
Total Incentives	$23,663
Net Payments	$142,136
Electric Bill Savings - Term	$349,629
Upfront Payment	$165,798

Combined Solar PV Rating
Power Rating: 70,650 W-DC
Power Rating: 57.0 kW-AC

Combined ESS Ratings
Energy Capacity: 0.0 kWh
Power Rating: 0.0 kW

Cumulative Energy Costs By Payment Option



Prepared By: Andrew Holmstrom
P: 920-838-0483, **E:** andrew@archelec.com


AC
DC
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ARCH
SOLAR C&I
THE ENERGY EXPERTS

2.1.1 PV System Details

General Information
Facility: HWY Dept - Single Phase
Address: 121 W Main St Port Washington WI 53074

Solar PV Equipment Description
Solar Panels: (157) Znshine Solar ZXM6-NHLDD144-450/M
Inverters: (5) SolarEdge SE11400A-US (240V)

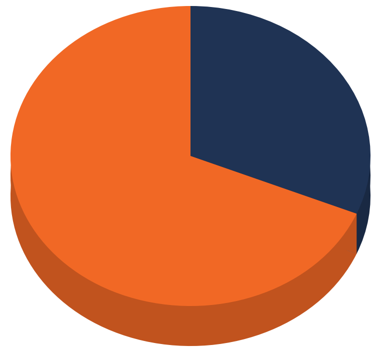
Solar PV Equipment Typical Lifespan
Solar Panels: Greater than 30 Years
Inverters: 15 Years

Solar PV System Cost and Incentives

Solar PV System Cost	$165,798
Incentive Amount	-$23,663
Net Solar PV System Cost	**$142,136**

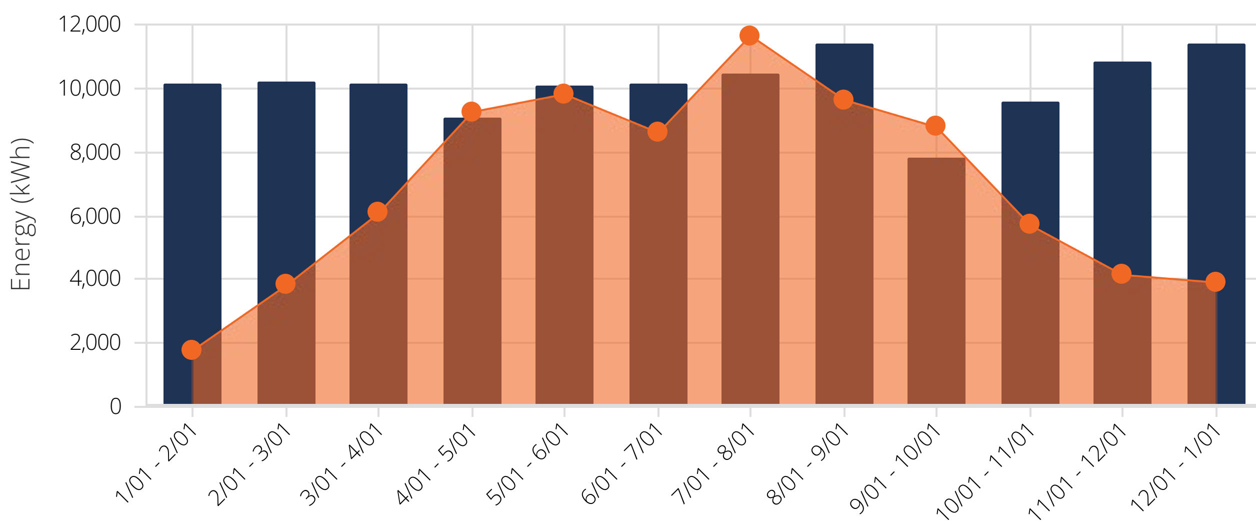
Solar PV System Rating
Power Rating: 70,650 W-DC
Power Rating: 56,950.0 W-AC

Energy Consumption Mix
Annual Energy Use: 120,942 kWh



Utility 37,841 kWh (31.29%)
Solar PV 83,101 kWh (68.71%)

Monthly Energy Use vs Solar Generation



Energy Use (kWh) Solar Generation (kWh)

