



Hawaiian
Electric

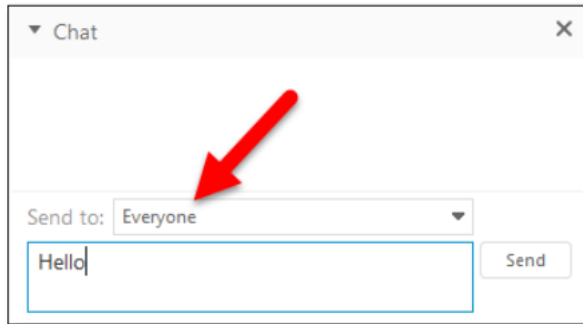
Shared Solar Program

(CBRE Phase 2)

Your input is important



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WebEx chat





Hawaiian
Electric

Community-Based Renewable Energy (CBRE)

CBRE Phase 1
(closed)

CBRE Phase 2
(shared solar)

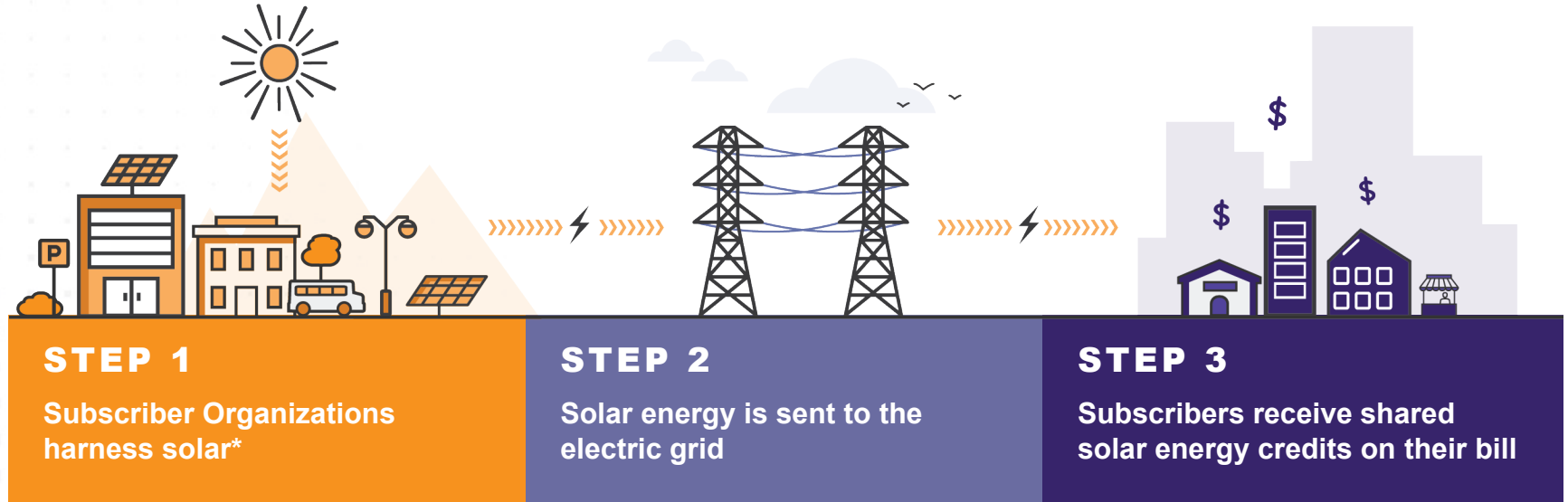
Tranche 1

Tranche 2



CBRE Portal Logo

How does shared solar work?



*may include batteries



What are a Subscriber Organization's responsibilities?

- ◆ Develop and construct the shared solar facility
- ◆ Operate and maintain the shared solar facility
- ◆ Market the project to potential subscribers
- ◆ Qualify and enroll subscribers
- ◆ Allocate credits based on the subscriber's allocated subscription
- ◆ Be the point of contact and provide ongoing customer service for your subscribers



