



Financing Energy Efficiency Projects

What to Know Before You Sign

Neil Zabler, President
Catalyst Financial Group, Inc.
In Support of EPA's ENERGY STAR® Program
2021

Learning Objectives

In this session we will discuss the PROS and CONS of ***eight different financing options*** that commonly used in conjunction with Energy Services Performance Contracts, and how they help ***overcome common management and financial hurdles***:

- Loans, Capital Leases, Operating Leases, Tax Exempt Lease Purchase Agreements, Power Purchase Agreements, Energy Performance Contracts, Energy Service Agreements and PACE

In addition, we will discuss:

- EPA ENERGY STAR[®]'s financing tools and resources
- How to demonstrate/calculate the ***“cost of delay”*** using **EPA ENERGY STAR's Cash Flow Opportunity Calculator**

Today's Presenter:
Neil Zobler

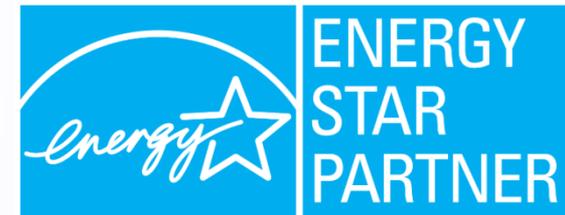


Savings Opportunities in Buildings

- Align with a trusted brand to communicate your energy management accomplishments
- ENERGY STAR partners gain access to a rich variety of promotional materials and the ability to co-brand with ENERGY STAR

Partners commit to:

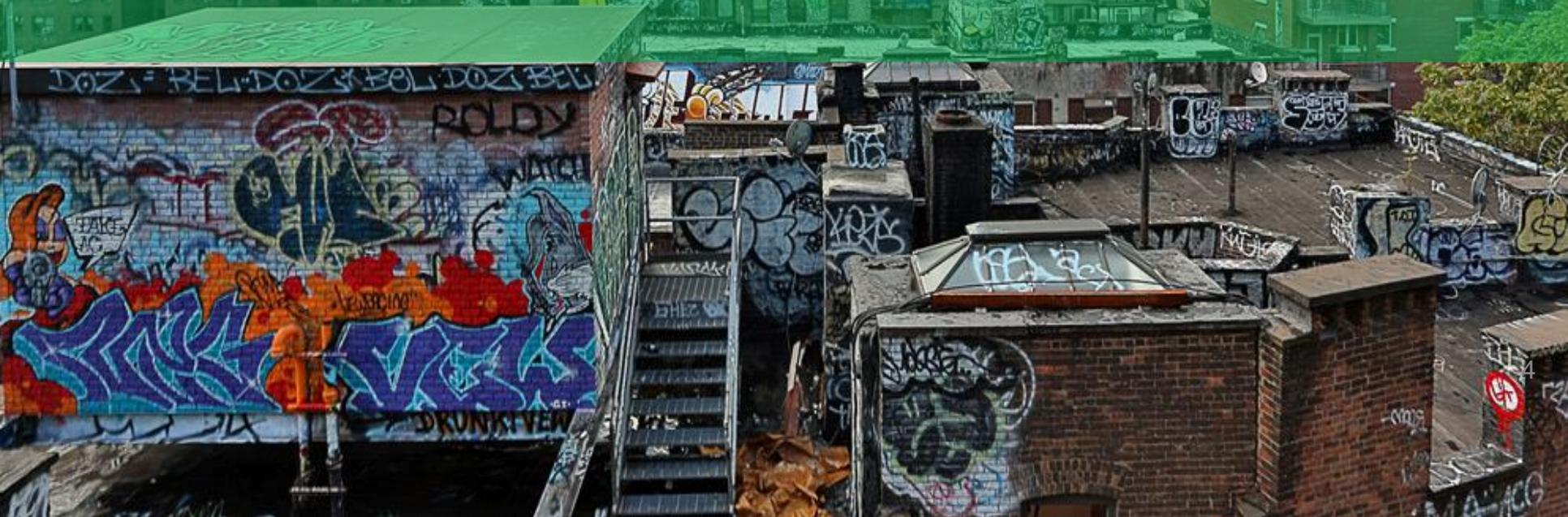
- Measure/track/benchmark building energy use
- Implement a plan to improve energy performance
- Educate and communicate with others about energy efficiency



More information at <http://www.energystar.gov/join>

A wide-angle photograph of a city skyline under a cloudy, overcast sky. The buildings are mostly brick and concrete structures of varying heights. A semi-transparent green horizontal band is superimposed across the middle of the image, containing the text 'FIRST THINGS FIRST' in white, bold, sans-serif capital letters.

FIRST THINGS FIRST



Before Deciding on Financing Options

Choosing best financing alternatives for energy efficiency/renewable energy projects requires strategic planning and self-evaluation.

- 1) First thing - get an energy assessment from qualified service provider
 - Different technologies lend themselves to alternative financing solutions
- 2) Define short and long-term business goals
 - Own or lease space?
 - Growing, reorganizing, or static?
- 3) Understand your financial profile
 - How would traditional lenders score you?
 - Limitations on debt or conflicting covenants?
- 4) Explore possible incentives
 - Utility, Local, State and/or Federal

Finding Money for your projects

Where to Start?

