

Panel: Green Energy

Development Opportunities in the
Inflation Reduction Act and Beyond

Anna Sullivan – Utah Housing Corporation

Liza Hart – Giv Communities

Ravi Malhotra – ICAST

Max Becker – Utah Clean Energy



g i v

2024 Utah Housing Matters Conference



g iv
DEVELOPMENT

g iv
COMMUNITIES



PERPETUAL
HOUSING
FUND



Buildings contribute
40% of all green
house gas emissions

29% of which is *operational* carbon:

The energy needed to heat, cool, and power buildings

11% of which is *embodied* carbon:

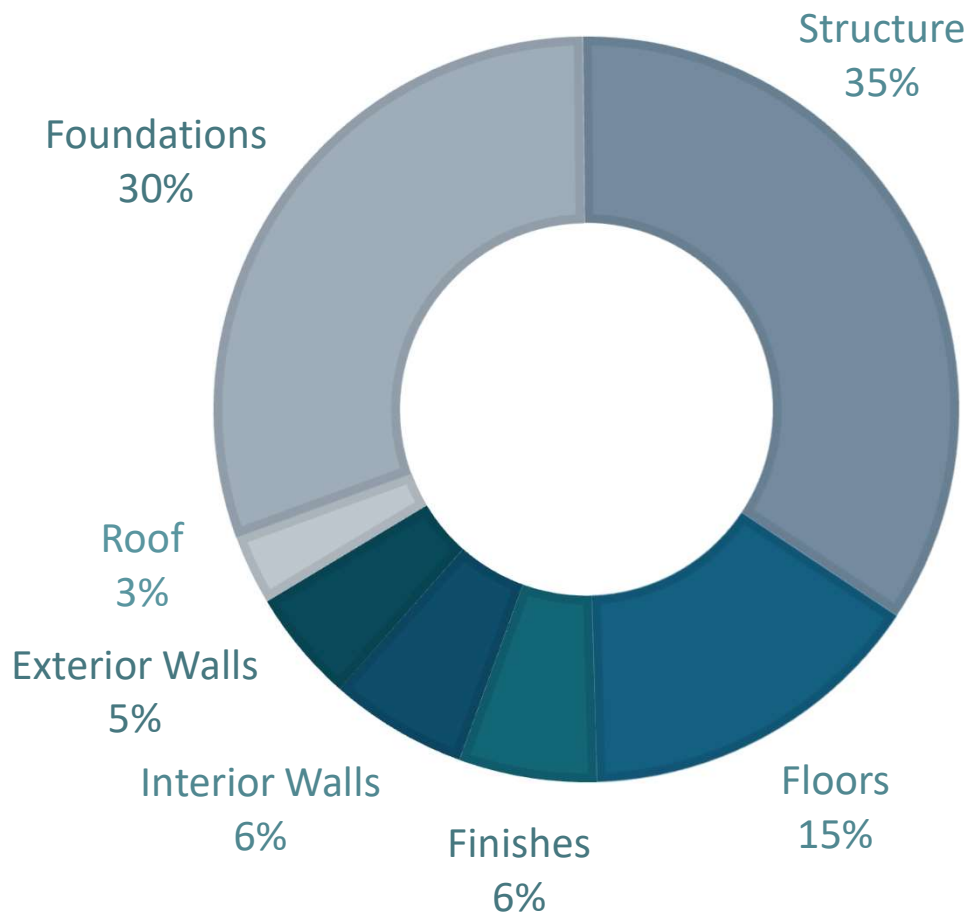
The energy used to make the materials used to construct buildings



Operational Carbon:

The energy used to heat, cool, and power buildings measured as Energy Use Intensity (EUI)

- | Energy efficiency is the "first fuel"
- | The cheapest Btu or electron is the one you never use



Embodied Carbon:

The energy used to make the materials to construct buildings

- | Adaptive Reuse
- | Prefabrication
- | Durability
- | Carbon storing materials
- | Lower carbon steel, concrete, insulation, etc.

