Better Buildings®
U.S. DEPARTMENT OF ENERGY

Better Buildings Residential Network
Peer Exchange Call Series

Paying for Home Decarbonization and Electrification – Addressing Cost Questions

June 22, 2023

U.S. DEPARTMENT OF ENERGY

Agenda and Ground Rules

- Moderator
  - **Jonathan Cohen,** Better Buildings Residential Network, DOE Residential Buildings Integration Program (RBI)
- Agenda Review and Ground Rules
- Residential Network Overview and Upcoming Call Schedule
- Opening Poll
- Featured Speakers
  - **Rita Ballesteros,** Industry Consultant
  - **Matthew Brown & Peter Krajsa,** National Energy Improvement Fund, LLC
  - **Neda Arabshahi,** Center for Resiliency and Clean Energy
- Open Discussion
- Closing Poll and Announcements

Ground Rules:

1. **Sales of services and commercial messages are not appropriate** during Peer Exchange Calls.
2. Calls are a safe place for discussion; **please do not attribute information to individuals** on the call.

The views expressed by speakers are their own, and do not reflect those of the Dept. of Energy.

Join the Network

Member Benefits:

- Recognition in media, social media and publications
- Speaking opportunities
- Updates on latest trends
- Voluntary member initiatives
- One-on-One brainstorming conversations

Commitment:

- Members only need to provide *one number*: their organization's number of residential energy upgrades per year, or equivalent.

Upcoming Calls (2nd & 4th Thursdays):

- *7/13: Stakeholder Engagement Keys to Success – Lessons Learned by Energy Efficiency Programs*
- *7/27: Partnership How To's – Lessons Learned for Successful Energy Efficiency Programs*

Peer Exchange Call summaries are posted on the Better Buildings website a few weeks after the call

Rita Ballesteros
Industry Consultant

Paying to decarbonize & electrify our single-family housing stock

June 22, 2023

United States' climate goals & path

When rejoining the Paris Agreement in 2021, the Administration set an ambitious Nationally Determined Contribution to reduce net greenhouse gas (GHG) emissions from 2005 levels **by 50-52%** in **2030**

The United States also has set goals to reach

- 100 percent carbon pollution-free electricity by 2035
- **Net-zero emissions** no later than 2050

…through five key transformations:

1. Decarbonize electricity
2. Electrify end uses and switch to other clean fuels
3. Cut energy waste
4. Reduce methane and other non-CO^2 emissions
5. Scale up CO^2 removal

The Long-Term Strategy of the United States, Pathways to Net-Zero Greenhouse Gas Emissions by 2050 (whitehouse.gov)

Decarbonization & electrification in homes is necessary to meet our climate goals

Residential energy use: ~20% of GHG emissions

~100 million single-family homes

+

~6.3 million manufactured homes

~85% of buildings across the U.S.

Aging housing stock: ~50% of owner-occupied homes built before 1980

Home performance and “efficiency” projects alone will not get us to zero emissions

The carbon footprint of household energy use in the United States | PNAS; US Energy Information Administration; Every Building in America - an Analysis of the US Building Stock (construction-physics.com); Improving America's Housing 2023 | Joint Center for Housing Studies (harvard.edu)

Terminology refresh

Whole-home retrofit (or home performance) projects address deficiencies in the building envelope and necessary upgrades to major building systems (e.g., HVAC, water heating, and lighting). Typical project savings range from 15% to 30% of whole-home energy use.

Deep retrofits are whole-home projects that incorporate more extensive envelope and equipment upgrades with the goal of achieving whole-home energy savings of 50% or more.

Deep energy reduction projects expand on the range of measures targeted in retrofit projects to include behavioral measures and a more comprehensive set of end uses with the goal of achieving at least a 50% reduction in energy use. This approach can be particularly attractive when deep retrofits are uneconomical or overly disruptive and in mild climates where HVAC savings opportunities are limited.

Decarbonization encompasses a host of strategies for reducing building-related carbon emissions. Key approaches include beneficial electrification, energy efficiency, passive design, peak demand reduction, load shifting/control, and distributed energy resources.

Pathways to Residential Deep Energy Reductions and Decarbonization | ACEEE

Sufficient decarbonization upgrades are lacking

Though a significant share of home improvement spending (~34%) goes toward energy upgrades, the pathway to deep retrofits and decarbonization to meet our climate goals is still challenging:

- Current energy upgrades do not save enough energy (or carbon) – typically in the 30% to 40% range
- Market interest and acceptance low amongst homeowners
- Lack of trained workforce with necessary skills
- Lack of real estate market valuation of energy upgrades
- Demand and support for solar PV and electrification, while envelope upgrades becoming less common
- Economic justifications are challenging

Improving America's Housing 2023 | Joint Center for Housing Studies (harvard.edu; Pathways to Home Decarbonization | Energy Technologies Area (lbl.gov)

Decarbonization is costly

Cost analysis: to achieve carbon reductions of at least 50% in existing homes typically requires at least $250/m2 (23/ft2; **$40,000-$50,000 per home**) (2019 USD)

To achieve CO^2e reductions greater than 50%, additional LBL analysis found some projects needed to exceed **$100,000**

The Costs of Home Decarbonization in the US | Residential Building Systems Group (lbl.gov)

