Welcome to the LIFE Webinar Series

We will begin the webinar momentarily
Mission Statement

Working to help low-income New Yorkers address energy issues.

LIFE, the Low-Income Forum on Energy, is a unique statewide dialogue that brings together organizations and individuals committed to addressing the challenges and opportunities facing low-income New Yorkers as they seek safe, affordable and reliable energy.

Supported by the New York State Public Service Commission and the New York State Energy Research and Development Authority (NYSERDA), the LIFE dialogue encourages an interactive exchange of information and collaboration among the programs and resources that assist low-income energy consumers.
LIFE Activities

> LIFE Webinar Series

> Electronic Newsletter

> Social media
  - Twitter: @LIFEnys
  - LinkedIn: Low-Income Forum on Energy

> Annual Events – regional, statewide, virtual
Connect

> Find more information on the website
  • nyserda.ny.gov/LIFE

> Join the mailing list for announcements and updates about
  • Sign up at nyserda.ny.gov/LIFE – “Join the email list”
  • Direct link – nyserda.ny.gov/LIFE-Mailing-List

> Contact LIFE
  • Phone: 866-697-3732, ext. 3628
  • Email: LIFE@nyserda.ny.gov
Asking Questions During the Webinar

1. Locate the Q&A function in the upper right portion of your webinar panel.
   Click on the small arrow to the left of “Q&A” to expand the text field.

2. Type your question into the text field and click “send.”
Measuring Climate Equity

April 29, 2021

Authors:
Bryndis Woods, PhD
Sagal Alisalad

Applied Economics Clinic

www.aeclinic.org
Applied Economics Clinic (AEC)

AEC is a 501(c)(3) non-profit consulting group based in Arlington, Massachusetts. Founded in 2017, the Clinic provides expert testimony, analysis, modeling, policy briefs, and reports for public interest groups on the topics of energy, environment, consumer protection, and equity, while providing on-the-job training to a new generation of technical experts.

Our mission is to:

1. Provide low cost and (when we receive foundation grants) pro bono expert services to public interest groups on the topics of energy, environment, consumer protection, and equity.

2. Train the next generation of expert technical witnesses and analysts by providing applied, on-the-job learning experiences to graduate students in related fields.

3. Work proactively to support and promote diversity in the fields of economics, engineering, math and sciences.
Presentation Agenda

• Introducing Climate Equity
• AEC’s Climate and Social Equity Framework
• Metrics for Climate Equity
• AEC’s Framework and Metrics in Action: A Massachusetts Case Study
Introducing Climate Equity
Climate Equity

**Climate Equity**: remedying the disproportionate effects of climate change and environmental injustice.

The Climate Act requires the state to invest or direct resources to ensure that disadvantaged communities receive at least 35 percent (with the goal of 40 percent) of overall spending benefits on:

- Clean energy and energy efficiency programs
- Projects or investments in the areas of: housing, workforce development, pollution reduction, low-income energy assistance, transportation, and economic development
Why Consider Equity in Climate Planning?

In planning for climate adaptation, emissions mitigation, and the transition to a new green economy, cities and towns must:

- recognize the social equity implications of consequential policy choices
- consider impacts on vulnerable populations
- have clear definitions and an established plan for **implementing** equity using actionable metrics
AEC’s Climate and Social Equity Framework
AEC’s Climate and Social Equity Framework

AEC’s Climate and Social Equity framework offers guidance on how to consider social equity in climate planning. Every community will face different climate and social equity challenges and will need its own tailored approach to achieve the best outcomes.

Using AEC’s assessment framework helps guide a process that:

• considers the context of society’s vulnerable groups;
• proactively prioritizes equitable outcomes;
• intentionally avoids common pitfalls; and
• is reactive to any issues that arise during implementation.
AEC’s Climate and Social Equity Framework

Equity Checklist
The checklist provides a method to ensure a robust treatment of climate and social equity.

Dimensions
Social equity cuts across many dimensions, each of which requires consideration.

Pitfalls
Each equity dimension has common equity pitfalls that should be acknowledged, addressed, and intentionally mitigated should they arise.
An equity checklist helps to center equity considerations in planning, implementation and evaluation.