Electrification:

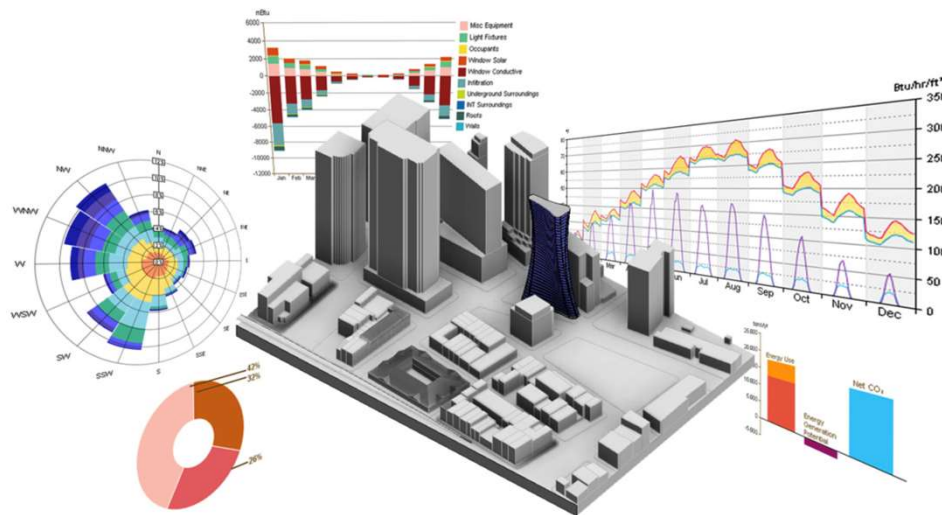
Buildings contribute to inversion pollution by burning fossil fuels

Electrification is critical for improving our air



Lower Energy Use Intensity (EUI) using energy modeling to test:

- | Glass Area/Performance
- | Insulation Levels/Air Changes
- | Mechanical Systems
- | Exterior Sun Shading
- | Efficient Appliances/Lighting
- | Heat Pump Water Heating



Tracking

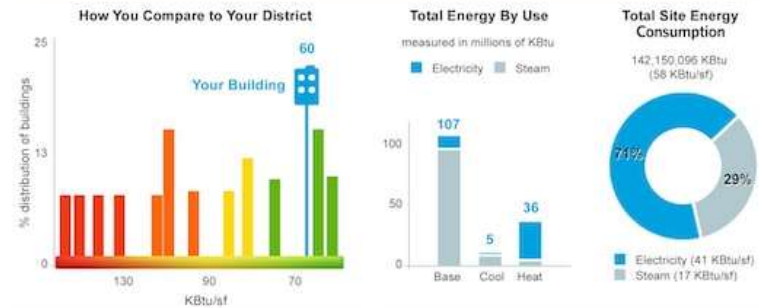
Monitor energy use using Energy Star Portfolio Manager or similar

Remember, you can't manage what you don't measure!

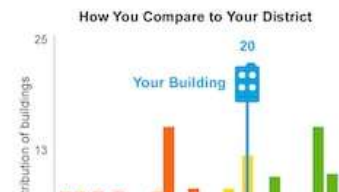
Owner: Building Owner
Year Built: 1987
Square Footage: 6,666 sf
Analysis Period: 12/1/2006 - 12/1/2007



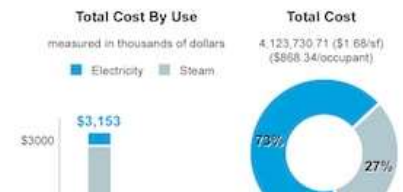
Annual Site Energy Consumption



Annual Carbon Emissions



Total Annual Energy Cost





Project Open

| RMP Incentives

| RMP Subscriber Solar

| Electrification:
\$63,280 Saved
(before rebates)

Units	112
Affordability	70% Affordable (25%-50% AMI)
HVAC System	Heat pump
Water Heating	Electric Tankless
Energy Sources	All Electric, 100% off-site solar offset



