



Navigating Commercial Energy Efficiency Financing

Perspectives from the Better
Buildings Challenge

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Better Buildings[®]
CHALLENGE
U.S. DEPARTMENT OF ENERGY

Allies speaking at the 2018 Finance Forum



Agenda

Overview
of current
commercial EE
financing
landscape

**Lessons from
the trenches** on
demystifying EE
financing for
building owners

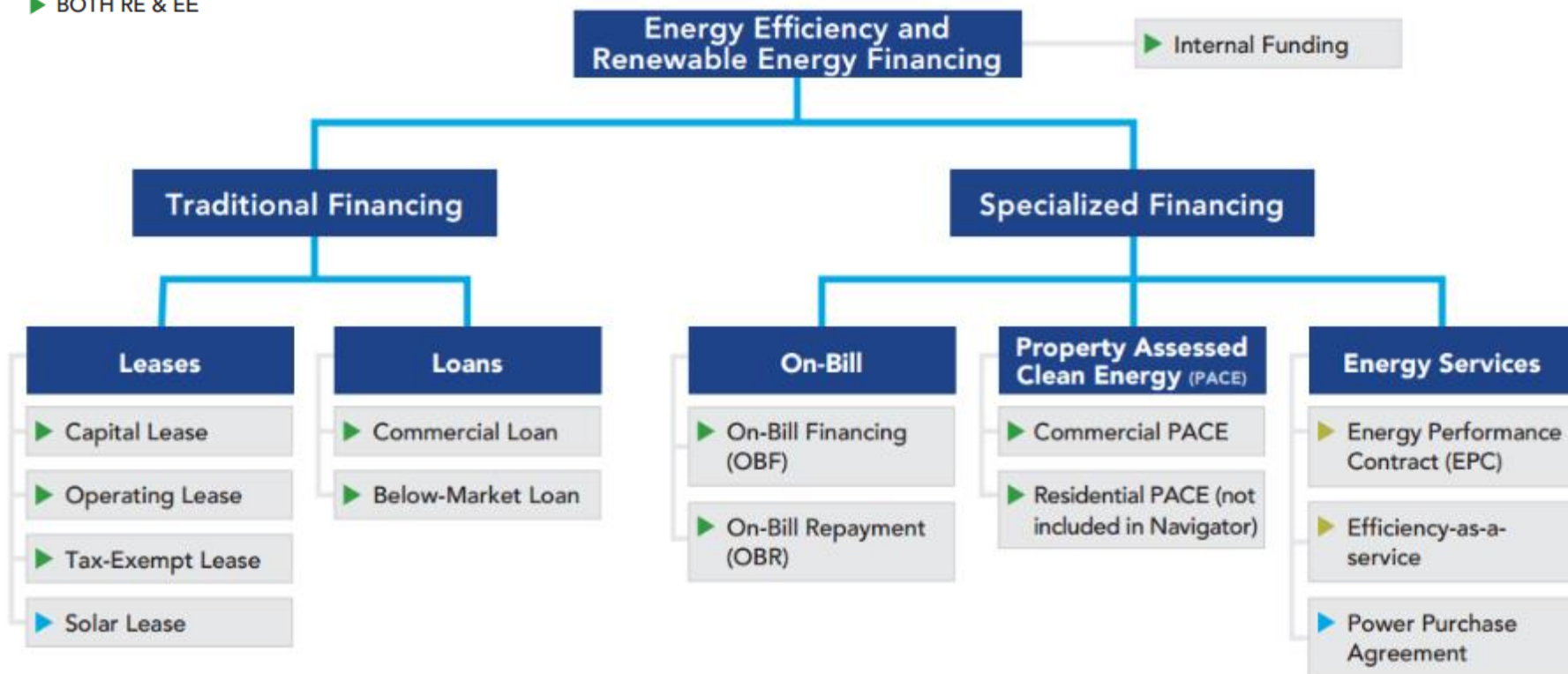
Financing options available in the market

COLOR KEY

▶ RENEWABLE ENERGY (RE)

▶ ENERGY EFFICIENCY (EE)