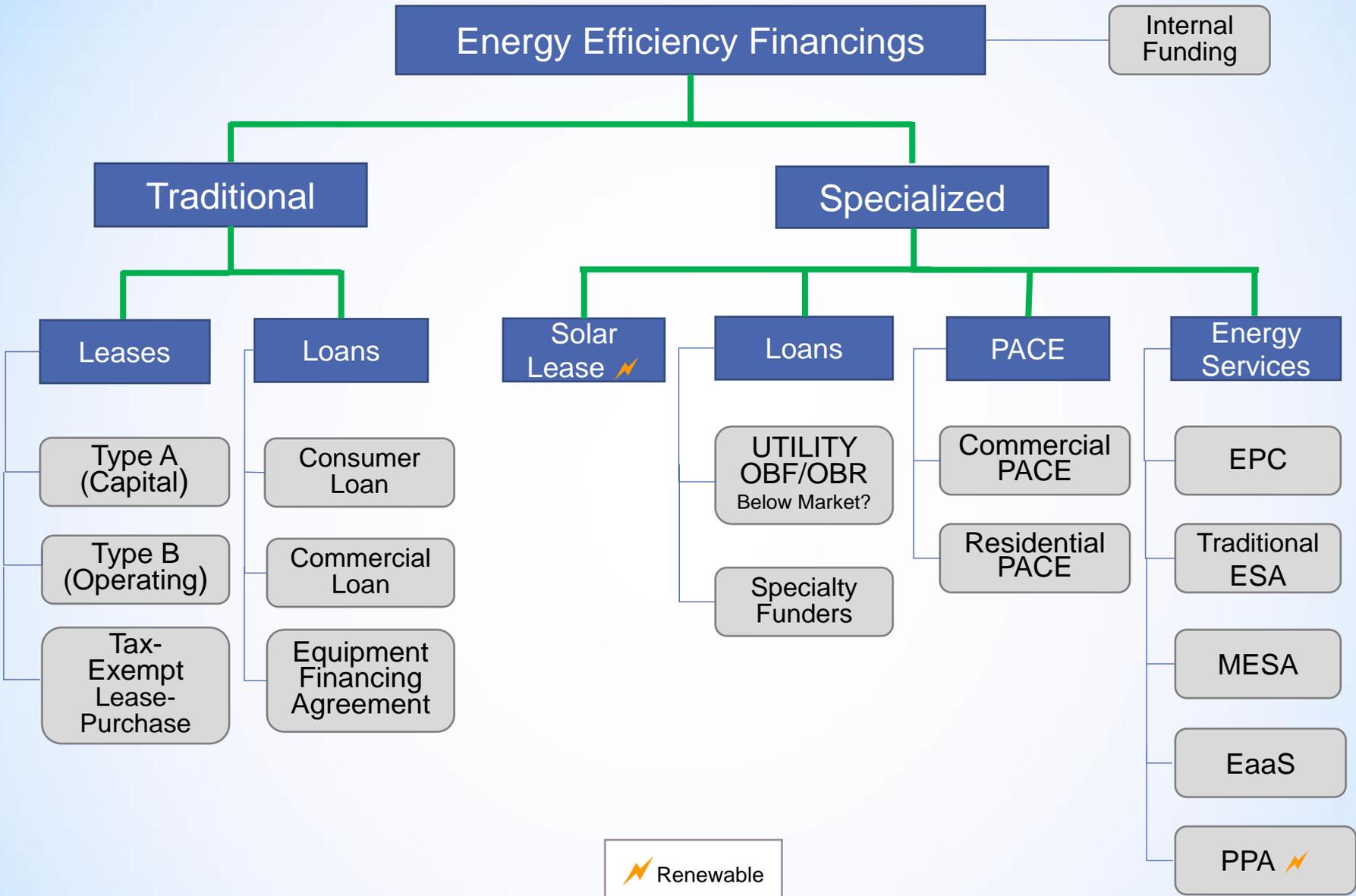
- State Energy Office
 - NASEO.org
 - National Association of State Energy Officials
- DSIREUSA.org
 - Database of State Incentives for Renewables & Efficiency



FINANCING ALTERNATIVES

FOR ENERGY EFFICIENCY PROJECTS





CASH

Owner writes a check

PROs

- Fast

CONs

- Funds not available for other income generating projects
- Maintenance responsibilities*
- Project management risk*

* May be contracted to 3rd party

LOAN

Owner borrows funds for the project

PROs

- Potentially lowest borrowing cost short of paying cash
- Investment Tax Credit (ITC) goes to the owner (borrower), if any

CONS

- Competes against other capital projects
- Reduces credit lines
- Often has restrictive covenants
- May require large down payment
- Internal politics of approval can be lengthy
- Maintenance responsibilities*
- Project management risk*

* May be contracted to 3rd party

A Word About “OFF BALANCE SHEET” Financing

“Off-balance sheet financing means a company does not include a liability on its balance sheet. It is an accounting term and impacts a company’s level of debt and liability.”*

By avoiding additional debt, benefits include:

- Improved financial ratios
 - Profitability (ROI), Liquidity (Current Ratio), Leverage (Debt to Equity ratio), Efficiency (Inventory to Net Working Capital)
- Lower borrowing costs
- May avoid breaking lender covenants (contractual agreement)

ALERT: Financial Accounting Standards Board (FASB) changed the rules by creating special asset (“right-of-use”) and liability (NPV of payments) categories for operating leases.

*www.investopedia.com

TYPE “A” LEASE

(Capital Lease)

This is a "lease to own" structure in which asset title typically transfers at end of lease term. It has the economic characteristics of asset ownership for tax and financial reporting purposes.