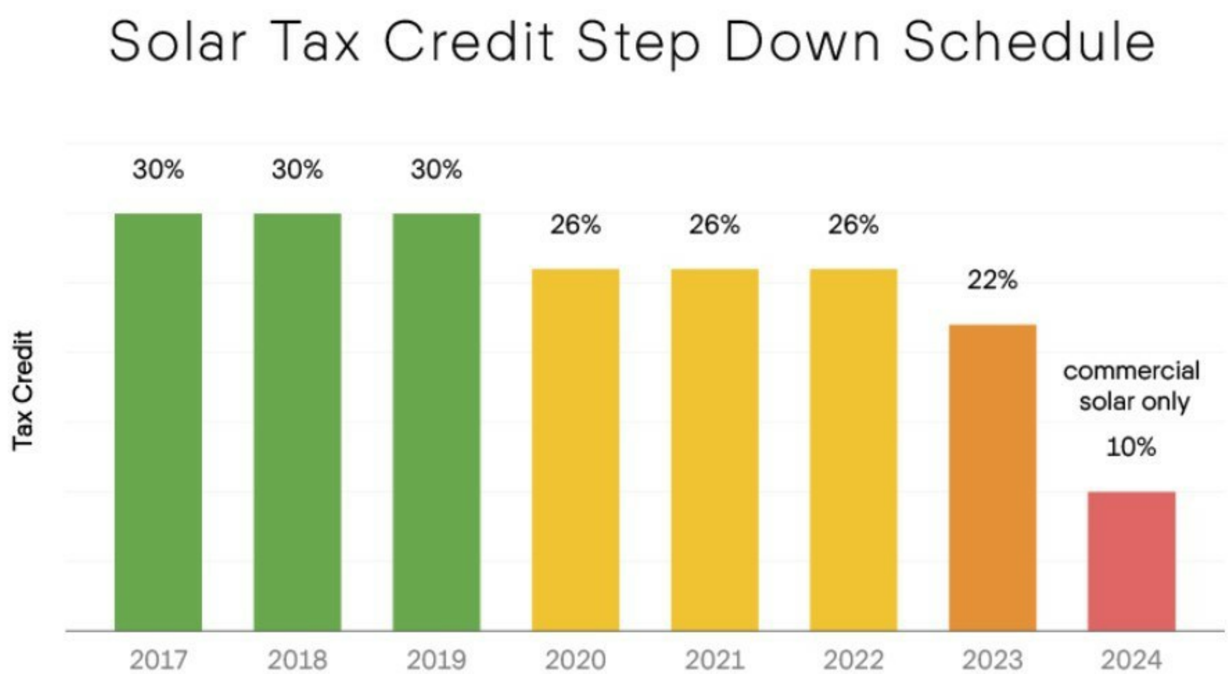
2.1.2 Rebates and Incentives

This section summarizes all incentives available for this project. The actual rebate and incentive amounts for this project are shown in each example.

FOE Special Sector Solar PV Incentive

This incentive helps organizations that do not qualify for the solar investment tax credit (ITC) to offset the cost of installing solar electric systems. The table below provides an incentive overview, and additional details can be found at focusonenergy.com/solar. We are excited to introduce a new Special Sector Solar Incentive for nonprofits, schools, government and Native American tribes and nations that goes into effect September 1, 2021.

Total Incentive Value: $23,663



2018 Tax Reform

"The corporate tax reduction from 35% down to 21% has enabled companies to invest these savings into expense-reducing assets, such as solar energy. For example, with a proposed net investment of $200,000, a company with approximately $1.1 million of taxable income could pay for the entire solar investment in 2 years."

Example: $200,000(net project investment)

Yr 1: $1.1 million taxable income $100,000 (savings from 9% tax reduction)

Yr 2: $1.1 million taxable income $100,000 (savings from 9% tax reduction)

Sales Tax Exemption
Solar PV (photovoltaic) installations are exempt from paying Wisconsin state sales tax.

Property Tax Exemption
Solar PV (photovoltaic) installations are exempt from increasing property taxes.

2.1.3 Utility Rates

The table below shows the rates associate with your current utility rate schedule (CG-2). Your estimated electric bills after solar are shown on the following page.

Customer Charges				Energy Charges				Demand Charges			
Season	Charge Type	Rate Type	CG-2	Season	Charge Type	Rate Type	CG-2	Season	Charge Type	Rate Type	CG-2
S1	Flat Rate	per day	$1.32	S1	On Peak	Import	$0.11974	S1	Flat Rate	Import	$2.00
				S1	Off Peak	Import	$0.09109	S1	On Peak	Import	$6.86

2.1.4 Current Electric Bill

The table below shows your annual electricity costs based on the most current utility rates and your previous 12 months of electrical usage.

Rate Schedule: WE - CG-2

Time Periods	Energy Use (kWh)		Max Demand (kW)		Charges			
Bill Ranges & Seasons	On Peak	Off Peak	NC / Max	On Peak	Other	Energy	Demand	Total
1/1/2022 - 2/1/2022 S1	4,327	5,758	40	36	$41	$1,043	$331	$1,414
2/1/2022 - 3/1/2022 S1	4,510	5,657	40	39	$37	$1,055	$352	$1,444
3/1/2022 - 4/1/2022 S1	4,640	5,506	40	37	$41	$1,057	$338	$1,436
4/1/2022 - 5/1/2022 S1	4,262	4,766	40	33	$40	$944	$310	$1,294
5/1/2021 - 6/1/2021 S1	4,327	5,758	40	36	$41	$1,043	$331	$1,414
6/1/2021 - 7/1/2021 S1	4,327	5,758	40	36	$40	$1,043	$331	$1,413
7/1/2021 - 8/1/2021 S1	4,797	5,640	42	37	$41	$1,088	$338	$1,467
8/1/2021 - 9/1/2021 S1	5,012	6,385	42	38	$41	$1,182	$345	$1,567
9/1/2021 - 10/1/2021 S1	3,462	4,308	42	32	$40	$807	$304	$1,150
10/1/2021 - 11/1/2021 S1	4,277	5,292	42	22	$41	$994	$235	$1,270
11/1/2021 - 12/1/2021 S1	4,566	6,212	42	25	$40	$1,113	$256	$1,408
12/1/2021 - 1/1/2022 S1	5,012	6,385	42	38	$41	$1,182	$345	$1,567
Total	53,519	67,425	-	-	$482	$12,550	$3,814	$16,846

2.1.5 New Electric Bill

Rate Schedule: WE - CG-2

Time Periods	Energy Use (kWh)		Max Demand (kW)		Charges			
Bill Ranges & Seasons	On Peak	Off Peak	NC / Max	On Peak	Other	Energy	Demand	Total
1/1/2022 - 2/1/2022 S1	3,133	5,188	40	34	$41	$848	$317	$1,206
2/1/2022 - 3/1/2022 S1	1,872	4,484	40	27	$37	$633	$269	$939
3/1/2022 - 4/1/2022 S1	85	3,995	40	27	$41	$374	$269	$684
4/1/2022 - 5/1/2022 S1	-1,772	1,545	40	22	$40	$10	$235	$265
5/1/2021 - 6/1/2021 S1	-1,286	1,561	34	29	$41	$0	$283	$324
6/1/2021 - 7/1/2021 S1	-1,148	2,631	33	29	$40	$102	$283	$425
7/1/2021 - 8/1/2021 S1	-2,615	1,403	35	30	$41	$51	$290	$280
8/1/2021 - 9/1/2021 S1	-1,552	3,320	33	31	$41	$117	$297	$454
9/1/2021 - 10/1/2021 S1	-2,535	1,527	35	28	$40	$42	$276	$273
10/1/2021 - 11/1/2021 S1	921	2,951	42	18	$41	$379	$207	$627
11/1/2021 - 12/1/2021 S1	1,510	5,126	42	23	$40	$648	$242	$929
12/1/2021 - 1/1/2022 S1	2,067	5,430	42	30	$41	$742	$290	$1,073
Total	-1,320	39,161	-	-	$482	$3,739	$3,258	$7,479

