



Center for Green Schools
at the U.S. Green Building Council

WHO WE ARE: Global leader in advancing green schools, providing school districts and education leaders with resources and training to create sustainable, healthy, resilient and equitable learning environments.

WHAT WE DO: We support and train those implementing sustainability within school systems to be the most effective change agents they can be, through professional development, peer networks, research, and advocacy.



New: Green School Design & Construction Peer Learning Network

Join the launch of our free network for capital projects staff and leaders who want to connect with peers around green design and construction practices.

Email schools@usgbc.org to learn more and get connected.

Network generously supported by **ShawContract**®



Series: Federal Funding for School Buildings

- **Session One:** The Fundamentals of Federal Funding for School Buildings
- **Session Two:** Federal Funding for Equipment Installation or Replacement at K-12 Schools
- **Session Three:** Federal Funding for School Renovation and New Construction
- **Session Four:** Unanswered Questions



Education

Type to search



ACCESS

- ☐ Subscription
- ☐ Free

FORMAT

- ☐ On Demand: Article/Print
- ☐ On Demand: Online

PLAYLIST

Explore our favorites

- ☐ Equity
- ☐ Case Studies
- ☐ GBCI Programs
- ☐ Key concepts for architects
- ☐ Key concepts for contractors and builders
- ☐ Key concepts for facility professionals
- ☐ Sustainability Excellence credential CMP

BADGE

CONTINUING EDUCATION (CREDENTIAL)

Course Provider: Center for Green Schools X

54 courses

Tags

★ Favorites

Recently Published



Healthy & Sustainable Purchasing For Schools

59 minutes • Intermediate
1 CE hour



Healthy Green Purchasing for Asthma Prevention

Basic
1 CE hours



State-Level Legislation Concerning K-12 Climate Change Education

Basic
1 CE hours



Federal Funding for School Buildings Series

Basic
3 CE hours



Unanswered Question: Addressing FAQs from Series Attendees

59 minutes • Basic
0 CE hours



Federal Funding for School Renovation and New Construction

62 minutes • Intermediate
1 CE hours



Let's learn more about
each other.

Today's session sequence:

School district perspective: What's possible?

LANDSCAPE
OF FUNDING

FINDING
INFORMATION

TAX
INCENTIVES

MAXIMIZING
THE FUNDING

Today's session sequence:

School district perspective: What's possible?

LANDSCAPE
OF FUNDING

FINDING
INFORMATION

TAX
INCENTIVES

MAXIMIZING
THE FUNDING

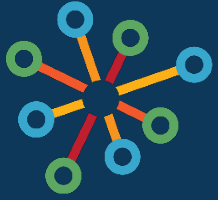
Durham Public Schools EdSpaces 2023



DURHAM
PUBLIC SCHOOLS

sitelogiq®
Efficiency Powered by Intelligence

#WeAreDPS



DURHAM
PUBLIC SCHOOLS

ABOUT DPS

55
Campuses

- 32,000 Students
- 32 Elementary
- 11 Middle Schools
- 10 High Schools

Specialty

- Arts
- Medicine
- STEM/IB
- Early College
- Virtual Academy

9
Under
Construction

- 4 New Construction
- 5 Complete Renovations

48
Participating
In Energy
Program

- Temperature Setpoints
- Setback Nights & Weekends
- Energy Efficiency Upgrades

FY2023 PROGRAM IMPACT



18.7M

lbs of CO₂
Avoided



\$1,077,826

Energy Costs Savings

↓15%

Energy Reduction
compared to FY2019



61 MWh

of Solar Electricity
Generated

3 KEYS FOR ENERGY MANAGEMENT PROGRAM SUCCESS:



Slowly Introduce New Practices:

Collaborate to create and communicate policies and procedures that build conservation goals and actions.



Investigate:

Look closely at the bills and on-site for energy conservation opportunities.



Measure & Monitor:

Deploy an energy dashboard to keep track of progress and help identify trends & anomalies in usage and billing.

Leveraging Local & Federal Funding

SOURCES

- Federal
 - ESSER
 - IRA
 - BIL
- Municipal Bonds
- Lottery
- Internal



PROJECTS

- Outdoor Classrooms
- Bottle Filler Water Fountains
- EV Charging Stations (Fleet, Faculty, and Students)
- HVAC & Controls Upgrades
- LED Retrofits
- Indoor Air Quality Study & Upgrades
- Solar Feasibility Study



Internal & External Funding Opportunities



EPA CLEAN SCHOOL BUS PROGRAM

Grant: \$400M

Rebate: \$500M*

*Open – Applications due
Jan 31st, 2024



DOE RENEW AMERICA'S SCHOOLS PROGRAM

Grant: \$500M*

*Closed – Next Round
Spring 2024



INTERNAL GREEN REINVESTMENT FUND

Energy Savings
+
Utility Rebates

New Construction Projects – Just Opened!

