

DeKalb County Historic Preservation Commission

Monday, April 21, 2024- 6:00 P.M.

Staff Report

Consent Agenda

D. 2089 Ponce de Leon Avenue, Reverend Carmie McDonald. Install solar panels. **1247498**

Built in 1957 - Nonhistoric (15 237 01 005)

This property is in the Druid Hills Character Area #1 and the Druid Hills National Register Historic District.

- 11-02 2089 Ponce de Leon Avenue (Episcopal Church of the Epiphany) (DH), Young Goldstein, Inc. Addition on south and west sides, restructure parking area, and remove some trees. **Approved.**
- 07-03 2089 Ponce de Leon Avenue (DH), Young Goldstein Architects, Inc. Modify existing CoA with modifications to each elevation. **Approved.**
- 11-03 2089 Ponce de Leon Avenue (DH), Episcopal Church of the Epiphany. Landscaping changes and temporary relocation of trailers. **Approved with Modifications.**
- 01-04 2089 Ponce de Leon Avenue (DH), Episcopal Church of the Epiphany. Build brick retaining wall along drive and a wooden "lychgate" at the entrance to the courtyard. **Approved with Conditions.**
- 01-05 2089 Ponce de Leon Avenue (DH), Episcopal Church of the Epiphany. Replace part of sign. **Approved.**
- 05-18 2089 Ponce de Leon Avenue and 2103 Ponce de Leon Avenue (DH), Rev. Benno D. Pattison. Install pavements and retaining walls, modify the existing parking lots, install plantings and make other landscape changes. 22318 **Approved.**

Summary

The applicant proposes installing solar panels on one of the buildings for the Episcopal Church of the Epiphany. The solar panels will be installed on the flat roof of the parish hall, which is located on the Southern side of the Church's campus and faces towards East Lake Road. Wiring will be concealed and the panels will not be visible from the Right of Way.

Recommendation

Approve. These proposed changes do not appear to have a substantial adverse effect on the district. This application appears to meet the guidelines and the staff recommends approval.

Relevant Guidelines

- 5.0 *Design Review Objective* (p45) - When making a material change to a structure that is in view from a public right-of-way, a higher standard is required to ensure that design changes are compatible with the architectural style of the structure and retain character-defining features. When a proposed material change to a structure is not in view from the public-right-way, the Preservation Commission may review the project with a less strict standard so as to allow the owner more flexibility. Such changes, however, shall not have a substantial adverse effect on the overall architectural character of the structure.
- 11.0 *Nonhistoric Properties* (p93) Guideline - In reviewing an application for a Certificate of Appropriateness for a material change to a nonhistoric building, the Preservation Commission should evaluate the change for its potential impacts to any historic development (architecture and natural and cultural landscapes) in the area of influence of the nonhistoric property. Guidelines presented in *Section 7.0: Additions and new Construction* are relevant to such evaluations.

Chief Executive Officer
Michael Thurmond

DEPARTMENT OF PLANNING & SUSTAINABILITY

Interim Director
Cedric Hudson

Application for Certificate of Appropriateness

Date submitted: March 23, 2025

Date Received: _____

Address of Subject Property: 2089 Ponce de Leon Avenue NE, Atlanta, GA 30307

Applicant: Rev. Carmie McDonald E-Mail: cmcdonald@epiphany.org

Applicant Mailing Address: 2089 Ponce de Leon Avenue NE, Atlanta, GA 30307

Applicant Phone: Cell (770) 354-7099 Office (404) 373-8338

Applicant's relationship to the owner: Owner ☐ Architect ☐ Contractor/Builder ☐ Other ☒

Owner(s): The Church of the Epiphany, Inc. Email: cmcdonald@epiphany.org

Owner(s): _____ Email: _____

Owner(s) Mailing Address: 2089 Ponce de Leon Avenue NE, Atlanta, GA 30307

Owner(s) Telephone Number: (404) 373-8338

Approximate date of construction of the primary structure on the property and any other structures affected by this project: August 2025

Nature of work (check all that apply):