Annual Electricity Savings: $9,366

3.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	6.4%	Net Present Value	$26,897	Payback Period	13.8 Years
ROI	125.2%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$165,798				

Years	Cash			Total Cash Flow	Cumulative Cash Flow
	Project Costs	Incentive Amount	Electric Bill Savings		
Upfront	-$165,798	-	-	-$165,798	-$165,798
1	-	$23,663	$9,366	$33,029	-$132,769
2	-	-	$9,506	$9,506	-$123,263
3	-	-	$9,647	$9,647	-$113,616
4	-	-	$9,791	$9,791	-$103,825
5	-	-	$9,936	$9,936	-$93,889
6	-	-	$10,083	$10,083	-$83,806
7	-	-	$10,232	$10,232	-$73,575
8	-	-	$10,383	$10,383	-$63,192
9	-	-	$10,535	$10,535	-$52,657
10	-	-	$10,690	$10,690	-$41,967
11	-	-	$10,847	$10,847	-$31,120
12	-	-	$11,005	$11,005	-$20,114
13	-	-	$11,166	$11,166	-$8,948
14	-	-	$11,329	$11,329	$2,381
15	-	-	$11,494	$11,494	$13,874
16	-	-	$11,661	$11,661	$25,535
17	-	-	$11,829	$11,829	$37,364
18	-	-	$12,001	$12,001	$49,365
19	-	-	$12,174	$12,174	$61,539
20	-	-	$12,349	$12,349	$73,887
21	-	-	$12,526	$12,526	$86,414
22	-	-	$12,706	$12,706	$99,120
23	-	-	$12,888	$12,888	$112,007
24	-	-	$13,071	$13,071	$125,078
25	-	-	$13,258	$13,258	$138,336
26	-	-	$13,446	$13,446	$151,782
27	-	-	$13,636	$13,636	$165,418
28	-	-	$13,829	$13,829	$179,247
29	-	-	$14,024	$14,024	$193,272
30	-	-	$14,222	$14,222	$207,493
Totals:	-$165,798	$23,663	$349,629	$207,493	-

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	6.4%	Net Present Value	$26,897	Payback Period	13.8 Years
ROI	125.2%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$165,798				

Years	**Upfront**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Cash													
Project Costs	-$165,798	-	-	-	-	-	-	-	-	-	-	-	-
Incentive Amount	-	$23,663	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	-	$9,366	$9,506	$9,647	$9,791	$9,936	$10,083	$10,232	$10,383	$10,535	$10,690	$10,847	$11,005
Cash Total	-$165,798	$33,029	$9,506	$9,647	$9,791	$9,936	$10,083	$10,232	$10,383	$10,535	$10,690	$10,847	$11,005
Total Cash Flow	-$165,798	$33,029	$9,506	$9,647	$9,791	$9,936	$10,083	$10,232	$10,383	$10,535	$10,690	$10,847	$11,005
Cumulative Cash Flow	-$165,798	-$132,769	-$123,263	-$113,616	-$103,825	-$93,889	-$83,806	-$73,575	-$63,192	-$52,657	-$41,967	-$31,120	-$20,114

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	6.4%	Net Present Value	$26,897	Payback Period	13.8 Years
ROI	125.2%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$165,798				

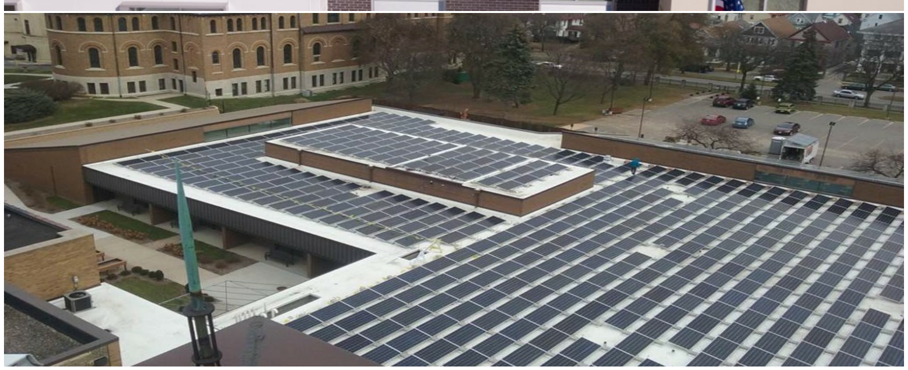
Years	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**
Cash														
Project Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Incentive Amount	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	$11,166	$11,329	$11,494	$11,661	$11,829	$12,001	$12,174	$12,349	$12,526	$12,706	$12,888	$13,071	$13,258	$13,446
Cash Total	$11,166	$11,329	$11,494	$11,661	$11,829	$12,001	$12,174	$12,349	$12,526	$12,706	$12,888	$13,071	$13,258	$13,446
Total Cash Flow	$11,166	$11,329	$11,494	$11,661	$11,829	$12,001	$12,174	$12,349	$12,526	$12,706	$12,888	$13,071	$13,258	$13,446
Cumulative Cash Flow	-$8,948	$2,381	$13,874	$25,535	$37,364	$49,365	$61,539	$73,887	$86,414	$99,120	$112,007	$125,078	$138,336	$151,782

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	6.4%	Net Present Value	$26,897	Payback Period	13.8 Years
ROI	125.2%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$165,798				

Years	27	28	29	30	Totals
Cash					
Project Costs	-	-	-	-	-$165,798
Incentive Amount	-	-	-	-	$23,663
Electric Bill Savings	$13,636	$13,829	$14,024	$14,222	$349,629
Cash Total	$13,636	$13,829	$14,024	$14,222	$207,493
Total Cash Flow	$13,636	$13,829	$14,024	$14,222	$207,493
Cumulative Cash Flow	$165,418	$179,247	$193,272	$207,493	-



References

Mike Nicholson, President of Ampco Pumps
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Phone: (920) 564-5331

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Phone: (414) 430-2635

John Edlebeck P.E. Director of Public Works, Village of Whitefish Bay
Phone: (414) 962-6690 ext. 114

Ken Manninen, President of Alliance Manufacturing, Inc.
Phone: (920) 922-8100

Larry Bierke, Iowa County Administrator
Phone: (608) 935-0318

Don Marx, President of Milwaukee Plate Glass Company
Phone: (414) 771-5660

Out of courtesy, please let us know if you'd like to call one of our references to discuss their solar system. We will call ahead and make sure that they are aware of an incoming call.