Credit: Davis Kane – Architect



Lyons Farm Elementary School – Aug '22



Credit: RATIO – Architect & Interior Design

Northern High School Replacement – Aug '23

New Construction Projects

Credit: EVOKE Studios — Architect & Interior Design



Murray Massenburg Elementary, Opening Fall 2024

New Construction Projects

Credit: EVOKE Studios — Architect & Interior Design



Murray Massenburg Elementary, Opening Fall 2024

Thank you



Aaron Hope
Energy Manager
aaron.hope@sitelogiq.com



DURHAM
PUBLIC SCHOOLS

Today's session sequence:

School district perspective: What's possible?

LANDSCAPE
OF FUNDING

FINDING
INFORMATION

TAX
INCENTIVES

MAXIMIZING
THE FUNDING

OUTLINE: FUNDING FOR SCHOOL BUILDINGS

AMERICAN RESCUE PLAN (2021)

- Elementary and Secondary Schools Emergency Relief (ESSER III)

INFRASTRUCTURE INVESTMENT AND JOBS ACT / BIPARTISAN INFRASTRUCTURE LAW (2022)

- Renew America's Schools grant program (DOE), which also funded the CLASS Prize
- *Grants to states to benefit schools:* WIIN Grant Program for school drinking water (EPA)
- *Opportunity to partner with local municipalities:* Energy Efficiency Conservation Block Grants (DOE)
- *Opportunity to partner with state hazard mitigation officer:* Building Resilient Infrastructure & Communities (FEMA)
- *Vehicles only:* Clean School Bus Program (EPA)
- Charging and Fueling Infrastructure Grants (DOT)

INFLATION REDUCTION ACT (2023)

- Clean Energy Tax Credits (IRS)
- 179D Commercial Buildings Energy Efficiency Tax Deduction (IRS)
- Greenhouse Gas Reduction Fund (EPA)
- School Air Quality Improvement (EPA)
- Alternative Fuel Infrastructure Tax Credits (IRS)
- *Opportunities to partner with local municipalities:* Grants for Environmental Justice, Climate Pollution Reduction, and Recycling Infrastructure (EPA)
- *Opportunity to partner with local municipalities:* Climate Resilience Regional Challenge (NOAA)

