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# Unlocking Solar Benefits for Underserved Communities Through On-Bill Financing

**Miguel Yanez – Project Associate, Environmental and Energy Study Institute (EESI)**

**Gwen Yamamoto Lau - Executive Director, Hawaii Green Infrastructure Authority (HGIA) and Manager of the Hawaii Green Money Savers (GEM\$) On-Bill Program.**

**Mark Cayce - CEO Ouachita Electric Cooperative and Manager of the HELP PAYS On-Bill Program**

**Moderator: Melanie Santiago-Mosier, Vote Solar**

**Co-host: Sara Birmingham, SEIA**



**EESI**  
Environmental and  
Energy Study Institute



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# Powering Solar Energy Investments Through On-Bill Financing

**SEIA WEBINAR: UNLOCKING SOLAR  
BENEFITS FOR UNDERSERVED COMMUNITIES**

**DECEMBER 11, 2019**

**MIGUEL YANEZ | [MYANEZ@EESI.ORG](mailto:MYANEZ@EESI.ORG)**

## ABOUT US

### 01 **NON-PROFIT**

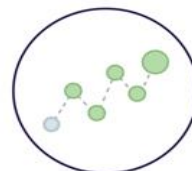
Founded in 1984 by a bipartisan Congressional caucus as an independent non-profit organization (but receives no federal funding)

### 02 **NON-PARTISAN**

Source of non-partisan information on energy and environment policy development

### 03 **DIRECT ASSISTANCE**

In addition to policy work, EESI provides direct assistance to utilities to develop “on-bill financing” programs

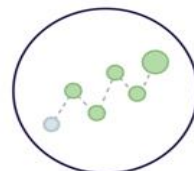


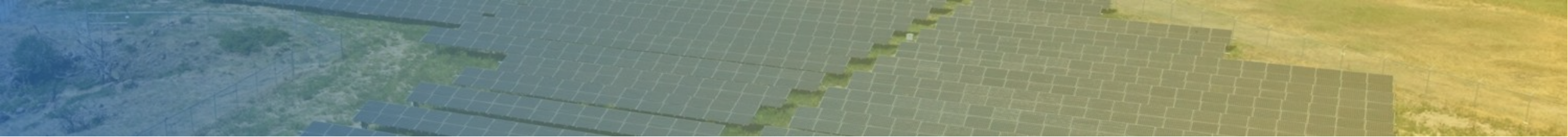
(OBF)

# ON-BILL FINANCING

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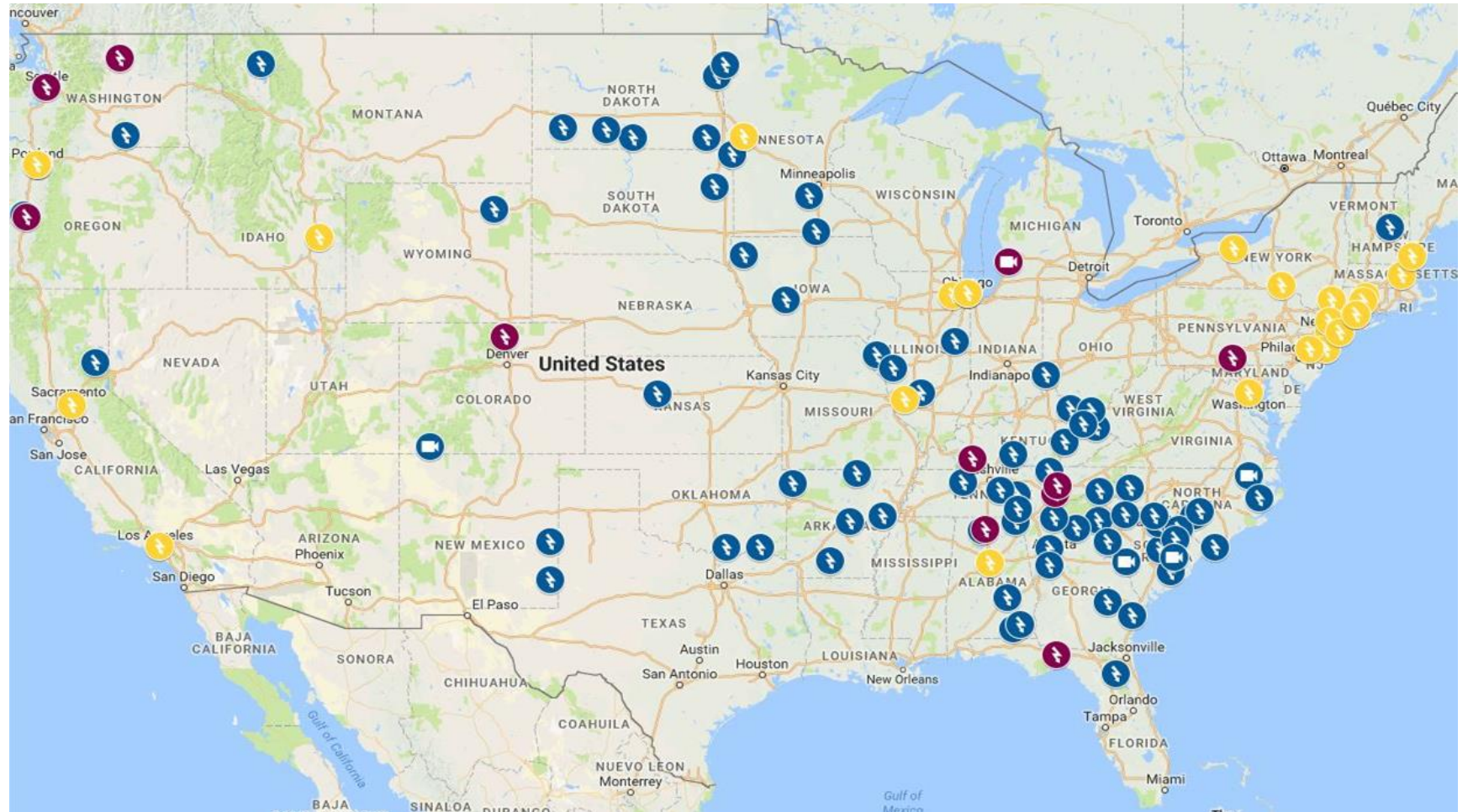
- 01 Utilities finance energy improvements to customers' homes (or facilitate 3<sup>rd</sup> party financing)
- 02 Loans (or tariff charges) are repaid on the customer's monthly utility bill
- 03 Payments are partially/completely offset by savings from the financed improvements
- 04 [More than 100 utilities nationwide offer OBF programs](#)