New construction	<input type="checkbox"/>	New Accessory Building	<input type="checkbox"/>	Other Building Changes	<input type="checkbox"/>
Demolition	<input type="checkbox"/>	Landscaping	<input type="checkbox"/>	Other Environmental Changes	<input type="checkbox"/>
Addition	<input type="checkbox"/>	Fence/Wall	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>
Moving a Building	<input type="checkbox"/>	Sign Installation	<input type="checkbox"/>		

Description of Work:

The Episcopal Church of the Epiphany is seeking a Certificate of Appropriateness for the installation of solar panels on our church building at 2089 Ponce de Leon Avenue NE, Atlanta, GA 30307. The church proposes to locate solar panels on a flat roof over our parish hall, as shown on Page 6 of the attached proposal provided by Alternative Energy Southeast. This portion of the roof is surrounded by a low parapet wall and the panels will not be visible from the ground level from any direction. The parish hall faces the church parking lot and East Lake Road. All wiring will be concealed, and there will be no visual impact on the surrounding area. No trees will be impacted by this project.

Attached to this application are two photographs. Photograph 1 shows the view of the parish hall from our driveway on East Lake Road. Photograph 2 shows the view of the church from the parking lot. The proposed solar installation will be behind and below the ridge line of the roof shown on the left side of Photograph 2.

This form must be completed in its entirety and be accompanied by supporting documents, such as plans, list of materials, color samples, photographs, etc. All documents should be in PDF format, except for photographs, which may be in JPEG format. Email the application and supporting material to plansustain@dekalbcountyga.gov and pjennings@dekalbcountyga.gov. An incomplete application will not be accepted.

Signature of Applicant: Carmie McDonald Digitally signed by Carmie McDonald
Date: 2025.03.22 18:52:47 -04'00'

DEPARTMENT OF PLANNING & SUSTAINABILITY

Authorization of a Second Party to Apply for a Certificate of Appropriateness

This form is required if the individual making the request is **not** the owner of the property.

I/ We: _____

being owner(s) of the property at: _____

hereby delegate authority to: _____

to file an application for a certificate of appropriateness in my/our behalf.

Signature of Owner(s): _____

Date: _____

Please review the following information

Approval of this Certificate of Appropriateness does not release the recipient from compliance with all other pertinent county, state, and federal regulations.

Before making any changes to your approved plans, contact the preservation planner (404/371- 2155). Some changes may fall within the scope of the existing approval, but others will require review by the preservation commission. If work is performed which is not in accordance with your certificate, a Stop Work Order may be issued.

If your project requires that the county issue a Certificate of Occupancy at the end of construction, an inspection may be made to verify that the work has been completed in accord with the Certificate of Appropriateness. If the work as completed is not the same as that approved in the Certificate of Appropriateness you will not receive a Certificate of Occupancy. You may also be subject to other penalties including fines and/or required demolition of the non-conforming work.

If you do not commence construction within twelve months of the date of approval, your Certificate of Appropriateness will become void and you will need to apply for a new certificate if you still intend to do the work.

DEPARTMENT OF PLANNING & SUSTAINABILITY

How to Obtain a Certificate of Appropriateness

1. Contact the DeKalb County Department of Planning and Sustainability for an application form. You may make your request by email plansustain@dekalbcountyga.gov AND pvjennings@dekalbcountyga.gov.
2. Complete and submit the application. Please provide as much supporting material as possible, (plans, material, color samples, photos, etc.). All documents must be in PDF format except for photographs, which may be in JPEG format. Applications are accepted for a 10-day period each month. See page 3 (HPC Calendar). Email the application and supporting documents to plansustain@dekalbcountyga.gov AND pvjennings@dekalbcountyga.gov. If all documents are not provided the application will not be complete and will not be accepted.
3. Once the application has been received, the Administrative Specialist for the Department of Planning and Sustainability will provide a sign template and instructions on how to post the required signage on the property at least ten days before the preservation commission meeting. If the applicant does not post the required signage and provide evidence of posting within ten days before the preservation commission meeting, their application may be deferred or denied due to improper public notification.
4. The Preservation Planner may visit the property as part of their review. The commission members may view the property from the right-of-way.
5. Applications will be reviewed by the DeKalb County Historic Preservation Commission at its monthly meeting. The Historic Preservation Commission meets on the third Monday at 6 p.m., via Zoom. In unusual circumstances meeting dates and location may be changed.
6. The Historic Preservation Commission may approve, approve with modifications or deny an application. The applicant or any affected person as defined by county code may appeal the decision to the DeKalb County Board of Commissioners. Please contact the Department of Planning and Sustainability if you wish to file an appeal. The Historic Preservation Commission is required to make a decision on an application within 45 days of the date of filing, although this time can be extended if the applicant agrees to a deferral.
7. Although not required, applicants are encouraged to attend the Historic Preservation Commission meetings. Applicants may make a presentation, but presentations are not required. The commissioners may have questions for the applicant.
8. Approval of a Certificate of Appropriateness does not release the recipient from compliance with all other county, state and federal regulations.