Pamela's Place

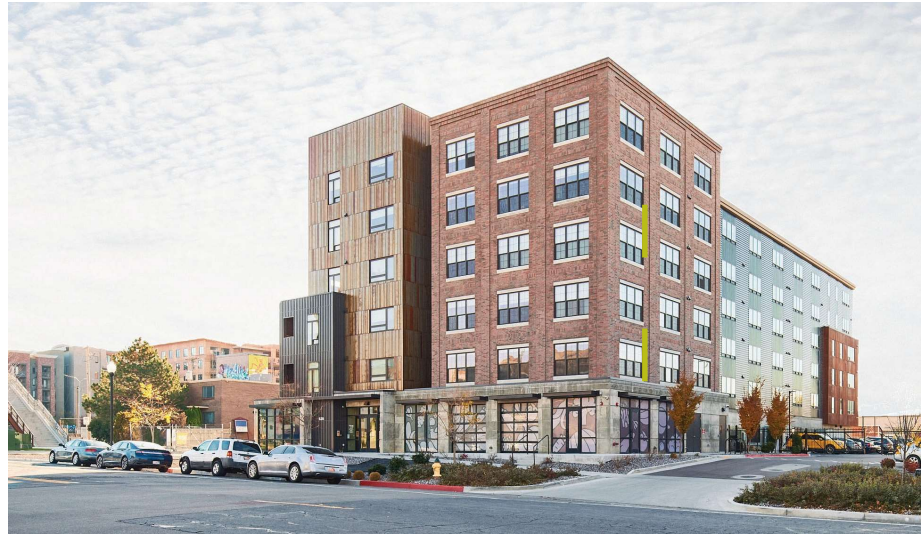
| RMP Incentives

| RMP Blue Sky Grant

| Honnold Foundation Grant

| Electrification:
\$354,700 Saved
(before rebates)

Units	100
Affordability	100% Permanent Supportive Housing
HVAC System	Cold-weather minisplit
Water Heating	Centralized HPWH
Energy Sources	All electric, on-site solar



Citizens West

| RMP Incentives

| Leaders for Clean Air

| D.O.E. Grant

| \$133,434 Saved
(before rebates)

Units	80
Affordability	68% Affordable (25%-50% AMI)
HVAC System	Cold-weather minisplit
Water Heating	Centralized HPWH
Energy Sources	All electric, on-site solar, battery

Steps to Zero Emission Buildings

01

Hire a design team with demonstrated commitment & knowledge & include energy modeling professional

02

Set an **EUI** target
(remember, this addresses “operational” carbon)

03

Harness the power of every finance, tax, and utility incentive tool

04

Set strategies for reducing “**embodied**” carbon
(remember, this is the carbon used to make the stuff to construct buildings)

05

ELECTRIFY! Use systems with asynchronous demand

06

Track the performance of your buildings over time



MFAH IRA Buffet





ICAST

- 22-year-old 501C3 national nonprofit
- **Greening of MFAH properties**
 - ✓ Turn-Key Services - Assessment, Design-Build, Finance, Training
- **'Green' Services**
 - ✓ EE, Solar, EV, BESS, EMS, Water Conservation & Healthy Bldgs.
 - ✓ Green Financing (TBL Fund)
- **MF customers served nationally**
 - ✓ Utility Program Implementer
 - ✓ National/Regional Portfolio Accounts
 - ✓ BIL/IRA Implementer

➔ Turn-Key Retrofits for MFAH



Key IRA Incentives for MFAH

Treasury

30% ITC + BONUS
Solar and Energy Storage

179D Tax Deduction
up to \$5/sq. ft.

30% ITC
EV Charging Stations

45 L Tax Credit
Up to \$5,000/unit

DOE through SEO Cash Rebates

Electrification Rebate
(HEEHR): \$4.5B
— Up to \$14K/unit

**Performance- Based,
Whole Home Rebates**
(HOMES): \$4.3B
~ Up to \$8K/unit

HUD - MFAH

GRRP (\$847M)

DOE - BIL

WAP (\$6.4B)
Retrofits for MFAH

EPA

GGRF (\$20B)
Intermediaries

Solar for All (\$7B)
NPO, Govt., Tribes

**Climate Pollution
Reduction Grants** (\$5B)
State & local govts

**EJ Community Block
Grants** (\$3B)
CBOs

MFAH has New Funding Sources!