Solutions need to be accessible, scalable, and affordable

- Upfront costs are the main barrier to home decarbonization upgrades—the vast majority of US households will need financing to decarbonize their homes
- Savings in net monthly ownership costs are not always achieved
- A combination of rebates and incentives together with long-term, no-/low-interest financing is necessary to reduce the risks to homeowners of increased monthly costs

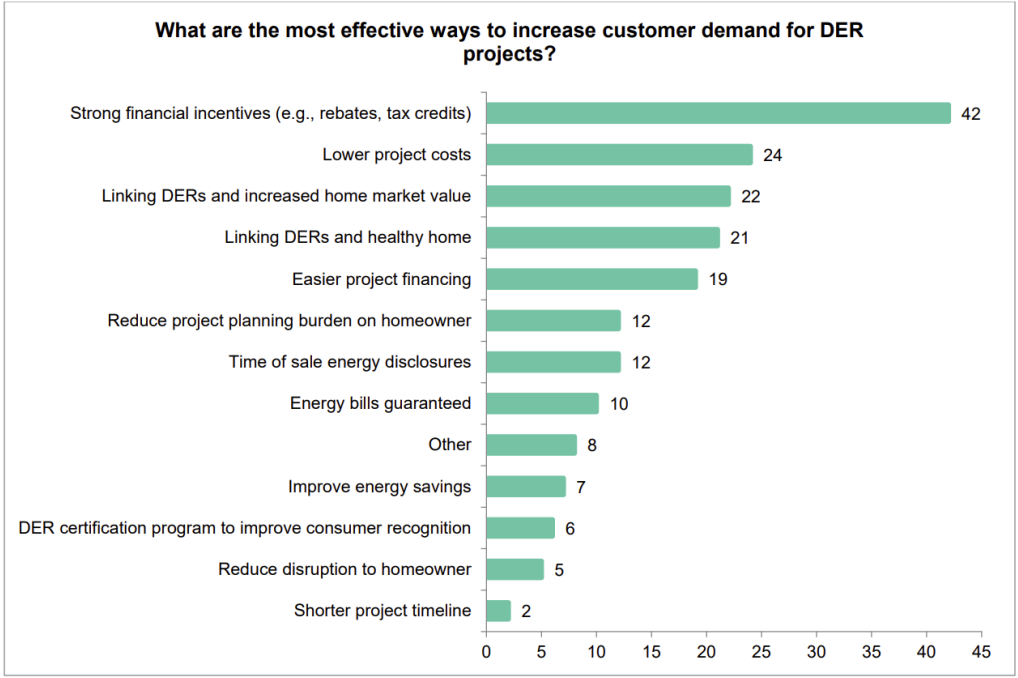
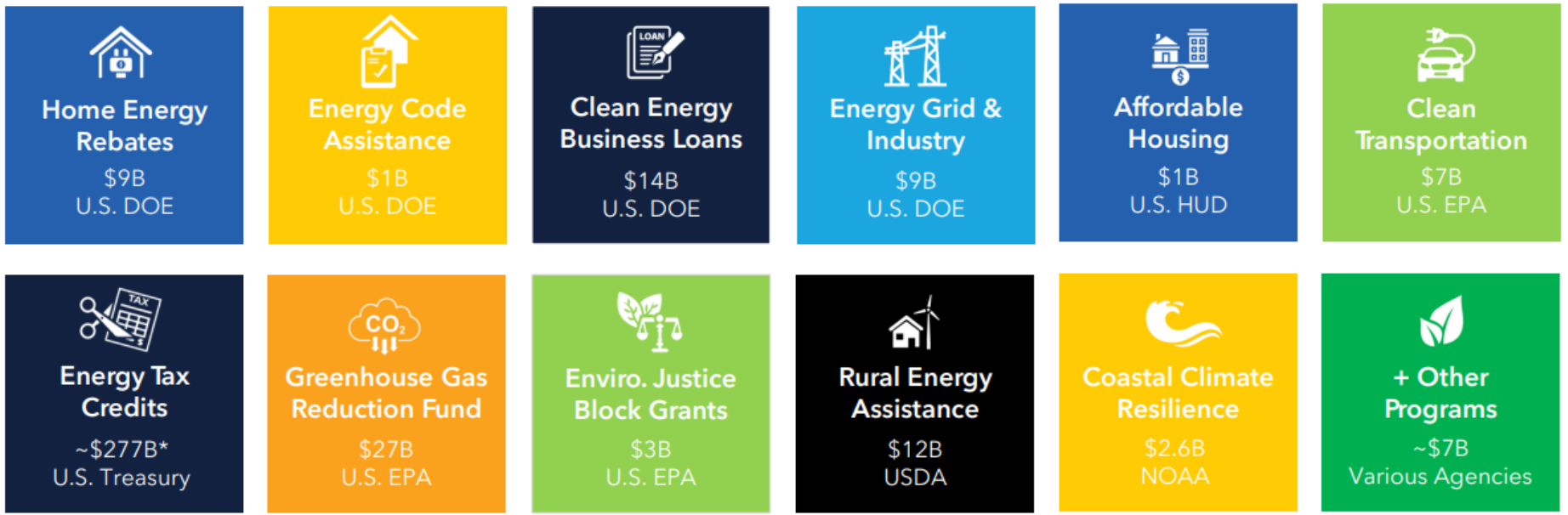


Figure 4 Effective ways to increase customer demand for DER projects. Total response = 68.

