



**RENEWABLE TECHNOLOGIES INCORPORATED**

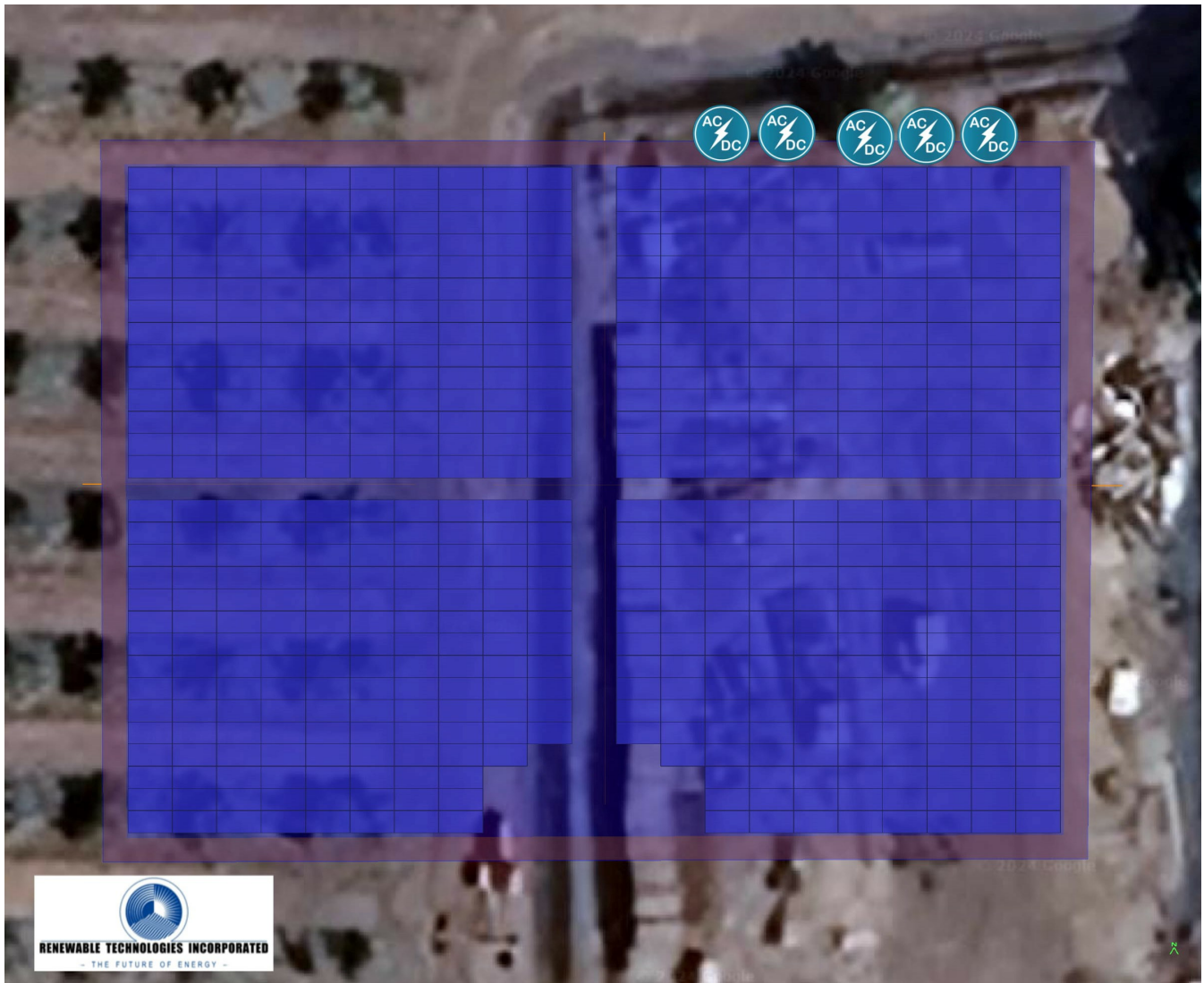
— THE FUTURE OF ENERGY —

Prepared For

Reclamation District #2029 Empire Island v2

209-601-9624

arcoon@arcoonlaw.com



Prepared By

Renewable Technologies Inc

(209) 256-0675

info@renewable.com

# Table of Contents

---

1 Project Summary .....	3
2 Project Details .....	4
2.1 SAID# 1499889992 Meter#1005512081 .....	4
2.1.1 PV System Details .....	4
2.1.2 Rebates and Incentives .....	5
2.1.3 Utility Rates .....	6
