

# U.S. EPA's State and Local Energy and Environment Webinar Series

## The Ins and Outs of On-Bill Financing

September 25, 2019  
2:00 – 3:30 PM Eastern

Two audio options:

1. Listen via computer
2. Call in to 1-855-210-5748





# The Ins and Outs of On-Bill Financing

September 25, 2019  
2:00 – 3:30 PM Eastern

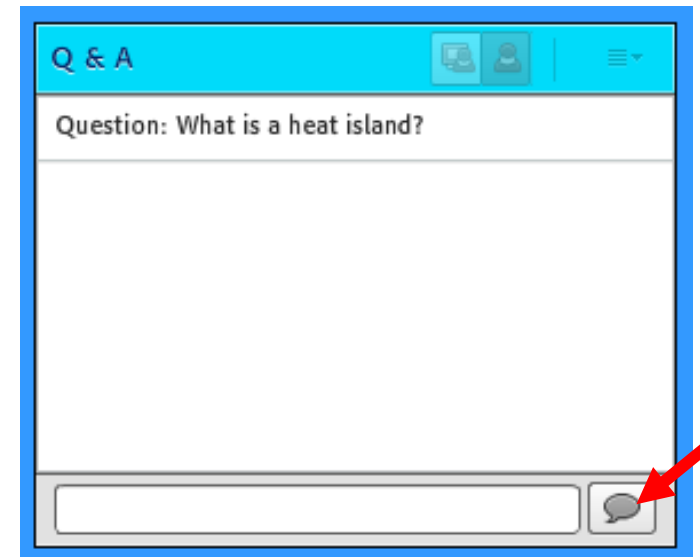
Two audio options:

1. Listen via computer
2. Call in to 1-855-210-5748



## Question and Answer

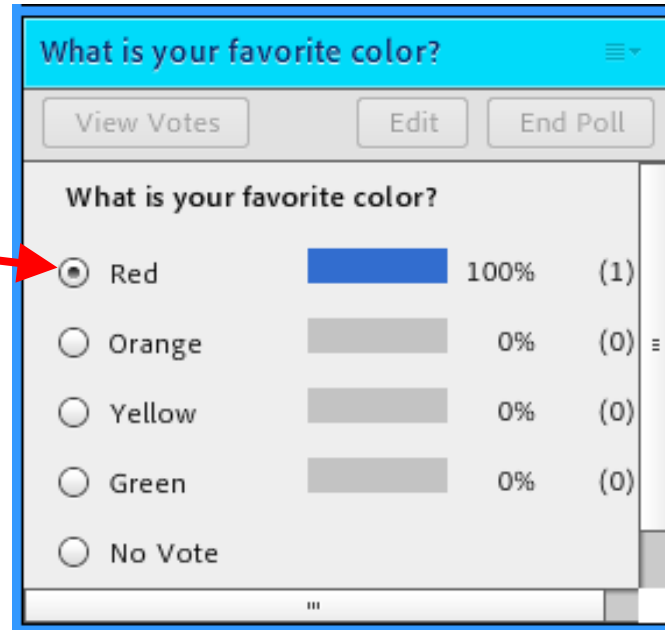
- Enter your question in the Q&A box
- Questions will be moderated at the end
- EPA will post responses to unanswered questions on the [State and Local Webinar Series page](#)



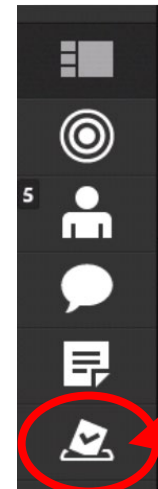
# How to Participate

## Polling

- We'll ask several poll questions during the webinar
- On mobile devices or tablets
  - ▶ Exit full screen mode
  - ▶ Tap the Poll icon



Color	Percentage	Count
<input checked="" type="radio"/> Red	100%	(1)
<input type="radio"/> Orange	0%	(0)
<input type="radio"/> Yellow	0%	(0)
<input type="radio"/> Green	0%	(0)
<input type="radio"/> No Vote		



# Today's Agenda

- **Andrea Denny**, Local Energy and Environment Program Lead  
U.S. EPA State and Local Energy and Environment Program
- **Nick Henner**, Policy Analyst, Clean Energy Finance  
American Council for an Energy Efficient Economy
- **Robert Seaton**, Customer Resolutions Manager, and  
**Julian Ganoudis**, Key Accounts Representative  
City of Tallahassee, Florida
- **Gwen Yamamoto Lau**, Executive Director  
Hawaii Green Infrastructure Authority
- **Question and Answer Session**

## Andrea Denny U.S. EPA State and Local Energy and Environment Program



# U.S. EPA's State and Local Energy and Environment Program

- Investing in energy strategies that lower emissions can be an effective way for state, local and tribal governments to achieve multiple goals:
  - ▶ Improve air quality and public health
  - ▶ Strengthen energy systems
  - ▶ Reduce greenhouse gas emissions
  - ▶ Save money
- We offer free tools, data and technical expertise about energy strategies, including energy efficiency, renewable energy and other emerging technologies, to help state, local and tribal governments achieve their environmental, energy and economic objectives.
- Access all of these resources at the [Energy Resources for State, Local, and Tribal Governments site](#)



# Clean Energy Finance: On-bill Programs

- Primer about on-bill programs that addresses key points for local governments:
  - ▶ What are on-bill programs?
  - ▶ What are the benefits of on-bill programs?
  - ▶ How do on-bill programs work?
  - ▶ How can local governments support on-bill programs?
- Profiles of several on-bill programs and how their work is helping to advance environmental, energy and economic priorities

## Clean Energy Finance: On-bill Programs for Local Governments



**Clean Energy Finance: On-bill Programs**  EPA United States Environmental Protection Agency

**OVERVIEW**

Many utilities offer programs that enable customers to finance clean energy projects (energy efficiency and renewable energy) over time via their utility bills. These “on-bill programs” help expand access to clean energy to customers who lack the capital to pay for projects upfront. Because of their environmental and economic benefits, local governments have supported these programs by encouraging participation in them or creating policies that enable utilities to develop on-bill repayment options. Other local governments in communities with municipally owned utilities have established their own on-bill programs. This paper describes what on-bill programs are, how they work, and how some local governments have supported them.

**WHAT ARE ON-BILL PROGRAMS?**

An on-bill program refers to a unique method of financing an energy efficiency or renewable energy investment in which the utility bill is used as the vehicle for repayment.<sup>1</sup> Typically, a utility or third-party lender funds customers’ projects, who then repay investments through additional charges on their regular utility bills. As described on page two, repayments are usually made through two methods: an on-bill loan or an on-bill tariff.

On-bill programs have a three-decade history of success in the United States, particularly in the residential and commercial sectors. This is primarily due to the relative simplicity of the processes required for customers to participate, and the flexibility of the programs’ features, such as the financing products they offer.

As of late 2016 there were approximately 45 on-bill programs nationwide. These programs had made more than 230,000 loans through 2014, with an average loan size of approximately \$8,000.<sup>2</sup> Estimates by the American Council for an Energy-Efficient Economy (ACEEE) on the dollar value of energy efficiency investments<sup>3</sup> suggest these investments could yield between \$2.5 billion and \$8 billion in direct and indirect benefits. These benefits include avoided energy and capacity costs, lower energy costs during peak demand periods, avoided costs from building new power lines, and reduced pollution.

**WHAT ARE THE BENEFITS OF ON-BILL PROGRAMS?**

On-bill programs have been found to help local governments and utilities achieve their environmental and economic goals because they:

- *Make clean energy more affordable.* On-bill programs can help remove financial barriers to clean energy investments for customers who otherwise could not afford them. For example, on-bill programs help customers pay for the often high upfront costs of energy improvements, which can be a barrier for some households, and are particularly challenging for low-income customers. In addition, some on-bill programs allow renters to participate.
- *Reduce home energy costs and increase housing stability.* Energy efficiency upgrades help customers save on their utility costs. This has been shown to lead to more housing stability for populations at risk of eviction or defaulting on utility payments.<sup>4</sup>
- *Make clean energy investments more attractive for private lenders.* Loans issued through on-bill programs are considered safer investments for third parties when compared to typical loans. On-bill program loans generally have low default rates (typically 0-3%).<sup>5</sup> This is primarily due to customers being accustomed to paying their utility bills on time, and the fact that their energy bills are more affordable because of the program.
- *Expand clean energy access to customers typically ineligible for conventional financing mechanisms.* The decreased risk for investors enables utilities to offer on-bill programs to customers who might not be eligible for conventional financing. Programs are often designed to use alternative underwriting criteria, such as history of on-time bill payments, to assess creditworthiness. This results in a wider range of customers having access to clean energy.

**HOW DO ON-BILL PROGRAMS WORK?**

In general, the local utility plays the central role in establishing and implementing on-bill programs. Utilities can usually design programs to suit their needs and conditions, and they often combine these programs with

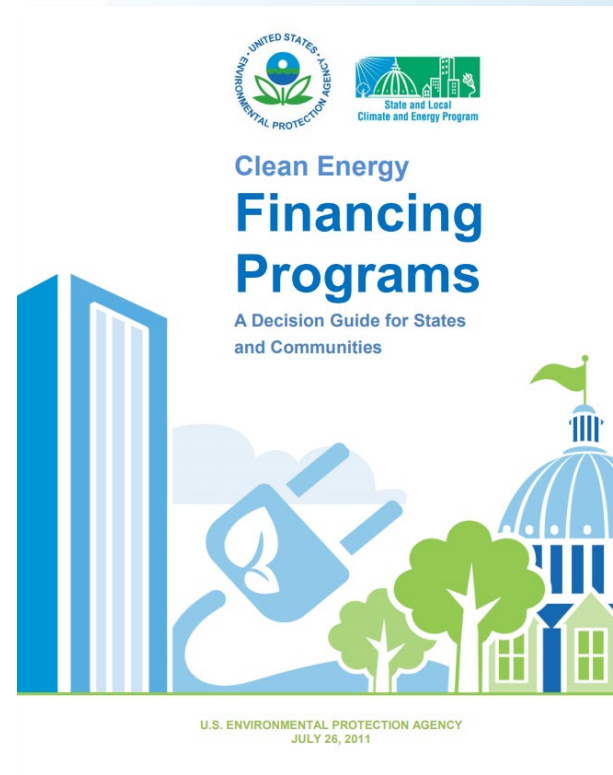
EPA-430-F-18-016 November 2018 1



# Clean Energy Financing Programs: A Decision Guide for States and Communities

- Covers financing strategies that states and communities can apply to both energy efficiency and renewable energy.
- The guide describes:
  - ▶ Financing program options
  - ▶ Key components of each program
  - ▶ Factors to consider when making decisions
- Update in Progress—Expected in 2020

## Clean Energy Financing Programs: A Decision Resource for States and Communities



# U.S. Department of Energy (DOE) Efficiency Financing Resources

- *On-Bill Resources*
  - ▶ Visit U.S. DOE's State and Local Solution Center, [on-bill financing webpage](#)
  - ▶ Understand on-bill for low-income households with the Clean Energy for Low Income Communities Issue Brief: [Low-Income Energy Efficiency Financing through On-Bill Tariff Programs](#)
- *Understand On-Bill Financing in Context of Other Options*
  - ▶ [Current Practices in Efficiency Financing: An Overview for State and Local Governments](#)
  - ▶ [Better Buildings Financing Navigator](#)
  - ▶ [State and Local Solution Center: Pay for Energy Initiatives](#)
- *Get Engaged with DOE*
  - ▶ Email us at: [stateandlocal@ee.doe.gov](mailto:stateandlocal@ee.doe.gov)
  - ▶ [Subscribe to U.S. DOE's monthly newsletter](#): The State and Local Spotlight

Andrea Denny

[denny.andrea@epa.gov](mailto:denny.andrea@epa.gov)

U.S. Environmental Protection Agency



**State and Local  
Energy and Environment Program**

[Visit Our Website](#) | [Sign Up for Our Newsletter](#) | [Join Our LinkedIn Group](#)

# Poll 1



Nick Henner  
Policy Analyst

American Council for an Energy  
Efficient Economy



# The Ins and Outs of On-Bill Financing

## On-Bill Financing 101: Strategies to Deliver Energy Savings

September 25

American Council for an Energy-Efficient Economy (ACEEE)

Nick Henner

Policy Analyst, Clean Energy Finance

# On-Bill Financing 101: Strategies to Deliver Energy Savings

1. What is on-bill?
2. Current on-bill landscape
3. Benefits of an on-bill program
4. Barriers to an on-bill program
5. How can local government support on-bill?

# What is an On-Bill Payment Program?




- Method of financing energy-related improvements that uses the utility bill as the repayment vehicle
- On-bill financing programs can bring the up-front costs of energy improvement projects down to zero, particularly when paired with rebates and incentives
- There are three main types of on-bill programs:
  - On-bill financing (OBF)
  - On-bill repayment (OBR)
  - Tariffed on-bill (TOB)



# Current On-Bill Landscape

- 110+ programs<sup>1</sup>
- \$179m of total lending in 2014<sup>2</sup>
- Rural co-ops and muni utilities make up vast majority of on-bill programs



-  Rural electric cooperative
-  Public utility
-  Investor-owned utility

Environmental and Energy Study Institute (EESI)

# Potentially Better Loan Performance and Terms than Conventional Loans



# Alternative Underwriting Practices



# Operating Within Existing Utility Programs



# Off-Balance Sheet

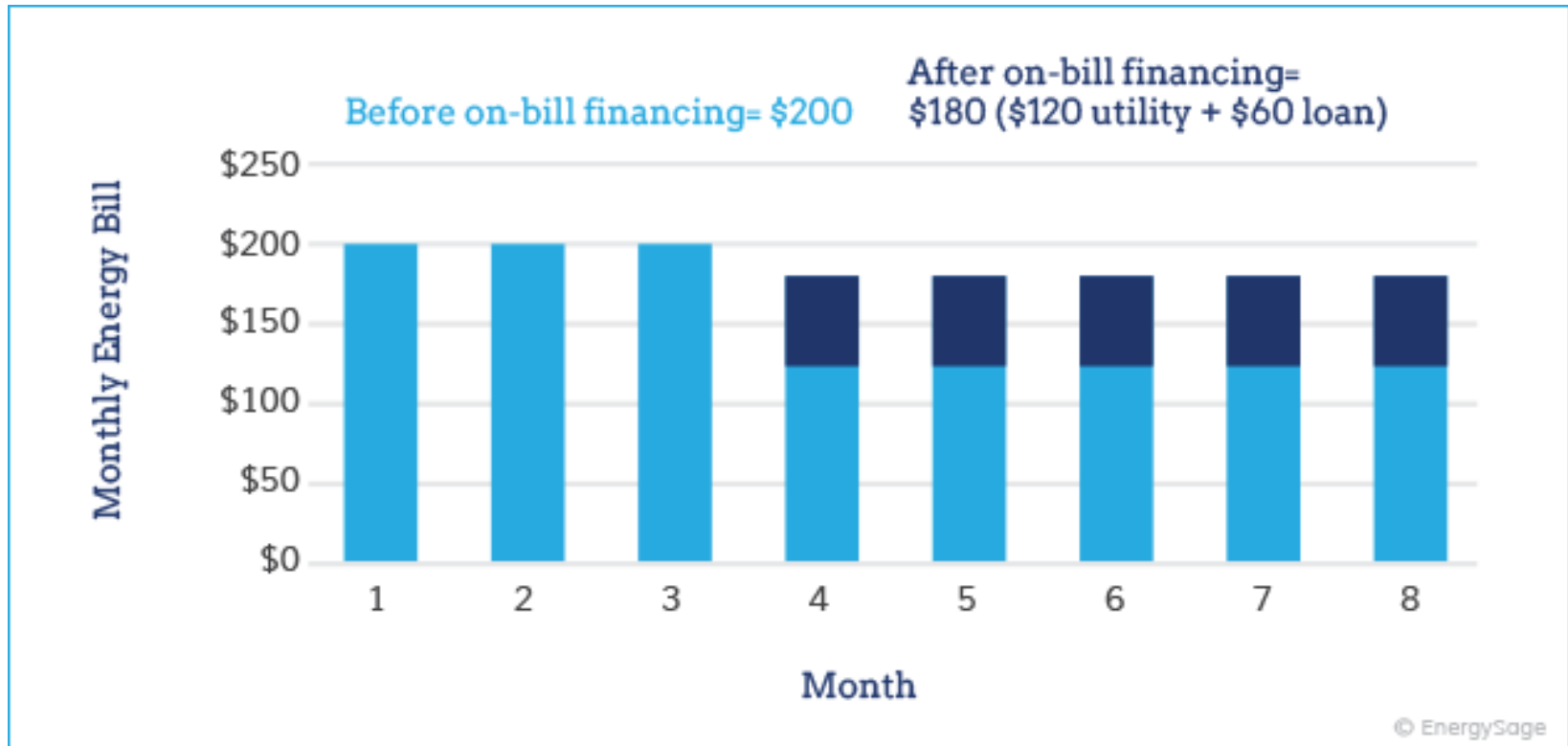




# Transferability



# Bill Neutrality



# Barriers to On-bill Financing

- Utility burden
- Administrative burden
- Consumer protection





# How Can Local Governments Support On-Bill Programs?

## **Indirect Support**

- Raise awareness
- Capitalize or back an on-bill program
- Create policy or legislation incentives
- Assemble stakeholders
- Collaborate with state governments
- Work with utilities
- Participate in on-bill programs offered by utility

[EPA | Clean Energy Finance: On-bill Programs for Local Governments](#)

# How Can Local Governments Support On-Bill Programs?

## Direct Support

- Engage with partners to support municipally owned utilities
- Train local contractors and service technicians



[EPA | Clean Energy Finance: On-bill Programs for Local Governments](#)

# Steps for Local Governments to Launch an On-bill Program



1. Designate on-bill program framework
2. Design on-bill program financing framework
3. Establish sources of capital and credit enhancements
4. Deliver program to community
5. Measure Impact of program

See ACEEE's [Financing Energy Efficiency Toolkit](#), EESI's [How-to Guide: Launching an On-Bill Financing Program](#), and EPA's [Clean Energy Finance: On-bill Programs](#)

# Thank You for Listening!

Nick Henner  
Policy Analyst, Clean Energy  
Finance [nhenner@aceee.org](mailto:nhenner@aceee.org)



**ACEEE's 2020 Energy Efficiency Finance Forum  
June 2-3 in White Plains, New York**





