



BENJAMIN BANNEKER
ACADEMIC HIGH SCHOOL

1600

Inflation Reduction Act & Schools: New federal funding for healthy, sustainable, cost-effective schools

About us



Our mission is to support America's K-12 public schools to make an equitable transition to zero carbon emissions while preparing our youth to build a sustainable future in a rapidly changing climate.



Student health & learning



Resilient communities



Fiscal responsibility



Young people's call to action



The Inflation Reduction Act is here!

Implementing America's Clean Energy Future

This report provides recommendations for how states and local governments, federal agencies, and other interested parties can work together to advance climate leadership at the state and local levels.



How many jobs is the Inflation Reduction Act spurring? A lot

A new analysis finds 400,000-plus jobs will be created from the 210 EV, battery and clean energy projects launched since the climate law passed.

By Jeff St. John
1 November 2023



The Inflation Reduction Act Reduces Emissions and Income Inequality

The Inflation Reduction Act helps low-income households save money on clean energy, home materials, and transportation, while building resilience to climate change and economic insecurity.



Schools Can Use These Little-Known, Unlimited Funds to Make Their Buildings Greener

By Mark Lieberman — October 10, 2023 5 min read



Schools are intended recipients of clean energy tax credits

An official website of the United States Government

 U.S. DEPARTMENT OF THE TREASURY

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PRESS RELEASES

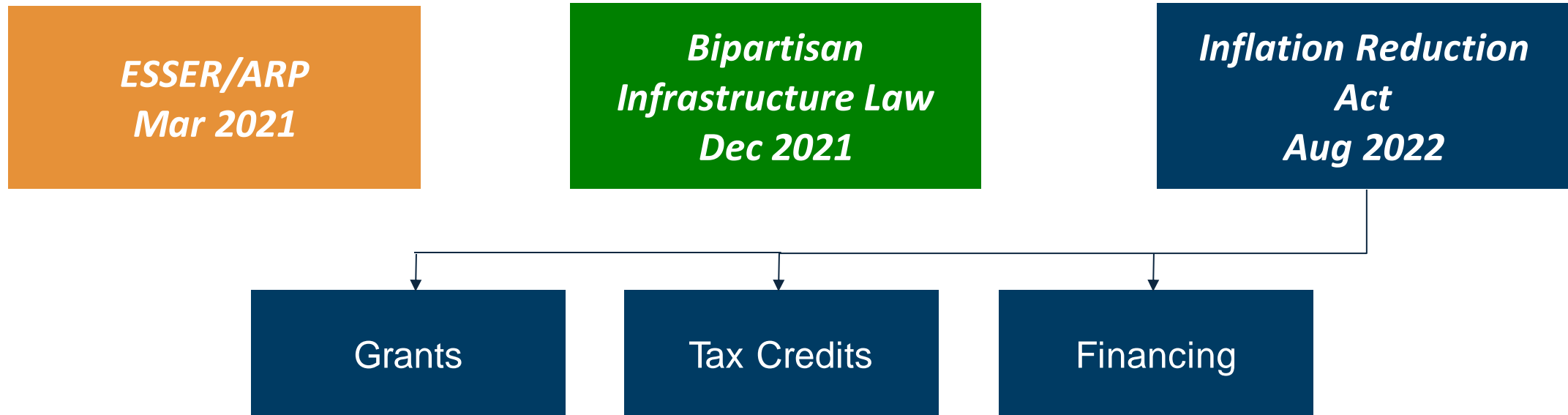
FACT SHEET: Inflation Reduction Act Tax Credits Can Fund School Facilities Upgrades and Reduce School District Energy Bills

January 4, 2024

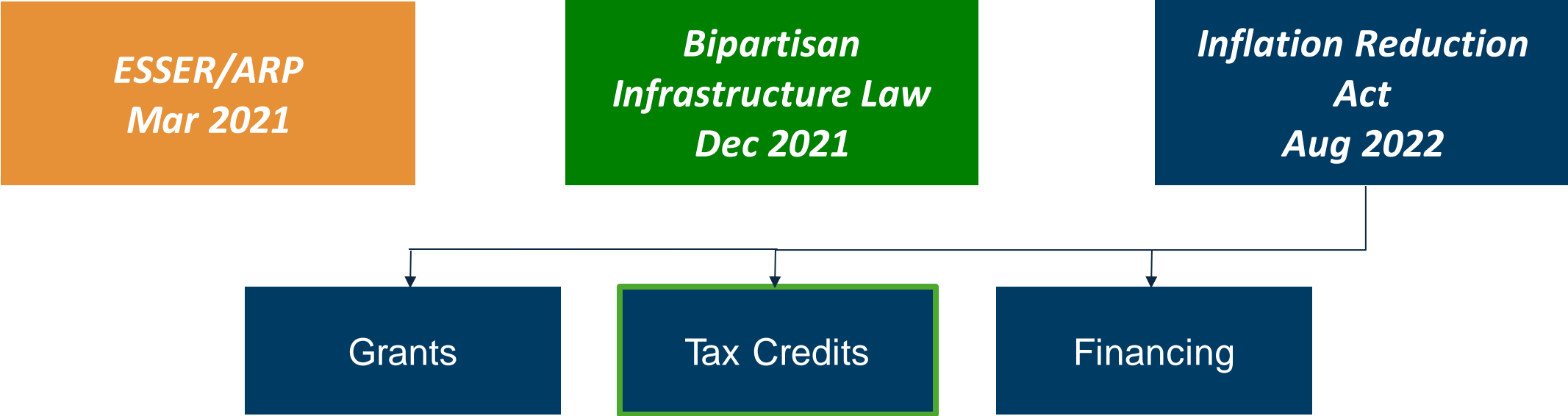
FACT SHEET: Inflation Reduction Act Tax Credits Can Fund School Facilities Upgrades and Reduce School District Energy Bills

According to the U.S. Department of Energy, K-12 school districts spend nearly \$8 billion annually on energy costs, the second largest expense after teacher salaries. Aging facilities combined with limited school budgets can result in deferred maintenance of facilities, with current estimates of

The federal funding context for schools



Largest opportunity is the clean energy tax credits



...and they are available now!



