

### Financing Approaches & In-Class Applications – Achieving your Goals

Module 3 in the "Procurement Strategies for K-12 Facility and Energy Managers" Course January 18, 2024



### **Today's Presenters**



#### Adam Agalloco and Susan Elliott

Adam Agalloco is a Director for Climate Change and Sustainability at ICF. In his role, he helps organizations manage their energy use, carbon emissions and sustainability strategies through strategic planning and implementation support. Adam is experienced in developing and implementing energy conservation, energy efficiency and renewable energy projects and expertise in carbon accounting, building energy systems, and energy procurement. He has over 17 years of experience and has a diverse background in energy, spending time as a project engineer for renewable energy development and in building mechanical design. Adam is a Certified Energy Manager and a LEED Accredited Professional.

Susan Elliott is a Climate Planning Consultant at ICF with expertise in supporting state and local government efforts on climate change mitigation and decarbonization. Susan brings over 10 years of program management experience in local government, working with organizational partners to identify and develop projects and programs to reduce greenhouse gas emissions within the municipal footprint and community. Her work has included working with cross-organizational partners to assess projects, identify opportunities to advance multiple program priorities, and evaluate and recommend funding/financing and process pathways for implementation.





### Today's Agenda



- Welcome and Introductions
- Learning Objectives
- Financing Approaches
  - Key Terms
  - Basics of Project Finance Principles and Types
  - Difference, Benefits, and Advantages of Energy Project Financing Approaches
  - Layering Financing Strategies for Cost Effective Projects
- Federal Funding Resources and Credits to Achieving your Goals
  - Credits & Direct Pay
  - ESPC Campaign with Guest Speaker: Laura Carpenter, DOE
  - Federal Funding Resources
  - Discussion Activity
  - Tools and Resources
  - Conclusion & Next Steps
    - Assignment
    - Cohort Groups

# Overview of the Procurement Strategies Course



January 04, 2024:
 Getting Started + Managing and Collecting Data



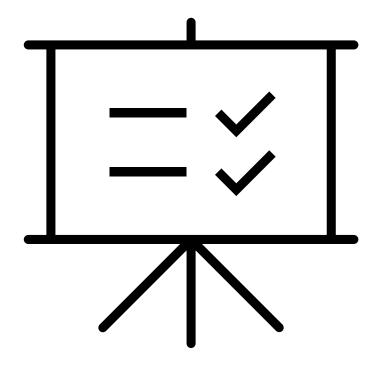
- January 11, 2024:
   Energy Procurement + Energy Project Procurement
- January 18, 2024:
   Financing Approaches + Applications to Achieve Your Goals
- January 23, 2024 (3PM-4PM Eastern):
   Procurement Strategies Cohort Meeting

Sessions will take place from 3:00 – 5:00 PM (Eastern) unless otherwise noted

# **Learning Objectives**



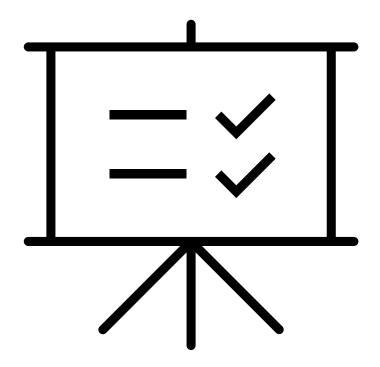
- In part 1 of today's session, attendees will:
  - Learn basic project finance principles and project finance types (such as bonds, loans, and lease structures)
  - Learn the differences, benefits, and advantages of various energy project finance approaches
    - Energy Savings Performance Contracts, PPAs, Energy/Efficiency as a Service, Capital project financing, On-bill financing, and PACE
  - Learn how to layer grants, incentives, financing, and other funding opportunities to increase the cost effectiveness of projects especially in the IRA era



# **Learning Objectives**



- In part 2 of today's session, attendees will:
  - Learn about additional funding resources that could be layered, such as elective/direct pay, transferability, 179D and other federal resources.
  - Work through, individually and discussing as a class, scenario-based examples to examine the project and compare different approaches to funding it.





# Part 1 Financing Approaches

# Key Terms Used in This Course

# **Key Terms**



- Energy Conservation Measure (ECMs)
  - Energy Conservation Measures are projects or technologies that are implemented to reduce the energy consumption in a building or facility. ECMs typically focus on essential building services such as HVAC, lighting, and building envelope.
- Energy Service Companies (ESCOs)
  - Energy service companies contract with institutional energy users in the public and private sector to provide cost-effective energy efficiency retrofits through the implementation of energy conservation measures.

# **Key Terms**



#### Interest Rate

The interest Rate of a project is the cost of borrowing money. Interest rates
are typically expressed as an annual percentage of the outstanding balance
or a loan that is charged by the lender.

### Project Pro Forma/Cash Flow

- A project pro forma is a financial statement used to forecast future project performance based on hypothetical data and assumptions about future values.
- A project pro forma can help show cash flow of a project, or the costs and savings associated with the project over its period of performance. This can help determine if an ECM will provide a finance benefit over its lifetime.

# **Basics of Project Finance**

# **Project Finance**



- Ways for organizations to fund long term projects.
- Energy projects can use conventional forms of project finance, however because they can also generate savings (and/or revenue), other project finance options become available.
- Federal (and sometimes state) incentives, grants and tax credits can significantly influence project finance structures.

# **Project Finance Basics**



- Bonds- Larger organizations (such as governments, banks and corporate entities can issue bonds or other similar debt instruments to raise money. Organizations promise to pay regular interest payments to the investors that purchase bonds.
- Loan- Money borrowed from another organization (bank or similar entity) and agree to pay repay the borrowed capital and interest over the length of the loan.
- Lease- A contract between an owner of the equipment or vehicle and a lessee who wants to use the item for a period of time in exchange for regular payments.
  - Can be shown as a capital lease or operating lease

# **Energy Project Finance**



Whether focused on energy efficiency, renewable energy, or energy reliability/security, there are a range of project contract types and financing types that can be used for energy projects.

Separating the contract from the financing is crucial to understanding options. Some technologies fit best with specific contract vehicles or only with one type of financing structure. For the purposes of this presentation, we'll consider:

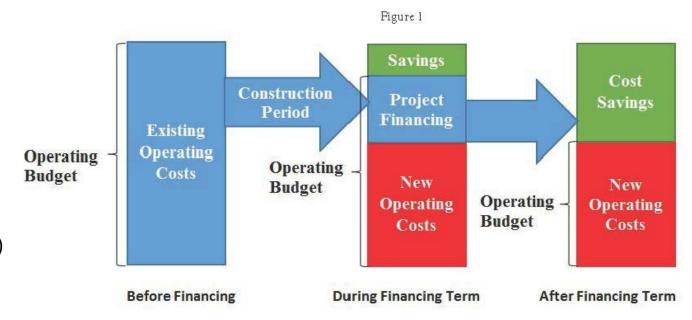
**Contract vehicle** - How the project is implemented and procured. **Financing** - How the project is paid for.

