



1368 SPALDING RD., STE. C, DUNEDIN, FL 34698-5039 | P: (727) 733-5558 | F: (727) 738-8225 | LICENSE: # CG-C018550

To: Tom Wojtkiw, City of Clearwater, Building & Maintenance Division Head
City of Clearwater, 1900 Grand AVE, Clearwater, FL, 33765
Thomas.Wojtkiw@MyClearwater.com / 727-224-7070

RE: City of Clearwater CMAR Solar Projects at Solid Waste and Gas Complex

Monday July 23, 2024

Mr. Wojtkiw,

Thank you for considering Bandes Construction's proposal for design and construction services for CMAR Solar scope at Solid Waste Transfer Station and Clearwater Gas Complex. We have consulted with three solar companies and through the pre-bid process recommend moving forward with Transform Solar as our solar contractor.

The following services will be provided as part of this contract.

1. *Design Services:* Will be done through Transform Solar. Bandes does not anticipate any Structural modification to the buildings being required for the added scope. The design will consist of permit documents required for the solar scope only. Anticipate 30-60 days from NTP.
2. *Permitting Services:* Apply for required permits. We expect the permitting process to take 60-90 days; due to the unknown turnaround by each municipality this duration is subject to change.
3. *Interconnection Agreements:* Work with Duke Energy through the interconnection agreement process from initial design through setting Duke's net meter.
4. *Construction Services:* Project Management through pre-construction to project completion, job site supervision throughout construction process. Manage and complete the project within 90 days of receiving an approved permit.



See below for our costs on the large array per site:

Budget Breakdown Gas Complex	
Description	Large Array
	\$
Transform	419,230.00
	\$
P&P Bond	6,000.00
	\$
BR Insurance	1,500.00
	\$
General Liability	2,500.00
	\$
3 Months GC Fees	27,000.00
	\$
Sub Total	456,230.00
	\$
7% OH&P	31,937.00
	\$
7% Contingency	31,936.00
	\$
Total	520,103.00
ROI	8.3 Years

Budget Breakdown Solid Waste	
Description	Large Array
	\$
Transform	438,606.00
	\$
P&P Bond	7,000.00
	\$
BR Insurance	1,500.00
	\$
General Liability	3,000.00
	\$
3 Months GC Fees	29,000.00
	\$
Sub Total	479,106.00
	\$
7% OH&P	33,538.00
	\$
7% Contingency	33,537.00
	\$
Total	546,181.00
ROI	6.7 Years

A breakdown of cost and selections will be provided in accompanying documents.

Not included:

- Unforeseen Utilities Conflicts

Contingency Allowance Includes:

- Unforeseen Conditions



Draw schedule as follows:

- 30% to initiate design documents
- 30% once permit is achieved
- 30% once construction is completed
- 10% once utility permission to operate is achieved

We take a lot of pride in our “soup to nuts” construction process, with experienced preconstruction services as well as experienced active construction services. Please accept this proposal for turn key solar for the Solid Waste facility and Gas Complex.

Thanks for your consideration,

Jeremy Brown
727-433-1631 – jeremy.brown@bandesconstruction.com



Gas Complex - Large Array

Prepared For
Bandes Construction
(727) 433-1631

Jeremy.Brown@bandesconstruction.co

Prepared By
Jason Humphrey
(813) 803-2988
jason@transformsolarfl.com

4/22/2024



At Transform Solar, we base our business on professionalism and trust with every customer that partner with us for their project development. Every project we undertake is:

- *Backed by 15+ years of solar and electrical industry experience.*
- *Quality controlled under the supervision of our principal and Master Electrician*
- *Performed by in-house crews with vetted installers and electricians*



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1 Project Summary

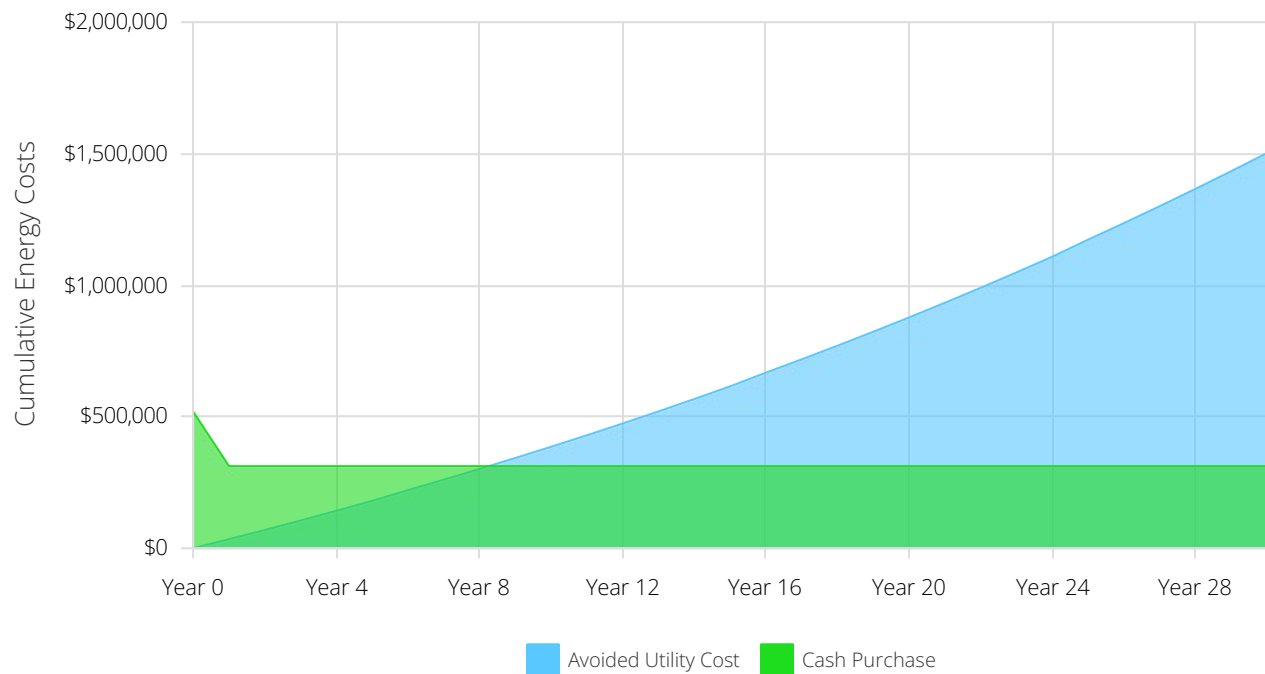
Payment Options	Cash Purchase
IRR - Term	12.1%
LCOE PV Generation	\$0.034 /kWh
System Cost	\$419,230
General Contractor Fees	\$100,872
Total System Cost	\$520,103
Total Incentives	\$208,041
Net Payments	\$312,062
Payback Period	8.3 Years
Electric Bill Savings - Term	\$1,502,347