Pathways to Home Decarbonization | Energy Technologies Area (lbl.gov) ;

DOE Deep Energy Retrofit Cost Survey | Building Technology and Urban Systems (lbl.gov)

Mobilizing clean energy through the IRA

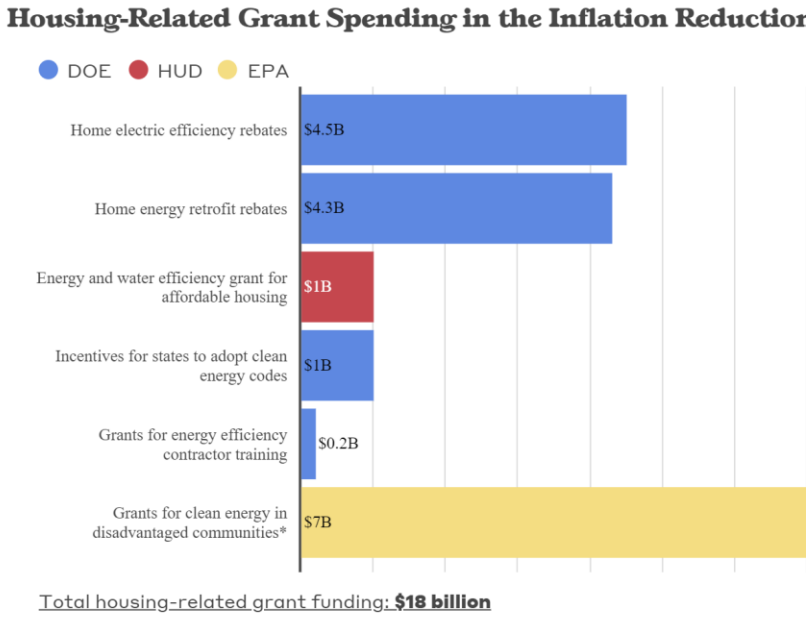


*Congressional Budget Office (CBO), Estimated Budgetary Effects

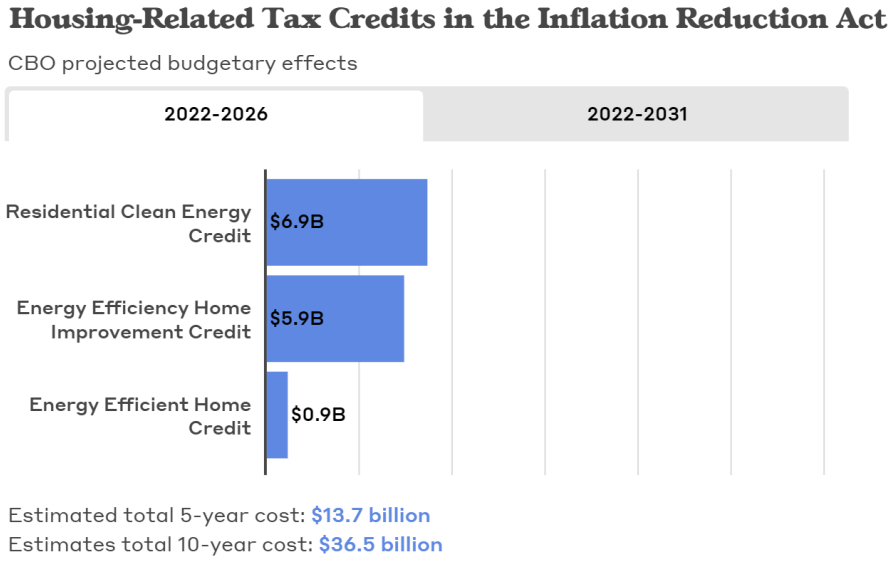
Office of State and Community Energy Plans (SCEP) Presentation: https://www.energy.gov/sites/default/files/2022-12/Home_Energy_Rebates_Program_Public_Presentation.pdf

What does the IRA mean for housing?

Grant Programs



Tax Provisions



What Does the Inflation Reduction Act Mean for Housing? | Bipartisan Policy Center

How much money is potentially available per household?

Rebates

Households with Incomes above 80% Area Median Income[1]	Efficiency[2]	Lower energy savings: 50% of project costs up to $2,000 Higher energy savings: 50% of project costs up to $4,000
	Electrification	50% of project costs up to $14,000 (Household income must be below 150% AMI
Households with Incomes Below 80% AMI[1]	Efficiency[2]	Lower energy savings: 80% of project costs up to $4,000 Higher energy savings: 80% of project costs up to $8,000
	Electrification	100% of project costs up to $14,000
Multifamily/Rental Housing Building Owner	Efficiency[2]	Lower energy savings: $2,000/unit up to $200,000 Higher energy savings: $4,000/unit up to $400,000
	Electrification	50% of project costs up to $14,000/unit (>50% of units must have income <150% AMI)
Multifamily/Rental Housing Building Owner with >50% of Households <80% AMI[1]	Efficiency[2]	Lower energy savings: 80% of the project cost up to $4,000/housing unit Higher energy savings: 80% of the project cost up to $8,000/housing unit
	Electrification	Lesser of 100% of project costs or $14,000/unit

[1]See Area Median Income (AMI) for your area: https://www.huduser.gov/portal/datasets/il/il2022/select_Geography.odn

[2]Other rebate amounts (roughly within these ranges) may be available if efficiency rebate rates are determined through measured performance.