# **Energy Project Finance: ESPCs**



#### **Energy Savings Performance Contracts**

- Requires state authorization to procure a performance contract
- Uses cost savings to pay for project financing
- Typically financed over 15-20 year period
- Is a contract vehicle, but a range of financing can be used (bonds, loans, leases)
- Can blend quicker payback ECMs with longer term capital projects
- Projects can include a range of building focused work including lighting, HVAC, renewable energy, building envelope and even new vehicles and charging infrastructure in some jurisdictions



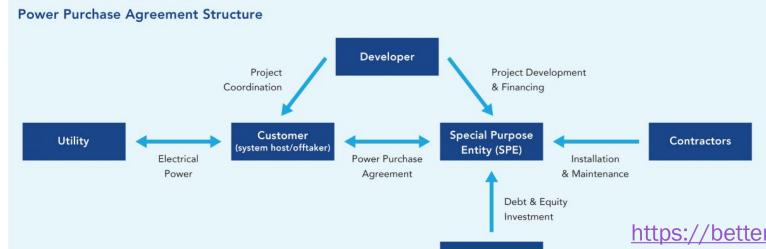
https://deq.mt.gov/energy/Programs/epc

#### **Benefits**

Potentially no upfront cost Guaranteed energy cost savings ESCOs may be able to offer project financing if desired Single point of contact / accountability

# **Energy Project Finance: PPAs**





Investors

#### **Benefits**

Potentially no upfront cost
Works for onsite of offsite
No ongoing maintenance
responsibilities
Typically include production
guarantees

https://betterbuildingssolutioncenter.energy.gov/financing-navigator/option/power-purchase-agreement

### Power Purchase Agreements

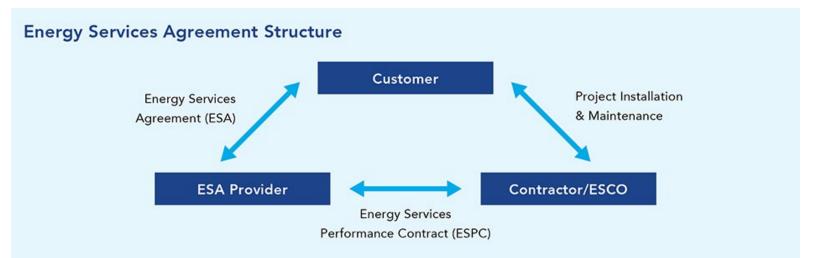
- Project vehicle for renewable energy (and some battery) projects
- Buyer is only responsible for taking ownership (and using) electricity.
- Project owners monetize investment tax credit
- Typically allows a buyout of equipment by host organization at the end of the term

# **Energy Project Finance: EaaS**



#### Efficiency (or Energy) as a Service

- Schools would pay for performance of energy and water efficiency, provider owns equipment for the life of the agreement
- At the end of the contract, school can purchase equipment at fair market value, extend the contract, or return equipment
- No upfront capital required, schools make service payments based on actual energy saved as measures through analysis
- Range of related agreements and contracts are available



#### **Benefits**

Provider pays for development, capital and maintenance of equipment

No debt on contract

https://www.energy.gov/eere/buildings/efficiency-service

# **Energy Project Finance: Capital Dollars**



### **Capital Funding**

- Could be from state sources, local source, bond issuances or loans
- Default solution for many schools
- Could be highly competitive within school districts and pits energy projects against other needs

#### **Benefits**

Well understood by finance managers
May provide lower cost debt or allow
energy projects to be financed jointly
with other capital needs
Flexible use and does not require energy
projects to have a strict payback

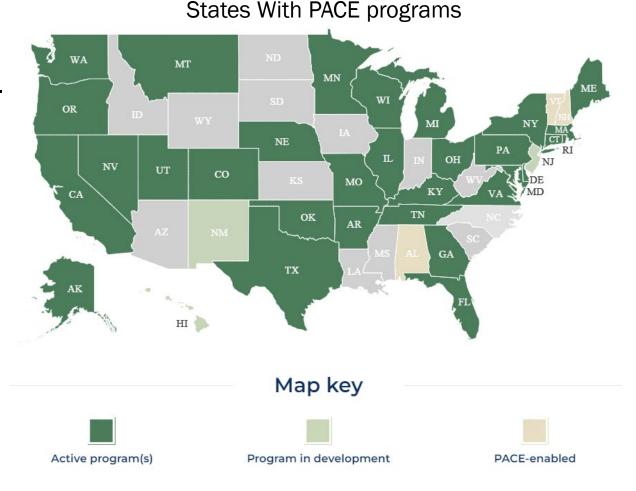
# **Energy Project Finance: Other Forms**



- On Bill Financing- In certain locations, utilities offer the ability to pay for energy projects through a bill adder on your monthly utility bill.
- Property Assessed Clean Energy (PACE)Although school districts are tax exempt, for
  major projects or PACE financing is still
  available. PACE financing uses property
  assessments to finance clean energy by
  placing a specialized assessment on their
  property that will be benefitted by energy
  upgrades.

#### **Benefits**

Alternative structures that might work for entities looking to avoid typical debt



https://www.pacenation.org/pace-programs/

# Layering Grants, Incentives, and Financing SC



Ownership and contract structures are critical to connecting energy projects to grants and incentives.

- If the school retains ownership of the equipment it likely retains title to incentives installed and any applicable tax credits (assuming they can be monetized)
- If the school does not retain ownership of the equipment (through either a PPA, EaaS, or lease structure) it may not have access to all incentives.

Contracts for energy projects should be specific on who will monetize incentives and tax credits and investigate ownership prior to finalizing a contract.

#### **Example of Grant Funding:**

Next round of Renew America's Schools Grant is anticipated to open in Spring 2024 per DOE

Eligible projects include energy infrastructure improvements that reduce building operating costs—like new HVAC and ventilation systems, building envelope and lighting projects, and renewable energy technologies. Funding is also available for alternative fueled vehicles and alternative fueled vehicle infrastructure.

https://www.energy.gov/scep/renew-americas-schools

# Layering Grants, Incentives and Financing

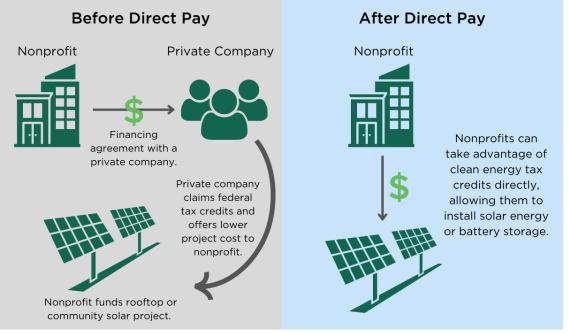


#### **How Direct Pay Works**



### **Example: Solar for Schools**

- Prior to the passage of the Inflation Reduction Act, schools needed a third party owner to monetize the 30% investment tax credit.
- Now, schools can take direct advantage of it, but need to still outlay all of the funding and pursue the tax credit through a direct pay option (approximately 18 month long beneficially 18 month long beneficial



https://www.eesi.org/articles/view/clean-energy-tax-credits-get-a-boost-in-new-climate-law

#### **Benefits and Risks**

May improve financials by allowing for use of lower cost of capital Time period to receive direct pay tax credit payment Maintenance considerations for schools