What's so special about the clean energy tax credits?

Non-competitive

Cash
reimbursement

Available until
2032+

Unlimited
funding

The IRA provides funding for these clean energy machines



HEAT PUMPS*

Clean heating and cooling



ELECTRIC VEHICLES

Clean transportation



SOLAR ENERGY

Clean energy



ENERGY STORAGE

Store clean energy

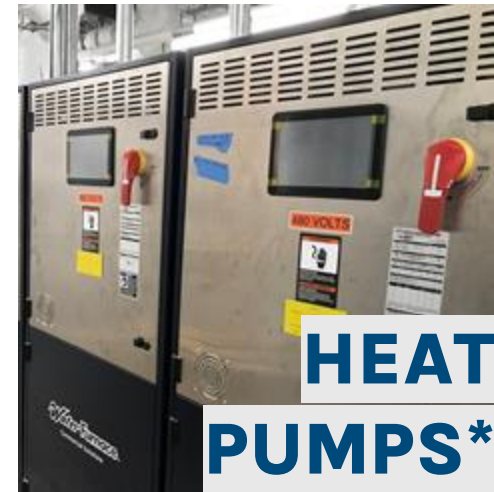


EV CHARGING

Enable clean transport

*Just ground-source heat pumps, not air-source

The IRA could be among the largest federal investments in school facilities. How?