Office of State and Community Energy Plans (SCEP) Presentation: https://www.energy.gov/sites/default/files/2022-12/Home_Energy_Rebates_Program_Public_Presentation.pdfc

NOTE: Rebates to be delivered through state energy office programs. Further federal agency guidance on funding and tax credits due out Summer 2023

Tax credits

Office of Policy » Making Our Homes More Efficient: Clean Energy Tax Credits for Consumers

Visit our **Energy Savings Hub** to learn more about saving money on home energy upgrades, clean vehicles, and more.

EQUIPMENT TYPE	TAX CREDIT AVAILABLE FOR 2022 TAX YEAR	UPDATED TAX CREDIT AVAILABLE FOR 2023-2032 TAX YEARS
Home Clean Electricity Products		
Solar (electricity)	30% of cost	
Fuel Cells		
Wind Turbine		
Battery Storage	N/A	30% of cost
Heating, Cooling, and Water Heating		
Heat pumps	$300	30% of cost, up to $2,000 per year
Heat pump water heaters		
Biomass stoves		
Geothermal heat pumps	30% of cost	
Solar (water heating)		
Efficient air conditioners*	$300	30% of cost, up to $600
Efficient heating equipment*		
Efficient water heating equipment*	$150	30% of cost, up to $600
Other Energy Efficiency Upgrades		
Electric panel or circuit upgrades for new electric equipment*	N/A	30% of cost, up to $600
Insulation materials*	10% of cost	30% of cost
Windows, including skylights*	10% of cost	30% of cost, up to $600
Exterior doors*	10% of cost	30% of cost, up to $500 for doors (up to $250 each)
Home Energy Audits*	N/A	30% of cost, up to $150
Home Electric Vehicle Charger	30% of cost, up to $1,000	30% of cost, up to $1,000 **

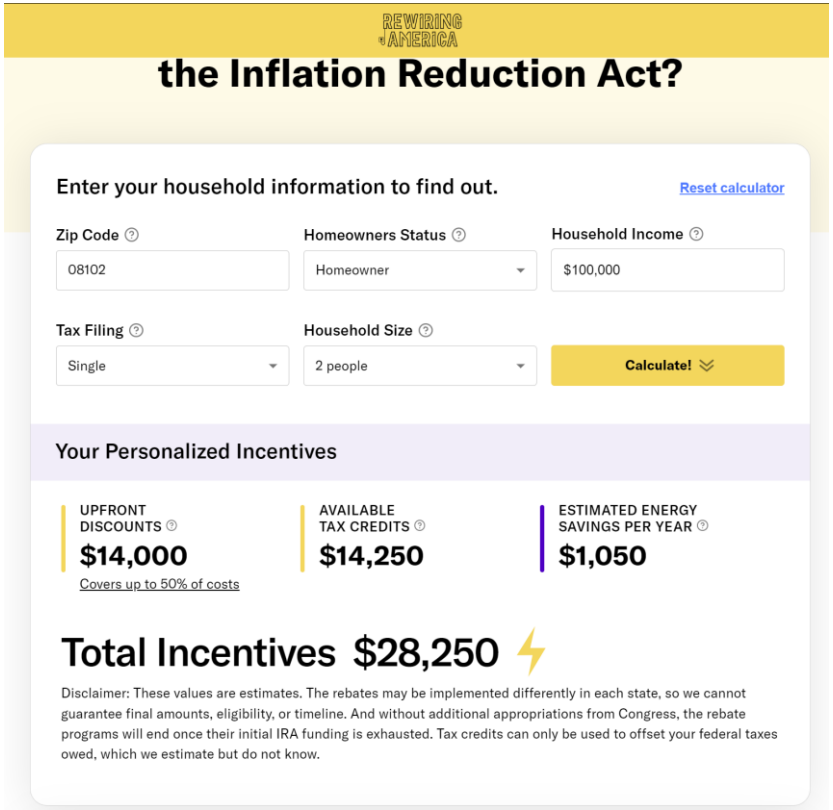
* Subject to cap of $1200/year

*** The IRS will soon publish further information on eligibility requirements related to home electric vehicle chargers, but we know that credits are intended for residents in non-urban or low-income communities.*

PLUS any household benefits from programs established under the Greenhouse Gas Reduction Fund

How much money is potentially available per household?

Projected example from Rewiring America calculator—Camden, NJ



How much money can you get with the Inflation Reduction Act? — Rewiring America

How can we fill the financing gap?

Community shared solar
Target sectors: **Commercial, Residential: Renters, Residential: Multifamily, Residential: Homeowners, Nonprofit, Public**
Typically funded by: **Private funds**
Enabling legislation needed: **Not required**
Sponsor's level of funding needed: **Low level of funding**

Energy efficient mortgages
Target sectors: **Residential: Homeowners**
Typically funded by: **Public funds, private funds**
Enabling legislation needed: **Not required**
Sponsor's level of funding needed: **Moderate level of funding**

Energy loans and credit enhancements
Target sectors: **Commercial, Industrial, Residential: Homeowners, Residential: Multifamily, Public, Nonprofit**
Typically funded by: **Public funds, private funds, ratepayer funds**
Enabling legislation needed: **May be required**
Sponsor's level of funding needed: **High level of funding**

Energy equipment leases
Target sectors: **Commercial, Industrial, Residential: Homeowners, Residential: Multifamily, Public, Nonprofit**
Typically funded by: **Public funds, private funds, ratepayer funds**
Enabling legislation needed: **May be required**
Sponsor's level of funding needed: **High level of funding**