COMBINED SOLAR PV RATING

Power Rating: 202,370 W-DC

Power Rating: 179,002 W-AC-CEC

CUMULATIVE ENERGY COSTS BY PAYMENT OPTION



2.1.1 PV System Details

General Information

Facility: Clearwater - Gas Systems Complex
Address: 777 Maple St Clearwater FL 33755

Solar PV Equipment Description

Solar Panels: (343) QCells Q.PEAK DUO XL-G11S 590W
Inverters: (3) Solis S6-GC60K-US

Solar PV Equipment Typical Lifespan

Solar Panels: Greater than 30 Years
Inverters: 16 Years

Solar PV System Cost and Incentives

Solar PV System Cost \$520,103

Direct Pay ITC **-\$208,041**

Net Solar PV System Cost \$312,062

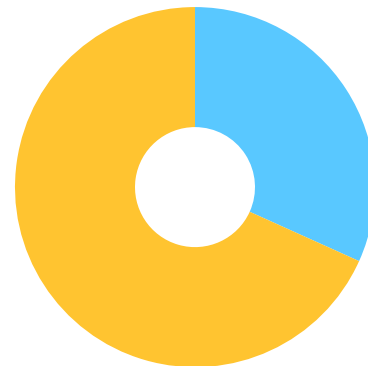
Solar PV System Rating

Power Rating: 202,370 W-DC

Power Rating: 179,002 W-AC-CEC

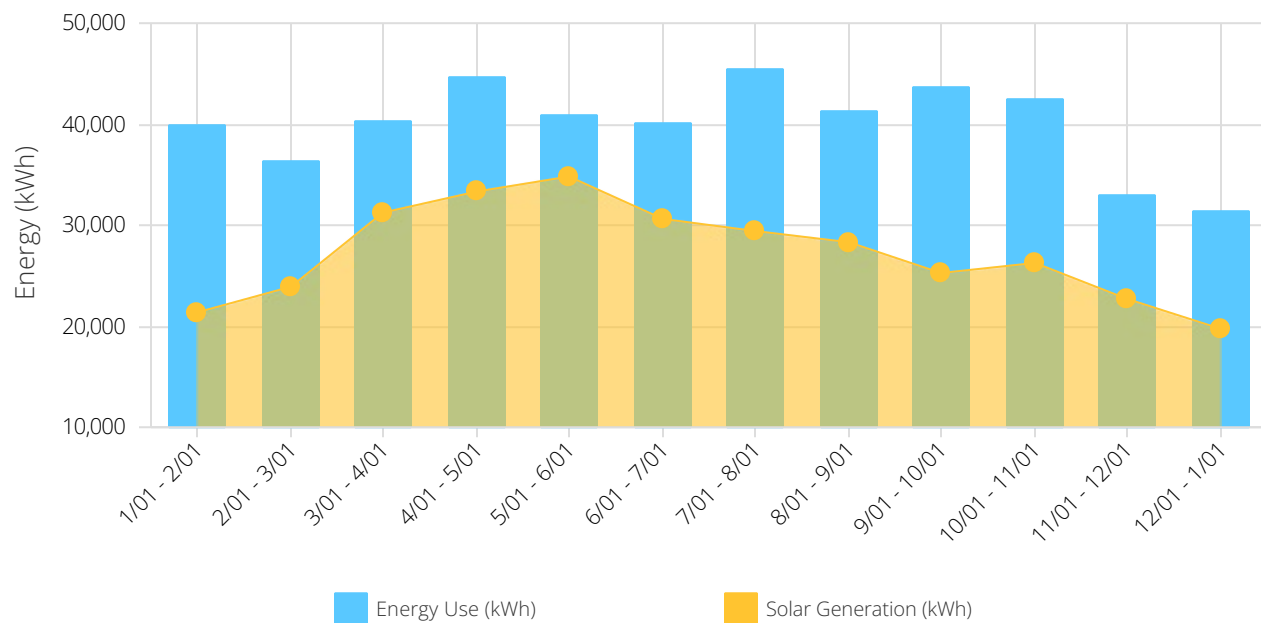
Energy Consumption Mix

Annual Energy Use: 479,081 kWh



Utility	152,068 kWh (31.74%)
Solar PV	327,013 kWh (68.26%)

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.

Direct Pay, Investment Tax Credit (ITC) - 30% (with Adders)

The Inflation Reduction Act (IRA) of 2022 contains a "direct pay" provision that enables certain tax-exempt customers, including state and local government, to receive a direct cash payment in lieu of an investment tax credit (ITC). Entities that qualify for direct pay are eligible to receive a 30% direct payment, assuming they meet the IRA established prevailing wage and apprenticeship requirements in order to qualify for the full 30% "increased rate", rather than a 6% "base rate". The IRA states that direct pay is only available for entities, including: an entity exempt from the tax, any State government (or political subdivision thereof), the Tennessee Valley Authority, an Indian tribal government, an Alaska Native Corporation, any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas. These entities may take direct pay for solar and storage in the ITC and PTC as well as the ITC/PTC when tech neutral starts after 2025. In addition to the 30% ITC, the IRA establishes three different types of ITC "Adders", which provide additional tax credits of up to 10% each, for projects that meet specified requirements. (1) Energy Community, projects sited in an "energy community", which includes brownfield sites, census tracts where a coal mine closed after 1999 or a coal-fired power plant was retired after 2009, or areas where 25% of local tax revenues are related to the extraction, processing or storage of coal, oil, or natural gas at any time beginning in 2010. (2) Low-income, projects located in a qualified "low-income community", which is defined as a census tract with a poverty rate of at least 20%, as well as a census tract where the median family income (MFI) is 80% or less of statewide MFI, or on "Indian land", which is defined as land located within the boundaries of an Indian reservation or lands held by a tribe. (3) Domestic Content, for projects that meet specified domestic content requirements which will be set by Treasury, including 100% steel/iron for manufactured products with a 40% requirement through 2024 followed by 45% in 2025, 50% in 2026, and 55% in 2027 and beyond. Manufactured content is further explained: the products which are components of a qualified facility upon completion will be deemed to have been produced in the United States if the adjusted percentage of the total costs of all such manufactured products of the facility are attributable to manufactured products which are mined, produced, or manufactured in the United States.