2.1.4 Current Electric Bill .....	6
2.1.5 New Electric Bill .....	7
3 Cash Flow Analysis .....	8
3.1 Cash Purchase .....	8
4 Detailed Cash Flow Analysis .....	9
4.1 Cash Purchase .....	9

# 1 Project Summary

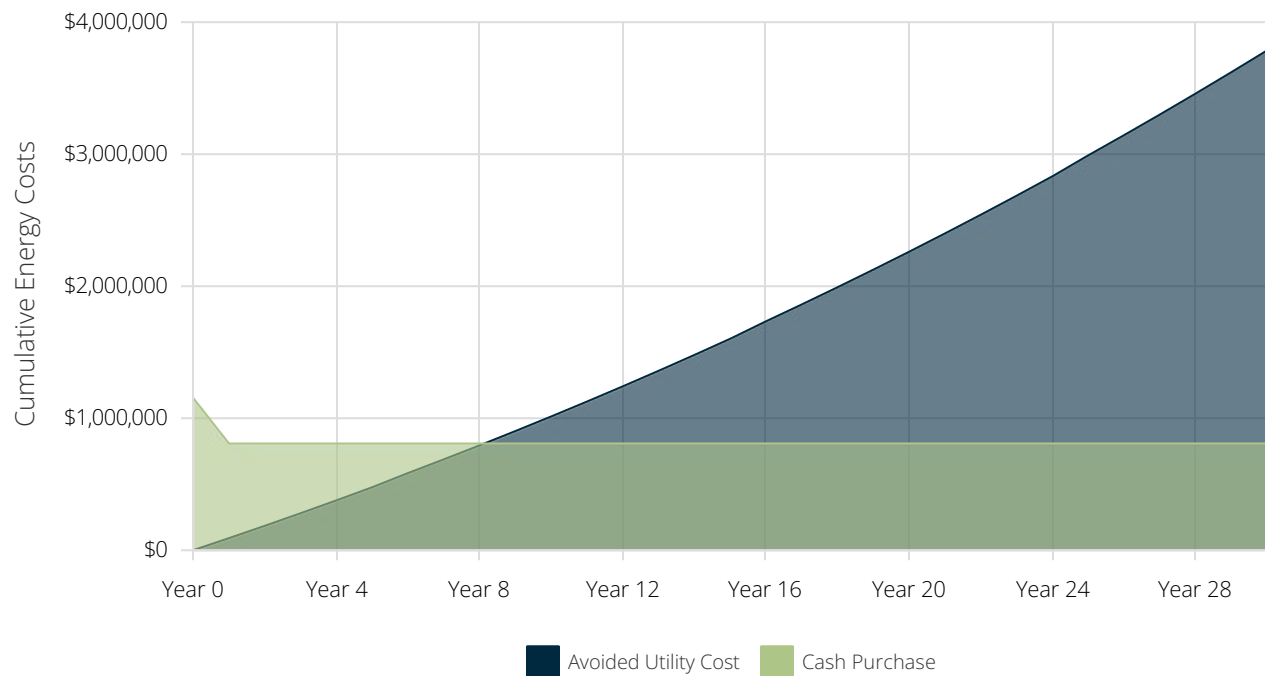
Payment Options	Cash Purchase
IRR - Term	12.4%
LCOE PV Generation	\$0.062 /kWh
Net Present Value	\$977,335
Payback Period	8.1 Years
Total Payments	\$1,155,000
Total Incentives	\$346,500
Net Payments	\$808,500
Electric Bill Savings - Term	\$3,785,459
Upfront Payment	\$1,155,000

