



## Centering Equity with Metrics: How to Incorporate Equity and Justice in Evaluation, Measurement, and Verification

A history of environmental racism and inequitable energy decision-making have led to historically marginalized communities bearing the largest burdens of the fossil fuel economy, but not receiving any of the benefits. Discriminatory practices in the energy and housing space have meant that historically marginalized and/or underserved communities now live in older buildings in need of repair, experience a higher energy burden, and lack input into the programs meant to serve them. Across the United States, policymakers, advocates, and program implementers have started to look at how energy efficiency can help to combat these injustices of the past by prioritizing energy equity. This shift in goals will require policymakers and program implementers to make changes in program design and objectives to better center equity alongside the long-standing goals of energy efficiency programs so that they deliver cost-effective energy savings to everyone.

While energy efficiency programs have policies to ensure access and prioritize historically marginalized and/or underserved communities, these standards focus on equity in access to programs and not equity in access to benefits. Current energy efficiency programs are often required to ensure equal access in program offerings, such as through having programs for low- and moderate, market rate, and commercial customers, or [setting program spending](#) equal to each sector's payment in energy bills, also called an efficiency charge. This [standard](#) ensures equality, allowing everyone access to the same resources or opportunities, but not equity. Equity requires that we recognize disparities that already exist in the energy efficiency space such as [housing and income inequalities and create programs and policies that address those disparities](#).

The evaluation, measurement, and verification (EM&V) process can be a great starting point to drive change in how programs approach energy equity. EM&V is a key component of energy efficiency programs, but often times the metrics and data used in the EM&V process only focus on savings and costs. This paper will highlight how, by bringing in community stakeholders and using data, policymakers and implementers can establish a baseline understanding of how inequities are embedded in current programs, provide accountability to remedy these injustices throughout program design, and ensure measurable, real achievement.

This paper will use the term [historically marginalized and/or excluded communities](#) to encompass communities throughout this paper. These communities are “communities denied involvement in mainstream economic, political, cultural, and social activities. Marginalization or social exclusion deprives a group from access to basic rights and participation in decision-making. Marginalized communities include, but are not limited to, frontline communities, low-income and/or working class

communities, and those historically disenfranchised by racial and social inequity (e.g., minority identities based on race, ethnicity, sex, gender, sexual orientation, and ability status).”

### *What Energy Equity Means in Energy Efficiency*

It is important to recognize the difference between “equality” and “equity” to understand energy equity. Equity is the fair distribution of benefits and burdens from energy production and consumption. [It differs from equality](#) because it accounts for context and historical causes of current inequalities. In practice, equity ensures [everyone is given equal opportunity to thrive](#); which may mean that resources are divided and shared unequally.

In the energy efficiency space, energy equity in program design and evaluation has long hinged on creating equal access. This frame focuses on equality and not equity, ignoring the [starting-line disparities of participants](#) in historically marginalized communities. These starting-line disparities include practices such as [redlining](#) that resulted in communities that often have less green space, higher surface temperatures, and lower housing values. Communities of color and low-income communities also often have less efficient housing, as they are more likely to contain aging, poorly built homes where residents [face dramatically higher energy burdens](#) and spend a greater portion of their income on energy bills. Finally, when policymakers and program implementers do create programs to serve these communities, they do not offer an avenue for residents and local businesses to provide input into program design and implementation.

Centering equity means that energy efficiency programs need to acknowledge and account for these starting-line disparities by recognizing the harms of the past, incorporating voices from those who have been most burdened by these decisions, and taking proactive approaches to ensure that the benefits of energy efficiency programs are accessible to every resident. To change the current status, policymakers and program implementers should take steps to change design and implementation practices and undo institutional biases. This can be done through prioritizing restorative justice.

[Restorative justice](#) is the recognition that past and current energy injustices should guide plans and ensure benefits fall to communities most impacted by these injustices. For energy efficiency programs, this means the simple practice of making programs available is not enough. Policymakers and program implementers should look to remediate the fact that these communities have been historically underserved by centering the design around community needs and ensuring purposeful investment. Further, they should design programs and policies to build wealth within the communities these programs serve, with community voices at the center of those efforts.