Some examples of equity checklist items include:

- Social equity requires **inclusive** planning and decision-making.
- Establish baseline equity context and determine **data availability**.
- Plan carefully to focus on equity outcomes and avoid **unintended consequences**.
- Include inclusive, equitable practices from **start-to-finish**.
Equity must be considered across as many dimensions as possible

Equity cuts across four primary dimensions:

1. **Stages of Policy**: planning/agenda setting, implementation, evaluation
2. **Sectors**: buildings, transportation, energy, agriculture
3. **Communities**: race/ethnicity, housing status, primary language spoken
4. **Intergenerational**: current vs future generational needs, ecological sustainability
Equity cuts across multiple dimension, each of which entails common equity pitfalls.

Examples of pitfalls include:

1. **Stages of policy:** evaluation
   - Inadequate Community Engagement

2. **Sectors:** buildings
   - Displacement

3. **Communities:** low-to-no income
   - Energy Insecurity

4. **Intergenerational:** current vs future generational needs
   - Myopic Policy
Metrics for Climate Equity
Equity Metrics

Types of metrics:

1. Outcome
2. Distributional Dimensions
3. Process
4. Structural
1. Outcome Metrics

Outcome Metrics measure whether equity goals were met in *absolute terms*.

- Were program goals met?
- Were there any unintended consequences?
- Does the policy need iteration?

*Due to data lag, measurements of some outcome metrics may not be available until some time has elapsed*
2. Distributinal Dimensions

Distributinal Dimensions measure the distribution of equity gains/losses across different groups of society in comparative terms.

- Who gained and who lost in the program’s target community?
- Are policy gains/losses equitably distributed?
- Are existing vulnerabilities exacerbated by the policy, or new disparities created?

Data availability plays a major role in comparing benefits and losses across different communities.
3. Process Metrics

Process Metrics measure *inclusion* and *representation* over all stages of policy development.

- Is institutional feasibility accounted for?
- Did you facilitate stakeholder participation? Who participated?
- How was stakeholder/community input used?

*Also includes reviewing membership of decision-making bodies for community representation*
4. Structural Metrics

Structural Metrics consider *accountability* and *systemic barriers* to achieving equity goals.

- Has necessary data been identified/collection?
- Is progress towards equity goals being measured and publicly communicated?
- Are there plans in place if equity goals are not met? Will the community be engaged?

*Transparency and public engagement are key to accountability*
Example: Energy Efficiency for All

The goal: an energy efficiency program that benefits all customers equitably

1. **Outcome Metric**: dollars saved through energy efficiency measures
2. **Distributional Dimensions**: average dollars saved through energy efficiency measures by race/ethnicity, household income, etc.
3. **Process Metric**: tracking participation at public meetings for energy efficiency planning
4. **Structural Metric**: having publicly-available, disaggregated data on energy efficiency program participation and meaningfully incorporating community feedback to improve program performance
AEC’s Framework and Metrics in Action: A Massachusetts Case Study
Massachusetts’ Climate Justice Working Group

The Climate Justice Working Group (CJWG) was created in November 2019 by the Massachusetts Global Warming Solutions Act (GWSA) Implementation Advisory Committee (IAC) and provides direction to Massachusetts in meeting its climate goals while ensuring benefits for environmental justice (EJ) and historically marginalized communities.
## Climate Justice Working Group Policy Priorities

1. Addressing pollution hotspots

2. Promoting diverse workforce development

3. Ensuring community engagement influences state decision-making

4. Prioritizing investments in environmental justice (EJ) populations

5. Redressing long-standing environmental harms

6. Reducing energy system burdens for EJ and other historically marginalized communities
Policy Priority #1: Addressing pollution hotspots

Set annual air pollution reduction targets for pollution hotspots

To fully account for health impacts/co-benefits of proposed policies, agencies need to expand the air monitoring network, actively analyze air monitoring data, and consistently review environmental and energy policies to assess what is working and what needs to be tweaked to achieve air quality improvement.
Policy Priority #1: Addressing pollution hotspots

Existing data include:

Massachusetts Department of Environmental Protection has 23 air monitoring stations.