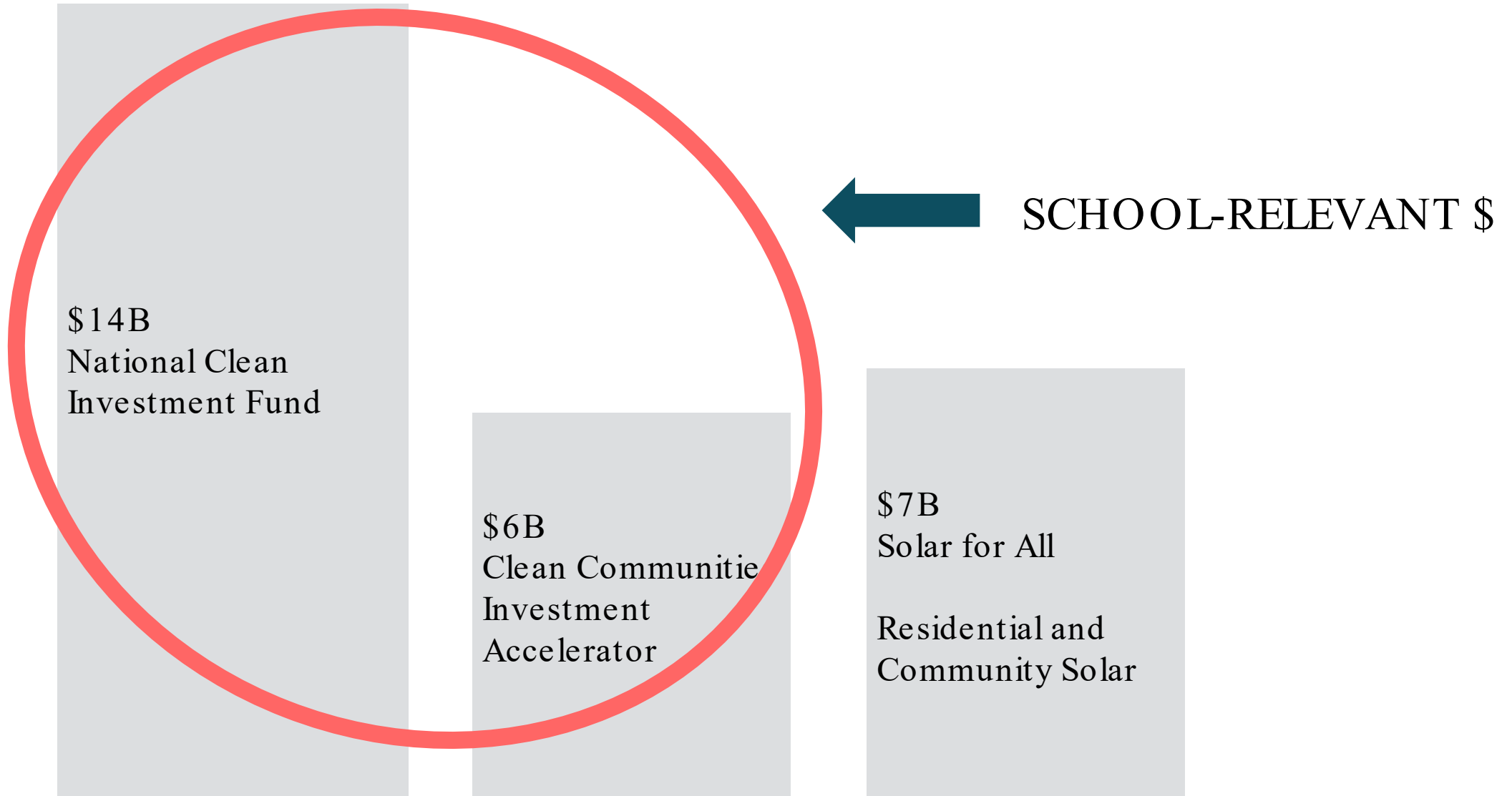
Bipartisan Infrastructure Law

- Also known as IIJA or BIL
- \$1.2 trillion for repairing and modernizing the nation's infrastructure.
 - Expansion of the electric school and transit bus fleet
 - Buildings & Schools: \$6.2 billion

Inflation Reduction Act

- \$365 billion investment in climate, energy and environmental programs
 - Tackle climate change by reducing emissions up to 42% by 2030
 - Accelerate clean energy and clean vehicle deployment
- Buildings: \$14.1 billion
- Crosscutting Investments: \$72 billion

Greenhouse Gas Reduction Fund \$27B



Greenhouse Gas Reduction Fund (IRA Sec. 60103)

Creates a new **\$27B “green bank”** through EPA to stand up national climate financing initiative, with three funding buckets:

- **\$7B Solar for All** program providing up to 60 grants to states, tribes, municipalities, and nonprofits for residential and community solar in low-income and disadvantaged communities.
- **\$14B National Clean Investment Fund** competition funding 2-3 national nonprofits to partner with private capital providers to provide financing to businesses, communities, community lenders, and others, catalyzing tens of thousands of climate-related projects.**
- **\$6B Clean Communities Investment Accelerator** funding 2-7 hub nonprofits to rapidly scale the capacity of CDFIs, credit unions, local green banks, housing finance agencies, etc. to provide financing to households, schools, small businesses, community institutions, etc. in low-income and disadvantaged communities.**

**Zero-emissions new buildings and emissions-reducing retrofits of existing buildings designated as priority for financing in these buckets (see next slide). More information [here](#).



1222 22nd Street NW | LEED Gold | Photo credit: ©Eric Laignel Photography

Greenhouse Gas Reduction Fund (IRA Sec. 60103)

Net-zero emissions buildings are cited as one of three priority funding areas for the \$14B National Clean Investment Fund and \$6B Clean Communities Investment Accelerator:

“Net-Zero Emissions Buildings: Projects, activities, and technologies that either (1) retrofit an existing building, making a substantial contribution to that building being a net-zero emissions building and as part of a plan for that building achieving zero-over-time, or (2) construct a new net-zero emissions building in a low-income and disadvantaged community.”

Project examples include grid-interactive appliance electrification in affordable multifamily housing alongside energy efficiency, indoor air quality improvements, and solar; **school building space and water heating grid-interactive electrification and energy efficiency**; replacement of backup diesel generators with battery storage, including paired with distributed power generation; and community facility retrofits with on-site solar, storage, and charging infrastructure.

Equity, Labor and Domestic Content

Justice 40

40% of all climate, clean energy federal investments benefit disadvantaged communities;

Disadvantaged communities:

- Climate and Economic Justice Screening Tool (CEQ)
- Energy Justice Mapping Tool for Schools (DOE)

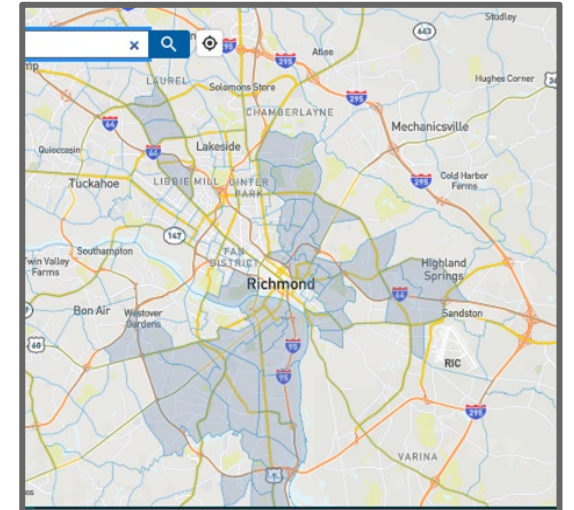
Prevailing wage

Applies to retrofits with federal \$; required for larger clean energy projects

Domestic content

Relevant to 1) procuring construction materials, 2) qualifying for direct pay/ domestic content bonus

- *Build America Buy America* provision



**BLUEGREEN
ALLIANCE**

www.bluegreenalliance.org

Equity, Labor and Domestic Content

Program	Equity	Labor	Domestic Content
Clean Energy Tax Credits	+10 bonus for low-income, energy communities	30% base for projects > 1 MW prevailing wage, registered apprenticeship	+10% bonus for domestic content
179D Tax Deduction		\$5 sq ft =Prevailing wage, registered apprenticeship	
Greenhouse Gas Reduction Fund	Prioritizes DACs	TBD	TBD
Renew America's Schools	Prioritizes DACs	Prevailing wage req	Required
School Indoor Air	Prioritizes DACs	Prevailing wage req	Required
ESSER (ARP)	Formula grants	Prevailing wage (for D.C.)	Domestic content preference



**BLUEGREEN
ALLIANCE**

www.bluegreenalliance.org

Today's session sequence:

School district perspective: What's possible?