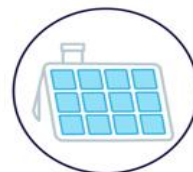
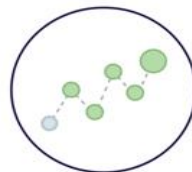
## ON-BILL FINANCING

# UTILITIES WITH ON-BILL PROGRAMS



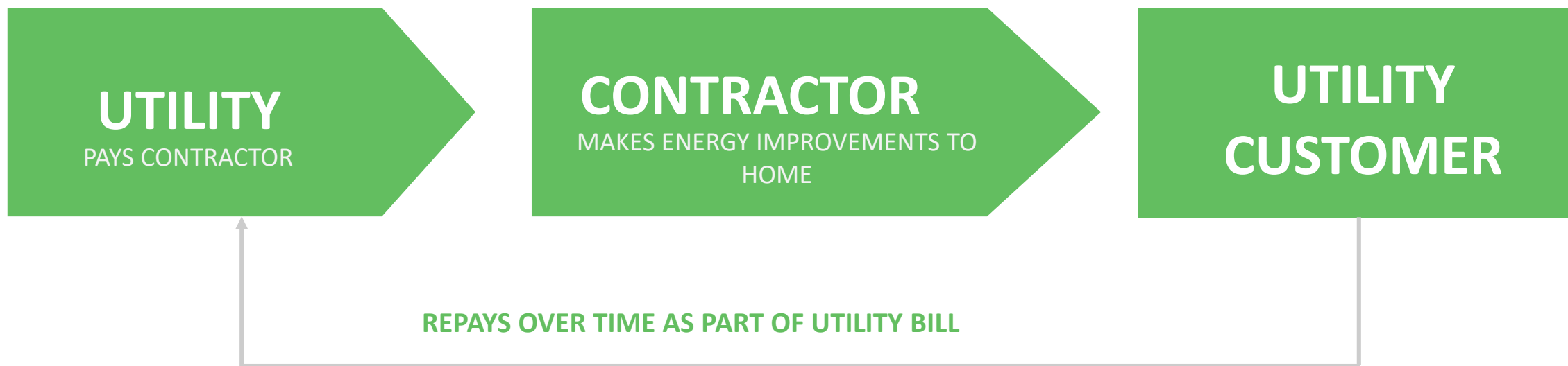
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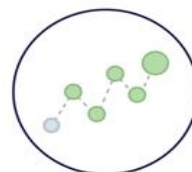


# ON-BILL FINANCING

## SIMPLE OBF MODEL



\* Utility may partner with a bank or other lender to directly pay for the energy updates. The utility then “passes on” the payments to the lender.