▶ BOTH RE & EE



Estimated market size by financing option

Type	U.S. Market	Since?	Notes
ESPCs/EPCs	~\$22 Billion	1980s	<ul style="list-style-type: none"> • ESPCs have supported investments of \$45B but only half have used third-party financing • Typically used for large scale federal & MUSH projects, but also available for C&I
Residential PACE	\$5.1 Billion	2009	<ul style="list-style-type: none"> • Only currently in California, Florida, and Missouri • Majority of activity has been in California
OBF/OBR	\$1.83 Billion	1970s	<ul style="list-style-type: none"> • C&I programs in 22 states as of 2016 • \$0.8B is in commercial sector, the rest in residential
Commercial PACE	\$0.59 Billion	2009	<ul style="list-style-type: none"> • 20 States + DC have PACE programs • 33 + DC have enabling legislation
Efficiency-as-a-service/ESAs	> \$0.2 Billion	2000s	<ul style="list-style-type: none"> • High growth but high uncertainty due to poor data • Off balance sheet option • Financial Allies have completed nearly \$200M • Navigant expects \$1.6B global LaaS industry by 2025
Loans & Leases	Very large	~2000 BCE	<ul style="list-style-type: none"> • High uncertainty due to poor data • Are the underlying instruments behind other financing types which creates further uncertainty • Financial Allies have completed around \$3.8B • Operating leases coming on balance sheet in 2019

3 important lessons

on demystifying efficiency finance for building owners

1 Interest rates are insidious

2 Channel partnerships are king

3 We need not be a reactive industry



**Interest rates
are insidious**

Checklist for conversations with building owners

X

Have you thought beyond interest rate?

X

Is cashflow positivity important?

X

Balance sheet and ownership preferences?

X

Level of installation and maintenance support?

X

Is transferability on building sale a factor?

X

Do you need a scalable, enterprise-wide solution?



**Channel
partnerships
are king**

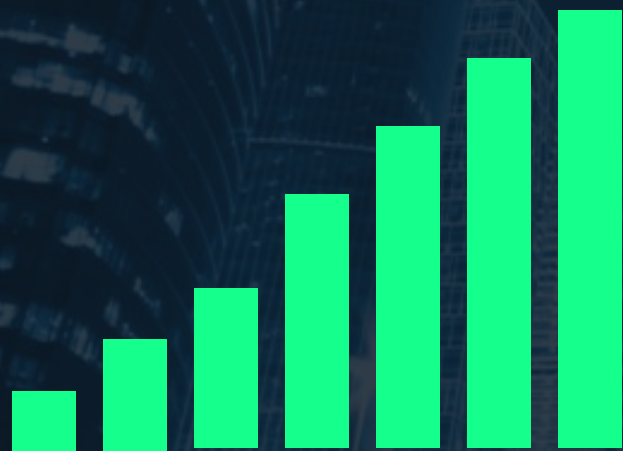
Deal origination channels*

90/10

Channel Partnerships

Direct-to-customer

* Anecdotally cited by many Financial Allies

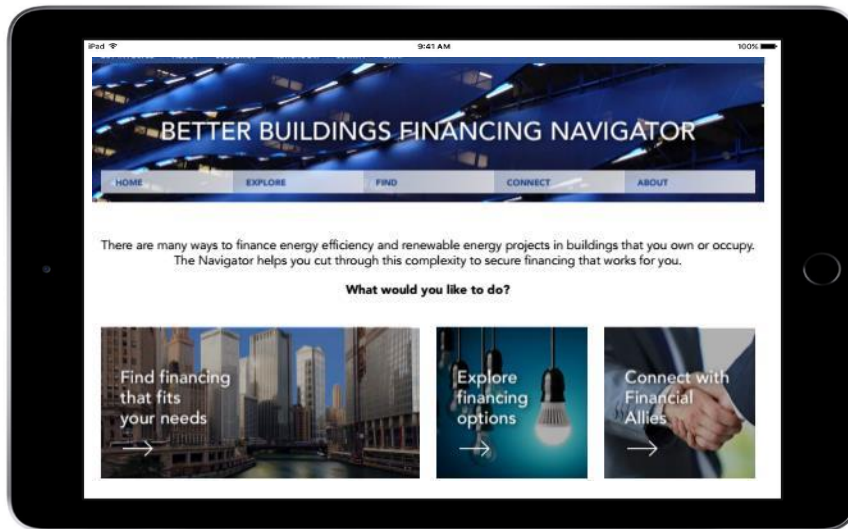


**We need not
be a reactive
industry**

The Better Buildings Financing Navigator

The Navigator is an online tool that helps public and private organizations find financing solutions for EE&RE projects.