Prepared For

Ozaukee County Buildings
262 284 8324
jwittek@co.ozaukee.wi.us

Industry Leader

Arch Solar C&I is one of the most respected Energy Management companies in Wisconsin. Our company leaders are active instructors, inspectors, and consultants to many of the leading energy groups, including: Focus on Energy, Midwest Renewable Energy Association, North American Board of Certified Energy Practitioners, Wisconsin Sustainable Business Council, MMAC, Lakeshore Technical College, Sheboygan Sustainable Living Group, and many others.

Justice Center Solar

Prepared By

6/1/2022

Andrew Holmstrom
920-838-0483
andrew@archelec.com

Table of Contents

The following proposal was created specifically for Ozaukee County Buildings, the proposal includes Arch Solar C&I's specific Trade Secrets that are confidential to Arch Solar C&I's employees and staff. This proposal should only be viewed by Ozaukee County Buildings employees and should not be divulged to outside resources without Arch Solar C&I's express written consent. Pursuant to Wisconsin Statute 19.36, please see below. This quote price is valid for 21 days.

WI Statute 19.36 Limitation upon access and withholding

(5) Trade secrets. An authority may withhold access to any record or portion of a record containing information qualifying as a trade secret as defined in s. 134.90 (1) (c).

134.90 Uniform Trade Secrets act

(1)(c) "Trade secret" means information, including a formula, pattern, compilation, program, device, method, technique or process to which all of the following apply:

1. The information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

2. The information is the subject of efforts to maintain its secrecy that are reasonable under the circumstances.

Any violation will be pursued to the fullest extent of the law.