Green banks
Target sectors: **Commercial, Public, Residential: Homeowners, Residential: Renters, Residential: Mulitfamily, Transportation**
Typically funded by: **Public funds, private funds, ratepayer funds**
Enabling legislation needed: **May be required**
Sponsor's level of funding needed: **High level of funding**

Municipal bonds and green bonds
Target sectors: **Public, Industrial, Nonprofit, Residential: Multifamily**
Typically funded by: **Public funds**
Enabling legislation needed: **Not required**
Sponsor's level of funding needed: **Moderate level of funding**

On-bill loan programs
Target sectors: **Commercial, Industrial, Residential: Homeowners, Public, Nonprofit**
Typically funded by: **Public funds, private funds, ratepayer funds**
Enabling legislation needed: **May be required**
Sponsor's level of funding needed: **High level of funding**

Performance contracting and energy service agreements
Target sectors: **Commercial, Industrial, Public, Nonprofit , Residential: Multifamily**
Typically funded by: **Private funds**
Enabling legislation needed: **May be required**
Sponsor's level of funding needed: **Low level of funding**

Customer power purchase agreements
Target sectors: **Commercial, Industrial, Residential: Homeowners, Residential: Multifamily, Public, Nonprofit**
Typically funded by: **Private funds**
Enabling legislation needed: **Required**
Sponsor's level of funding needed: **Low level of funding**

Commercial property assessed clean energy (C-PACE)
Target sectors: **Commercial, Nonprofit, Industrial, Residential: Multifamily, Residential: Homeowners**
Typically funded by: **Public funds, private funds, ratepayer funds**
Enabling legislation needed: **Required**
Sponsor's level of funding needed: **Moderate level of funding**

Revolving loan funds
Target sectors: **Commercial, Industrial, Residential: Homeowners, Public, Nonprofit**
Typically funded by: **Public funds**
Enabling legislation needed: **Not required**
Sponsor's level of funding needed: **Low level of funding**

Inclusive utility investments: tariffed on-bill programs
Target sectors: **Commercial, Industrial, Residential: Homeowners, Residential: Multifamily, Residential: Renters, Public, Nonprofit, Transportation**
Typically funded by: **Public funds, private funds, ratepayer funds**
Enabling legislation needed: **May be required**
Sponsor's level of funding needed: **Moderate level of funding**

Clean Energy Financing Toolkit for Decisionmakers | US EPA; not all financing shown above applies to single-family residential

Example: Energy efficient mortgages

Fannie Mae's HomeStyle Energy® and Freddie Mac's GreenCHOICE® mortgage

Finance green improvements to *existing* homes at purchase/refi

- Renewable energy
- Cost-effective energy efficiency measures
- Resilience upgrades (HomeStyle Energy)
- Takeout/refi pre-existing energy debt (e.g. R-PACE, consumer loans)
- Pair with renovation financing

Up to 15% of as-completed value—e.g., **$60,000** on a $400K value; 180 days to complete the work after loan closing

FHA and VA also support mortgage financing for energy efficiency and/or efficient new home financing

Example: Energy efficient mortgages

Fannie Mae's HomeStyle Energy® and Freddie Mac's GreenCHOICE® mortgage

- ✓ Among the lowest cost of capital available
- ✓ Convenient intervention ("trigger") point for consumers
- ✓ Trusted source of funds
- ❖ Challenges with lender adoption, consumer awareness, appraisals
- ❖ Mortgage processing times can take longer with energy efficiency financing
- ❖ Not often used in communities with low-income populations and greatest needs

Online financing toolkits & resources

Overview

- Explore Financing Options | Better Buildings Initiative (energy.gov)

Encompassing single-family

- Clean Energy Financing Toolkit for Decisionmakers | US EPA
- Financing and Incentives | Department of Energy (consumer focused)
- Energy Financing | NASEO
- Database of State Incentives for Renewables & Efficiency® - DSIRE (dsireusa.org)

Contractor, commercial, & communities focus

- Carbon Financing | Better Buildings Initiative (energy.gov)
- Find Financing for Energy-Efficiency Upgrades | Department of Energy
  Financing – Overview | Residential Program Guide (energy.gov)
- Establish Financing | Department of Energy
- I2SLBestPractices_Financing_Sept2022.pdf
- FFOLD - American Cities Climate Challenge (cityrenewables.org)

