| Audit Report - Solar Farm #415 | 2 |
|--|----|
| Overview | 2 |
| Solar Farm Site Profile | 3 |
| Solar Panel details | 4 |
| Calculation of the Expected Carbon Credit Production | 4 |
| Legal Documents | 4 |
| Carbon Footprint Assessment & Calculations | 6 |
| Disaster Risk Assessment | 6 |
| Technical Innovations | 6 |
| Communication Channels | 6 |
| GCA information | 7 |
| Conclusion | 7 |
| Appendix - Calculations | 8 |
| Appendix - Protocol fees - Proof of payment | 9 |
| Appendix - Evidences Obtained From Solar Farm Owner | 10 |
| Appendix - Drone Footage | 10 |
| Appendix - Cost of Power Verification | 10 |
| Appendix - Assumptions document | 12 |

Audit Report - Solar Farm #415

Overview

GCA: Fatima Khaziyeva

Location: 1242 W 900 N, Salt Lake City, UT 84116, USA **Coordinates**: 40.789253308380246, -111.92724715842098

Solar Panels: Quantity: 22

Brand and Model: CS6R - 395MS by Canadian Solar

Warranty: 25 years

System Wattage Output: 8.69 kW-DC | 6.38 kW-AC

Installation and Operations:

Installation Date: After August 26th, 2024

PTO Date: N/A **Short ID: 415**

Carbon Footprint & Production:

Average Sunlight per day: 4.8216 hours **Adjusted Weekly Carbon Credits = 0.1282 Weekly Total Carbon Debt = 0.0529**

Net Carbon Credit Earnings Weekly = 0.0753

Protocol Fees: \$13,330.35

Final Cost of Power: \$0.1357 per kWh

Solar Farm Site Profile

| Tests performed by GCA | Results | Reference |
|--|--|--|
| Inspected the Residential Solar Energy System Purchase Agreement to verify the legal name of the entity owning the solar farm. | Owner: Solar Farm #415 | Residential Solar Energy System Purchase Agreement |
| Inspected the Residential Solar Energy System Purchase Agreement, and conducted on-site verification to ensure the geographic coordinates of the solar farm are accurate. | 40.789253308380246, -111.92724715842098 | Residential Solar Energy System Purchase Agreement & Screenshot of GCA phone location |
| Inspected the Plan sets, and conducted an on-site physical verification to corroborate the size of the solar farm as stated in the documents. | 8.69 kW-DC 6.38 kW-AC | Planset p.1 & Audit Pictures |
| Inspected the Mortgage Statement Document, and conducted on-site verification to confirm the address and the zip code of the property. | 1242 W 900 N, Salt Lake City, UT 84116, USA | Mortgage Statement & Residential Solar Energy System Purchase Agreement |
| Conducted on-site verification to visually confirm the installation of solar panels on the property | There are six sections of panels. First section with 2 panels, the second section with 2 panels, the third section with 6 panels, the fourth section with 3 panels, the fifth section with 1 panel and the sixth section with 8 panels. For a total of 22 panels | Audit Pictures |
| Conducted on-site verification to visually assess the general condition and features of the property. | The solar panels are new and in good condition. They are located on the rooftop of the house. | Audit Pictures |

Solar Panel details

| Tests performed by GCA | Results | Reference |
|---|---|-----------------------------------|
| Inspected the document and conducted on-site verification to confirm the brand and model of the solar panels installed | CS6R - 395MS by Canadian Solar | Planset [p.10] Audit pictures |
| Inspected the Manufacturer Warranty Document to verify the warranties provided for the solar panels | 25-year warranty by Canadian Solar | Planset [p.10] |
| Inspected the Installation Approval by Salt Lake City Building Department and conducted on-site verification to confirm the installation method of the solar panels | Installed professionally, adhering to industry norms. | Inspection and Permit document |

Calculation of the Expected Carbon Credit Production

Conducted calculations based on the specifications of the solar panels, historic data from WattTime and NASA, and any expected degradation to determine the expected carbon credit production per megawatt hour of electricity produced. For an in-depth understanding of these calculations, reference is made to the 'Assumption Documentation'.

Coordinates: 40.789253308380246, -111.92724715842098

Average Sunlight per day: 4.8216 hours **Carbon Credit Production per MWh:** 0.6723

Calculations:

http://95.217.194.59:35015/api/v1/geo-stats?latitude=40.789253308380246&longitude=-111.927 24715842098

Legal Documents

| Tests performed by GCA | Results | Reference |
|---|--|---|
| Inspected the document to verify the ownership of the electricity generated by the solar panels | Ownership of the electricity generated by the solar panels has been confirmed. | Residential Solar Energy System Purchase Agreement |
| Inspected the document to verify the authorization for certifying carbon credit | The document has been inspected and verified for proper authorization to certify carbon credits. | Residential Solar Energy System Purchase Agreement |

| Inspected the document and verified the solar farm owner's signature authorizing the list of information permitted for online publication | The solar farm owner's signature authorizing the list of information for online publication has been inspected and confirmed. | Residential Solar Energy System Purchase Agreement |
|---|---|---|
| Inspected the document to verify the details concerning the long-term operation of the solar panels | The document detailing the long-term operation plans and specifications of the solar panels has been inspected and verified. | Residential Solar Energy System Purchase Agreement |
| Inspected the document and verified the solar farm owner's signature authorizing the installation and utilization of monitoring equipment | The solar farm owner's authorization for the installation and utilization of monitoring equipment has been inspected and validated. | Residential Solar Energy System Purchase Agreement |
| Inspected the document and verified the solar farm owner's signature authorizing additional auditor visits. | Confirmation was obtained on the solar farm owner's signature authorizing additional auditor visits as per the inspected document. | Residential Solar Energy System Purchase Agreement |