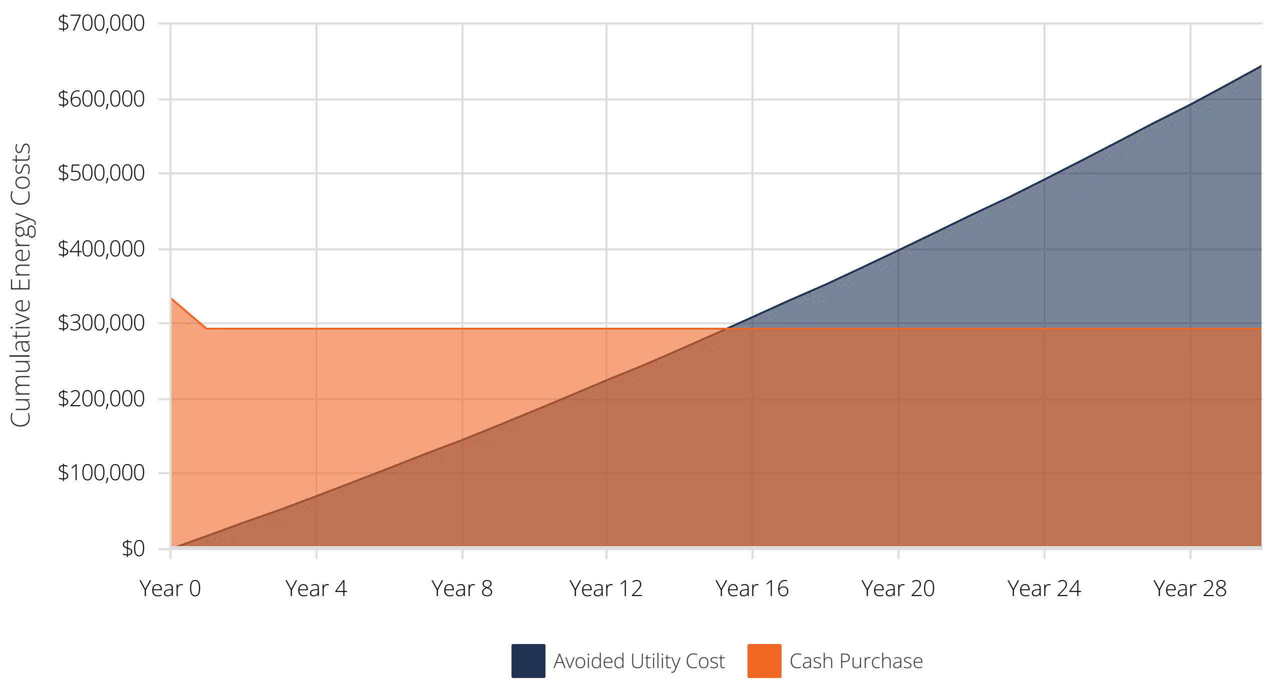
1 Project Summary

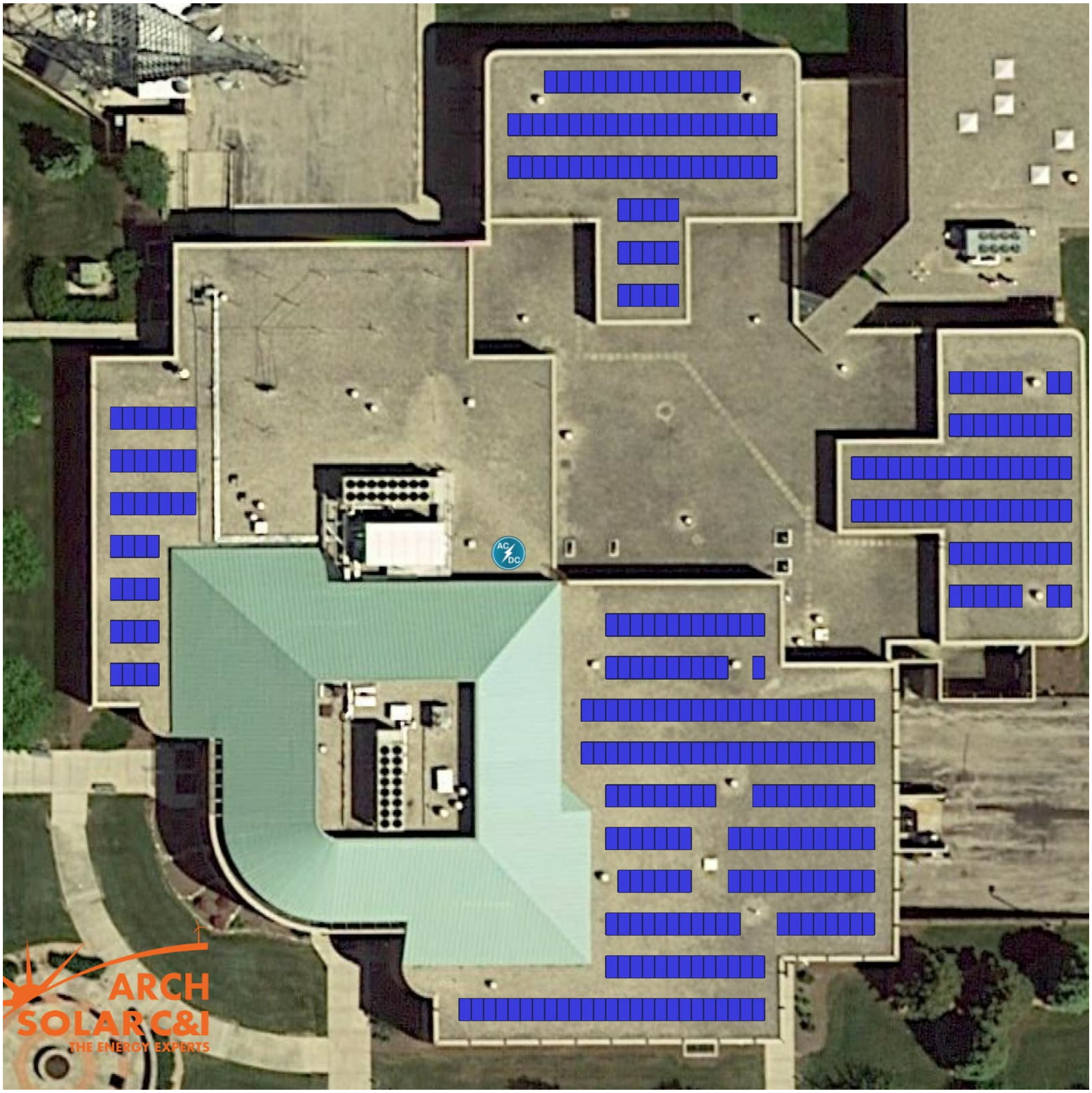
Payment Options	Cash Purchase
IRR - Term	5.5%
LCOE PV Generation	$0.055 /kWh
Net Present Value	$18,033
Payback Period	15.3 Years
Total Payments	$334,369
Total Incentives	$40,908
Net Payments	$293,462
Electric Bill Savings - Term	$644,035
Upfront Payment	$334,369

Combined Solar PV Rating
Power Rating: 166,050 W-DC
Power Rating: 120.0 kW-AC

Combined ESS Ratings
Energy Capacity: 0.0 kWh
Power Rating: 0.0 kW

Cumulative Energy Costs By Payment Option




AC
DC
ARCH
SOLAR C&I
THE ENERGY EXPERTS

2.1.1 PV System Details

General Information
Facility: Justice Center
Address: 1201 S Spring St Port Washington WI 53074

Solar PV Equipment Description
Solar Panels: (369) Znshine Solar ZXM6-NHLDD144-450/M
Inverters: (1) SolarEdge SE120KUS

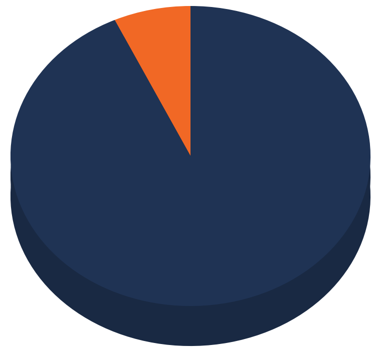
Solar PV Equipment Typical Lifespan
Solar Panels: Greater than 30 Years
Inverters: 15 Years

Solar PV System Cost and Incentives

Solar PV System Cost	$334,369
Incentive Amount	-$40,908
Net Solar PV System Cost	**$293,462**