## Combined Solar PV Rating

Power Rating: 308,470 W-DC

Power Rating: 268,696 W-AC-CEC

**Cumulative Energy Costs By Payment Option**



## 2.1.1 PV System Details

### General Information

Facility: SAID# 1499889992 Meter#1005512081  
Address: 11750 W Eight Mile Rd Stockton CA 95219

### Solar PV Equipment Description

Solar Panels: (566) Longi LR5-72HND-545M  
Inverters: (5) SMA Sunny Tripower CORE1 50-US

### Solar PV Equipment Typical Lifespan

Solar Panels: Greater than 30 Years  
Inverters: 15 Years

### Solar PV System Cost and Incentives

Solar PV System Cost \$1,155,000

Direct pay - 30% ITC **-\$346,500**

---

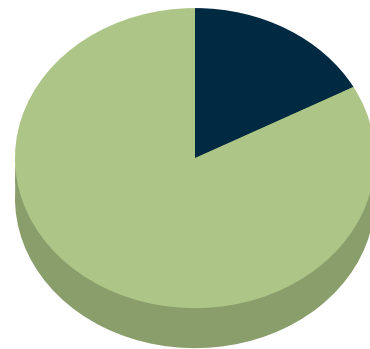
**Net Solar PV System Cost \$808,500**

### Solar PV System Rating

Power Rating: 308,470 W-DC  
Power Rating: 268,696 W-AC-CEC

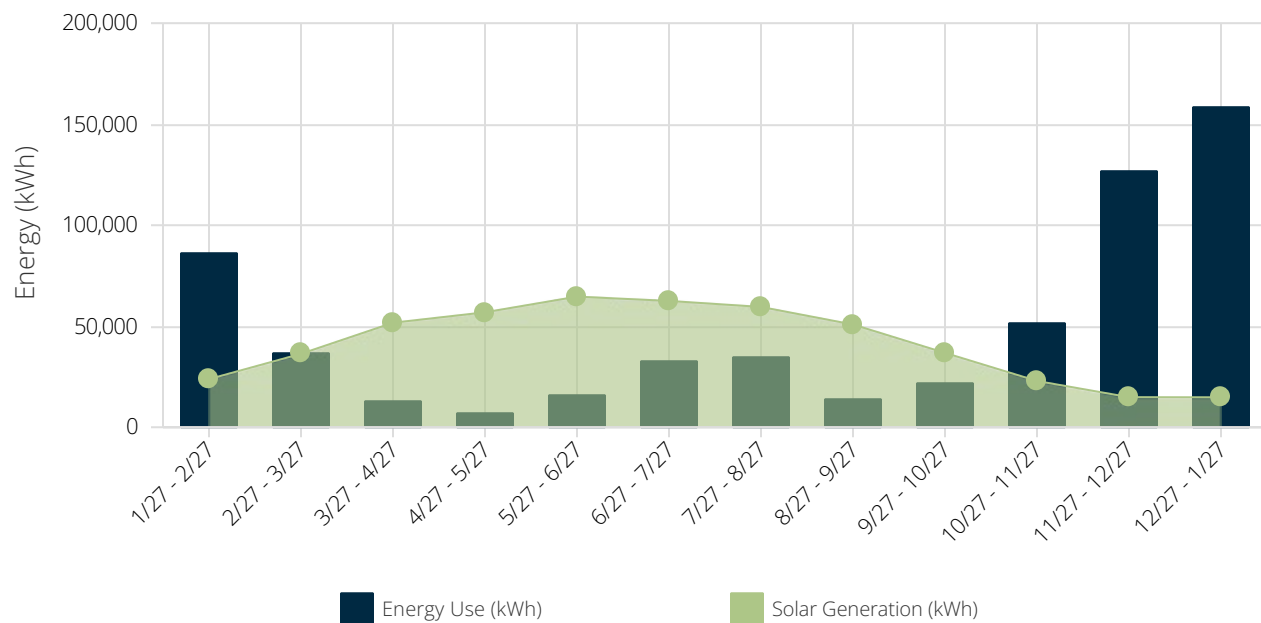
### Energy Consumption Mix

Annual Energy Use: 598,249 kWh



Utility	102,542 kWh (17.14%)
Solar PV	495,707 kWh (82.86%)

### 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%**

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.