LANDSCAPE
OF FUNDING

FINDING
INFORMATION

TAX
INCENTIVES

MAXIMIZING
THE FUNDING

INFLATION REDUCTION ACT TRACKER

 Columbia Law School | COLUMBIA CLIMATE SCHOOL
SABIN CENTER FOR CLIMATE CHANGE LAW



IRATracker.org





Using the Database vs. the Tracker

- Use the *database* to identify provisions relevant to schools
- Use the *tracker* to follow provisions/upcoming funding opportunities of interest

Using the Database: Relevant federal agencies

- EPA
- DOE
- Treasury

COUNCIL ON ENVIRONMENTAL QUALITY 2 programs	DEPARTMENT OF AGRICULTURE 14 programs	DEPARTMENT OF ENERGY 17 programs
DEPARTMENT OF HOMELAND SECURITY 2 programs	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT 1 program	DEPARTMENT OF THE INTERIOR 19 programs
DEPARTMENT OF THE TREASURY 28 programs	DEPARTMENT OF TRANSPORTATION 4 programs	ENVIRONMENTAL PROTECTION AGENCY 17 programs

OUTLINE: FUNDING FOR SCHOOL BUILDINGS

AMERICAN RESCUE PLAN (2021)

- Elementary and Secondary Schools Emergency Relief (ESSER III)

INFRASTRUCTURE INVESTMENT AND JOBS ACT / BIPARTISAN INFRASTRUCTURE LAW (2022)

- Renew America's Schools grant program (DOE), which also funded the CLASS Prize
- *Grants to states to benefit schools:* WIIN Grant Program for school drinking water (EPA)
- *Opportunity to partner with local municipalities:* Energy Efficiency Conservation Block Grants (DOE)
- *Opportunity to partner with state hazard mitigation officer:* Building Resilient Infrastructure & Communities (FEMA)
- *Vehicles only:* Clean School Bus Program (EPA)
- Charging and Fueling Infrastructure Grants (DOT)

INFLATION REDUCTION ACT (2023)

- Clean Energy Tax Credits (IRS)
- 179D Commercial Buildings Energy Efficiency Tax Deduction (IRS)
- Greenhouse Gas Reduction Fund (EPA)
- School Air Quality Improvement (EPA)
- Alternative Fuel Infrastructure Tax Credits (IRS)
- *Opportunities to partner with local municipalities:* Grants for Environmental Justice, Climate Pollution Reduction, and Recycling Infrastructure (EPA)
- *Opportunity to partner with local municipalities:* Climate Resilience Regional Challenge (NOAA)

OUTLINE: FUNDING FOR SCHOOL BUILDINGS

AMERICAN RESCUE PLAN (2021)

- Elementary and Secondary Schools Emergency Relief (ESSER III)

INFRASTRUCTURE INVESTMENT AND JOBS ACT / BIPARTISAN INFRASTRUCTURE LAW (2022)

- Renew America's Schools grant program (DOE), which also funded the CLASS Prize
- *Grants to states to benefit schools:* WIIN Grant Program for school drinking water (EPA)
- *Opportunity to partner with local municipalities:* Energy Efficiency Conservation Block Grants (DOE)
- *Opportunity to partner with state hazard mitigation officer:* Building Resilient Infrastructure & Communities (FEMA)
- *Vehicles only:* Clean School Bus Program (EPA)
- Charging and Fueling Infrastructure Grants (DOT)

INFLATION REDUCTION ACT (2023)

- Clean Energy Tax Credits (IRS)
- 179D Commercial Buildings Energy Efficiency Tax Deduction (IRS)
- Greenhouse Gas Reduction Fund (EPA)
- School Air Quality Improvement (EPA)
- Alternative Fuel Infrastructure Tax Credits (IRS)
- *Opportunities to partner with local municipalities:* Grants for Environmental Justice, Climate Pollution Reduction, and Recycling Infrastructure (EPA)
- *Opportunity to partner with local municipalities:* Climate Resilience Regional Challenge (NOAA)

Today's session sequence:

School district perspective: What's possible?