**HEAT
PUMPS***

Typical credit
\$3M
\$15BN
if 5,000
schools install



**ELECTRIC
VEHICLES**

\$40k per
bus
\$1.9BN*
if 48,000
buses



**SOLAR
ENERGY**

Typical credit
\$500k
\$5BN
if 10,000
schools install



**ENERGY
STORAGE**

Typical credit
\$300k
\$3BN
if 10,000
schools install



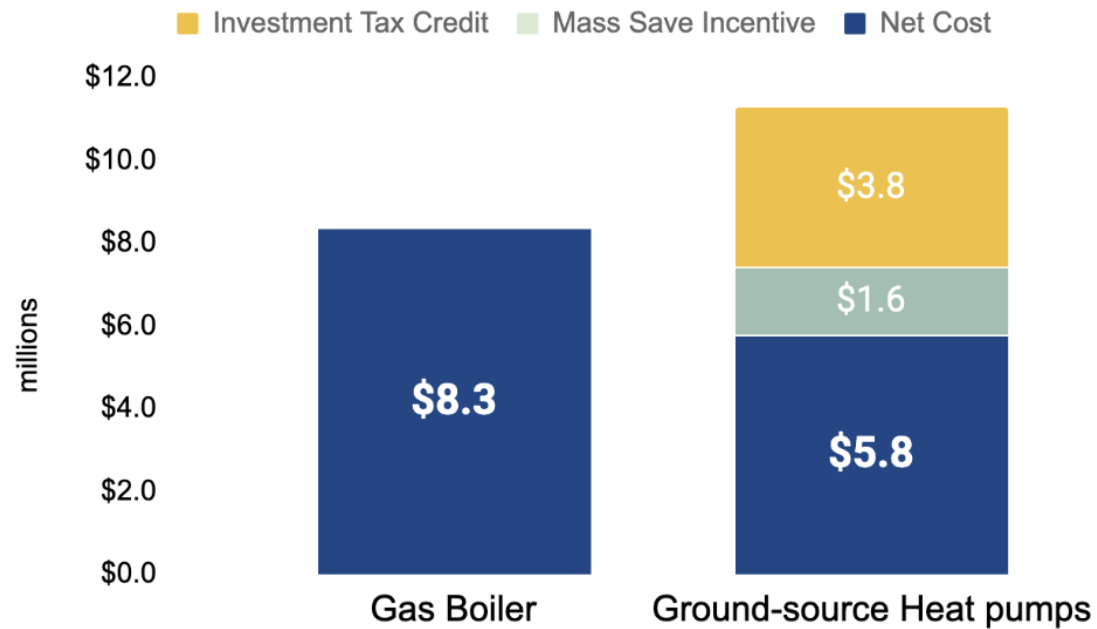
**EV
CHARGING**

\$100k per
station
\$4BN
if 40,000
installed

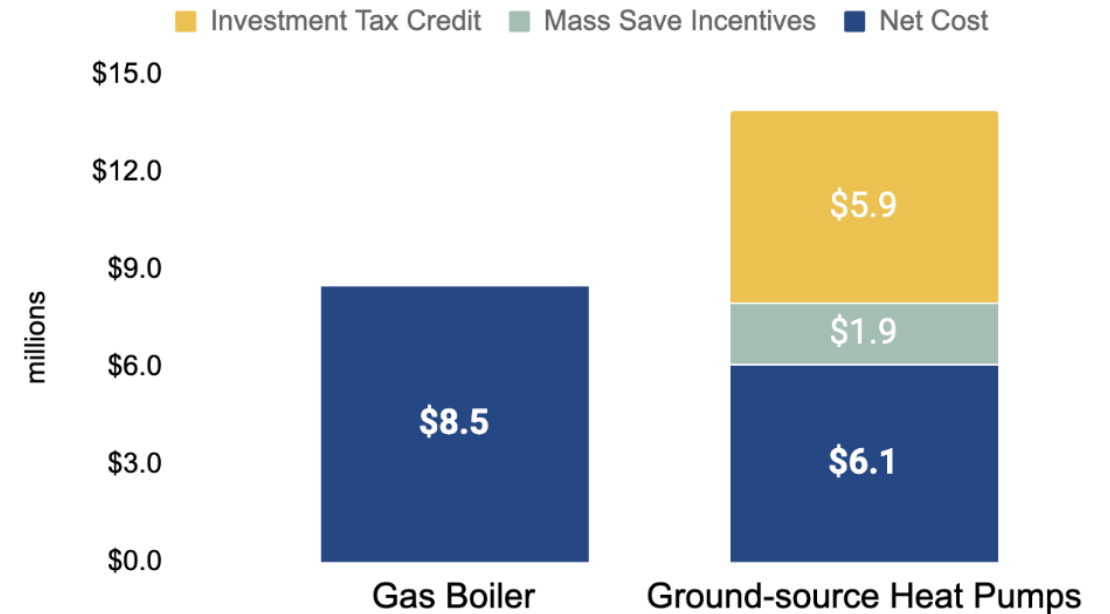
*This is in addition to \$5BN for low / zero-emission school buses from the Bipartisan Infrastructure Law.

Tax credits can make clean energy the most affordable option

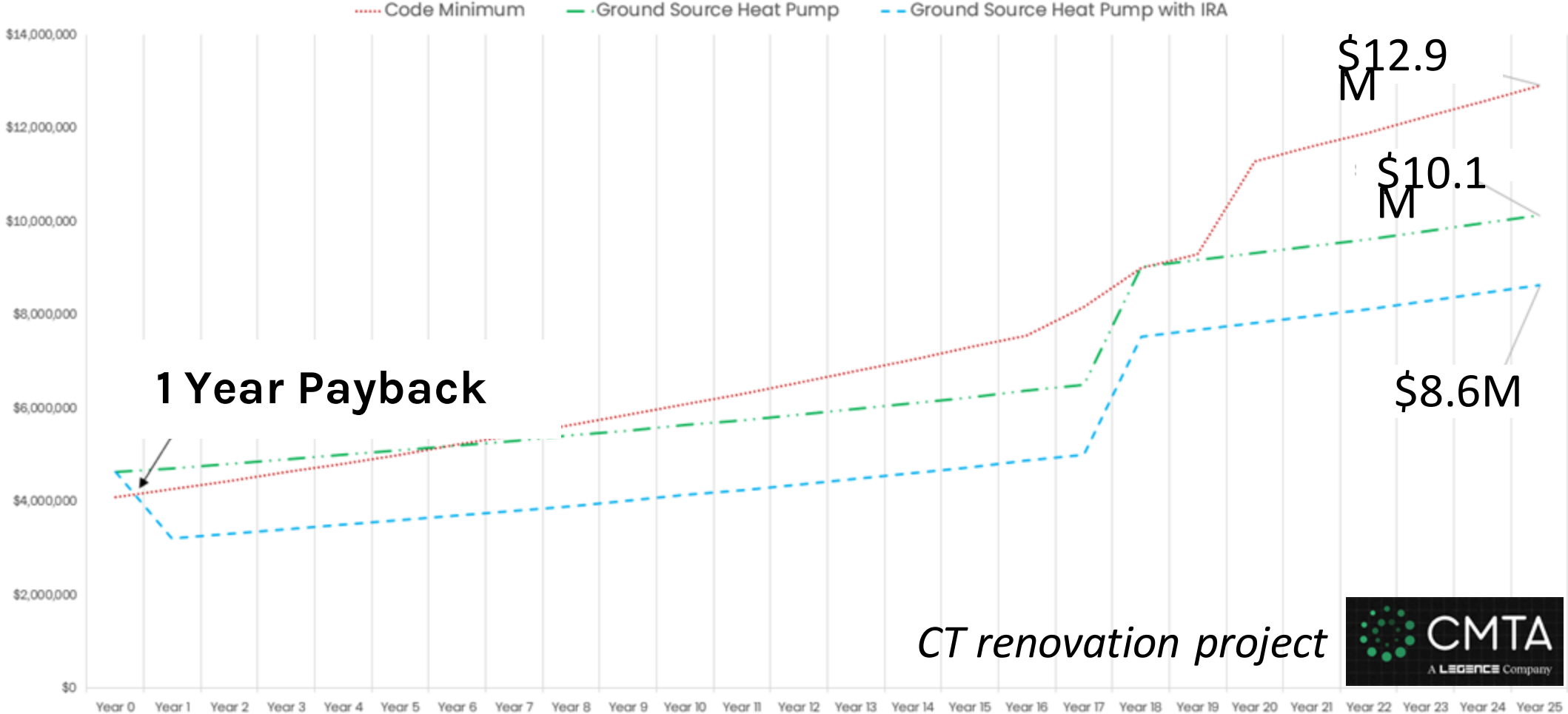
Fort River School - Amherst



DeValles School - New Bedford



Lifecycle cost analysis shows significant savings



Policy goals & key concepts woven into the policy

Labor standards

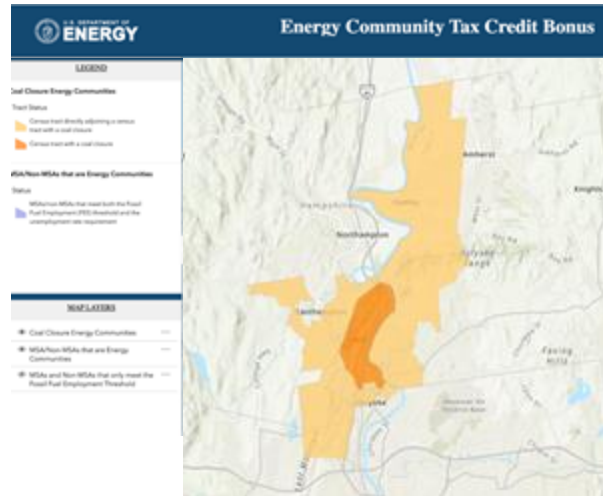
Prevailing wage and apprenticeship requirements



Click [here](#).