DEPARTMENT OF PLANNING & SUSTAINABILITY

Design Checklist for a Certificate of Appropriateness

This checklist was created to help applicants prepare a complete application. Omissions and inaccurate information can lead to deferrals and/or denials of applications. Please review the checklist with the project's architect, designer, or builder. All items will not be applicable to all projects. New construction will involve all categories. One copy of drawings at scale (plus nine reduced sets) should be submitted.

Please address questions regarding applicability to your project to the DeKalb County Preservation Planner at 404-687-3945, e-mail pvjennings@dekalbcountyga.gov and rlbragg@dekalbcountyga.gov.

Applicants are also referred to the DeKalb County website, <http://www.dekalbcountyga.gov/planning-and-sustainability/planning-sustainability>.

I have reviewed the "Design Manual for the Druid Hills Local Historic District".

I have reviewed the DeKalb County Tree Ordinance.

I have reviewed applicable zoning codes regarding lot coverage, garage sizes, stream buffers.

1. General

- a. Label all drawings with the address of the site, owners' name, and contact phone number.
- b. Number all drawings.
- c. Include a graphic scale on reductions.
- d. Date all revisions.
- e. Indicate all unverified numbers with +/- signs
- f. Include photos of the existing condition of the property.

2. Site Plan (existing and proposed) to include:

- a. Topographical plan with significant trees sized and located;
- b. Setback compared to adjacent houses (ask surveyor to show corners of adjacent houses);
- c. Distance between houses;
- d. Façade width to finished face of material;
- e. Grading and elevations across site;
- f. Dirt removal or regrading if more than 18";
- g. Tree protection plan;
- h. Tree removal and replacement plan

3. Driveways and Walkways

- a. Location and relationship to house;
- b. Width;
- c. Material;
- d. Curb cut and apron width

4. Fences & Retaining Walls

- a. Placement on lot;
- b. Height of fence or wall. If retaining wall, height on both sides;
- c. Material;
- d. Railing if necessary

5. Elevations and Floor Plans: <<Indicate all unverified numbers with +/- signs>>

- a. Plans for all floors (drawn to scale, 1/4"=1' preferred);
- b. House orientation on site plan;
- c. Scalable elevations for front, rear, left, right;
- d. Height, grade to ridge;
- e. Streetscape comparison showing heights of two flanking houses on each side;
- f. Height from grade to first floor level at all four corners;
- g. Height from grade or finished floor line to eaves at all four corners;
- h. Ceiling heights of each floor, indicating if rough or finished;
- i. Height of space between the ceiling and finished floor above;
- j. Two people of 5'-6" and 6' height shown;
- k. Landscaping plan

6. Additions

- a. Placement shown on elevations and floor plan;
- b. Visibility from rights-of-way and paths;
- c. Photos of all facades;
- d. Design proportioned to main house;
- e. Landscaping plan;
- f. Materials and their combinations

7. Roof Plan

- a. Shape and pitch of roof;
- b. Roofing material;
- c. Overhang;
- d. Louvers and vents;
- e. Chimney height and material

8. Dormers

- a. Construction details provided;
- b. Shape and size of dormer (show dimensions on drawings);
- c. Overhang;
- d. Size of window(s), with nominal size of sash (show dimensions on drawings)