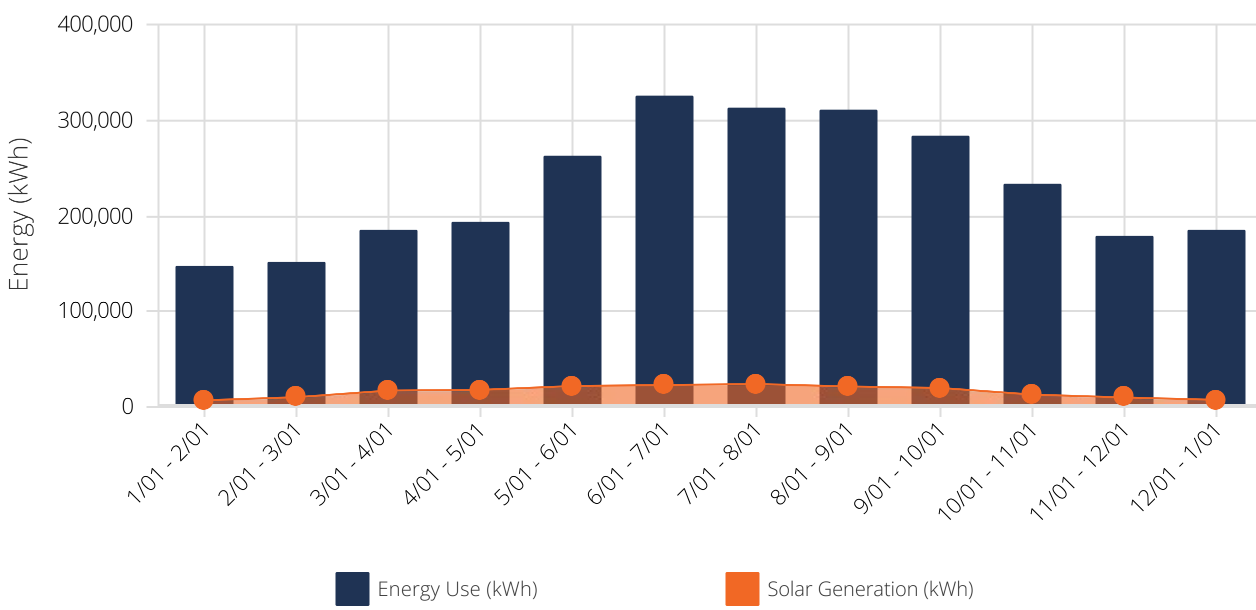
Solar PV System Rating
Power Rating: 166,050 W-DC
Power Rating: 120,000.0 W-AC

Energy Consumption Mix
Annual Energy Use: 2,760,381 kWh



Utility 2,569,305 kWh (93.08%)
Solar PV 191,076 kWh (6.92%)

Monthly Energy Use vs Solar Generation



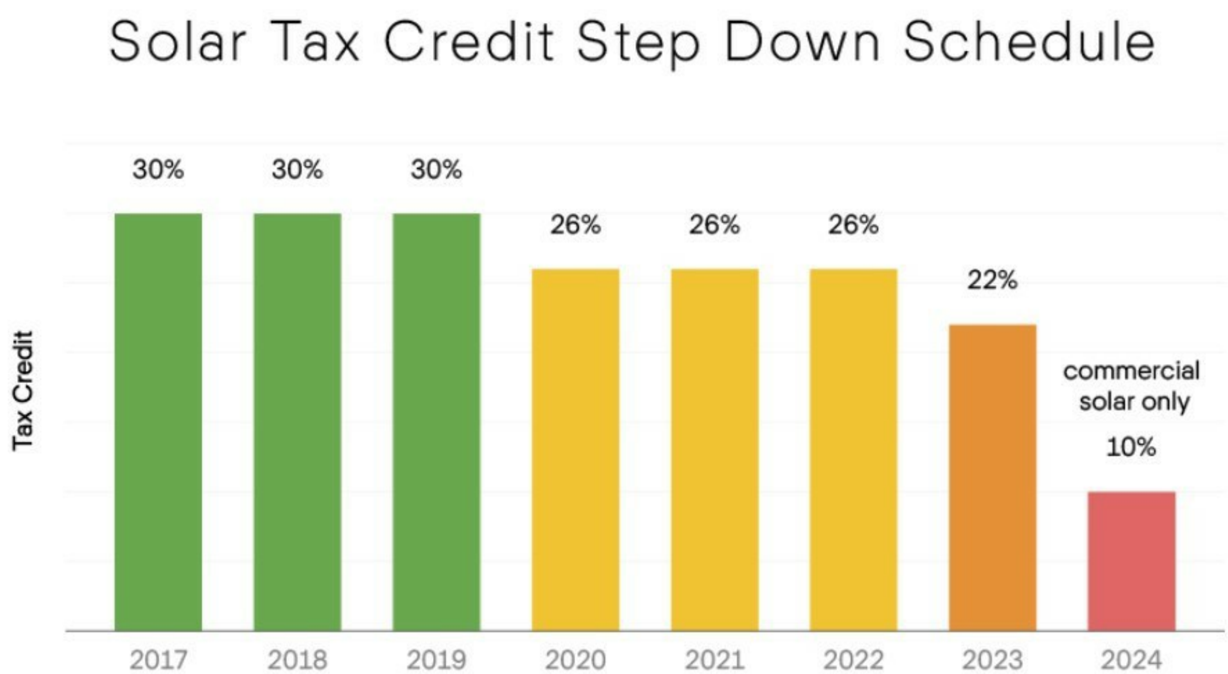
2.1.2 Rebates and Incentives

This section summarizes all incentives available for this project. The actual rebate and incentive amounts for this project are shown in each example.

FOE Special Sector Solar PV Incentive

This incentive helps organizations that do not qualify for the solar investment tax credit (ITC) to offset the cost of installing solar electric systems. The table below provides an incentive overview, and additional details can be found at focusonenergy.com/solar. We are excited to introduce a new Special Sector Solar Incentive for nonprofits, schools, government and Native American tribes and nations that goes into effect September 1, 2021.

Total Incentive Value: $40,908



2018 Tax Reform

"The corporate tax reduction from 35% down to 21% has enabled companies to invest these savings into expense-reducing assets, such as solar energy. For example, with a proposed net investment of $200,000, a company with approximately $1.1 million of taxable income could pay for the entire solar investment in 2 years."
Example: $200,000(net project investment)
Yr 1: $1.1 million taxable income $100,000 (savings from 9% tax reduction)
Yr 2: $1.1 million taxable income $100,000 (savings from 9% tax reduction)

Sales Tax Exemption
Solar PV (photovoltaic) installations are exempt from paying Wisconsin state sales tax.

Property Tax Exemption
Solar PV (photovoltaic) installations are exempt from increasing property taxes.

2.1.3 Utility Rates

The table below shows the rates associate with your current utility rate schedule (CG-3). Your estimated electric bills after solar are shown on the following page.

