



1368 SPALDING RD., STE. C, DUNEDIN, FL 34698-5039 | P: (727) 733-5558 | F: (727) 738-8225 | LICENSE: # CG-CO18550

Project: City of Clearwater Solid Waste Transfer Station Solar

Date: 07/29/2024

System Size: 202,370 W-DC

Scope of Work:

Construction Manager Banded Construction (CMAR) will facilitate design services, product procurement, installation, commissioning, and training of solar power system for City of Clearwater Solid Waste Transfer Station located at 1005 Old Coachman Rd, Clearwater, FL, 33765. The following scope of services will be provided as part of this contract:

1. Design Services:

- a. Engineering Site visit will be made to review site conditions.
- b. Collaborate and develop full construction documents considering the nature of the site and building composition.
- c. Documents required to procure permit approval

2. Product Procurement:

- a. Acquisition of the 360 QCell panels and 2 Solis inverters
- b. Procurement of solar racking system, wiring, and ancillary materials required
- c. Coordination of all items to make a complete solar system

3. Installation:

- a. Ensure all work is installed and completed per the design documents to close out permit.
- b. Integrate new solar system into existing power system per code and industry standard.
- c. Ensure all work is completed per OSHA standards.
- d. Coordinate install with City of Clearwater personnel to minimize impact for day to day activities.

4. Testing and Commissioning:

- a. Commissioning system per manufacturer requirements to ensure design intent.
- b. Coordination of Duke interconnection agreement.
- c. Sign off and closing municipal permits

5. Training and Documentation:

- a. Facilitate training with City of Clearwater facilities management
- b. Furnish all pertinent Operation and Maintenance data to facilitate maintenance after warranty period.
- c. Provide as built drawings

Exclusions:



- Conflicts with unknown utilities
- Utility upgrades to existing infrastructure
- Additional Testing
- Any Additional insurances required by the utility or AHJ
- Interconnection Study Fees
- Prevailing Wadges
- 3rd Party inspections
- Civil analysis Fees

Warranty:

- Bandes Provides a 1-year warranty from the date of substantial completion. Warranty excludes any defects in owner supplied material or acts of God.
- Transform Solar warranty provided with accompanying documents
 - Solar Panel Warranty 25 Years
 - Inverter Warranty 10 years
 - Racking Warranty 25 Years

See below for our cost breakdown:

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
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

Payment Terms as Follows:

- 30% Contract Execution
- 30% Construction Start Date
- 30% Final Building Inspection
- 10% Utility permission to operate



Project Schedule:

Schedule	Milestone	Days
1	Site Survey	5
2	Engineering	30-45
3	Permitting	30-45
4	Install/Commissioning	30-45
5	Permission to Operate	30

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



Solid Waste Transfer Station

Prepared For

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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*