Total Incentive Value: \$346,500

## 2.1.3 Utility Rates

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

Customer Charges				Energy Charges				Demand Charges			
Season	Charge Type	Rate Type	AG-C	Season	Charge Type	Rate Type	AG-C	Season	Charge Type	Rate Type	AG-C
S	Flat Rate	per day	\$1.43	S	On Peak	Import	\$0.22674	S	Flat Rate	Import	\$13.14
W	Flat Rate	per day	\$1.43	S	Off Peak	Import	\$0.1873	W	Flat Rate	Import	\$13.14
				W	On Peak	Import	\$0.19895	S	On Peak	Import	\$25.19
				W	Off Peak	Import	\$0.17326				

## 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: PG&E - AG-C

Time Periods	Energy Use (kWh)		Max Demand (kW)		Charges			
	On Peak	Off Peak	NC / Max	On Peak	Other	Energy	Demand	Total
1/27/2023 - 2/27/2023 W	11,156	74,543	288	-	\$44	\$15,135	\$3,784	\$18,964
2/27/2022 - 3/27/2022 W	4,596	31,864	220	-	\$40	\$6,435	\$2,891	\$9,366
3/27/2022 - 4/27/2022 W	1,526	11,383	75	-	\$44	\$2,276	\$986	\$3,306
4/27/2022 - 5/27/2022 W	914	6,512	76	-	\$43	\$1,310	\$999	\$2,352
5/27/2022 - 6/27/2022 W / S	2,611	13,315	90	73	\$44	\$3,062	\$2,725	\$5,832
6/27/2022 - 7/27/2022 S	3,930	28,720	161	129	\$43	\$6,270	\$5,365	\$11,678
7/27/2022 - 8/27/2022 S	4,242	30,595	90	74	\$44	\$6,692	\$3,047	\$9,783
8/27/2022 - 9/27/2022 S	2,036	11,916	163	163	\$44	\$2,694	\$6,248	\$8,986
9/27/2022 - 10/27/2022 S / W	720	21,099	171	0	\$43	\$3,820	\$2,077	\$5,940
10/27/2022 - 11/27/2022 W	4,722	46,688	174	-	\$44	\$9,029	\$2,286	\$11,359
11/27/2022 - 12/27/2022 W	15,301	111,750	212	-	\$43	\$22,406	\$2,786	\$25,235
12/27/2022 - 1/27/2023 W	20,677	137,431	279	-	\$44	\$27,925	\$3,666	\$31,635
Total	72,431	525,816	-	-	\$523	\$107,054	\$36,859	\$144,436