PROs

- Access to new credit lines
- Structuring flexibility (step, skip, etc.)
- 100% financing
- Depreciation and interest is tax deductible
- Secured by asset being financed
- Lessee owns asset at the end of term
- Investment Tax Credit (ITC) goes to the lessee (building owner)

CONs

- Because secured only by asset financed, financing cost may be slightly higher than a loan
- Owner responsible for project management*
- Owner responsible for ongoing maintenance costs*
- Politics of internal approval can be lengthy

* May be contracted to 3rd party

TYPE “B” LEASE -or- TAX LEASE (Operating Lease)

This is a long term equipment rental agreement. Asset ownership stays with the Lessor ("lender"). Lessee ("borrower") can purchase the asset at the end of the lease term at it's then fair market value, renew the lease, or return the asset.

PROs

- Access to new credit lines
- Structuring flexibility (step, skip, etc.)
- 100% financing
- Lease payments are tax deductible
- Secured by asset being financed

CONs

- No longer “off balance sheet”
- ITC cannot be used by lessee (borrower)
- Owner may be responsible for project management*
- Owner responsible for ongoing maintenance costs*

Notes: Properly structured “Tax Lease” payments may be expensed for IRS purposes.

SOLAR Leases usually fall into this category.

* May be contracted to 3rd party 13

Taxable vs. Tax Exempt Leases

- Tax exempt = lower interest
 - No Federal Income tax on interest earned
- Public Sector can issue tax exempt (IRS)
 - Eminent Domain
 - Taxing Powers
 - Police Powers
- Private Sector & Large Non-profits must go through Conduit Agency to issue tax exempt
- Public sector does not pay taxes
 - Can't use tax incentives or strategies

TAX EXEMPT LEASE PURCHASE

A tax-exempt lease or lease-purchase agreement is an installment purchase, conditional sale or lease with an option to purchase for nominal value. It may also be referred to as a municipal lease. Only can be issued by a State or political subdivision (i.e., cities, towns, school districts, special purpose districts, etc.) and some not-for-profit organizations.

PROs

- Tax Exempt interest rates (lower than commercial rates)
- Structuring flexibility (step, skip, etc.)
- Usually does not require referendum for approval
- Payments may be subject to Annual Appropriation of Funds
- True Interest Cost (TIC) usually lower than Bond for small-medium projects
- Lessee owns asset at the end of term

CONs

- Politics of approval can be lengthy
- ITC will be forfeited when host doesn't pay taxes
- Maintenance responsibilities*
- Project management risk*

* May be contracted to 3rd party 15

ENERGY (SERVICES) PERFORMANCE CONTRACT

A service providing customers with a comprehensive set of energy efficiency, renewable energy and distributed generation measures often accompanied with guarantees that the savings produced by a project will be sufficient to finance the full cost of the project. Implies working with an Energy Services Company (ESCO).

PROs

- Turnkey service
- Comprehensive Measures
- Project financing (usually a separate agreement)
- Project savings guarantee
- ESCO can help provide monitoring and verification

CONs

- Careful review of contracts to ensure host is only receiving services they want and need

ENERGY SERVICES AGREEMENT

Equipment owned and operated by the energy-efficiency company and not the host. Equipment financing costs are bundled into the fee for service.

PROs

- No upfront costs to host
- Project is managed and maintained by third party
- May be considered “off balance sheet”

CONs

- Careful review of contracts to ensure host is only receiving services they want and need

Common Variations

Traditional ESA – Equipment owned by ESCO; owner pays utility bills

MESAs (Managed ESA) – utility bills managed by an investment fund

EaaS (Energy as a Service) – includes equipment upgrades and replacements, manage bills and suggests alternative energy sources

C-PACE

Property Assessed Clean Energy (PACE) is a financing mechanism that enables low-cost, long-term funding for energy and water efficiency and renewable energy projects. PACE financing is repaid as an assessment on the property's regular tax bill and is processed the same way as other local public benefit assessments (sidewalks, sewers) have been for decades.

