

Energy Equity Metrics: Lessons Learned and Priority Actions from ACEEE's Leading with Equity Initiative

Roxana Ayala and Amanda M. Dewey, American Council for an Energy-Efficient Economy

ABSTRACT

As more decision makers make commitments to equity, new data and metrics are needed to track progress and to evaluate the outcomes of their commitments. Comprehensive metrics are necessary to evaluate the results of policies and decisions across procedural equity (i.e., inclusive, authentic engagement), structural equity (i.e., decision-making processes), and distributional equity (i.e., distribution of benefits and burdens). However, it is crucial for these metrics to encompass the priorities of community-based organizations and disinvested communities to successfully ensure that decision makers are accountable to community priorities and needs.

This paper includes an overview of prioritized equity-centered actions that resulted from a collaborative initiative. These action categories were identified by community-based organizations and advocates as most important for designing, implementing, and evaluating clean energy programs, specifically those delivering renewable energy and energy efficiency services. The actions are based on a collaborative engagement process with community-based organizations and advocates, as well as a literature review of energy equity metrics, and they form the basis for potential metrics for governments and utilities. After sharing the results of the collaborative initiative, the paper includes examples of states, utilities, and cities that are taking action related to these priorities to illustrate potential approaches to implementing the recommendations of the collaborative process. This research contributes to the dialogue on energy equity by prioritizing a path forward for equity-related metrics in the energy sector based on the voices of advocates and disinvested communities.

Introduction

Across the country, clean energy investments have been critical to reducing carbon emissions, advancing energy efficiency in buildings, and developing the local workforce. Historically, exclusionary processes and systemic discrimination enabled inadequate clean energy policies that failed to engage and maximize the benefits of clean energy among disinvested communities¹ (Norton et al. 2021; Ramanan et. Al 2021; NAACP 2021b; Lewis, Hernández, and Geronimus 2019).

While governments and utilities increasingly develop clean energy investments and programs, access to them remains unequal (Baker 2020; NAACP 2021a; Leon et al 2019; Sunter, Castellanos, and Kammen 2019; Reames, Reiner, and Stacey 2018). Decision makers have not

¹ In this paper we use the term disinvested communities to refer to communities that are disproportionately impacted by social structures and decision-making and have been historically excluded from dominant institutions. Examples of these communities can include Black and indigenous residents, people of color, people experiencing homelessness, low-income residents, and immigrants. In some contexts, these communities can be referred to as marginalized, underserved, or disadvantaged communities.

yet sufficiently acknowledged the ways that underinvestment in these communities has led to several overlapping social and economic inequities that limit participation in clean energy opportunities. For example, the American Council for an Energy-Efficient Economy's (ACEEE) *2021 City Clean Energy Scorecard* report found that 100 large cities had taken relatively few equity-related clean energy actions (Samarripas et al. 2021).

In response, some stakeholders have started to push for clean energy policies and programs to have a strong focus on equity to benefit communities and groups that have historically not had equitable access to clean energy benefits and services (Samarripas et al. 2021; Berg et al. 2020). When cities, states, and utilities commit to advancing energy equity, it will be critical to establish frameworks for tracking the progress and outcomes of their efforts and to base these frameworks on the priorities and needs of the communities they serve. Governments and utilities will need to benchmark the outcomes of their clean energy efforts and equity-related implications, and equity metrics will be essential to measure their progress. Equity-centered metrics can help to establish baselines for goals and support accountability to increasing investments in low-income communities and communities of color.

Energy Equity Framework

In this paper, we share the results of a collaborative effort (the Leading with Equity Initiative) to determine how equity can be embedded in metrics that can be used by governments and utilities. In defining equity in the initiative, we adapted the Urban Sustainability Directors Network's (USDN) sustainability equity framework (Park 2014). This framework includes the ways in which decisions can be made in an inclusive and equitable manner, how energy benefits and burdens are distributed, how decision makers and policymakers address clean energy inequities, and how this impacts generational outcomes. We focus on procedural, structural, and distributional equity in our work and embed elements of transgenerational equity in these three categories. A visual representation of this framework can be found in figure 1.