Carbon Footprint Assessment & Calculations

In the assessment of the carbon footprint of the solar farm using monocrystalline technology, the harmonized emission result of 40g CO2-eq/kWh was applied. This figure is anchored in assumptions such as ground-mount application, solar irradiation of 2,400 kWh/m²/yr, a performance ratio of 0.8, and a panel lifetime of 30 years. For an in-depth understanding of these assumptions, reference is made to the 'Assumption Documentation'.

| Tests performed by GCA | Results | Reference |
|---|--|----------------------------|
| Conducted independent calculations to assess the weekly minimum carbon payment required | The carbon payment plan is an automated process, subtracted directly from the farm's weekly carbon credit production. This system does not involve any actual monetary transfers. Additionally, a crucial safeguard is in place whereby an owner cannot default on these carbon payments, as auditors will not certify any farm whose debt payments exceed its capacity to offset. Adjusted Weekly Carbon Credits = 0.1282 Weekly Total Carbon Debt = 0.0529 Net Carbon Credit Earnings Weekly = 0.0753 | Detailed calculations [p1] |

Disaster Risk Assessment

In the disaster risk assessment of the solar farm, a conservative failure rate of 1% within the first 10 years of operation in the United States was adopted. This rate is derived from extensive research on historical failure rates and professional surveys, coupled with a conservative approach to accommodate unforeseen circumstances. Consequently, the per-year failure rate is calculated to be 0.17%. For a comprehensive explanation of the underlying assumptions and methodology, refer to the detailed information provided in the 'Assumption Documentation'.

Technical Innovations

Upon physical inspection, it was observed that the solar farm employs standard commercial solar panels and does not feature any distinct technological innovations.

Communication Channels

The owner has acknowledged receipt and understanding of the established protocols for post-audit communication. This includes a comprehensive system for reporting any incidents, abnormalities, or significant changes that may occur following audit activities. Additionally, the owner confirms having received an updated list of contacts designated for post-audit communication purposes. A commitment has been made to adhere strictly to these protocols

and to promptly report any valuable changes or findings in accordance with the outlined procedures. The full details of these declarations and compliance are documented in the referenced 'Residential Solar Energy System Purchase Agreement'.

GCA information

This audit report has been prepared and finalized by an auditor who has fully complied with and signed the required clauses as outlined in the 'Auditor Disclosure and Declaration Document'. These clauses include the auditor's non-ownership of solar farms, non-possession of Glow tokens unless staked, non-ownership of unretired carbon credits, restriction on owning stocks or tokens outside of broad market exposure index funds, absence of business conflicts of interest, and adherence to the Glow International Code of Conduct. Additionally, the auditor has agreed to maintain a low community profile, with an undertaking to retire if they exceed a threshold of 5,000 social media followers/friends, ensuring unbiased and impartial auditing. The full details of these declarations and compliance are documented in the referenced 'Auditor Disclosure and Declaration Document'.

Conclusion

The audit confirms that the solar farm's location and specifications match the owner's reported information. The audit confirms that the solar farm meets these specifications, qualifying it for Glow Labs' incentive protocol.

The on-site inspection and monitor box installation was fully completed by Jared Morgan on September 17th, 2024.

Appendix - Calculations

| carbon debt per KWh | value | details | | | |
|------------------------------------|---------|---|------------------------------------|---------|---|
| carbon footprint (CO2 g/KWh) | 40 | see assumption document | | | |
| convert grams to metric tons | 0.00004 | conversion | | | |
| solar irradiation (total h/y) | 2400 | see assumption document | | | |
| performance ratio | 0.8 | see assumption document | | | |
| panel lifetime (y) | 30 | see assumption document | | | |
| total carbon debt per KWh | 2.304 | | | | |
| adjustment due to uncertainty | 35% | see assumption document | | | |
| total carbon debt adjusted per KWh | 3.1104 | | | | |
| Adjusted carbon debt | value | details | | | |
| annual interest rate | 0.17% | see assumption document | | | |
| Commitment (y) | 10 | see assumption document | | | |
| total adjusted carbon debt per KWh | 2.343 | | | | |
| weekly production | value | details | weekly Carbon debt | value | details |
| Power Output (MWh) | 0.0087 | based on solar production (see planset doc) | total carbon debt adjusted (KWh) | 3.1104 | calculated above |
| Hours of Sunlight Per Day | 4.8216 | based on NASA data API | Power Output (MWh) | 0.0087 | based on solar production (see planset doc) |
| Weekly Power Production (MWh) | 0.2933 | | convert to KW | 8.6900 | conversion |
| Carbon Offsets per MWh | 0.6723 | based on WattTime data API | Total Carbon Debt produced | 27.0294 | |
| Weekly Carbon Credits | 0.1972 | | disaster risk assessement per year | 0.0017 | see assumption document |
| adjustment due to uncertainty | 0.3500 | see assumption document | Commitment (y) | 10.0000 | see assumption document |
| Adjusted Weekly Carbon Credits | 0.1282 | | Adjusted Total Carbon Debt | 27.4842 | |
| | | | Weekly Total Carbon Debt | 0.0529 | |
| NET Carbon Credit Earnings weekly | 0.0753 | | | | |