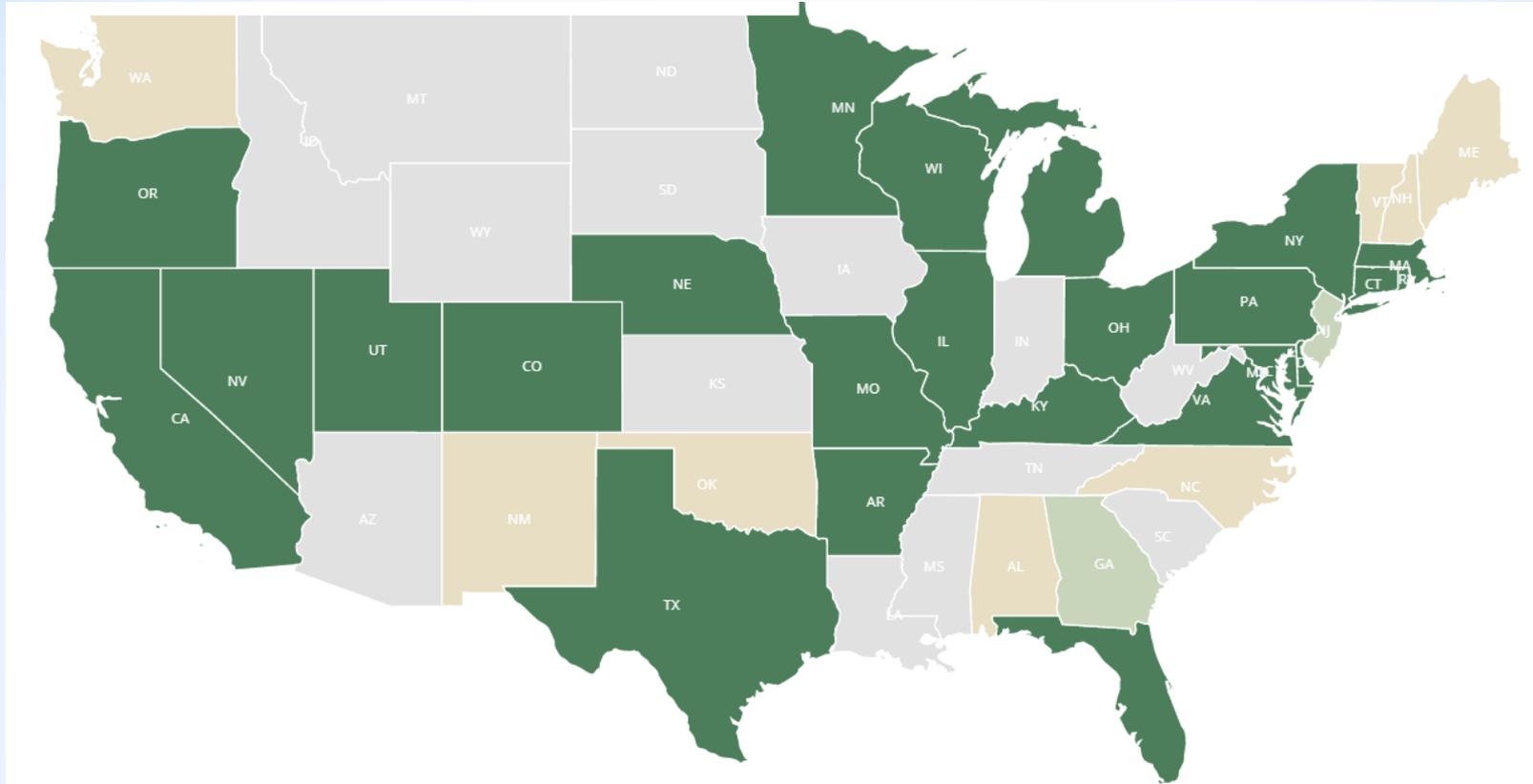
PROs

- Voluntary program
- Up to 100% of a project's hard and soft costs
- Financing terms up to 30 years allowing deep retrofits
- Can be combined with incentive programs
- May stay with building upon sale.
- Filed with the local municipality as a lien on the property
- May be considered "off balance sheet"

CONs

- Requires state and local enabling legislation (36 states and DC approved)
- May require first mortgagee approval
- Property assessments paid once or twice a year
- Total loan amount is generally determined by the "tax capacity" of a property
- Interest rate may be higher than alternatives

Pace Programs



Map key



Active program(s)



Program in development



PACE-enabled

POWER PURCHASE AGREEMENT

A power purchase agreement (PPA) is a legal contract between an electricity generator (provider) and a power purchaser (buyer). Typically includes both electric and hot water. Typically used for renewable energy projects.

PROs

- Minimal, if any, up-front capital costs
- Potential to monetize tax incentives
- Typically a known, long-term energy price
- No/limited operations and maintenance responsibilities
- Minimal risk

CONs

- Contract term limitations
- Transaction costs
- Time to approve project
- Politics to approval can be lengthy
- ITC cannot be used by host/buyer
- Challenges with contract terms and conditions (e.g., take or pay language)

Note: Solar PPAs can be sophisticated and negotiated agreements

IMPORTANT NOTE:

Lists of PROs and CONs show the most common ones and is not intended to be all inclusive



HURDLES BLOCKING EE INSTALLATIONS

Operational Hurdles

- **Limited Staff** – current staff is fully occupied on existing projects and can't focus on a new project
- **Limited Expertise** – current staff is unaware of current technological developments and has neither the product knowledge nor technical expertise needed
- **Too Risky** – unsure if the project will perform as promised and unwilling to commit to the unknown
- **Other Priorities** – in a strong economy, the focus is on income producing projects
- **Not our Core Business** – too busy to spend time looking into something that is not our core business focus

Financial Hurdles

- **Too Expensive** – we can get cheaper equipment however the savings will be less
- **Can't Take on New Debt** – we are not in a position to enter new loans due to existing bank covenants
- **Creditworthiness** – our market is soft and our financial performance is subpar.
- **Return too Low** – In a strong economy, the focus is on income producing projects
- **Capital Budget Constraints** – we just have to wait until the funds are in the capital budget (maybe next year)
- **Payback too Long** – this project doesn't meet our return on investment thresholds (typically 3-5 years)



USE FINANCING TO ADDRESS HURDLES



Overcoming Hurdles with Financing		Cash	Loan	Capital Lease (Type "A")	Operating/Tax Lease (Type "B")	PPA	EPC (ESPC)	ESA (Includes EaaS, MESA)	PACE
Operational	Limited staff					X	X	X	
	Limited expertise					X	X	X	
	Don't have time					X	X	X	
	Too risky					X	X	X	
	Other priorities					X		X	
	Not our core business					X	X	X	
Financial	Too expensive*	X	X	X	X	X	X	X	X
	Can't take on new credit				X	X		X	X
	Creditworthiness								X
	Return too low					X		X	X
	Capital budget constraints				X	X		X	X
	Payback too long					X		X	X

- Considering the cost of delay, any financing provides cash flow improvements versus delaying or not doing the project
Use ENERGY STAR's Cash Flow Opportunity Calculator to determine the estimated Cost of Delay on projects.



ENERGY STAR's FINANCIAL TOOLS



ENERGY STAR®

Financial Value Calculator

Show how efficiency boosts corporate market value

- Quantifies the value of improvements in energy efficiency to your organization.
- Uses the prevailing price/earnings ratio to estimate the market value of increased earnings that can result from increased energy efficiency.

