

## DOCKETED

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*Comment Received From: Holmes Hummel*

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## **Comments on Draft Report for SB350 Barriers Study**

*Additional submitted attachment is included below.*

September 29, 2016

Dr. Holmes Hummel  
Clean Energy Works  
P.O. Box 73386  
Washington, DC 20001

California Energy Commission  
Dockets Office, MS-4  
Re: Docket No. 16-OIR-02  
1516 Ninth Street  
Sacramento, CA 95814

**RE: Comments on the Draft SB 350 Study on Barriers of Low-Income and Disadvantaged Communities to Renewable Energy and Energy Efficiency**

Clean Energy Works appreciates the opportunity to offer comment on the California Energy Commission's Draft Report on A Study of Barriers and Solutions to Energy Efficiency, Renewables, and Contracting Opportunities Among Low-Income Customers and Disadvantaged Communities. The invitation for public comment in the scoping and drafting phases in addition to the workshops at each stage are a reflection of the CEC's commitment to engagement, which is especially important for this endeavor.

Clean Energy Works is a champion for accelerating investment in energy efficiency and renewable energy using inclusive financing. In the prior round of comments, Clean Energy Works explained inclusive financing as tariffed on-bill investment programs offered by utilities to all customers, regardless of income, credit score, or renter status. More than a dozen utilities in multiple states have demonstrated success with tariffed on-bill investment programs based on the Pay As You Save<sup>®</sup> (PAYS<sup>®</sup>) system created by the Energy Efficiency Institute, Inc. We provided an overview of the concept, an update on key field results reported this year, and a summary of programs in other states that are based on PAYS.

At the CEC's workshop on the Draft Report on September 13, 2016, the Governor's Advisor addressed the Commission in an extended exchange. When asked about the top priority for attention, reaching renters was the immediate reply. CEC's research confirms that the majority of low-income households in California are renters. In the staff briefing of the Draft Report for Commissioners at the same workshop, the PAYS system was specifically identified as a key financing solution for reaching low-income households that are renters. Renters are, indeed, among the market segments that can be served by inclusive financing programs based on PAYS, and the solution certainly has broader applicability as well.

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Inclusive financing is a type of on-bill financing that does not involve making loans to customers. Comments filed in this proceeding by other parties have not included tariffed on-bill financing among the options available, describing on-bill financing in terms of debt-based programs. For this reason, these comments will focus specifically and exclusively on the topic of tariffed on-bill financing as a supplement to prior input provided to CEC to support this study. As the CEC explores further the concept of tariffed on-bill investment programs, it may be useful to refer to 20 of the most common questions, which are addressed in the public knowledgebase maintained by Clean Energy Works here:

[http://cleanenergyworks.org/blog/knowledgebase\\_category/general-qa/](http://cleanenergyworks.org/blog/knowledgebase_category/general-qa/)

To provide further visibility to the CEC regarding the field experience with PAYS, these comments will expand on the additional lines of interest and inquiry.

### **1. How is a tariffed on-bill investment program different from an on-bill loan program?**

Attachment A provides conceptual diagrams that illustrate differences in the transaction paths for of PAYS, on-bill repayment of loans from a third party, on-bill lending (i.e. loans from the utility), and PACE.

Attachment B provides a chart that compares key attributes of PAYS with a typical on-bill loan program as well as a PACE program. Two key distinctions for the purposes of this report would be the definition of cost effectiveness in the PAYS system and the use of a tariff that the Commission determines is an essential utility service that assigns the cost recovery obligation to the meter rather than to a person.

First, Pay As You Save allows a utility to invest in upgrades that meet the Participant Cost Test in the California Standard Practice Manual with three modifications:

- A. The utility's program service charge for cost recovery must be capped at 80% of the estimated savings.
- B. The program service charge must be calculated to recover all costs within 80% of the useful life of the upgrades or for the duration of a full parts and labor warranty whichever is longer.
- C. The current rates must be assumed to stay fixed, rather than assuming an automatic escalator.

These assumptions effectively require that tariffed on-bill investments have savings that are significantly greater than the cost.<sup>1</sup> These assumptions assure customers they will not

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<sup>1</sup> Restricting cost recovery to 80% of the estimated useful life of the upgrades and by 80% of the annual estimated savings yields means that only investments that can be covered with 64% of the estimated savings can meet the cost effectiveness test. Therefore, the estimated savings over the life of the investment need to exceed the cost recovery by more than 50%.