LANDSCAPE
OF FUNDING

FINDING
INFORMATION

TAX
INCENTIVES

MAXIMIZING
THE FUNDING

Investment Tax Credit (ITC) & Schools

Key Features:

- Can defray up to 50-60% of install costs for clean energy technologies including:
 - solar energy,
 - energy storage, and
 - ground-source heat pumps (“geothermal”)
- Available at current levels until 2033+
- Non-competitive, no “application”
- Uncapped (unlimited # of schools can participate)
- Cash payment to non-taxable entities (“Direct Pay”)



DIRECT PAY THROUGH THE INFLATION REDUCTION ACT

 CLEAN ENERGY

<https://www.whitehouse.gov/cleanenergy/directpay/>



BLUEGREEN
ALLIANCE

**Making Clean Energy Tax Credits
Deliver for the Public: A User Guide for
Governments, Schools, and Nonprofits**

<https://www.bluegreenalliance.org/resources/making-clean-energy-tax-credits-deliver-for-the-public-a-user-guide-for-governments-schools-and-nonprofits/>

Source: Sara Ross, *Undaunted K12*. Presented August 2023.

Section 48 — Clean Energy Investment Tax Credit

Eligibility and Qualifications

Qualified eligible property must meet certain energy-efficiency technical criteria. Eligible property includes:

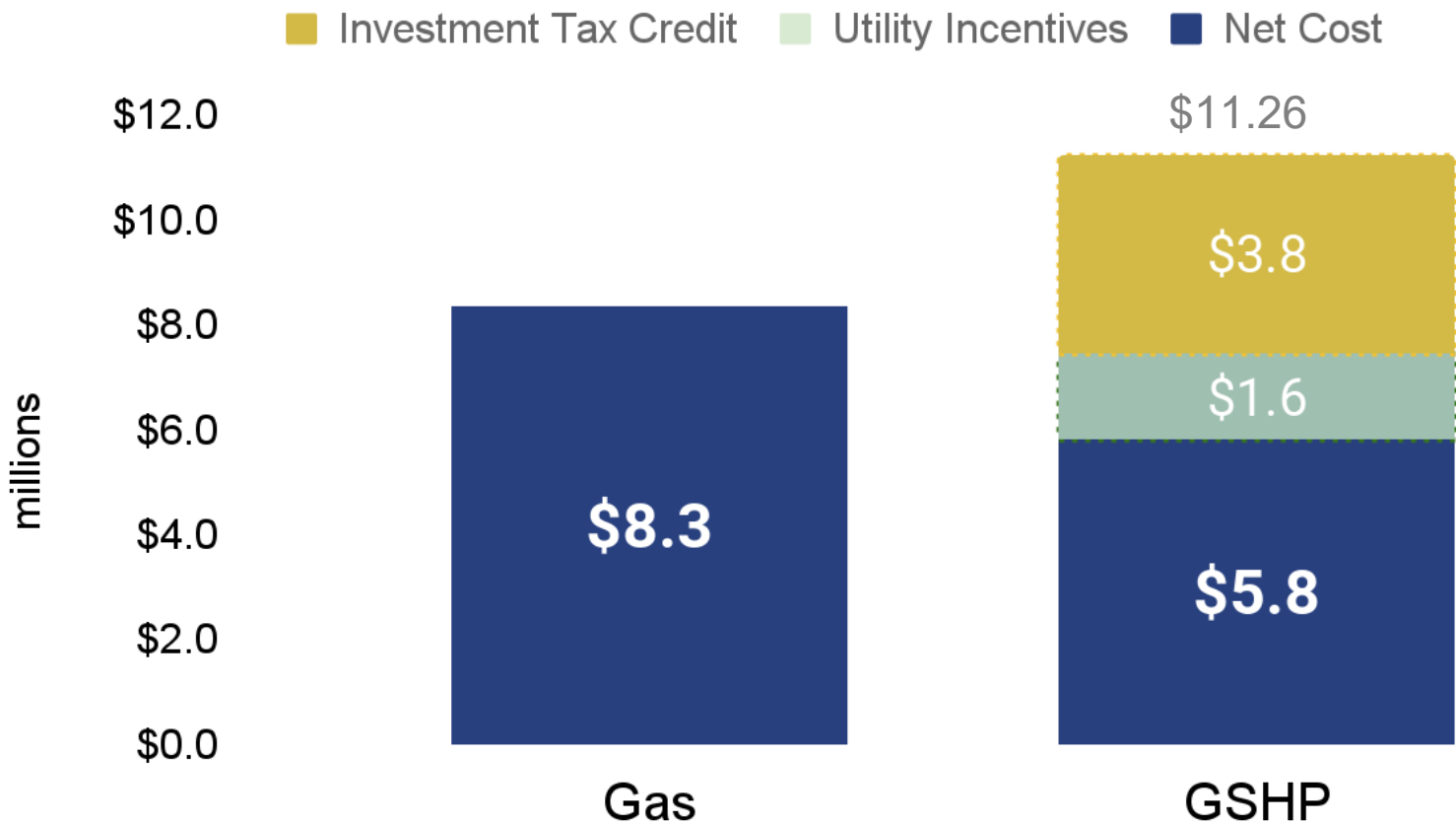
- Qualified solar energy property
- Combined heat and power (CHP) property
- Waste energy recovery property
- Geothermal heat pump
- Qualified fuel cell property
- Qualified small wind energy property
- Fiber-optic solar
- Offshore wind
- Microturbines
- Stand-alone energy storage technology
- Qualified biogas property
- Microgrid controllers

