MODULE 6
Starting a Community Energy Efficiency, Retrofitting, & Weatherization Project

NAACP
Environmental and Climate Justice Program

JUST ENERGY
Policies and Practices
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Module 6:
Starting a Community Energy Efficiency, Retrofitting, & Weatherization Project

Sometimes we need to see the fruits of our labor a little faster than other types of energy justice initiatives, like changing laws, etc. Sometimes you just want to get into the work, get your hands dirty, and make change happen. While energy efficiency, retrofitting, and weatherization projects take time and resources to organize, they are projects that will give your Environmental and Climate Justice (ECJ) Committee a feeling of accomplishment sooner than other projects.

Plus, your ECJ Committee or team will be providing a service to the households and businesses in your community with hands-on initiatives. These types of projects not only get you out in the community but they help promote the work that you’re doing so that people will want to get involved.

Important Terms

**Energy Efficiency**

Energy is wasted through outdated technology in buildings and homes through poor insulation, old windows, outdated heating and air conditioning systems, etc. This not only leads to more carbon pollution, but also contributes to incredibly high utility costs for building owners and higher rent for residents. Energy efficiency programs encourage the use of energy-saving technology and practices throughout the community.

Retrofitting and weatherization are two energy efficiency projects that communities can implement to save money and be more environmentally friendly.

**Retrofitting**

Retrofitting is the processes of assessing a building for where it is losing energy and where it can improve. This is done by energy companies or local contractors who provide you with a report of what they find.

**Common retrofit practices:**

a. Changing out light bulbs for energy efficient lighting and compact fluorescent lights (CFLs): Switching to bulbs that meet the ENERGY Star standards can help save around $75 a year just on bulbs.

b. Updating faucet heads to faucet aerators which helps save water.

c. Duct sealing, duct cleaning, and other duct work maintenance.
d. Changing out old, inefficient showerheads to newer, water-reducing models.
e. Switching to a programmable thermostat, which allows you to program temperatures to be warmer/colder when you are not home and other energy-saving options.
f. Updating water heater pipe insulation and other types of insulation, such as for attics, etc.
g. Installing new HVAC systems (Heating, Ventilation and Air Conditioning System): Replacing outdated heating and cooling in your home (older than 15 years) will make the HVAC systems more energy efficient. Since HVAC systems are responsible for almost 50% of home energy use, this can have a great impact on energy savings and utility cost.
h. Replacing old appliances and electronics with newer efficient models.

Weatherization
After getting a building retrofitted, you will then have the building weatherized. Weatherization protects a building from outside elements like sunlight, precipitation, and wind. Weatherization also includes restoring a building to make it more energy efficient and reduce energy use.
There are several ways to advance community driven weatherization policies in your community. One great resource for low-income communities is the Department of Energy’s Weatherization Assistance Program (WAP), which decreases energy costs for low-income homes by implementing weatherization, retrofitting, and other energy efficient adaptations. As the nation’s largest residential energy efficiency program, the program helps communities lower their energy costs, consume energy more efficiently, and helps ensure their health safety.

Retrofitting, weatherization, and community-based energy efficiency initiatives are great tools for lowering your energy costs, conserving energy, reducing greenhouse gas emissions, creating local jobs, and building community collaboration around energy justice and energy democracy. When implementing energy efficiency initiatives, it is important to make them as accessible and equitable as possible; we need to ensure that low-income communities, people of color, and immigrants are also a part of our vision for a cleaner, healthier, and more sustainable future.
Benefits of Community Energy Efficiency

**Economic Benefits**
Utility bills are the highest cost for multifamily building owners and landlords and often, they raise rent in order to cover the cost. Energy efficiency and retrofitting programs help lower this cost by conserving the amount of energy needed to run the building. Lower energy costs for the landlords typically means lower rent for the tenants. And, sometimes making the building more energy efficient makes the building a safer and healthier place to live, which reduces tenant turnover and increases the health of the community.

**Environmental Benefits**
Introducing energy efficiency into the community helps to decrease carbon pollution. Most electricity generation the U.S. takes place in power plants that burn fossil fuels or nuclear fuels, leading to greenhouse gas emissions which contribute to climate change. Increasing energy efficiency in the home decreases electricity usage, which means there is a decreased need to rely on power plants. Community energy efficiency also helps to conserve water since newer appliances use water more efficiently.