## 01 OBF PROGRAMS FEATURE

- No upfront costs to participants
- Alternative loan underwriting (i.e. good bill payment history in lieu of credit check)

## 02 LOW DEFAULT RATES

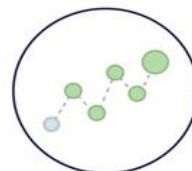
Loan default rates are typically low, even with alternative underwriting

## 03 GIVING OPPORTUNITY

Gives cash-strapped and credit-poor households a better opportunity to access energy savings

## 04 RENTERS CAN BE INCLUDED

Assigning the investment to the utility meter, rather than the individual



## ON-BILL FINANCING

# OPPORTUNITIES + CHALLENGES

## 01 ON-BILL OPPORTUNITIES

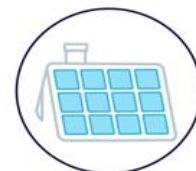
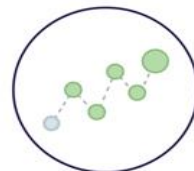
- Reduce barriers to clean energy programs
- Deeper energy savings
- Low risk defaults
- Improved utility-customer relationships

## 02 ON-BILL CHALLENGES

- Where does capital come from?
- Utility capacity
- Contractors
- “We don’t want to be a bank”

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## ON-BILL FINANCING

# WHERE'S THE CAPITAL

01 UTILITY INTERNAL FUNDS

05 CREDIT UNIONS

9

02 GREEN BANKS

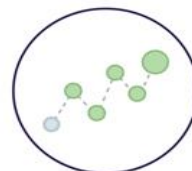
06 COMMUNITY DEVELOPMENT FINANCE  
INSTITUTE (CDFIs)

03 CAPITAL MARKETS

07 USDA LOAN PROGRAMS FOR RURAL  
UTILITIES

03 THIRD-PARTY FINANCING FIRMS AND  
INSTITUTIONS

- Rural Energy Savings Programs (RESP)
- Rural Economic development Loan + Grant (REDLG) Program





# USDA RESP RURAL ENERGY SAVINGS PROGRAM

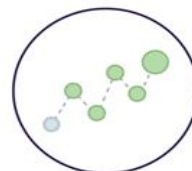
|   |  |
|---|--|
| <b>Total Funding</b>                                | ~ \$100M per year  |
| <b>Eligibility</b>                                  | Entities that provide electric service to rural areas  |
| <b>Purpose</b>                                      | To help rural families & rural small businesses reduce energy costs or consumption             |
| <b>Interest Rate</b>                                | 0%   |
| <b>Maximum Loan size</b>                            | Not specified; largest to-date to single utility is \$11M                                      |
| <b>Mark-up to end user</b>                          | Capped at 5%   |
| <b>Loan term</b>                                    | Up to 20 years   |
| <b>Acceptable financial structures/ investments</b> | Re-lending such as on-bill financing, tariff charge, PACE programs, traditional consumer loans |

**Application window to open in January for \$100M!**

*Source: USDA Rural Utilities Service*

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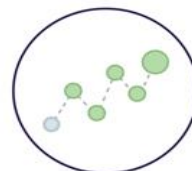


# ON-BILL FINANCING PROGRAM ASSISTANCE



## EESI OFFERS NO-COST ASSISTANCE

- Assistance to utilities to design OBF programs and access funding
- Details, case studies, and lessons learned from other working OBF programs
- Resource identification, help overcoming barriers to launching projects
- [OBF Primer](#)
- [OBF How-to-Guide](#)





**EESI**  
Environmental and  
Energy Study Institute

# THANK YOU

## CONTACT INFORMATION

Miguel Yanez

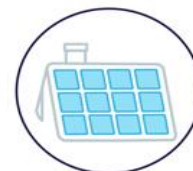
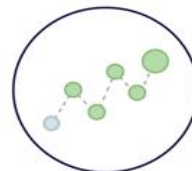
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| WEB   | <b>EESI.ORG/OBF</b> |