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pay more than they save – the reason to participate. They also provide important consumer protections to manage the risk that a customer would pay more than they save. These risks are associated with the inherent uncertainty in the estimation of energy savings from any specific set of upgrades, and that is what justifies the requirement that tariffed on-bill investments have a level of cost effectiveness that is much better than bill-neutral.

Second, the customer does not take on a personal debt obligation when they opt into a tariffed on-bill program for cost effective energy upgrades. Instead, the investment is assigned to the meter. When a participating customer moves away, their obligation to pay ends, and the terms of the tariff apply to the successor customer that next opens an account at that site. The owner of the building (whether they are an occupant or a landlord) is responsible for assuring that the successor customer is informed that the utility has financed upgrades at the site that reduce the energy costs for any given level of service. The utility also provides a second line of assurance by sending its own notification when a new customer opens an account at a meter where the site has been upgraded.

## **2. How are tariffed on-bill investment programs in other states financed?**

Some utilities such as Hawaii Energy Company (HECO) and Eversource have used ratepayer funds as the source of capital. This is not recommended for programs operating at scale because the demand for participation is far higher than typical rebate programs and the scale of capital commitment per site is much larger than typical rebate programs. These are the reasons that led HECO to exhaust its three year budget for the rooftop solar thermal program called Solar \$aver within two years.

In order to allow low-income customers to participate in the clean energy economy without the constraints that could be imposed by the budgets for ratepayer funds, utilities can source either public or private financing for their investments in cost effective upgrades. Non-profit utilities like electric cooperatives may be eligible for federal financing through programs such as the Energy Efficiency & Conservation Loan Program offered by the Rural Utilities Service at USDA, and municipal utilities may have access to similarly low cost capital through municipal financing instruments such as bonds. For profit utilities may use private capital, and if desired, it could be sourced as a Green Bond.

## **3. Does the offer to participate in a tariffed on-bill program for energy efficiency include a savings guarantee?**

No. A tariffed on-bill program based on the PAYS system only offers a customer the assurance that credible cost effectiveness analyses document that estimated annual savings are significantly greater than the annual costs (at least 25%) and that the upgrades will function during the period of cost recovery. Prior to that point, if the upgrades do stop

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functioning at no fault of the customer, the utility must suspend the program service charge until there is a repair or remedy.

While the utility is responsible for the quality assurance of the upgrades in which it invests, it is not at risk for choices that a customer may make to buy more energy for additional energy services, whether that is driving an electric car or adding more people to the household.

The likelihood that a participating customer will save more than they pay is assured by very conservative application of the Participant Cost Test in the PAYS system as discussed above. However, a customer is free to apply their savings to any purpose that could suit them – including buying more energy services that improve their lives.

#### **4. How could inclusive financing be introduced in California?**

Some participants in the Bay Area Renewable Energy Network (BayREN) already support tariffed on-bill programs in partnership with their water utilities. BayREN submitted comments during the scoping phase of this Draft Report, offering to share insights of experience.

In the power sector, utilities that are not subject to oversight from the CPUC can seek approval for a tariffed on-bill program directly from their oversight boards. The CEC does have working relationships with all of those utilities, and it can support due diligence by any electric cooperative, municipal utility, or other public utility district. Based on experience in other states, the decision-making path for adoption of inclusive financing in non-profit utilities can be quite efficient.

For the investor owned utilities, there are multiple routes through which a tariffed on-bill program could be considered by the CPUC. For example, it could be considered as part of a utility's business plan for achieving key market and policy objectives, or it might be considered as a supplemental activity in the scope of the current pilot programs for on-bill lending. Alternatively, it could be introduced as a solution for accelerating investment in all-electric transit buses, retiring more diesel buses that otherwise would continue to pollute neighborhoods where residents rely on bus transit. There are more opportunities for the IOUs and for the CPUC to engage the topic as well.

Additional information can be found at the Clean Energy Works website or by contacting Clean Energy Works at [Info@CleanEnergyWorks.org](mailto:Info@CleanEnergyWorks.org).