Policymakers and program implementers can also examine the energy equity of efficiency programs by using the four pillars of energy equity created by the The American Council for an Energy-Efficient Economy (ACEEE) [Energy Equity Initiative](#) based on the [Urban Sustainability Director’s Network \(USDN\)](#) four dimensions of equity:

- Structural equity recognizes the historical, cultural, and institutional dynamics and reform programs that perpetuate disparities. To address this inequity, policymakers and program implementers can reform programs that perpetuate disparities.
- Procedural equity looks to create inclusive and accessible processes where community members have authentic leadership roles that define, drive, and hold accountable clean energy policy and program decisions and outcomes.
- Distributional equity ensures the fair distribution of benefits and burdens across all communities, so that all residents enjoy the benefits of clean energy programs
- Transgenerational equity asks that policy makers and programs implementers consider the impact of clean energy policies and programs on future generations and create solutions that benefit future generations.

For energy efficiency, the main objective in energy equity is to prioritize the most vulnerable customers so that they can receive the benefits energy efficiency programs provide. This work must be both internal and external. Below are suggestions for external-facing energy equity work. In addition to these steps, policymakers and program implementers can take intentional actions to work on internal policies and biases. These steps include engaging in diversity, equity, inclusion (DEI) and anti-racist training to dismantle bias and have a clear understanding of the inequities that exist because of past actions. Additionally, companies and organizations can look inward to ensure that the people with decision-making power are representative of the people those organizations serve. These steps will help to achieve more equitable energy policy and complement additional initiatives taken to change programs design and workforce practices.

### *Why Centering Equity is important for EM&V*

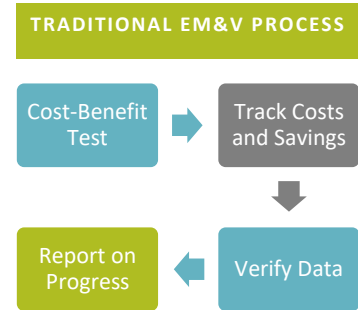
Historically, energy efficiency program goals and tracking metrics have been set up to disregard equity considerations. Traditional energy efficiency program metrics focus on energy and demand savings, which perpetuates the business-as-usual status quo program design that primarily focuses on single-family homes and disregards the rental market and other low-income populations. EM&V can start to change this status quo because it is how energy efficiency programs document and demonstrate the benefits they provide to utilities, participants, and society as whole. Innovations in data analytics and data access are providing opportunities for EM&V to evolve and improve.

EM&V seeks to [document and demonstrate](#) the cost-effectiveness of energy efficiency measures and broader programs implemented by program administrators. It plays a central role in the development and growth of energy efficiency programs. It serves [three critical objectives](#): (1) identify and verify impacts of energy efficiency programs, (2) ensure continuous improvement of programs, and (3) support planning and demand forecasting.

Traditional EM&V frameworks evaluate energy efficiency programs based on costs and savings. Regulatory orders typically set out requirements for customer-funded energy efficiency programs to be evaluated based on the standard of cost-effectiveness. These evaluation protocols and methodology are quite technical and revolve around costs, investments, and energy savings with evaluations performed separately for each utility program administrator.

This method fails to account for other policy efforts and priorities of energy efficiency programs including energy equity and decarbonization. By changing the data used and the processes to set evaluation standards, policymakers and program implementers can prioritize energy equity. EM&V centered on equity will be able to provide a baseline understanding of how inequities are embedded in current programs, to provide accountability during program design, and to ensure measurable, real achievement.

This report looks at six ways that policymakers and program implementers can center equity in evaluation, measurement, and design of energy efficiency programs. Each step has recommendations and examples from states that have already begun this transformative process.



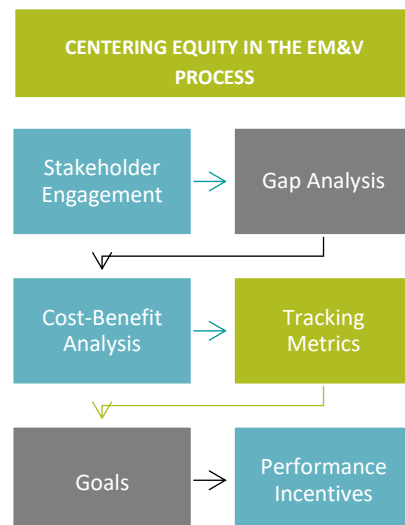
**1. Creating a Process for Meaningful Stakeholder**

**Engagement:** Using a meaningful stakeholder engagement process ensures people from historically marginalized and/or excluded communities have access to and are part of decision-making processes. These processes can serve as a way to collaborate with communities on metrics and identify ways to improve access to energy efficiency programs

**2. Identifying Disparities with an Equity Gap Analysis:**

Conducting gap analysis in the energy efficiency space is an important step in understanding how programs can best serve their communities through examining historical successes and shortfalls, and identifying areas in greatest need of attention.

