Energy Justice Intervenor 2024

Session 2: Foundations of Energy Equity & Energy Policy Trends Transcript

Energy Justice, Energy Equity, Energy Democracy

Energy justice and energy equity have been used almost interchangeably in the last decade since the terms emerged, and it's important to note their connection to earlier movements. Both terms are closely tied to the fights for climate and environmental justice that emerged around the 60s/70s which of course cannot be disentangled from the legacy of activism and leadership of the civil rights movement in the US. We see a short definition here from the Initiative for Energy Justice: "The goal of achieving equity in both the social and economic participation in the energy system, while also remediating social, economic, and health burdens on those by the energy system."

Energy equity recognizes the historical and cumulative burdens of the energy system borne by frontline and low-income communities and by Black, Brown, and Native people in particular. To eliminate these disparities, energy equity centers the voices of frontline communities in energy planning and decision-making and ensures the fair distribution of clean energy benefits and ownership.

And energy justice and energy equity have evolved quite a bit, especially in the last 5 years. In this evolution, advocates and community members alike have raised their concerns around further entrenching our current energy system as we move forward and have organized around energy democracy or the idea that communities should have a say and agency in shaping and participating in their energy future.

A more fleshed-out definition of energy democracy from the Energy Democracy Project is included here as well: "Energy Democracy is about empowering communities and individuals to take control of their energy future. Under Energy Democracy, working people, low-income communities, and communities of color and their allies, take control of energy resources and decision-making from the corporate energy establishment and use those resources to empower their communities."

The Energy Democracy Project has defined 4 key aspects of what they call People Powered Energy. So People Powered energy is…

- *Decentralized* meaning that renewable energy is locally sited and provides safe and reliable power
- *Democratized* meaning that community influence and decision-making meets environmental, economic, and social justice needs
- *(Re)Distributed* so that all people have access to the energy needed to live, learn, and work, without sacrificing the health or well being of any community
- And it is *Diversified* so that community-scale energy systems are designed to work in harmony with local ecosystems, protecting biological and cultural diversity

All of these terms are valid in their own right and have overlapping goals. Some advocates see energy democracy as a way to achieve energy equity, so energy equity acts as an umbrella term in that way. But still, with all of these terms, we see a unified vision of transitioning power and control over the means of energy production into the hands of community. We see wanting to ensure the fair and equitable distribution of the benefits and burdens of energy production and the centering of marginalized communities in decision-making.

For the purposes of this presentation, we'll use energy equity to convey these ideals because of the reference materials used to develop the presentation, but again, we are aligned with the ideals of energy justice and energy democracy as well.
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Achieving Energy Equity: Just Transition

We're going to go more in-depth on what it looks like to achieve energy equity in the following slides, but I wanted to just provide you with a visual of the ust Transition framework developed by Movement Generation here to put this work in the greater context of what it looks like to shift systems and work at a system scale in concert with other industries.

While we are focused on energy equity here today, that is just one piece of a larger puzzle that ensures community safety and sustainability for the long term. In this graphic, we see how work, our relationship to resources, and our values and mindsets require shifting in order to move systems and really power to the people

According to Movement Generation:

"Just Transition initiatives shift the economy from dirty energy to energy democracy, from funding highways to expanding public transit, from incinerators and landfills to zero waste, from industrial food systems to food sovereignty, from gentrification to community land rights, and from rampant destructive development to ecosystem restoration. Core to a Just Transition is deep democracy in which workers and communities have control over the decisions that affect their daily lives."

So again, energy equity is one piece of a larger puzzle of a just transition that many of us would agree is really needed at this time.
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Measuring Energy Equity in 4 Dimensions:

Okay let's get into how we can actually measure and assess energy equity

The 4 dimensions of energy equity we'll cover today come from the Energy Equity Project Report from the University of Michigan.

They developed a framework for establishing state and local energy equity metrics and targets that breaks down into 4 dimensions and 12 subdimensions. There are also 148 different energy equity measures that are explored in the framework related to each dimension.

It's quite robust. We don't have the time to go into each aspect in great detail but the report is linked in the presentation for you to review so that you can dig into the details and deepen your understanding of each of the dimensions and measures.

Also important to note in our discussion is that achieving energy equity is a journey not a destination. Real equity involves constant evaluation against metrics using both qualitative and quantitative data. It is multi-dimensional in nature and requires adaptation depending on the context of the communities you are working with, as well as internal reflection on how our respective organizations are showing up to do this work and us as individuals.
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Dimension 1: Recognition

Okay, so the first dimension Is Recognition.