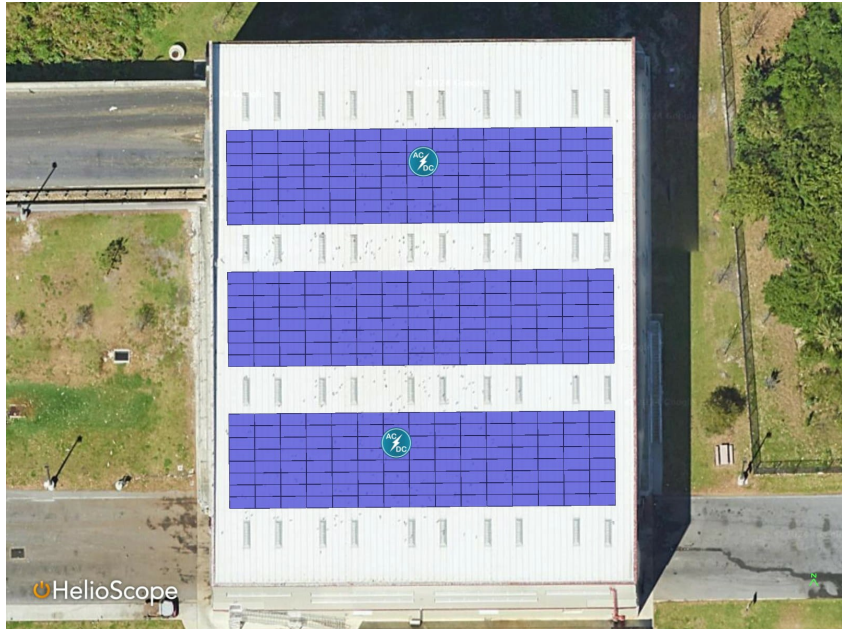


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1 Project Summary

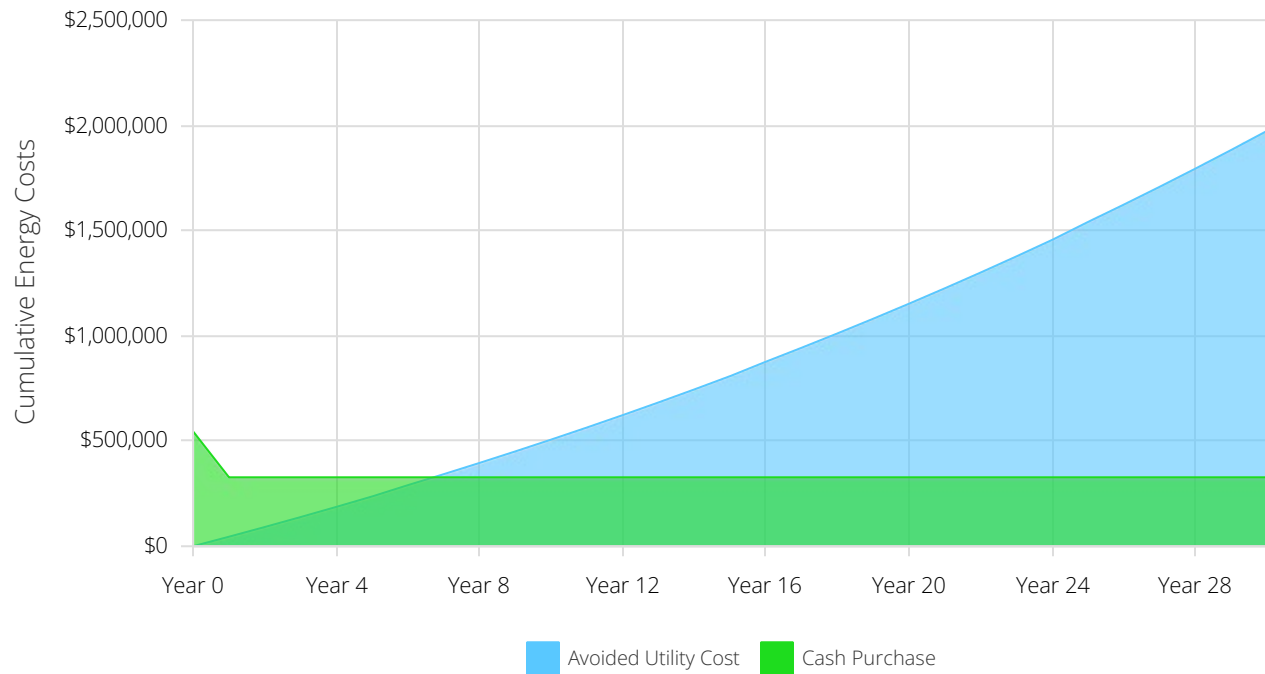
Payment Options	Cash Purchase
IRR - Term	14.8%
LCOE PV Generation	\$0.039 /kWh
System Cost	\$438,606
General Contractor Fees	\$107,575
Total System Cost	\$546,181
Total Incentives	\$218,472
Net Payments	\$327,709
Payback Period	6.7 Years
Electric Bill Savings - Term	\$1,973,699