| | | Protocol fees calculations | | Address: | 1242 W 900 N, Salt La | ke City, UT 8411 | 6, USA | | | |
|--|--|--|--|---|--------------------------------------|---------------------|----------------------|------------------------|--------------------|-----------|
| First Year Electricity Old Price | value | | details | Coordinates: | 40.789253308380246 | -111.927247158 | 42098 | | | |
| revious Electricity Price (paid by user) (in kW) | | see electrical usage bill (June 2024) | | API Link: | http://95.217.194.59:3 | | | <u>7892533</u> 0838028 | klongitude=-111.92 | 272471584 |
| onvert kW to mW | | conversion | | input average_sunlight | 4.8215814794521 | | | | | |
| ours of Sunlight Per Day | | based on NASA data API | | input average_carbon_certificates | 0.6722855195164 | | | | | |
| ower Output (MWh) | | based on solar production (see planset doc) | | system size | 8.69 kW-DC 6.38 kW | 100 | | | | |
| imber of days | 365.25 | | | | 0.09 KW-DC 0.36 KW | -AC | | | | |
| rst Year Electricity Old Price | \$2,077.22 | | | # of panels | 22 | | | | | |
| st Year Electricity Old Price | \$2,077.22 | | | | | | | | | |
| Lifetime Old Electricity Value | value | | details | | | | | | | |
| st Year Electricity Old Price | | calculated above | | | | | | | | |
| vious Escalator (estimated) | | see escalator reference for UT: https://www.s | solarreviews.com/blog/average-electricity-cost-increase-per-year | | | | | | | |
| mmitment (years) | 10 | | | | | | | | | |
| esent Value | \$23,239.06 | | | | | | | | | |
| Protocol Cash Requirements | value | | details | | | | | | | |
| ashflow Discount | | see assumption document | | | | | | | | |
| ommitment (years) | 10 | | | | | | | | | |
| etime Old Electricity Value | | Calculated above | | | | | | | | |
| esent Value | \$13,686.02 | | | - | | | | | | |
| cociit vdiut | φ13,080.02 | | | | | | | | | |
| otocol Fees | \$13,686.02 | | | amount paid in tx: | 13,330.35 | | | | | |
| | Detail | ed Energy Cost Calculation - June 2 | 2024 | difference of 355\$ resulting in an ea GCA will not be seeking a second p | rror calculation from the payment | GCA. Since the | difference is less t | than 1%, the | | |
| tal kWh usage | 718 | | | details | | | | | | |
| | <u> </u> | | | | | | | | | |
| | | Charges and Fees | | | | | | | | |
| nter Block 2 kWh | 0.103725 | | | | | | | | | |
| mmer Block 2 kWh | 0.11721 | | | Out of the 4 charges from Rocky M in efforts to not under estimate the | | is also the higher | charge. That was | used to calculate | e the protocol fee | |
| verage Price per kWh | 0.11047 | | | To calculate the most accurate cos- used, here is the link for Rocky Mo- net/content/dam/pcorp/documents/ | t of power over the cour | se of a year, the a | mountainpower. | block 2 and sumr | mer block 2 was | |
| ase Price of usage (usage x Average Price) | 79.316 | | | nevcontent/dam/pcorp/documents/ | enrockymountampowe | /rates-regulation/ | utan/rates/001_R | esideriliai_Servic | e.pui | - |
| | | | | | | | | | | |
| | Fee amount | | | | | | | | | |
| enewable Energy Adjusment | -0.09 | | | | | | | | | |
| nergy Balancing Account | 5.59 | | | | | | | | | |
| | 2.88 | | | | | | | | | |
| | | 1 | | + | | | | | | |
| ustomer Efficiency Service | | 1 | | | | | | | | |
| ustomer Efficiency Service ectric Vehicle Infrustructure | 0.22 | | | | | | | | | |
| ustomer Efficiency Service ectric Vehicle Infrustructure uniciple Energy Sales/Use Tax | 0.22 5.25 | | | | | | | | | |
| ustomer Efficiency Service ectric Vehicle Infrustructure uniciple Energy Sales/Use Tax ah Sales Tax | 0.22 5.25 4.29 | | | | | | | | | |
| ustomer Efficiency Service ectric Vehicle Infrustructure uniciple Energy Sales/Use Tax ah Sales Tax tal Fees | 0.22 5.25 4.29 18.14 | | | | | | | | | |
| ustomer Efficiency Service ectric Vehicle Infrustructure uniciple Energy Sales/Use Tax ah Sales Tax tal Fees | 0.22 5.25 4.29 | | | | | | | | | |
| sstomer Efficiency Service actric Vehicle Infrustructure uniciple Energy Sales/Use Tax ah Sales Tax tal Fees tal Cost (Base Price + Total fees) | 0.22 5.25 4.29 18.14 97.456 | | | | | | | | | |
| ustomer Efficiency Service ectric Vehicle Infrustructure uniciple Energy Sales/Use Tax ah Sales Tax stal Fees tal Cost (Base Price + Total fees) | 0.22 5.25 4.29 18.14 97.456 | | | | | | | | | |
| ustomer Efficiency Service actric Vehicle Infrustructure uniciple Energy Sales/Use Tax ah Sales Tax tal Fees tal Cost (Base Price + Total fees) | 0.22 5.25 4.29 18.14 97.456 | | | | | | | | | |
| ustomer Efficiency Service ectric Vehicle Infrustructure uniciple Energy Sales/Use Tax ah Sales Tax ttal Fees tal Cost (Base Price + Total fees) ttal Price per kWh (total cost / Total kWh use | 0.22 5.25 4.29 18.14 97.456 0.1357 | olock 2 price from Rocky Mountain Power | ie block 2 usage. | | | | | | | |
| sstomer Efficiency Service schric Vehicle Infrustructure uniciple Energy Sales/Use Tax ah Sales Tax tal Fees tal Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use ice per kWh is based off of the avarage of the s | 0.22 5.25 4.29 18.14 97.456 0.1357 | olock 2 price from Rocky Mountain Power | ie block 2 usage. | | | | | | | |
| Instance Efficiency Service sectric Vehicle Infrustructure Iniciple Energy Sales/Use Tax ah Sales Tax tal Fees Ital Cost (Base Price + Total fees) Ital Price per kWh (total cost / Total kWh use Ital Fees to the Price Per kWh (total cost / Total kWh use Ital Price per kWh use Ital Price per kWh (total cost / Total kWh use Ital Price per kWh use Ital Price per kWh (total cost / Total kWh use Ital Price per | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter berage of the block 2 1242 W 900 N Salt La | llock 2 price from Rocky Mountain Power summer and winter charge and multipying the | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service stric Vehicle Infrustructure iniciple Energy Sales/Use Tax ah Sales Tax tal Fees tal Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use ce per kWh is based off of the avarage of the s se price of usage is calculated by taking the av Detailed Account Activity ITEM 4 - ELECTRIC SERVICE | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter berage of the block 2 1242 W 900 N Salt La Residential Schedule | olock 2 price from Rocky Mountain Power summer and winter charge and multipying the lake City UT | ne block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure niciple Energy Sales/Use Tax ih Sales Tax tal Fees al Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use ce per kWh is based off of the avarage of the is se price of usage is calculated by taking the av Detailed Account Activity | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter be erage of the block 2 1242 W 900 N Salt Le Residental Schedule | olock 2 price from Rocky Mountain Power summer and winter charge and multipying the lake City UT 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | ie block 2 usage. | | | | | | | |