ENERGY STAR®

Building Upgrade Value Calculator

Know the financial impact for owners and tenants

- Evaluates costs and benefits of efficiency investments, for owner and each tenant
- Quantifies expected changes in expense reimbursements under common commercial lease structures
- Directly addresses “split incentive” barrier (who pays/who benefits) of efficiency investment in commercial real estate

ENERGY STAR®

Cash Flow Opportunity Calculator

Know when to finance energy efficiency projects

Answers three questions:

1. How much new energy efficiency equipment can be purchased from the anticipated savings?
2. Should it be financed now, or is it better to wait and use cash from a future budget?
3. Will we lose money by waiting for a lower interest rate?

energystar.gov/buildings/FinancialEvaluation

Quantifying the COST OF DELAY



*“We are paying for energy efficiency projects **whether or not** we do the projects!”*

What Does The CFO Calculator Do?

Addresses three critical questions about installing energy efficiency projects:

1. How much new energy efficiency equipment can be purchased from the anticipated savings?
2. Should this equipment purchase be financed now or is it better to wait and use cash from a future budget? (avoid paying interest)
3. Is money being lost by waiting for a lower interest rate?

Energy Efficiency: A Cash Flow Opportunity

ENERGY STAR®

Cash Flow Opportunity Calculator



Know when to finance energy efficiency projects

Please send any comments to Katy Hatcher, ENERGY STAR Public Sector National Manager at Hatcher.Caterina@epa.gov.

Developed by The Cadmus Group LLC and Catalyst Financial Group, Inc.



CFO Calculator Version 2.2 - 2018

Intro / Instructions / Data Entry / Investment Values / Cash Flow / Interest Rates / Summary



"Data Entry" Tab

Cash Flow Opportunity Calculator

HELP

User Generated Categories - DATA ENTRY TABLE

Name

Select type of analysis ▼

Values

User Generated Categories
 Using Benchmark Results from EPA's Portfolio Manager
 Green Building Categories (LEED-EB O&M)
 Water or Wastewater Treatment Plants
 By Efficiency Project Type (Building Upgrades & Tune-up)
 Manufacturing Facility

Changing the options in these menus will delete user entered values!

User Generated Categories	SF	costs (\$) - all fuel types	\$/SF	Savings target (%)	Potential annual savings
Enter Category Name Here	0	\$0		0.00	
Enter Category Name Here	0	\$0		0.00	
Total energy costs (\$) - all fuel types					
Total SF			\$/SF	Weighted savings target (%)	Total potential annual savings (\$)

ENERGY STAR® does not guarantee that your project will generate the results presented herein. An investment grade audit performed by a qualified engineering organization is required to determine the actual size of your savings opportunity.

"Data Entry" Tab

User Generated Categories
Using Benchmark Results from ENERGY STAR
Green Building Categories (LEED-EB O&M)
Water Wastewater Treatment Plants
By Efficiency Project Type (Building Upgrades & Tune-up)
Manufacturing Plants

User Generated Categories	SF	types	\$/SF	Savings target (%)	savings
Enter Category Name Here	0	\$0		0.00	
Enter Category Name Here	0	\$0		0.00	
Total energy costs (\$) - all fuel types					
Total SF			\$/SF	Weighted savings target (%)	Total potential annual savings (\$)

ENERGY STAR® does not guarantee that your project will generate the results presented herein. An investment grade audit performed by a qualified engineering organization is required to determine the actual size of your savings opportunity.

“Data Entry” Tab

This tab “translates” project savings (i.e., kWh, therms, etc.) into dollars saved

ENERGY STAR®
Cash Flow Opportunity Calculator

HEBy Efficiency Project Type (Building Upgrades & Tune-up) - DATA ENTRY TABLE

Select type of analysis By Efficiency Project Type (Building Upgrades & Tune-up) ▼

Values Sample Values ▼

Changing the options in these menus will delete user entered values!

By Efficiency Project Type (Building Upgrades & Tune-up)	Annual energy costs (\$) - all fuel types	Savings target (%)	Potential annual savings
Indoor Lighting	\$300,000	15.00	\$45,000
Outdoor Lighting	\$1,700,000	25.00	\$425,000
Plug Loads	\$300,000	10.00	\$30,000
Air Distribution Systems	\$200,000	10.00	\$20,000
Heating and Cooling	\$1,000,000	20.00	\$200,000

Total energy costs (\$) - all fuel types	Weighted savings target (%)	Total potential annual savings (\$)
\$3,500,000	20.57%	\$720,000

Categories: EPA ENERGY STAR Building Upgrade Manual, 2007 - www.energystar.gov

ENERGY STAR® does not guarantee that your project will generate the results presented herein. An investment grade audit performed by a qualified engineering organization is required to determine the actual size of your savings opportunity.

"Investment Values" Tab

ENERGY STAR®
Cash Flow Opportunity Calculator
HELP SAMPLE VALUES
INVESTMENT OPPORTUNITY

Potential Annual Savings = Cash Flow Opportunity

	Indoor Lighting	Outdoor Lighting	Plug Loads	Air Distribution Systems	Heating and Cooling	Totals
Annual energy costs	\$300,000	\$1,700,000	\$300,000	\$200,000	\$1,000,000	\$2,500,000
Potential annual savings	\$45,000	\$425,000	\$30,000	\$20,000	\$200,000	\$720,000

What Can \$720,000.00 of Annual Savings Buy?