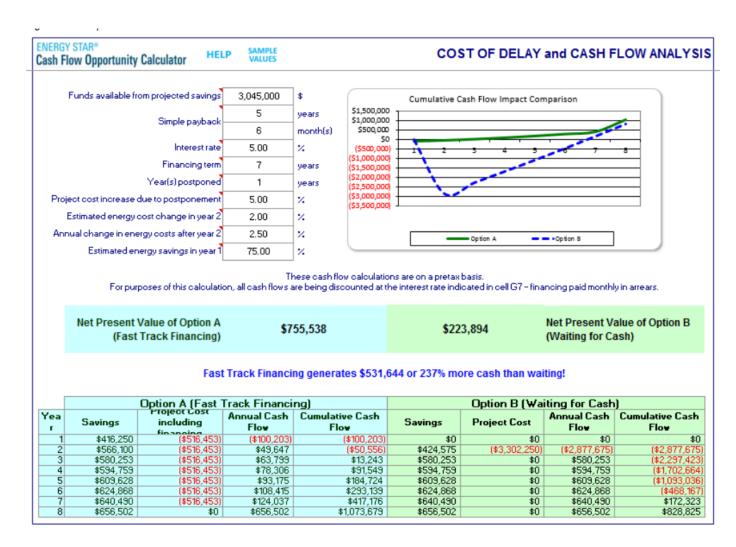
Still relatively new, so there could be unknowns with the approach

# Layering Grants, Incentives and Financing



### Developing a Cash Flow Model

- Outline major costs, savings, grants, rebates, tax credits and other project cost impacts in one document
- Helps to determine project finance structure
- Helps to communicate project economics to stakeholders and decision makers



https://www.energystar.gov/sites/default/files/tools/A\_Look\_Inside\_the\_Cash\_Flow\_Opportunity\_Calculator\_0.pdf

# Layering Grants, Incentives and Financing



#### Common questions to ask:

- How much funding do you need?
- When do you need it?
- What are the ownership options and what is your preferred?
  - Not just from a project finance perspective, but also from an operations and maintenance perspective
- Are there capital or debt constraints from your organization?
- Where do you want the project risk to live?
  - Both ideally and within the context of budget.

# Project Example: Philadelphia Quadplex



- Mix of ECMs (quick payback and capital needs) in four large downtown buildings
- Mix of complexity on ECMs
- Focused on large energy using facilities with strong facilities management in place

#### **Energy Conservation Measures**

- Lighting improvements
  - Replaced inefficient lighting with CFLs, LEDs, T8s
  - Includes retrofits to City Hall Clock Tower lighting
- · Lighting control systems
- Water conservation
  - High-efficiency, low-flow plumbing fixtures
  - Aerators for lavatory and kitchen faucets
- · Steam system insulation
- · High-efficiency, modular dual-fuel hot water boiler in MSB

- · Building control systems upgrades
  - New set points, operating schedules and control strategies
  - Variable frequency drives (VFDs) on fans and pumps
- High-efficiency air filters and concourse VFDs
- Concourse area vestibule improvements
  - Reduce the time period automatic doors remain open, provide a tighter seal when fully closed, and provide updated safety controls
- Building envelope improvements and weatherization



https://www.phila.gov/media/20160421161450/quadplex-case-study.pdf

# Project Example: Philadelphia Quadplex



- Financed through tax exempt bond issuance
- Project team also reviewed tax-exempt lease structure offered by ESCO
- Bond issuance deemed to be the lowest cost of capital, however it did delay start of project by a few months.
- Rebates were significant, but not included in the initial project cash flow due to uncertainty of their availability
- Keys to success
  - Articulating project economics in ways that City finance managers could understand them
  - Setting up a steering committee to evaluate both project ECMs and project finance options

#### BY THE NUMBERS

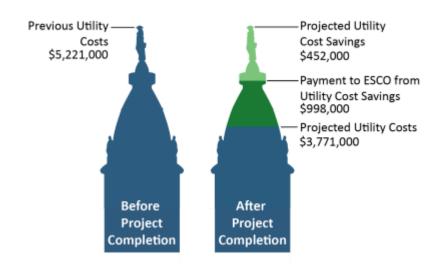
Construction Cost: \$12,230,000

Construction Phase Utility Cost Savings: \$1,955,000

Expected Annual Cost Savings: \$1,450,000

Rebates Received: \$1,030,000

Greenhouse Gas Reductions: 7,800 MTCO2e



https://www.phila.gov/media/20160421161450/quadplex-case-study.pdf



Part 2 Federal Funding Resources and Credits to Achieving your Goals

# Credits, Direct Pay & Transferability

# **Key Terms**







- Elective pay makes certain clean energy tax credits effectively refundable. With elective pay, an eligible entity (such as a local government) that qualifies for a clean-energy investment tax credit can notify the IRS of their intent to claim the credit and file an annual tax return to claim elective pay for the full value of the credit. The IRS would then pay the local government the value of the credit.
- Note:
  - Elective pay is sometimes also known as "direct pay," which shouldn't be confused with the IRS payment method.
  - Grants and loans <u>can</u> be used in conjunction with direct pay on specific projects.

# Transferability

Transferability allows entities that qualify for a tax credit but are not eligible to use elective
pay to transfer all or a portion of the credit to a third-party buyer in exchange for cash. The
buyer and seller would negotiate and agree to the terms and pricing.

Elective pay and transferability | Internal Revenue Service (irs.gov)

# **Elective Pay**



- Elective pay is available for 12 of the Inflation Reduction Act's tax credits
  - Includes generating clean electricity through solar, wind, and battery storage projects; building community solar projects; installing electric vehicle (EV) charging infrastructure; and purchasing clean vehicles for state or city vehicle fleets

#### Example:

The City of Vroomville buys a large electric garbage truck for municipal waste collection. Through direct pay, the city can get up to 30% or \$40,000, whichever is lower, of the cost of the truck back by using the Commercial Clean Vehicle Credit.

### **IRS** Resources

SCEP STATE & COMMUNITY ENERGY PROGRAMS



- What is elective pay?
- Are state and local governments eligible? YES!
- How do I make the elective payment election?
- What will I need to do to receive a payment?
- What tax credits can elective pay be used for?

# State & Local Governments

The answers to the questions below are based on proposed and temporary elective pay and transfer ability regulations and other tax guidance on IRS.gov. These proposed and temporary regulations and the answers below may change when these regulations are finalized following a public comment period. You may also choose to consult with a tax advisor.

#### What is elective pay?

Elective pay allows applicable entities, including tax-exempt and governmental entities that would otherwise be unable to claim certain credits because they do not owe federal income tax, to benefit from some clean energy tax credits. By choosing this election, the amount of the credit is treated as a payment of tax and any overpayment will result in a refund.

For example, because of the Inflation Reduction Act, a local government that makes a clean energy investment that qualifies for the investment tax credit can file an annual tax return with the IRS to claim elective pay for the full value of the investment tax credit, as long as it meets all of the requirements including a pre-filing registration requirement. As the local government would not owe other federal income tax, the IRS would then make a refund payment in the amount of the credit to the local government.