| Stomer Efficiency Service ctric Vehicle Infrustructure niciple Energy Sales/Use Tax In Sales Tax al Fees al Cost (Base Price + Total fees) al Price per kWh (total cost / Total kWh use the per kWh is based off of the avarage of the se the price of usage is calculated by taking the available and the selection of | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter berage of the block 2 1242 W 900 N Salt La Residential Schedule ELAPSO METER ADMANS Primous | olock 2 price from Rocky Mountain Power summer and winter charge and multipying the like City UT 1 NRS METER AMOUNT USED MULTIPLER THIS MONTH | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure niciple Energy Sales/Use Tax in Sales Tax al Fees al Cost (Base Price + Total fees) al Price per kWh (total cost / Total kWh use the per kWh is based off of the avarage of the se price of usage is calculated by taking the avarage of the se price of usage is calculated by taking the avarage of the se price of usage is calculated by taking the avarage of the se in the service of usage is calculated by taking the avarage of the se in the service of usage is calculated by taking the avarage of usage is calculated by taking the avarage of usage is c | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter be erage of the block 2 1242 W 900 N Salt LE Residential Schedule ELAPSID METRI RADIO MYS Previous 32 24345 | olock 2 price from Rocky Mountain Power summer and winter charge and multipying the like City UT 1 NGS METER AMOUNT USED Current MULTIPLER THIS MOUTH 25063 1.0 718 kmh | ie block 2 usage. | | | | | | | |
| ctric Vehicle Infrustructure incliple Energy Sales/Use Tax h Sales Tax al Fees al Cost (Base Price + Total fees) al Price per kWh (total cost / Total kWh use the per kWh is based off of the avarage of the se price of usage is calculated by taking the avarage of the se price of usage is calculated by taking the avarage of the se price of usage is calculated by taking the avarage of the se price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of usage is calculated by taking | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter berage of the block 2 1242 W 900 N Salt LE Residential Schedule LEAPED MITER RADION'S Previous 32 24345 te to scheduling or weat | olock 2 price from Rocky Mountain Power summer and winter charge and multipying the like City UT 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure niciple Energy Sales/Use Tax h Sales Tax al Fees al Cost (Base Price + Total fees) al Price per kWh (total cost / Total kWh use the per kWh is based off of the avarage of the se perice of usage is calculated by taking the available of the seprice of usage is calculated by taking the available of the seprice of usage is calculated by taking the available of the seprice of usage is calculated by taking the available of the seprice of usage is calculated by taking the available of the seprice of usage is calculated by taking the available of the seprice of usage is calculated by taking the available of the seprice of usage is calculated by taking the available of the seprice of usage is calculated by taking the available of the seprice of usage is calculated by taking | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter be erage of the block 2 1242 W 900 N Salt LE Residential Schedule ELAPSID METRI RADIO MYS Previous 32 24345 | olock 2 price from Rocky Mountain Power I summer and winter charge and multipying the lake City UT INISS Current MULTIPLIER THIS MOUNT 25063 1.0 718 kwh TOUR THE COURT CHARGE COST PER UNIT CHARGE | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure niciple Energy Sales/Use Tax Ih Sales Tax al Fees al Cost (Base Price + Total fees) al Price per kWh (total cost / Total kWh use the per kWh is based off of the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage o | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter berage of the block 2 1242 W 900 N Salt La Residential Schedule LBAPSD METER RADIOAVS Province 32 24345 te to scheduling or weat | olock 2 price from Rocky Mountain Power summer and winter charge and multipying the ske city UT 1 NOS Current MULTIPLER THIS MOUNT USED MULTIPLER THIS MOUNT COST PER UNIT CHARGE 10.00 | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure niciple Energy Sales/Use Tax th Sales Tax tal Fees al Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use the per kWh is based off of the avarage of the se the per kWh is based off of the avarage of the se the per kWh is based off of the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is calculated by taking the avarage of the se the price of usage is a second to the sec | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter berage of the block 2 1242 W 900 N Salt LE Residential Schedule LEAPED MITER RADION'S Previous 32 24345 te to scheduling or weat | olock 2 price from Rocky Mountain Power summer and winter charge and multipying the like City UT 1 NRSS METER AMOUNT USED Current MULTIPLIER THIS MOWTH 25063 1.0 718 kwh her. COST PER UNIT CHARGE 10.00 0.0902790 19.23 0.1172100 19.69 | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure niciple Energy Sales/Use Tax ih Sales Tax tal Fees al Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use ce per kWh is based off of the avarage of the s se price of usage is calculated by taking the av Detailed Account Activity ITEM 4 - ELECTRIC SERVICE MARTER SERVICE PERIOD To | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter be erage of the block 2 1242 W 900 N Salt LE Residential Schedule ELMPSED METER READ DAYS Precious 32 24345 23 24345 24 ke to scheduling or weat UNITS | olock 2 price from Rocky