Tracking the status of the IRA funds

- Infrastructure Act Resource Hub | NASEO

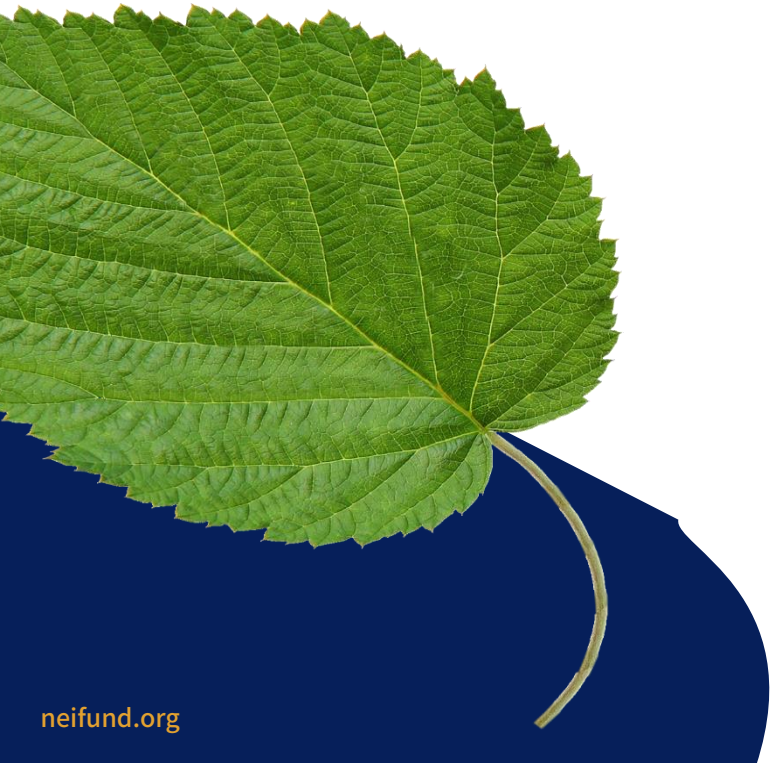
Thank you

https://www.linkedin.com/in/ritaballesteros/

Matthew Brown

National Energy Improvement Fund, LLC

NEIF
NATIONAL ENERGY IMPROVEMENT FUND
A Certified B Corp™



Using Financing to Boost Efficiency & Electrification Markets

June, 2023

Go Greener. **Affordably.**

neifund.org

About the National Energy Improvement Fund

- With a management and lending heritage dating to 1947, NEIF is organized as a for-profit Benefit Corporation.
- Providing fair, transparent financing for essential energy resilience improvements like HVAC, roofing, lighting & battery storage.
- Led by a seasoned team of energy financing innovators responsible for over $900 million in financing.
- Delivered through partnerships with contractors, distributors, manufacturers, utilities, and governments.

About the National Energy Improvement Fund

- Supervised as a consumer lender and servicer in 22 states and operating a commercial financing platform nationally in partnership with 12 utilities.

- Offers commercial, residential and contractor advance funding.

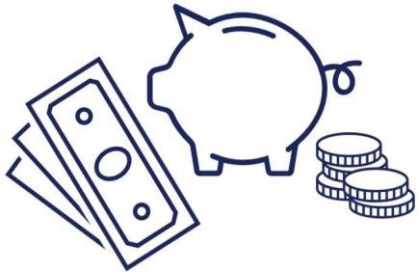
- Earned Certified B Corporation® status and was named a Home Improvement Expert Partner by the U.S, Department of Energy in 2019.

Why Use Financing?

Why Do We Care About Financing?

- Financing provides the full cost of a project, not just some amount net of a rebate; it's helps meet equity goals
- Contractors will **sell more** if they include financing in every proposal
- If that contractor isn't selling with financing, its **competitor almost certainly** is

So What Does NEIF Offer?



Easy, Fast Inclusion of Financing in the Contractor Sale

A Kitchen-Table Approval and Close Process

Verification of Installed Measures for Program Compliance

Funds Disbursed to Contractor in 1-2 business days

Program Reporting Provided

NEIF Energy Plus Loan: Basic Elements

NEIF Keeps it Simple, Keeps it Compliant

- An unsecured consumer loan that's fast to close
- No contractor dealer fees
- No customer application fee
- No documentation fee
- Fully compliant loan origination and servicing processes

NEIF Energy Plus Loan: Basic Elements

Basic Terms

- An unsecured consumer loan that's fast to close
- No contractor dealer fees
- No customer application fee
- No documentation fee
- Fully compliant loan origination and servicing processes

NEIF Energy Plus Loan: Basic Elements

Basic Terms

- Terms typically to 10 years
- Rates typically 7.99%-9.99%
- Underwriting based on longstanding standards, developed with NEIF predecessor company AFC First and Fannie Mae.
  - FICO score to 640
  - Debt to Income to 50%
  - Underwriting has allowed NEIF to create a loan portfolio that has just short of 50% low-moderate income borrowers

NEIF Energy Plus Loan: Enhanced Elements

NEIF is Unique Because We Work with Programs to Achieve Better-Than-Market Lending. For example:

- NEIF is a Participating (Approved) Financial Institution with the California GoGreen Finance Program
  - A loan loss reserve enables NEIF to offer rates that are significantly better than market
- NEIF works with multiple utilities efficiency programs.
  - Programs enable NEIF to offer 0% financing to customers
- NEIF serves as lender for programs that have their own capital
  - NEIF has been the lender for the Efficiency Maine residential finance program for years, deploying the State's loan capital using NEIF lending services.

Working with NEIF

For More Information: www.neifund.org

Contractors: https://www.neifund.org/become-approved-contractor

National Energy Improvement Fund LLC
1005 Brookside Road
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neifund.org

Neda Arabshahi

Center for Resiliency and Clean Energy

U.S. DEPARTMENT OF ENERGY

/ inclusiv /

Equitable Climate Finance and Community Based Lenders

Paying for Home Decarbonization and Electrification – Addressing Cost Barrier Questions

U.S. DOE Better Buildings Residential Network Peer Exchange

Neda Arabshahi narabshahi@inclusiv.org

June 22, 2023

/ inclusiv /

Inclusiv's mission is to help low-income people and communities achieve financial independence through credit unions.