#### Are state and local governments eligible?

Yes. States, political subdivisions and their agencies and instrumentalities are all eligible for elective pay. This includes the District of Columbia. It also includes cities, counties and other

### What will I need to do to receive a payment?

- Identify and pursue the qualifying project or activity: You will need to know what applicable credit you intend to earn and use elective pay for.
- Determine your tax year, if not already known: Your tax year will determine the due date for your tax return.
- 3. Complete pre-filing registration with the IRS: This will include providing information about yourself, which applicable credits you intend to earn, and each eligible project/property that will contribute to the applicable credit and other information required. Upon completing this process, the IRS will provide you with a registration number for each applicable credit property. You will need to provide that registration number on your tax return as part of making the elective pay election.
- Complete pre-filing registration in sufficient time to have a valid registration number at the time you file your tax return.
- More information about this pre-filing registration process will be available by late 2023

Publication 5817-E (6-2023) (irs.gov)

### **IRS** Resources



### Clean Energy Tax Incentives: Elective Pay Eligible Credits



#### Clean Energy Tax Incentives: Elective Pay Eligible Tax Credits

The Inflation Reduction Act of 2022 ("IRA") makes several clean energy tax credits available to businesses; tax-exempt organizations; state, local, and tribal governments; other entities; and individuals. The IRA also enables entities to take advantage of certain clean energy tax credits through its elective pay provision (also colloquially known as direct pay). Elective pay allows several types of entities, such as tax-exempts and governments, to treat the amount of certain credits as a payment against tax on their tax returns and as a result receive direct payments for certain clean energy tax credits.

Tax Provision	Description
Production Tax Credit for Electricity from Renewables (§ 45, pre-2025)	For production of electricity from eligible renewable sources, including wind, biomass, geothermal, solar, small irrigation, landfill and trash, hydropower, marine and hydrokinetic energy.  Credit Amount (for 2022): 0.55 cents/kilowatt (kW); (1/2 rate for electricity produced from open loop biomass, landfill gas, and trash); 2.75 cents/kW if Prevailing Wage and Apprenticeship (PWA) rules are met 1.2.3.7
Clean Electricity Production Tax Credit (§ 45Y, 2025 onwards)	Technology-neutral tax credit for production of clean electricity. Replaces § 45 for facilities that begin construction and are placed in service after 2024.  Credit Amount: Starts in 2025, consistent with credit amounts under section 45 12,3,6,7
Investment Tax Credit for Energy Property (§ 48, pre-2025)	For investment in renewable energy projects including fuel cell, solar, geothermal, small wind, energy storage, biogas, microgrid controllers, and combined heat and power properties  Credit Amount: 6% of qualified investment (basis); 30% if PWA requirements met 1.4.5.6.8
Clean Electricity Investment Tax Credit (§ 48E, 2025 onwards)	Technology-neutral tax credit for investment in facilities that generate clean electricity and qualified energy storage technologies. Replaces § 48 for facilities that begin construction and are placed in service after 2024 Credit Amount: 6% of qualified investment (basis); 30% if PWA requirements met 1.4.5.6
Low-Income Communities Bonus Credit (§ 48(e), 48E(h)) Application required	Additional investment tax credit for small-scale solar and wind (§ 48(e)) or clean electricity (§48E(h)) facilities (<5MW net output) on Indian land, federally subsidized housing, in low-income communities, and benefit low-income households. Allocated through an application process.  Credit Amount: 10 or 20 percentage point increase on base investment tax credit 7
Credit for Carbon Oxide Sequestration (§ 45Q)	Credit for carbon dioxide sequestration coupled with permitted end uses in the United States.  Credit Amount: \$12-36 per metric ton of qualified carbon oxide captured and sequestered, used as a tertiary injectant, or used, depending on the specified end use; \$60-\$180 per metric ton if PWA requirements met. <sup>1,7</sup>
Zero-Emission Nuclear Power Production Credit (§ 45U)	For electricity from nuclear power facilities. Facilities in operation prior to August 16, 2022.  Credit Amount (for 2023): 0.3 cents/kWh (reduced rate for larger facilities); 1.5 cent/kWh if PW req's met 1.7

Manufacturing	Advanced Energy Project Credit (§ 48C) Application required	For investments in advan of which will be allocated t Credit Amount: 6% of tax
Fuels Vehicles Manufa	Advanced Manufacturing Production Credit (§ 45X)	Production tax credit for energy, inverters, battery c Credit Amount: Varies by
	Credit for Qualified Commercial Clean Vehicles (§ 45W)	For purchasers of comm ambulances, and certain o Credit Amount: Up to \$40
	Alternative Fuel Vehicle Refueling Property Credit (§ 30C)	For alternative fuel vehicl Qualified fuels include elec Credit Amount: 6% of bas
	Clean Hydrogen Production Tax Credit (§ 45V)	For producing clean hydr Credit Amount: \$0.60/kg r house gas emissions), amo
	Clean Fuel Production Credit (§ 45Z, 2025 onwards)	Technology neutral tax co aviation fuels, beginning in Credit Amount: \$0.20/gal (\$1.75/gal for aviation fuel)

Publication 5817-G (6-2023) (irs.gov)

Please see the notes on the next page or see IRS.gov/cleanener

### What will I need to do to receive an elective pay payment?



- 1. Identify and pursue the qualifying project or activity.

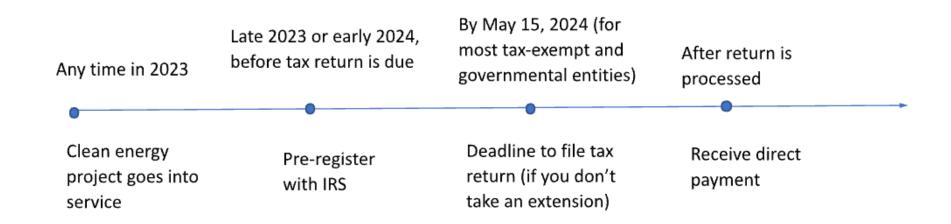
  You will need to know what applicable credit you intend to earn and use elective pay for.
- 2. Complete your project and place it into service.
- 3. Determine your tax year, if not already known.
  Your tax year will determine the due date for your tax return.
- 4. Complete pre-filing registration with the IRS after earning the underlying credit.
- 5. Receive a registration number from the IRS for each applicable credit property.
- 6. File your tax return by the due date and make a valid direct pay election.

  File Form 990-T. The registration number(s) will be required. A valid election will allow you to receive payment as a refund for the amount of the credit (or to offset tax liability and receive payment for any remaining amount).
- 7. Receive payment after the return is processed.

<u>Publication 5817-E (6-2023) (irs.gov)</u>

# **Sample Timeline**





<u>Direct Pay Through the Inflation Reduction Act | The White House</u>

### **Notes on Pre-Registration Process**



- Create a Clean Energy Business Account for your organization at <u>www.irs.gov/eptregister</u>.
   Only an authorized representative of your organization can complete this process. Identity verification is part of the process.
- 2. Select the credits your organization intended to claim using direct pay.

  Registrant will need a separate pre-filing registration number for each facility/property.
- 3. Information required includes:
  - Specific information for each credit.
  - Location of each facility.
  - □ Supporting documentation for each facility (project dependent) such as permits, life cycle assessment DOE and IRS approval letter, engineer certification, evidence of ownership
- 4. You can save your progress and come back later to continue registration.
- 5. You can monitor the status of your submitted registration package.

NOTE: A comprehensive user guide and video tutorial are available at <a href="www.irs.gov/eptregister">www.irs.gov/eptregister</a>.

# **Pre-Registration Process Support**



#### Office Hours

The IRS is offering office hours to help entities with the pre filing registration process on the new <u>Pre-filing</u> <u>Registration Tool</u>. Representatives from the IRS will be available to answer questions. You can signup to attend at the following times.