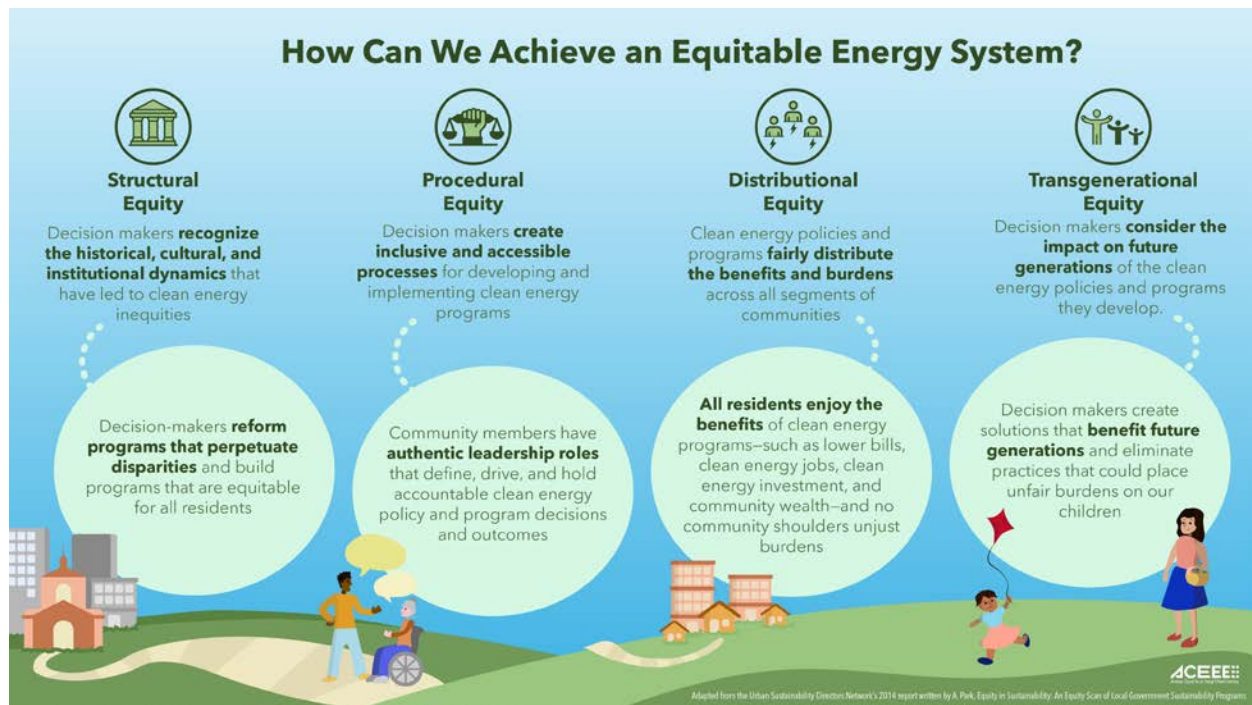


Figure 1. The four dimensions of equity. An adaptation from USDN's Equity in Sustainability framework.

We use this equity framework and a vision of energy equity collaboratively created by community-based organizations (CBOs), advocates, and other stakeholders in the Leading with Equity Initiative to be clear about our definition of energy equity. The defining features that we use to identify an equitable energy system can be found in figure 2.

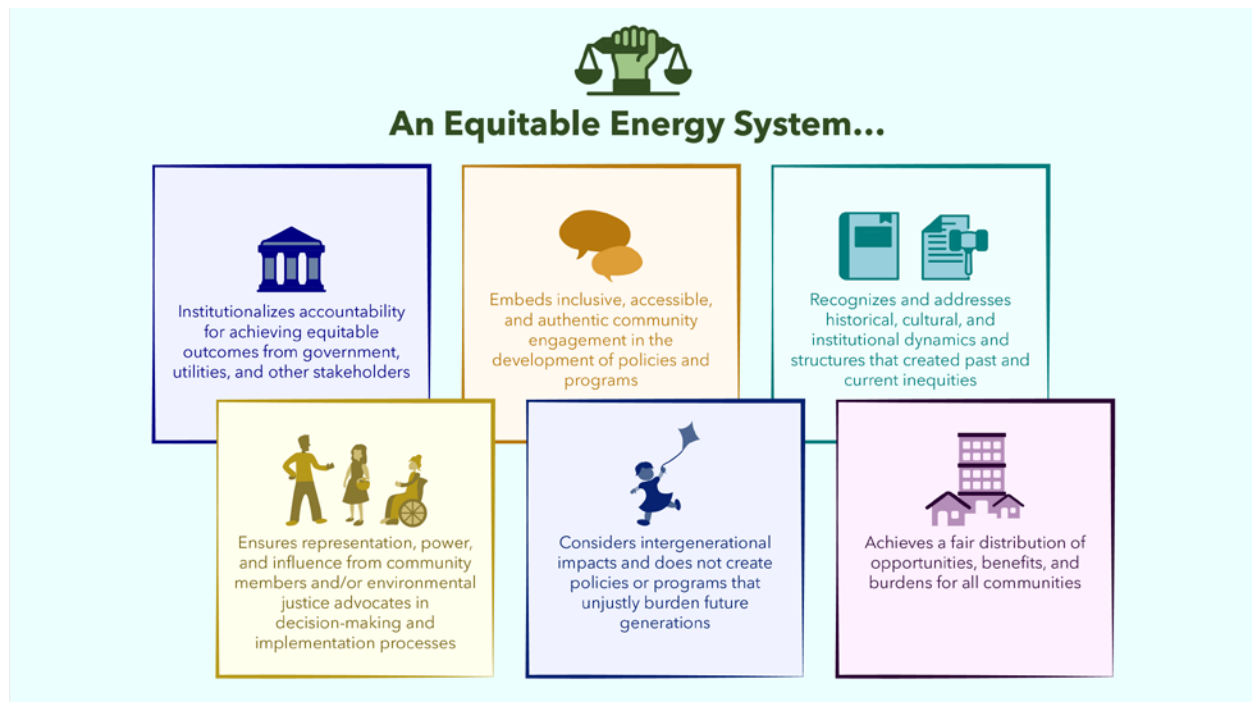


Figure 2. Defining an equitable energy system.

The Importance of Procedural Equity in Identifying Equity Metrics

Developing and institutionalizing metrics related to equity can offer insight to governments and utilities on accountability for advancing policy and programs that create equitable access to clean energy benefits. Similarly, incorporating equity-related metrics into government and utility processes can help advance energy equity, such as when equity metrics are used as part of an annual reporting and planning process (Drehobl 2021). To be effective in measuring this progress, it is imperative that metrics be identified and developed in collaboration with members of communities most affected by social and environmental inequities, including communities of color and low-income communities, and in recognition of their expertise and lived experience (Norton et al. 2021).