Mountain Power summer and winter charge and multipying the like City UT 1 NGS Current MULTIPLER THIS MONTH 25063 1.0 718 kwh her. COST PER UNIT CHARGE 0.09902790 19.23 0.1172100 19.69 0.0798930 15.02 | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure miciple Energy Sales/Use Tax sh Sales Tax tal Fees al Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use ce per kWh is based off of the avarage of the s se price of usage is calculated by taking the av Detailed Account Activity ITEM 4 - ELECTRIC SERVICE METER SERVICE PERIOD TOTAL NUMBER SERVICE PERIOD TOTAL NUMBER AND 16, 2024 Jun 17, 2024 Next schakes- 0624 Basic Charge - Single Phase Energy Charge Summer Block 1 for 17 day(s) Energy Charge Winter Block 2 for 15 day(s) Energy Charge Winter Block 1 for 17 day(s) Energy Charge Winter Block 1 for 15 day(s) Energy Charge Winter Block 1 for 15 day(s) Energy Charge Winter Block 2 for 15 day(s) Energy Charge Winter Block 2 for 15 day(s) Energy Charge Winter Block 2 for 15 day(s) | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter berage of the block 2 1242 W 900 N Salt La Residential Schedule ELAPSIO METER RADIO ME | olock 2 price from Rocky Mountain Power summer and winter charge and multipying the like City UT 1 NRSS METER AMOUNT USED Current MULTIPLIER THIS MOWTH 25063 1.0 718 kwh her. COST PER UNIT CHARGE 10.00 0.0902790 19.23 0.1172100 19.69 | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure miciple Energy Sales/Use Tax ah Sales Tax tal Fees tal Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use ce per kWh is based off of the avarage of the se se price of usage is calculated by taking the av Detailed Account Activity TEM 4 - ELECTRIC SERVICE MMETER SERVICE FERIOD To | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter be erage of the block 2 1242 W 900 N Salt LE Residential Schedule ELMPSED METER READ DAYS Precious 32 24345 23 24345 24 ke to scheduling or weat UNITS | Summer and winter charge and multipying the | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ectric Vehicle Infrustructure miciple Energy Sales/Use Tax sh Sales Tax tal Fees tal Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use ce per kWh is based off of the avarage of the s se price of usage is calculated by taking the av Detailed Account Activity ITEM 4 - ELECTRIC SERVICE METER SERVICE FRIOD TOTAL SERVICE Basic Charge - Single Phase Energy Charge Summer Block 1 for 17 day(s) Energy Charge Summer Block 2 for 15 day(s) Energy Charge Winter Block 1 for 15 day(s) Energy Charge Winter Block 1 for 15 day(s) Energy Charge Winter Block 1 for 15 day(s) Energy Charge Winter Block 2 for 15 day(s) Energy Charge Winter Block 2 for 15 day(s) Energy Charge Winter Block 2 for 15 day(s) | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter be erage of the block 2 1242 W 900 N Salt LE Residential Schedule ELMPSED METER READ DAYS Precious 32 24345 23 24345 24 ke to scheduling or weat UNITS | olock 2 price from Rocky Mountain Power summer and winter charge and multipying the like City UT 1 NGS Current MULTIPLER THIS MONTH 25063 1.0 718 kwh her. COST PER UNIT CHARGE 0.09902790 19.23 0.1172100 19.69 0.0798930 15.02 | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure niciple Energy Sales/Use Tax th Sales Tax tal Fees al Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use the per kWh is based off of the avarage of the se the per kWh is based off of the avarage of the se the per kWh is based off of the avarage of the se the price of usage is calculated by taking the available of the self-the per kWh is based off of the avarage of the se the price of usage is calculated by taking the available of the self-the per kWh is based off of the avarage of the se the per kWh is based off of the avarage of the se the per kWh is based off of the avarage of the se the per kWh is based off of the avarage of the se the per kWh is based off of the avarage of the se the per kWh is based off of the avarage o | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter berage of the block 2 1242 W 900 N Salt La Residential Schedule 1242 W 900 N Salt La Residential Schedule 1243 W 900 N Salt La Residential Schedule 1244 W 900 N Salt La Residential Schedule 1254 W 900 N Salt La Residential Schedule 1255 W 900 N Salt La Residential Schedule 1256 W 900 N Salt La Residential Schedule 1257 W 900 N 900 | Summer and winter charge and multipying the state of th | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure miciple Energy Sales/Use Tax sh Sales Tax tal Fees al Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use ce per kWh is based off of the avarage of the s se price of usage is calculated by taking the av Detailed Account Activity ITEM 4 - ELECTRIC SERVICE MATERIAL SERVICE FRIOD TOTAL SERVICE Basic Charge - Single Phase Energy Charge Summer Block 1 for 17 day(s) Energy Charge Winter Block 2 for 15 day(s) Energy Charge Winter Block 2 for 15 day(s) Renewable Energy Adjustment for 17 day(s) for 15 day(s) MEV CHARGES - 6824 - CONTINUED Energy Balancing Account | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter be erage of the block 2 1242 W 900 N Salt LE Residential Schedule ELMPSED METER READ DAYS Precious 32 24345 23 24345 24 ke to scheduling or weat UNITS | Summer and winter charge and multipying the summer summer and multipying the summer s | ie block 2 usage. | | | | | | | |
| stomer Efficiency Service ctric Vehicle Infrustructure miciple Energy Sales/Use Tax sh Sales Tax tal Fees al Cost (Base Price + Total fees) tal Price per kWh (total cost / Total kWh use ce per kWh is based off of the avarage of the s se price of usage is calculated by taking the av Detailed Account Activity ITEM 4 - ELECTRIC SERVICE MATER SERVICE FERIOD Total kWh use 51296967 May 16, 2024 Jun 17, 2024 Next scheduled read date: 07-17. Date may vary d NEXT NEXT NEXT NEXT NEXT NEXT NEXT | 0.22 5.25 4.29 18.14 97.456 0.1357 ummer and winter berage of the block 2 1242 W 900 N Salt La Residential Schedule 1242 W 900 N Salt La Residential Schedule 1243 W 900 N Salt La Residential Schedule 1244 W 900 N Salt La Residential Schedule 1254 W 900 N Salt La Residential Schedule 1255 W 900 N Salt La Residential Schedule 1256 W 900 N Salt La Residential Schedule 1257 W 900 N 900 | Note | ie block 2 usage. | | | | | | | |