DATE	TIME	Registration Link
January 16, 2024	1-2 PM EST	Register Here
January 19, 2024	1-2 PM EST	Register Here
January 23, 2024	1-2 PM EST	Register Here
January 26, 2024	1-2 PM EST	Register Here
January 30, 2024	1-2 PM EST	Register Here
February 2, 2024	1-2 PM EST	Register Here
February 6, 2024	1-2 PM EST	Register Here
February 9, 2024	1-2 PM EST	Register Here



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e-News subscriptions | Internal Revenue Service (irs.gov)



### **Focus in: Inflation Reduction Act**

The largest investment in climate and clean energy in United States history.

#### **Direct Pay: Tax-free cash payments**

- Investment Tax Credit (ITCs): Applied to upfront costs of clean energy systems (solar, storage, geothermal, etc.)
- Commercial Clean Vehicle Credit: Applied to upfront costs of installing electric school buses.
  - Max credit \$40k
  - Non-competitive, uncapped, can be combined with grants for EV buses
- Alternative Fuel Refueling Property Credit: Applied upfront to costs of EV charging equipment for buses or passenger vehicles.
  - Max 30% of costs, or \$100,000 per unit
  - Non-competitive, uncapped, can be combined with grants for charging equipment

#### **Direct Pay Technologies covered:**

- Energy Efficiency Measures
- Solar & Wind
- Ground Source Heat Pumps
- Energy Storage
- Electric Vehicle Chargers

# 179D Energy Efficient Commercial Building Deduction

- \$2.50-5 per SF
- Schools work with designer to access funds. Should negotiate a 50/50 split.



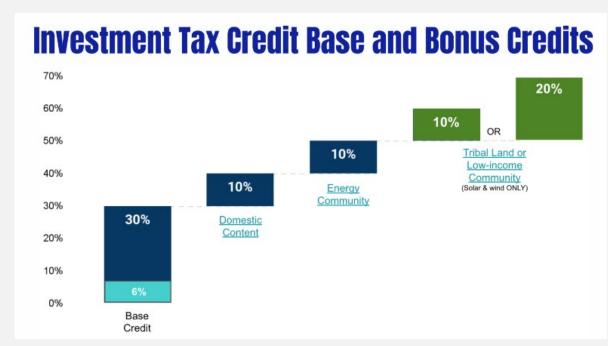


## Focus in: Investment Tax Credit (ITCs)

Investment Tax Credit (ITCs): Applied to upfront costs of clean energy systems (solar, storage, geothermal, etc.)

- 30% base credit
- 10% domestic content credit
- 10% energy community (transition community)
- 10-20% low-income or tribal (solar and wind only)

= up to 50-70% depending on the project!



Credit: Undaunted K-12

### More info on how to get reimbursed:

https://www.undauntedk12.org/how-schools-get-reimbursed





- Aims to encourage the construction of energy-efficient commercial buildings and multifamily buildings that are at least four stories tall (i.e. no low-rise residential buildings).
  - Immediate deductions as much as \$5.36 per square foot (sq. ft.)
  - Expanded opportunity for older buildings
  - Eligible property includes schools, churches, hospitals, and other property within the scope of Standard 90.1
    published by the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) and the
    Illuminating Engineering Society (IES) of North America.
- Applies to tax years beginning after Dec. 31, 2022, and to qualifying property placed in service after that date.
- Expanded list of eligible organizations includes governmental entities and tax-exempt organizations (Sec. 179D(d)(3)).
- Ability to allocate the deduction (or portion of the deduction you can negotiate) to the property designer.
- An increased deduction may be available for increased energy savings or meeting prevailing wage and apprenticeship requirements.

Energy efficient commercial buildings deduction | Internal Revenue Service (irs.gov)



### Amount of the deduction for 2023 and after

For property placed in service in 2023 and after, the deduction for EECBP equals the lesser of:

- The cost of the installed property, or
- The savings per square foot calculated as:
  - \$0.50 per square foot for a building with 25% energy savings
  - Plus \$0.02 per square foot for each percentage point of energy savings above 25%
  - Up to a maximum of \$1.00 per square foot for a building with 50% energy savings
- Expenses deducted in the prior 3 years (4 years for an allocated deduction) reduce the maximum deduction before computing the current-year deduction.

### Prevailing wage and apprenticeship bonus

Beginning in 2023, if local prevailing wages are paid and apprenticeship requirements are met, an
increased maximum deduction applies. The maximum amount increases to 5 times the savings per
square foot amount.

<u>Energy efficient commercial buildings deduction | Internal Revenue Service (irs.gov)</u>

Process Overview Slide Deck: <u>IRC 179D Energy Efficient Commercial Building Deduction (irs.gov)</u>



#### Sec. 179D - Current vs. prior law

Tax years beginning after Dec. 31, 2022	Tax years ending on or before Dec. 31, 2022
Taxpayer eligibility	Taxpayer eligibility
Owners of commercial buildings.	Owners of commercial buildings.
■ Designers of commercial buildings owned by:	■ Designers of commercial buildings owned by:
Governmental entities.	Governmental entities.
<ul> <li>Tax-exempt organizations.</li> </ul>	
<ul> <li>Indian tribal governments and Alaska Native</li> </ul>	
corporations.	
<ul> <li>REITs — easier to benefit.</li> </ul>	
Standard of measure	Standard of measure
More recent of:	Most recent ASHRAE Standard 90.1 affirmed by the IRS not
■ ASHRAE Standard 90.1-2007, or	later than two years prior to the date when construction of
■ ASHRAE Standard 90.1 from four years prior to when the	the building began.
building was placed in service.	
Retrofit election:	
■ Use of building's own standards.	
■ Deduction one year after placed-in-service date.	

Recent changes to the Sec. 179D energy-efficient commercial buildings deduction (thetaxadviser.com)



Sec. 179D - Current vs. prior law

Tax years beginning after Dec. 31, 2022	Tax years ending on or before Dec. 31, 2022
Deduction amount Base:	Deduction amount Base:
<ul> <li>54 cents/sq. ft. (whole building), provided an energy savings of 25% has been achieved.</li> <li>2 cents/sq. ft. for each additional percentage point, up to a maximum of \$1.07/sq. ft. for energy savings of 50% or more.</li> </ul>	63 cents/sq. ft. (per system), provided an energy savings of 50% has been achieved (limit of \$1.88/sq. ft. for all three systems).
Prevailing wage and apprenticeship bonus:  ■ \$2.68/sq. ft., provided an energy savings of 25% has been achieved.  ■ 11 cents/sq. ft. for each additional percentage point, up to a maximum of \$5.36/sq. ft. for energy savings of 50% or more.	
Deduction limitation  Current-year deduction is reduced by the amount of any Sec. 179D deduction taken for the building in the immediate three preceding tax years (four years in the case of buildings owned by a governmental or tribal entity or tax-exempt organization).	Deduction limitation  Lifetime limitation of \$1.88/sq. ft. with respect to any specific building.

Recent changes to the Sec. 179D energy-efficient commercial buildings deduction (thetaxadviser.com)



- Building owners who place in service energy efficient commercial building property (EECBP) or energy
  efficient commercial building retrofit property (EEBRP) may be able to claim a tax deduction.
  - EECBP must be installed as part of:
    - the interior lighting systems,
    - the heating, cooling, ventilation, and hot water systems, or
    - the building envelope.
    - And, it must be certified as being installed as part of a plan to reduce the total annual energy and power costs for the above systems by 25% or more in comparison to a reference building meeting the minimum requirements of Reference Standard 90.1.
  - EEBRP must be installed on or in a qualified building as part of:
    - the interior lighting systems;
    - the heating, cooling, ventilation, and hot water systems; or
    - the building envelope.