Total Incentive Value: \$208,041

2.1.3 Utility Rates

The table below shows the rates associated with your current utility rate schedule (GSDT-1). Your estimated electric bills after solar are shown on the following page.

Customer Charges				Energy Charges				Demand Charges			
Season	Charge Type	Rate Type	GSDT-1	Season	Charge Type	Rate Type	GSDT-1	Season	Charge Type	Rate Type	GSDT-1
S1	Flat Rate	per billing period	\$16.51	S1	On Peak	Import	\$0.10634	S1	Flat Rate	Import	\$2.19
S2	Flat Rate	per billing period	\$16.51	S1	Off Peak	Import	\$0.08615	S2	Flat Rate	Import	\$2.19
				S2	On Peak	Import	\$0.10634	S1	Flat Rate	Import	\$4.80
				S2	Off Peak	Import	\$0.08615	S2	Flat Rate	Import	\$4.80
				S2	Super Off-Peak	Import	\$0.05959	S1	On Peak	Import	\$1.27
								S1	Mid Peak	Import	\$4.44
								S2	On Peak	Import	\$1.27
								S2	Mid Peak	Import	\$4.44

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: DUKE-FL - GSDT-1

Time Periods	Energy Use (kWh)			Max Demand (kW)			Charges			
Bill Ranges & Seasons	On Peak	Off Peak	Super Off-Peak	NC / Max	On Peak	Mid Peak	Other	Energy	Demand	Total
1/1/2024 - 2/1/2024 S1	9,872	30,056	-	119	119	119	\$18	\$3,967	\$1,774	\$5,758
2/1/2024 - 3/1/2024 S1	8,749	27,507	-	120	120	120	\$18	\$3,597	\$1,785	\$5,400
3/1/2024 - 4/1/2024 S2	1,525	33,076	5,725	129	84	129	\$18	\$3,655	\$1,826	\$5,499
4/1/2023 - 5/1/2023 S2	1,422	36,977	6,197	166	34	166	\$18	\$4,040	\$2,130	\$6,187
5/1/2023 - 6/1/2023 S2	1,313	34,426	5,079	154	37	154	\$18	\$3,715	\$2,013	\$5,746
6/1/2023 - 7/1/2023 S2	1,332	34,138	4,585	154	45	154	\$18	\$3,658	\$2,024	\$5,700
7/1/2023 - 8/1/2023 S2	1,882	38,523	4,963	171	56	171	\$18	\$4,158	\$2,210	\$6,386
8/1/2023 - 9/1/2023 S2	1,703	35,188	4,312	150	48	150	\$18	\$3,782	\$1,988	\$5,788
9/1/2023 - 10/1/2023 S2	1,645	37,073	5,034	172	47	172	\$18	\$3,999	\$2,208	\$6,225
10/1/2023 - 11/1/2023 S2	1,672	35,290	5,461	168	34	168	\$18	\$3,862	\$2,150	\$6,030
11/1/2023 - 12/1/2023 S2	1,625	26,941	4,378	120	32	120	\$18	\$3,003	\$1,663	\$4,684
12/1/2023 - 1/1/2024 S1	7,435	23,978	-	101	101	101	\$18	\$3,113	\$1,568	\$4,699
Total	40,175	393,173	45,734	-	-	-	\$216	\$44,548	\$23,338	\$68,102

2.1.5 New Electric Bill

Rate Schedule: DUKE-FL - GSDT-1

Time Periods	Energy Use (kWh)			Max Demand (kW)			Charges			
Bill Ranges & Seasons	On Peak	Off Peak	Super Off-Peak	NC / Max	On Peak	Mid Peak	Other	Energy	Demand	Total
1/1/2024 - 2/1/2024 S1	8,006	10,555	-	113	108	113	\$18	\$1,919	\$1,641	\$3,578
2/1/2024 - 3/1/2024 S1	6,444	5,898	-	106	92	106	\$18	\$1,301	\$1,548	\$2,867
3/1/2024 - 4/1/2024 S2	894	2,462	5,725	118	78	118	\$18	\$707	\$1,650	\$2,374
4/1/2023 - 5/1/2023 S2	439	4,623	6,197	135	34	135	\$18	\$888	\$1,760	\$2,666
5/1/2023 - 6/1/2023 S2	59	863	5,079	128	27	128	\$18	\$418	\$1,680	\$2,116
6/1/2023 - 7/1/2023 S2	315	4,535	4,585	126	30	126	\$18	\$760	\$1,664	\$2,442
7/1/2023 - 8/1/2023 S2	719	10,260	4,963	148	40	148	\$18	\$1,369	\$1,899	\$3,286
8/1/2023 - 9/1/2023 S2	768	7,811	4,312	125	30	125	\$18	\$1,103	\$1,654	\$2,774
9/1/2023 - 10/1/2023 S2	1,152	12,298	5,034	139	33	139	\$18	\$1,615	\$1,799	\$3,432
10/1/2023 - 11/1/2023 S2	1,408	9,289	5,461	140	29	140	\$18	\$1,390	\$1,803	\$3,212
11/1/2023 - 12/1/2023 S2	1,605	4,253	4,378	91	32	91	\$18	\$870	\$1,314	\$2,202
12/1/2023 - 1/1/2024 S1	5,877	5,802	-	97	91	97	\$18	\$1,226	\$1,456	\$2,700
Total	27,686	78,649	45,734	-	-	-	\$216	\$13,565	\$19,868	\$33,649