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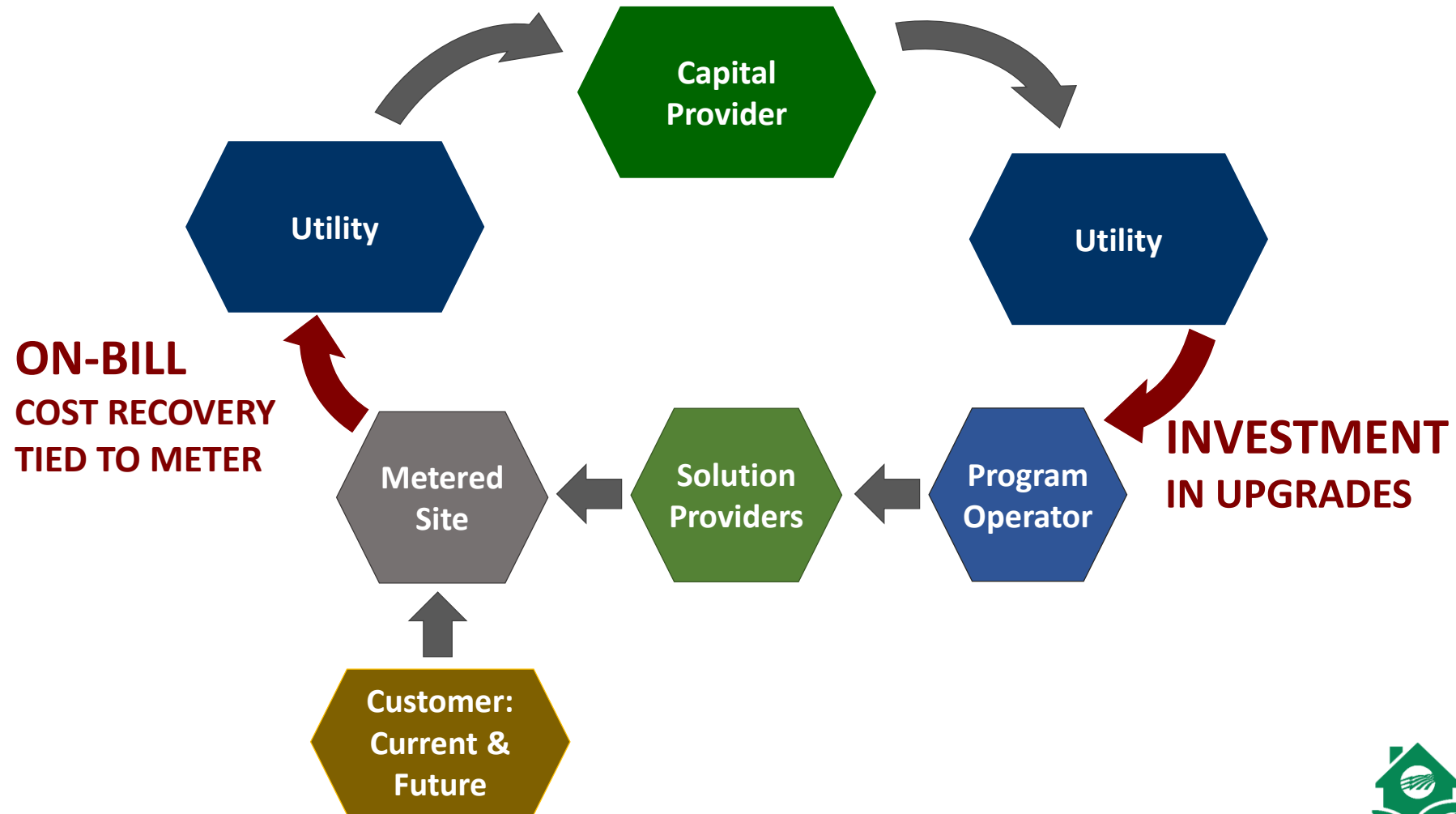
# HELP PAYS<sup>®</sup>:

A tariffed on-bill investment program  
based on Pay As You Save<sup>®</sup> (PAYS<sup>®</sup>)