Older / Existing Buildings And, a qualified building is a building located in the U.S. and originally placed in service not less than 5
years before the establishment of a qualified retrofit plan for the building. EEBRP must be property for
which depreciation or amortization is allowable, and it must be certified as meeting certain energy saving
requirements.

# ESPC Campaign and Federal Resources

DOE Speakers: Laura Carpenter and Andrea Swiatocha

## **ESPC Campaign Overview**





The Energy Savings Performance Contracting (ESPC) Campaign engages states, local governments, school districts, universities and colleges, hospitals, and other market stakeholders to support, expand, and enhance the use of ESPC to achieve significant energy, environmental, and cost savings benefits

### Goals:

- 1) Increase awareness of the benefits of performance contracting
- 2) Share practical resources and best practice approaches to strengthen ESPC and measurement and verification (M&V) knowledge across the public sector
- B) Help partners maximize the impact of funding and financing resources to modernize buildings, save energy, lower utility and operational expenses, reduce greenhouse gas emissions, increase resilience, and support local jobs
- Demonstrate impact and smooth future investments using a national database of ESPC project and M&V data

Savings Goal: Partners will collectively achieve \$1 billion in measured and verified savings

## **ESPC Campaign | ESPC Benefits**



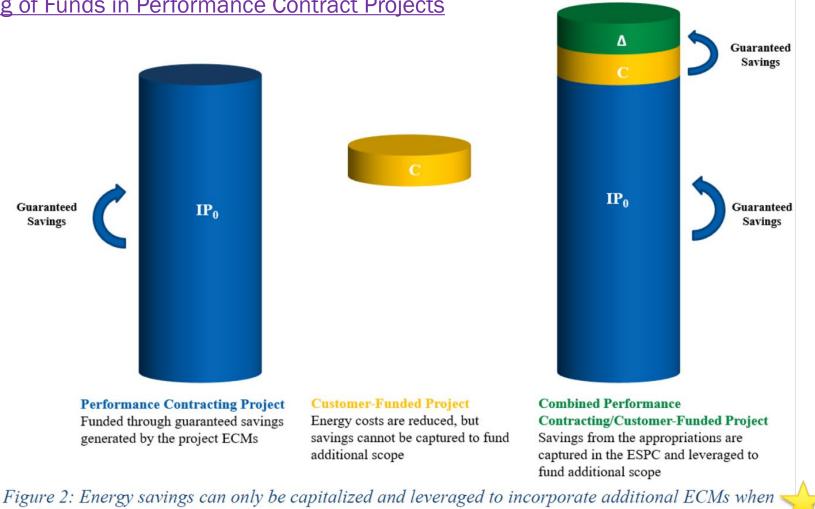
- Extend the capabilities of existing budgets: no need for operating budget allocation or capital budget appropriation; leveraging effect on contributed funds
- Stop the waste of energy dollars and achieve budget savings
- X Tackle deferred maintenance and avoid disruption from equipment failure
- Improve indoor environment: air quality, lighting, temperature control, and productivity
- A Reduce emissions of carbon dioxide, sulfur, and other pollutants
- 1 Increase resilience for reliable use of community facilities
- **Create jobs** and support local economic development
- 2 One stop procurement, integrated design and delivery, coordinated implementation of ECMs

## ESPC Campaign | Leveraging Effect of ESPC



Oak Ridge National Laboratory

2023 Report: <u>Leveraging of Funds in Performance Contract Projects</u>





available customer funding is incorporated into a performance contract.

## **ESPC Campaign | Partner Categories**



## Campaign Leaders

 State Energy Offices or other organizations ready to establish, strengthen, and/or expand technical assistance programs to support others in using ESPC, and recruit ESPC Champions

# ESPC Champions

 State and local agencies, K-12 school districts, institutions of higher education, hospitals, and other public sector entities seeking to connect with peers and ESPC resources

Supporters

 Market stakeholders that support the goals of the ESPC Campaign and promote this program as a resource to the public sector Access all ESPC Campaign technical assistance

Access webinars, resource library, and option to join Supporter Directory

## ESPC Campaign | Technical Assistance





### TRAINING SERIES

Live training on ESPC and M&V for public sector partners



### **WEBINARS**

Focused on partner topics of interest, and featuring partner case studies



#### **OFFICE HOURS**

"Ask-an-Expert" opportunity for public sector partners



## PEER EXCHANGE SESSIONS

Connect with peer public sector organizations, of similar institution type or geographic location



### TARGETED DIRECT TECHNICAL ASSISTANCE

Tailored technical assistance for State ESPC Programs



#### RESOURCE LIBRARY

Locate DOE and other relevant resources from the ESPC Campaign website



#### SUPPORTER DIRECTORY

Leverage Supporter Directory to connect with industry contacts

## ESPC Campaign | M&V Savings



- Public sector partners share with DOE at least 4 years of measurement & verification data for projects implemented during the ESPC Campaign
  - Completed projects with ongoing M&V activities can count towards the savings goal too!
- DOE to rollup and track progress from Guaranteed Savings → Measured & Verified Savings
- Streamlined reporting achieved through DOE's eProject eXpress web-based platform, designed specifically for state and local ESPC project data management



- Electricity Savings (kWh, \$)
- Electric Demand Savings (\$)
- Fuel Savings (Units, \$)
- Water Savings (kGal, \$)
- Operational and Maintenance Savings (\$)
- Total Project Cost Savings (\$)

- CO<sup>2</sup> Savings (tons)
- CH<sup>4</sup> Savings (tons)
- SOX Savings (tons)
- NOX Savings (tons)
- Jobs (# FTE)
- Custom Savings (type, unit, \$)
- Custom Savings (type, unit, \$)

## ESPC Campaign | Looking Ahead



### **January**

Partner Resource: ESPC Campaign Amplification Toolkit

### **February**

#### Webinar:

ESPC Practitioner
Perspectives and eProject
eXpress (ePX)
Introduction

Campaign Leader
Direct TA One-On-Ones

### March

#### Webinar:

IRA, BIL, and
Utility/Government
Incentives as Drivers for
ESPC Projects

### **April**

Training: Foundations of ESPC

Peer Exchange and Networking Opportunity: Better Buildings, Better Plants Summit

ESPC Campaign Newsletter: Subscribe for monthly program updates and schedule information



## ESPC and K-12 Schools - A Record of Success



### **Case Studies**

### **Douglas County School District (NV)**

School district uses ESPC to overcome deferred maintenance, fiscal constraints, and rising energy costs

Measures: Lighting, Solar PV system, centralized EMS, HVAC system repairs and replacements, and more Funding/Financing Sources: Installment Purchase Agreement, General Obligation Bonds, Qualified School Construction Bonds, ARRA Grants

**Project Cost:** \$10.7 Million **Annual Savings:** \$600,000+

We have an extremely conservative district - we had to show them that we meant business if we wanted them to approve new bonds

 Holly Luna, Chief Financial Officer at Douglas County School District

### Kannapolis City Schools (NC)

City school system uses ESPC to overcome limited budgets to address aging equipment and curb trend of emergency replacement

Measures: Lighting, Air Cooled Chillers, Building Automation System upgrades

<u>Funding/Financing Sources</u>: Municipal Lease with Bank of America with an 18-year term

**Project Cost:** \$3.4 Million **Annual Savings:** \$301,260



## ESPC Campaign | How to Join



Campaign Timeline: January 2024 - December 2028

Training Series delivered annually

**Enrollment:** Rolling through January 2028

**Sign Up:** Obtain a Partner Agreement from DOE and returned the signed form

**Learn More:** Fill out the Expression of Interest Form on the ESPC Campaign website, or email the ESPC

Campaign team

Visit: <a href="https://www.energy.gov/scep/espc-campaign">www.energy.gov/scep/espc-campaign</a>

Contact: ESPCcampaign@hq.doe.gov



Join Today!