Annual Electricity Savings: \$34,453

3.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	12.1%	Net Present Value	\$383,868	Payback Period	8.3 Years
ROI	228.9%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
System Cost	\$419,230	General Contractor Fee	\$100,872	Total Project Costs	\$520,103

Years	Project Costs	Direct Pay ITC	Electric Bill Savings	State Tax Effect	Federal Tax Effect	Total Cash Flow	Cumulative Cash Flow
Upfront	-\$520,103	-	-	-	-	-\$520,103	-\$520,103
1	-	\$208,041	\$34,453	-	-	\$242,494	-\$277,609
2	-	-	\$35,309	-	-	\$35,309	-\$242,300
3	-	-	\$36,185	-	-	\$36,185	-\$206,115
4	-	-	\$37,083	-	-	\$37,083	-\$169,032
5	-	-	\$38,001	-	-	\$38,001	-\$131,031
6	-	-	\$38,941	-	-	\$38,941	-\$92,090
7	-	-	\$39,904	-	-	\$39,904	-\$52,186
8	-	-	\$40,889	-	-	\$40,889	-\$11,296
9	-	-	\$41,898	-	-	\$41,898	\$30,601
10	-	-	\$42,930	-	-	\$42,930	\$73,531
11	-	-	\$43,986	-	-	\$43,986	\$117,518
12	-	-	\$45,067	-	-	\$45,067	\$162,585
13	-	-	\$46,174	-	-	\$46,174	\$208,759
14	-	-	\$47,306	-	-	\$47,306	\$256,065
15	-	-	\$48,465	-	-	\$48,465	\$304,530
16	-	-	\$49,650	-	-	\$49,650	\$354,180
17	-	-	\$50,863	-	-	\$50,863	\$405,043
18	-	-	\$52,105	-	-	\$52,105	\$457,148
19	-	-	\$53,374	-	-	\$53,374	\$510,522
20	-	-	\$54,674	-	-	\$54,674	\$565,196
21	-	-	\$56,003	-	-	\$56,003	\$621,199
22	-	-	\$57,362	-	-	\$57,362	\$678,561
23	-	-	\$58,753	-	-	\$58,753	\$737,314
24	-	-	\$60,176	-	-	\$60,176	\$797,490
25	-	-	\$61,631	-	-	\$61,631	\$859,121
26	-	-	\$63,119	-	-	\$63,119	\$922,240
27	-	-	\$64,641	-	-	\$64,641	\$986,881
28	-	-	\$66,198	-	-	\$66,198	\$1,053,078
29	-	-	\$67,790	-	-	\$67,790	\$1,120,868
30	-	-	\$69,417	-	-	\$69,417	\$1,190,285
Totals:	-\$520,103	\$208,041	\$1,502,347	-	-	\$1,190,285	-

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	12.1%	Net Present Value	\$383,868	Payback Period	8.3 Years
ROI	228.9%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
System Cost	\$419,230	General Contractor Fee	\$100,872	Total Project Costs	\$520,103

Years	Upfront	1	2	3	4	5	6	7	8	9	10	11
Cash												
Project Costs	-\$520,103	-	-	-	-	-	-	-	-	-	-	-
Direct Pay ITC	-	\$208,041	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	-	\$34,453	\$35,309	\$36,185	\$37,083	\$38,001	\$38,941	\$39,904	\$40,889	\$41,898	\$42,930	\$43,986
Cash Total	-\$520,103	\$242,494	\$35,309	\$36,185	\$37,083	\$38,001	\$38,941	\$39,904	\$40,889	\$41,898	\$42,930	\$43,986
State Taxes												
Income Increase (Electric Bill Savings)	-	-\$34,453	-\$35,309	-\$36,185	-\$37,083	-\$38,001	-\$38,941	-\$39,904	-\$40,889	-\$41,898	-\$42,930	-\$43,986
Change in Taxable Income	-	-\$34,453	-\$35,309	-\$36,185	-\$37,083	-\$38,001	-\$38,941	-\$39,904	-\$40,889	-\$41,898	-\$42,930	-\$43,986
State Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
Change in State Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
Federal Taxes												
Income Increase (Electric Bill Savings)	-	-\$34,453	-\$35,309	-\$36,185	-\$37,083	-\$38,001	-\$38,941	-\$39,904	-\$40,889	-\$41,898	-\$42,930	-\$43,986
Change in State Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
Change in Taxable Income	-	-\$34,453	-\$35,309	-\$36,185	-\$37,083	-\$38,001	-\$38,941	-\$39,904	-\$40,889	-\$41,898	-\$42,930	-\$43,986
Federal Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
Change in Federal Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
Total Cash Flow	-\$520,103	\$242,494	\$35,309	\$36,185	\$37,083	\$38,001	\$38,941	\$39,904	\$40,889	\$41,898	\$42,930	\$43,986
Cumulative Cash Flow	-\$520,103	-\$277,609	-\$242,300	-\$206,115	-\$169,032	-\$131,031	-\$92,090	-\$52,186	-\$11,296	\$30,601	\$73,531	\$117,518

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	12.1%	Net Present Value	\$383,868	Payback Period	8.3 Years
ROI	228.9%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
System Cost	\$419,230	General Contractor Fee	\$100,872	Total Project Costs	\$520,103