9. Skylights

- a. Profile;
- b. Visibility from right-of-way;
- c. Material (plastic lens or glass);
- d. Shown in plan and elevation to scale

10. Façade

- a. Consistency in style;
- b. Materials and their combinations
 - brick size and color
 - stone type and color
 - fiber-cement (e.g., Hardie-plank) or wood siding
 - shake or shingle
 - other
- c. Height of foundation at corners;
- d. Ceiling heights comparable to area of influence: basement, first floor, second floor;
- e. Detailing: soldier course, brackets, fascia board; water table;
- f. Height from grade to roof ridge;
- g. Dimensions, proportions and placement of windows, doors

11. Entrance

- a. Height and width of door;
- b. Design of door (e.g., 6-panel, craftsman);
- c. Material of door;
- d. Overhang;
- e. Portico height;
- f. Size and height of columns or posts;
- g. Railing

12. Windows

- a. Consistent with original as well as the area of influence;
- b. Size and proportion similar to original;
- c. Pane orientation and size similar to original;
- d. Type (e.g., double hung, casement);
- e. Fenestration on walls visible from right-of-way;
- f. Simulated divided light (SDL) or true divided light (TDL): location of muntins between the glass, behind the glass or permanently affixed on exterior;
- g. Material of window and any cladding;
- h. Width of muntins compared to original (show dimensions on drawings);
- i. Shutters or canopies
- j. Dimensions of windows and doors.

13. Materials

- a. Show all materials and label them on drawings;
- b. Provide samples of brick or stone;
- c. Provide samples if new or unusual materials

DEPARTMENT OF PLANNING & SUSTAINABILITY

14. Garages / Accessory Buildings

- a. Visibility from street;
- b. Placement on site;
- c. Scale, style appropriate for house;
- d. Show dimensions on drawings;
- e. Materials;
- f. Square footage appropriate for lot size;
- g. Garage door size and design
- h. Show height from grade to eaves and to top of roof

15. Demolitions

- a. Provide documentation from engineer concerning feasibility of rehabilitation;
- b. Provide photographs of structure to be demolished;
- c. Provide plan for proposed redevelopment

Application Process Checklist

This checklist is to ensure that applicants understand the Certificate of Appropriateness (COA) application process from beginning to end. Please verify that you have read over the process shown below and understand the procedures and timeline that will be followed for all submitted COA applications.

- Applications may only be submitted during the period specified on the calendar for each month. Once the filing deadline has passed and that period has expired, **no new applications will be accepted** to be heard at that month's commission meeting. If an application has not been submitted before the filing deadline, it cannot be submitted again until the next period for applications has opened.
- Additional materials submitted after the staff's report have been finalized and posted to the public will not be taken into consideration for the staff report. Staff reports will not be edited once finalized and published – any new materials may be submitted for the record for the commission but will not affect the staff's report for the application.
- Any additional materials submitted after the staff's report has been finalized and posted to the public may be added to the record for the historic preservation commission to review as supplemental materials for the submitted application. Supplemental materials includes:
 - Representative photos
 - Letters of support/opposition
 - Architectural drawings
 - Updated site plans

Supplemental materials **do not** include documents for new work to be added to the already submitted application. Any materials that propose new work that was not included in the original application, will not be added to the record. Any proposed new work that was not included in the original application will need to be included in a new application to be submitted for next month's commission meeting.

I have reviewed the information above and understand the Certificate of Appropriateness process. Yes

I have reviewed the HPC calendar. Yes



**Alternative
Energy
Southeast**

Prepared For
Episcopal Church of the
Epiphany
678-358-6639
ffinegan@hotmail.com



ABOUT US

Alternative Energy Southeast, Inc. is a team of solar professionals on the leading edge of our trade since 2007. We treat our customers with unparalleled professionalism and strive to exceed their expectations in every respect.

QUALITY-FOCUSED

We take pride in providing consistent quality in our work. A 25-year Workmanship Warranty is standard on all systems.