Metrics that are not informed by, and held accountable to, disinvested communities can lack transparency and accessibility and have no guarantee of advancing the goals of an equitable distribution of the benefits delivered by clean energy. With adequate measurement and evaluations, governments and utilities can reduce any unintended consequences (e.g., gentrification, pollution) while delivering positive impacts to communities, (e.g., opportunities for economic inclusion, building community wealth, and strengthening community leadership). Recognizing the importance of developing and deploying equity-related metrics in an inclusive way, ACEEE launched the Leading with Equity Initiative to center the voices of community members in prioritizing and designing the equity-related actions and metrics that would be used in ACEEE's research and advocacy.

Leading with Equity Initiative

Process Overview

Through the Leading with Equity Initiative, ACEEE aims to center the voices of advocates and CBOs in envisioning an equitable energy system, identifying potential metrics to measure progress toward energy equity, and leveraging the use of equity metrics in energy research and policy advocacy.

ACEEE publishes scorecards that rank the performance of cities, states, and utilities on clean energy progress. The scorecards serve as a benchmarking tool to understand clean energy activities. They also serve as a roadmap for entities wanting to take more policy action and serve as a mechanism to drive healthy competition and accountability. Advocates can also use scorecard data to inform their advocacy on clean energy policy and program improvements with stakeholders. In the short term, the Leading with Equity Initiative will inform the expansion of equity-focused metrics in ACEEE's *City, State, and Utility Scorecards* so that entities identified as leaders in the scorecards also must have strong performances on equity-related actions. This focus was in response to feedback from community leaders and advocates that leading cities, states, and utilities identified in scorecards did not always take equitable approaches to their work.

Beyond integrating equity into the scorecard research portfolio, the initiative also serves to construct frameworks of ways that governments and utilities can advance energy equity and hold themselves accountable to their commitments. The initiative is also a collaborative space for ACEEE to support and contribute to efforts around equity metrics led by other organizations. In

the first year of the initiative, ACEEE convened two separate stakeholder cohorts, one for CBOs and advocates and the other consisting of utility staff and energy program implementers for a series of three workshops. The first year focused on the following goals (Drehobl 2021):

- Center and uplift the voices of disinvested communities to drive the development and refinement of equity-related metrics for ACEEE's scorecards.
- Understand the barriers and leverage points at the state, city, and utility level for reporting on existing equity-related metrics in our scorecards.
- Prioritize proposed metric changes to ensure that scorecards better represent performance and concerns that matter to communities.

In 2022, the Leading with Equity Initiative is hosting additional workshops with CBOs and advocates. In the first workshop, the lead author of each scorecard presented their plans for integrating recommendations from the first year's workshops into the next edition of their scorecards. The goal of this workshop was to get feedback on more granular conceptions of the prioritized metrics to confirm that scorecard authors have interpreted feedback accurately, and to gather suggestions on how to collect the relevant data for each scorecard.

Initiative Findings

The collaborative Leading with Equity process resulted in findings on how to advance an equitable energy future using the expertise of CBOs and advocates as a primary data source. During the first workshop, the stakeholder cohorts envisioned an equitable energy system and brainstormed potential metrics and actions to center equity within a clean energy system. The following key takeaways emerged around a vision for a clean energy future (Drehobl 2021):

- Energy is a basic right, and this service should be accessible, clean, reliable, affordable, and representative to all.
- Procedural equity should encompass elements of inclusivity and representation to ensure no barriers are created (e.g., language access).
- Statewide policies are necessary to guide utility efforts around equitable policies, programs, data collection, and accountability.
- CBOs and advocates emphasized the importance of creating pathways for shifting localize energy resources to ownership and governance by communities.

In the second workshop, participants focused on considerations around data and how participants would leverage new equity-focused metrics to catalyze advocacy and organizational goals and solutions. Through a series of group activities, participants identified the following barriers and opportunities around the collection of data (Drehobl 2021):

- Transparency and accountability are necessary in data collection.
- Participants expressed the need for more robust demographic data, geographic data, and workforce data. The collection of this data can help utilities and governments understand program impacts and ensure they are equitably serving all residents. Policymakers and regulators can enforce practices around data access, data sharing, and data accountability.

- Stakeholders should redefine how clean energy programs are measured and evaluated. For example, programs should not equate success only to the amount of energy savings but should look at success more broadly, including non-energy benefits like health benefits.
- CBOs and advocates expressed the need for stakeholders to foster more inclusive decision-making processes and diverse representation in decision-making roles.
- CBOS and advocates voiced a discrepancy between best practices lauded by researchers and the resulting experience of people on the ground who should benefit from these practices

In the final workshop, participants prioritized the most important equity metric categories for use in future ACEEE scorecards through a series of collaborative discussions and activities. The resulting list of 12 priority metrics is included in figure 3.