| Home Electric Lifeline Program | | 0.16 | | | | | |
|---|-------------------------------------|-------|---|--|--|--|--|
| Paperless Bill Credit | | -0.50 | | | | | |
| Paperless Bill Credit Municipal Energy Sales/use Tax | 0.0600000 0.0490000 0.0100000 | 5.25 | | | | | |
| Utah Sales Tax | 0.0490000 | 4.29 | | | | | |
| Late Payment Charge | 0.0100000 | 0.91 | | | | | |
| Total New Charges | | 98.11 | | | | | |
| | | | 1 | | | | |

Appendix - Protocol fees - Proof of payment

Transaction hash:

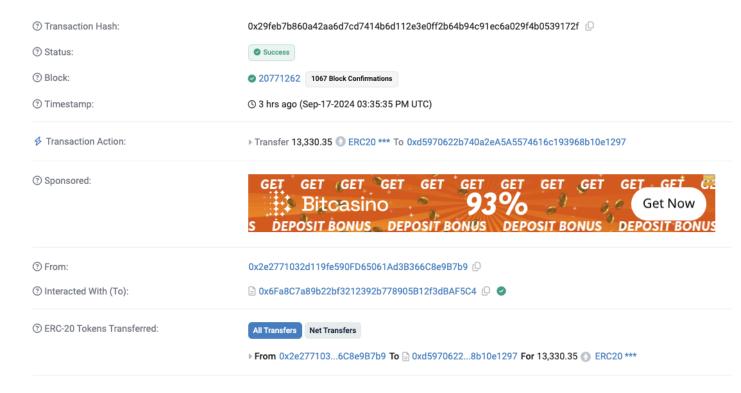
0x29feb7b860a42aa6d7cd7414b6d112e3e0ff2b64b94c91ec6a029f4b0539172f