With the Navigator, you can...

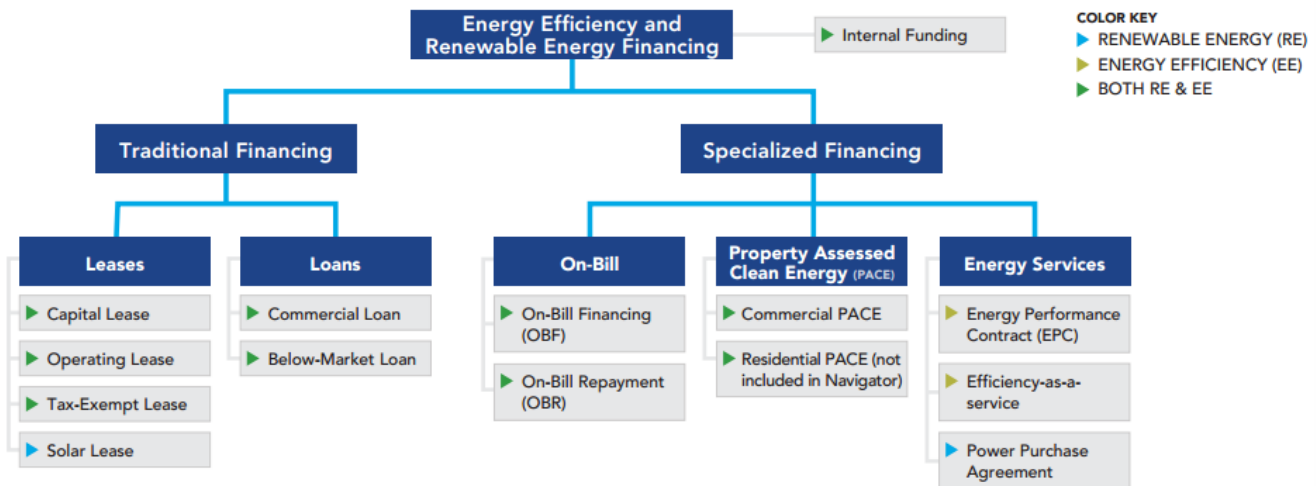


- 1 Explore:** Learn the basics of the EE&RE financing market
- 2 Find:** Answer a few simple questions to see which financing options might be a fit for your project
- 3 Connect:** Speak to Better Buildings Financial Allies who may be able to finance your project

Now available at: <https://betterbuildingsolutioncenter.energy.gov/financing-navigator>

FINANCING LANDSCAPE

The diagram below summarizes the energy efficiency and renewable energy financing options available in the market. "Traditional" options are commonly used to finance these projects in addition to other types of goods and services, whereas "specialized" options are specifically designed for efficiency and renewable energy. Organizations can also fund projects internally without seeking third-party financing. For a more detailed typology of financing options, see LBNL's "[Current Practices in Efficiency Financing](#)" report.



Ready to take the next step? [Answer a few simple questions](#) that will help you find financing options that are right for your organization, or [connect with financing providers directly](#).

FIND FINANCING THAT FITS YOUR NEEDS

Answer the questions below about your organization, project, and preferences, then we'll match you to financing options that might be a good fit. If you have multiple projects in mind, pick a representative project and fill out your answers accordingly. Mouse over the "?" tooltips for guidance. You don't need to answer all the questions, so feel free to leave some responses blank if you are unsure.

TELL US ABOUT YOUR ORGANIZATION

1) Sector (required) ?

- Select -

2) Sub-Sector ?

- Select -

TELL US ABOUT YOUR PROJECT

3) Project Cost (required) ?

\$

4) Building Ownership ?

Owned

5) Project Type ?

Wind Energy

Energy Efficiency

Renewable Energy

Other Generation

YOUR PREFERENCES

6) Do you want the financing to be on or off balance sheet? ?

- None -

7) How important is it to minimize your performance risk? ?