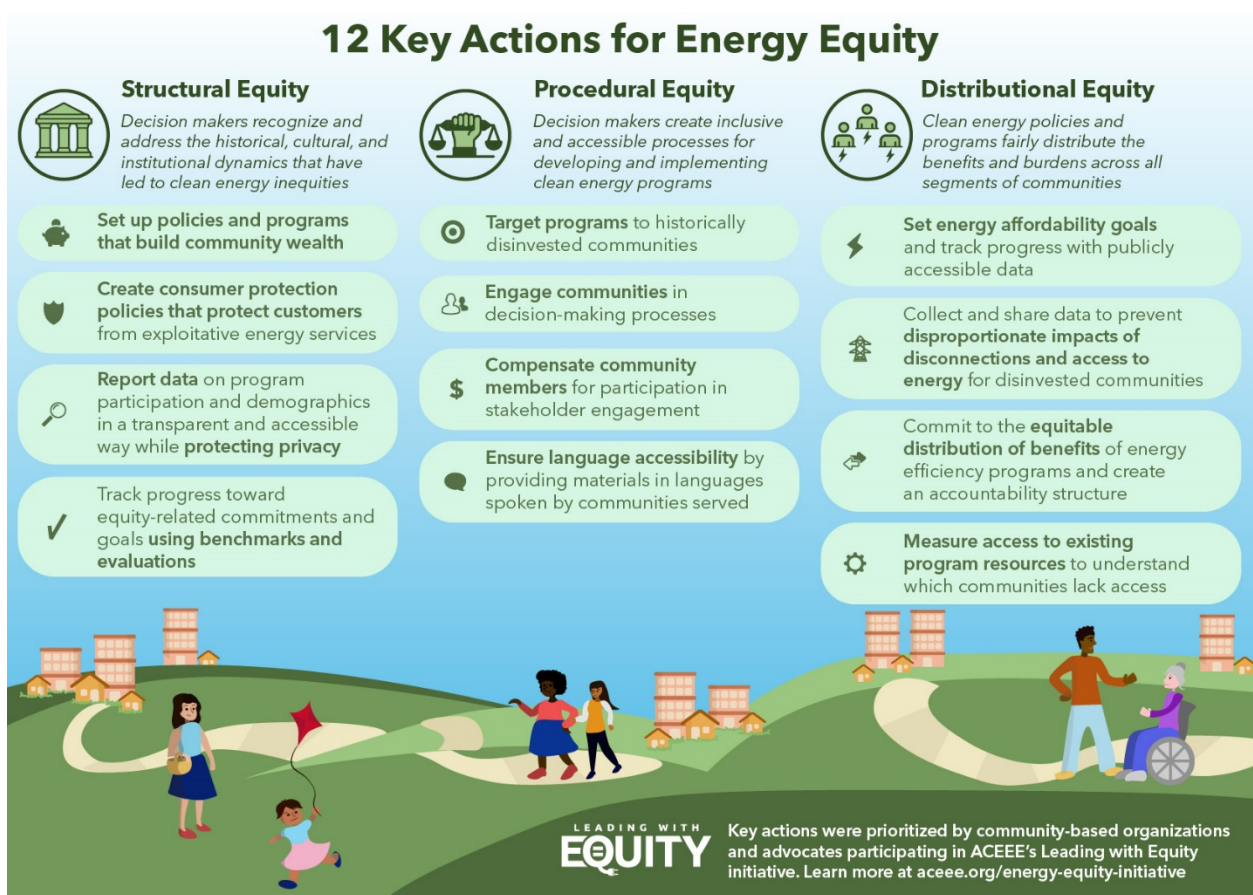


Figure 3. The list of 12 metrics identified by the cohorts for three of the equity dimensions

Based on these prioritized actions, the lead authors of each scorecard incorporated the metrics into the methodology for their next editions. Lead authors were also tasked with presenting these plans to cohort participants to ensure the scorecards accurately capture the recommendations of participants. Participants gave feedback on which metrics to incorporate, how to measure them, and what specific actions would be counted as relevant, and this feedback was implemented as much as possible by scorecard authors. To ensure accountability, ACEEE will publicly report on how and if each recommendation of the initiative was implemented in

each scorecard as it moves through the research process to publication. This structure is intended to provide an opportunity for continued feedback from participants, to inform future scorecard editions, and to build in accountability mechanisms for ACEEE.

In summarizing the findings from the first phase of the initiative, advocates, CBOs, and utilities identified the following as important guiding principles for future efforts to advance energy equity with equity metrics (Drehobl 2021):

- Stakeholders should institutionalize accountability and transparency mechanisms to hold them accountable to their commitment to energy equity across policy, programs, and funding.
- More research is needed on how representation in decision-making processes influences policy and program outcomes. In addition, CBOs requested more research around disaster preparedness, and the need for equitable solutions for climate disasters, with a focus on clean energy.
- Utilities and program implementers expressed challenges in collecting household data due to data privacy, cost, access, and accuracy.
- Coalitions consisting of advocacy groups and organizations are fundamental to supporting energy equity-focused resources and centralized data and tools for equity metrics.

These principles can be used by governments, utilities, and advocates as they work toward creating an equitable energy future.

Leading Examples: Case Studies that Demonstrate Actions Prioritized by the Leading with Equity Initiative

The findings of the Leading with Equity Initiative include categories of government and utility action that can advance energy equity. However, more specific examples of these actions similar efforts can support agencies looking to implement these prioritized practices in their own work. We provide a selection of case studies below to serve as such examples, focusing particularly on community engagement practices and utility data collection approaches. These represent two of the categories of action that were prioritized by participants in the Leading with Equity initiative and that benefit from more detailed examples.