Target Communities

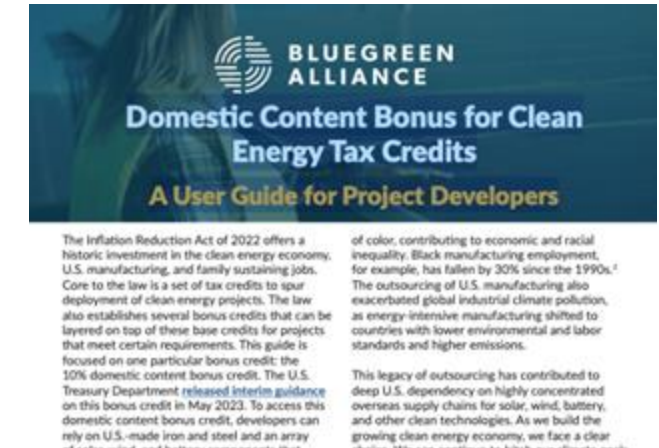
Communities with coal closure, unemployment, rural area, low-income



Click [here](#).

Domestic Content

Use of 100% domestic steel & iron and % of manufactured products



Click [here](#).

Tax credits support clean energy equipment at schools

1. Solar energy



2. Energy storage



3. Ground-source heat pumps



4. Electric school buses



5. EV charging equipment



Sec 48:
Investment Tax Credit

Sec 45W:
Commercial Clean
Vehicle Tax Credit

Sec 30C:
Alternative Fuel
Refueling Property

Sec. 48: Investment Tax Credit (ITC)

✓ All locations qualify for base credit. New construction and renovations qualify.

Cost basis

Cost of installing eligible equipment

Cost basis determined based on specific technology.

Base / Bonus Credits

6% - 50%

based on location, labor standards, domestic content, project size, commence construction date

+ 10-20%

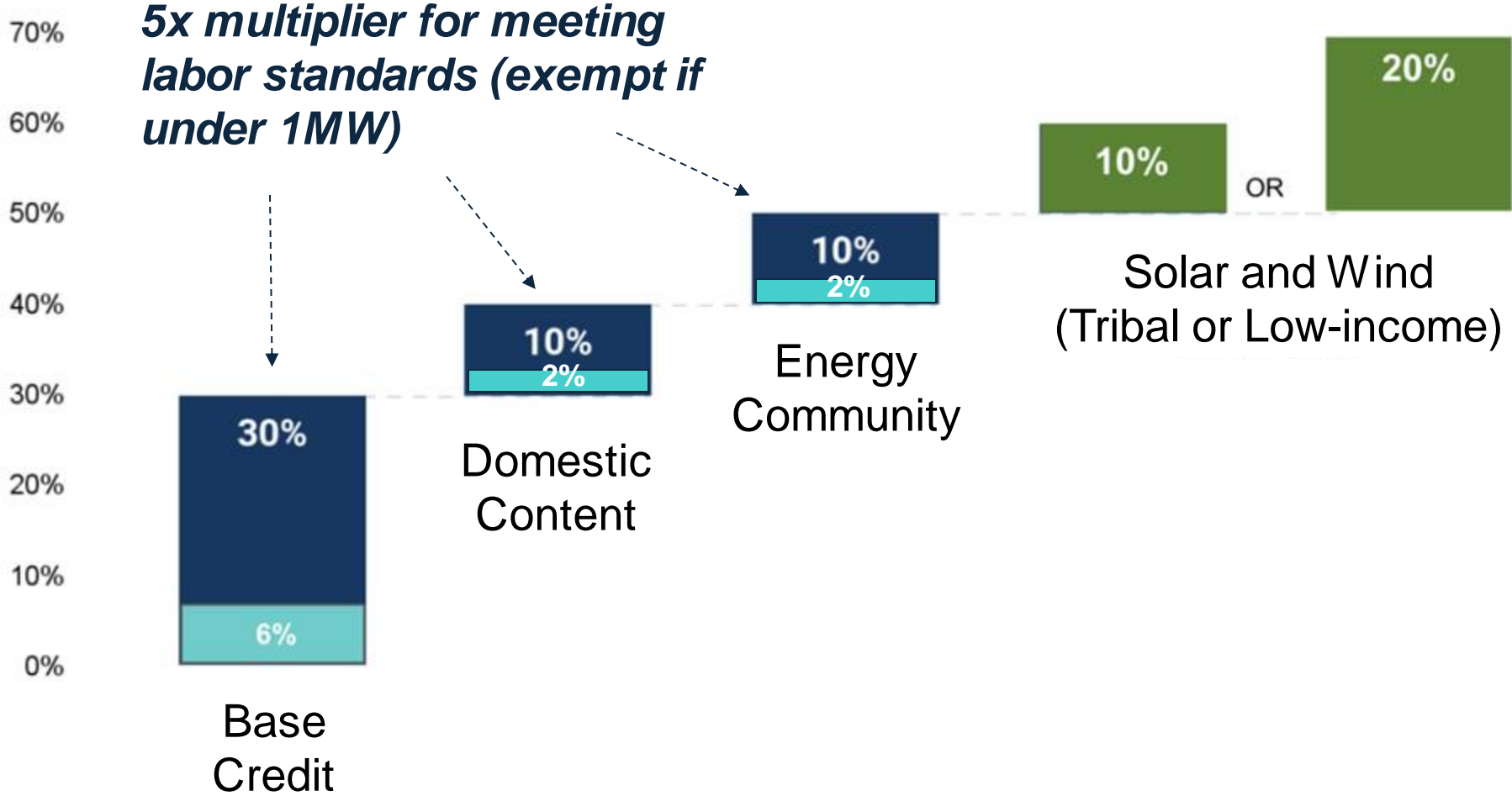
for solar & wind through competitive process for certain sites.