- None -

FINANCING OPTIONS

		OPTION 1	OPTION 2	OPTION 3	OPTION 4
		EFFICIENCY-AS-A-SERVICE	OPERATING LEASE	COMMERCIAL PROPERTY ASSESSED CLEAN ENERGY (CPACE)	ENERGY SAVINGS PERFORMANCE CONTRACT (ESPC)
		CONNECT WITH PROVIDERS >	CONNECT WITH PROVIDERS >	CONNECT WITH PROVIDERS >	CONNECT WITH PROVIDERS >
BASIC ATTRIBUTES	Applicable Sectors	✓	✓	✓	○
	Building Ownership	○	○	✓	○
	Typical Project Size	○	✓	✓	✗
CONTACT STRUCTURE	Contract Complexity	○	✓	○	○
	Guaranteed Savings	✓	✗	○	✓
	Measurement & Verification	✓	✗	✗	✓
TAX & BALANCE SHEET	Balance Sheet Treatment	✓	✓	○	○
	Tax Deductions	—	—	—	—
CONTRACT TERMS	Typical Duration	—	—	—	—
	Typical Close Time	○	✓	○	✗

Typical project size for an ESA is \$250k+, but your project size is \$100k. Some providers may support smaller projects.

VIEW ALL

✓ MATCH
○ PARTIAL MATCH
✗ NOT A MATCH
— NOT IMPORTANT

ADJUST ANSWERS

VIEW SECTOR FINANCING RESOURCES

PRINT TO PDF

CONNECT WITH FINANCIAL ALLIES

FILTER:

Products



Sectors



Technologies



Location



SELECT ALL

Leases

Debts or Loans

Bonds

Energy Performance Contracts (EPCs)

Energy Service Agreements (ESAs)

Property Assessed Clean Energy (PACE)

On-Billing Financing/Repayment

Grants or Below-Market Loans

Power Purchase Agreements (PPAs)

Performance Insurance

Secondary Market Investment & Services



Abundant Power

Designs and delivers energy efficiency financing programs in partnership with states, local governments and utilities nationwide.

[Learn More](#)



Community Investment Corporation

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[Learn More](#)



Rockwell Financial Group

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[Learn More](#)



AFL-CIO

Designs and delivers energy efficiency financing programs in partnership with states, local governments and utilities nationwide.

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Energi Inc.

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Samas Capital

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Bank of America Merrill Lynch

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Enterprise Green Communities

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SCIenergy

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WHAT IS AN ENERGY SERVICES AGREEMENT?

An Energy Services Agreement (ESA) is a pay-for-performance, off-balance sheet financing solution that allows customers to implement energy and water efficiency projects with no upfront capital expenditure. The ESA provider pays for project development, construction, and maintenance costs. Once a project is operational, the customer makes service payments that are based on actual energy savings, resulting in immediate reduced operating expenses.

SEE CASE STUDIES



CONNECT WITH PROVIDERS



AN ESA MAY BE A GOOD FIT IF YOUR ORGANIZATION

- ▶ Wants to pursue retrofits across your portfolio without spending your own capital
- ▶ Prefers off-balance sheet treatment for the delivery of efficiency services
- ▶ Wants a pay-for-performance solution where a third party takes on performance risk and provides project management and maintenance
- ▶ Is looking for a financing mechanism with a contract term ranging from 5 to 15 years, with periodic buy-out options

To compare ESAs to other financing options that might be a good fit, [answer a few questions](#) about your organization.

Energy Services Agreement Structure



FINANCING NAVIGATOR RESOURCES

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FACT SHEETS



Lease Financing

A lease is a simple financing structure that allows a customer to use energy efficiency equipment without purchasing it outright. The two most common types are on-balance sheet capital leases and off-balance sheet operating leases. Public sector organizations can also take advantage of tax-exempt leases. At the end of the lease, the customer may have the option to purchase the equipment, return the equipment, or extend the contract, depending on the type of lease used. Lease financing is offered by many equipment manufacturers and vendors as well as third-party lessors. (Note that operating leases must be reported on balance sheet as of 2019-2020.)



Loan or Debt Financing

Customers can borrow money directly from banks or other lenders to pay for energy efficiency projects. The customer must then arrange the purchase, installation, and management of equipment by a third-party contractor or in-house staff. Loan financing is offered by many equipment manufacturers, vendors, and contractors as well as third-party banks and lenders. Loan terms and availability may be affected by the creditworthiness of the customer, limitations on debt that can be taken on the balance sheet, or current debts held by the customer.