Etherscan link:

https://etherscan.io/tx/0x29feb7b860a42aa6d7cd7414b6d112e3e0ff2b64b94c91ec6a029f4b053

Amount paid: 13,330.35 USDG

Date of payment: Sep-17-2024 03:35:35 PM UTC



Appendix - Evidences Obtained From Solar Farm Owner

The GCA has successfully completed a thorough review and verification process for the following critical documents:

- 1. Residential Solar Energy System Purchase Agreement
- 2. Planset
- 3. Mortgage Statement
- 4. Two recent Utility Bills
- 5. City Permit
- 6. Inspection Document

The owner of the solar farm has chosen not to seek the Permission To Operate (PTO) from the city of Salt Lake. This decision was made after assessing the jurisdictional risks involved. Obtaining the PTO is not a requirement for the farm to participate in the Glow ecosystem. The homeowner has executed a waiver confirming that the farm is operational without the PTO.

- The absence of a PTO does not prevent the solar farm from being part of the Glow ecosystem, as it does not infringe on any fundamental operational requirements set by Glow.
- The GCA's role is not to verify compliance with the city's regulations.
- The homeowner is aware of any potential consequences or risks associated with operating without a PTO.

Appendix - Drone Footage

To ascertain the additionality of the solar farm, the GCA procured drone footage BEFORE the solar panels were installed. This step was vital to confirm that the farm had not previously produced power, aligning with Glow's strict requirement that only new solar farms are eligible for incentives.

The drone footage before installation was obtained on August 26th, 2024.

After the solar panels were installed, the GCA acquired new drone footage. This subsequent step ensured that the panels were correctly installed and that their quantity matched the specifications outlined in the plansets.

The drone footage after installation was obtained by Jared Morgan on September 16th, 2024.

Appendix - Cost of Power Verification

The determination of the protocol fee involves the homeowner submitting a utility bill, which outlines their power expenses. To ensure the integrity of this fee calculation, the GCA cross-reference the utility bill with publicly available data from the utility provider regarding local power rates.

The GCA accessed the Standard Residential Rates from Rocky Mountain Power Utilities, applicable in Utah. For the protocol fee calculation, the rate of \$0.1357 per kWh, was applied.

Appendix - Assumptions document

Assumptions Documentation

This document outlines the assumptions and methodologies employed in the audit of solar farms. It is intended to provide a clear basis for the procedures and findings reported in the audit report. This document should be referred to for a deeper understanding of the audit findings and the underpinning rationale for the audit procedures.

Testing Methodologies

Nature of tests performed

| Туре | Description |
|------------------------------------|--|
| Inquiry | Engaged with relevant personnel to gather information and corroborated the details |
| On-site verification (Observation) | Conducted a thorough observation to verify the application and performance, as well as the physical existence of the solar farm's components |
| Inspection | Performed a detailed examination of documents, records, or tangible assets to validate their authenticity and relevance to the audit |
| Calculation | Performed calculations to ascertain various metrics pertinent to the audit scope |

Assumptions

Protocol fees

Introduction: When a solar farm joins the Glow network, a protocol fee in USDC is required. This fee is distributed as rewards to carbon credit producers over four years.

Assumption: It's necessary to compute the cost of the protocol fee over a 10-year span. This calculation must encompass potential variations in electricity pricing and consider the long-term financial implications for the solar farm.

Methodology:

First Year Electricity Price Calculation: Begin by calculating the first year of electricity price using the following formula: Previous Electricity Price in kW × Hours of Sunlight Per Day × Power Output (MW) Per Hour × number of days.

Present Value Calculation: Next, extrapolate this first-year electricity price over a 10-year period, accounting for potential escalations in electricity prices. The escalation rate is dependent on the state in which the farm is located, with data sourced from reliable industry insights. This approach assumes that electricity prices will increase over time, which is a significant factor in the economics of solar energy.

Cash Discount Application: Apply a cash discount of 11% to the present value calculation. This rate is derived from doubling the current federal rate (estimated at 5.5%), with the rationale being the relative ease of surpassing this federal rate under current economic conditions. This 11% rate is specifically for the beta period of Glow, incentivizing early solar farm onboarding. After the beta phase, the standard federal rate will be used for discount calculations.

References

https://www.solarreviews.com/blog/average-electricity-cost-increase-per-year

Disaster Risk Assessment

Assumption: A conservative failure rate of 1% is assumed for solar farms within the first 10 years of operation in the United States.

Methodology: Extensive research on historical failure rates of solar farms in the United States within the first 10 years has been conducted, with a conservative multiplier applied. Furthermore, professional surveys have been conducted. Despite discussions with solar professionals indicating a failure rate far below 1% over the lifetime of the solar farm, a conservative estimate of 1% was chosen to account for unforeseen circumstances. The per-year rate is 0.17%.

Carbon Credit Estimation Calculation

Assumption: WattTime's historical data is reliable and accurate for conducting calculations related to carbon credit production.

Methodology: Calculations were conducted based on the specifications of the solar panels and using historical data from WattTime. WattTime, a reputable non-profit organization in the emissions reduction domain, provides robust technology solutions for such assessments. Additionally, the methodology incorporates data from NASA's API to determine the expected number of sunlight hours for a solar panel in a specific location. This data is crucial for accurately estimating the average hours of sunlight per day and the average carbon offset per MWh.