Program Structure Basics



PROGRAM STRUCTURE

Small Projects

| | Oahu | Hawaii | Maui |
|--|--|------------|-------------|
| Project Size | > 4 kW & < 250 kW | | |
| Available Capacity | 30 MW | 7.5 MW | 8.475 MW |
| Credit Rate (Fixed unless CCRP triggered) | \$0.15/kWh | \$0.15/kWh | \$0.165/kWh |
| Technology | Photovoltaic (may include batteries) | | |
| Contract Form | Standard Form Contract (SFC) | | |
| Program Rule | Rule 29 Part 1 | | |
| Project Applications | CBRE Portal | | |
| Application Window | 12:00 AM 3/10/2022 thru 12:00 AM 7/11/2022 | | |
| Application Fee | \$250 | | |
| Program Administration Fee | \$5/kW AC (Not to exceed \$1k annually) | | |
| Interconnection Cost Responsibility | Subscriber Organization | | |



PROGRAM STRUCTURE

Mid-Tier & Large Tranche 1 RFPs

| | Molokai | Lanai | Oahu | Hawaii | Maui |
|--|--|--------------------------|--|---------|---------|
| Available Capacity | 2.75 MW | 3 MW | 75 MW | 12.5 MW | 12.5 MW |
| Credit Rate | Competitive Bid | | | | |
| Technology | Photovoltaic (may include batteries) | | | | |
| Contract Form | Mid-Tier SFC | Large RDG PPA (Lanai) | Mid-Tier Standard Form Contract (SFC) Large RDG PPA | | |
| Program Rule | Rule 29 Part I & II | Rule 29 Part I, II & III | Mid-Tier: Rule 29 Part I & II Large: Rule 29 Part I, II & III | | |
| Application Window | Closed | | 4/14/2022 thru 8/17/2022 | | |
| Project Applications | Power Advocate Platform | | | | |
| Application Fee | \$1K - \$2K | \$5K | \$2K - \$10K | | |
| Program Administration Fee | \$5/kW AC Mid Tier: Not to exceed \$5K annually / Large: Not to exceed \$10K annually | | | | |
| Interconnection Cost Responsibility | See Appendix H of the RFP | | | | |