Solar at Episcopal Church of the Epiphany Design #5 - Tight South

Prepared By
Adam Hoyt
770-299-4031
adam@altenergyse.com

1/20/2025



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1 Project Summary

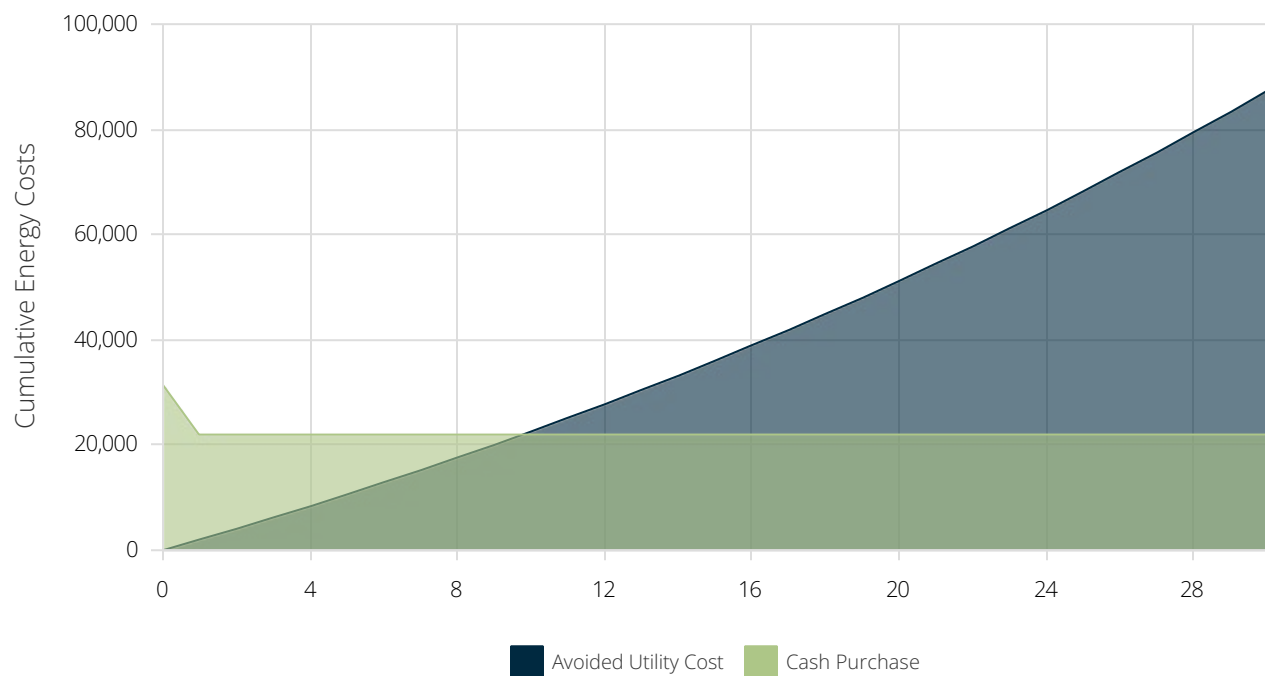
Payment Options	Cash Purchase
IRR - Term	10.3%
LCOE PV Generation	\$0.052 /kWh
Net Present Value	\$18,685
Payback Period	9.8 Years
Total Payments	\$31,400
Total Incentives	\$9,420
Net Payments	\$21,980
Electric Bill Savings - Term	\$87,323
Upfront Payment	\$31,400

Combined Solar PV Rating

Power Rating: 10,160 W-DC

Power Rating: 8,941 W-AC-CEC

Cumulative Energy Costs By Payment Option



AES
Alternative Energy Southeast

2.1.1 PV System Details

General Information

Facility: Meter #1

Address: 2089 Ponce De Leon Ave NE Atlanta GA 30307

Solar PV Equipment Description

Solar Panels: (16) Qcells Q.TRON XL-G2.3 / BFG 635W

Inverters: (1) SolarEdge SE10KUS (2022)