When we think of recognition justice, we think of who is impacted and who benefits from the current energy system.

The recognition dimension is about demographic variables that are strongly correlated with certain outcomes like energy security, health outcomes, economic development etc., and making those connections explicit

So we see here that the 4 indexes are historical, identity, security, and affordability, and some sample metrics on the far right column
With the historical index we are considering what the history of a community or locality has been and how that history shapes the outcomes we see today. So has there been a history of pollution, has redlining impacted a community? How have past decisions shaped the status quo?
With identity, we are looking at the demographic, socio-economic, and geographic variables that are tied to energy and climate vulnerability, as well as high burdens and low benefits from the energy system.
With security, we are looking at metrics that indicate how continuously, safely, and reliably one has access to energy without sacrificing comfort and other basic needs.
And lastly, with affordability, we are looking at the disparities that exist among groups when it comes to energy affordability, and it also includes looking at how is financially benefitting from clean energy programs
You can think of this dimension as being really foundational for understanding the following dimensions.

Dimension 2: Procedural
Which is the Procedural equity dimension. This reveals who is at the decision-making table and seeks to increase the diverse representation of impacted communities among decision-makers and energy service providers.
A diversity of voices is required throughout design, implementation, and evaluation of energy programs and policies so this dimension is a bit more straightforward as it looks at both procedural metrics and access metrics.
We ask with this dimension, to what extent are community members the architects of their own energy future and how easy is it for people to learn about, qualify for, and enroll in programs?
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Procedural Equity Metrics
Here’s a slide with a greater breakdown of the procedural equity metrics we can consider like

- information transparency measures
- engagement in policy writing and rule making
- limiting the utility influence on regulators and legislators
- Access to public intervenor funds which are opening up in more and more states

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Program Access Metrics
Here is a graphc that breaks down what it looks like to open up access to energy programs, which includes things like opening up access to renters, opening up funding to address home health and safety issues as well as effective marketing tactics that speak to target communities.
The report also includes a list of best practices associated with procedural equity, which I recommend you all review because it provides a solid overview of what to keep in mind.
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Dimension 3:Distributive
The third dimension is the distributive, and it refers to how the benefits and harms of the energy system are distributed. Ideally, in an equitable system this would mean everyone has access to affordable energy, the distribution of energy burdens does not disproportionally impact any particular demographic or

socioeconomic group, and that there are programs, resources, and support available for mitigating extreme and severe energy burdens which would address any shutoffs or debt.
So, in this dimension, we look at the household benefits and the community benefits
Some of the associated metrics include:

- Improved outdoor air quality
- the % of new jobs held by BIPOC, LI, and frontline communities
- A reduction in unhealthy/unsafe housing conditions

These are some of the metrics I think a lot of people are familiar with and might easily come to mind when we talk about the kind of energy future we are working toward because they are so tangible
So, the last dimension part of the framework is
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Dimension 4: The Restorative
This dimension is tied to Restorative Justice, and it gets very specific about how we begin to repair injustices that came from energy decision-making. This dimension encourages addressing, preventing, and mitigating harms through restoration plans. This dimension is broken into 4 sub-dimensions of:

1. Reparations and Accountability
2. Power to the People
3. Indigenous Sovereignty
4. and Restoring our Relations.

As you can see each has some guiding questions that help get at the core of this dimension and the harms it seeks to address but there are no metrics associated with this dimension because these are harder to quantify, especially if there is no baseline measurement for some of these questions.
So the project team that developed the framework encourages the use of narratives to explore this dimension and the report actually has a few case studies I recommend you check out to see how some of this can be applied to projects in real time. But again, this dimension looks at the past and also the future. It is not just about addressing past harm but also preventing further harm and being expansive with the solutions we consider; not being limited by what has been done in the past.
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Achieving Energy Equity
So now that we've seen the framework, we have a sense of what we need to consider when it comes to energy equity, how do we apply it? Here is a rundown of some of the steps required to move toward equity in the energy system using the framework of this report.