Air quality indices indicate the concentration of particulate matter, ground-level ozone, lead, carbon monoxide, nitrogen oxides, volatile organic compounds, black carbon and sulfur dioxide.
Policy Priority #1: Recommended Metrics

1) Establish new air monitoring stations in environmental justice populations and other historically marginalized communities

Yes/no metric: Have air monitoring stations been added to every community?

2) Declassify environmental justice populations and other historically marginalized communities as “pollution hotspots” due to sustained lower air pollution levels

Standard-setting metric: Set air quality standards for local pollutants and a hotspot declassification standard.
Policy Priority #4: Prioritizing investments in EJ populations

Prioritize climate investments in EJ populations

When dollars are being directed to support development, a concerted effort should be made to: a) prioritize investment in EJ populations that will enable climate-smart building; and b) convene input from an advisory body that includes community and worker representation to guide how funding is allocated. Provide enhanced incentives and innovative financing for income-eligible customers, regardless of creditworthiness, to make new, clean technologies more accessible and affordable (e.g., EVs, air source heat pumps, solar panels, rides on regional electric rail).
Policy Priority #4: Prioritizing investments in EJ populations

Existing data include:

1) The Massachusetts Department of Public Health tracks environmental health data to identify health disparities among residents.

2) The Municipal Vulnerability Preparedness (MVP) grant program collects data on vulnerable populations.

3) Massachusetts tracks EJ populations, based on data from the 2010 U.S. Census and American Community Survey data.

2010 EJ populations in MA
Policy Priority #4: Recommended Metrics

1) Development dollars are directed to EJ populations for climate-smart building

Existing tracking/classification of EJ populations: EJ populations are currently classified and tracked.

Public investment tracker: Track and make publicly available Massachusetts government dollars spent on climate and clean energy efforts by the location of the project.

Set an EJ funding standard: Set a relative standard for EJ populations funding that mandates a certain amount of investment in EJ populations, relative to investments made in non-EJ populations.
Policy Priority #4: Recommended Metrics

2) Establish an advisory body to guide funding allocation to EJ populations that includes community and worker representation

Yes/no metric: Has the advisory body been created or is an existing advisory body overseeing this work?

Voluntary self-identification survey: A survey in which advisory body members self-identify whether they belong to EJ populations and other historically marginalized communities, to affected communities, or hold affected jobs.
Policy Priority #4: Recommended Metrics

3) Offer grants, financial incentives, and other financing options that are accessible regardless of creditworthiness for adoption of EVs, air source heat pumps, solar panels, and rides on regional electric rail

Clean energy financing accessibility tracker: A new public database that tracks the availability and rate of utilization of financing for participant costs of clean energy projects.
Additional Applications of AEC’s Climate and Social Equity Framework

- **Carbon Free Boston**: assessed how the City of Boston’s plan for carbon neutrality will impact socially vulnerable populations

- **Cambridge, Massachusetts**: providing equity input and considerations during the Net Zero Task Force’s development of the next Net Zero Action Plan

- **State of Maine’s Governor’s Energy Office**: assessed the needs of Maine’s underserved communities and potential equity benefits and challenges of the state’s renewable energy transition

- **American Council for an Energy-Efficiency Economy**: assessing how equity is being considered and measured in energy efficiency programs
Conclusions

• As a matter of climate policy, equity should be considered, intentionally addressed and evaluated from start to finish

• Climate and social equity metrics are most likely to enhance accountability if they are transparent and accessible to the public

• Climate equity and justice goals must include concrete, specific plans, actionable metrics, and meaningful community engagement

• Measuring equity impacts requires disaggregated data that track vulnerable populations—a key challenge

• Additional efforts will be required to measure progress towards equitable and just community impacts of climate policy
Thank you!

Website:
www.aeclinic.org

Contact:
bryndis.woods@aeclinic.org
sagal.alisalad@aeclinic.org
Join Us and Grow with Us

> Find more information on the website
  • nyserda.ny.gov/LIFE

> Join the mailing list
  • Sign up at nyserda.ny.gov/LIFE – “Join the email list”
  • Direct link – nyserda.ny.gov/LIFE-Mailing-List

> Connect on social media
  • Twitter: @LIFEnys
  • LinkedIn: Low-Income Forum on Energy

> Contact LIFE
  • Phone: 866-697-3732, ext. 3628
  • Email: LIFE@nyserda.ny.gov