On-Bill Financing/Repayment

On-bill financing (OBF) and repayment (OBR) are financing options in which a utility or private lender supplies capital to a customer to make energy efficiency improvements and is repaid through regular payments on an existing utility bill. The benefits of OBF/OBR include low-to-zero interest rates, simple contract structure, and streamlined repayment. However, OBF and OBR are only available in regions where utilities support on-bill programs.



Commercial PACE

Commercial property-assessed clean energy (CPACE) is a financing structure in which building owners borrow money

U.S. DEPARTMENT OF ENERGY



**AUGUST 21-23,
2018**

CLEVELAND, OHIO

- **2018 Energy Exchange and Better Buildings Summit**
- August 21st-23rd in Cleveland, OH
- Registration is open! Early bird registration ends June 15th
- Highlights include:
 - Panel sessions and technical trainings (earn CEUs)
 - Peer-to-peer discussions
 - Ask-an-Expert/FEMP Lounge
 - Networking opportunities
 - Pre- and post-conference workshops
 - Better Buildings Partner sessions
 - Building Tours

*For more information and to register:
2018energyexchange.com*



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Thanks!

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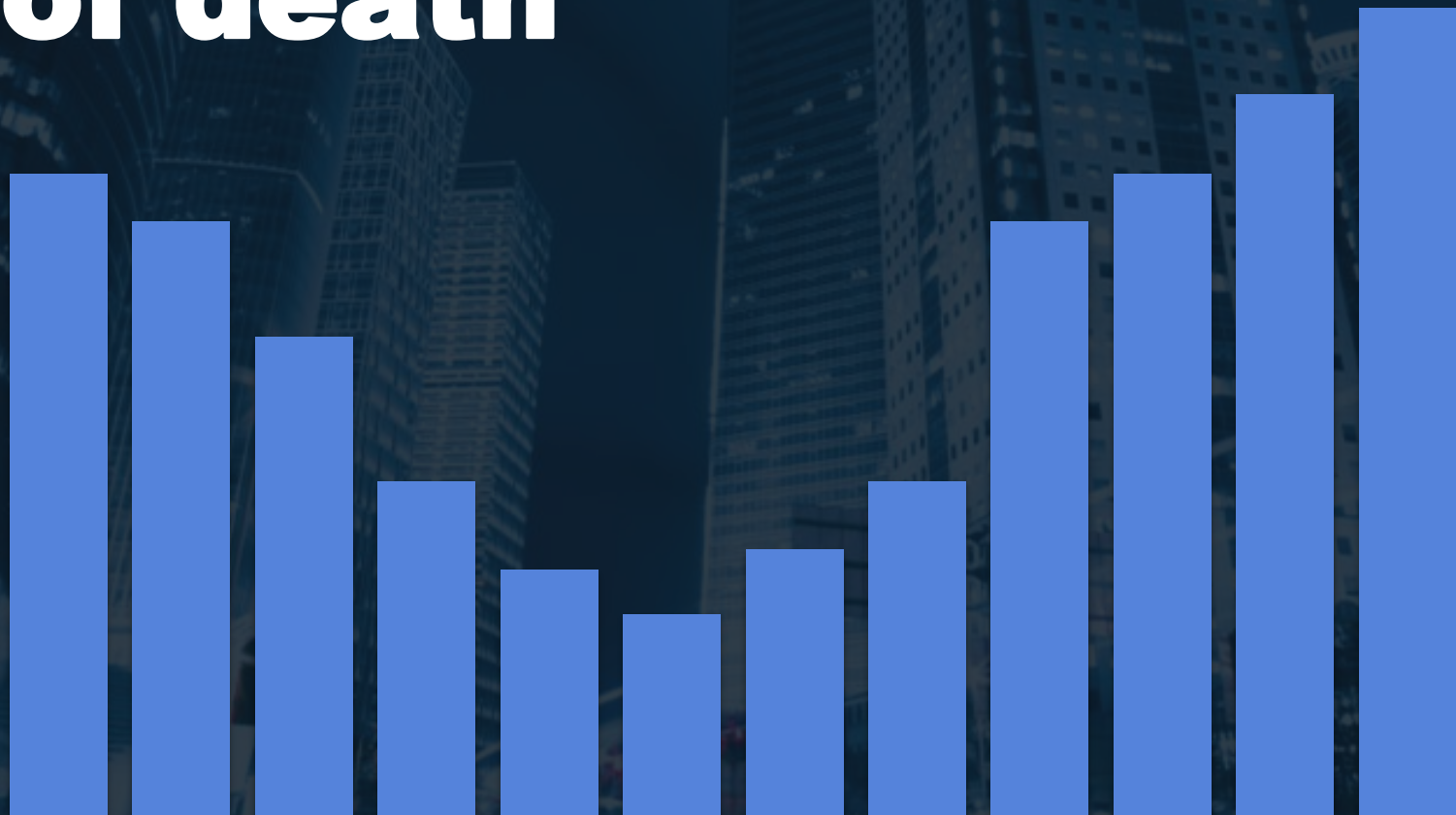
Who are the Financial Allies?

