

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES

Grid Modernization Advisory Council Equity Working Group

October 2, 2023



Agenda

ltem	Time
Introductions and roll call	2:00
Review of meeting goals and agenda	2:02
Reminder of the EWG charter	2:05
Consultant presentation: the ESMPs through an equity lens	2:10
DOER task force presentation: thoughts from AEG grid modernization stakeholder challenge	2:20
Discussion	2:30
Preview of upcoming meeting goals and agendas	3:15
Meeting feedback: strengths and improvables	3:25
Adjourn	3:30



Introductions and roll call

Equity Working Group membership

Kathryn Wright, Chair Barr Foundation

Chris Modlish Attorney General's Office

Julia Fox Department of Energy Resources

Erin Engstrom (non-voting) Eversource

Mary Wambui Planning Office for Urban Affairs

Vernon Walker Clean Water Action

Kyle Murray Acadia Center

Larry Chretien Green Energy Consumers Alliance

Consultants

Jennifer Haugh GreenerU

Chelsea Mattioda Synapse



Review of meeting goals and agenda

Meeting 1 goals:

- Develop a shared understanding of equity measures in the ESMPs as proposed
- Begin to identify minimum standards for equity metrics within the ESMPs

Meeting 1 agenda:

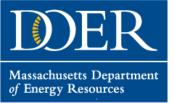
- Consultant presentation:
 - a. Brief summary of equity-related ESMP content
 - b. Working understanding of equity frameworks in the ESMP context
 - c. Review and analysis of proposed ESMPs
- 2. Task force presentation (Mary Wambui)
- 3. Discussion:
 - a. What are historical inequities we would like to see addressed in the ESMPs?
 - b. What and where within the ESMPs are concerns of the EWG and equity frameworks?
 - c. What are equity metrics we would like to see measured in the plans?
 - d. How would we like to structure our comments and review?
- 4. Preview of upcoming meeting goals and agendas
- Provide feedback



Review of Equity Working Group charter

The GMAC charges the Equity Working Group with the responsibility to:

- Provide input and feedback to the GMAC on how to consider equity through its review of the ESMPs, and suggestions for addressing specific equity issues in the ESMPs;
- Provide feedback and specific suggestions on how to reduce impacts on lowincome ratepayers;
- Provide feedback and recommendations relating to Environmental Justice Populations;
- Advise and assist the GMAC on equity matters; and
- Make recommendations and report to the GMAC on actions and activities of the Equity Working Group.



Consultant presentation

THE ESMPs THROUGH AN EQUITY LENS



Defining equity: equity frameworks in the ESMPs

NATIONAL GRID*

- **Procedural equity** is focused on providing stakeholders and communities impacted by energy projects and programs with the necessary information and opportunity to participate in stakeholder processes to inform project siting, development, and implementation.
- **Distributional equity** is focused on ensuring that the clean energy transition supports the more equitable distribution of the benefits and burdens associated with the clean energy transition.

EVERSOURCE

Framework purpose is to:

- improve our communication's effectiveness with historically marginalized communities
- increase engagement with our customers
- augment investment and operational activities by proactively listening to communities and seeking to balance:
 - Equity, particularly the demographics and historical burdens of the communities served,
 - Resiliency and the work needed to make systems more efficient and dependable to support clean energy integration
 - Affordability as a component of fairness in benefit and burden
- make systems more efficient and dependable to support clean energy integration
- increase inclusion and education of community members by increasing access to programs and services to environmental justice communities

^{*}National Grid's full draft framework can be found on page 411 of its ESMP.



Section 3: stakeholder engagement

SUMMARY

- The three EDCs are jointly proposing a Community Engagement Stakeholder Advisory Group (CESAG).
- The goal is to develop Community Engagement and Community Benefits Frameworks to be used for new clean energy infrastructure projects before the electricity distribution companies (EDCs) submit projects to the Department of Public Utilities (DPU) and/or Energy Facilities Siting Board (EFSB).
- The CESAG will be led by the EDCs, but will include representatives determined by EDCs and GMAC, including community-based organizations (CBOs).
- The group is proposed to begin meeting February 2024, then to meet twice a month for four months.
- Frameworks are be finalized by Q2 2024.
- CESAG is proposed to be professionally facilitated.



Section 3: stakeholder engagement

SUMMARY, CONTINUED

Outcomes from the CESAG will be to:

- Guide the EDCs on best ways to inform and educate communities about the electrical distribution system
- Identify opportunities to support organizations that could help to further cultivate good will and community engagement and/or participation
- Guide how input should be solicited and responded to
- Principles for EDC outreach and equitable engagement efforts during project development including recommendations around producing non-technical abstracts about proposed projects that can be disseminated to community members and other ways to provide critical information about the impacts and benefits of projects to the public
- Define key stakeholders, by categories and specific organizations in specific regions of the Commonwealth



Section 3: stakeholder engagement

TAKEAWAYS:

- Identification and definitions of customer base and locations of EJ communities vary from plan to plan.
- Plans need a better identification of methods to establish a feedback loop of (a) clearly communicating
 with customers, (b) listening to their concerns, and (c) demonstrating that they are making efforts to
 mitigate those concerns.
- The GMAC expressed concerns that the CESAG would contribute to "working group fatigue" and be
 potentially replicative of other efforts.
- As proposed, the GMAC had questions about CESAG's governance, objectives, staffing, time constraints, accountability, connections to developer customers, measuring success of the group, determining metrics to measure benefits, and reporting.
- With multiple consumer-facing engagement efforts happening simultaneously among state agencies, there are concerns about communication overload to consumers. Similarly, the technical nature of these plans must be translated not just into multiple non-English languages, but into plain English as well.



Section 5: five- and ten-year forecast

LOAD GROWTH FORECAST

	Eversource	National Grid	Unitil
Growth projection through 2034	16%	23%	13%
Peak load growth drivers	Base load from economic development in Boston metro area	Electric vehicles	Electrification and base load
Shift to winter peak (from electrification / heat pumps)	2035	Later 2030s	2034



Section 5: five- and ten-year forecast

TAKEAWAYS

- The load forecasts include many unsubstantiated assumptions.
- The EDCs do not appear to seriously consider sensitivities over the 10-year forecast period.
- The EDCs could better explain dependencies between proposed investments and projected growth. In many instances, the projected load growth for given end uses would be contingent on utility actions, including, potentially, both grid investments and programmatic inducements.
- The GMAC echoed that this section would benefit from sensitivity analyses to factor in such variables as energy storage, heat pumps, EV adoption, technological advances, and other electrification transitions.



SUMMARY: NATIONAL GRID

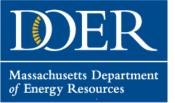
Exhibit 6.3: Summary of EJC incentives / offerings*

Program	EJC incentive / offering
EVs—public fleet infrastructure rebates for EJCs	 Up to 100% utility-side infrastructure incentives Up to 100% customer-side infrastructure incentives Up to 100% charger rebates for income-eligible EJCs; up to 75% charger rebates for other EJCs Up to 50% charger rebates for non-EJCs
EVs—residential EV charging incentives for EJCs	 Up to \$1,000 rebate for in-home EV charging infrastructure upgrade when enrolling in managed charging program for single family in an EJC; up to \$2,000 for 2-4 family
EE upgrades for low-income customers and multi-family residents	 All eligible energy-efficiency upgrades to low-income customers, and to multi-family buildings with 50% or more low-income tenants, at no cost
Weatherization for all rental units	100% no-cost home weatherization for all rental units