IRA/BIL offer opportunities to **braid various funding sources** from tax credits to Cash Rebates to Subsidies **PLUS**

1. Utility rebates
2. State/Local govt. programs
3. Private capital (Banks w/ CRA, Impact Investors, Corp...)

→ **Can help Developers plug financing Gaps!**

→ **HFA's can stretch their subsidy dollars!**

→ **Build a high performance all-electric at lower costs!**

→ **Preserve affordable housing w/o depending on LIHTC or other existing subsidies!**



Preservation of MFAH

Possibilities Per Apartment

1. *\$50,000+ in low-cost loan from EPA GGRF Fund or DOE RLF*
2. *\$60,000 grant from HUD's GRRP*
3. \$14,000 grant from DOE HEEHR
4. \$5,000 TC from 45L or \$3,750 TD from 179D
5. \$10,000 grant from WAP
6. \$5,000 cash from local Utility rebates
7. \$3,500 - Solar ITC & Depreciation
8. \$2,000 from EV Tax Credits + Utility Rebates



→ Opportunity to preserve MFAH as High-Performance Bldgs.



Case Study

Cordon Pointe Braided Funding

Property Details:

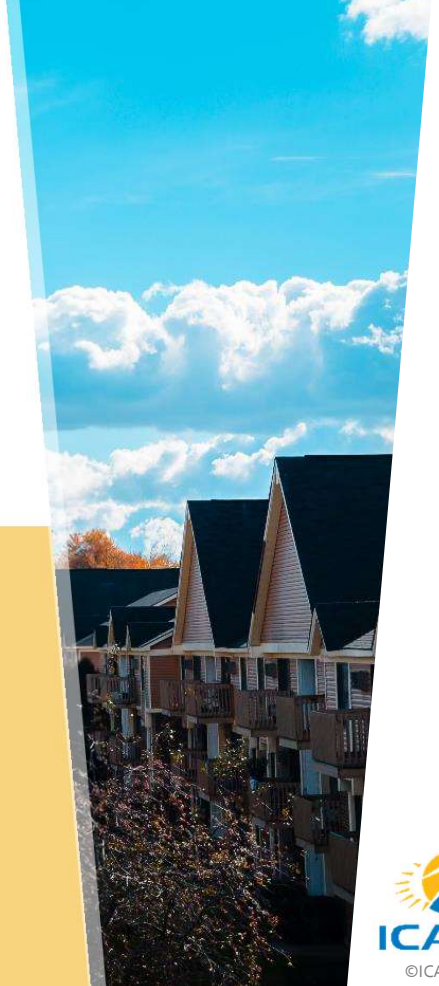
- HUD PBRA
- 104 Units
- Built in 1971

Scope of Work:

- ❖ ccASHPs (fuel-switch)
- ❖ HPHW (fuel-switch)
- ❖ Attic insulation
- ❖ Induction stoves (fuel-switch)

Project Budget: \$1,536,000

- ✓ Utility Rebates: **\$320,715**
- ✓ WAP Funding: **\$808,285**
- ✓ DOE Home Electrification Rebates: **\$400,000**





Case Study

Patronage Villa Braided Funding

Property Details:

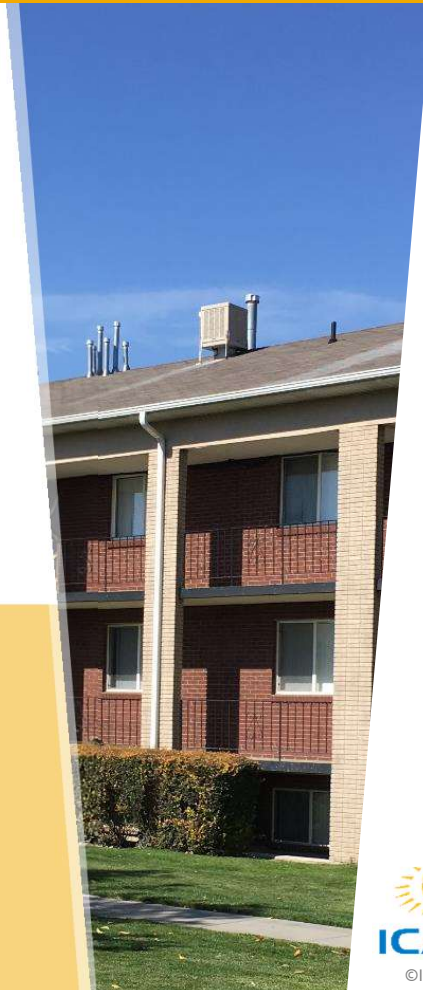
- LIHTC, Rent-Restricted
- Garden-style,
- 275-unit property
- Built in 2003