## **DOE – Loan Program Office**

LPO loans and loan guarantees are differentiated in the clean energy debt capital marketplace in three primary ways:







LPO is working with industry, communities, capital markets, and government entities to strengthen the ecosystem for clean energy deployment projects and yield actionable insights to inform DOE investments

Sources: <u>LPO Program Overview</u>



## **DOE – Loan Program Office**

### Title 17 Clean Energy Financing

LPO can provide loan guarantees for projects in the US that support clean energy deployment and energy infrastructure reinvestment to reduce GHG emissions and air pollution.

## State Energy Financing Institutions (SEFI)-Supported Projects

Through the SEFI category of the Title 17 Clean Energy Financing Program, LPO can provide additional financial support to projects that align federal energy priorities with those of the U.S.

### **Energy Infrastructure Reinvestment**

Guarantees loans to projects that retool, repower, repurpose, or replace energy infrastructure that has ceased operations or enable operating energy infrastructure to run more cleanly.

## Innovative Energy and Innovative Supply Chain

Clean Energy Financing for projects that deploy innovative clean energy technologies at commercial scale or employ innovative manufacturing processes or manufacture innovative technologies at commercial scale.

### **Tribal Energy Financing**

Direct loans and partial loan guarantees for tribal energy development projects.

### Advanced Technology Vehicles Manufacturing Loan Program

Direct loans to support U.S. manufacturing of fuel-efficient advanced technology vehicles and qualifying components.

#### **CIFIA**

Loan guarantees and grants to deploy carbon dioxide transportation infrastructure.

Sources: <a href="https://www.energy.gov/lpo/state-energy-financing-institution-sefi-toolkit">https://www.energy.gov/lpo/state-energy-financing-institution-sefi-toolkit</a>

# USDA – Community Facilities Direct Loan & Grant Program



https://www.rd.usda.gov/programs-services/community-facilities/community-facilities-direct-loan-grant-program

#### What does this program do?

This program provides affordable funding to develop essential community facilities in rural areas. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial or business undertakings.

#### Who may apply for this program?

Eligible borrowers include:

- Public bodies
- · Community-based non-profit corporations
- Federally-recognized Tribes

#### What is an eligible area?

Rural areas including cities, villages, townships and towns including Federally Recognized Tribal Lands with no more than 20,000 residents according to the latest <u>U.S. Census Data</u> are eligible for this program.

#### How may funds be used:

Funds can be used to purchase, construct, and / or improve essential community facilities, purchase equipment and pay related project expenses.

Examples of essential community facilities include:

- Health care facilities such as hospitals, medical clinics, dental clinics, nursing homes or assisted living facilities.
- Public facilities such as town halls, courthouses, airport hangars or street improvements
- Community support services such as child care centers, community centers, fairgrounds or transitional housing
- Public safety services such as fire departments, police stations, prisons, police vehicles, fire trucks, public works vehicles or equipment
- · Educational services such as museums, libraries or private schools
- · Utility services such as telemedicine or distance learning equipment
- Local food systems such as community gardens, food pantries, community kitchens, food banks, food hubs or greenhouses

#### What kinds of funding are available?

- · Low interest direct loans
- Grants
- A combination of the two above, as well as our <u>loan guarantee program</u>. These may be combined with commercial financing to finance one project if all eligibility and feasibility requirements are met.

#### What are the funding priorities?

- Priority point system based on population, median household income
  - Small communities with a population of 5,500 or less
  - Low-income communities having a median household income below 80% of the state nonmetropolitan median household income.

#### What are the terms?

Funding is provided through a competitive process.

#### Direct Loan:

- Loan repayment terms may not be longer than the useful life of the facility, state statutes, the applicants authority, or a maximum of 40 years, whichever is less
- Interest rates are set by Rural Development, contact us for details and current rates
- Once the loan is approved, the interest rate is fixed for the entire term of the loan, and is determined by the
  median household income of the service area and population of the community
- There are no pre-payment penalties
- Contact us for details and current interest rates applicable for your project

# Department of Education – School Infrastructure Programs



https://oese.ed.gov/offices/school-infrastructure-programs-sip/

Two new grants focused on ensuring that school facilities and grounds provide safe, healthy, sustainable, and equitable learning environments.

Grant:	Supporting America's School Infrastructure Grants (SASI)	National Center on School Infrastructure (NCSI)
Purpose	Increase the capacity of States to support high-need LEAs and schools in leveraging other available Federal, State, and local resources to improve school facilities and environments for all students.	Establish a technical assistance center for school infrastructure that will support SASI grantees and high-need districts across the nation.
Туре	Discretionary	Cooperative
Award Amounts	8-12 state grants, a total of \$40 million	One grant, \$2 million a year for up to 5 years.
Timeline	Grantee announcements in Fall 2023	

# Department of Education – School Infrastructure Programs



The SASI grantees are listed below:

	Total Funding Level
Agency	over Five Years
Alabama State Department of Education	\$4,565,574
Arizona Department of Administration	\$4,997,500
California Department of Education	\$4,992,083
Commonwealth of the Northern Mariana Islands Public School System	\$4,999,005
Oregon Department of Education	\$4,999,997
Pennsylvania Department of Education	\$2,644,993
Rhode Island Department of Elementary and Secondary Education	\$4,960,860
Virginia Department of Education	\$5,000,000

The NCSI grantee is listed below:

Grantee Consortium	Total Funding Level over Five Years
Institute of Urban and Regional Development at the University of California- Berkeley, 21st Century School Fund, National Council on School Facilities, and Child Trends	\$10,000,000



## **EPA – Healthy Schools Environments**

https://www.epa.gov/schools



CONTACT US

### **Healthy School Environments**



# **Discussion Activity**

## Resources and Tools

# Better Building Solution Center – Renewable Energy Financing Resource







SEARCH SOLUTIONS Q



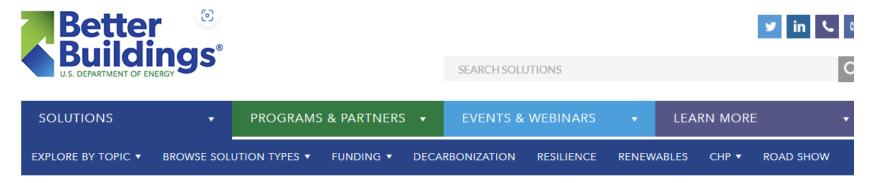
There are many ways to finance energy efficiency and renewable energy projects in buildings that you own or occupy.