Practices around Utility Data Collection and Transparency

Leading with Equity Initiative participants identified data access and evaluations as priority actions for utilities and governments. Visibility into program progress provides transparency on how utility-funded clean energy investments and programs are benefiting historically disinvested communities (Obias and Yoko 2021; Lynch et al. 2020; Williams and Martinez 2019). The following are some examples of potential equity-focused actions related to data collection and transparency (Drehobl 2021):

- State, city, or utility has developed a centralized system to collect, track, and analyze demographic data (e.g., race, gender, income)

- Utility has conducted a baseline analysis of customers that experience high energy burdens
- Utility tracks clean energy workforce programs (e.g., demographic information on workers or trainees) to promote inclusivity and diversity
- State, city, or utility allocates a certain percentage of clean energy program benefits to disinvested groups

Collecting data and tracking clean energy efforts can support utility projects that focus on workforce development, climate resilience, community wealth, and representation in stakeholder engagement processes. Integrating accountability and adopting metrics and evaluation practices can help utilities and program implementors meet equity-focused goals.

Across the country, most utilities default to collecting data relating to household energy usage, customers' payments, and participation in income-qualified programs (Cohn 2022). Very few utilities have employed metrics to track their organizational workforce diversity, evaluate the representation of disinvested groups in decision-making process, or examine economic opportunities for disinvested communities, all priority actions identified through the Leading with Equity Initiative (Cohn 2022). Utilities can consider taking additional approaches to collecting and using equity-focused data.

The two case studies below offer examples of approaches to utility and program implementers around data practices and ways that they have made progress toward using data in equitable ways. Utilities can learn from these examples to inform their own efforts around data access and transparency.

Energy Trust of Oregon's Diversity, Equity, and Inclusion Action Plan. The Energy Trust of Oregon (ETO) provides one example of an approach to benchmarking and tracking progress toward equity-related goals. In 2017, ETO modified its Equity Policy to Diversity, Equity, and Inclusion Policy. With the new policy change this set forth a vision to develop a process to monitor and report on programs serving ETO customers, with a strong focus on rural, low- to moderate-income customers and communities of color (ETO 2021). ETO facilitated a six-month engagement process with members of their diversity, equity, and inclusion committee and a team of ETO staff and leadership. Collaboratively the group inform the development of a diversity, equity, and inclusion (DEI) plan and advised on the process for measuring progress towards any goals set by the plan (ETO 2021). In 2018, ETO launched the DEI action plan, which highlighted 10 key goals to advance DEI in their programs by the end of 2020 (ETO 2021):

- "Increase customer participation of underserved populations in energy-efficiency programs by 20% (with specific strategies and sub-goals broken out by sectors)
- Increase customer participation of underserved populations in renewable energy programs by 20%
- Increase participation of minority-owned and women-owned trade allies in the Trade Ally Network by 50% each
- Increase the number of projects completed by minority-owned and women-owned trade allies by 15%
- Increase the number of contracts awarded to minority-owned and women-owned business by 15%
- Develop and deepen relationships with CBOs (up to 50) to increase awareness and understanding of underserve populations

- Increase diversity of new hires and employees identifying as people of color by 25%
- Design mechanisms to collect, track, analyze, and report demographic information related to program participation, program delivery, and trade ally networks members
- Enable a work environment that support staff who identify as people of color
- Increase transparency and accountability by publishing the DEI plan and progress toward its goals”

These goals were benchmarked against a baseline data assessment conducted by ETO in 2017. The baseline assessment was performed to examine the extent to which its programs has served diverse communities across its service territory (ETO 2018). ETO used key equity indicators (e.g., race and ethnicity, income, and urban and rural geographic) in the baseline assessment to identify areas of opportunities to engage customers and businesses and to inform the goals of the DEI action plan (ETO 2018). Since 2018, ETO has measured and reported progress on these goals to the Oregon Public Utility Commission twice a year. In addition, ETO assigned a staff member to each goal and subgoals to monitor and report progress on their respective goal since 2018 (ETO 2021).

Los Angeles Department of Water and Power’s Equity Metrics Data Initiative. Government and utilities can also learn from the Los Angeles Department of Water and Power’s (LADWP) approach to tracking, sharing, and reporting on equity-related data. In 2016, LADWP established the Equity Metrics Data Initiative (EMDI) to track, measure, and document how well it is serving customers and residents of Los Angeles across their programs and services (LADWP n.d.). At the beginning of the initiative, LADWP conducted a stakeholder outreach meeting to present potential metrics that would assess the performance of their programs, services, and resources. During the meeting stakeholders had the opportunity to provide feedback and suggestions on potential metrics for incentive programs, low-income programs, procurement services, workforce, and community partnerships (LADWP 2016). LADWP hosted an additional meeting to actively involve stakeholders in the development of these metrics and to solicit further input. With key input from stakeholders, LADWP established metrics that span across four equity-related categories (LADWP 2021):

- Infrastructure Investment (i.e., water and electric distribution)
- Incentive Programs and Services
- Procurement (i.e., small business partners)
- Workforce

In 2020, LADWP’s board approved an internal and external stakeholder group to advise LADWP on how to improve existing equity metrics and ensure ratepayers have equitable access to their programs and services (LADWP 2021). Engaging with stakeholders, especially those representing disinvested communities, is crucial to efforts around equity-related metrics as it aims to help organizations, like LADWP, remain accountable and transparent with their program performance.