SOW: Phase 1 - 72-units

- ✓ EcoBee Light Smart T-stat
- ✓ ccASHP
- ✓ Attic Insulation
- ✓ Air & duct sealing
- ✓ H&S upgrades

Project Budget: \$1,006,187

- ❖ Utility Rebate: \$297,883
- ❖ DOE Rebates: \$576,000
- ❖ Total Net Customer Cost: \$134,304





Do it on Uncle Sam's Dime
But on Uncle Sam's Time

OR

Do it on your Dime
& Take Your TIME



Thank You!

Questions?

Ravi Malhotra
Founder and President, ICAST
ravim@icastusa.org

ITC - Solar and Energy Storage

MFAH qualifies

- Braid with LIHTC
- Transferrable / Direct Pay Credits

Projects Under 1MWac*	2023 -2033
Base Tax Credit (guaranteed)	30%
Domestic Content Bonus	10%
Energy Community Bonus	10%
Low Income Residential Building + Low Income Economic Benefit Project **	20%

* *Projects over 1 MWac – Prevailing Wage and Apprenticeship req'ts.*

** Have a Cap/Year



HOMES

Home Energy Performance-Based, Whole-House Rebates

- \$4.3B through FY2031
- Savings-based retrofit program
- Increased rebates for LMI households
- **Rebates range from \$2,000 - \$8,000/unit depending on income and energy savings**
- Contractor incentive
- SEOs and Tribes will develop and administer
- **UT = \$50M**



HEEHR

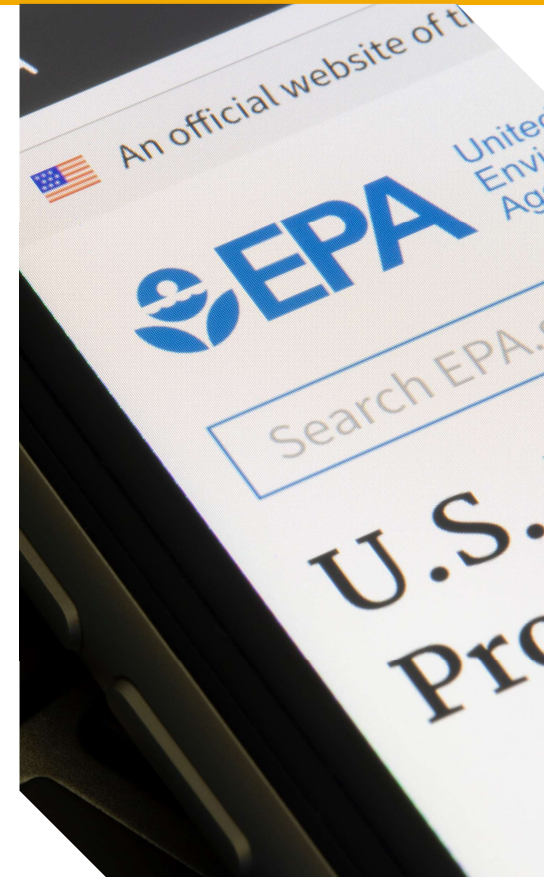
High Efficiency Electric Home Rebate Program



- \$4.5B through FY2031
- Income-based incentive structure
- **New construction and retrofits**
- Contractor incentive up to \$500/project
- State energy offices and Tribes get DOE funds
- **UT = \$50M**
- Point of sale rebates for electrification upgrades
- \$8,000 for heat pump
- \$4,000 for electric panel upgrade
- \$1,750 for heat pump water heater
- \$840 for electric or induction stove
- **\$14,000 maximum allowable**