Other \$?

Reduce by up to 15% for use of tax-exempt financing

Grants and tax credits can not exceed total costs.

Base and bonus credits for Sec 48 ITC



Example calculation

A school installs a ground-source heat pump (220 tons). The total cost of the eligible equipment is \$6M. The project meets the domestic content requirements. The district uses tax-exempt debt to pay for the installation.

$$(30\% + 10\%) = 40\% \text{ less } 15\% = 34\%$$

Base credit Domestic
 content
 adder
Tax-
exempt
bonds

$$\$6\text{M} \times 34\% = \$2.04\text{M}$$

Sec. 48: Investment Tax Credit - Example

	Cost basis	Rate	Adjusted rate	=	Estimated value
Ground-source heat pumps	\$10,000,000	40%	34%		\$3,400,000
Solar	\$2,000,000	30%	25.5%		\$510,000
Energy storage	\$500,000	30%	25.5%		\$127,500
Total estimated investment tax credit					\$4,037,500

Resources for schools



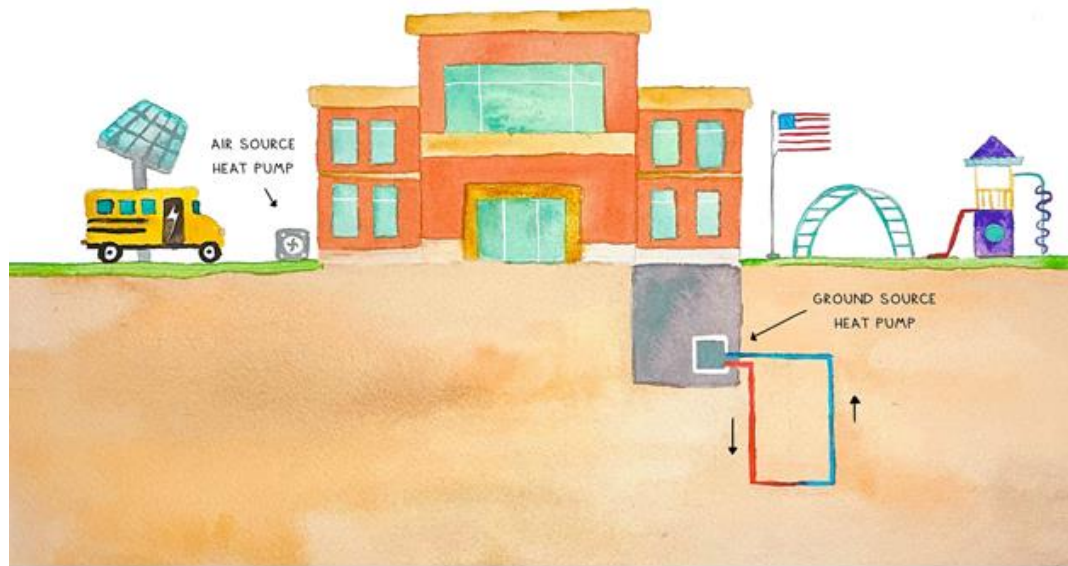
The [Inflation Reduction Act \(IRA\)](#) is the largest investment in climate and clean energy in United States history. Billions of dollars are now available to schools for going green.

THE INFLATION REDUCTION ACT brings new federal funding to schools that embrace clean energy!	WHAT clean energy technologies does the Inflation Reduction Act support?	WHY should schools invest in clean energy technologies?	WHO benefits from the Inflation Reduction Act?	HOW do schools get reimbursed by the Federal government?
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<https://www.undauntedk12.org/schools-and-the-ira>



COOL SCHOOLS HAVE HEAT PUMPS



Thank you!

Sara Ross, Co-founder
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UNDAUNTEDK12
NICOLE KELNER



**Electric
School Bus**
INITIATIVE

FEDERAL IRA TAX CREDITS FOR ELECTRIC SCHOOL BUSES

Natalia Akopian, Associate, Electric School Bus Initiative

APRIL 10, 2024

DISCLAIMER

This presentation is a summary of final guidance on the elective pay provision released by the IRS on March 5, 2024. This guidance may be superseded by any changes made by the IRS upon further iterations of guidance.

Although every effort has been made to provide complete and accurate information, WRI makes no warranties, express or implied, to the accuracy of this summary and assumes no liability for its use. You are strongly encouraged to review the official IRS guidance or any subsequent versions of the guidance the IRS may issue.