The Equity Metrics Data Initiative serves as a model for a data-driven framework to track and report on the progress and performance of program and services and to ensure theses resources are equitably distributed and used by all ratepayers throughout the city. LAWDP publishes semi-annual reports results from each of the metrics being monitored concurrent with their rates metrics reporting. The report includes several key findings related to the equity metrics, including the metric target for the fiscal year, achievements and milestones met for the metric target, performance variances from the metric’s target, and proposes recommendations to

address any variance identified (LADWP 2022). To affirm their commitment to equity, in 2021, LADWP hosted stakeholder engagement meetings with various organizations (e.g., CBOs, community centers, foundations, city staff) to seek input on possible modifications to improve the tracking, reporting, and marketing of the equity metrics (LADWP 2021). Over the course of two days, stakeholders offered three key recommendations to improve the effectiveness of EMDI (LADWP 2021):

- “Improve EMDI’s marketing process with community (e.g., communication channels, publish marketing material in various languages)
- Establish a EMDI working group (e.g., consisting of community stakeholders and LADWP staff)
- Enhance equity metrics and consider modifying the four equity-related categories”

In response to the feedback provided from stakeholders, LADWP indicated potential changes, deletions, and additions to the equity metrics feedback (LADWP 2021; LADWP 2022). LADWP will also explore the creation of a new EMDI working group and establish goals for the working group, as well as determine the structure of the group (e.g., participants, work plan, time commitment). In 2022, LADWP committed to work with academic and research-based institutions to further their research and studies around equity (LADWP 2022).

State, City, and Utility Stakeholder Engagement Practices

Leading with Equity Initiative participants also evaluated equitable engagement processes, including compensation for engagement and language access, as priority actions for governments and utilities. Historically, decision makers and policymakers have often failed to use inclusive stakeholder engagement process (Gonzalez 2020; NAACP 2021b). Engagement processes led by a homogenous body of decision makers that do not reflect the communities they serve may fail to recognize the concerns of disinvested communities. States, cities, and utilities can shape these processes to expand equitable clean energy outcomes. Enabling more diverse, accessible, and inclusive stakeholder engagement processes can ensure that the expertise and feedback of disinvested communities help define and drive energy policies and programs (Lynch et al. 2020; Ramanan et al. 2021). Equitable stakeholder engagement practices are key to developing policies and solutions that build a more equitable clean energy system, support climate resilience, protect the environment, spur economic opportunities, and improve communities’ well-being (Ayala, Drehtobl, and Dewey 2021).

To support these efforts, states, cities, and utilities can adopt equity-focused metrics to ensure that their stakeholder engagement process authentically engage and mutually benefit residents and community-based organizations or advocates. The following are some examples to potential engagement approaches identified by Leading with Equity participants (Drehtobl 2021):

- States, cities, or utilities have developed stakeholder engagement processes that are accessible (e.g., location of meeting, translation services available, time of meeting)
- States, cities, or utilities offer stipends or grants to reimburse residents or CBOs for their time, contributions, and expertise
- States and cities have set aside decision-making seats for members or representatives of disinvested communities

- States, cities, or utilities have institutionalized an accountability mechanism to respond to feedback and input of community participants

Some governments provide examples of strong engagement processes that advance equity. Utilities and government can learn from the following engagement models to make their engagement approaches more equitable and design relevant metrics.

City of Providence’s Racial and Environmental Justice Committee. The City of Providence, Rhode Island, founded the Racial and Environmental Justice Committee (REJC). The REJC provides an example of progress toward integrating the concerns and needs of disinvested communities into the city’s sustainability work and decision-making processes in an equitable manner (City of Providence 2017). The committee consists of 10 community members that identify as Black, Indigenous and/or a person of color and 5 local government officials. Each member of the committee receives a \$1,300 stipend as well as childcare support during meetings, accommodations are provided to individuals with disabilities, and interpretation or translation services are offered (City of Providence 2021). The committee directly integrates voices and concerns of people of color into equitable and sustainable community development decision-making processes (City of Providence 2019). In 2019, the REJC and the City of Providence’s Offices of Sustainability co-developed Providence’s Climate Justice Plan. The Plan outlines strategies and recommendations for carbon-reductions targets in buildings and transportation sectors while promoting an equitable, and justice transition from fossil fuels (City of Providence 2019). Importantly, the REJC were the first to draft the Climate Justice Plan, ensuring their voices and the voices of the communities they represent were not superseded by others.

Puget Sound Energy’s Equity Advisory Group. Establishing long-term working groups is another common pathway taken by governments and utilities. In 2020, Puget Sound Energy (PSE) implemented an Equity Advisory Group (EAG) as part of Washington’s 2019 Clean Energy Transformation Act’s Clean Energy Implementation Plan² (CEIP) (PSE 2021a). EAG’s primary goal includes advising PSE on how to embed equity in the planning and implementation of their energy transition and other equity-related matters (PSE 2022). The advisory group is dedicated to ensuring that principles of transparency, communication, and accountability are incorporated in the implementation process. The group consists of 13 members, who reside and/or are representatives (e.g., CBOs) of communities most impacted by climate change (e.g., communities of color and other vulnerable communities) (PSE 2022). In 2021, EAG members adopted several commitments to guide their work over the next years, a few of these commitments include (PSE 2022):

- “Engage in facilitated discussions related to PSE’s planning, program, and investments to ensure equitable energy outcomes for customers
- Offer expertise and experiences on social, economic, racial, tribal, and environmental equity and identify best practices to inform PSE on the development of metrics and how to measure performance
- Participate in ongoing education and training on clean electricity and equity”

EAG and PSE continue to work collaboratively to advance a new clean energy future that is accessible, accountable, and affordable. In 2021, the group met several times throughout the year

² The CEIP is a dedicated long-term planning effort to advance PSE’s clean electricity efforts to reach 60% clean electricity by the ends of 2025 (PSE 2021a).

and dedicated over 26 hours of providing input into CEIP and spent 13 hours providing input on the design of the Income-Qualified Discount Rate program (PSE 2021b). In 2022, PSE will continue to engage with the advisory group for work on CEIP and outside of the CEIP process (Puget Sound 2022).