Customer Charges				Energy Charges				Demand Charges			
Season	Charge Type	Rate Type	CG-3	Season	Charge Type	Rate Type	CG-3	Season	Charge Type	Rate Type	CG-3
S1	Flat Rate	per day	$2.00	S1	On Peak	Import	$0.07957	S1	Flat Rate	Import	$2.55
				S1	Off Peak	Import	$0.0591	S1	On Peak	Import	$15.18

2.1.4 Current Electric Bill

The table below shows your annual electricity costs based on the most current utility rates and your previous 12 months of electrical usage.

Rate Schedule: WE - CG-3

Time Periods	Energy Use (kWh)		Max Demand (kW)		Charges			
Bill Ranges & Seasons	On Peak	Off Peak	NC / Max	On Peak	Other	Energy	Demand	Total
1/1/2022 - 2/1/2022 S1	59,317	86,990	654	317	$62	$9,861	$6,616	$16,539
2/1/2022 - 3/1/2022 S1	61,552	88,225	654	420	$56	$10,112	$8,180	$18,348
3/1/2022 - 4/1/2022 S1	81,207	102,884	654	509	$62	$12,542	$9,532	$22,136
4/1/2022 - 5/1/2022 S1	83,486	109,319	654	506	$60	$13,104	$9,486	$22,650
5/1/2021 - 6/1/2021 S1	101,876	159,579	654	566	$62	$17,537	$10,397	$27,996
6/1/2021 - 7/1/2021 S1	134,239	190,962	694	694	$60	$21,967	$12,341	$34,368
7/1/2021 - 8/1/2021 S1	123,305	189,450	694	609	$62	$21,008	$11,050	$32,120
8/1/2021 - 9/1/2021 S1	127,921	181,968	707	707	$62	$20,933	$12,538	$33,533
9/1/2021 - 10/1/2021 S1	119,301	163,268	707	593	$60	$19,142	$10,807	$30,009
10/1/2021 - 11/1/2021 S1	90,007	141,991	707	533	$62	$15,554	$9,896	$25,511
11/1/2021 - 12/1/2021 S1	74,898	103,939	707	473	$60	$12,102	$8,985	$21,147
12/1/2021 - 1/1/2022 S1	74,172	110,525	707	409	$62	$12,434	$8,013	$20,509
Total	1,131,281	1,629,100	-	-	$730	$186,296	$117,840	$304,866

2.1.5 New Electric Bill

Rate Schedule: WE - CG-3

Time Periods	Energy Use (kWh)		Max Demand (kW)		Charges			
Bill Ranges & Seasons	On Peak	Off Peak	NC / Max	On Peak	Other	Energy	Demand	Total
1/1/2022 - 2/1/2022 S1	55,027	84,453	652	317	$62	$9,370	$6,606	$16,038
2/1/2022 - 3/1/2022 S1	55,458	84,230	649	415	$56	$9,391	$8,094	$17,541
3/1/2022 - 4/1/2022 S1	69,456	97,621	646	503	$62	$11,296	$9,430	$20,788
4/1/2022 - 5/1/2022 S1	72,630	102,438	644	496	$60	$11,833	$9,324	$21,217
5/1/2021 - 6/1/2021 S1	88,376	151,290	642	552	$62	$15,973	$10,174	$26,210
6/1/2021 - 7/1/2021 S1	118,619	183,769	639	639	$60	$20,299	$11,495	$31,854
7/1/2021 - 8/1/2021 S1	107,977	180,912	649	596	$62	$19,284	$10,842	$30,188
8/1/2021 - 9/1/2021 S1	113,622	174,962	609	609	$62	$19,381	$11,040	$30,483
9/1/2021 - 10/1/2021 S1	105,837	156,983	699	584	$60	$17,699	$10,660	$28,419
10/1/2021 - 11/1/2021 S1	81,488	137,702	700	527	$62	$14,622	$9,795	$24,479
11/1/2021 - 12/1/2021 S1	69,096	99,956	698	473	$60	$11,405	$8,975	$20,440
12/1/2021 - 1/1/2022 S1	68,702	108,698	703	409	$62	$11,891	$8,003	$19,956
Total	1,006,288	1,563,014	-	-	$730	$172,444	$114,438	$287,612

Annual Electricity Savings: $17,254

3.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	5.5%	Net Present Value	$18,033	Payback Period	15.3 Years
ROI	104.9%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$334,369				

Years	Cash			Total Cash Flow	Cumulative Cash Flow
	Project Costs	Incentive Amount	Electric Bill Savings		
Upfront	-$334,369	-	-	-$334,369	-$334,369
1	-	$40,908	$17,254	$58,161	-$276,208
2	-	-	$17,511	$17,511	-$258,697
3	-	-	$17,771	$17,771	-$240,926
4	-	-	$18,035	$18,035	-$222,891
5	-	-	$18,302	$18,302	-$204,589
6	-	-	$18,573	$18,573	-$186,016
7	-	-	$18,847	$18,847	-$167,169
8	-	-	$19,125	$19,125	-$148,044
9	-	-	$19,407	$19,407	-$128,637
10	-	-	$19,692	$19,692	-$108,945
11	-	-	$19,980	$19,980	-$88,965
12	-	-	$20,273	$20,273	-$68,692
13	-	-	$20,569	$20,569	-$48,123
14	-	-	$20,869	$20,869	-$27,255
15	-	-	$21,172	$21,172	-$6,083
16	-	-	$21,479	$21,479	$15,397
17	-	-	$21,791	$21,791	$37,187
18	-	-	$22,106	$22,106	$59,293
19	-	-	$22,424	$22,424	$81,717
20	-	-	$22,747	$22,747	$104,464
21	-	-	$23,074	$23,074	$127,538
22	-	-	$23,405	$23,405	$150,943
23	-	-	$23,739	$23,739	$174,683
24	-	-	$24,078	$24,078	$198,761
25	-	-	$24,421	$24,421	$223,182
26	-	-	$24,768	$24,768	$247,950
27	-	-	$25,119	$25,119	$273,069
28	-	-	$25,474	$25,474	$298,543
29	-	-	$25,833	$25,833	$324,376
30	-	-	$26,197	$26,197	$350,573
Totals:	-$334,369	$40,908	$644,035	$350,573	-