**Attachment A:** Conceptual diagrams for on-bill financing options

**Attachment B:** Comparison chart for PAYS, on-bill lending, and PACE

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## **Attachment A:**

Conceptual diagrams for  
on-bill financing options

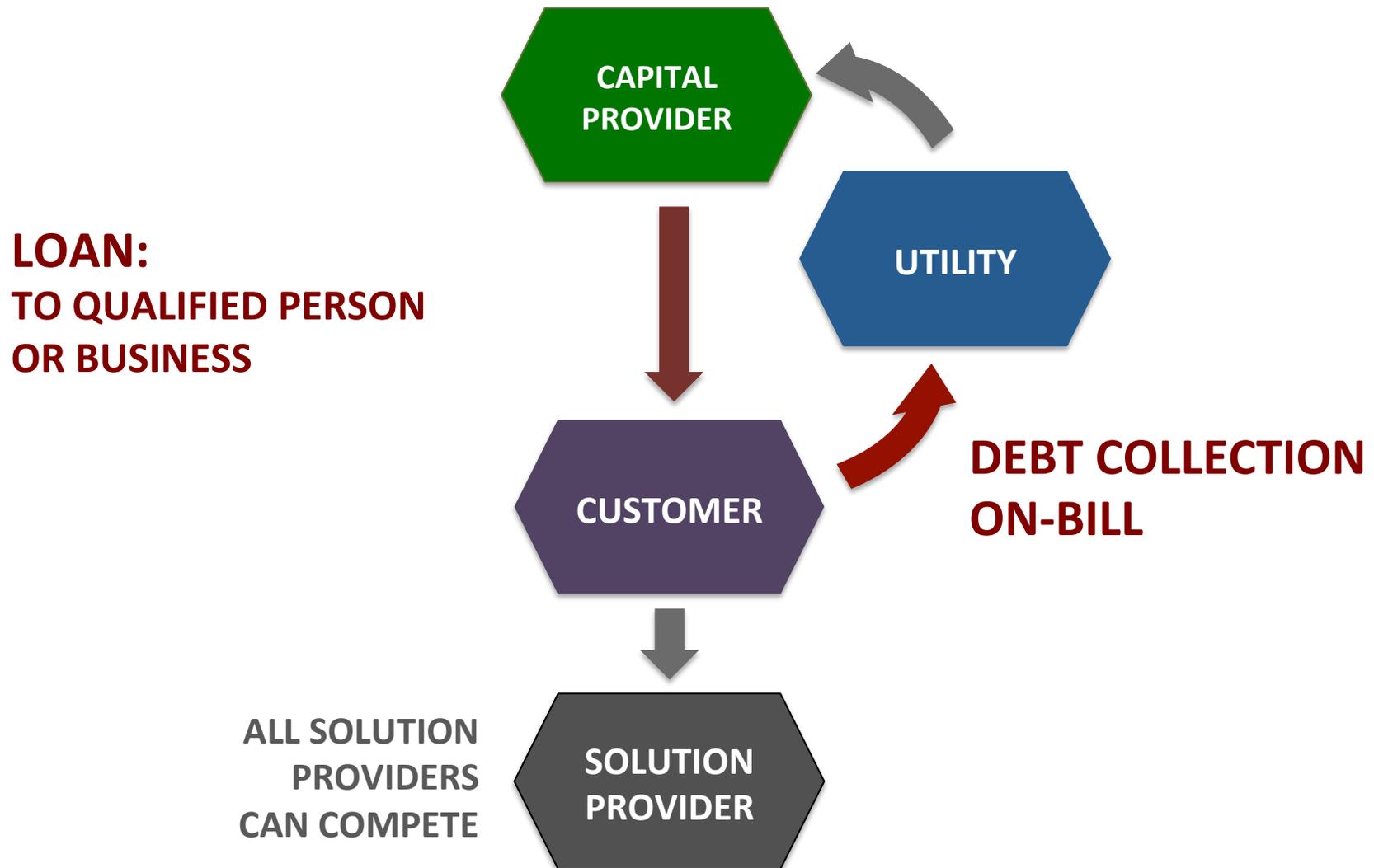


# **INCLUSIVE FINANCING FOR DISTRIBUTED ENERGY SOLUTIONS**

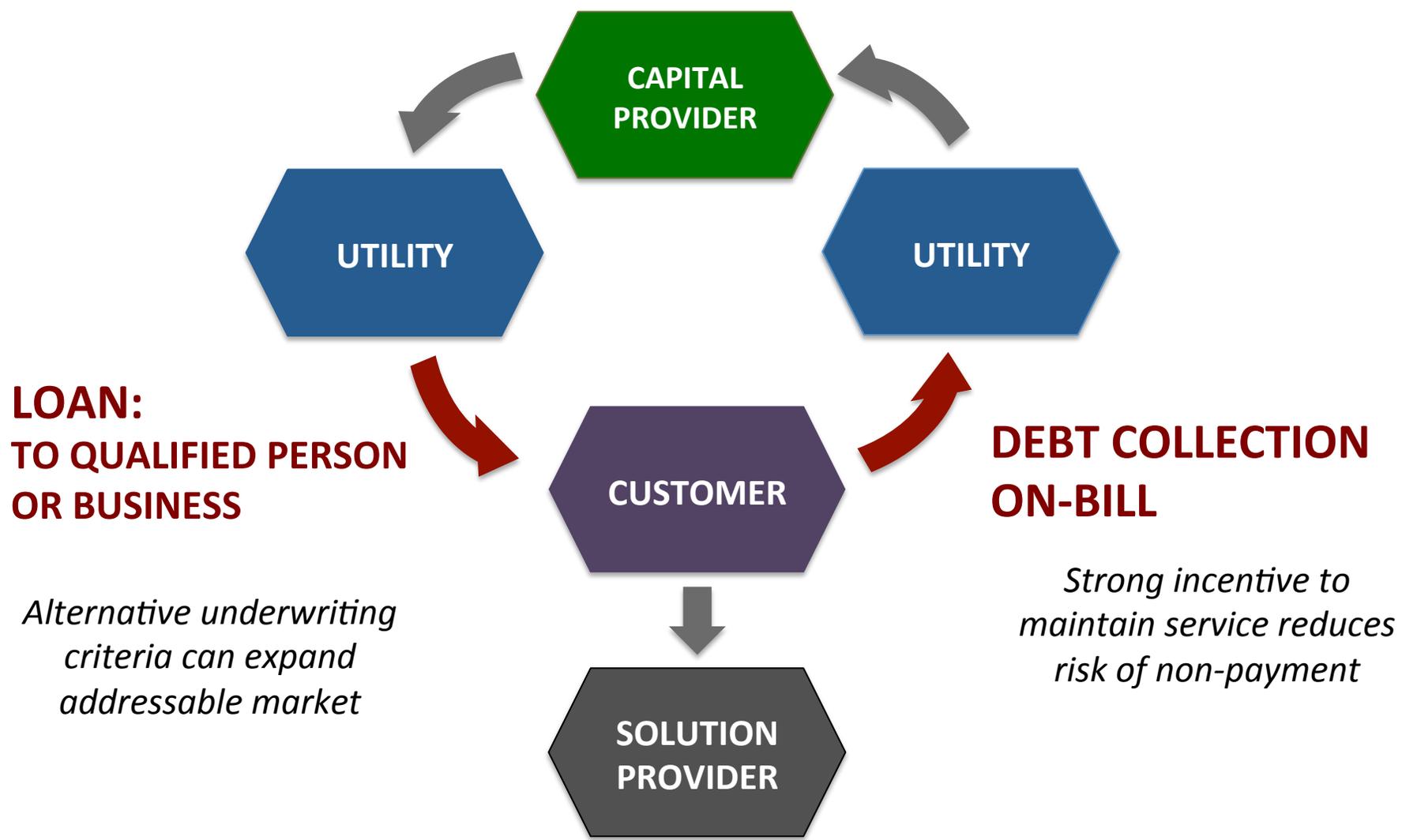
**Comparing Inclusive Financing with Other Models**

Clean Energy Works

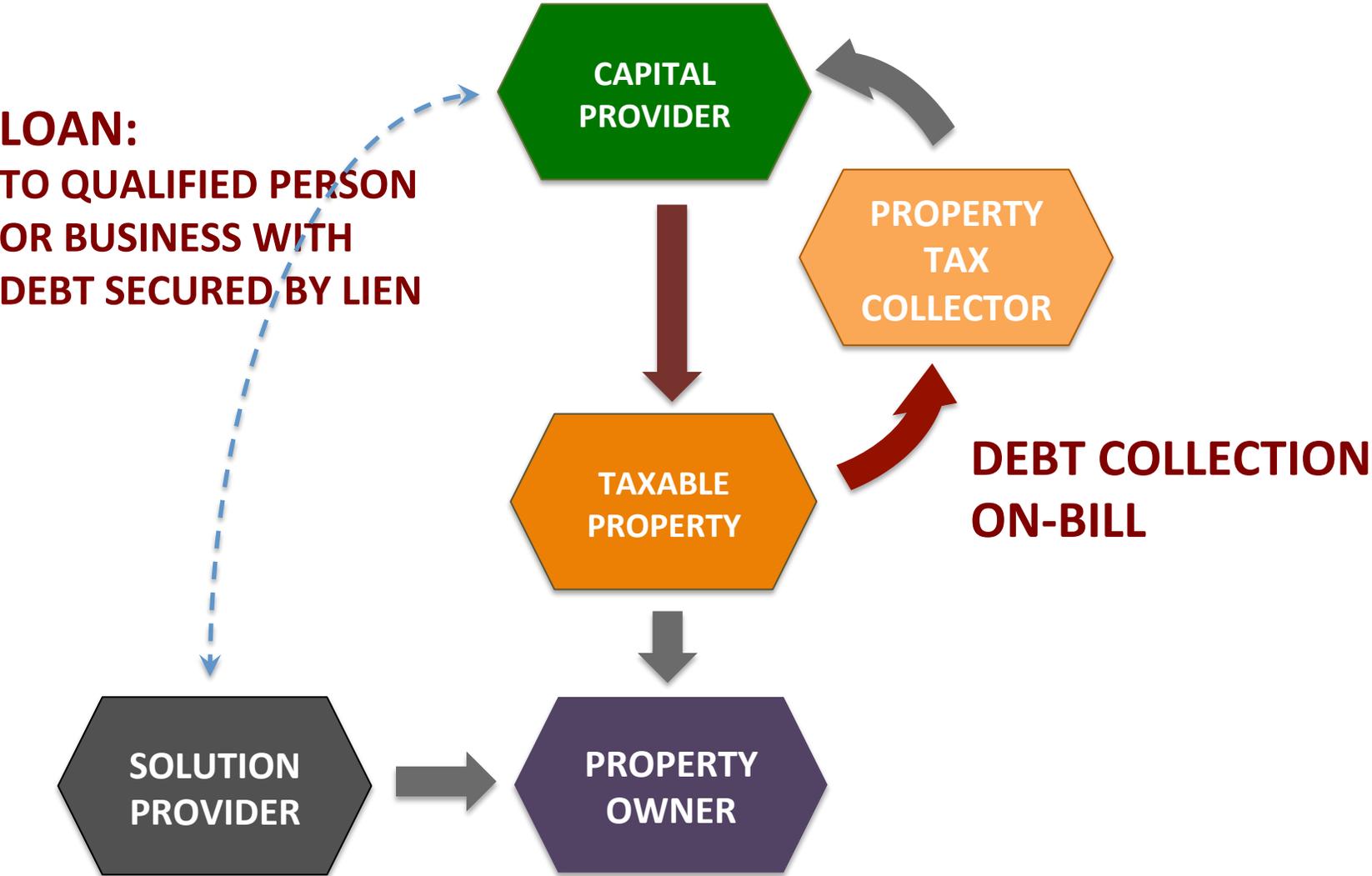
# LOAN REPAYMENT VIA ON-BILL FINANCING



# RE-LENDING: LOAN & DEBT COLLECTIONS

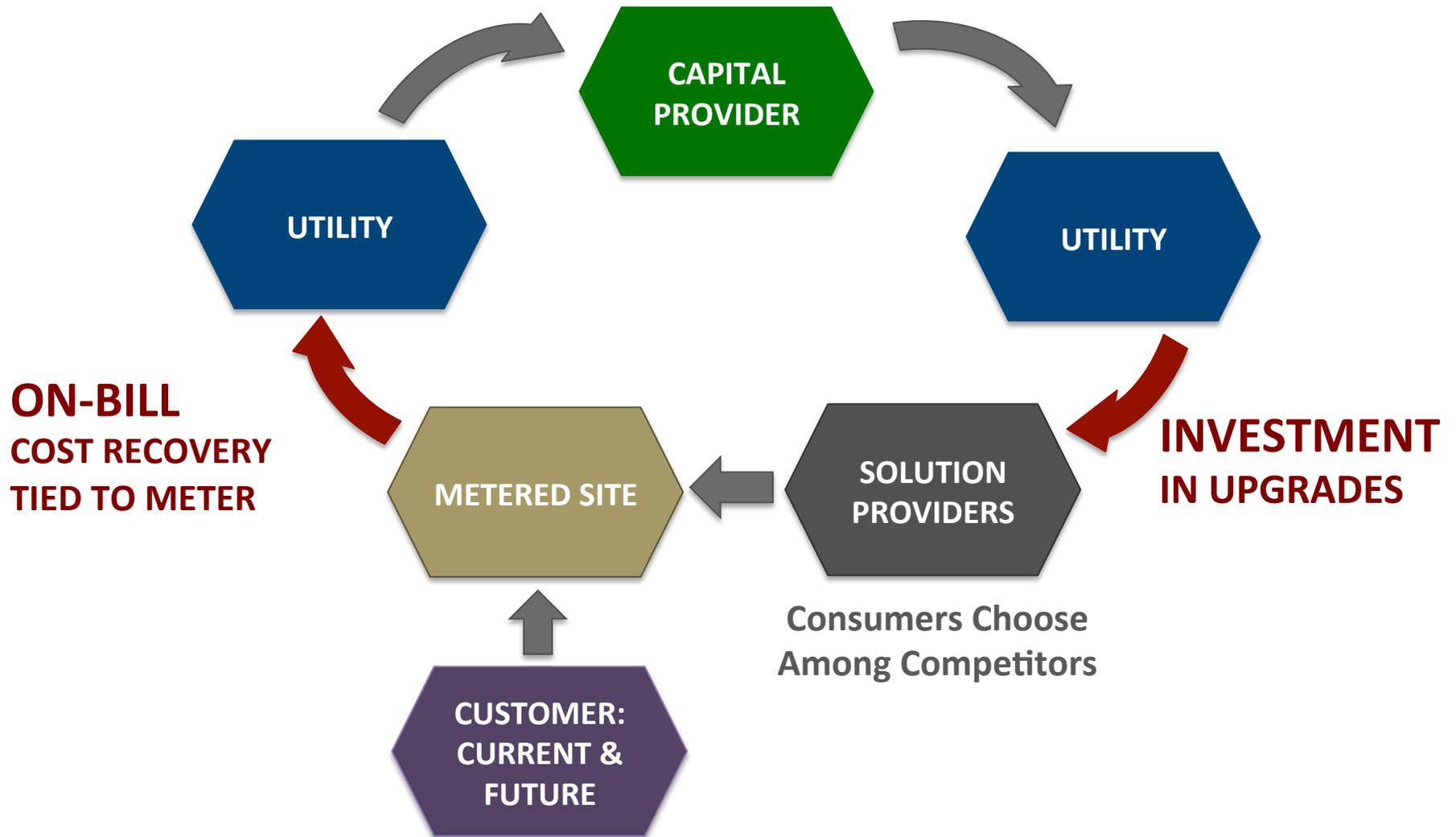


# LOAN REPAYMENT VIA PACE FINANCING



# PAY AS YOU SAVE<sup>®</sup> (PAYS<sup>®</sup>)

PAYS offers all utility customers the option to access cost effective energy upgrades using a proven investment and cost recovery model that benefits both the customer and utility.



## **Attachment B:**

Comparison chart for  
PAYS<sup>®</sup>, on-bill lending, and PACE



# Attributes of Financing Approaches for Energy Upgrades

Attributes	Pay As You Save <sup>®</sup> (PAYS <sup>®</sup> )	Home Energy Lending Program (HELP)	Property Assessed Clean Energy (PACE)
<b>Customer Eligibility</b>			
• Residential customers are eligible	✓	✓	✓
• Commercial customers are eligible	✓		✓
• Renters are eligible	✓	4	
• No credit score check	✓	✓	
• Eligibility includes all customers in a utility's service territory	✓		
• Utility uses bill payment history to confirm good standing		✓	
• Eligibility includes all customers in a local tax jurisdiction			✓
<b>Customer Experience</b>			
• Energy assessment identifies cost-effective upgrades	✓	✓	✓
• Customer chooses contactor for installation	✓	✓	✓
• No upfront customer cost	✓	✓	✓
• Estimated savings must exceed cost recovery charges	✓	✓	
• Customer signs a promissory note to accept a debt obligation		✓	
• Customer opts into a utility tariff tied to the meter	✓		
• Customer agrees to disconnection for not paying utility bills	✓		
• Cost recovery is through a fixed charge on utility bill	✓	✓	
• Customer agrees to a lien on the property			✓
• Cost recovery is through property tax bill			✓
• Payments end if upgrade fails and is not repaired	✓		[✓] <sup>2</sup>
• Participant's charges end when they leave the location if they have fulfilled their responsibilities, e.g. maintaining upgrades	✓		[✓] <sup>3</sup>
• Tariff runs with the meter and remains in effect for subsequent customers at that location until cost recovery is complete	✓		[✓] <sup>3</sup>

<sup>1</sup> One utility is piloting financing for renters where the building owner agrees to facilitate collections.

<sup>2</sup> Some PACE project developers market a performance guarantee.

<sup>3</sup> Because real estate negotiations commonly adjust the sale price based on the value of outstanding liens, the negotiations may ultimately obligate the seller to pay the outstanding balance on the investment.