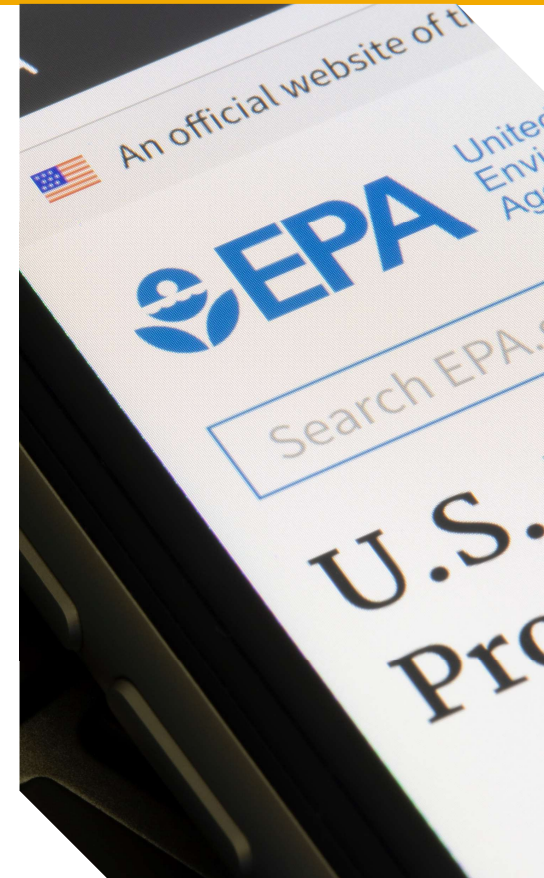
EPA Programs for MFAH

1. \$14B GGFR grants to 2-3 Intermediaries
 - Loans and other financial products to HFAs, CDFIs, Green Banks, Credit Unions and others
 2. \$6B GGFR grants to 2-7 Intermediaries
 - \$5M grant + \$625K TA grant to HFAs, CDFIs, Green Banks, Credit Unions and NPOs
 3. \$7B 'Solar for All' grants for 60 States and Tribes for DAC and LI solar projects
- ➔ All of these programs can ultimately either grant fund or offer low-cost loans for EERE work in MFAH



EPA Programs for MFAH

1. \$5B to States, Local Govs, Tribes for pollution reduction strategies
 - \$300M for planning grants (non-competitive)
 - \$4.6B for competitive grants
 2. \$3B to CBOs, NPOs, Local gov't - for Pollution reduction (P2 and SRA)
- ➔ All of these programs can ultimately either grant funds or offer low-cost loans for EERE work in MFAH



IRA Direct Pay at Utah Housing Matters

September 10, 2024

Max Becker, Senior
Associate



“Elective Payment” of Tax Credits for Tax-Exempt Entities

- **IRA allows tax exempt entities to utilize key tax credits for clean energy projects. Eligible entities include:**
 - State agencies and political subdivisions and instrumentalities
 - Municipalities and counties
 - Public or member-owned and rural cooperative electric utilities
 - 501a, 501c, and 501d non-profits
 - Tribal governments
- **Elective payment allows tax-exempt entities to use the value of a clean energy tax credit as a cash refund or a cash payment**
 - Examples: A public school could get up to 30% of total cost of solar project as a refund under the Sec. 48 Investment Tax Credit.
 - Must be “placed in service” the year of election

Clean Energy Elective Pay Eligible Tax Credits

- **Clean Electricity Production Tax Credit (Sec. 45Y)**
 - For production of electricity from eligible renewable sources; 0.55 cents/kWh, 2.75 cents/kWh when PWA rules met
 - Example project: Rooftop solar installation, will receive annual rebate based on how much energy is produced
- **Clean Electricity Investment Tax Credit (Sec. 48E)**
 - For investment in renewable energy projects; 6% of qualified investment, 30% when PWA rules met
 - Example project: Rooftop solar installation, will receive one-time rebate up to 30% of project cost
- **Alternative Fuel Vehicle Refueling Property Credit (Sec. 30C)**
 - For alternative fuel vehicle refueling and charging property in rural or high poverty census tracts; 6% of basis for businesses, can increase to 30% when PWA rules met
 - Example project: Installing EV chargers in rural municipality, will receive up to 30% of project cost
- **Credit for Qualified Commercial Clean Vehicles (Sec. 45W)**
 - For purchasers of commercial clean vehicles; up to \$40,000 (max \$7,500 for vehicles <14,000 lbs)
 - Example project: Moving to electric vans for municipal fleet, up to \$7,500 per vehicle