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	5.5%	Net Present Value	$18,033	Payback Period	15.3 Years
ROI	104.9%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$334,369				

Years	**Upfront**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Cash													
Project Costs	-$334,369	-	-	-	-	-	-	-	-	-	-	-	-
Incentive Amount	-	$40,908	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	-	$17,254	$17,511	$17,771	$18,035	$18,302	$18,573	$18,847	$19,125	$19,407	$19,692	$19,980	$20,273
Cash Total	-$334,369	$58,161	$17,511	$17,771	$18,035	$18,302	$18,573	$18,847	$19,125	$19,407	$19,692	$19,980	$20,273
Total Cash Flow	-$334,369	$58,161	$17,511	$17,771	$18,035	$18,302	$18,573	$18,847	$19,125	$19,407	$19,692	$19,980	$20,273
Cumulative Cash Flow	-$334,369	-$276,208	-$258,697	-$240,926	-$222,891	-$204,589	-$186,016	-$167,169	-$148,044	-$128,637	-$108,945	-$88,965	-$68,692

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	5.5%	Net Present Value	$18,033	Payback Period	15.3 Years
ROI	104.9%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$334,369				

Years	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**
Cash														
Project Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Incentive Amount	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	$20,569	$20,869	$21,172	$21,479	$21,791	$22,106	$22,424	$22,747	$23,074	$23,405	$23,739	$24,078	$24,421	$24,768
Cash Total	$20,569	$20,869	$21,172	$21,479	$21,791	$22,106	$22,424	$22,747	$23,074	$23,405	$23,739	$24,078	$24,421	$24,768
Total Cash Flow	$20,569	$20,869	$21,172	$21,479	$21,791	$22,106	$22,424	$22,747	$23,074	$23,405	$23,739	$24,078	$24,421	$24,768
Cumulative Cash Flow	-$48,123	-$27,255	-$6,083	$15,397	$37,187	$59,293	$81,717	$104,464	$127,538	$150,943	$174,683	$198,761	$223,182	$247,950

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	5.5%	Net Present Value	$18,033	Payback Period	15.3 Years
ROI	104.9%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	2.0%	Federal Income Tax Rate	21.0%	State Income Tax Rate	7.9%
Total Project Costs	$334,369				

Years	**27**	**28**	**29**	**30**	**Totals**
Cash					
Project Costs	-	-	-	-	-$334,369
Incentive Amount	-	-	-	-	$40,908
Electric Bill Savings	$25,119	$25,474	$25,833	$26,197	$644,035
Cash Total	$25,119	$25,474	$25,833	$26,197	$350,573
Total Cash Flow	$25,119	$25,474	$25,833	$26,197	$350,573
Cumulative Cash Flow	$273,069	$298,543	$324,376	$350,573	-

5 Arch Solar C&I: Commercial References

References

Mike Nicholson, President of Ampco Pumps
Phone: (414) 643-1852 ext. 125

Ty Weinhold, Chief Operating Officer at Viking Masek
Phone: (920) 564-5331

Bob Travis, President of InkWorks Printing
Phone: (414) 430-2635

John Edlebeck P.E. Director of Public Works, Village of Whitefish Bay
Phone: (414) 962-6690 ext. 114

Ken Manninen, President of Alliance Manufacturing, Inc.
Phone: (920) 922-8100

Larry Bierke, Iowa County Administrator
Phone: (608) 935-0318

Don Marx, President of Milwaukee Plate Glass Company
Phone: (414) 771-5660

Out of courtesy, please let us know if you'd like to call one of our references to discuss their solar system. We will call ahead and make sure that they are aware of an incoming call.

Energy Action Commission

AGENDA INFORMATION SHEET

AGENDA DATE: June 13, 2022
DEPARTMENT: Administration
DIRECTOR: Jason Dzwinel
PREPARER: Jason Wittek

Agenda Summary Recommend to the Public Works Committee that the County use ARPA funds for Solar PV installation on three County Rooftops – Administration Center, Highway Department, and Justice Center.

BACKGROUND INFORMATION: The County obtained Solar Site Assessments from Arch Solar, Inc detailing the cost/benefit to installing Solar PV Systems on the rooftops of our three main campus buildings. The Energy Action Commissions role is to review and make recommendations on energy improvements within the County. The Ozaukee County Energy & Sustainability Plan adopted by the County Board in 2015, "encourages the use of alternative energy source", and to, "evaluate renewable energy opportunities at County facilities". Currently, the County has one solar pv system at the Transit Services building, installed in 2015.

ANALYSIS:

Solar PV System Assessments	Administration	Highway	Justice
Size (dc)	98 kw	70 kw	166 kw
Annual kWh - Offset	123,000 kWh	83,000 kWh	191,000 kWh
% Annual kWh - Offset	24%	68%	7%
Cost ($)	$209,000	$165,000	$334,000
Focus on Energy Incentive ($)	$30,525	$23,663	$40,908
Annual Savings	$12,709	$9,336	$17,254
Payback after FOE (Years)	**12.9 Years**	**13.8 Years**	**15.3 Years**
ROI - 30 Years ($)	**$296,000**	**$207,000**	**$351,000**

Upfront Costs - All	ROI - 30 Years - All	Annual Cty Electricity Offset - All
$708,000	**$854,000**	**6%**

FISCAL IMPACT:

Balance Current Year: $708,000

Next Year's Estimated Cost: $0

FUNDING SOURCE:

County Levy: Non-County Levy: X Indicate source: ARPA Funds

RECOMMENDED MOTION: Recommend to the Public Works Committee that the County use ARPA funds for Solar PV installation on three County Rooftops – Administration Center, Highway Department, and Justice Center.