**Mark Cayce**

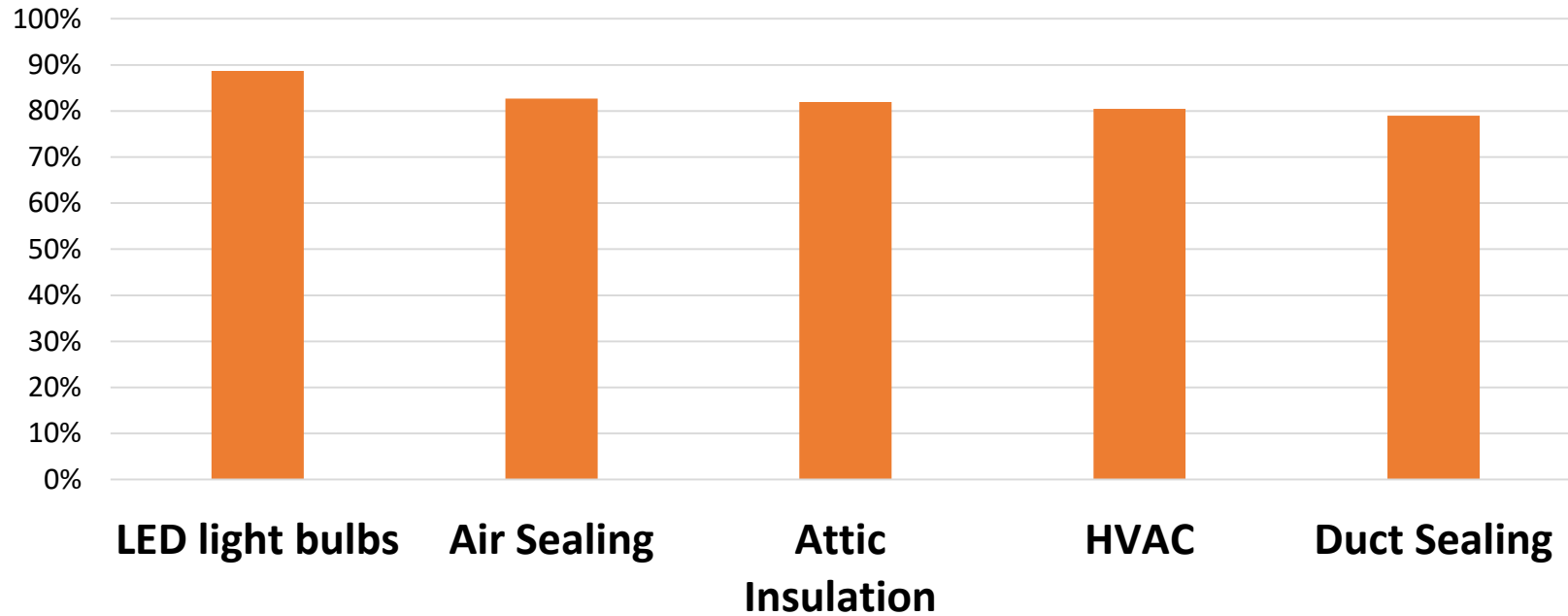
**General Manager & CEO of Ouachita Electric  
Cooperative**

# Tariffed on-bill programs for efficiency upgrades *based on the PAYS<sup>®</sup> system*



# Most projects include a combination of cost-effective, long-lived building upgrades

## Frequency of Main Types of Upgrades

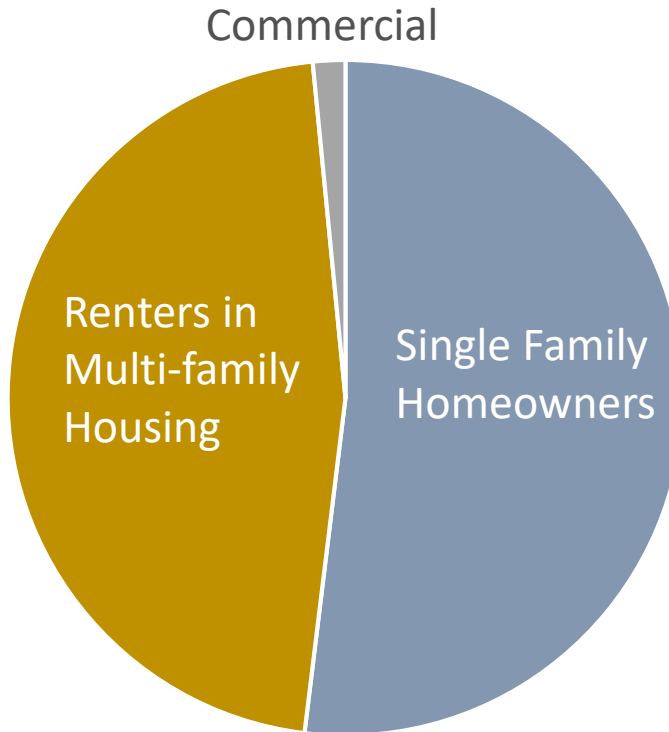


**Ouachita Electric  
Cooperative**



# Renters accounted for nearly half of participants

Number of Investments by Type of Project Site



90% of the customers in our service area are residential.