Clean Energy Elective Pay Requirements

- **Domestic Content Bonus/Requirement**

- For the ITC and PTC, a threshold of components must be manufactured in the United States.
 - 10% bonus is provided if the requirement is met
 - 10-15% reduction in the ITC or PTC if domestic content is not met in 2024 and 2025, not eligible for tax credit in 2026 without domestic content requirements being met

- **Prevailing Wage and Apprenticeship Requirements**

- Only for projects over 1 MW in annual output
- Davis Bacon prevailing wage must be met
- 15% of labor hours must be performed by apprentices in accredited programs

How You Can Receive Elective Payment

- 1. Identify and pursue the qualifying project of activity**
- 2. Determine your tax year**
- 3. Complete pre-filing registration with the IRS**
 - Must provide information on the applicable project(s)
 - Identify which credits you intend to earn
 - The IRS will issue a registration for all applicable projects; these ID numbers will be used when filing your return
- 4. Satisfy all eligibility requirements for the tax credit for the given year**
- 5. File the required annual tax return by the due date and make a valid elective payment election**

How You Can Receive Elective Payment

[File](#)[Pay](#)[Refunds](#)[Credits & Deductions](#)[Forms & Instructions](#)

Register for elective payment or transfer of credits

Family, dependents and students

Clean energy and vehicle credits

[Clean vehicle credits](#)[Home energy credits](#)[Elective pay and transferability](#)[Credit for Builders of Energy-Efficient Homes](#)[Energy-Efficient Commercial Buildings Credit](#)[Advanced Energy Project Credit](#)[Alternative Fuel Vehicle Refueling Property Credit](#)

Individuals credits and deductions

Business credits and deductions

Qualifying businesses, tax-exempt organizations, or entities such as state, local and tribal governments can take advantage of certain business tax credits even if they don't have taxable income to which the credits can be applied.

Register for tax year 2024 and 2023 credits

To make an elective payment or transfer election, an authorized representative of the entity must:

- Use this online tool to create an Energy Credits Online (ECO) account
- Get a registration number for each applicable credit property
- Include registration numbers from this online tool on the entity's tax return

The registration tool is part of the IRS business tax account application. For detailed guidance, see [Inflation Reduction Act \(IRA\) and CHIPS Act of 2022 \(CHIPS\) Pre-Filing Registration Tool -- User Guide and Instructions, Publication 5884](#) [PDF](#).

For information about which credits are applicable and what types of entities can monetize them, see [frequently asked questions about elective pay](#).

First-time users

[Authorize a clean energy account](#)

After you authorize a clean energy account, access the Energy Credits Online (ECO) portal. Click the Clean Energy and Semiconductor Manufacturers link.

Returning users

[Access a clean energy account](#)

Go to the Energy Credits Online (ECO) portal. Click the Clean Energy and Semiconductor Manufacturers link.

Future Federal Programs

State

- **Solar for All (Awarded, planning in progress)**
 - \$62 million for low-income solar installations (rooftop and community solar) throughout the state
- **Home Energy Rebates (Allocated, not yet applied for)**
 - \$101 million
 - \$51 million for whole home energy efficiency upgrades
 - \$50 million for point-of-sale home electrification and appliance rebates
- **Beehive Emission Reduction Plan (Awarded, planning in progress)**
 - \$74 million for a myriad of emission reduction measures
 - Includes “promoting renewable energy for homes and business”

Federal

- **Clean Communities Investment Accelerator (Awarded, not yet accessible)**
 - \$6 billion to 5 funding and technical assistance hubs that will support low-income and disadvantaged communities
- **National Clean Investment Fund (Awarded, not yet accessible)**
 - \$14 billion to deliver affordable financing for clean technology projects nationwide

Elective Pay Resources

- [IRS Elective Payment Registration Website](#)
- [Lawyers for Good Governance Clean Energy Tax Navigator](#)
- [List of Clean Energy Tax Credits](#)

Thank You!

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