PROGRAM STRUCTURE

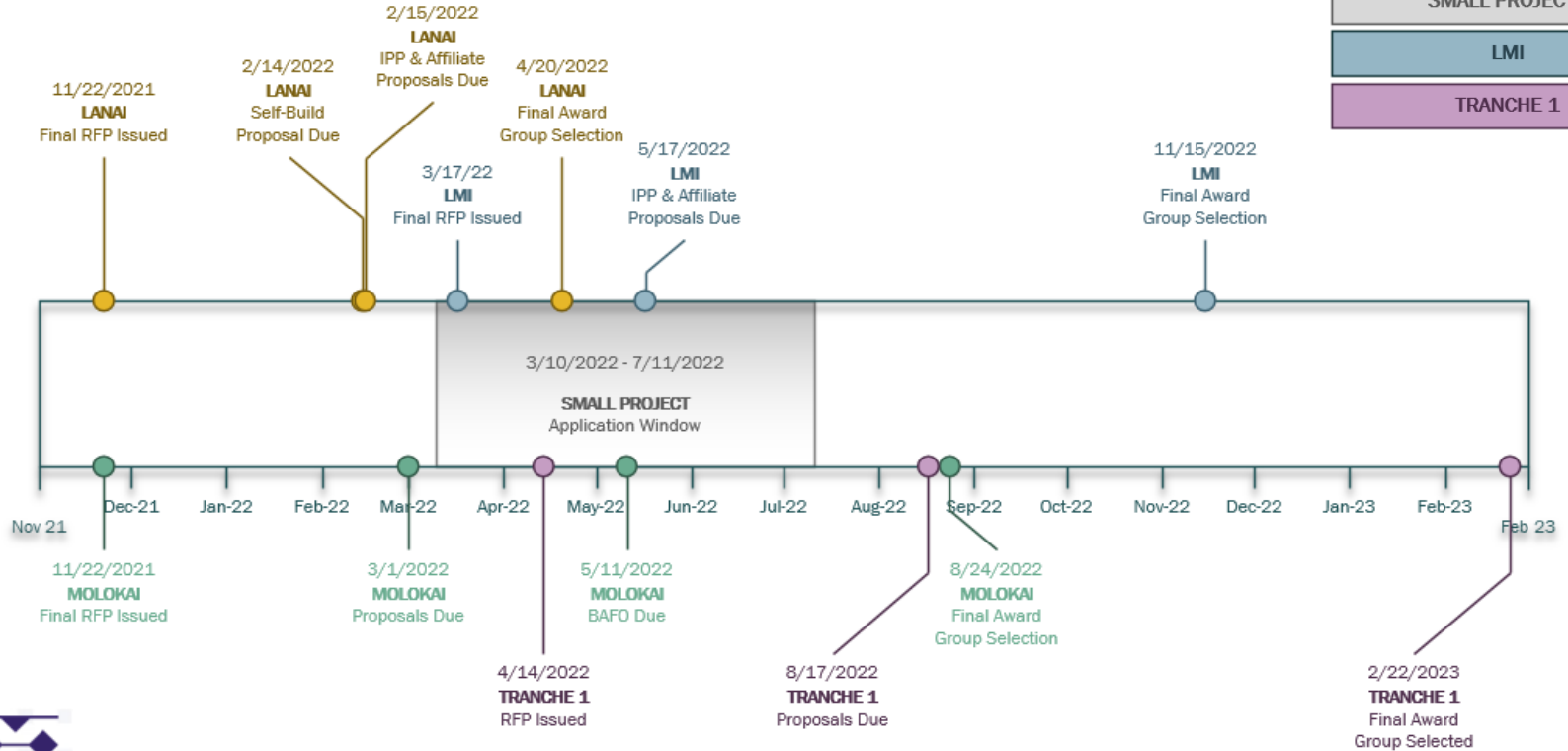
LMI RFPs

| | Oahu | Hawaii | Maui |
|--|---|--------|------|
| Available Capacity | At least one uncapped project for each island | | |
| Credit Rate | Competitive Bid | | |
| Technology | Photovoltaic (may include batteries) | | |
| Contract Form | Mid-Tier SFC or Large RDG PPA | | |
| Program Rule | Rule 29 Part I, II & III | | |
| Project Applications | Power Advocate Platform | | |
| Application Window | 3/17/2022 thru 5/17/2022 | | |
| Application Fee | \$1K - \$5K | | |
| Program Administration Fee | Waived | | |
| Interconnection Cost Responsibility | See Appendix H of the RFP | | |



Timeline

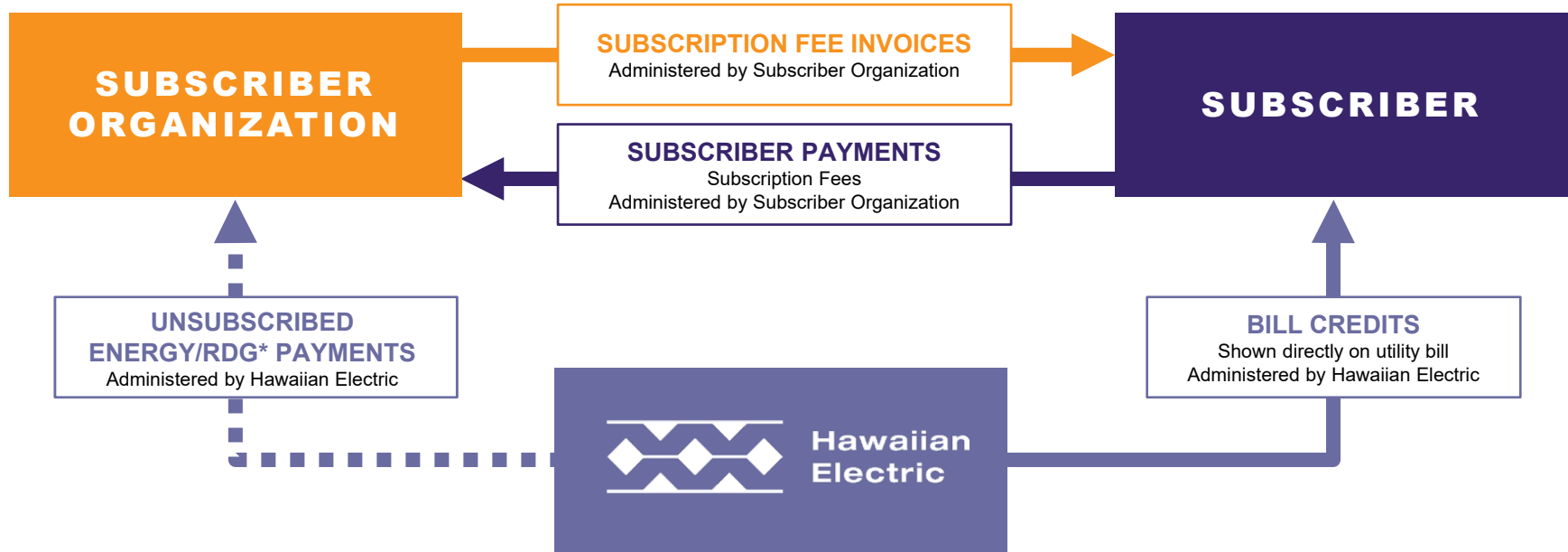
| |
|----------------|
| LANAI |
| MOLOKAI |
| SMALL PROJECTS |
| LMI |
| TRANCHE 1 |