1. Review equity prompts: There are some sample prompts on the right that you can use, as well as more in the report. These are the questions you can ask to guide your research, your outreach, and your advocacy. They are broken up by audience so each audience has different equity prompts listed as starting points, but of course, you can self-direct and reflect on the prompts most relevant to your work.
2. Map out a process for co-creation with frontline communities: Ensuring that the opportunities for engagement are numerous, transparent, and come with real influence. This ensures that the solutions you are working towards are reflective of community needs and desires, context etc.
3. Define equity dimensions: So these are the dimensions we covered today. Your group will want to collectively ensure that you are on the same page about what these dimensions mean and use

that to guide your work. Make sure everyone involved agrees on the dimensions you will be focusing on.

4. Co-create principles for each dimension: This will create a shared vision and a north star for anchoring the work ahead.
5. Set equity targets: This is when you want to set some numbers down on paper. What are your targets that you want to hit through the work?
6. Establish metrics for accountability: Establishing metrics allows you to figure out if you hit your target or not.
7. Develop a process for collecting and transparently sharing data: You want to be sure you are clear on what data exists, what still needs to be collected, and how that information is shared and protected.
8. Establish best practices and use of qualitative data: Narratives and qualitative data through surveys or focus groups are also valuable, so these are things you want to work into your plan as well.
9. Define roles and responsibilities for implementation: Once the plan is in place, assign roles to the stakeholders involved. How will you all work to ensure that the plan is implemented and and progress will be assessed?

These steps are specific to applying this framework but in some cases you might be only able to take on one piece of the puzzle. So again, this is a robust framework and the report has a lot of additional resources to guide your work as it relates to the 4 dimensions and related metrics.
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Energy Equity Work in Progress
Okay let's talk about work being done to move us more toward energy equity outcomes in the US today. There are a lot of examples of communities coming together to advocate for systemic change of governments taking more proactive stances as well, but we'll just cover a few to give you a sense of the work being done.
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California: Energy Equity Indicators
Let's start off by talking about a commission that is taking steps to measure progress toward energy equity. This is significant because most states, cities, and utilities don't measure energy equity or set equitable energy targets in a meaningful way.
The California Energy Commission manages what they call Energy Equity Indicators data to identify opportunities to improve access to clean energy technologies for low-income customers and disadvantaged communities.
The Commission began tracking this data after a bill mandate. SB 350 required a Low-Income Barriers study in 2016, which included 12 recommendations, which you see here, to address barriers to clean energy investment in California's low-income and disadvantaged communities.
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California: Energy Equity Indicators
Building on the recommendations from the Barriers Study, Energy Commission staff identified a set of indicators to measure progress toward the objectives pictured here for low-income residents and disadvantaged communities.
So the objectives are each of the circles and the indicators they are tracking are the bullet points included in the circle.

If you head to the link in the presentation you'll be taken to a map view of the data and see how the Commission has been tracking this information over the years and where they are dedicating their efforts for progress.
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Justice40 and the Energy Justice Dashboard
In January 2021, President Biden signed Executive Order 1408, Tackling the Climate Crisis at Home and Abroad, to establish the Justice40 Initiative, a government-wide initiative to deliver 40% of the overall benefits of certain federal investments to disadvantaged communities.
The Department of Energy has since launched an Energy Justice Dashboard in beta form to help identify DOE investments, made with a Justice40 focus, in clean energy, energy efficiency, clean transportation, affordable and sustainable housing, training and workforce development, the remediation and reduction of legacy pollution, and the development of critical clean water infrastructure.
The dashboard is a tool to ensure progress towards equity because of course, there is a lot of skepticism when it comes to Justice40 and ensuring that funding and benefits actually reach communities and are not being diverted by entities with more experience accessing funding and with less ties to communities.
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Trending Toward Progress
We are seeing an uptick in clean energy development and that's because of a lot of different factors including market forces. Right now it is more than likely that clean energy will be a cheaper power source than fossil fuels, and clean energy tends to be really helpful for bolstering resilience and reliability.
The closer you are to your energy source, the less distance energy has to travel to reach you, and the more reliable it tends to be. Clean energy can be depended on in extreme weather events. During winter storm Yuri when Texas was experiencing frozen gas pipes, it was wind and solar resources that were able to help people in need.
And then, of course, there are a lot of incentives getting put in place both by states and the federal government in order to encourage additional clean energy development.
Moving away from fossil fuels involves significant health benefits. And increasingly, there's significant economic benefits with job training and workforce development benefits as folks break into the new clean energy economy.
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Trending Toward Progress
More signs of progress are fossil fuel retirements. Plants are closing because they are being required to by legislation as many states set decarbonization deadlines for their power, because of environmental justice concerns, and also they're simply not cost competitive with clean energy. And as a for profit entity, if they're not making money, they're going to close.
Many remain open because of the fact that they are a capacity resource that can be turned on to meet spikes in demand but as other resources come online it remains a question if they can compete.
Also, in terms of political sentiment, there is some reluctance when it comes to relying on these older plants because people are more aware of the health consequences of their operation; people are advocating for shutdowns, and electeds don't want to be tied to plants that are prone to service interruptions.
The volatility of their cost also comes into play, as well as the fact that they are finite resources. After Russia invaded Ukraine, the cost of gas skyrocketed beyond any analyst projections. We are the ones that have to pay those costs as opposed to renewable energy, which is not as price-vulnerable in the same way to international conflicts.