Identifying qualifying projects can be difficult, as they could be part of broader projects. Examples include:

- Boiler replacement
- Steam or gas turbine generator
- Waste heat recovery
- Plant infrastructure and reliability, redundancy, resiliency
- Process or production upgrades or expansion
- Environmental compliance, emissions control, abatement
- Cogeneration
- Thermal plant or steam, heat plant projects

Incentives can make “clean” the most affordable choice

Cost estimates for HVAC system installation w incentives
(Gas vs Ground-Source Heat Pump)



Source: Cost estimates for Fort River Elementary in Amherst, MA (new construction)
Note: First costs for “gas” represent the alternative from the cost estimators if the project swapped out GSHP for a gas boiler with separate cooling equipment.

Source: Sara Ross, Undaunted K12. Presented August 2023.

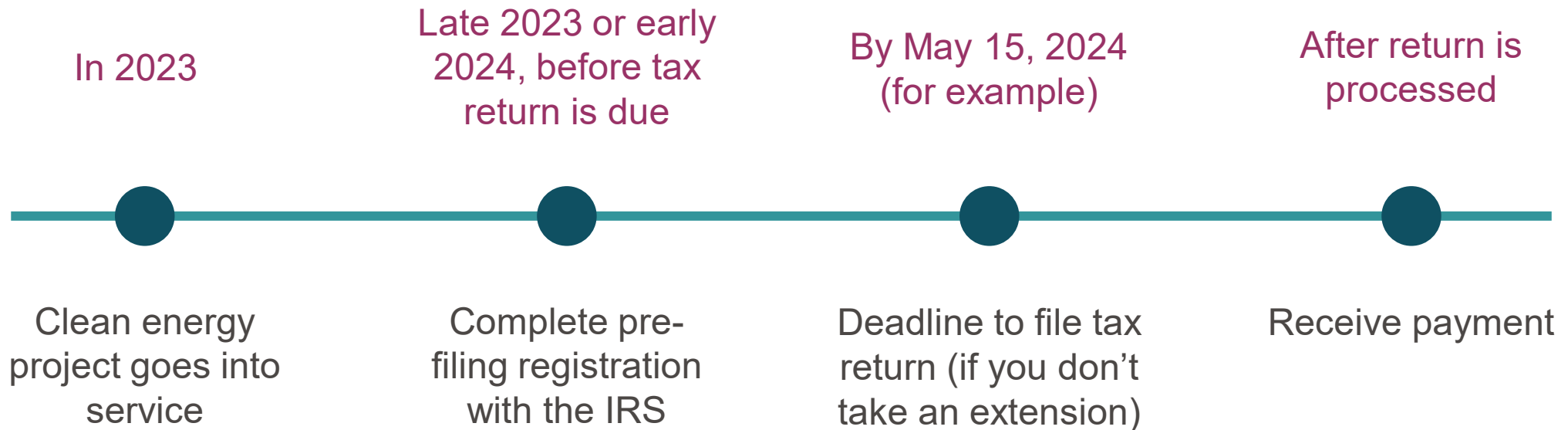


EXAMPLE:

Local Government Project Placed into Service in 2023

A local government that makes a clean energy investment that qualifies for the investment tax credit can file an annual tax return (via Form 990-T) 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.



179D Energy Efficient Commercial Building Tax Deduction

- One-time deduction during year placed in service
- Applies to both retrofit & new construction
- District Energy (CHP, Chilled H2O, Central Plants) and other projects affecting large area (sqft) are a particular opportunity
- Includes :
 1. Interior Lighting System
 2. HVAC & Hot Water System
 3. Building Envelope

Special Rule for Government-Owned Buildings

- Nonprofits (like private schools) and Tribal Governments are included in the 179D Special Rule as a result of the 2022 IRA.
- Owner may Assign 179D deduction to the 'Designer' of a Qualified Project in return for negotiated savings.
- Designer may include: Architect, Engineer, Design-Build Contractor, Environmental Consultant, Manufacturer or Energy Services Company. Parties that 'merely install' do not qualify.

179D Retroactive Opportunity

- 2019-2022 Completions
 - Need to process over next 6-36 months under existing rules before the rules sunset
- Combined 50% Savings vs. ASHRAE 90.1-2007
 - 25% Lighting, 15% HVAC, 10% Envelope
- \$1.80/sqft in 2019/2020 dollars (increase indexed to inflation)
- IRS NOTICES: 2006-52, 2008-40, 2012-17

179D pre/post IRA Changes review

Pre-2023

- Maximum \$1.88/square foot
- Individual systems can qualify
- Special Rule for Governments only
- One time deduction
- Certified vs. ASHRAE 90.1-2007 Baseline

2023 and Beyond

- Maximum \$5.00/square foot
- Whole building must qualify
- Special Rule for Govts/Nonprofits/Tribal
- Deduction reset
 - 3 years - Commercial
 - 4 years – Govt/Nonprofit/Tribal
- Certification:
 - Updated ASHRAE 90.1, OR
 - Same building savings via Qualified Retrofit Plan

Today's session sequence:

School district perspective: What's possible?