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**Green Justice Coalition’s Community Mobilization Initiatives – Massachusetts**
In 2008, the Massachusetts state government passed the Green Communities Act, which aimed to promote energy efficiency measures throughout the state. Overseen by the state’s Energy Efficiency Advisory Committee, the Act included a mandate for utilities to offer rebates to customers in exchange for weatherizing their homes. However, low-income communities, immigrant households, and people of color were vastly underutilizing these rebates, making the Act less accessible and equitable than it was intended to be. As a result, the Green Justice Coalition—a partnership of over forty community organizations in Massachusetts—submitted a series of recommendations to the Energy Efficiency Advisory Committee that would ensure that households who face income barriers to participating in energy efficiency initiatives wouldn’t get left behind. These recommendations included a number of community-based strategies, like partnering with weatherization contractors and unions to generate local jobs, and providing translators for households where English wasn’t the first language. These community mobilization initiatives were very successful and can be used as a model for other communities looking to make weatherization and other energy efficiency initiatives more accessible.

Decreased reliance on fossil fuels will help create a healthier environment for future generations
Social Benefits
Energy efficiency will decrease energy use by about 30%, which results in lower utility bills and higher savings for everyone including low-income community members. Additionally, energy-efficiency projects that are community-run can create jobs because these projects require recruiting and employing local residents as contractors for retrofit projects. Finally, the community as a whole will be healthier in the short-term as well as the long-term. Replacing old heating and insulation systems will help decrease the chance of mold or airborne toxins, leading to a decreased chance of illness. Decreased reliance on fossil fuels will help sustain a healthier environment for the future generation.

Steps to Creating Your Own Community Energy Efficiency Project

Your Environmental and Climate Justice Committee or team will need to meet and get a few goals lined up for how your energy efficiency project will be organized. For more details on how to set goals/objectives and how to form partnerships, see Module 1: Getting Organized so You can Organize!

Once you have an idea of where you would like to begin, see below for a simple outline of steps you can follow. For more detailed guides on Energy Efficiency Projects, please see the resource section.

1. Research and education for your ECJ Committee or team and partners
   a. Look up community efficiency programs and review successful programs in other states.
   b. Make a list of organizations you would like to partner with and include a contact person with their email etc. in your list (see below).
   c. Research contractors in your area who do retrofitting and/or energy audits. You might also reach out to your utility company to see if they provide this service or if they have local contractors they can refer you to. Begin getting quotes and researching the credentials of contractors and companies you are interested in hiring.

2. Gather Community Support.
   a. Partner with local non-profits and other community-based organizations, community members, and residents of the building(s) you hope to retrofit/weatherize. These tenants and/or homeowners should be at the forefront of your planning since a project goal is to address their needs. When talking to them about the energy efficiency project, be sure to include any tax incentives...
they might qualify for based on the changes they opt to make. Add interested people’s names to your mailing and email lists and invite them to future meetings and informational sessions.

b. Once you have your partnerships in place, your ECJ Committee or team can host educational sessions on energy efficient technologies and procedures as well as the issues impacting energy efficiency goals for the community. Discuss incentives and the importance of energy efficiency projects driven by the community. Include a lot of time for questions and answers so that you get as much feedback from the community as possible. Some of the topics you could cover in these educational meetings could be:

- Energy Justice including challenges to communities of color and low-income communities.
- Global and state challenges around energy and energy justice.
- Energy democracy.
- Energy efficiency and how it helps save money and energy as well as create healthier communities.
- New and efficient technology.

c. Keep the community in the loop before, during, and after your project. It is important to get as many people on board as possible to have the greatest impact.

- Post articles in the newspaper, include your project in your NAACP unit’s newsletter, website, and social media, sending out emails/mail about the project, have information tables at community events, etc.

3. Preparing for the project:

a. Hiring a company or contractors for assessment and installation

- Provide trainings for contractors as well as certifications for local residents so that they can have ownership over the project. Also be sure to hire local companies or non-profits to work with the community on energy efficiency.

b. Financing the project:

- Reach out to organizations that fund energy efficiency projects as well as community development organizations and regional non-profit housing organizations.