Solar PV Equipment Typical Lifespan

Solar Panels: Greater than 30 Years

Inverters: 15 Years

Solar PV System Cost and Incentives

Solar PV System Cost \$31,400

Direct pay - 30% ITC **-\$9,420**

Net Solar PV System Cost \$21,980

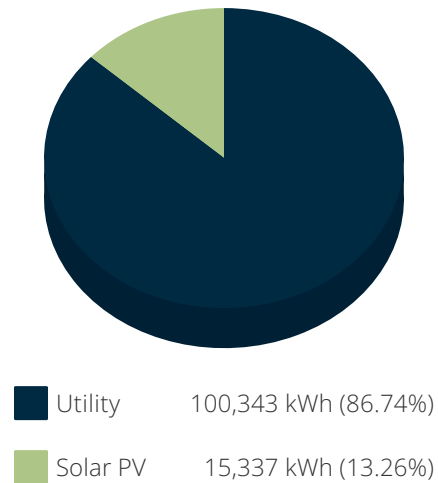
Solar PV System Rating

Power Rating: 10,160 W-DC

Power Rating: 10.0 kW-AC

Energy Consumption Mix

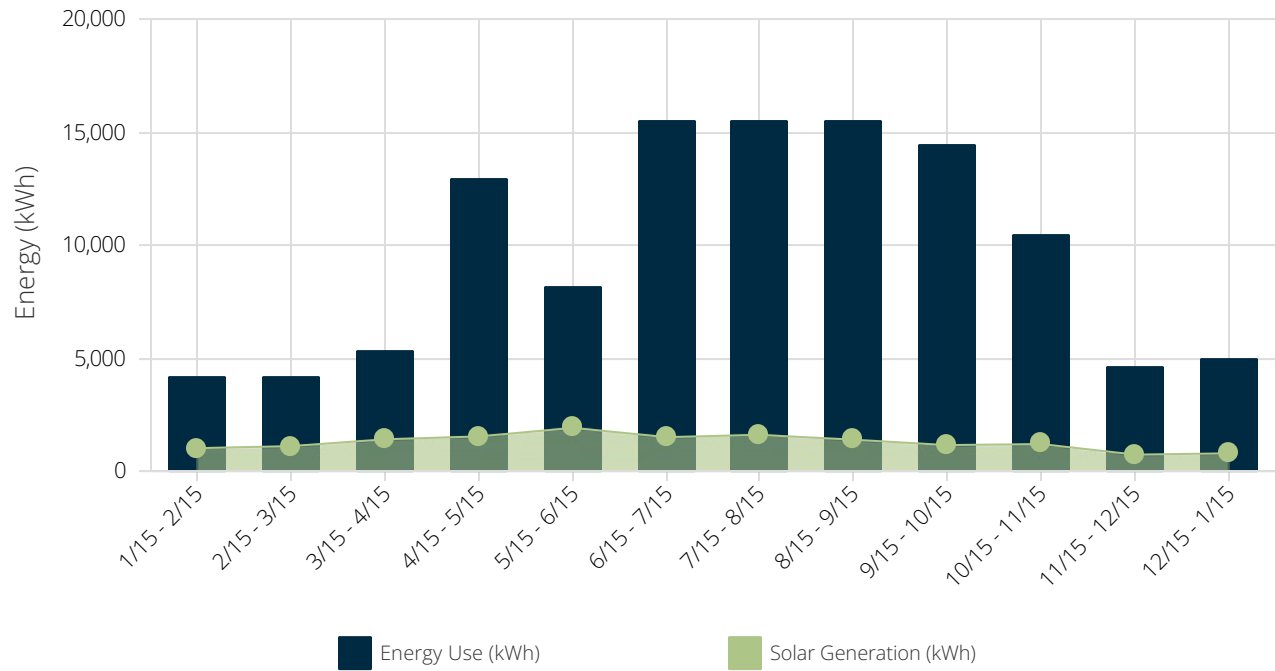
Annual Energy Use: 115,680 kWh



Annual Electricity Savings: \$2,021

Special Notes: 10kW-AC inverter allows future expansion (additional solar panels) up to 15kW-DC without purchase of additional inverter. Financial savings subject to further analysis after energy use study.