Conclusion

Centering equity in the advancement of clean energy is essential for reaching all communities in achieving climate goals. Without intentional efforts to include and invest in communities that have been historically excluded, clean energy efforts can exacerbate inequities and leave communities behind. Metrics are important tools for governments and utilities to measure the progress of their equity-related actions and hold themselves accountable to their commitments.

Community voices should be centered in the process of identifying metrics and determining how they will be used and measured, but recent efforts on equity metrics have often focused on data availability and priorities of utilities or governments. In response, ACEEE's Leading with Equity Initiative ensured CBOs and advocates played a key role in the development of equity-related metrics. At the conclusion of the first phase of the initiative, participants identified a series of priority metrics that utilities and governments can use as best practices. These priority metrics and the case study examples included in this paper provide models for governments and utilities as they move toward advancing energy equity.

Several key takeaways on equity data emerged from the Leading with Equity Initiative. These include the need to take a broader view of success of clean energy programs to consider health and well-being beyond just energy savings. The need to improve data transparency in most sectors was also highlighted, as well as the potential for regulators to develop processes to better collect and access program data. In addition, participants emphasized the continued need for true and equitable representation of disinvested communities in decision-making processes.

In the second year of the initiative, ACEEE is continuing to integrate priorities identified through the initiative across our scorecards. Authors of the *City, State, and Utility Scorecards* have each developed strategy documents that specify how they will incorporate the prioritized metrics into the next edition, including details like proposed scoring criteria and data request questions adapted to each type of entity (local governments, state governments, and utilities). To maintain accountability, ACEEE shared these strategic documents with Leading with Equity participants in a workshop to gather feedback and ensure the application of the recommendations in the upcoming scorecards accurately represent the participants' vision of energy equity. ACEEE plans to evaluate the scorecards regularly to ensure that future editions incorporate robust equity metrics that are inclusive and reflect the priorities of disinvested communities. ACEEE also plans to use the findings from this initiative to embed equity and equity-related metrics in other research and advocacy projects. This initiative is an initial step toward capturing and integrating considerations of equity into our research portfolio.

By sharing the structure of this initiative, ACEEE hopes to share our findings and lessons learned so that other organizations can undertake similar efforts and so utilities and governments can move their work in a direction that advances energy equity. Ultimately, we hope that broader clean energy efforts more fully center the actions prioritized by the most impacted communities.

References

- Ayala, R., A. Dreihobl, and A. Dewey. 2021. *Fostering Equity Through Community-Led Clean Energy Strategies*. Washington, DC: American Council for an Energy-Efficient Economy. aceee.org/research-report/u2105.
- Baker, S. 2021. *Revolutionary Power: An Activist's Guide to the Energy Transition*. Washington, DC: Island Press.
- Berg, W., S. Vaidyanathan, B. Jennings, E. Cooper, C. Perry, M. DiMascio, and J. Singletary. 2020. *The 2020 State Energy Efficiency Scorecard*. Washington, DC: ACEEE. aceee.org/research-report/u2011.
- City of Providence. 2017. *Equity in Sustainability: A Collaborative Initiative by the City of Providence and Frontline, Communities of Color of Providence to Bring a Racial Equity Lens to the City's Sustainability Agenda*. Providence, RI: City of Providence. providenceri.gov/wp-content/uploads/2017/02/Equity-and-Sustainability-SummaryReport-2-20-reduced.pdf.
- . 2019. *The City of Providence's Climate Justice Plan: Creating an Equitable, Low-Carbon, and Climate Resilient Future*. Providence, RI: City of Providence. providenceri.gov/sustainability/climate-justice-action-plan-providence/.
- . 2021. "Equity in Sustainability." providenceri.gov/sustainability/equity/.
- Cohn, C. 2022. (forthcoming). *Utilities Leading the Equitable Data Charge*. Washington, DC: American Council for an Energy-Efficient Economy.
- Dreihobl, A. 2021. *ACEEE's Leading with Equity Initiative: Key Findings and Next Steps*. Washington, DC: American Council for an Energy-Efficient Economy. aceee.org/white-paper/2021/12/aceees-leading-equity-initiative.
- ETO (Energy Trust of Oregon). 2021. *2021 Diversity, Equity and Inclusion Operations Plan*. March 17. energytrust.org/wp-content/uploads/2021/03/2021-DEI-Operations-Plan.pdf.
- ETO (Energy Trust of Oregon). 2018. *2018 Diversity, Equity and Inclusion Data and Baseline Analysis*. December 26. energytrust.org/wp-content/uploads/2018/12/2018_DEI_Data_Baseline_Analysis.pdf.
- Gonzalez, R. 2017. *Community-Driven Climate Resilience Planning: A Framework*. Oakland, CA: National Association of Climate Resilience Planners. d3n8a8pro7vhmx.cloudfront.net/facilitatingpower/pages/53/attachments/original/1596746165/CE20_SPECTRUM_2020.pdf?1596746165.