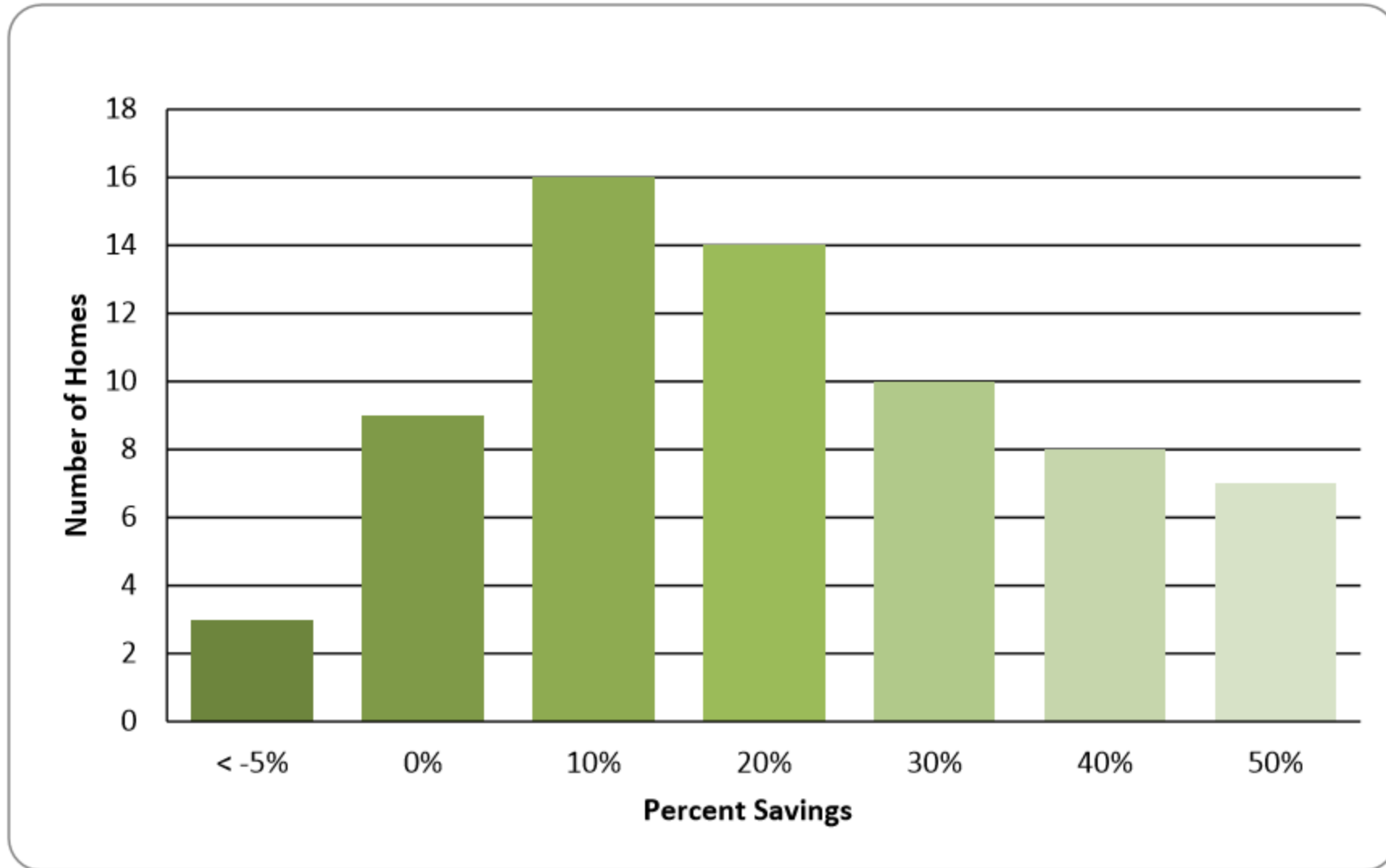


**Ouachita Electric  
Cooperative**





# First Year Reduction in Kwh



# Unlocking Solar Benefits for Underserved Communities Through On-Bill Financing

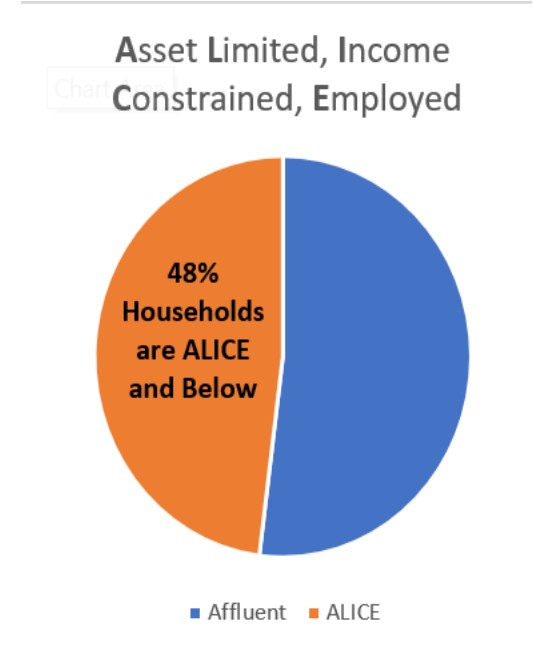
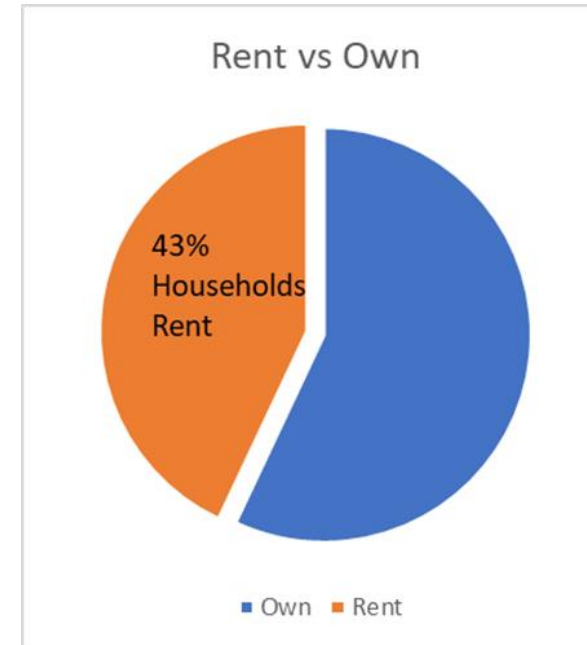
**Hawaii Green Infrastructure Authority  
("HGIA")**

*Making green energy accessible and affordable for Hawaii's ratepayers.*

**Wednesday, December 11, 2019**

# Hawaii's Energy Gap

- Ambitious Goals: 100% renewable energy by 2045
- Unequal access to clean energy
  - Low and moderate-income (“LMI”) households
  - Renters in single family dwellings and multi-family projects
  - Nonprofits
  - Small Businesses



Many ratepayers do not have access to the **clean energy marketplace.**

# Democratize Clean Energy

- We accomplish this by:
  - Providing low-cost, long-term, flexible financing;
  - Filling market gaps;
  - Stimulating private investments; and
  - Leveraging innovative tools to mitigate risks & reach new markets



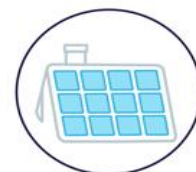
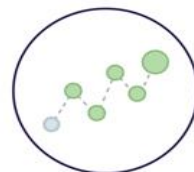
*“Ohana means family.  
Family means nobody gets  
left behind.”*

# Green Energy Money \$aver (“GEM\$”) On-Bill Program

Innovative financing program for Low and Moderate-Income homeowners and renters; multi-family rental projects; nonprofits and small businesses\*, offered exclusively by HGIA that features:

- No upfront costs
- Immediate bill savings
- Elimination of credit barriers
- Obligation tied to the utility meter (not a person)
- Payments conveniently made on your monthly electric utility bill.

\* Small Business as defined by the U.S. Small Business Administration Size Standards.