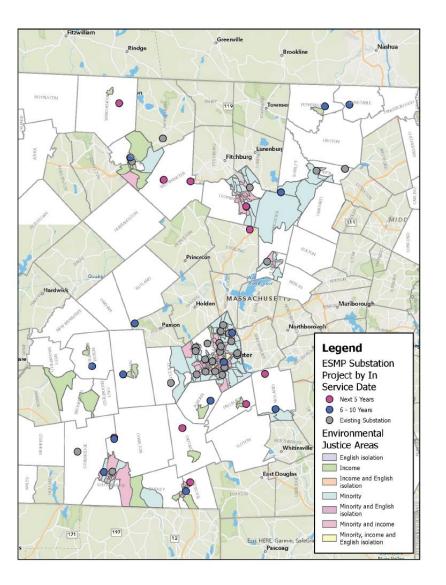
SUMMARY: NATIONAL GRID, CONTINUED

- Technologies discussed include communications upgrades to speed up responses to outages and deploy distributed energy resources (e.g., renewables, battery storage)
- There is a special focus on advanced metering infrastructure (AMI), which should lead to energy
 efficiency from user behavior through demand response and better communication of rates, as
 well as eliminating the need for customers to report power outages
 - Rate design is "actively being researched" (page 306).
 - Principles for AMI-enabled rate design and implementation are outlined on page 307, referencing behavior change and LMI customers.
 - AMI adoption timeline (page 307):
 - 30% of customers by end of 2025
 - 70% by end of 2026
 - 100% by end of 2027
 - The goal is to develop rate designs based on observations through two pilot phases using AMI (page 308), enabling more customer choice.
- Network planning promises to use more precise data and offer some resultant (unspecified) benefits to customers



SUMMARY: NATIONAL GRID, CONTINUED

- National Grid provides multiple maps of existing and future substations; these maps highlight environmental justice communities
- National Grid vows to actively consider potential impacts on EJ populations and early community engagement to discuss "1) the role the project plays in the distribution system, 2) the electrification benefits that will be realized by the local area, and 3) any community impacts that may be incurred due to construction or ongoing operations of the project."





SUMMARY: NATIONAL GRID, CONTINUED

 A joint-EDC Equitable Transactional Energy Study proposes to develop recommendations for "a more dynamic locational value compensation framework," essentially offering options for consumers to participate in virtual power plants (VPPs) that offer a better representation of distributed energy resources in environmental justice communities (page 304).

non-wires alternatives (NWA)

any solution that offsets the need to build more electricity distribution infrastructure; achieved through demand response, virtual power plants, distributed energy resources, peak shaving, energy efficiency, advanced metering, etc.



SUMMARY: NATIONAL GRID, CONTINUED

- The Resilient
 Neighborhoods Program
 and graphic is discussed
 on pages 305-306, which
 is intended to address
 climate-related power
 outages. The program will
 "prioritize projects in
 EJCs."
- "Co-located EV charging" is mentioned as a resiliency measure, presumably to take advantage of bidirectional charging in EJCs.

Exhibit 6.29: Types of climate adaptation and resiliency benefits to consider when engaging municipalities on utility-owned projects



Source: Converge Strategies



SUMMARY: EVERSOURCE

- Eversource defines equity as "the process of establishing more equal access to and participation in energy efficiency" and identifies historically underserved populations (page 276).
- Substation upgrades and 17 new bulk substations over a ten-year horizon will increase electricity load to 3.6 gigawatts beyond the Commonwealth's 2040 goals—the equivalent of 1 million new heat pump systems and 4.2 million electric vehicles. Eversource plans to use the equity framework for this substation construction process (page 259).
- Equity and EJ stakeholder input is a factor in building substations, but Eversource admits that the urgency of near-term projects (2025–2029) may afford less engagement than later (2030 and after) (page 263).



SUMMARY: EVERSOURCE, CONTINUED

- Technologies deployed are similar to those discussed in National Grid's ESMP (page 264).
- Eversource is proposing a new formula for cost allocation of new capacity development (page 268-269), with presumably more equitable distribution of infrastructure first costs across beneficiaries. (This is not necessarily an equity-based solution on a consumer level, but on a larger scale does a better job of evenly distributing costs.)
- Eversource expresses a "commitment to equity" with respect to EV charging in EJCs and acknowledges the currently high upfront costs of adoption. It proposes two solutions:
 - Up to 100% in rebates for electrical infrastructure costs to install DCFCs in residential communities with limited access to home chargers
 - A similar program for medium- and heavy-duty fleet vehicles in EJCs (page 281)



SUMMARY: EVERSOURCE, CONTINUED

- There are three new solar programs under consideration by DPU or about to be proposed (page 283) in addition to current SMART program:
 - Eversource Community Solar Access Program (ECSAP)—simplifies participation in community solar, particularly for low-income customers
 - Community Solar Resilience Program—pairs larger solar facilities with large-scale battery storage, starting with low-income communities in Yarmouth; prioritizes workforce development for MWEs
 - Affordable Solar Access Program—geared toward renter-landlord circumstances; no upfront costs for installation, instead paid through monthly on-bill charges
- Substations for service regions do not offer details on EJCs in relation to existing or new sites.