Assuming an interest rate of %

Assuming a term of Year(s)

Savings used to pay energy/retrofit investments %

Additional funds such as rebates, etc. (if available)

5

10

90.0

\$100,000

\$5,310,400

Reset

without increasing today's capital and operating budgets.
(Note: Savings calculated on a monthly basis).

NOTE: If the project cost is greater than the above savings will cover and additional capital contributions are unavailable, see how adjusting the term, percentage of savings used, and/or interest rate affects the total before reducing the project size, which may also affect savings.

Contribution that your operating budget can make towards energy improvements

Simple Payback Year(s)

Month(s)

Consider blending short- and long-term projects to maximize use of the savings.



“Cash Flow” Tab

ENERGY STAR®
Cash Flow Opportunity Calculator

HELP SAMPLE VALUES

COST OF DELAY and CASH FLOW ANALYSIS

Funds available from projected savings	5,191,200	\$
Simple payback	7	years
	3	month(s)
Interest rate	5.00	%
Financing term	10	years
Year(s) postponed	1	years
Project cost increase due to postponement	3.00	%
Estimated energy cost change in year 2	2.00	%
Annual change in energy costs after year 2	2.50	%
Estimated energy savings in year 1	75.00	%

Cumulative Cash Flow Impact Comparison

These cash flow calculations are on a pretax basis.
For purposes of this calculation, all cash flows are being discounted at the interest rate indicated in cell G7 - financing paid monthly in arrears.

**Net Present Value of Option A
(Fast Track Financing)**

\$1,403,314

**Net Present Value of Option B
(Waiting for Cash)**

\$881,218

Fast Track Financing generates \$522,097 or 59% more cash than waiting!

Year	Option A (Fast Track Financing)				Option B (Waiting for Cash)			
	Savings	Project Cost including financing	Annual Cash Flow	Cumulative Cash Flow	Savings	Project Cost	Annual Cash Flow	Cumulative Cash Flow
1	\$540,000	(\$660,729)	(\$120,729)	(\$120,729)	\$0	\$0	\$0	\$0
2	\$734,400	(\$660,729)	\$73,671	(\$47,058)	\$550,800	(\$5,449,936)	(\$4,899,136)	(\$4,899,136)
3	\$752,760	(\$660,729)	\$92,031	\$44,974	\$752,760	\$0	\$752,760	(\$4,146,376)
4	\$771,579	(\$660,729)	\$110,850	\$155,824	\$771,579	\$0	\$771,579	(\$3,374,797)
5	\$790,868	(\$660,729)	\$130,140	\$285,964	\$790,868	\$0	\$790,868	(\$2,583,929)
6	\$810,640	(\$660,729)	\$149,911	\$435,875	\$810,640	\$0	\$810,640	(\$1,773,288)
7	\$830,906	(\$660,729)	\$170,177	\$606,053	\$830,906	\$0	\$830,906	(\$942,382)
8	\$851,679	(\$660,729)	\$190,950	\$797,003	\$851,679	\$0	\$851,679	(\$90,703)
9	\$872,971	(\$660,729)	\$212,242	\$1,009,245	\$872,971	\$0	\$872,971	\$782,268
10	\$894,795	(\$660,729)	\$234,066	\$1,243,311	\$894,795	\$0	\$894,795	\$1,677,063
11	\$917,165	\$0	\$917,165	\$2,160,476	\$917,165	\$0	\$917,165	\$2,594,228



Cost of Delay in this Example

- If delayed **ONE** year
 - \$522,097
 - 10% of project cost
- If delayed **TWO** years
 - \$948,861
 - 18% of the project cost

"Interest Rate" Tab

			Month	Lower Interest rate savings balance at beginning of month	Amount lost in monthly utility bills	Lower Interest rate savings balance at end of month
Interest rate of higher financing	5.00	%				
Expected lower interest rate	4.00	%				
Cost of the equipment	\$5,191,200		1	\$247,200	\$60,000	\$187,200
Simple payback	7	year(s)	2	\$187,200	\$60,000	\$127,200
	3	month(s)	3	\$127,200	\$60,000	\$67,200
Potential annual savings	\$720,000		4	\$67,200	\$60,000	\$7,200
Term of financing	10	year(s)	5	\$7,200	\$60,000	(\$52,800)
Lower interest rate savings*	\$247,200		6	(\$52,800)	\$60,000	(\$112,800)
Amount lost in utility bills	\$60,000	/month	7	(\$112,800)	\$60,000	(\$172,800)
Break-Even Point	4.1	month(s)	8	(\$172,800)	\$60,000	(\$232,800)
			9	(\$232,800)	\$60,000	(\$292,800)
			10	(\$292,800)	\$60,000	(\$352,800)
			11	(\$352,800)	\$60,000	(\$412,800)
			12	(\$412,800)	\$60,000	(\$472,800)

*Lower interest rate savings number is calculated by taking the NPV of the difference between the two monthly payments (immediate versus lower financing rates), discounted at the lower interest rate.



Summary Tab - Reports

ENERGY STAR®

Cash Flow Opportunity Calculator

Know when to finance energy efficiency projects

Version 2.2 - 2018

SUMMARY OF FINANCIAL CALCULATIONS: By Efficiency Project Type (Building Upgrades & Tune-up)

Name:

Selected Scenario: By Efficiency Project Type (Building Upgrades & Tune-up)

The CFO Calculator tabs are designed to work independently and together as a whole. Results on this summary page are brought from different worksheets. If you have modified some of the values carried over from previous tabs, the results presented in this report may not be consistent.