Relatedly, when we talk about a just transition, we have to remember that these plants can represent a significant amount of the tax base of the communities they are located in. So, there are legislators who are very protective of these plants that may have really harmful health impacts on the folks in their community. But because the plant is providing over half of the funding for their schools, they feel like they're in a position where they have to choose.
Considering the impacts of a plant closure in a vacuum without thinking about all of the ripple impacts that will have on the community simply cannot happen anymore. Thankfully, there is more and more realization of that for example, providing job training for clean energy careers and citing clean energy at old plant sites is a way to support a just transition in those communities.
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Trending Toward Progress
Grid modernization is less of a flashy topic but an important one nonetheless. Essentially, this means upgrading the infrastructure of the grid to meet modern demands and interact with all of the new resources and programs that utilities have access to.
One of the biggest elements of grid modernization is advanced metering infrastructure. This refers to advanced meters or smart meters, as some people call them. The benefit of the smart meter is twofold. One is that because it's connected to the Internet it is sending usage data back and forth to the utility so that the utility doesn't have to send a technician to your house to collect your actual usage data, eliminating the need for estimated bills. It is also intended to eliminate errors on bills and saves on the costs and the emissions related to to someone driving up to your house to check how much energy you use.
There are, in theory, a number of other economic and climate benefits that can come from advanced and smart meters, but they do not necessarily flow to consumers because there have to be policies and programs in place to enable those. So, for example, with a smart meter, your usage data is tracked down to the minute. Every time your air conditioner kicks on, you can see that your energy usage is going up; you can see which of your appliances are causing which kinds of energy spikes.
If you have access to, for example, a time-of-use pricing program, where the amount you are paying for your energy is dependent on the time of day, you can adjust your behavior and benefit by accessing lower prices. Energy during peak demand times is more expensive, so if you adjust your behavior by changing when you run your dishwasher to overnight, for example, or if you can pre-cool your house during the cooler hours of the day, you can save a lot of money.
It's also a potential, pretty great environmental benefit: if we don't have to build the system out to as high of a peak, in other words, if we are expecting a much smaller peak, we don't need as many fossil fuel resources just sitting around waiting to be called upon just in case.
Similarly, energy management involves giving a third-party company—sometimes a utility, sometimes a totally separate for-profit entity—some kind of control over, for example, your air conditioner. This doesn't mean someone is in a control box making a decision, but it might be that you have pre programmed your thermostat. It might be that if you own an electric vehicle, there is a company that's aggregating all the electric vehicle owners in an area and is sending a signal when they can and cannot charge based on what the pricing and the peak demands are on the system at that time.
This is also intended to enable microgrids, which are much smaller subsets of the energy system that can function as energy islands. They are usually, a combination of resources, including solar, including battery storage, and in some cases, it can include fossil resources like a diesel backup generator. The idea is that you can have a segment of the grid where, even if the rest of the grid goes down, the microgrid stays on.
Smart switches are a a piece of technology that utilities have also been putting on lines that isolate problems in the electric system and automatically reroute power in the event that there is an issue. So, say a squirrel chews a little piece of a line. If there's not a smart switch in place, everything that is connected to that line, even if it could have been powered from a different transformer or a different

substation, would go down. Smart switches are able to automatically reroute power so that the electricity keeps flowing to as many people as possible.
Utilities want desperately to install smart meters because that costs a lot of money meaning they can make a lot of money doing it. The trouble is that they don't particularly want to enable things like third-party data access and energy management because that will cut away from their bottom line. They have no financial incentive to help customers realize the other economic and environmental benefits they would see from things like smart meters.