Monthly Energy Use vs Solar Generation



3 Solar Array Placement



4 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: \$9,420

4.1 Utility Rates

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

Customer Charges				Energy Charges			
Season	Charge Type	Rate Type	TOU-EO	Season	Charge Type	Rate Type	TOU-EO
W	Flat Rate	per billing period	\$121.37	W	T < 1,500 kw	Import	\$0.11463
S	Flat Rate	per billing period	\$121.37	W	1,500 kw < T	Import	\$0.0438
				W	Off Peak	Import	\$0.0437
				S	On Peak	Import	\$0.31187
				S	Off Peak	Import	\$0.15833

4.2 Electric Bills (Current vs. After Solar)

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: GP - TOU-EO

Time Periods	Energy Before (kWh)	Energy After (kWh)	Charges Before	Charges After
Bill Ranges & Seasons	Total	Total	Total	Total
1/15/2023 - 2/15/2023 W	4,160	3,146	\$592	\$508
2/15/2023 - 3/15/2023 W	4,160	3,054	\$592	\$500
3/15/2023 - 4/15/2023 W	5,280	3,873	\$690	\$569
4/15/2023 - 5/15/2023 W	12,960	11,425	\$1,362	\$1,230
5/15/2022 - 6/15/2022 W / S	8,160	6,247	\$1,255	\$999
6/15/2022 - 7/15/2022 S	15,520	14,018	\$2,769	\$2,459
7/15/2022 - 8/15/2022 S	15,520	13,915	\$2,769	\$2,445
8/15/2022 - 9/15/2022 S	15,520	14,129	\$2,769	\$2,478
9/15/2022 - 10/15/2022 S / W	14,400	13,249	\$2,372	\$2,190
10/15/2022 - 11/15/2022 W	10,400	9,202	\$1,138	\$1,035
11/15/2022 - 12/15/2022 W	4,640	3,909	\$634	\$572
12/15/2022 - 1/15/2023 W	4,960	4,176	\$662	\$594
Total	115,680	100,343	\$17,601	\$15,580

Annual Electricity Savings: \$2,021

5 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	10.3%	Net Present Value	\$18,685	Payback Period	9.8 Years
ROI	208.1%	PV Degradation Rate	0.55%	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	\$31,400				

Years	Project Costs	Electric Bill Savings	Direct pay - 30% ITC	PV Generation (kWh)	Total Cash Flow	Cumulative Cash Flow
Upfront	-\$31,400	-	-	-	-\$31,400	-\$31,400
1	-	\$2,021	\$9,420	15,338	\$11,441	-\$19,959
2	-	\$2,070	-	15,253	\$2,070	-\$17,889
3	-	\$2,120	-	15,169	\$2,120	-\$15,769
4	-	\$2,172	-	15,085	\$2,172	-\$13,597
5	-	\$2,225	-	15,000	\$2,225	-\$11,372
6	-	\$2,278	-	14,916	\$2,278	-\$9,094
7	-	\$2,333	-	14,832	\$2,333	-\$6,760
8	-	\$2,390	-	14,747	\$2,390	-\$4,371
9	-	\$2,447	-	14,663	\$2,447	-\$1,923
10	-	\$2,506	-	14,578	\$2,506	\$583
11	-	\$2,567	-	14,494	\$2,567	\$3,150
12	-	\$2,628	-	14,410	\$2,628	\$5,778
13	-	\$2,691	-	14,325	\$2,691	\$8,469
14	-	\$2,756	-	14,241	\$2,756	\$11,225
15	-	\$2,821	-	14,157	\$2,821	\$14,046
16	-	\$2,889	-	14,072	\$2,889	\$16,935
17	-	\$2,958	-	13,988	\$2,958	\$19,893
18	-	\$3,028	-	13,904	\$3,028	\$22,920
19	-	\$3,100	-	13,819	\$3,100	\$26,020
20	-	\$3,173	-	13,735	\$3,173	\$29,194
21	-	\$3,249	-	13,651	\$3,249	\$32,442
22	-	\$3,325	-	13,566	\$3,325	\$35,768
23	-	\$3,404	-	13,482	\$3,404	\$39,171
24	-	\$3,484	-	13,397	\$3,484	\$42,655
25	-	\$3,566	-	13,313	\$3,566	\$46,221
26	-	\$3,650	-	13,229	\$3,650	\$49,871
27	-	\$3,735	-	13,144	\$3,735	\$53,606
28	-	\$3,822	-	13,060	\$3,822	\$57,428
29	-	\$3,912	-	12,976	\$3,912	\$61,340
30	-	\$4,003	-	12,891	\$4,003	\$65,343
Totals:	-\$31,400	\$87,323	\$9,420	423,435	\$65,343	-