This information has been generated by an MS Excel® spreadsheet developed by ENERGY STAR® called the Cash Flow Opportunity Calculator. The purpose of the calculator is to help address three critical questions about installing energy efficiency projects:

1. How much new energy efficiency equipment can be purchased from the anticipated savings?
2. Should this equipment purchase be financed now or is it better to wait and use cash from a future budget?
3. Is money being lost by waiting for a lower interest rate?

1. How much energy efficiency equipment can be purchased?

This section reflects the cost per square foot by building category, as follows:

	Annual energy costs (\$) - all fuel types	Savings target (%)	Potential annual savings
Indoor Lighting	\$300,000	15.0	\$45,000
Outdoor Lighting	\$1,700,000	25.0	\$425,000
Plug Loads	\$300,000	10.0	\$30,000
Air Distribution Systems	\$200,000	10.0	\$20,000
Heating and Cooling	\$1,000,000	20.0	\$200,000
	Total energy costs (\$) - all fuel types	Weighted savings target (%)	Total potential annual savings (\$)
Total	\$3,500,000.00	20.57%	\$720,000

Redirecting funds from the existing utility budget by the "Savings Target" number, will free up about \$720,000.00 per year, which then can be used to finance the energy efficiency projects.

Intro | Instructions | Data Entry | Investment Values | Cash Flow | Interest Rates | **Summary**

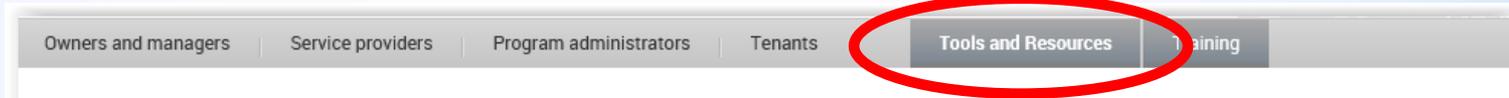


Cash Flow Opportunity Calculator

The screenshot shows the Energy Star website interface. At the top, there is a navigation bar with 'ABOUT ENERGY STAR' and 'PARTNER RESOURCES' links, and a search bar. Below this is the Energy Star logo and the tagline 'The simple choice for energy efficiency.' The main navigation area features several menu items: 'ENERGY EFFICIENT products', 'ENERGY SAVINGS at home', 'ENERGY EFFICIENT new homes', and 'ENERGY STRATEGIES FOR buildings & plants'. The 'ENERGY STRATEGIES FOR buildings & plants' link is circled in red with an arrow pointing to it. Below the main navigation is a secondary navigation bar with 'Home' and 'Buildings & Plants' links. The 'Buildings & Plants' section includes a sub-navigation bar with 'Owners and managers', 'Service providers', 'Program administrators', 'Tenants', 'Tools and Resources', and 'Training'. The 'Tools and Resources' link is also circled in red with an arrow pointing to it. Below the navigation is a large banner area with a blue background on the left containing the text 'Environmental protection and financial value' and 'ENERGY STAR is the simple choice for saving energy in buildings and plants', with a 'LEARN MORE' button. On the right, there is a video thumbnail showing a woman holding a sign that says '#1: Watch our "Top 5 Reasons to Certify" video' and 'Customers'.

www.energystar.gov

Cash Flow Opportunity Calculator



Tools and Resources

Search Library

Sort by

Owners and managers Service providers Program administrators Tenants **Tools and Resources** Training

Tools and Resources

SEARCH RESULTS

Search Library

Sort by

Title - A to Z

Apply

A Look Inside the Cash Flow Opportunity Calculator: Calculations and Methodology

Last Updated: 11-1-2018

The Cash Flow Opportunity Calculator helps inform strategic decisions about financing energy efficiency projects. This document provides an explanation of the calculations and methodology at work behind the calculator.

Topic: [Energy management guidance](#), [Financial](#)

Resource type: [Research and reports](#), [Financial value of energy efficiency](#)

[Learn More >](#)

Browse tools and resources by:

Topic

- Energy management guidance (4)
 - ENERGY STAR Building Upgrade Manual (1)
- (clear filter) Financial

Resource type

- Research and reports (1)
 - Financial value of energy efficiency (1)
- Success stories (1)

Market sector

- Federal agencies (2)
- Healthcare (1)

Browse tools and resources by:

Topic

- Commercial building design (8)
- Energy management guidance (150)
- Financial (15)**
- Portfolio Management (6)
- Products & purchasing (3)

Cash Flow Opportunity Calculator

Last Updated: 3-7-2018

The Cash Flow Opportunity Calculator helps inform strategic decisions about financing energy efficiency projects. Using the tool, you will be able to estimate how much new equipment you can finance using anticipated savings, as well whether you should finance now or wait for a lower interest rate. Use the CFO Calculator to get answers to critical questions, such as:

Topic: [Energy management guidance](#), [Financial](#)

[Learn More >](#)

- Under Tools and Resources page, click **Financial** on the right hand side
- On the resulting page, scroll for CFO Calculator and A Look Inside document