**3. Adjusting for Equity in Cost-Benefit Analysis:** Creating new standards to assess benefit-cost analysis can encourage programs that prioritize energy equity. The narrow focus of current cost-



benefit analysis ignores the economic, societal, and environmental benefits these programs have and is an obstacle to implementing programs that prioritize energy equity.

4. **Identifying Equity-Centered Tracking Metrics:** Tracking equity-centered metrics is an important first step to ensuring more equitable program design and implementation. These metrics measure the impact of programs and can reflect any improvements or gaps in program delivery.
5. **Creating Equity-Centered Program Goals:** Aligning energy efficiency program goals with equity-focused goals that encourage delivery of equitable benefits and opportunity for more meaningful participation can begin to undo long-standing burdens disproportionately faced by low-income, minority, and otherwise historically marginalized communities.
6. **Performance Incentives that Align with Equity Priorities:** Creating equity-centered financial performance incentive mechanisms can encourage program implementers to innovate and go above and beyond program goals. These tools can encompass numerous areas depending on state needs, and can work to [align the utility business model with state equity and climate goals](#).

Integrating equitable data and metrics into energy efficiency policy will provide insight into how programs are not working and offer guidance on what can be changed. Because data can illustrate the impact of policy decisions with numbers, it will hold programs and institutions accountable in ways that they have not been before.

## **Resources**

“Energy Burden.” ACEEE. <https://www.aceee.org/energy-burden>

“Energy Equity.” ACEEE. <https://www.aceee.org/topic/energy-equity>

“Evaluation, Measurement, and Verification (EM&V).” ACEEE. <https://www.aceee.org/topic/emv>

“Equity vs. Equality: What’s the Difference?” George Washington University Online Public Health, Nov 2020. <https://onlinepublichealth.gwu.edu/resources/equity-vs-equality/>

“Glossary and Appendix.” Initiative for Energy Justice. <https://iejusa.org/glossary-and-appendix/>

“Key Terms for Recognizing Energy Inequities and Centering Equity.” NEEP. <https://neep.org/key-terms-recognizing-energy-inequities-and-centering-equity>

Levin, Emily, Elizabeth Palchak, and Robert Stephenson. “The State of Equity Measurement: A Review of Practices in the Clean Energy Industry.” VEIC, Sep 2019. [https://www.veic.org/Media/default/documents/resources/reports/equity\\_measurement\\_clean\\_energy\\_industry.pdf](https://www.veic.org/Media/default/documents/resources/reports/equity_measurement_clean_energy_industry.pdf)

Luck, Emmeline. “Recognizing Energy Inequities for Building Decarbonization.” NEEP, Nov 2021. <https://storymaps.arcgis.com/stories/28fb21bf54294fa8b22f374fdf536be8>

Norton, Ruth Ann, Jamal Lewis, Catherine Klinger, and Noah Goldman. “Leading with Equity and Justice in the Clean Energy Transition: Getting to the Starting Line for Residential Building Electrification.” Green & Healthy Homes Initiative, 2021. [https://www.greenandhealthyhomes.org/wp-content/uploads/2021-GHHI-Leading-with-equity\\_wp\\_Final.pdf](https://www.greenandhealthyhomes.org/wp-content/uploads/2021-GHHI-Leading-with-equity_wp_Final.pdf)

Nowak, Seth, Brendon Baatz, Annie Gilleo, Martin Kushler, Maggie Molina, and Dan York. “Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency.” ACEEE, Jun 2015. <https://www.aceee.org/research-report/u1504>

Park, Angela. “Equity in Sustainability.” Urban Sustainability Directors Network, Sep 2014. [https://www.usdn.org/uploads/cms/documents/usdn\\_equity\\_scan\\_sept\\_2014\\_final.pdf](https://www.usdn.org/uploads/cms/documents/usdn_equity_scan_sept_2014_final.pdf)

York, D., C. Cohn, and M. Kushler. 2020. National Survey of State Policies and Practices for Energy Efficiency Program Evaluation. Washington, DC: American Council for an Energy Efficient Economy. [www.aceee.org/research-report/u2009](http://www.aceee.org/research-report/u2009).