RESOURCE
To learn more about outreach and creating demand for your project, check out the Energy Efficiency Cities Network’s resources page, “Outreach and Creating a Demand” at this link: http://www.efficiencycities.org/resources-page/program-design/outreach-creating-demand
4. Implementing the project:
   a. Perform an assessment of the building. Work with building owners and the hired company or contractor to assess the energy efficiency of the entire building/unit and understand how it can be improved.
   b. Schedule an informational meeting with your community members to go over the report and any questions they may have.
   c. Hold a meeting with your ECJ Committee or team to go over the reports given to you by the contractor or companies and create a plan of action for how you will go about making the recommended changes and/or which changes to make.
   d. Secure any funding that will be needed. Consider asking for reduced prices from contractors, partnering with other organizations to pool your money, etc. See the Resource section in this module for more ideas and a detailed guide.

We created the following table to help you and your ECJ Committee or team to brainstorm ideas.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Ideas from the ECJ Team</th>
<th>Ideas from community members</th>
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</thead>
<tbody>
<tr>
<td>What successful energy efficiency programs are similar to the one your ECJ team wishes to implement?</td>
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<tr>
<td>How will you understand and incorporate the needs of the local community?</td>
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<td>What kinds of education sessions on energy efficiency will you hold for your ECJ team and for the community?</td>
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<tr>
<td>Question</td>
<td>Answer</td>
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<tr>
<td>What topics do you think would be a good fit for community workshops?</td>
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<td>What initiatives are you interested in including in your energy efficiency program?</td>
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<td>What organizations are a good fit for financing the project?</td>
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<td>What financial incentives can be implemented to gather community support?</td>
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<td>What are some local contracting companies you can reach out to for performing a retrofit?</td>
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Conclusion

Community-owned clean energy projects, in the form of cooperatives, community energy purchasing agreements, and energy efficiency campaigns are powerful tools for uniting communities committed to energy justice and energy democracy. When communities are in charge of the power they consume, communities across the United States have established successful cooperatives and renewable energy projects and programs that provide energy efficiency services, renewable energy to their communities, and other useful goods and services for which people expressed a need.
Resources

American Council for Energy-Efficiency Economy (ACEEE)
The American Council for an Energy-Efficient Economy (ACEEE), a non-profit, 501(c)(3) organization, acts as a catalyst to advance energy efficiency policies, programs, technologies, investments, and behaviors. They have a robust resource section on their website as well as a newsletter and blog series loaded with information. Learn more: http://aceee.org/

Emerald Cities Collaborative
Emerald Cities Collaborative (ECC) is a national non-profit network of organizations working together to advance a sustainable environment while creating high-road -- sustainable, just and inclusive -- economies with opportunities for all. ECC develops energy, green infrastructure and other sustainable development projects that not only contribute to the resilience of our metropolitan regions but also ensure an equity stake for low-income communities of color in the green economy. Learn more: http://emeraldcities.org/

Efficiency Cities Network
The Efficiency Cities Network (ECN) is an informal policy learning network of government staff, researchers and technical assistance providers, and NGOs currently active in or committed to making scaled efforts at high-road (i.e., concerned with equity and democracy, not just sustainability) energy retrofits (seeking increased energy efficiency, conservation, and clean generation) of urban building stock. They have a wealth of resources on their website. Learn more: https://www.efficiencycities.org/

Green For All
Green For All works to build an inclusive green economy strong enough to lift people out of poverty. Their goal is to make sure people of color and working families have a place and a voice in the climate movement. Learn more: https://www.greenforall.org/

National Energy and Utility Affordability Coalition (NEUAC)
NEUAC is a broad-based coalition of diverse member organizations and individuals dedicated to heightening awareness of the energy needs of low income energy consumers, fostering public-private partnerships and engaging in other activities to help address these needs. They have created several resources, one on weatherization policies in low-income communities. To learn more please go to https://neuac.org/ and "Resources."
**National Institute of Building Sciences**

*The National Institute of Building Sciences* created the Whole Building Design Guide, which is the only web-based portal providing government and industry practitioners with one-stop access to up-to-date information on a wide range of building-related guidance, criteria and technology from a ‘whole buildings’ perspective. In their guide, they created a section entitled, Retrofitting Existing Buildings to Improve Sustainability and Energy Performance, which outlines guidance for how to incorporate retrofitting in a “whole building” approach.

Learn more: [http://wbdg.org/](http://wbdg.org/) and "Resources."

**Northeast Energy Efficiency Partnerships**

*NEEP* was founded in 1996 as a non-profit accelerating energy efficiency in the Northeast and Mid-Atlantic states. Their mission is to accelerate energy efficiency as an essential part of demand-side solutions that enable a sustainable regional energy system. They also provide technical assistance to states and municipalities who are trying to adopt energy efficiency policies.