Founded in 1974, Inclusiv is a non-profit advocacy and membership organization dedicated to promoting financial empowerment for all. Our programs and services allow our membership of community development credit unions (CDCUs) to remove economic barriers for people living in distressed and underserved communities. Inclusiv was instrumental in establishing the CDFI Fund in 1994, is a permanent member of the national CDFI Coalition, and is a certified CDFI intermediary.

About Inclusiv's Members:

472 Community Development Credit Unions in 47 states, Washington D.C. and Puerto Rico

$266 Billion in combined assets

18.3 Million members across the country

75% Low Income Designated

58% Certified as Community Development Financial Institutions (CDFIs)

30% Minority Depository Institutions

Inclusiv Center for Resiliency and Clean Energy

- Affordable, sustainable energy for all people, particularly for low- and moderate-income and communities of color.

- Building a network of lenders that design and scale accessible financing solutions to lower energy costs.

  - **Collaborative Platforms and Infrastructure**
    - Investment vehicles
    - Shared software platforms
    - Loan participations

  - **Movement Building and Advocacy**
    - Network building

University of New Hampshire

- **Clean Energy Finance Training and Technical Assistance**
  - Nation's first training program for community-based lenders launched with University of New Hampshire
  - Trained almost 400 students from 20 financial institutions in 28 months
  - Alumni program, ongoing workshops and one-on-one guidance
  - Alumni = financed solar projects for almost 20,000 households in 2 years

What is Green Lending?

- Loans to finance projects that **lower utility bills, reduce air pollution, lower GHG emissions, energy, and water usage.**

- Credit unions already lead in loan products that could be adapted for green (home improvement loans, auto loans)

Photo credit: Dominion Energy

Green Loan examples:

- rooftop solar (including manufactured homes)
- used or new electric vehicles
- efficient appliances (e.g. Energy Star)
- efficient heating/cooling (e.g. heat pumps)
- and many more

Photo credit: Vermont Energy Investment Corporation

Photo credit: NPR.org

Why Does Community-Based Green Lending Matter?

Energy Burden and Rising Utility Bills

Energy Burden =
percent of gross household income spent on energy costs

- Energy burden for low-income households is 3X HIGHER
  - Black households spend 43% more, Hispanic households 20% more, Native American households 45% more.*

- **CDFIs already invest in the highest energy burden communities**

- **In 2022, Consumers paid 14.3% more on average for electricity than in 2021, more than double the overall 6.5% rise in prices****

- Electricity to heat homes is expected to cost 10.2% more this winter over last year, or $1,359 for the season

Justice40 Initiative

President Biden's promise to deliver at least 40 percent of the overall benefits from Federal investments in climate and clean energy to disadvantaged communities.

Credit Unions Already Serve Justice40 Communities

- Credit Union members often lack access to clean energy and have a disproportionately high energy burden.
- Credit Unions have deep community relationships and loan underwriting experience.

Community-Based Lender - Green Lending Trends

There are 10,000+ community-based lenders (credit unions, CDFI loan funds, community banks) with over $5.5 trillion in combined assets

Each lender designs local/hyperlocal financing, increases local adoption of energy cost saving solutions

439 community lenders offer or are building dedicated green loan products

- Based in 47 states, Washington DC, and Puerto Rico
- Manage over $461 billion in combined assets

- 91 of these financial institutions took Inclusiv-UNH solar lending courses
- 174 are Low-income designated credit unions
- 43 are Minority Depository Institutions
- 135 are CDFIs

- 56 of these lenders have reported a combined investment of over $2.7 billion in green projects over the past five years.

How Do Community-Based Lenders Benefit from Green Lending?

- High performing: extremely low default
- New Customers: 90% of borrowers new to the credit union
- Diversify lending portfolio
- Low interest loans can lower energy burden, build local climate resilience
- Improve property values: solar increased home sales by 4.1% according to Zillow*
- Good for business: build goodwill in community as sustainable


Photo courtesy of Cooperativa Jesus Obrero

Greenhouse Gas Reduction Fund (GGRF)

Inflation Reduction Act has $374 Billion in total environmental/clean energy investment (subsidies, tax credits, rebates, grants, technical assistance, etc.)

Part of IRA is the U.S. EPA's **$27 Billion Greenhouse Gas Reduction Fund (3 grant competitions to help financial institutions build their clean energy financing capabilities, esp. in low-income communities)**

- $14B "National Clean Investment Fund"
  - 2–3 national nonprofits will be awarded grants from this fund
  - Awardees partner with "private capital providers" to deliver financing at scale to businesses, communities, community lenders, and others
  - Inclusiv advocating to make sure CUs are listed as "private capital providers"

- $6B "Clean Communities Investment Accelerator"
  - 2-7 hub nonprofits will be awarded grants from this fund
  - Awardees will finance CUs, CDFIs, and other lenders for low-income clean energy loan portfolios

- $7B "Solar for All"
  - 60 States, municipalities, Tribal governments, and eligible nonprofits will be awarded grants from this fund
  - Awardees will finance residential and community solar projects

Collaborative GGRF Approach:
Justice Climate Fund and Community Builders of Color Coalition

The Coalition is comprised of the following organizations:

National Urban League
USBC
OWEESTA
National Association for Latino Community Asset Builders
The Chisholm Legacy Project
Native CDFI Network
National CAPACD
/ inclusiv /
Prosperity Now
CDBA Community Development Bankers Association
NBA National Bankers Association
AACUC African-American Credit Union Coalition
USI | Urban Strategies, Inc.
African American Alliance of CDFI CEOs
Opportunity Finance Network

Inclusiv's Recommendations to Structure GHGRF to Support Justice 40 Communities

1. Prioritize resources toward the high-impact green lending in low-income and historically redlined communities.

2. Channel capital from the GHGRF to lender intermediaries that are inclusive, diverse, and accountable to the communities most negatively impacted by pollution and climate change.