Years	12	13	14	15	16	17	18	19	20	21	22	23
Cash												
Project Costs	-	-	-	-	-	-	-	-	-	-	-	-
Direct Pay ITC	-	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	\$45,067	\$46,174	\$47,306	\$48,465	\$49,650	\$50,863	\$52,105	\$53,374	\$54,674	\$56,003	\$57,362	\$58,753
Cash Total	\$45,067	\$46,174	\$47,306	\$48,465	\$49,650	\$50,863	\$52,105	\$53,374	\$54,674	\$56,003	\$57,362	\$58,753
State Taxes												
Income Increase (Electric Bill Savings)	-\$45,067	-\$46,174	-\$47,306	-\$48,465	-\$49,650	-\$50,863	-\$52,105	-\$53,374	-\$54,674	-\$56,003	-\$57,362	-\$58,753
Change in Taxable Income	-\$45,067	-\$46,174	-\$47,306	-\$48,465	-\$49,650	-\$50,863	-\$52,105	-\$53,374	-\$54,674	-\$56,003	-\$57,362	-\$58,753
State Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
Change in State Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
Federal Taxes												
Income Increase (Electric Bill Savings)	-\$45,067	-\$46,174	-\$47,306	-\$48,465	-\$49,650	-\$50,863	-\$52,105	-\$53,374	-\$54,674	-\$56,003	-\$57,362	-\$58,753
Change in State Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
Change in Taxable Income	-\$45,067	-\$46,174	-\$47,306	-\$48,465	-\$49,650	-\$50,863	-\$52,105	-\$53,374	-\$54,674	-\$56,003	-\$57,362	-\$58,753
Federal Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
Change in Federal Tax Liability	-	-	-	-	-	-	-	-	-	-	-	-
Total Cash Flow	\$45,067	\$46,174	\$47,306	\$48,465	\$49,650	\$50,863	\$52,105	\$53,374	\$54,674	\$56,003	\$57,362	\$58,753
Cumulative Cash Flow	\$162,585	\$208,759	\$256,065	\$304,530	\$354,180	\$405,043	\$457,148	\$510,522	\$565,196	\$621,199	\$678,561	\$737,314

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	12.1%	Net Present Value	\$383,868	Payback Period	8.3 Years
ROI	228.9%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
System Cost	\$419,230	General Contractor Fee	\$100,872	Total Project Costs	\$520,103

Years	24	25	26	27	28	29	30	Totals
Cash								
Project Costs	-	-	-	-	-	-	-	-\$520,103
Direct Pay ITC	-	-	-	-	-	-	-	\$208,041
Electric Bill Savings	\$60,176	\$61,631	\$63,119	\$64,641	\$66,198	\$67,790	\$69,417	\$1,502,347
Cash Total	\$60,176	\$61,631	\$63,119	\$64,641	\$66,198	\$67,790	\$69,417	\$1,190,285
State Taxes								
Income Increase (Electric Bill Savings)	-\$60,176	-\$61,631	-\$63,119	-\$64,641	-\$66,198	-\$67,790	-\$69,417	-\$1,502,347
Change in Taxable Income	-\$60,176	-\$61,631	-\$63,119	-\$64,641	-\$66,198	-\$67,790	-\$69,417	-\$1,502,347
State Tax Liability	-	-	-	-	-	-	-	-
Change in State Tax Liability	-	-	-	-	-	-	-	-
Federal Taxes								
Income Increase (Electric Bill Savings)	-\$60,176	-\$61,631	-\$63,119	-\$64,641	-\$66,198	-\$67,790	-\$69,417	-\$1,502,347
Change in State Tax Liability	-	-	-	-	-	-	-	-
Change in Taxable Income	-\$60,176	-\$61,631	-\$63,119	-\$64,641	-\$66,198	-\$67,790	-\$69,417	-\$1,502,347
Federal Tax Liability	-	-	-	-	-	-	-	-
Change in Federal Tax Liability	-	-	-	-	-	-	-	-
Total Cash Flow	\$60,176	\$61,631	\$63,119	\$64,641	\$66,198	\$67,790	\$69,417	\$1,190,285
Cumulative Cash Flow	\$797,490	\$859,121	\$922,240	\$986,881	\$1,053,078	\$1,120,868	\$1,190,285	-



Solid Waste Transfer Station

Prepared For
Bandes Construction
(727) 433-1631

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Prepared By
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4/22/2024



At Transform Solar, we base our business on professionalism and trust with every customer that partner with us for their project development. Every project we undertake is:

- *Backed by 15+ years of solar and electrical industry experience.*
- *Quality controlled under the supervision of our principal and Master Electrician*
- *Performed by in-house crews with vetted installers and electricians*