INFLATION REDUCTION ACT: CREDITS

- The Inflation Reduction Act (IRA) – enacted in August 2022 – established new tax credits for clean energy and climate investments, such as:
 - ***Section 45W** (ESBs) = provides up to \$40,000 per electric school bus (over 14,000 lbs)
 - ***Section 30C** (chargers) = provides up to \$100k per charging infrastructure for schools located in a "low-income community" OR "nonurban area"

**Eligible for direct/elective pay*

QUALIFIED COMMERCIAL CLEAN VEHICLE CREDIT (45W)

- Tax credit amount is calculated by the lesser of the two, with a maximum of \$40,000 per ESB (over 14,000 lbs):
 - 30% of the cost basis of the electric vehicle, or
 - Incremental cost against that of a comparable vehicle
- No geographic restrictions – available to all entities that purchase a qualifying electric school bus
- [Notice 2023-9](#): IRS published a "safe harbor" provision for incremental cost, but entities will be able to make independent determinations for incremental cost if not using DOE's safe harbor determinations

	GVWR (lbs)	Battery EV
Class 4-6	14,001-26,000	\$34,500
Class 7	26,001-33,000	\$93,500
Class 8	> 33,000	\$297,500

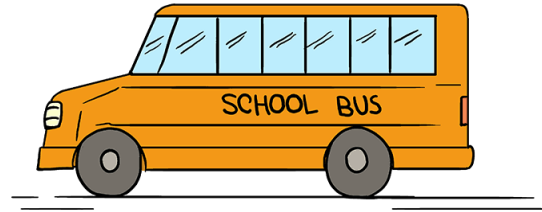
ALTERNATIVE FUEL REFUELING PROPERTY CREDIT (30C)

- Qualified projects: electric charging infrastructure (to include bidirectional charging equipment)
- Provides a maximum of 30% of project costs, **up to \$100,000 per charging unit**, for school districts located in “**low-income communities**” or “**non-urban areas**”
 - Low-income community = poverty rate is at least 20% or median family income is less than 80% of statewide median family income
 - Non-urban area = determined by Census tracts
 - Check your eligibility using U.S. Dept. of Energy’s [30C Tax Credit Eligibility Locator tool by Argonne National Labs](#)
- Note: credit applies to **each charging unit**, rather than the entirety of the investment at a single location

HOW DOES THIRD-PARTY MONEY FIT IN?

- IRA tax credits can be **stacked** with tax-exempt grants and forgivable loans
 - This includes funding from **CSBP grants or rebates**
 - For calculating tax credits, these grants and loans are included in determining maximum value of the credit
- However, the total value of a grant + a tax credit **cannot exceed** the cost basis
 - In such a case, the maximum tax credit value will be reduced to equal the cost of the project
- Note that “unrestricted funds,” such as a school district’s own budget, are not included in the calculation

CONSIDER THREE SCHOOL DISTRICTS...



...each purchasing an ESB priced at **\$400,000** – meaning that \$400k is the **cost basis** for a 45W tax credit.

School District A

\$400,000 – GRANT
+ **\$40,000** – 45W TAX CREDIT

\$440,000 – Exceeds cost basis

Tax credit reduced to **\$0**

School District B

\$375,000 – GRANT
+ **\$40,000** – 45W TAX CREDIT
+ **\$25,000** – DISTRICT FUNDS

\$415,000 – Exceeds cost basis

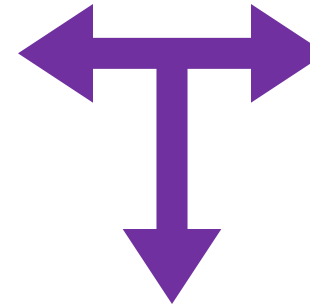
Tax credit reduced to **\$25,000**

School District C

\$350,000 – GRANT
+ **\$40,000** – 45W TAX CREDIT
+ **\$50,000** – DISTRICT FUNDS

\$390,000 – Less than cost basis

Tax credit not reduced



These are “unrestricted funds,” which are **not included** in the calculation.

OTHER FEDERAL FUNDING PROGRAMS

CLEAN SCHOOL BUS PROGRAM



What is the Clean School Bus Program (CSBP)?

Initiative created through the Bipartisan Infrastructure Law, allocating up to \$5 billion for cleaner school buses through EPA



Who received CSBP funding in the first two rounds?

- In the first round, EPA awarded nearly \$1 billion in rebate funding, nearly double the originally announced plan due to overwhelming demand
- In the second round, nearly \$1 billion was again awarded – more than double the originally announced amount – in the form of grants
- In both rounds, approximately 95% of awards were for electric school buses



When was the third round of CSBP funding?

The application period for the third round of funding, a \$500 million rebate program, closed on January 31, 2024. Recipients are expected to be notified in April 2024.



Who was eligible?

School districts, charter schools, Native nations, Tribal organizations, non-profit school bus associations, and school bus dealers/manufacturers

Source: [EPA](#), [EPA](#)



Electric
School Bus
INITIATIVE



WORLD
RESOURCES
INSTITUTE

CLEAN HEAVY DUTY VEHICLE PROGRAM



What is the Clean Heavy Duty Vehicle Program?

Program created through the Inflation Reduction Act, allocating up to \$1 billion for cleaner Class 6 and Class 7 vehicles through EPA



What can the money be used for?

While guidance is still forthcoming, IRA requires the funds be used to replace dirty heavy-duty vehicles (including school buses), support electric charging infrastructure costs, and train and develop workers.



Who is eligible to apply?

We're still waiting for guidance, but at least \$400m of the funding will be going to communities in nonattainment areas.



ESB INITIATIVE WEBSITE



[Electricschoolbusinitiative.org](https://www.electricschoolbusinitiative.org):

- One-stop-shop for tools, resources and information
- For school districts, manufacturers, electric utilities, policymakers, community members and more
- Free resources from across the electric school bus movement

Five actions to get started

1

Put IRA on the agenda

4

Re-evaluate current projects

2

Claim credits for recently completed projects

5

Bring an IRA lens to facilities & capital plans

3

Align eligible projects that are currently underway

QUESTIONS?

Natalia Akopian, natalia.akopian@wri.org

Electricschoolbusinitiative.org

[Twitter.com/ESBInitiative](https://twitter.com/ESBInitiative)

[Facebook.com/ESBInitiative](https://facebook.com/ESBInitiative)

[Linkedin.com/showcase/wri-electric-school-bus-initiative](https://linkedin.com/showcase/wri-electric-school-bus-initiative)

What is eligible property?