The Navigator helps you cut through this complexity to secure financing that works for you.

https://betterbuildingssolutioncenter.energy.gov/financing-navigator#

# Better Building Solution Center – Renewable Energy Financing Resource





## TOOLKIT: FIND FINANCING FOR YOUR ENERGY PROJECT

A variety of barriers can prevent the funding of energy efficiency projects. This toolkit provides information and resources on traditional and specialized financing mechanisms to help overcome upfront costs and other financing barriers.



#### SECTOR:

Commercial, Data Center, Education, Financial Services, Industrial, Local Government, Multifamily, State Government, Utility

#### BARRIER:

Financing or paying for a project

#### TOOL TYPE:

Toolkit

https://betterbuildingssolutioncenter.energy.gov/toolkits/toolkit-find-financing-your-energy-project

## **EPA – Clean Energy Finance Tools and Resources**







https://www.epa.gov/statelocalenergy/clean-energy-finance-tools-and-resources

## **EPA Climate Action Funding Resource Guide**



A variety of tracking tools as well as an extensive list of federal funding programs that reduce GHG emissions related to:

- Electric Power
- Transportation
- Commercial and Residential Buildings
- Industrial and Waste Management
- Agriculture, Natural & Working Lands
- Tribal Programs



https://www.epa.gov/inflation-reduction-act/investing-america-climate-action-funding-resource-guide

### **EPA – Guide to IRA and BIL**





CONTACT US

### **Bipartisan Infrastructure Law**



https://www.epa.gov/infrastructure



#### **Inflation Reduction Act**



https://www.epa.gov/inflation-reduction-act

### **ACEEE – State and Local Policy Database**





State and Local Policy Database

View State Rankings 🚺

### **Energy Savings Performance Contracting**

If the necessary encouragement, leadership, and resources are in place, states can finance energy improvements through Energy Savings Performance Contracts (ESPCs), which allow the state to enter into a performance-based agreement with an energy service company (ESCO). The contract allows the state to pay the company for its services with money saved by installing energy efficiency measures.

https://database.aceee.org/state/energy-savings-performance

### **ESPC** Resources



- ESPC Legislation Data
- ESPC: A Primer for K-12 Schools
- Financing Energy Upgrades for K-12 School Districts
- <u>eProject eXpress (ePX)</u>
  - On-demand Webinar: <u>Streamlining efficiency project tracking for K-12 schools</u>
- Performance Contracting National Resource Center
  - On-demand, accredited ESPC training series (through the lens of an Owner's Representative)
- ESPC Financing Options
- ESPC Toolkit
  - o ESPC for Small Projects Guide
  - ESPC: Improving Infrastructure and Turning Waste into Wins
  - Understanding Your ESPC Savings Guarantee
  - Model Documents for an ESPC Project
    - Update coming soon!

# ACCC – Federal Funding Opportunities and Resource for Decarbonization



American Cities
Climate Challenge
RENEWABLES ACCELERATOR

Guidance Tools & Resources City Actions About

### **FUNDING GUIDANCE**

#### America's Federal Funding Opportunities and Resources for Decarbonization

This tool is primarily intended to streamline state, local, non-profit, and community efforts to increase understanding of eligible funding, tax credits, and other incentives relevant to your project, goals, and community. The tool focuses on decarbonization efforts, including electricity, transportation, buildings, and resilient energy systems. It does not exhaustively capture federal resources for other topics. Use the filters below to sort available funding sources automatically and focus on the funding sources relevant to your project, goals, and community. Then use the compare feature to select up to 4 programs most relevant to review side-by-side.



#### **UPDATES**

The AFFORD tool will be updated on a quarterly basis until otherwise noted. This version of AFFORD was last updated in September 2023.

#### **LEARN MORE**

For more information on the AFFORD tool, check out our Funding Guidance. Contact Matthew Popkin (mpopkin@rmi.org) or Alex Dane (alex.dane@wri.org) with any questions or feedback.

https://cityrenewables.org/ffold/

### IRS Guidance on Inflation Reduction Act



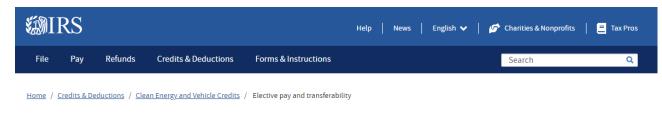
https://www.irs.gov/inflation-reduction-act-of-2022



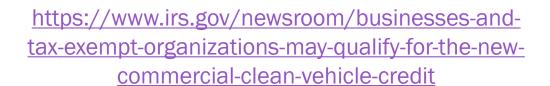
### Inflation Reduction Act of 2022

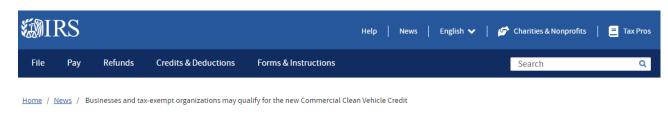
pay-and-transferability





### **Elective pay and transferability**





Businesses and tax-exempt organizations may qualify for the new Commercial Clean Vehicle Credit

# DOE – Public Sector Funding & Technical Assistance Programs





https://www.energy.gov/scep/slsc/public-sector-funding-technical-assistance-programs

# Conclusion & Next Steps

## **Course Key Concepts Review**



- Types of Procurement Approaches
- Integrating Energy/GHG Emissions and Organizational Goals into your Projects
- Energy Data Management and Best Practices
- Data Types and Tools
- Energy Systems, Markets, and Credits
- Energy Procurement Goals and Options for Clean Energy Projects
- Weighing and Prioritization of Upgrades for Project RFPs
- Evaluating Responses, Selecting a Contractor, Getting Reliable Results
- IRA + BIL Credits, Grants, and Incentives

## Assignment



Thinking about your project and the final deliverable for Phase 2 submission:

- 1) Identify an aligned procurement strategy (or strategies) and post in the discussion board a summary of your project goals, project scope, funding needs, and why that approach seems most promising.
- 2) Identify next steps you need to pursue to vet the project, further develop your proposal, and receive feedback within your organization.
- 3) Read and comment on other LEA's proposals that have similar projects or are considering similar procurement strategies. Note if this is something you would like 1x1 coaching to dig into deeper.

## **Cohort Groups**



### Procurement Strategies Cohort Meeting: Tues. January 23, 2024 (3PM-4PM Eastern)

#### **Cohort 1: Grants**

- 1. Detroit Public Schools
- 2. Natchez Adams School District
- 3. Mascoma Valley Regional School District
- 4. Elkhorn Area School District
- 5. Lansing Public Schools
- 6. Milwaukee Public Schools
- 7. Martin County Schools

### **Cohort 2: Utility Rebates and Incentives**

- 1. Jackson County Public Schools
- 2. Kansas City Public Schools
- 3. Southwest Vermont Supervisory Union
- 4. City Schools of Decatur
- 5. Orange County Public Schools
- 6. Granite School District

### **Cohort 3: Energy Savings Performance Contracts (ESPCs)**

- 1. Brevard Public Schools
- 2. Irvington Public School District
- 3. East Cleveland City Schools
- 4. NEWESD 101
- 5. Canajoharie Central School District
- 6. Albemarle County Public Schools

## Cohort 4: Tax Credits/Deductions (Elective/Direct Pay & Transferability, 179D)

- 1. Paducah Public Schools
- 2. Environmental Charter Schools
- 3. IDEA Public Schools
- 4. Baltimore City Public Schools
- 5. San Antonio Independent School District
- 6. Nenana City School District



## Questions?

We look forward to working with you!