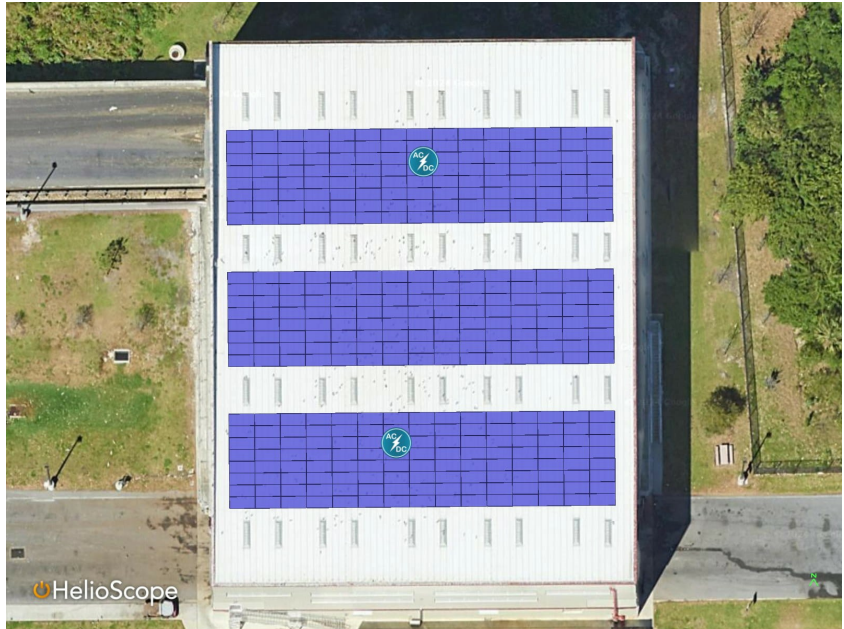


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1 Project Summary

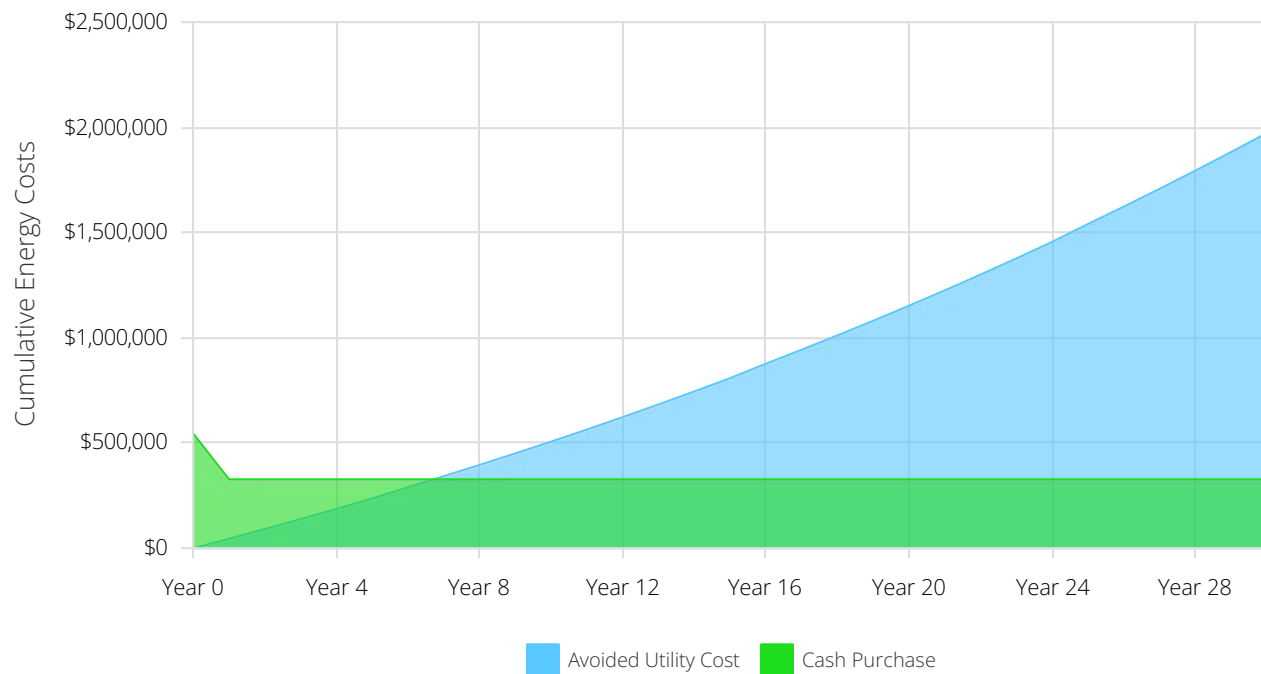
Payment Options	Cash Purchase
IRR - Term	14.8%
LCOE PV Generation	\$0.039 /kWh
System Cost	\$438,606
General Contractor Fees	\$107,575
Total System Cost	\$546,181
Total Incentives	\$218,472
Net Payments	\$327,709
Payback Period	6.7 Years
Electric Bill Savings - Term	\$1,973,699

COMBINED SOLAR PV RATING

Power Rating: 212,400 W-DC

Power Rating: 185,013 W-AC-CEC

CUMULATIVE ENERGY COSTS BY PAYMENT OPTION



2.1.1 PV System Details

General Information

Facility: Clearwater - Solid Waste Transfer Station
Address: S Old Coachman Rd Clearwater FL

Solar PV Equipment Description

Solar Panels: (360) QCells Q.PEAK DUO XL-G11S 590W
Inverters: (2) Ginlong Technologies Solis-100K-5G-US

Solar PV Equipment Typical Lifespan

Solar Panels: Greater than 30 Years
Inverters: 18 Years

Solar PV System Cost and Incentives

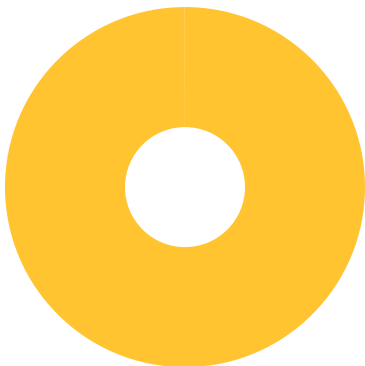
Solar PV System Cost	\$546,181
Direct Pay ITC	-\$218,472
Net Solar PV System Cost	\$327,709