6.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	10.3%	Net Present Value	\$18,685	Payback Period	9.8 Years
ROI	208.1%	PV Degradation Rate	0.55%	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	\$31,400				

Years	Upfront	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Cash															
Project Costs	-\$31,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	-	\$2,021	\$2,070	\$2,120	\$2,172	\$2,225	\$2,278	\$2,333	\$2,390	\$2,447	\$2,506	\$2,567	\$2,628	\$2,691	\$2,756
Direct pay - 30% ITC	-	\$9,420	-	-	-	-	-	-	-	-	-	-	-	-	-
Cash Total	-\$31,400	\$11,441	\$2,070	\$2,120	\$2,172	\$2,225	\$2,278	\$2,333	\$2,390	\$2,447	\$2,506	\$2,567	\$2,628	\$2,691	\$2,756
Total Cash Flow	-\$31,400	\$11,441	\$2,070	\$2,120	\$2,172	\$2,225	\$2,278	\$2,333	\$2,390	\$2,447	\$2,506	\$2,567	\$2,628	\$2,691	\$2,756
Cumulative Cash Flow	-\$31,400	-\$19,959	-\$17,889	-\$15,769	-\$13,597	-\$11,372	-\$9,094	-\$6,760	-\$4,371	-\$1,923	\$583	\$3,150	\$5,778	\$8,469	\$11,225

6.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	10.3%	Net Present Value	\$18,685	Payback Period	9.8 Years
ROI	208.1%	PV Degradation Rate	0.55%	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	\$31,400				

Years	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Cash															
Project Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electric Bill Savings	\$2,821	\$2,889	\$2,958	\$3,028	\$3,100	\$3,173	\$3,249	\$3,325	\$3,404	\$3,484	\$3,566	\$3,650	\$3,735	\$3,822	\$3,912
Direct pay - 30% ITC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cash Total	\$2,821	\$2,889	\$2,958	\$3,028	\$3,100	\$3,173	\$3,249	\$3,325	\$3,404	\$3,484	\$3,566	\$3,650	\$3,735	\$3,822	\$3,912
Total Cash Flow	\$2,821	\$2,889	\$2,958	\$3,028	\$3,100	\$3,173	\$3,249	\$3,325	\$3,404	\$3,484	\$3,566	\$3,650	\$3,735	\$3,822	\$3,912
Cumulative Cash Flow	\$14,046	\$16,935	\$19,893	\$22,920	\$26,020	\$29,194	\$32,442	\$35,768	\$39,171	\$42,655	\$46,221	\$49,871	\$53,606	\$57,428	\$61,340

6.1 Cash Purchase

Assumptions and Key Financial Metrics

IRR - Term	10.3%	Net Present Value	\$18,685	Payback Period	9.8 Years
ROI	208.1%	PV Degradation Rate	0.55%	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	\$31,400				

Years	30	Totals
Cash		
Project Costs	-	-\$31,400
Electric Bill Savings	\$4,003	\$87,323
Direct pay - 30% ITC	-	\$9,420
Cash Total	\$4,003	\$65,343
Total Cash Flow	\$4,003	\$65,343
Cumulative Cash Flow	\$65,343	-

Environmental Benefits



240
tons of CO2 Offset



546,304
Miles Driven by Cars



3,604
Trees Planted

Why You Should Choose Solar Energy

By installing a PV solar system, not only are you combatting soaring energy costs, but you are also doing your part to reduce CO2 emissions.

This solar system will have
the equivalent impact of:



