

FINANCE PRIMER

The Goal of the this Short
Presentation is to Describe the
Who and *How* of EE Finance
Programs

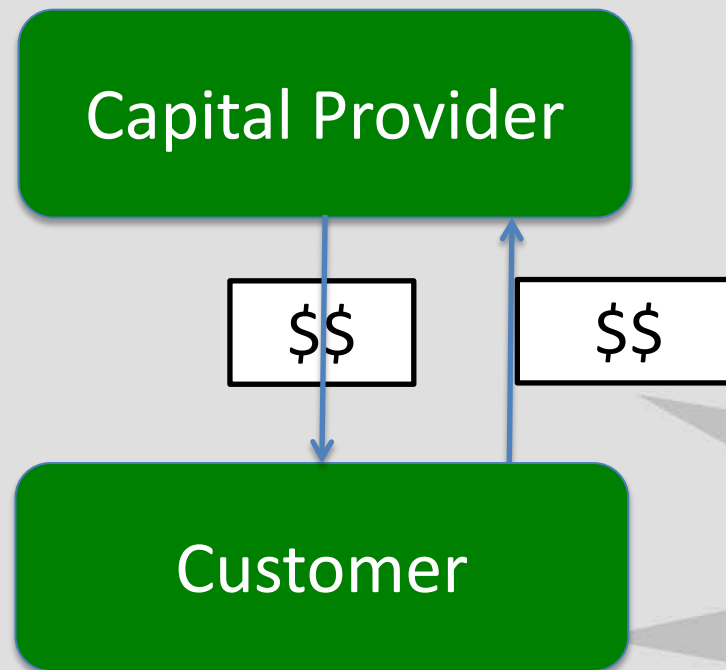


Harcourt Brown & Carey

ENERGY & FINANCE

FINANCE: A Means to Get Money from a Capital Provider

To a Customer — and Back from the Customer Over Time



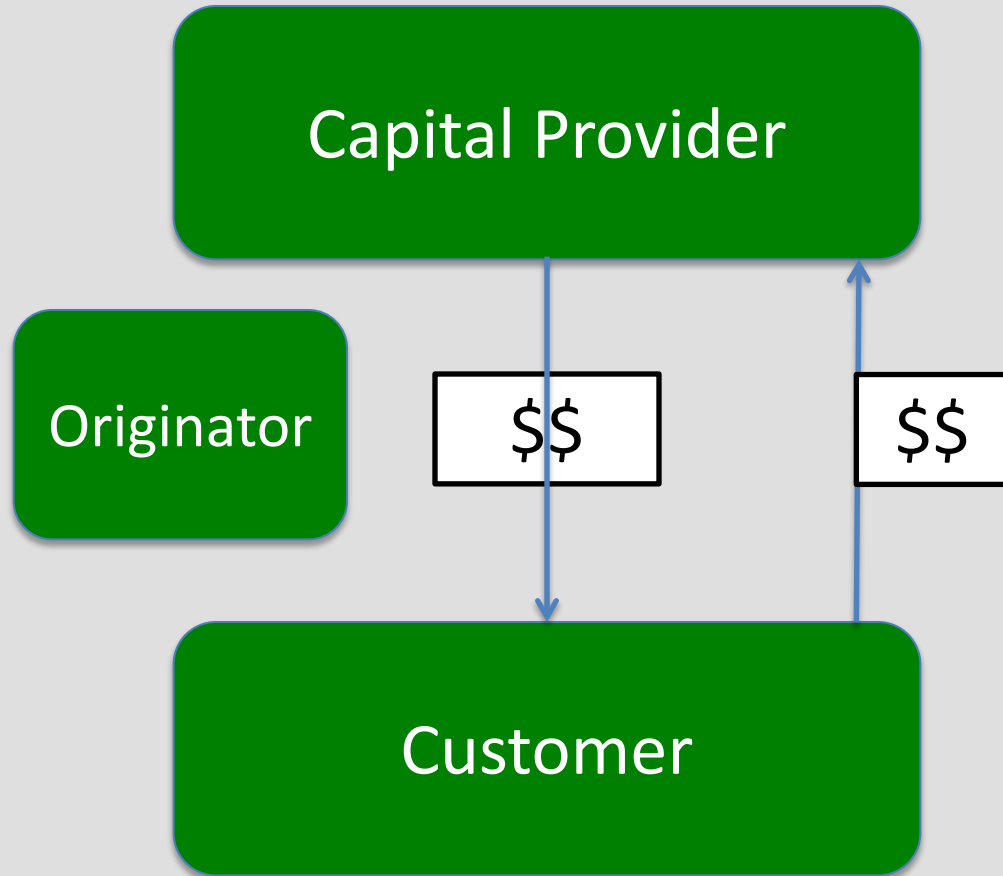
CAPITAL PROVIDER

It All Starts with the "Who"

Questions to Consider

1. Whose money are you deploying? (sometimes more than 1 source)
2. What is the purpose or mission of the money?
3. How much money do you have?
4. How much money do you need?
5. What is the risk associated with the money?(credit, interest rate, and counterparty risk)

Who Manages the Flow of Money?

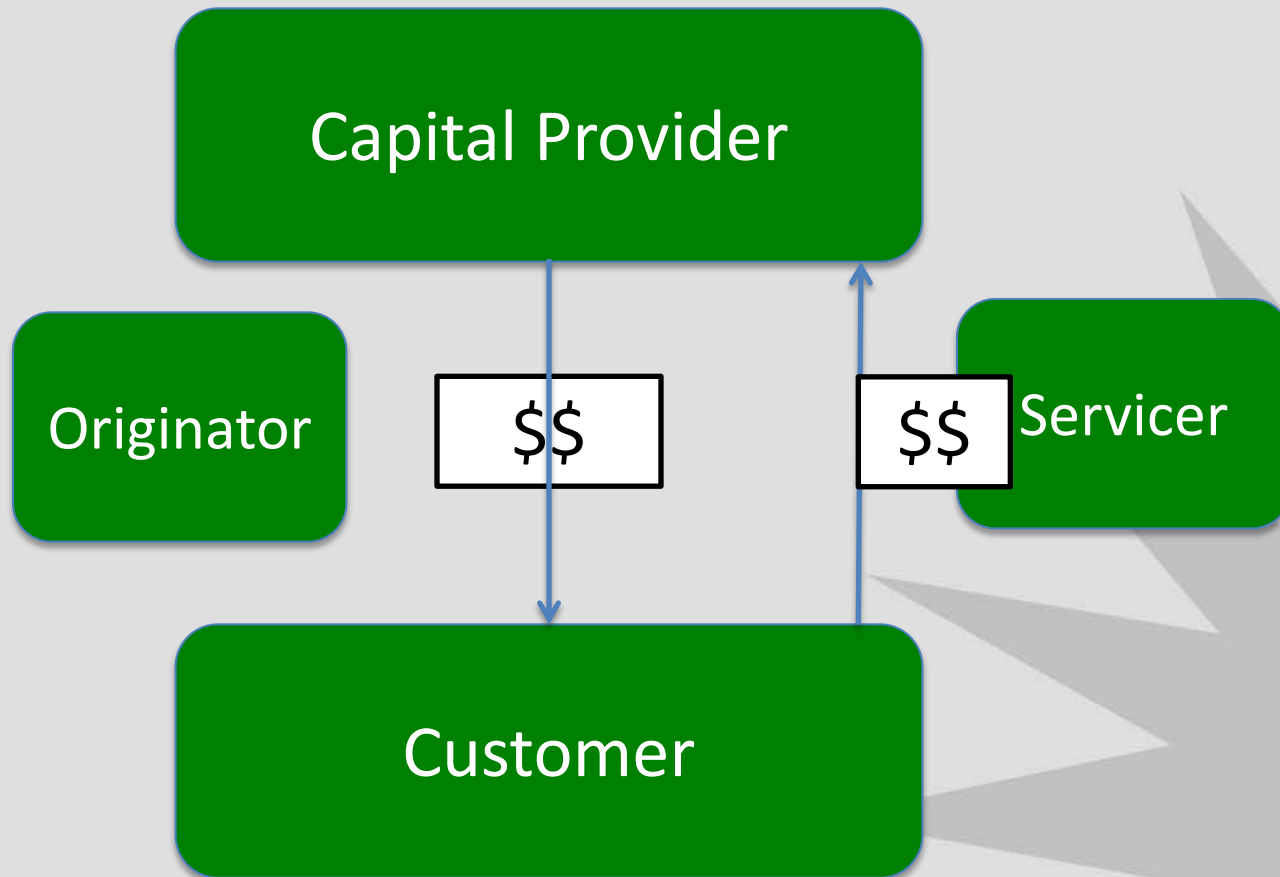


AN ORIGINATOR:

1. Takes in the financing application
2. Underwrites the application (pulls credit scores, files liens if necessary etc.)
3. Creates and documents the finance instrument.
4. A finance instrument is a contract to pay back capital over time. Typically a loan, a lease or a service agreement (eg. a tariff)
5. This obligation **MUST** comply with all applicable regulations and laws.
6. **Who originates?** Regulated financial institutions (credit unions, banks, CDFIs) OR 3rd party originators (WECC, AFC First)



Who Manages the Flow of Money?

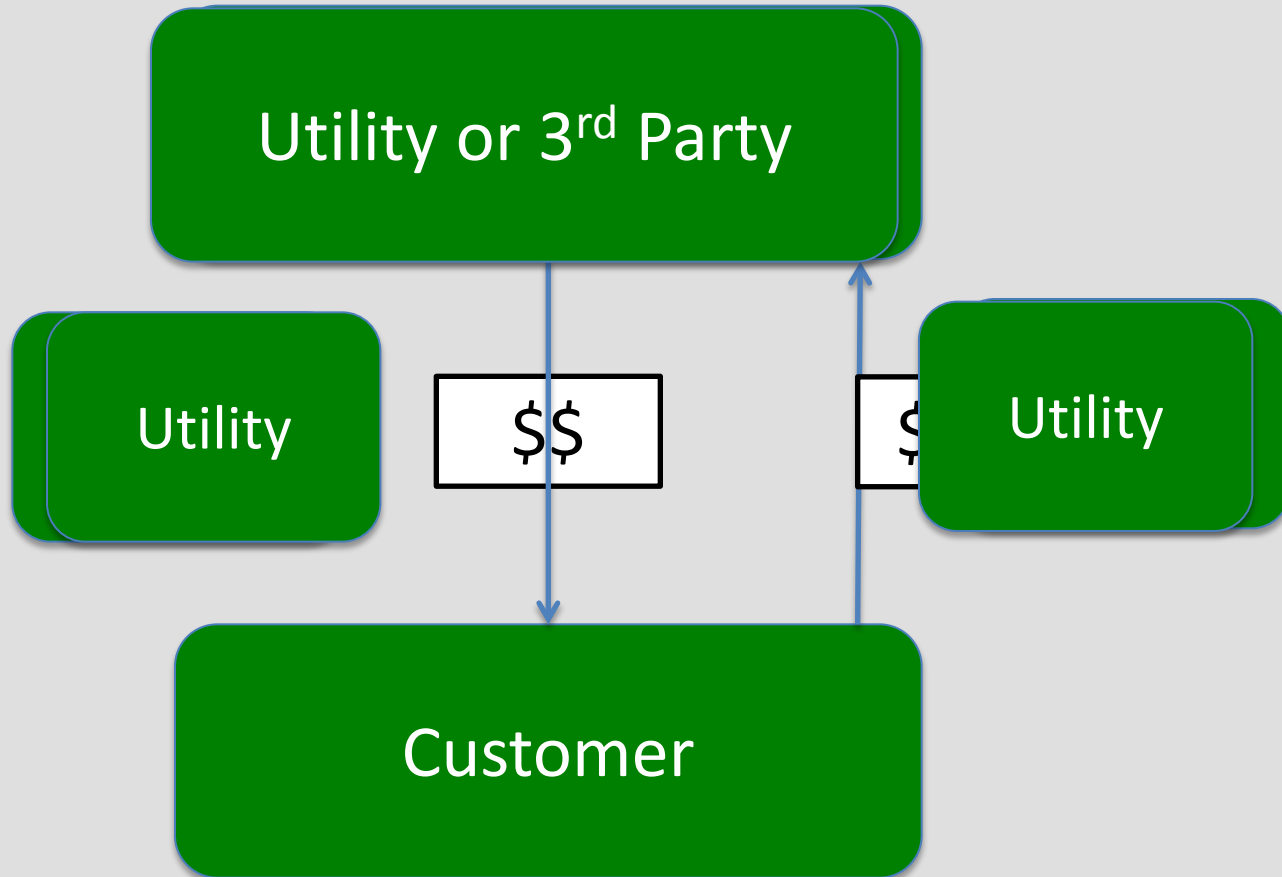


SERVICER

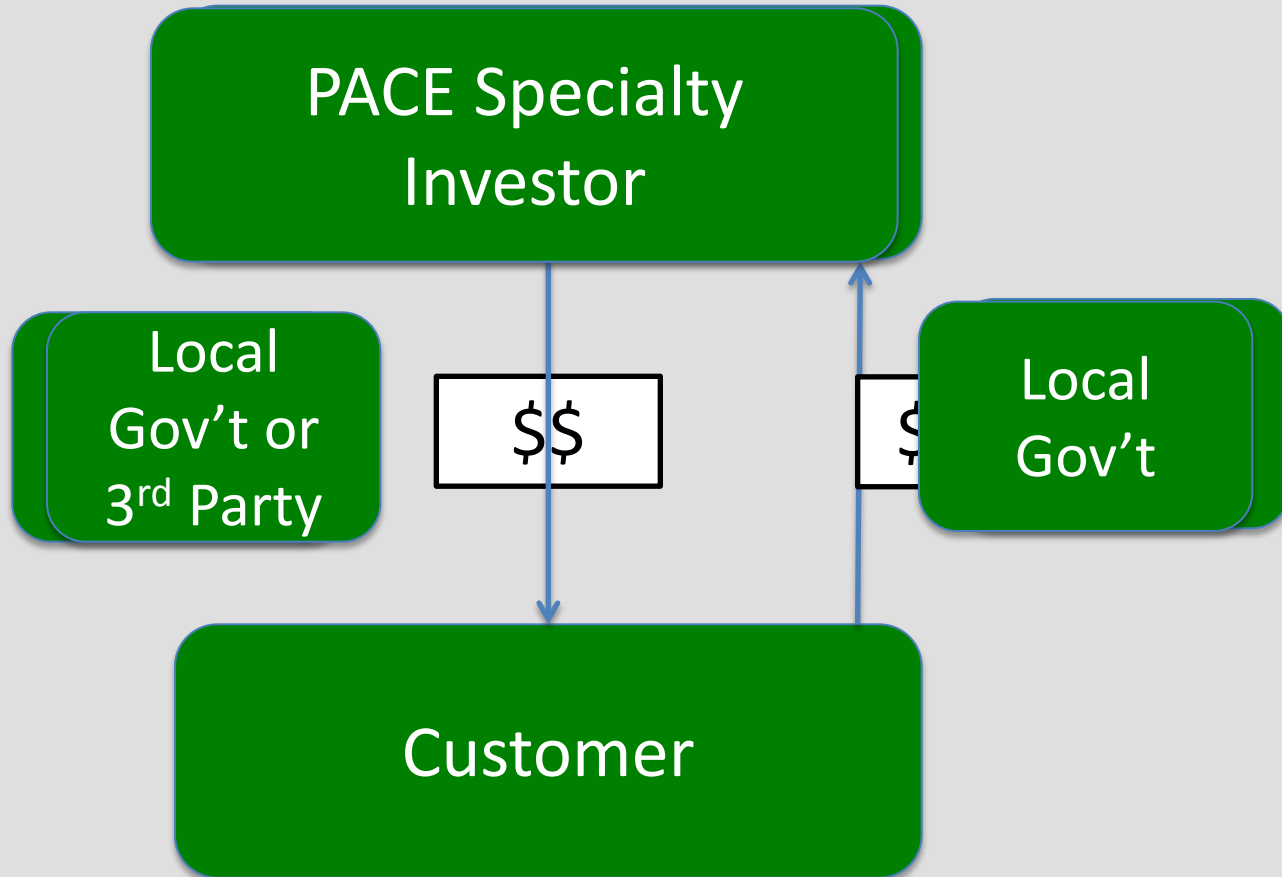
1. A servicer calculates payments due, adjusts payments due/dates due in the case of pre-payments, tracks/reports on delinquencies, addresses charge-offs, collections after charge-off, provides reporting etc.
2. Complies with relevant lending laws and regulations.
3. Who services? Regulated financial institutions (credit unions, banks, CDFIs) OR 3rd part servicers. (They don't have to have their own capital)



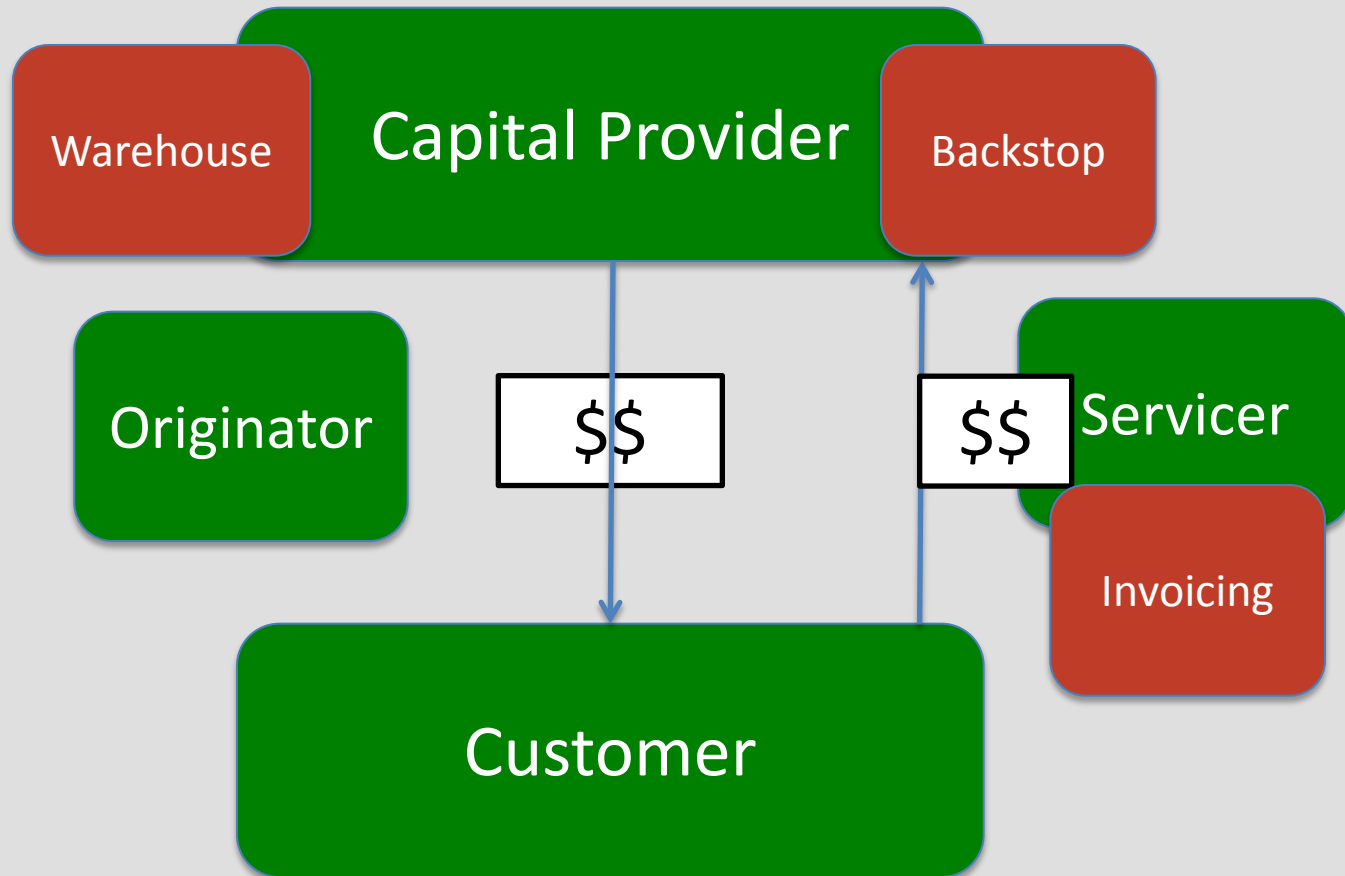
What About Utility On-Bill Programs?



What About PACE Programs?



What Role for the Gov't or Utility?



Conclusion

- EE finance invokes a limited universe of functions.
- EE finance is unique in that it can overlay these functions with other non-finance servicing, origination or capital provision.
- The roles of utilities or governments can vary tremendously based on financial, personnel and other resources, policy goals, tolerance for risk etc.



RESOURCE SIDES

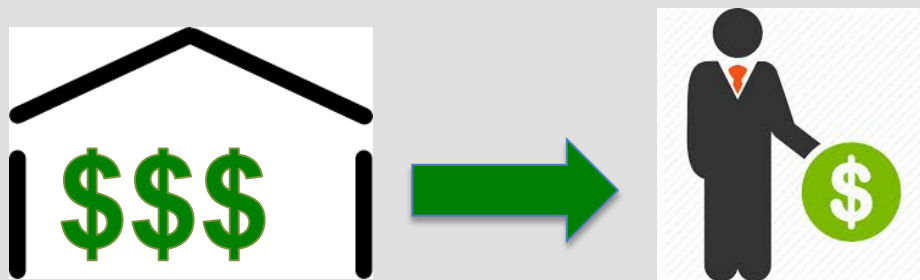


BELLS & WHISTLES

Warehouse

A means to access additional capital:

Originate a pool of loans, put them into a “warehouse” and then sell them to an investor(s).



* Investors do not want to buy every loan in a portfolio, they want yield related to risk. Every loan they buy has to comply with 1) their return expectations and 2) regulations regarding what they can hold on their books. If there is a mis-match, there will need to be a credit enhancement...

BELLS & WHISTLES

Credit Enhancement

A credit enhancement supports backstops a bundle of financing and provides assurance that the capital provider will be repaid.

Credit enhancements reduce credit/default risk and expand underwriting and reduce interest rates or lengthen term.

Come in a variety of forms:

- Loss reserves
- Guarantees.

Credit enhancements make investors willing to purchase bundles of loans that they otherwise would not consider purchasing.



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Spectrum of Utility Roles in On-Bill Programs

On-Bill Invoice

3rd Party Bill
(utility capital -
credit
enhancement)

3rd Party Bill
(utility
capital/ware
house)

3rd Party Bill
(utility
capital)

On-Bill
Finance
(utility
operated,
utility risk,
utility capital)

3rd Party Bill - 3rd party originates and services

The graphic illustrates the spectrum of options for utility engagement in efficiency financing (only one of which involves a utility engaging in all three roles of providing loan capital, origination and servicing).



Understanding Your Market

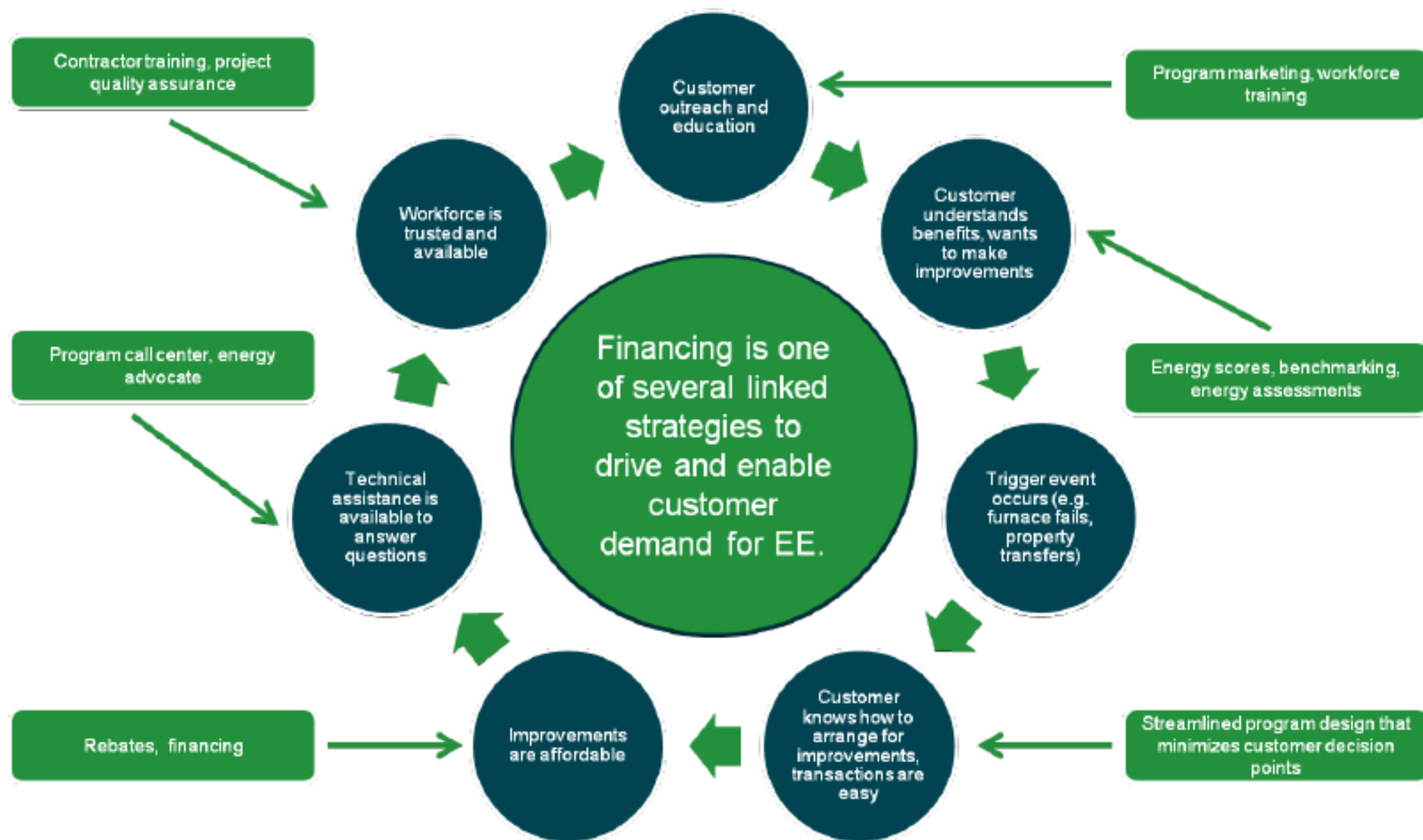
A Gap and Resource Analysis

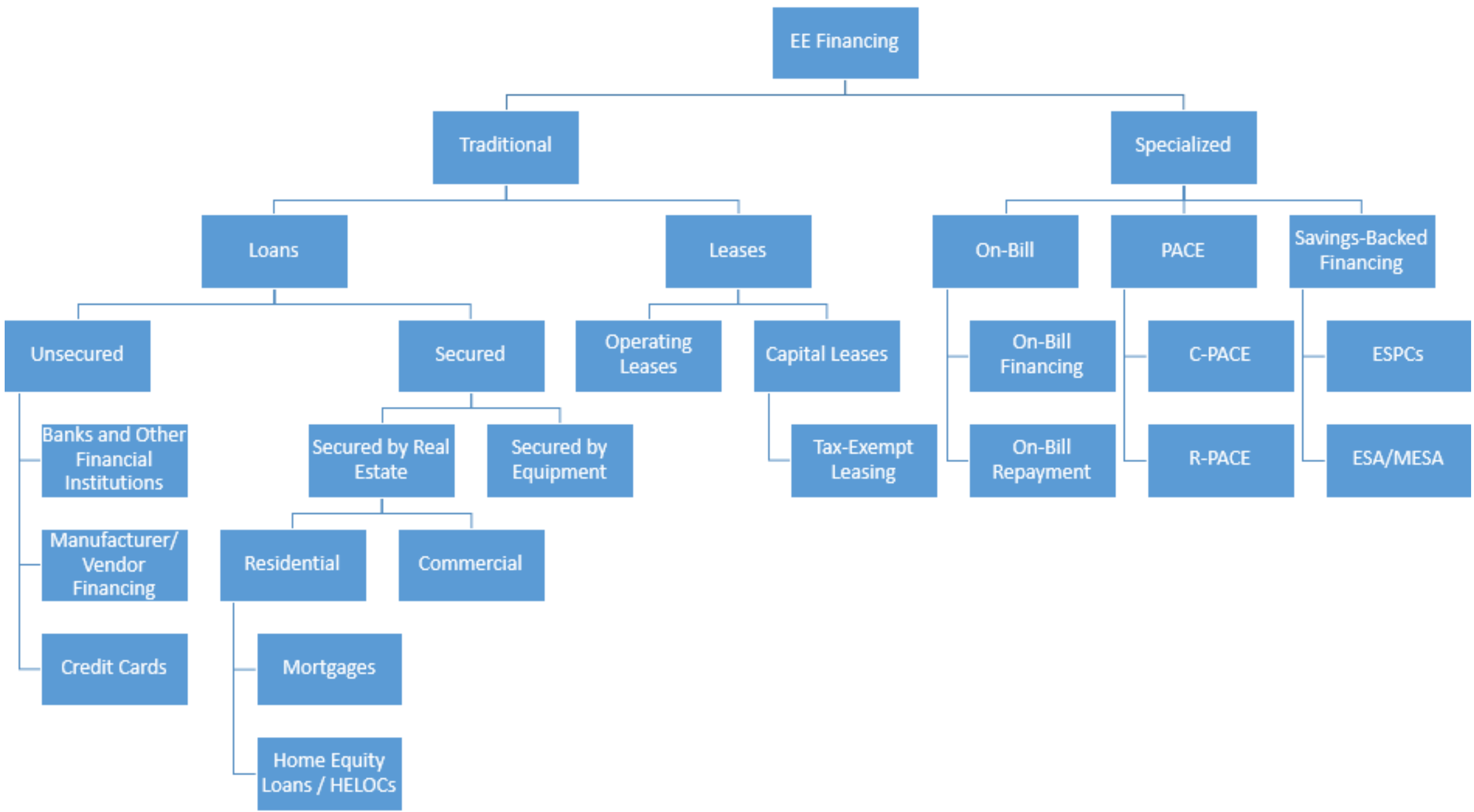
Better Building Summit: Finance Workshop

Tuesday, May 10, 2016

10:30 – 11:15

Strategies to drive and enable consumer demand for EE (SEE Action 2013).





Financing Barriers

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graph TD; A[Financing Barriers] --> B[Barriers Addressed by Financing]; A --> C[Barriers To Financing];
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Barriers Addressed by Financing

- Upfront Costs
- Short Payback Focus
- Uncertain Occupancy Duration
- Owner/Renter Split Incentives

Barriers To Financing

- Credit Status
- Inconvenience
- Debt Aversion and Debt Limits
- Performance Risk

Barriers Addressed by Financing: Product Solutions

Barrier	Financing Solution
Upfront Costs	Spread Out Repayments
Short Payback Focus	Cash-Flow-Positive Financing
Uncertain Occupancy Duration	Transferability
Owner/Renter Split Incentives	Pass-Through Repayments

Barriers To Financing: Product Solutions

Barrier	Financing Solution
Credit Status	Flexible Underwriting Criteria
Inconvenience	Quick and Easy Approvals
Debt Aversion/Debt Limits	Non-Debt Products
Performance Risk	Guaranteed/Shared Savings

Barriers and Solutions: Key Markets

Barrier	Solution	SF-GEN	SF-LMI	MF-AF	MF-MKT	C&I-SB	C&I-L	MUSH
Upfront Costs	Spread Out Repayment	●	●	●	●	●	●	●
Short Payback Focus	Positive Cash Flow	○	●	●	○	●	○	○
Occupancy Duration	Transferability	○	○	○	○	○	○	
Owner/Renter Split Incentives	Pass-Through Repayments	○	○	●	●	●	●	
Credit Status	Flexible Underwriting	○	●	●		●		○
Inconvenience	Fast Approvals	●	●	●	○	●	○	○
Debt Aversion/ Debt Limits	Non-Debt Products	●	●	●	●	●	●	●
Performance Risk	Guaranteed/ Shared Savings	●	●	●	●	●	●	●

Barriers and Solutions: Financing Products

Barrier	Solution	Unsecured	Secured	Leasing	On-Bill	PACE	ESPC/ESA
Upfront Costs	Spread Out Repayment	●	●	●	●	●	●
Short Payback Focus	Positive Cash Flow	○	●	○	○	●	○
Occupancy Duration	Transferability				●	●	
Owner/ Renter Split Incentives	Pass-Through Repayments				○	○	
Credit Status	Flexible Underwriting	○	○	○	●	○	○
Inconvenience	Fast Approvals	●		●	●	○	
Debt Aversion/ Debt Limits	Non-Debt Products			○	○	○	○
Performance Risk	Guaranteed/ Shared Savings						●

Jurisdictional Considerations

Category	Features	Financing Considerations
Program Environment	<ul style="list-style-type: none"> Financial resources 	<ul style="list-style-type: none"> Program contribution/leverage Projected demand/scalability
	<ul style="list-style-type: none"> Other existing financing products Other existing EE programs 	<ul style="list-style-type: none"> Product/market niche Program integration
	<ul style="list-style-type: none"> Legislation Utility cooperation 	<ul style="list-style-type: none"> PACE/On-Bill feasibility
Building Environment	<ul style="list-style-type: none"> Building stock Sub-markets (e.g., Small/Large Bus) Industries 	<ul style="list-style-type: none"> Best fit with project opportunities
	<ul style="list-style-type: none"> Ownership/management structure 	<ul style="list-style-type: none"> Split incentives Lender consent (PACE)
Customer Profiles	<ul style="list-style-type: none"> Income Levels Credit Profiles Debt Capacity 	<ul style="list-style-type: none"> Underwriting criteria Cash-flow-positive financing Performance risk Non-debt products

Investing in a Chosen Financing Product

	Complexity	Flexibility	Scalability	Impact
Revolving Loan Fund (RLF)	Low	High	Low	?
Interest Rate Buy-Down (IRB)	Medium	Medium	Low	?
Loan Loss Reserve (LLR)	Medium	Medium	High	?
Subordinate Debt	High	Medium	High	?