The American Council for an Energy-Efficient Economy is a nonprofit 501(c)(3) founded in 1980. We act as a catalyst to advance energy efficiency policies, programs, technologies, investments, & behaviors.

Our research explores economic impacts, financing options, behavior changes, program design, and utility planning, as well as U.S. national, state, & local policy.

Our work is made possible by foundation funding, contracts, government grants, and conference revenue.



# Poll 2



# City of Tallahassee Energy Efficiency Loan Program

**Robert Seaton**

**Customer Resolutions Manager**

**Julian Ganoudis**

**Key Accounts Representative**

**City of Tallahassee**





# City of Tallahassee Energy Efficiency Loan Program

Creating our program – Loan measures

Establishing policies and procedures; funding

Challenges and Solutions

Advice – Do's and don'ts

Analytics – Loan numbers; terms and conditions



# Creating our Program – Loan Measures



- We offer residential and commercial loans for energy efficiency improvements to city of Tallahassee electric customers
- Monthly payments are included on the utility bill
- Currently there are 38 measures

# Establishing Policies and Procedures - Funding



- Established a revolving loan fund
- Dollars were internally sourced from electric revenues
- First year, 1983: tried 0% interest and loan payment coupon book
- From 1985-1993: 3% interest and on-bill payments
- After 1993: 5% interest and on-bill payments



# Challenges and Solutions



- Solving a wait list problem with start up in 1983
  - Additional funding and procedural efficiencies
- Solving a slow-payment problem
  - Switched from loan approval prior to signing Promissory Note to loan approval subsequent to signing note; no loans for measures installed before loan approval; contractor informs us of a passed inspection that keys off their payment process
- “Loan application form” dilemma
  - Learned to take that out of customer’s hands. We gather necessary documents and create the customer’s application. Customer does not fill out application!



# Challenges and Solutions



- Contractor List?
  - Early on, we disbanded the listing of approved contractors opting instead to work with any contractor who is qualified to pull necessary permits.
  
- Other Challenges / Lessons Learned Included
  - Payments to customers vs. Payments to contractors.
  - Hand holding works better than the alternative.
  - Cessation of 3-bid requirements
  - Cessation of energy audit requirement, certain measures excepted.

# Advice – Do's and Don'ts



- Resist the temptation to require bundling of measures
- Resist the temptation to promote measures for which no installers exist
- Align efficiency standards with federal ENERGY STAR



# Analytics – Loan Numbers; Terms and Conditions



- About 400 residential loans annually and 15-20 commercial loans annually
- Average loan amount has risen and is now about \$8,700
- Basics:
  - 5% interest, 5-year term, \$10,000 maximum, \$500 minimum, \$25/month minimum payment.
  - No down payment. No penalty for early payoff.
  - Loans are recorded and secured with a property lien.
    - An exception is a 10-year term and \$20,000 maximum for solar measures and energy star reflective roofing.



## Bob Seaton

City of Tallahassee | Customer Operations  
Customer Resolutions Manager  
408 N. Adams Street  
Tallahassee, Florida 32301  
Office: (850) 891-6130  
Cell: (850) 524-9369  
Email: [robert.seaton@talgov.com](mailto:robert.seaton@talgov.com)

## Julian Ganoudis, CEM

Key Accounts Representative  
City of Tallahassee  
Customer Operations /CAM  
408 N. Adams St., Tallahassee, FL 32301  
850-891-2375 Office / 850-524-9363 Cell  
Email: [julian.ganoudis@talgov.com](mailto:julian.ganoudis@talgov.com)



# Poll 3





**Gwen Yamamoto Lau**  
**Executive Director**  
**Hawaii Green Infrastructure Authority**



# The Ins and Outs of On-Bill Financing

EPA's State and Local Energy and Environment Program

Hawaii Green Infrastructure Authority ("HGIA")

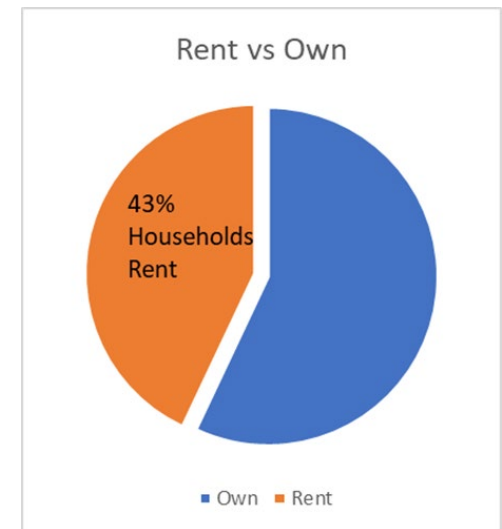
Wednesday, September 25, 2019



# Hawaii's Energy Gap

---

- Ambitious Goals: 100% renewable energy by 2045
  - People, Planet, Prosperity
- Unequal access to clean energy
  - Low and moderate-income (“LMI”) households
  - Renters
  - Nonprofits
  - Small Businesses