## 2.1.5 New Electric Bill

### Rate Schedule: PG&E - AG-C

Time Periods	Energy Use (kWh)		Max Demand (kW)		Charges			
Bill Ranges & Seasons	On Peak	Off Peak	NC / Max	On Peak	Other	Energy	Demand	Total
1/27/2023 - 2/27/2023 W	10,950	50,941	287	-	\$44	\$11,005	\$3,771	\$14,820
2/27/2022 - 3/27/2022 W	2,887	-2,769	216	-	\$40	\$95	\$2,838	\$2,973
3/27/2022 - 4/27/2022 W	-2,903	-35,908	74	-	\$44	\$6,799	\$972	\$5,782
4/27/2022 - 5/27/2022 W	-4,296	-45,163	76	-	\$43	\$8,680	\$999	\$7,638
5/27/2022 - 6/27/2022 W / S	-4,447	-44,271	90	61	\$44	\$9,166	\$2,471	\$6,651
6/27/2022 - 7/27/2022 S	-3,076	-26,800	161	90	\$43	\$5,717	\$4,383	\$1,291
7/27/2022 - 8/27/2022 S	-1,589	-23,124	90	73	\$44	\$4,691	\$3,021	\$1,626
8/27/2022 - 9/27/2022 S	-1,474	-35,419	162	162	\$44	\$6,968	\$6,209	\$714
9/27/2022 - 10/27/2022 S / W	-636	-14,347	171	0	\$43	\$2,675	\$2,077	\$555
10/27/2022 - 11/27/2022 W	4,593	23,919	173	-	\$44	\$5,058	\$2,273	\$7,376
11/27/2022 - 12/27/2022 W	15,290	96,879	211	-	\$43	\$19,827	\$2,773	\$22,643
12/27/2022 - 1/27/2023 W	20,621	122,683	278	-	\$44	\$25,359	\$3,653	\$29,056
Total	35,920	66,621	-	-	\$523	\$16,646	\$35,441	\$52,611

**Annual Electricity Savings: \$91,825**

## 3.1 Cash Purchase

### Assumptions and Key Financial Metrics

IRR - Term	12.4%	Net Present Value	\$977,335	Payback Period	8.1 Years
ROI	257.8%	PV Degradation Rate	0.80%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
Total Project Costs	\$1,155,000				

Years	Project Costs	Electric Bill Savings	Direct pay - 30% ITC	Total Cash Flow	Cumulative Cash Flow
Upfront	<b>-\$1,155,000</b>	-	-	<b>-\$1,155,000</b>	<b>-\$1,155,000</b>
1	-	\$91,825	\$346,500	\$438,325	<b>-\$716,675</b>
2	-	\$93,823	-	\$93,823	<b>-\$622,852</b>
3	-	\$95,859	-	\$95,859	<b>-\$526,993</b>
4	-	\$97,932	-	\$97,932	<b>-\$429,062</b>
5	-	\$100,043	-	\$100,043	<b>-\$329,019</b>
6	-	\$102,192	-	\$102,192	<b>-\$226,827</b>
7	-	\$104,381	-	\$104,381	<b>-\$122,446</b>
8	-	\$106,609	-	\$106,609	<b>-\$15,837</b>
9	-	\$108,877	-	\$108,877	\$93,040
10	-	\$111,184	-	\$111,184	\$204,224
11	-	\$113,533	-	\$113,533	\$317,757
12	-	\$115,922	-	\$115,922	\$433,679
13	-	\$118,352	-	\$118,352	\$552,031
14	-	\$120,824	-	\$120,824	\$672,855
15	-	\$123,338	-	\$123,338	\$796,193
16	-	\$125,893	-	\$125,893	\$922,086
17	-	\$128,491	-	\$128,491	\$1,050,577
18	-	\$131,132	-	\$131,132	\$1,181,709
19	-	\$133,815	-	\$133,815	\$1,315,524
20	-	\$136,541	-	\$136,541	\$1,452,065
21	-	\$139,311	-	\$139,311	\$1,591,376
22	-	\$142,124	-	\$142,124	\$1,733,500
23	-	\$144,980	-	\$144,980	\$1,878,479
24	-	\$147,879	-	\$147,879	\$2,026,359
25	-	\$150,822	-	\$150,822	\$2,177,181
26	-	\$153,809	-	\$153,809	\$2,330,990
27	-	\$156,839	-	\$156,839	\$2,487,829
28	-	\$159,912	-	\$159,912	\$2,647,741
29	-	\$163,029	-	\$163,029	\$2,810,771
30	-	\$166,189	-	\$166,189	\$2,976,959
Totals:	<b>-\$1,155,000</b>	\$3,785,459	\$346,500	\$2,976,959	-



## 4.1 Cash Purchase

### Assumptions and Key Financial Metrics

IRR - Term	12.4%	Net Present Value	\$977,335	Payback Period	8.1 Years
ROI	257.8%	PV Degradation Rate	0.80%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
Total Project Costs	\$1,155,000				