Solar PV System Rating

Power Rating: 212,400 W-DC
Power Rating: 185,013 W-AC-CEC

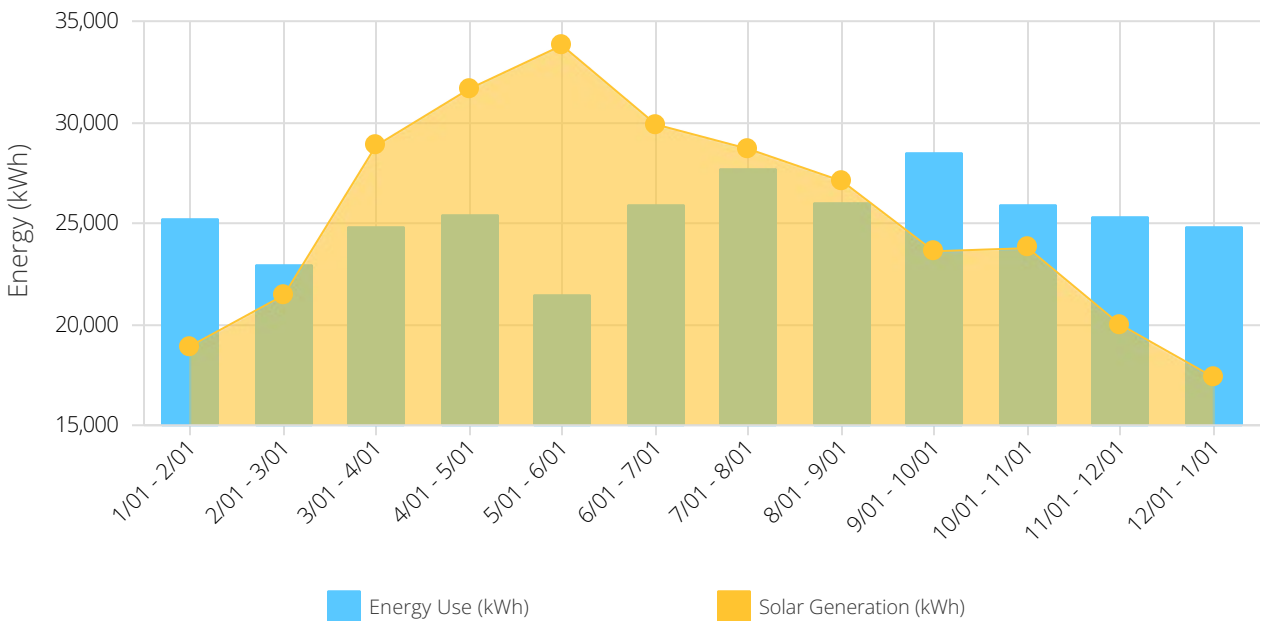
Energy Consumption Mix

Annual Energy Use: 304,053 kWh



Utility -984 kWh (0.00%)
Solar PV 305,037 kWh (100.00%)

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.

Direct Pay, Investment Tax Credit (ITC) - 30% (with Adders)

The Inflation Reduction Act (IRA) of 2022 contains a "direct pay" provision that enables certain tax-exempt customers, including state and local government, to receive a direct cash payment in lieu of an investment tax credit (ITC). Entities that qualify for direct pay are eligible to receive a 30% direct payment, assuming they meet the IRA established prevailing wage and apprenticeship requirements in order to qualify for the full 30% "increased rate", rather than a 6% "base rate". The IRA states that direct pay is only available for entities, including: an entity exempt from the tax, any State government (or political subdivision thereof), the Tennessee Valley Authority, an Indian tribal government, an Alaska Native Corporation, any corporation operating on a cooperative basis which is engaged in furnishing electric energy to persons in rural areas. These entities may take direct pay for solar and storage in the ITC and PTC as well as the ITC/PTC when tech neutral starts after 2025. In addition to the 30% ITC, the IRA establishes three different types of ITC "Adders", which provide additional tax credits of up to 10% each, for projects that meet specified requirements. (1) Energy Community, projects sited in an "energy community", which includes brownfield sites, census tracts where a coal mine closed after 1999 or a coal-fired power plant was retired after 2009, or areas where 25% of local tax revenues are related to the extraction, processing or storage of coal, oil, or natural gas at any time beginning in 2010. (2) Low-income, projects located in a qualified "low-income community", which is defined as a census tract with a poverty rate of at least 20%, as well as a census tract where the median family income (MFI) is 80% or less of statewide MFI, or on "Indian land", which is defined as land located within the boundaries of an Indian reservation or lands held by a tribe. (3) Domestic Content, for projects that meet specified domestic content requirements which will be set by Treasury, including 100% steel/iron for manufactured products with a 40% requirement through 2024 followed by 45% in 2025, 50% in 2026, and 55% in 2027 and beyond. Manufactured content is further explained: the products which are components of a qualified facility upon completion will be deemed to have been produced in the United States if the adjusted percentage of the total costs of all such manufactured products of the facility are attributable to manufactured products which are mined, produced, or manufactured in the United States.

Total Incentive Value: \$218,472

2.1.3 Utility Rates

The table below shows the rates associated with your current utility rate schedule (GS-1). Your estimated electric bills after solar are shown on the following page.

Customer Charges				Energy Charges			
Season	Charge Type	Rate Type	GS-1	Season	Charge Type	Rate Type	GS-1
S1	Flat Rate	per billing period	\$16.02	S1	Flat Rate	Import	\$0.1487

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: DUKE-FL - GS-1

Time Periods	Energy Use (kWh)	Charges		
Bill Ranges & Seasons	Total	Other	Energy	Total
1/1/2024 - 2/1/2024 S1	25,200	\$16	\$3,747	\$3,763
2/1/2024 - 3/1/2024 S1	22,920	\$16	\$3,408	\$3,424
3/1/2024 - 4/1/2024 S1	24,840	\$16	\$3,694	\$3,710
4/1/2023 - 5/1/2023 S1	25,440	\$16	\$3,783	\$3,799
5/1/2023 - 6/1/2023 S1	21,480	\$16	\$3,194	\$3,210
6/1/2023 - 7/1/2023 S1	25,920	\$16	\$3,854	\$3,870
7/1/2023 - 8/1/2023 S1	27,693	\$16	\$4,118	\$4,134
8/1/2023 - 9/1/2023 S1	26,040	\$16	\$3,872	\$3,888
9/1/2023 - 10/1/2023 S1	28,440	\$16	\$4,229	\$4,245
10/1/2023 - 11/1/2023 S1	25,920	\$16	\$3,854	\$3,870
11/1/2023 - 12/1/2023 S1	25,320	\$16	\$3,765	\$3,781
12/1/2023 - 1/1/2024 S1	24,840	\$16	\$3,694	\$3,710
Total	304,053	\$192	\$45,213	\$45,405

2.1.5 New Electric Bill

Rate Schedule: DUKE-FL - GS-1

Time Periods	Energy Use (kWh)	Charges		
Bill Ranges & Seasons	Total	Other	Energy	Total
1/1/2024 - 2/1/2024 S1	6,291	\$16	\$935	\$951
2/1/2024 - 3/1/2024 S1	1,477	\$16	\$220	\$236
3/1/2024 - 4/1/2024 S1	-3,996	\$16	\$594	\$578
4/1/2023 - 5/1/2023 S1	-6,228	\$16	\$926	\$910
5/1/2023 - 6/1/2023 S1	-12,321	\$16	\$1,832	\$1,816
6/1/2023 - 7/1/2023 S1	-3,966	\$16	\$590	\$574
7/1/2023 - 8/1/2023 S1	-989	\$16	\$147	\$131
8/1/2023 - 9/1/2023 S1	-1,043	\$16	\$155	\$139
9/1/2023 - 10/1/2023 S1	4,829	\$16	\$718	\$734
10/1/2023 - 11/1/2023 S1	2,154	\$16	\$320	\$336
11/1/2023 - 12/1/2023 S1	5,332	\$16	\$793	\$809
12/1/2023 - 1/1/2024 S1	7,476	\$16	\$1,112	\$1,128
Total	-984	\$192	\$49	\$143