Billing Roles



Billing Roles



***Unsubscribed Energy** – All energy delivered by Subscriber Organization to Company that is not associated with or accounted for by Subscriptions to Subscribers.

***Unsubscribed RDG** – CBRE Phase 2 Facility Contract Capacity availability that is not associated with any Subscriber subscription.



What are the payment options?

Subscriber organization payment models supported in CBRE portal

PAY-UP-FRONT

Any fees generated by the subscriber organization are billed/paid at the time of contract.

PAY-AS-YOU-GO

Any fees generated by the subscriber organization are billed throughout the life of the subscription.

Other payment models or combinations may be used and will not be supported in CBRE portal



PPA

**Lump Sum Payment
and Liquidated Damages**



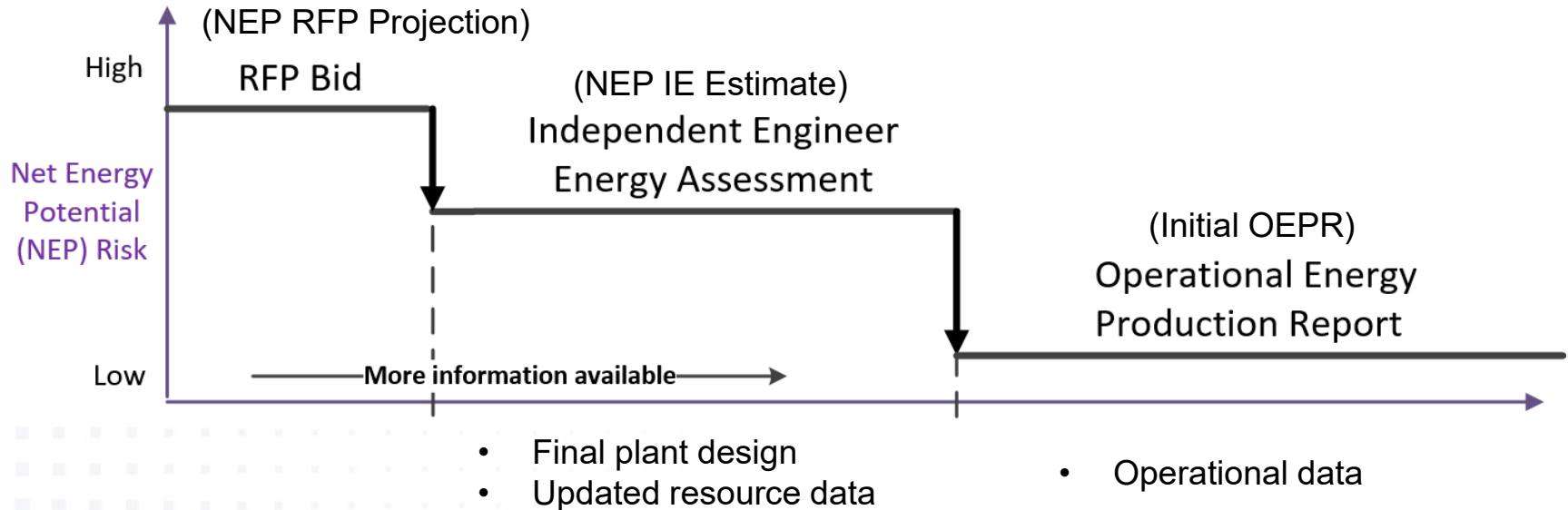
Power Purchase Agreement

Lump Sum Payment and Liquidated Damages

- ◆ Renewable Dispatchable Generation
 - Mid-Tier SFC or RDG PPA
 - Fixed lump sum payment (\$/month)
- ◆ Dispatchability vs. Delivered Energy
 - Will the facility produce the expected amount of energy?
 - Net Energy Potential (NEP) checks
 - Is the facility available for dispatch and performing as expected?
 - Performance Metrics



Will the facility produce the expected amount of energy?