# 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



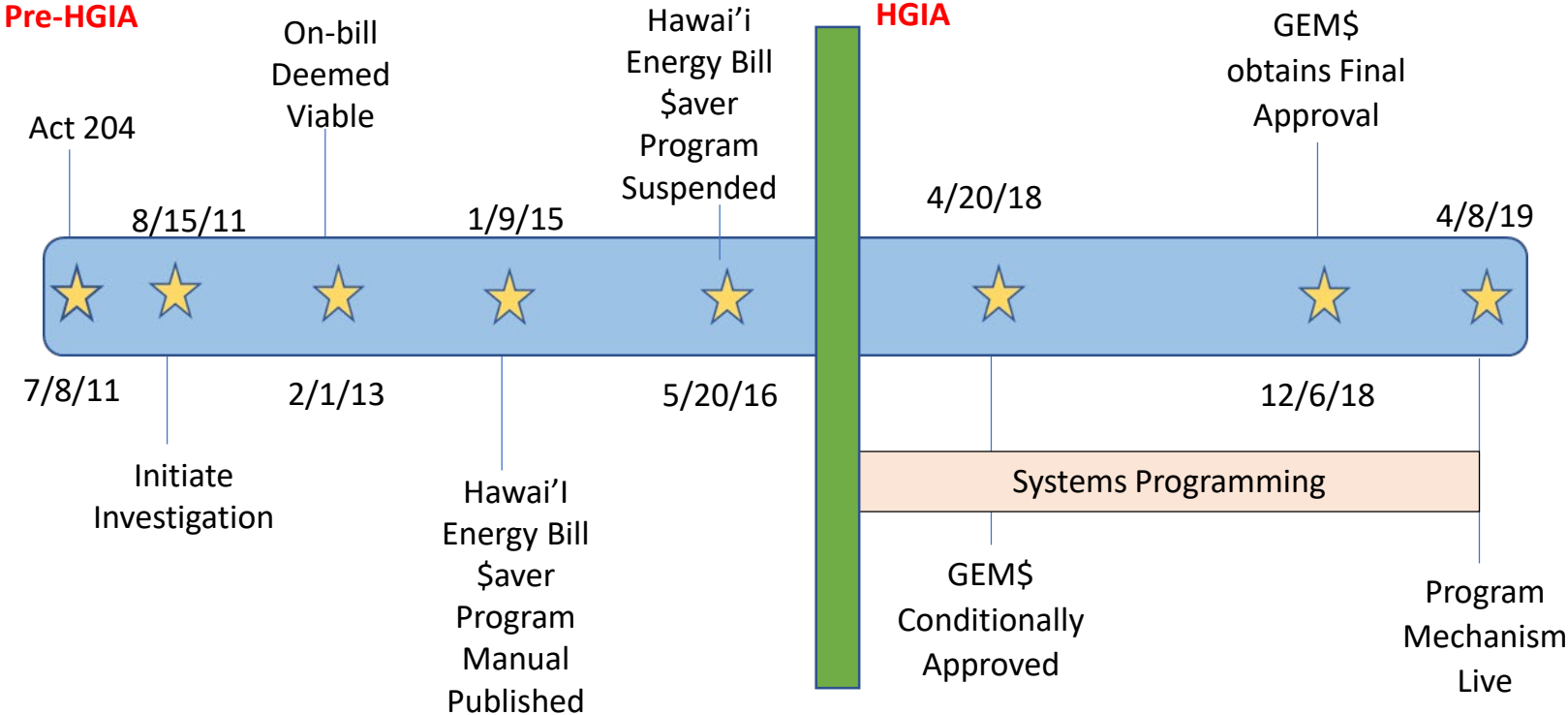
***“Ohana means family.  
Family means nobody gets  
left behind.”***

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

Innovative financing program for LMI homeowners and renters; multi-family rental projects; nonprofits and small businesses, offered exclusively by the Hawaii Green Infrastructure Authority 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.

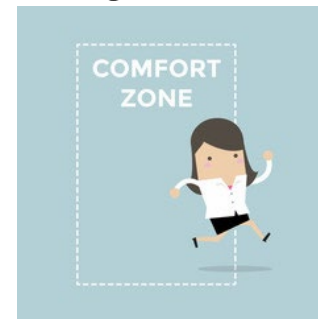
# Timeline of Hawaii's On-Bill Program



# Challenges – Design & Implementation

---

- Stakeholder Buy-In
- New Innovation
  - Ideas → Documents
  - Processes & Procedures
- Stakeholder Buy-In
- Extensive Information Technology Programming and Testing
- Remaining comfortable outside of your





# Challenges - Deployment

---

- Communications & Public Relations
- New and Complex Program and Mechanism
- Training for Contractors
- HGIA Resource Constraints
- Remaining flexible and fluid in implementation



# Results

---

- Applications received monthly up by over 300%
- On-Bill Repayment mechanism unlocking new markets
  - Renters
  - LMI Multi-family rental projects
  - Community Solar
- Kaizen – opportunities identified to [continuously] improve program

# Thank you

---

For more information, please contact:

Hawaii Green Infrastructure Authority (HGIA)

Gwen Yamamoto Lau

[Gwen.s.yamamotolau@Hawaii.gov](mailto:Gwen.s.yamamotolau@Hawaii.gov)

[Dbedt.gems@Hawaii.gov](mailto:Dbedt.gems@Hawaii.gov) 808-587-3868



# Question and Answer Session



# Connect with the State and Local Energy and Environment Program

 [Webinar Feedback Form](#) 

Andrea Denny  
U.S. Environmental Protection Agency  
[Denny.Andrea@epa.gov](mailto:Denny.Andrea@epa.gov)

[Visit Our Website](#) | [Sign Up for Our Newsletter](#) | [Join Our LinkedIn Group](#)