

Successful Models for Bringing Energy Efficiency and Renewable Energy Co-Benefits to Low-Income Communities

Victoria Ludwig
NEUAC
June 27, 2018



**State and Local
Energy and Environment Program**



U.S. EPA's State and Local Energy and Environment Program



Helping state and local governments achieve multiple benefits

- Environmental, energy, economic, health benefits
- We promote holistic approaches to reduce emissions, support resiliency, and protect public health
 - Energy efficiency (EE), renewable energy (RE), transportation, waste, land use
- We foster inter-agency collaboration
 - States – air offices, energy offices, public utility commissions
 - Locals – planning, environmental services, energy and many other related departments
- We help state and local governments make the case for action
 - Best practice-based policy approaches
 - Analytical tools and information
 - Communications resources including peer exchanges, lessons learned
- **All our resources are available at:**
epa.gov/statelocalenergy

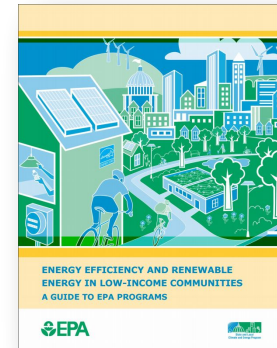


Resources for Local Governments and Communities



Key Guidance and Tools –

- Resources on EE/RE in Low-income Communities
- Local Government Climate and Energy Strategy Series
 - Documents on EE, RE, transportation, waste management, and community design topics
- Local Greenhouse Gas Inventory Tool
- Newsletter updates on new funding opportunities, tools, and events



Resources on EE and RE in Low-Income Communities

We developed several resources to help bring the benefits of EE and RE to low-income communities:

- 1) “Guide to Energy Efficiency in Affordable Housing”
<http://www.epa.gov/statelocalclimate/resources/strategy-guides.html>
- 2) Guide to relevant EPA EE/RE and climate programs that can benefit low-income communities
- 3) Series of 11 profiles and case studies of successful efforts by state and local agencies, non-profits, and utilities to deliver EE/RE to low-income households
- 4) Webcast series showcasing successful models in affordable housing, solar, and overall low-income EE/RE

All resources housed at: www.epa.gov/statelocalenergy

Guide to EPA Clean Energy Programs



- Designed to help state and local governments and low-income stakeholder groups connect with EPA programs that can help them expand or develop their own EE/RE initiatives in ways that benefit low-income communities
- Example programs:
 - ENERGY STAR for Congregations (www.energystar.gov/congregations)
 - ENERGY STAR Action Workbook for Congregations
 - RE-Powering America's Lands (www.epa.gov/renewableenergyland)
 - RE-Powering Mapper
 - Green Power Partnership (www.epa.gov/greenpower)

Bringing Energy Efficiency and Renewable Energy To Low-Income Households: What's Working

Part 1 – Better Together: Linking and Leveraging Energy Programs for Low-Income Households

- National Energy Assistance Directors' Association, Energy Outreach Colorado, DTE Energy

Part 2 – Beyond the Light Touch: Next Steps for Improving Energy Efficiency in Multifamily Affordable Housing

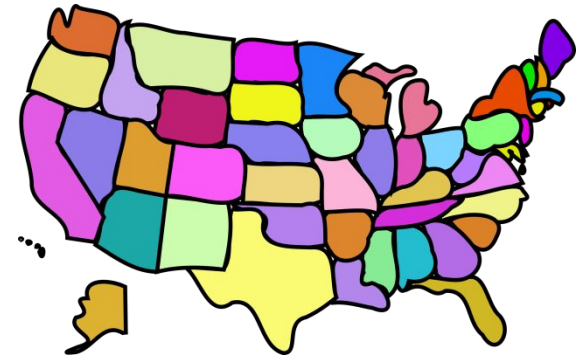
- HUD, National Housing Trust, Elevate Energy, Maryland DHCD

Part 3 – Solar for All: Making it Happen in Low-Income Communities

- Vote Solar, GRID Alternatives, NY PSB

Case Studies and Profiles

- Demonstrated ability to achieve multiple benefits for homeowners, renters, and landlords
- Have potential to be replicable, scalable, and sustainable over time
- Diverse range of communities, geographic areas, types of programs, implementing organizations
- Profiles (4-5 pages) describe key features, partners, funding sources, and achievements
- Case studies (6-8 pages) include these and more



Featured Programs

IN-DEPTH CASE STUDIES

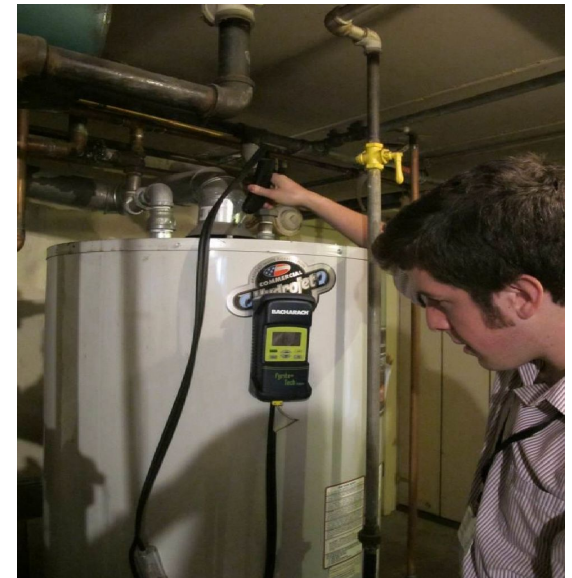
- California Multifamily Affordable Solar Housing Program
- Duluth Flood Recovery and Energy Efficiency Program
- Efficiency Vermont's Low-Income Services
- EmPOWER Maryland's Low-Income Programs
- Energy Outreach Colorado's Comprehensive Program

SHORT PROFILES

- Chumash Community Energy Efficiency and Renewable Energy Project
- DTE Energy's Low-Income Energy Efficiency Assistance Program
- Duke Energy Neighborhood Energy Saver Program
- Elevate Energy's Energy Efficiency Services for Affordable Multifamily Buildings
- GRID Alternatives' Solar Services
- Help My House Program

Best Practices

- Create a one-stop hub for energy assistance
- Eliminate or reduce up-front costs
- Address eligibility gaps
- Adopt a whole-building approach
- Partner with trusted organizations
- Address split incentives
- Consider community solar



Help My House Program

Removing the Barrier of Up-Front Costs in Rural Areas

- Financing approval determined via one year of good bill payment history; credit scores are not checked
- Participants received whole-house EE upgrades
- Installed measures will give an average net savings of roughly \$8,500 over 15 years through a 34% reduction in energy bills
- 95% participant satisfaction rate
- Three of the eight co-ops involved in pilot expanded their projects to permanent on-bill financing programs



Elevate Energy: EE Services for Affordable Multifamily Buildings

Full Service Support for Property Owners

- One-stop hub offering free suite of services for all steps of the process:
 - Energy assessment, guidance on measures, access to financing, quality assurance, follow-up
- Helps overcome barriers of lack of time, money, and expertise
- Hands-on approach, speaking owner's language
- Single point of contact
- Works with CDFIs and other financial partners to provide low-interest loans
- From 2007 to 2016 supported 620 buildings, comprising 29,000 units



Duluth Flood Recovery Program

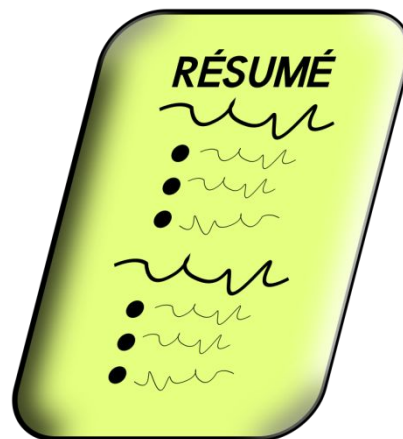


Adapting to Serve Low-Income Residents

- Existing program was successful because of its “case manager” approach:
 - Energy assessments, customized incentive packages, finding contractors, overseeing upgrades
 - Between 2011 and 2014 number of households undertaking upgrades after an audit increased from 2% to 65%
- Adapted approach when 500-year flood hit low-income neighborhoods in 2012 to ensure EE was included in rebuilding
- Innovative emergency bridge loan
- 168 households received upgrades
- White House Champion of Change for Building Resilient Communities

Making Solar Energy Accessible to All

- Strategic funding partnerships to reduce up-front costs
- Engage trusted community organizations to instill trust
- Hands-on job training and placement services – national resume bank, workshops, job fairs, fellowships
- Virtual net metering to remove split incentive
- Average of 50-80% reduction in energy bills
- 30,000 people trained

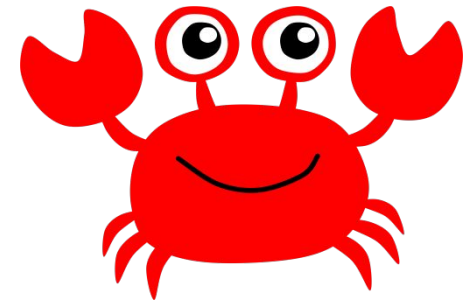


Cultivating Partnerships in a Tribal Community

- Door-to-door education and energy audits by trusted tribal members
- Tribal members help with installations and upgrades, helping to overcome mistrust of outside contractors
- Solar panel giveaways
 - Had to complete EE upgrades
- EE/RE jobs training and apprenticeships:
 - Customized training to fit specific needs and skill level of trainees
 - Worked with contractors to place trainees in permanent jobs
- Completed 62 audits, with 88% performing upgrades
- 50 tribal members received training, 10 got jobs

Addressing the Split Incentive

- Department of Housing and Community Development uses its deep understanding of low-income communities, long-standing partnerships, and existing housing assistance programs to reach more customers and ensure success
- Offers a whole-house approach, including health and safety measures
- Advanced QA/QC
- Served 21,000 customers since inception
- Average participant saves \$340 per year



Duke Energy Neighborhood Energy Saver Program



Neighborhood-Based Approach to Increase Success

- Target neighborhoods with 1,000 low-income households
- Get buy-in of local leaders first and enlist their help with promotion
- Walk door-to-door to explain program, send letters, use door hangers
- Hold community events where residents can speak with energy specialists
- Spend about 1 hour in each home and explain the measures to residents as they do them
- Served 76,000 homes in 127 communities since inception
- Customers save an average of \$150-200 per year



California Multifamily Affordable Solar Housing Program



Benefitting Both Owners and Tenants

- Reduce owner costs through a one-time, up-front rebate. Rebate is higher for upgrades to tenant units.
- Address split incentive by offering a virtual net metering tariff
- Private developers began offering attractive bundled incentives, helping nonprofits that don't have a tax appetite
- Participants must enroll in state's weatherization and appliance replacement programs
- Tenants saved an average of \$480 in their first year (VNM)
- 23 MW generated, with 216 projects in the pipeline



Contact Information



Thank you!

Victoria Ludwig

US EPA State and Local Energy and
Environment Program

ludwig.victoria@epa.gov

202-343-9291