3. Develop program rules and guidelines that support Tribal communities, U.S. territories (including Puerto Rico), and CDCUs (including MDIs).

4. For definitions of low-income and disadvantaged, draw upon definitions already used by government agencies like Treasury CDFI Fund in the identification of investment areas and low-income populations, and the regulators in defining minority-lending institutions.

5. Take guidance from Inclusiv's lessons learned in implementation of previous government programs (PPP, ECIP, CDCI) and encourage the EPA to develop a streamlined and short application process and minimal reporting requirements.

6. Regarding leveraging the GHGRF, remember that the largest source of social impact investments come from low-income people themselves in the form of deposits in community development credit unions and banks.

7. Invest in market building opportunities as well as financing activities, including financial coaching, entrepreneurial assistance, down payment assistance, loan loss reserves, infrastructure development.

For more information:

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Apply for Inclusiv-UNH Solar Finance Training Courses:

https://inclusiv.org/initiatives/center-for-resiliency-and-clean-energy/

/ inclusiv /

Smart Tools for Efficient HVAC Performance (STEP) Campaign

Pacific Northwest NATIONAL LABORATORY

STEP CAMPAIGN

Scan this QR code to visit our website

Contact: christian.valoria@pnnl.gov

The STEP Campaign aims to increase adoption of smart diagnostic tools to streamline HVAC system performance testing and troubleshooting, reducing energy-wasting faults and improving occupant comfort.

To join the STEP Campaign, visit: bit.ly/3DFmEaE

HVAC Contractors and Technicians

- Reduce callbacks, improve consistency and quality, streamline processes
- Find out where to get training on smart diagnostic tools
- Be recognized for successful adoption of smart diagnostic tools!

Utilities and Program Implementers

- Streamline quality installation and quality maintenance programs
- Improve engagement with your contractors
- Be recognized for programs that utilize smart diagnostic tools!

HVAC Training Organizations

- Offer qualified training on System Performance with smart diagnostic tools
- Promote your training events
- Be recognized for providing training!

Weatherization Organizations

- Ensure your ASHP/CAC installations are operating at optimized efficiency
- Develop pilot with PNNL team
- Be recognized!

ORGANIZING PARTNERS

ACCA · BUILDING PERFORMANCE ASSOCIATION · CEE Working Together, Advancing Efficiency · HVAC Excellence · NATE · neea · U.S. DEPARTMENT OF ENERGY

Buildings UP

The Buildings Upgrade Prize

AMERICAN MADE
U.S. DEPARTMENT OF ENERGY

Building capacity to transform U.S. buildings into energy-efficient and clean energy-ready homes, commercial spaces, and communities

Upgrading existing buildings to efficiently run on clean energy will help address climate change. This means transitioning **residential and commercial buildings** to efficient electric equipment, such as **heat pumps and heat pump water heaters**, and ensuring comfort with measures such as **insulation and air sealing**.

Teams participating in **Buildings UP** will develop innovative plans to leverage the billions of dollars through the Bipartisan Infrastructure Law, the Inflation Reduction Act, utility rebate programs, and many other funding sources available and capitalize on this unprecedented opportunity to improve our homes, businesses, and communities.

Buildings UP will award more than **$22 million** in cash prizes and expert technical assistance to bring winning ideas to life.

www.heroX.com/buildingsUP

Form Your Team and Submit Your Application by July 2023!

- Community-based organizations
- Local governments
- Utilities
- Non-profit organizations
- For-profit energy efficiency companies
- and more!

Multi-stakeholder teams are encouraged

Application support available for new and under-resourced teams

Follow Buildings UP on HeroX for prize info and updates
Questions: buildingsUP@nrel.gov

Explore the Residential Program Guide

Resources to help improve your program and reach energy efficiency targets:

- Handbooks - explain *why* and *how* to implement specific stages of a program.
- Quick Answers - provide answers and resources for common questions.
- Proven Practices posts - include lessons learned, examples, and helpful tips from successful programs.
- Technology Solutions NEW! - present resources on advanced technologies, **HVAC** & **Heat Pump Water Heaters**, including installation guidance, marketing strategies, & potential savings.
- Health + Home Performance Infographic – spark homeowner conversations.

https://rpsc.energy.gov

Health + Home Performance Infographic

DOE's new Health + Home Performance Infographic reveals the link between efficiency and health – something everyone cares about. Efficiency programs and contractors can use the question-and-answer format to discover a homeowner's needs.

The infographic is ideal for the "kitchen table" conversations where people decide what to do – and who they want to do it. It also has links for homeowners to find a qualified contractor if they do not already have one.

Download this infographic from DOE's Better Buildings Residential Network.

Looking for photos to help tell your energy efficiency story? Visit our image libraries: https://www.energy.gov/eere/better-buildings-residential-network/articles/image-libraries

Thank You!

Follow us to plug into the latest Better Buildings news and updates!

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Office of Energy Efficiency and Renewable Energy Facebook

Please send any follow-up questions or future call topic ideas to:
bbresidentialnetwork@ee.doe.gov