Liquidated Damages & Payment Reductions

- ◆ Minimum Subscribers: 4 individual subscribers
- ◆ Minimum Residential Subscribers:
 - Dedicated LMI Projects: 60% of facility's capacity
 - All other projects: 40% of facility's capacity
- ◆ 100% LMI Requirements for Dedicated LMI projects
- ◆ Applied to Unsubscribed RDG
 - Reductions in Unsubscribed RDG payments if greater than 15% unsubscribed
- ◆ No liquidated damages shall be assessed for a grace period:
 - Mid-tier & Large projects: 9 months



Bill Credits



Bill Credits - Formulas

SMALL PROJECTS (<250kW)

$$\text{Bill Credit (\$)} = \text{Monthly Generation (kWh)} \times \text{Subscriber Subscription Percentage (\%)} \times \text{Project Billing Credit Rate (\$/kWh)}$$

MID TIER/LARGE PROJECTS (>=250kW)

$$\text{Bill Credit (\$)} = \text{Lump Sum Payment (\$)} \times \text{Subscriber Subscription Percentage (\%)}$$



Bill Credits

- ◆ A Subscriber's monthly net credit will be deducted from **eligible charges** on their electric bill before taxes and fees are assessed.
- ◆ **Eligible charges** on the Subscriber's electric bill will be all light and power charges.
- ◆ Subscribers will continue to be charged per kilowatt hour used at applicable rate class or schedule (residential, commercial, etc.).
- ◆ The Subscriber's electric bill cannot be reduced below whichever is greater:
 - The sum of 1) customer charge, 2) Green Infrastructure Fee and any other per-customer charge for the customer's rate schedule
 - Or, the minimum bill applicable in the customer's basic tariff.



Bill Credits – Phase 1 Bill Credit Calculation

PHASE 1

$$\text{Bill Credit (\$)} = \text{Bill Credit Rate (\$/kWh)} \times \text{Subscriber Subscription Percentage (\%)} \times \text{CBRE Project Output (kWh)}$$

For example, if:

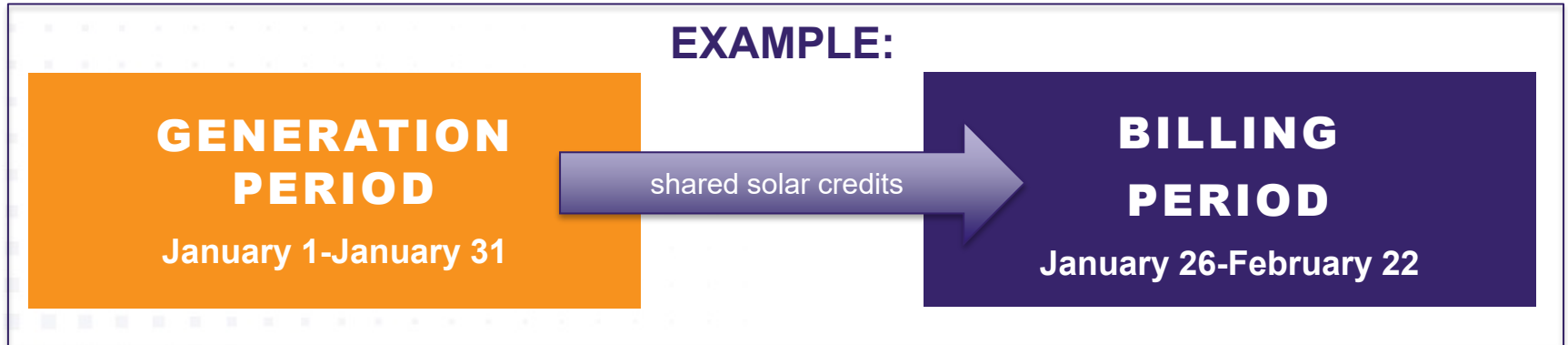
- ◆ *the bill credit rate is \$0.15 per kilowatt-hour*
- ◆ *the subscriber has 10% of the total shared solar facility*
- ◆ *the actual shared solar output of the facility that month is 10,000 kilowatt-hours*