IRS Guidance

Notice 2018-59

“Geothermal Heat Pump Property - On-site physical work of a significant nature may include the installation of ground heat exchangers, heat pump units, or air delivery systems (ductwork).”

From Industry Association based on past experience of members:

Federal financial incentives include every part of the mechanical systems required to make a complete package including wells, distribution piping, electrical, controls, heat pump equipment, all required peripherals (pumps and VFD's, etc.) and labor.

What if it's a hybrid system?

If 0-49% of energy used by ground source - **No credit**

If 50%-100% of energy used by ground source - **pro-rata** amount of credit is due.

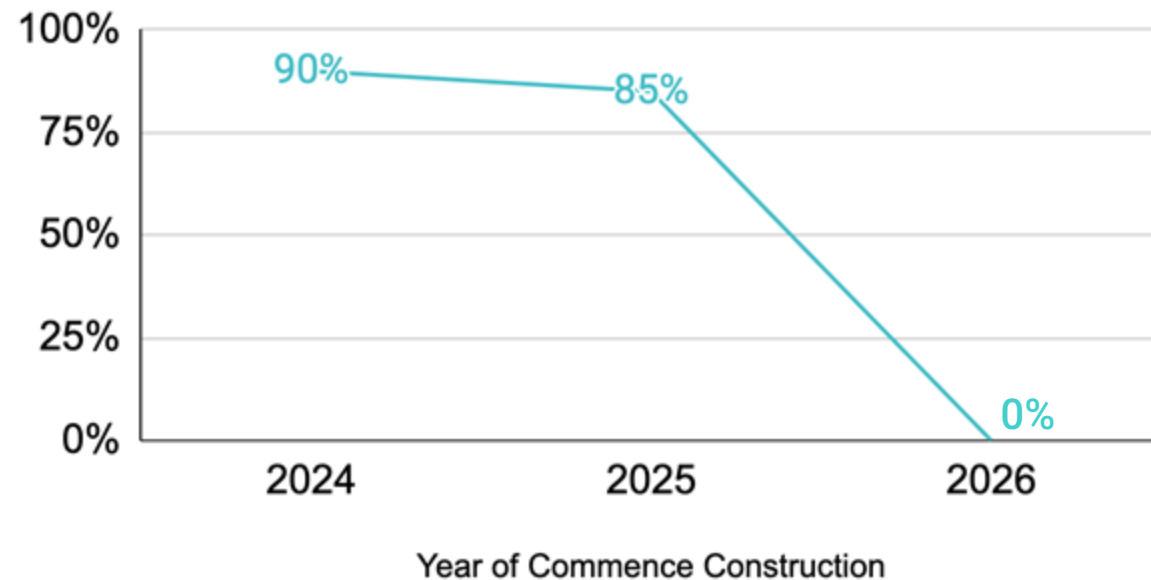
Watch your megawatt

- What is 1 MW AC for ground-source?
 - 3.4 mmBTU/hr heating and 284 tons cooling for thermal energy equipment
- Definition of “Single Energy Property” (proposed regulation 2023-25539)
 - Owned by a single taxpayer and any two or more of the following factors:
 - Contiguous pieces of land;
 - Common power purchase, thermal energy, or other agreements;
 - Common intertie;
 - Common substation, or thermal energy off-take point;
 - One or more common environmental/regulatory permits;
 - Single master construction contract; or
 - Financed pursuant to same loan agreement

Domestic Content & Direct Pay

For projects over 1MW that commence construction in 2024 or later, meeting the domestic content thresholds will be required to receive the full amount of the credit through Direct Pay.

Percent of Direct Pay payment received if domestic content requirements not met **and the project is > 1MW-ac**



[Click here](#)



[Click here](#)

Integrating IRA incentives into costs at all levels

First Costs

Ensure incentives are accurately incorporated in budgets and cost estimates

Lifecycle Costs

Analyze opportunity to operate electric machines at low- and fixed-cost using solar energy

Societal Costs

Include “social cost of carbon” in financial analyses to future-proof decision-making in an evolving regulatory landscape.

Who can help?

Peer Networks



Designers



Perkins&Will

CANNONDESIGN

Energy Tax Credits



“Prevailing Wage & Apprenticeship (PWA)”

- Prevailing wage
 - Must pay the *higher* of state prevailing wage or Davis-Bacon
- Apprenticeship
 - By *hours*, 15%* of the total labor hours performed in the construction, alteration, or repair of the facility are performed by qualified apprentices from a registered apprenticeship program.
 - By *ratio*, Maintain 4:1 daily ratio of laborer to apprentice

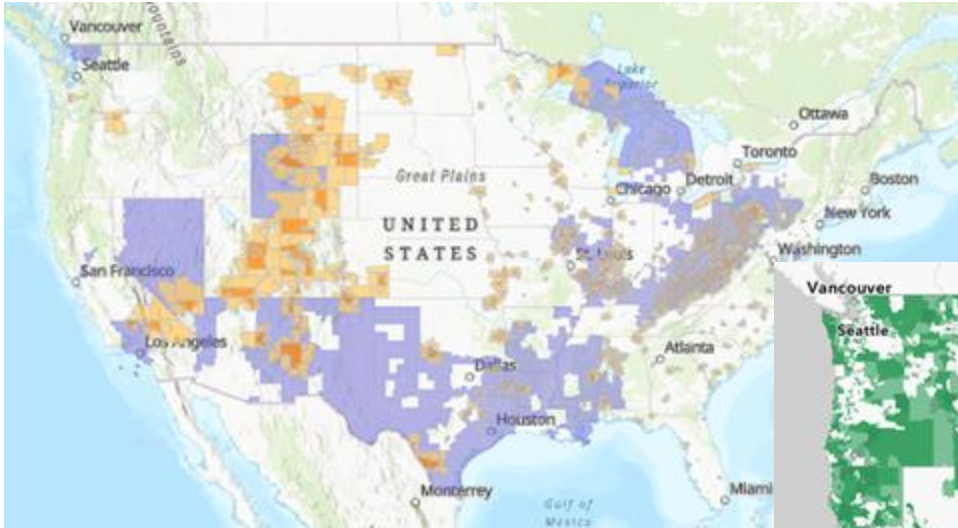
Two Exceptions:

- ★ Under 1 MW AC
- ★ “Commence construction” prior to 1/29/23

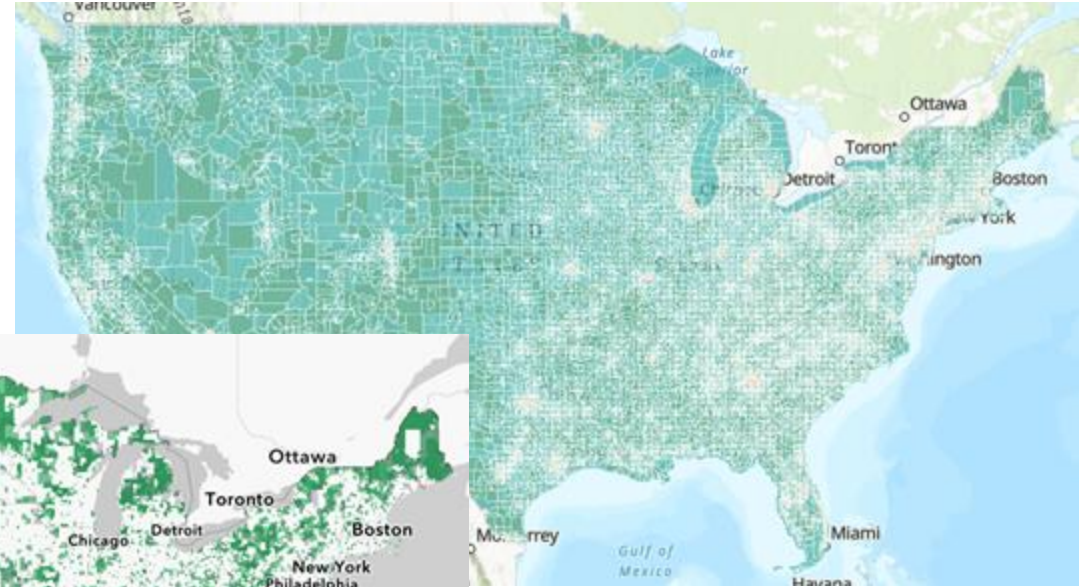
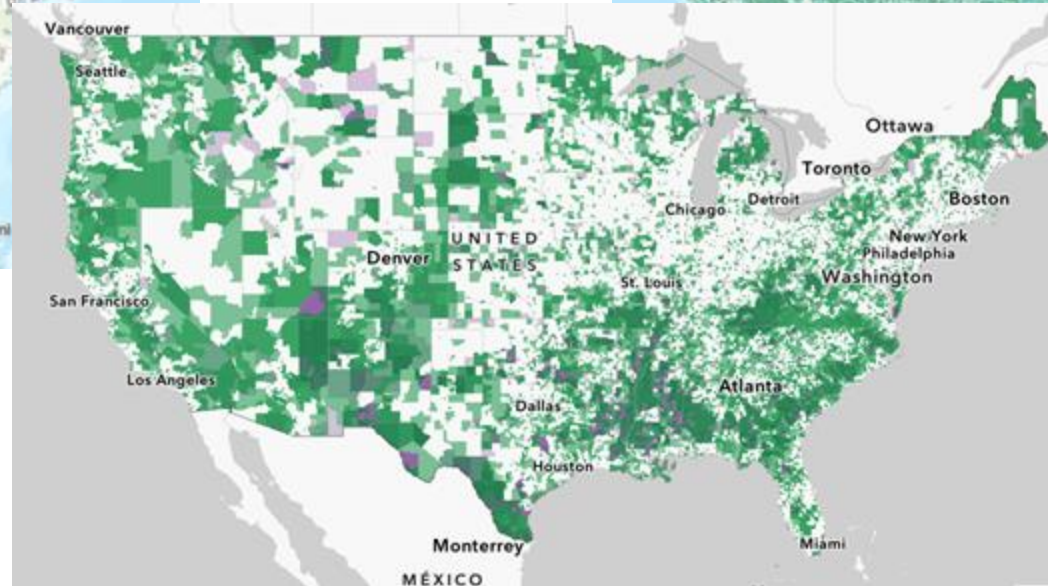
* For projects that commenced construction between 1/29/23 and 12/31/23 the required rate was 12.5%.

Where the project is located matters

Energy Community +10% Bonus Adder



*Low-income
Community Bonus +10-
20% (competitive for
solar & wind projects
only)*



*30C EV Charging
Equipment Eligibility*

“Domestic Content”

- For project materials that are “made primarily of steel or iron and are structural in function”, 100% must be domestically produced
- For “manufactured products” a certain % must be sourced domestically
 - 40% in 2024
 - 45% in 2025
 - 50% in 2026
 - 55% in 2027
- Proposed guidance published May 2023. **Still awaiting final guidance.**

Key issues:

- ★ Whose definition of cost?
- ★ Interaction w Elective Pay

* For projects that commenced construction between 1/29/23 and 12/31/23 the required rate was 12.5%.