LANDSCAPE
OF FUNDING

FINDING
INFORMATION

TAX
INCENTIVES

MAXIMIZING
THE FUNDING

Research state and utility programs for additional resources

- DSIRE Database: <https://www.dsireusa.org/>
- IncentiFind: <http://www.incentifind.com/>
 - USGBC members at the Silver, Gold, and Platinum levels have access through their site user accounts

EXAMPLES:

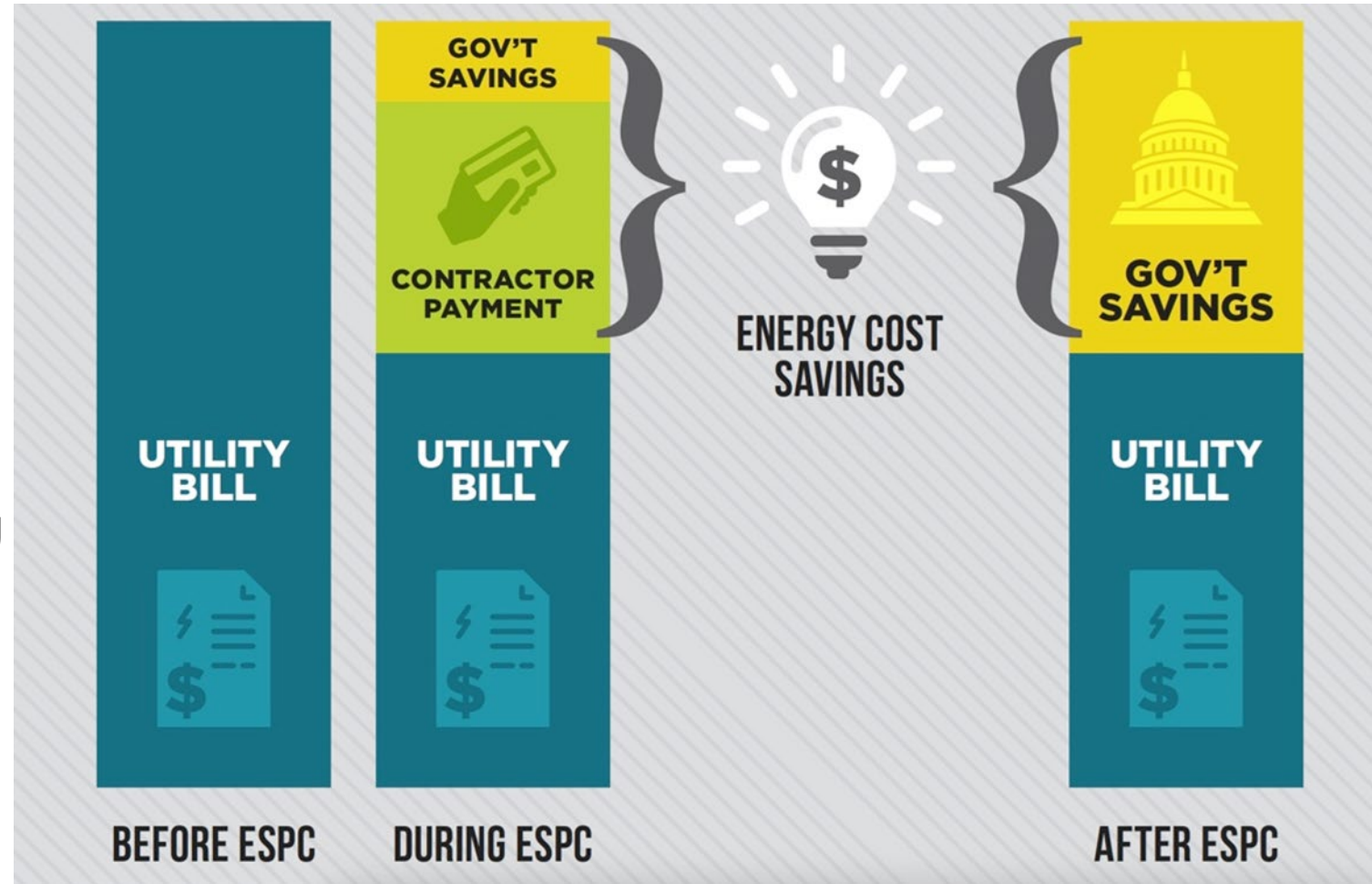
- New York: P-12 Clean Green Schools Initiative
- New Jersey: School and Small Business Energy Efficiency Stimulus Program (now closed)
- California: California Schools Healthy Air, Plumbing, and Efficiency Program



Leverage the funding with an ESCO

HVAC Retrofit

- ESCO – Energy Service Company
- ESPC – Energy Savings Performance Contract
- Each state has a unique process for the procurement of an ESPC – often managed by the state energy office
- Payback drives the ability to fund building retrofits
- HVAC Retrofits can often provide funding to pay for the improvements
- However, some more comprehensive retrofits may need additional funding