- 43 leading financing companies
- Mostly project originators
- Some institutional secondary market investors (e.g. Citi) and specialty providers (e.g. Energi)
- Active in all sectors including C&I, MUSH, multifamily, and residential across the U.S.
- Represent large, medium, and start-up companies
- Funded \$12B since 2012, with \$3.5B in 2017 alone

The background is a dark blue-tinted photograph of a modern city street. Several tall skyscrapers with glass facades are visible, reaching towards the top of the frame. In the foreground, there are traffic lights and street markings, suggesting a busy urban intersection. The overall atmosphere is professional and modern.

Appendix

The customer acquisition valley of death



The customer acquisition valley of death



Goals of the Financial Allies program

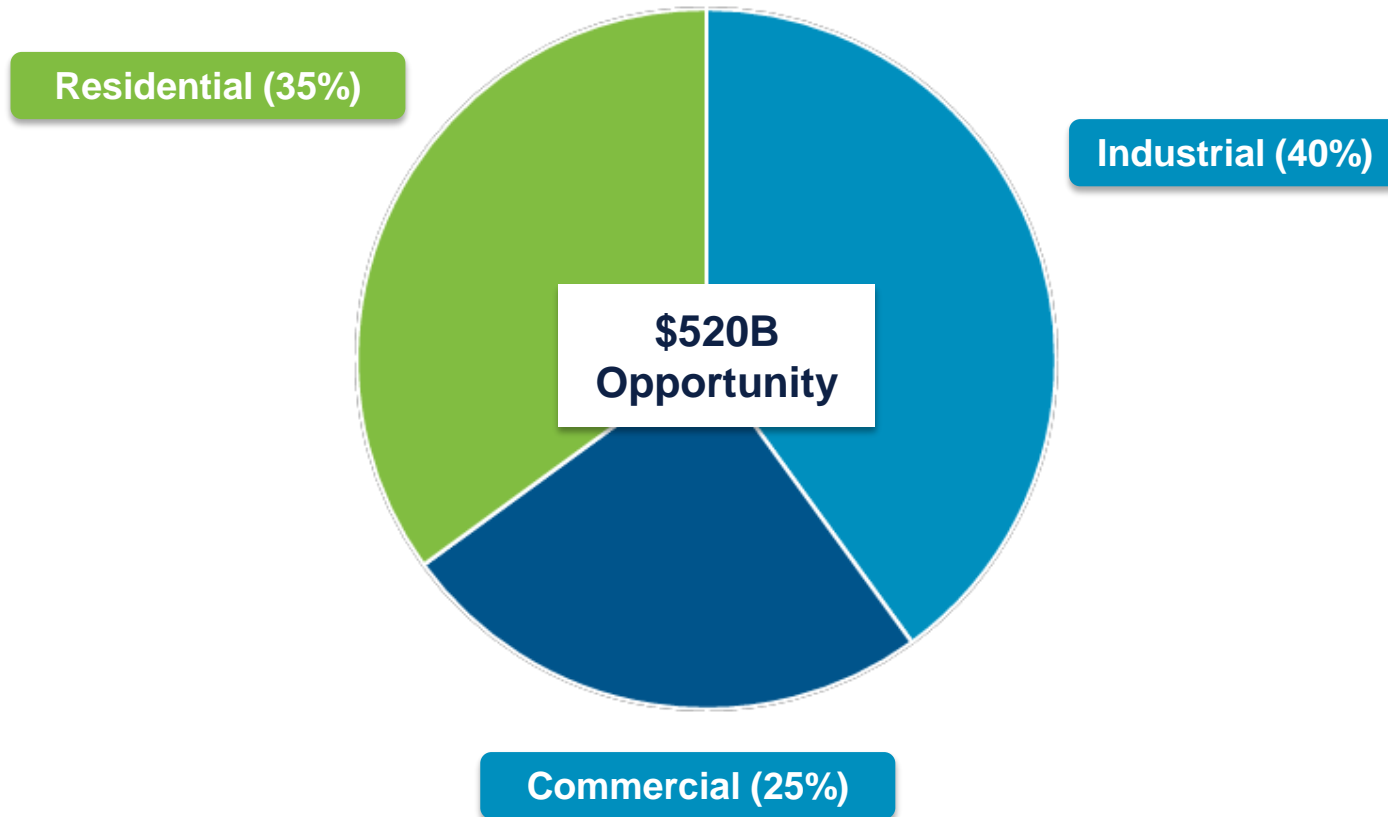
Recognize the Allies
for their success

Educate the market
about financial
products available

Connect building
owners and vendors
with financing providers

Unlock the market with
implementation models
and best practices

Opportunity by Sector



Source: Unlocking Energy Efficiency in the U.S. Economy (McKinsey, 2009)

Commercial Opportunity by Building Size

Large Buildings (53%)

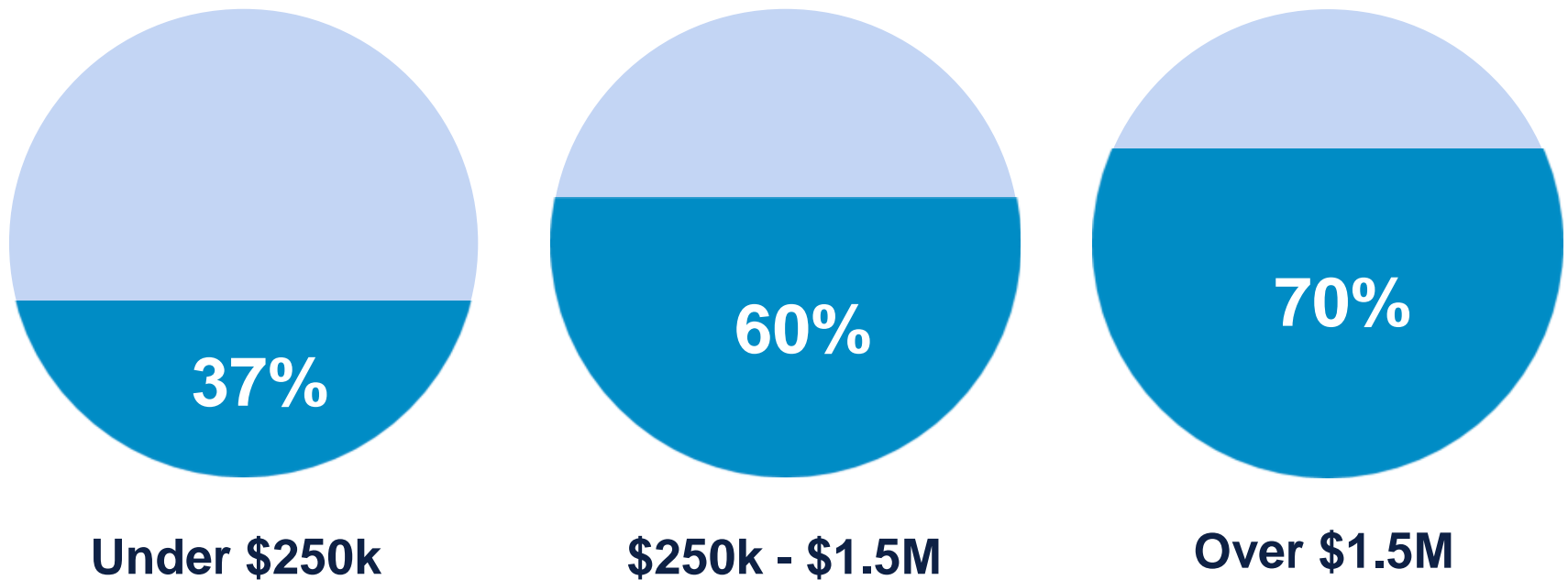
- Buildings over 50,000 SF
- Typically support projects \$1M+



Small Buildings (47%)

- Buildings under 50,000 SF
- Projects often less than \$1M

Easily accessible financing by project size



Source: Efficiency Financing And Insurance Survey (Joule Assets, 2013)