The calculation would look this this: $(\$0.15) \times (10\%) \times 10,000 = \150



Bill Credits - Timing

- ◆ Shared solar bill credits are based on the generation calendar month
- ◆ However, a customer's billing cycle is usually not by calendar month, usually it stretches over two calendar months (ie. 10/26/2021 – 11/24/2021)
- ◆ Shared solar credits should appear on the subscriber's bill no later than two billing cycles from the generation date



Bill Credits - Rollover

If the monthly net credit exceeds the eligible charges:

The value of that excess will be rolled over month-to-month

At the end of the year from the date of the first billing period with shared solar credits, any remaining credit will lapse, as is the case with solar credits in all rooftop solar programs. In the following month, the credit calculation starts again, from zero.



Bill Credits – Minimum Bill Amount

- ◆ For Schedule J
 - The billing kW for the minimum charge calculation each month shall be:
 - The maximum measured kW demand for the month but not less than the highest maximum measured kW demand for the preceding eleven months nor less than 25 kW”
- ◆ For Schedule R and G
 - The minimum charge is based on a fixed monthly charge based on whether the service is single-phase or three-phase



Bill Credits – Schedule J

| BILL DETAIL | | |
|---|----------------------------|-------------|
| DESCRIPTION | AMOUNT | TOTALS |
| PREVIOUS BALANCE | \$9,078.46 | |
| | Outstanding Balance | \$9,078.46 |
| CURRENT CHARGES | | |
| Electric Service J General Service-Demand | | |
| Customer Charge | \$56.00 | |
| Demand Charge | \$315.63 | |
| Non-Fuel Energy Charge | \$2,631.92 | |
| RBA Rate Adjustment | \$51.59 | |
| PBF Surcharge | \$15.78 | |
| Energy Cost Adjustment | \$83.09 | |
| Interim Increase 2018 | \$51.76 | |
| Refund 2018 Interim Increase | \$43.62- | |
| Green Infrastructure Fee | \$25.85 | |
| | Total for Electric Service | \$3,188.00 |
| Other Charges | | |
| CBRE Credit | \$458.66- | |
| | | |
| | Total for Current Charges | \$3,189.41 |
| | | |
| Total Amount Due | | \$12,267.87 |



Bill Credits – Schedule G

| BILL DETAIL | | |
|---|-----------------------------------|-------------------|
| <u>DESCRIPTION</u> | <u>AMOUNT</u> | <u>TOTALS</u> |
| PREVIOUS BALANCE | \$1,992.42 | |
| | Outstanding Balance | \$1,992.42 |
| CURRENT CHARGES | | |
| Electric Service G General Service | | |
| Customer Charge | \$61.00 | |
| Non-Fuel Energy Charge | \$8.78 | |
| RBA Rate Adjustment | \$0.37 | |
| PBF Surcharge | \$0.18 | |
| Energy Cost Recovery | \$10.62 | |
| Purchased Power Adjustment | \$0.96 | |
| Green Infrastructure Fee | \$1.34 | |
| | Total for Electric Service | \$83.25 |
| Other Charges | | |
| CBRE Credit | \$3.20- | |
| | Total for Current Charges | \$80.05 |
| Total Amount Due | | \$2,072.47 |



Bill Credits – Schedule R

| BILL DETAIL | | |
|---|-----------------------------------|-----------------|
| <u>DESCRIPTION</u> | <u>AMOUNT</u> | <u>TOTALS</u> |
| PREVIOUS BALANCE | \$274.93 | |
| | Outstanding Balance | \$274.93 |
| CURRENT CHARGES | | |
| Electric Service R Residential Service | | |
| Customer Charge | \$11.50 | |
| Non Fuel Energy | \$55.64 | |
| Energy Cost Recovery | \$81.67 | |
| IRP Cost Recovery | \$0.02- | |
| PBF Surcharge | \$2.54 | |
| Purchased Power Adjustment | \$8.41 | |
| RBA Rate Adjustment | \$2.92 | |
| Green Infrastructure Fee | \$1.24 | |
| | Total for Electric Service | \$163.90 |
| Other Charges | | |
| CBRE Credit | \$3.20- | |
| | Total for Current Charges | \$160.70 |
| Total Amount Due | | \$435.63 |





Mahalo for your time.





Questions?