To calculate the expected lifetime carbon credit production, the power capacity of the solar panels is multiplied by the sunlight hours, integrating both WattTime's and NASA's data. The script iterates over historical data from the WattTime API, combined with NASA's sunlight data, to estimate the number of credits a panel would have produced annually.

A 35% discount is then applied to the final carbon production value. This conservative approach is designed to account for any uncertainties in the calculations, ensuring that the results are within safety margins. This not only enhances the credibility of the protocol and methodology but also positions the analysis positively, especially when subjected to detailed reviews.

Real-Time Monitoring: It should be noted that for real-time monitoring of power output, NASA data is not utilized; instead, this monitoring relies on the installed equipment at the solar farm. This data can be cross-referenced with NASA's data if any discrepancies or suspicions arise, providing an additional layer of verification and accuracy.

Reference:

 https://github.com/glowlabs-org/gca-backend/blob/main/watttime-scripts/carbon_ credits_per_kw.py

Carbon Footprint Assessment

Assumption: Considering the inherent variability in life cycle assessment (LCA) results for solar technologies as per ISO 14040 and 14044 standards, we have selected the highest value from NREL's harmonized data set for our conservative approach. This decision acknowledges the ISO standards' provision of a flexible framework for LCA, which can lead to a broad range of outcomes depending on the practitioner's choices. By adopting the highest value, we aim to account for the upper bound of potential environmental impacts, thereby ensuring that our audit conclusions are robust against the variability in LCA practices.

Methodology: The methodology involves utilizing the harmonized LCA results, which are refined by NREL to enhance precision and reduce variability. By adhering to a consistent set of methods and assumptions, harmonization narrows the range of greenhouse gas (GHG) emissions estimates, allowing us to base our audit on a more reliable and standardized benchmark.

It is important to note the specific harmonized greenhouse gas (GHG) emissions medians identified in our assessment. For monocrystalline Silicon (mono-Si), the harmonized GHG median is 40 g CO2-eq/kWh, and for multi-crystalline Silicon (multi-Si), it is 47 g CO2-eq/kWh. These values are calculated based on assumptions of ground-mount application, solar irradiation of 2,400 kWh/m²/yr, a performance ratio of 0.8, and a panel lifetime of 30 years. By integrating these specific medians into our assessment, we ensure a comprehensive and precise understanding of the potential environmental impacts of these solar technologies.

A 35% adjustment is then applied to the total carbon debt. This conservative approach is designed to account for any uncertainties in the calculations, ensuring that the results are within safety margins. This not only enhances the credibility of the protocol and methodology but also positions the analysis positively, especially when subjected to detailed reviews.

Detailed calculations:

Initial Calculation:

40 grams CO2 per kWh (emissions rate).

Multiplied by 2400 hours per year (operational hours).

Multiplied by 0.8 (performance ratio).

Multiplied by 30 years (lifespan of the panels).

Adjusted Carbon Debt:

Calculated by adding a 0.17% annual interest rate.

The total carbon debt is multiplied by 1.0017^10 to account for 10 years.

Weekly Debt Payment:

Determined by dividing the final carbon debt by 520 weeks (which accounts for 10 years, considering 52 weeks per year).

Reference:

- NREL harmonized life cycle assessments (LCAs)
- Methodology Guidelines on Life Cycle Assessment of Photovoltaic Electricity
- https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc wg3 ar5 annex-iii.pdf p.7
- https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1530-9290.2011.00423.x p.9
 - Research base on solar irradiation of of 2,400 kilowatt-hours per square meter per year (kWh/m2/yr) and lifetime = 30 years
- https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1530-9290.2011.00439.x

| 0 | The harmonized GHG medians decline to 40 g CO2-eq/kWh for mono-Si and 47 g CO2-eq/kWh for multi-Si. |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

CGA Disclosure and Declaration Document

CGA Personal and Professional Information

Name: Fatima Khaziyeva

Nationality: Canada

Declarations

1. No Ownership of Solar Farms:

I hereby declare that I do not own or operate more than one solar farm.

2. Glow Tokens Holding:

I declare that I do not own any Glow tokens, unless staked in accordance with company policies.

3. Carbon Credits:

I confirm that I do not own any unretired carbon credits.

4. Stocks and Tokens Ownership:

I declare that I do not own stocks or tokens, except for those within broad market exposure index funds.

5. Conflict of Interest:

I confirm the absence of any business conflicts of interest that could affect my impartiality as an auditor.

6. Code of Conduct Compliance:

I acknowledge having read, understood, and agreed to adhere to the Glow International Code of Conduct.

7. Community Presence and Popularity Clause:

I acknowledge that as a Glow Certified Auditor (GCA), it is imperative to maintain a low profile within the community to ensure unbiased and fair auditing processes. I agree that:

- If I previously expressed thoughts or opinions publicly, I understand these should not influence my role as a GCA.
- I will not leverage my position or knowledge gained as a GCA to become a known figure within the Glow ecosystem, recognizing the importance of an unbiased and impartial audit process.

Signature

The undersigned hereby agrees to the above terms and confirms that all statements made are true and accurate to the best of my knowledge.

Name: Fatima Khaziyeva

Signature: Fatima Khaziyeva

Date: September 17th 2024