Learn more: [http://neep.org/](http://neep.org/)

**Office of Energy Efficiency and Renewable Energy (EERE)**

The mission of *EERE* is to create and sustain American leadership in the transition to a global clean energy economy. Its vision is a strong and prosperous America powered by clean, affordable, and secure energy. Their website includes several retrofitting and weatherization resources including some of the incentives for multifamily buildings.

Learn more: [https://energy.gov/eere/office-energy-efficiency-renewable-energy](https://energy.gov/eere/office-energy-efficiency-renewable-energy)

**Pratt Center**

Pratt Center works for a more equitable and sustainable city in New York, by empowering low- and moderate-income communities to plan for and realize their futures. They have various research publications as well as community projects they have organized listed on their website.

Learn more: [http://prattcenter.net/](http://prattcenter.net/)

**WECCUSA**

WECC is a national leader in the design and implementation of innovative energy efficiency and renewable energy programs. WECC partners with utilities, local and state governments, regulatory agencies, and other organizations to provide cost-effective solutions that help both consumers and businesses save energy and money. They also have case studies and resources online that discuss successful examples of communities who have done energy efficiency programs.

Learn more: [http://www.weccusa.org/](http://www.weccusa.org/) then go to "case studies" located under "Resources."
Community Energy Efficiency
Quick List of Benefits

Economic Benefits
Utility bills are the highest cost for multifamily building owners and landlords and often, they raise rent in order to cover the cost. Energy efficiency and retrofitting programs help lower this cost by conserving the amount of energy needed to run the building. Lower energy costs for the landlords typically means lower rent for the tenants. And, sometimes making the building more energy efficient makes the building a safer and healthier place to live, which reduces tenant turnover and increases the health of the community.

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Social Benefits
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Energy Efficiency, Retrofitting, and Weatherization

Quick Facts

Every year much of the energy that is produced is wasted through energy loss and inefficient technology, which means we produce more energy than we consume. This leads to overproduction and unnecessary carbon pollution. Energy efficiency, retrofitting, and weatherization projects not only reduce overall energy use, but also lessen energy burdens and lower energy costs.

Terminology

Energy Efficiency
“Energy efficiency” is an umbrella term that refers to technologies or practices that reduce energy demand and use for everyday services.

Weatherization
“Weatherization” is the process of making buildings more energy efficient through practices such as the addition of insulation, siding, or storm doors in order to reduce energy loss in buildings.

Retrofitting
“Retrofitting” is a whole-house approach that analyzes a building’s energy consumption and takes simple or complex steps to become energy efficient. Retrofitting is typically a more comprehensive renovation than a weatherization project and often involves modifying a building’s structure.

Strategies

Air Leaks
Air leaks waste energy by allowing heat to easily enter or escape its building boundaries, causing you to lose heat during cold weather and make your air conditioning unit work harder during hot weather. Seal leaks.
**Poor Insulations**
Insulation makes homes more energy efficient by reducing the loss of heat through ceilings and walls. Most households can benefit from adding more insulation.

**Inefficient Lighting**
Switching to energy-efficient lighting is one of the fastest ways to save money on energy. Just by replacing the five most frequently used light bulbs in your home with bulbs that meet the ENERGY STAR standard, you can save about $75 per year.

**Inefficient Appliances and Electronics**
Strategies for reducing the energy used by the appliances and electronics in your home include: Unplugging appliances and electronics when they are not in use; changing the energy use settings of appliances and electronics or simply using them less often; and purchasing new, more energy-efficient appliances and electronics.

**Outdated Equipment**
It is recommended that you replace heating and cooling equipment in your home that is more than 15 years old. Newer units are more energy efficient and can greatly reduce how much energy you use, lowering your energy costs. Heating and cooling equipment is responsible for almost 50% of the average home’s energy use.

**Rebates, Tax Credits and Incentives**
There are a number of rebates, tax credits, and incentives to offset the cost of these energy related projects. To search for tax credits, rebates and savings in your State of residence, visit [http://energy.gov/savings/search](http://energy.gov/savings/search). To learn about financing programs that may be available to you, visit [http://energy.gov/energysaver/financing-energy-efficient-homes](http://energy.gov/energysaver/financing-energy-efficient-homes).
Just Energy Policies and Practices Action Toolkit
National Association for the Advancement of Colored People (NAACP)
Environmental and Climate Justice Program
www.naacp.org/issues/environmental-justice
ecjp@naacpnet.org