Cash Flow Opportunity Calculator

The screenshot shows the Energy Star website interface. At the top left is the Energy Star logo. To its right is a search bar and social media icons for Facebook, Twitter, YouTube, and a blog. Below the logo are four main categories: 'ENERGY EFFICIENT products', 'ENERGY SAVINGS at home', 'ENERGY EFFICIENT new homes', and 'ENERGY STRATEGIES FOR buildings & plants'. On the right side, there are links for 'ABOUT ENERGY STAR' and 'PARTNER RESOURCES'. A breadcrumb trail reads 'Home > Buildings & Plants > Cash Flow Opportunity Calculator'. A navigation menu includes 'join us', 'about us', 'press room', 'help desk', and 'portfolio manager login'. Below this is a secondary menu with 'Owners and managers', 'Service providers', 'Program administrators', 'Tools and Resources', and 'Training'. The main heading is 'Cash Flow Opportunity Calculator'. Below it is a link '< Back to search results'. The text explains the calculator's purpose: 'The Cash Flow Opportunity Calculator helps inform strategic decisions about financing energy efficiency projects. Using the tool, you will be able to estimate how much new equipment you can finance using anticipated savings, as well whether you should finance now or wait for a lower interest rate. Use the CFO Calculator to get answers to critical questions, such as:'. A list of three questions follows: 'How much new energy efficiency equipment can be purchased from the anticipated savings?', 'Should this equipment purchase be financed now, or is it better to wait and use cash from a future budget?', and 'Is money being held up waiting for a lower interest rate?'. A red oval highlights the link 'Download the Cash Flow Opportunity Calculator as an Excel file here. (797KB)'. Below the link is the topic 'Energy management guidance, Financials'. At the bottom, there are five columns of links: 'Energy Efficient Products', 'Energy Savings At Home', 'Energy Efficient New Homes', 'Energy Strategies for Buildings & Plants', and 'ENERGY STAR Home Recursos en Español Publications'.

ENERGY STAR

ENERGY EFFICIENT products

ENERGY SAVINGS at home

ENERGY EFFICIENT new homes

ENERGY STRATEGIES FOR buildings & plants

• ABOUT ENERGY STAR

• PARTNER RESOURCES

Home > Buildings & Plants > Cash Flow Opportunity Calculator

join us | about us | press room | help desk | portfolio manager login

Owners and managers

Service providers

Program administrators

Tools and Resources

Training

Cash Flow Opportunity Calculator

< Back to search results

The Cash Flow Opportunity Calculator helps inform strategic decisions about financing energy efficiency projects. Using the tool, you will be able to estimate how much new equipment you can finance using anticipated savings, as well whether you should finance now or wait for a lower interest rate. Use the CFO Calculator to get answers to critical questions, such as:

- How much new energy efficiency equipment can be purchased from the anticipated savings?
- Should this equipment purchase be financed now, or is it better to wait and use cash from a future budget?
- Is money being held up waiting for a lower interest rate?

[Download the Cash Flow Opportunity Calculator as an Excel file here. \(797KB\)](#)

Topic: Energy management guidance, Financials

Energy Efficient Products

Energy Savings At Home

Energy Efficient New Homes

Energy Strategies for Buildings & Plants

ENERGY STAR Home

Recursos en Español

Publications

Find ENERGY STAR

Start Saving Now

Find Builders and

Facility Owners &

https://www.energystar.gov/sites/default/files/buildings/tools/cfo_calculator.xls

Coming Soon...

Did Your Energy Efficiency Project Get Lost in Translation?

Financial speak for Facility Managers

www.energystar.gov/buildings/tools-and-resources

The screenshot displays the Energy Star website interface. At the top, there is a navigation bar with 'ABOUT ENERGY STAR' and 'PARTNER RESOURCES' links, and a search bar. Below this is the Energy Star logo and the tagline 'The simple choice for energy efficiency.' Four main navigation buttons are visible: 'ENERGY EFFICIENT products', 'ENERGY SAVINGS at home', 'ENERGY EFFICIENT new homes', and 'ENERGY STRATEGIES FOR buildings & plants'. The 'Buildings & Plants' section is active, showing a breadcrumb trail: 'Home » Buildings & Plants » Tools and Resources'. Below the breadcrumb, there are links for 'about us', 'reference', 'help desk', and 'portfolio manager login'. A horizontal menu contains categories: 'Owners and managers', 'Service providers', 'Program administrators', 'Tenants', 'Tools and Resources' (which is highlighted), and 'Training'. The main content area is titled 'Tools and Resources' and features a 'Search Library' input field, a 'Sort by' dropdown menu set to 'Title - A to Z', and an 'Apply' button. To the right, there is a button labeled 'Browse tools and resources by:'.



Additional Resources

- Green banking: <https://www.epa.gov/statelocalenergy/clean-energy-finance-green-banking-strategies-local-governments>
- On-bill programs: <https://www.epa.gov/statelocalenergy/clean-energy-finance-bill-programs-local-governments>
- Getting to Yes for Energy Efficiency: https://energy.maryland.gov/business/Documents/YesforEnergyEfficiencyGuide_000.pdf
- Financial ratios: <https://www.bdc.ca/en/articles-tools/money-finance/manage-finances/pages/financial-ratios-4-ways-assess-business.aspx>
- Property Assessed Clean Energy Programs: <https://pacenation.us/>
- New Lease Standards: <https://frv.kpmg.us/content/dam/frv/en/pdfs/2018/executive-summary-lessees.pdf>
- What are Debt Covenants? <https://corporatefinanceinstitute.com/resources/knowledge/finance/debt-covenants/>
- National Association of Energy Services Companies: <http://www.naesco.org>

Questions?

Email: buildings@energystar.gov

Visit: www.energystar.gov

**Katy Hatcher, US EPA
National Manager, Public Sector
hatcher.caterina@epa.gov
(202) 343-9676**

Consultants to EPA

**Neil Zabler, President
Catalyst Financial Group, Inc.
nzabler@catalyst-financial.com
203-790-4177**

**Kudret Utebay, LEED AP
The Cadmus Group LLC
kudret.utebay@cadmusgroup.com
(703) 247-6138**