Years	Upfront	1	2	3	4	5	6	7	8	9	10	11	12
<b>Cash</b>													
Project Costs	-\$1,155,000	-	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	-	\$91,825	\$93,823	\$95,859	\$97,932	\$100,043	\$102,192	\$104,381	\$106,609	\$108,877	\$111,184	\$113,533	\$115,922
Direct pay - 30% ITC	-	\$346,500	-	-	-	-	-	-	-	-	-	-	-
<b>Cash Total</b>	-\$1,155,000	\$438,325	\$93,823	\$95,859	\$97,932	\$100,043	\$102,192	\$104,381	\$106,609	\$108,877	\$111,184	\$113,533	\$115,922
<b>Total Cash Flow</b>	-\$1,155,000	\$438,325	\$93,823	\$95,859	\$97,932	\$100,043	\$102,192	\$104,381	\$106,609	\$108,877	\$111,184	\$113,533	\$115,922
<b>Cumulative Cash Flow</b>	-\$1,155,000	-\$716,675	-\$622,852	-\$526,993	-\$429,062	-\$329,019	-\$226,827	-\$122,446	-\$15,837	\$93,040	\$204,224	\$317,757	\$433,679

## 4.1 Cash Purchase

### Assumptions and Key Financial Metrics

IRR - Term	12.4%	Net Present Value	\$977,335	Payback Period	8.1 Years
ROI	257.8%	PV Degradation Rate	0.80%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
Total Project Costs	\$1,155,000				

Years	13	14	15	16	17	18	19	20	21	22	23	24
<b>Cash</b>												
Project Costs	-	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	\$118,352	\$120,824	\$123,338	\$125,893	\$128,491	\$131,132	\$133,815	\$136,541	\$139,311	\$142,124	\$144,980	\$147,879
Direct pay - 30% ITC	-	-	-	-	-	-	-	-	-	-	-	-
<b>Cash Total</b>	\$118,352	\$120,824	\$123,338	\$125,893	\$128,491	\$131,132	\$133,815	\$136,541	\$139,311	\$142,124	\$144,980	\$147,879
<b>Total Cash Flow</b>	\$118,352	\$120,824	\$123,338	\$125,893	\$128,491	\$131,132	\$133,815	\$136,541	\$139,311	\$142,124	\$144,980	\$147,879
<b>Cumulative Cash Flow</b>	\$552,031	\$672,855	\$796,193	\$922,086	\$1,050,577	\$1,181,709	\$1,315,524	\$1,452,065	\$1,591,376	\$1,733,500	\$1,878,479	\$2,026,359

## 4.1 Cash Purchase

### Assumptions and Key Financial Metrics

IRR - Term	12.4%	Net Present Value	\$977,335	Payback Period	8.1 Years
ROI	257.8%	PV Degradation Rate	0.80%	Discount Rate	5.0%
Energy Cost Escalation Rate	3.0%	Federal Income Tax Rate	0.0%	State Income Tax Rate	0.0%
Total Project Costs	\$1,155,000				

Years	25	26	27	28	29	30	Totals
<b>Cash</b>							
Project Costs	-	-	-	-	-	-	<b>-\$1,155,000</b>
Electric Bill Savings	\$150,822	\$153,809	\$156,839	\$159,912	\$163,029	\$166,189	\$3,785,459
Direct pay - 30% ITC	-	-	-	-	-	-	\$346,500
<b>Cash Total</b>	\$150,822	\$153,809	\$156,839	\$159,912	\$163,029	\$166,189	\$2,976,959
<b>Total Cash Flow</b>	\$150,822	\$153,809	\$156,839	\$159,912	\$163,029	\$166,189	\$2,976,959
<b>Cumulative Cash Flow</b>	\$2,177,181	\$2,330,990	\$2,487,829	\$2,647,741	\$2,810,771	\$2,976,959	-