Annual Electricity Savings: \$45,262

3.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	14.8%	Net Present Value	\$589,177	Payback Period	6.7 Years
ROI	301.4%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
System Cost	\$438,606	General Contractor Fee	\$107,575	Total Project Costs	\$546,181

Years	Project Costs	Direct Pay ITC	Electric Bill Savings	Total Cash Flow	Cumulative Cash Flow
Upfront	-\$546,181	-	-	-\$546,181	-\$546,181
1	-	\$218,472	\$45,262	\$263,734	-\$282,447
2	-	-	\$46,387	\$46,387	-\$236,060
3	-	-	\$47,538	\$47,538	-\$188,522
4	-	-	\$48,717	\$48,717	-\$139,805
5	-	-	\$49,924	\$49,924	-\$89,881
6	-	-	\$51,159	\$51,159	-\$38,722
7	-	-	\$52,424	\$52,424	\$13,702
8	-	-	\$53,718	\$53,718	\$67,420
9	-	-	\$55,043	\$55,043	\$122,463
10	-	-	\$56,399	\$56,399	\$178,862
11	-	-	\$57,787	\$57,787	\$236,649
12	-	-	\$59,207	\$59,207	\$295,856
13	-	-	\$60,661	\$60,661	\$356,516
14	-	-	\$62,148	\$62,148	\$418,664
15	-	-	\$63,670	\$63,670	\$482,335
16	-	-	\$65,228	\$65,228	\$547,563
17	-	-	\$66,821	\$66,821	\$614,384
18	-	-	\$68,452	\$68,452	\$682,836
19	-	-	\$70,120	\$70,120	\$752,956
20	-	-	\$71,827	\$71,827	\$824,783
21	-	-	\$73,573	\$73,573	\$898,357
22	-	-	\$75,359	\$75,359	\$973,716
23	-	-	\$77,187	\$77,187	\$1,050,903
24	-	-	\$79,055	\$79,055	\$1,129,958
25	-	-	\$80,967	\$80,967	\$1,210,925
26	-	-	\$82,922	\$82,922	\$1,293,847
27	-	-	\$84,922	\$84,922	\$1,378,769
28	-	-	\$86,967	\$86,967	\$1,465,736
29	-	-	\$89,058	\$89,058	\$1,554,794
30	-	-	\$91,197	\$91,197	\$1,645,991
Totals:	-\$546,181	\$218,472	\$1,973,699	\$1,645,991	-

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	14.8%	Net Present Value	\$589,177	Payback Period	6.7 Years
ROI	301.4%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
System Cost	\$438,606	General Contractor Fee	\$107,575	Total Project Costs	\$546,181

Years	Upfront	1	2	3	4	5	6	7	8	9	10	11	12
Cash													
Project Costs	-\$546,181	-	-	-	-	-	-	-	-	-	-	-	-
Direct Pay ITC	-	\$218,472	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	-	\$45,262	\$46,387	\$47,538	\$48,717	\$49,924	\$51,159	\$52,424	\$53,718	\$55,043	\$56,399	\$57,787	\$59,207
Cash Total	-\$546,181	\$263,734	\$46,387	\$47,538	\$48,717	\$49,924	\$51,159	\$52,424	\$53,718	\$55,043	\$56,399	\$57,787	\$59,207
Total Cash Flow	-\$546,181	\$263,734	\$46,387	\$47,538	\$48,717	\$49,924	\$51,159	\$52,424	\$53,718	\$55,043	\$56,399	\$57,787	\$59,207
Cumulative Cash Flow	-\$546,181	-\$282,447	-\$236,060	-\$188,522	-\$139,805	-\$89,881	-\$38,722	\$13,702	\$67,420	\$122,463	\$178,862	\$236,649	\$295,856

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	14.8%	Net Present Value	\$589,177	Payback Period	6.7 Years
ROI	301.4%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
System Cost	\$438,606	General Contractor Fee	\$107,575	Total Project Costs	\$546,181

Years	13	14	15	16	17	18	19	20	21	22	23	24	25
Cash													
Project Costs	-	-	-	-	-	-	-	-	-	-	-	-	-
Direct Pay ITC	-	-	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	\$60,661	\$62,148	\$63,670	\$65,228	\$66,821	\$68,452	\$70,120	\$71,827	\$73,573	\$75,359	\$77,187	\$79,055	\$80,967
Cash Total	\$60,661	\$62,148	\$63,670	\$65,228	\$66,821	\$68,452	\$70,120	\$71,827	\$73,573	\$75,359	\$77,187	\$79,055	\$80,967
Total Cash Flow	\$60,661	\$62,148	\$63,670	\$65,228	\$66,821	\$68,452	\$70,120	\$71,827	\$73,573	\$75,359	\$77,187	\$79,055	\$80,967
Cumulative Cash Flow	\$356,516	\$418,664	\$482,335	\$547,563	\$614,384	\$682,836	\$752,956	\$824,783	\$898,357	\$973,716	\$1,050,903	\$1,129,958	\$1,210,925

4.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	14.8%	Net Present Value	\$589,177	Payback Period	6.7 Years
ROI	301.4%	PV Degradation Rate	0.50%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
System Cost	\$438,606	General Contractor Fee	\$107,575	Total Project Costs	\$546,181

Years	26	27	28	29	30	Totals
Cash						
Project Costs	-	-	-	-	-	-\$546,181
Direct Pay ITC	-	-	-	-	-	\$218,472
Electric Bill Savings	\$82,922	\$84,922	\$86,967	\$89,058	\$91,197	\$1,973,699
Cash Total	\$82,922	\$84,922	\$86,967	\$89,058	\$91,197	\$1,645,991
Total Cash Flow	\$82,922	\$84,922	\$86,967	\$89,058	\$91,197	\$1,645,991
Cumulative Cash Flow	\$1,293,847	\$1,378,769	\$1,465,736	\$1,554,794	\$1,645,991	-