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 System Rating

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

Solar PV Equipment Description

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

Energy Consumption Mix

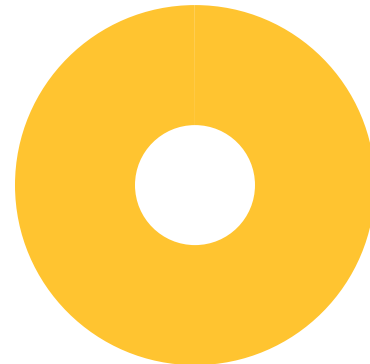
Annual Energy Use: 304,053 kWh

Solar PV Equipment Typical Lifespan

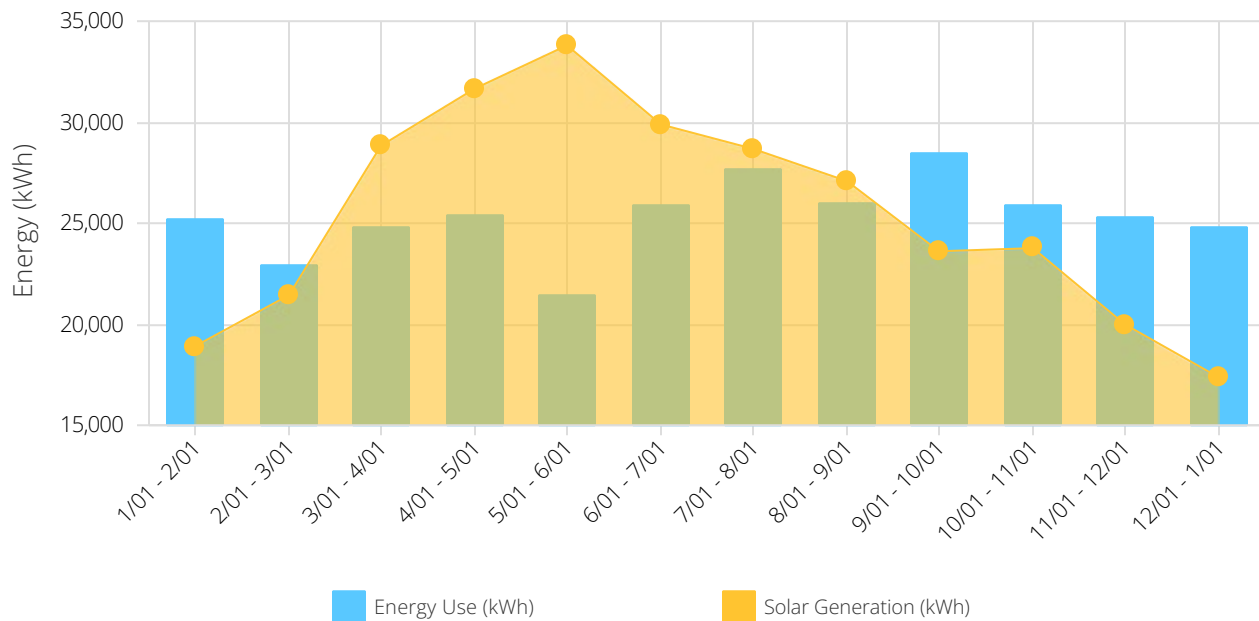
Solar Panels: Greater than 30 Years
 Inverters: 18 Years

Solar PV System Cost and Incentives

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



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 Bill Ranges & Seasons	Energy Use (kWh)	Charges		
	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	-



Transform Solar, LLC

EC# 13008213

Main Office: 201 E Selma Ave, Tampa, FL 33603

Telephone: 813-565-1443

Workmanship Warranty

Contractor carries a standard 25 year warranty against defective workmanship. This warranty specifically covers the solar energy system and provides for no-cost repair or replacement of the system or its components, including associated labor. Warranty exclusions include, but are not limited to, any defects due to faulty material and any damage incurred as a result of Customer or third-party abuse, accident, alteration, etc. This warranty will be void if anyone other than the Contractor performs work on the photovoltaic system within the warranty period without the Contractor's prior written consent.

Roof & Installation Warranty

Contractor warrants that all installation work and roof penetrations will be free from defects for a period of 2 years from the defined Substantial Completion Date outlined in the formal installation contract. Repair, replacement, or correction of any defective workmanship or faulty materials, including applicable labor costs, will fall under the scope of this limited warranty.

Manufacturer Warranty

Solar Panel Warranty: 25 years

Inverter Warranty: 10 years

Racking Warranty: 25 years

1st Year Production Guarantee

Contractor guarantees that the energy production yielded from the solar energy system during its first full year in operation will not fall below 85% of the production estimate listed on the formal installation contract. In the event that production does not meet this predetermined threshold, Contractor will reimburse the Customer at a rate equal to the average per-kWh rate imposed by the electric utility at the property during the period of first-year operation.