Leveraging the funding with an ESCO

HVAC Retrofit

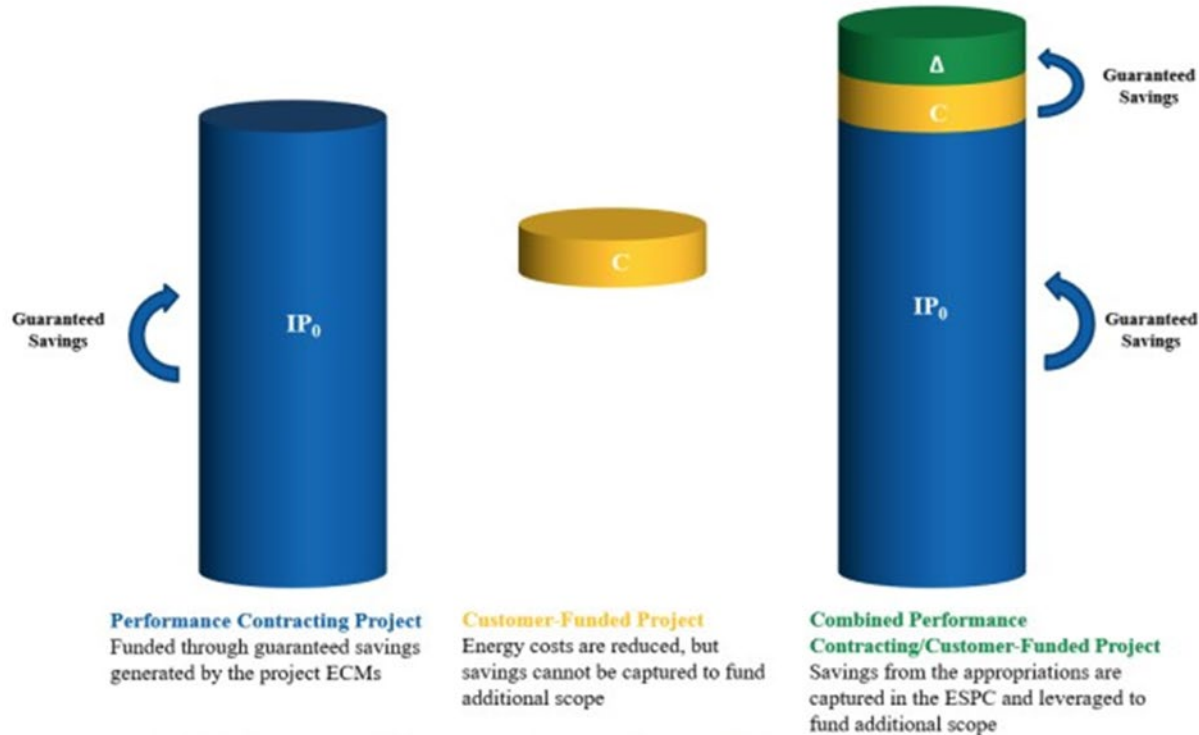


Figure 2: Energy savings can only be capitalized and leveraged to incorporate additional ECMs when available customer funding is incorporated into a performance contract.

- Since some HVAC Retrofit items do not cover the cost, **LEVERAGING** the funds becomes critical
- This figure is repeated from the prior webinar
- Capital funds, Tax Credits, 179d Deductions, etc.
- Boilers, Chillers, Rooftop units often need help in meeting payback requirements.
- Building controls, some air-side changes can meet payback requirements.
- Outside air considerations have a significant impact on payback.
- Baseline is critical to understanding the impact and ability to fund using this method.

KEY RESOURCES & REFERENCES

INFLATION REDUCTION ACT TRACKER

 Columbia Law School | COLUMBIA CLIMATE SCHOOL
SABIN CENTER FOR CLIMATE CHANGE LAW



IRATracker.org



Publications on BlueGreen Alliance website

- Roadmap to Navigating Federal Funding for Public Buildings
- Blog with news and resource updates
- Direct Pay User Guide
- Check out [bluegreenalliance.org](https://www.bluegreenalliance.org)

ROADMAP TO NAVIGATING FEDERAL FUNDING FOR PUBLIC BUILDINGS

FUNDING FROM THE BIPARTISAN INFRASTRUCTURE LAW (BIL)
AND INFLATION REDUCTION ACT FOR MUNICIPAL, UNIVERSITY,
SCHOOL, AND HOSPITAL (MUSH) BUILDINGS



**BLUEGREEN
ALLIANCE**

www.bluegreenalliance.org

Series: Federal Funding for School Buildings

- **Session One:** The Fundamentals of Federal Funding for School Buildings
- **Session Two:** Federal Funding for Equipment Installation or Replacement at K-12 Schools
- **Session Three:** Federal Funding for School Renovation and New Construction
- **Session Four:** Unanswered Questions



How did we do today?



New: Green School Design & Construction Peer Learning Network

Join the launch of our free network for capital projects staff and leaders who want to connect with peers around green design and construction practices.

Email schools@usgbc.org to learn more and get connected.

Network generously supported by **ShawContract**®



Questions?