- LADWP (Los Angeles Department of Water and Power). 2022. *LADWP Rates and Equity Metrics Semi-Annual Report*.
ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB774649&RevisionSelectionMethod=LatestReleased.
- LADWP (Los Angeles Department of Water and Power). 2021. “Equity Metrics Data Initiative (EDMI) Update.” February 9.
ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB748631&RevisionSelectionMethod=LatestReleased.
- LADWP (Los Angeles Department of Water and Power). 2016. “Equity Metrics Data Initiative Presentation.” December 6.
ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB536812&RevisionSelectionMethod=LatestReleased.
- LADWP (Los Angeles Department of Water and Power). n.d. “Equity Data Initiative.”
ladwp.com/ladwp/faces/ladwp/aboutus/a-financesandreports/au-fr-corporateperformance/au-fr-corporateperformance-emdi?_afLoop=292230271079108&_afWindowMode=0&_afWindowId=13xp1z2lfn_1.
- Leon, W., C. Farley, N. Hausman, B. Herbert, N. Hammer, B. Paulos, T. Reames, R. Sanders, L. Schieb, D. Deane-Ryan, and R. Navarra. 2019. *Solar with Justice: Strategies for Powering Up Under-Resourced Communities and Growing an Inclusive Solar Market*. Montpelier, VT: Clean Energy State Alliance. cesa.org/resource-library/resource/solar-with-justice.
- Lewis, J., D. Hernandez, and A. Geronimus. 2019. “Energy Efficiency as Energy Justice: Address Racial Inequalities through Investments in People and Places.” *Energy Efficiency* 13: 41-32. doi.org/10.1007/s12053-019-09820-z.
- Lynch, K., J. Yeou-Rong, H. Cypress, J. Tovar, N. Kline, A. Pemberton, D. Motz-Storey, M. Cruz, N. Crooks, E. Holloman-Hill, O. Reed, L. Benander, K. Woods, O. Lewis, E. Gorman, L. Getts, A. Wyatt, J. Valdez, D. Gonzalez-Kreisber, D. Cockrell, and C. Johnson. 2020. *Shared Accountability Framework for Community Implementation for 100% Clean Energy Goals*. Washington, DC: Sierra Club.
drive.google.com/file/d/1Ht8uXYXAhSXBULsUTRcnkFa8cUwxHqHN/view.
- NAACP (National Association for the Advancement of Colored People) 2021. *Equitable Solar Policy Principles*. Baltimore, MD: NAACP. naacp.org/resources/equitable-solar-policy-principles.
- . 2021b *Guidelines for Equitable Community Involvement*. Baltimore, MD: NAACP. <https://drive.google.com/file/d/1ReSm3NDsH5thjNnOZn7VW9RBiOkjQHTk/view>.
- Norton, R. A., Lewis, J., Klinger, C., and N. Goldman. 2021. *Leading with Equity and Justice in the Clean energy Transition: Getting to the Starting Line for Residential Building Electrification*. Baltimore, MD: Green & Healthy Homes Initiative.
greenandhealthyhomes.org/wp-content/uploads/2021-GHHI-Leading-with-equity_wp_Final.pdf.

- Obias, L. and E. Yoko-Young. 2020. *Energy Democracy: Honoring the Past and Investing in a New Energy Economy*. New York, N.Y.: Race Forward.
raceforward.org/research/reports/energy-democracy-honoring-past-and-investing-new-energy-economy.
- Park, A. 2014. *Equity in Sustainability: An Equity Scan of Local Government Sustainability Programs*. San Francisco: USDN.
usdn.org/uploads/cms/documents/usdn_equity_scan_sept_2014_final.pdf.
- PSE (Puget Sound Energy) 2022. “Equity Advisory Group Charter.” March 21. irp.cdn-website.com/dc0dca78/files/uploaded/PSE%20EAG%20FINAL%20Charter%20v3.15.22.pdf
- PSE (Puget Sound Energy). 2021a. “Clean Energy Implementation Plan.” Accessed March 17, 2021. cleanenergyplan.pse.com/.
- . 2021b. “Equity Advisory Group Meeting.” December 13. irp.cdn-website.com/dc0dca78/files/uploaded/2021_1213_EAG_Mtg11_1213_ZZZZ.pdf.
- Ramanan, A., S. Beland, Y. Yacoby, and N. Hammer. 2021. *Community Outreach and Solar Equity: A Guide for States on Collaborating with Community-Based Organizations*. Montpelier, VT: Clean Energy States Alliance. cesa.org/resource-library/resource/community-outreach-solar-equity/.
- Reames, T., M. Reiner, and M. Stacey. 2018. “An Incandescent Truth: Disparities in Energy-Efficiency Lighting Availability and Prices in an Urban U.S. County” *Applied Energy* 218: 95-103. doi.org/10.1016/j.apenergy.2018.02.143.
- Samarripas, S., K. Tanabe, A. Dewey, A. Jarrah, B. Jennings, A. Dreihobl, H. Bastian, S. Vaidyanathan, D. Morales, A. Patronella, S. Subramanian, and C. Tolentino. 2021. *The 2021 City Clean Energy Scorecard*. Washington, DC: American Council for an Energy-Efficient Economy. aceee.org/research-report/u2107.
- Sunter, D., Castellanos, S., and D. Kammen. 2019. “Disparities in rooftop photovoltaics deployment in the United States by race and ethnicity.” *Nature Sustainability*. 2(1). doi.org/10.1038/s41893-018-0204-z.
- Williams, J. and C. Martinez. 2018. *Start Here, Start Now: An Assessment of the City of San Diego Climate Action Plan*. National City, CA: Environmental Health Coalition. environmentalhealth.org/images/FINAL-Full-Doc---Web---An-EJ-Assessment-of-the-CAP.pdf.