# Approved Energy Equipment

## Residential Installations

Heat Pump Water Heater

Solar Thermal Water  
Heater

Solar PV Water Heater

Solar PV System

## Commercial Installations

Commercial Energy  
Efficiency Equipment\*

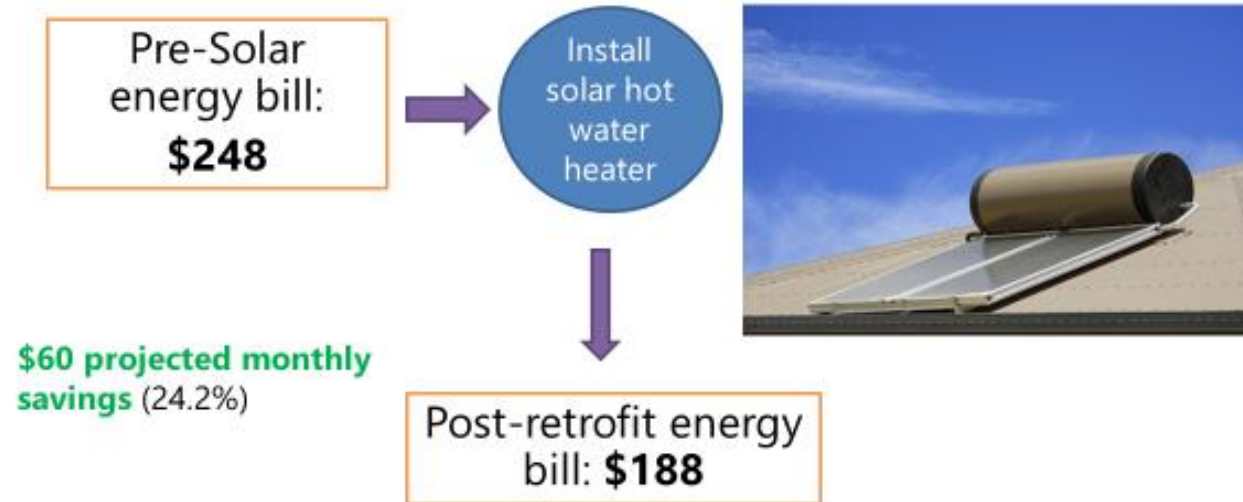
Solar PV System

\* Such as HVAC, water heating, thermal storage pumps, refrigeration, etc.



# Residential Solar Hot Water Installation

## Utility bill: Before & after solar installation

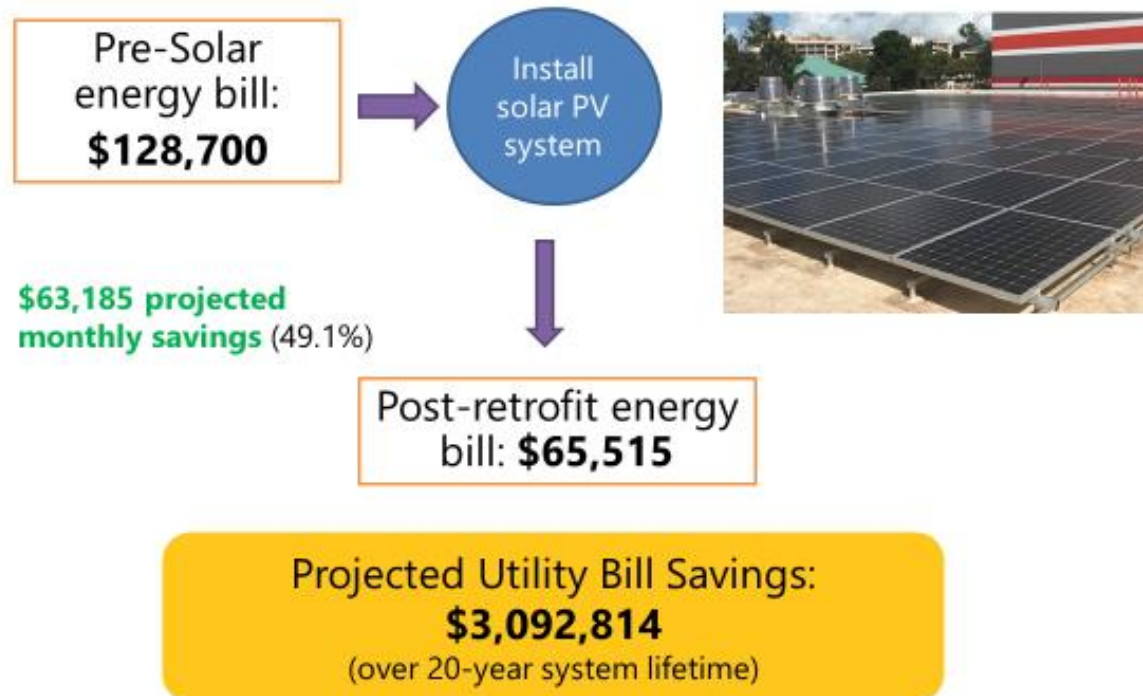


Projected Utility Bill Savings: **\$14,400**  
(over 20-year system lifetime)  
**Plus** Estimated **\$4,350** in Tax Credits  
**Total Estimated Benefits: \$18,750**

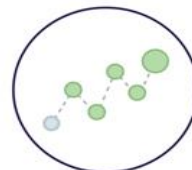
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# Commercial Solar PV Installation

## Utility bill: Before & after solar installation



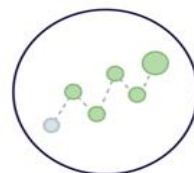
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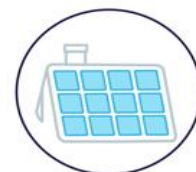
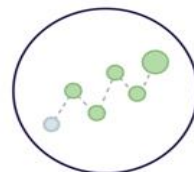


# Unlocking New Markets

- Leveraging the On-Bill Repayment mechanism to unlock new markets for low and moderate income households and renters via:
  - Community Solar Projects; and
  - Multi-Family Projects



**Mahalo!**  
(Thank You!)  
**Questions?**



Questions? Please enter into the chat field



VOTE SOLAR