SUMMARY: EVERSOURCE, CONTINUED

Table 42: Overview of EJC and low-income offerings

Public and workplace	Increased incentives	 100% make-ready costs and full rebate for all EVSE installed in EJCs Network incentive (\$480/port) for all ports installed in EJCs
	Unique offerings	Fully funded DC fast-charging hubs in EJCs
	Expectations	40% of ports deployed in EJCs
	Targets	 ~\$38 million investment ~2,400 Level 2 and DC fast-charging ports
Residential	Increased incentives	 Make-ready and EVSE support of up to \$1,700 for 1-unit properties (compared to \$700 for non-EJCs) and up to \$2,700 for 2-4-unit properties (compared to \$1,400 for non-EJCs) 100% make-ready costs and full rebate for EVSE installed at large MUDs in EJCs Network incentive (\$480/port) for all ports installed at large MUDs in EJCs
	Unique offerings	 Turnkey installation and increased financial support for LI/EJC to cover costs of residential make-ready and managed-charging capable L2 EVSE EV site plans will help large MUDs (many of which are in EJCs) develop a plan for EVSE
	Targets	 ~\$25 million investment ~7,500 Level 2 ports
Fleet	Increased incentives	 100% make-ready costs and full rebate for EVSE for light-duty fleets in EJCs
	Unique offerings	 100% make-ready costs and EVSE rebate for MD-HD fleets that serve EJCs (part of Equity Pilots program
	Expectations	 40% of 150 private and nonprofit fleet assessments conducted in EJCs
	Targets	\$3 million investment in MD-HD EJC pilot
Other offerings		 Pilots to increase access to electric mobility in EJCs ("Equity Pilots") 100% EVSE for fleets and workplaces that serve low-income communities



SUMMARY: UNITIL

- In existing energy-efficiency programs for low-income residential customers: for "incomeeligible customers, the company pays 100% of the cost of improvements" (page 66).
- Rebates for adoption of EVSEs for residential customers are limited to low-income customers—up to 100% of installation costs for multi-unit dwellings (MUDs) of up to four units and \$1,700 of capital costs. There are not a lot of specifics. Spending is not expected to begin until 2028 (page 68–69).
- Page 83 makes general references to the value of distributed energy resources for EJ communities.



TAKEAWAYS

- There could be a lot of indirect benefits to consumers via all-around improvements to technologies, software, communications, and incentive programs, though this is not always explicitly spelled out for EJ communities or in equity terms.
- Many EJ communities host a disproportionate number of substations (as shown in the National Grid ESMP); it's not clear from the maps if there is higher population density in these areas or if benefits are equally distributed.
- In Eversource's proposed new substations section, a Kendall Square (Cambridge)
 rendering shows an underground substation with a public park on top; other sites are not
 proposed with similar public benefits.



SUMMARY: OVERALL

- The 2022 Climate Act at 92B tasks each of the EDCs with identifying customer benefits associated with investments and alternatives including safety, grid reliability and resilience, electrification of buildings and transportation, reduced GHG emissions and air pollutants, mitigation of impacts to the ratepayer, and more.
- Each of the utilities is working to produce a net benefits assessment, including qualitative and quantitative benefits, and to file with the Massachusetts DPU in January 2024.
- The common intention is to develop electric sector modernization plans that promote accessibility, investment, and innovation all at the lowest possible cost to the rate payer.



SUMMARY: NATIONAL GRID

- National Grid mentions "resilient neighborhoods" in Section 7 and providing projects that benefit the neighborhoods capacity to respond to, withstand, and recover from climate impacts. Equity is not specifically called out.
- National Grid's plan hits all of the benefits sections that were identified, but the plan's benefits lack specificity relative to whom the benefits apply, timeline for receiving benefits, and what those benefits look like.



SUMMARY: EVERSOURCE

- Eversource, when talking about its efforts to reduce its GHG emissions, highlights proposed projects in EJ communities and how these solar projects would improve community climate resilience.
- Eversource addresses each of the chosen benefit areas with particular reference to its current or proposed work to address those areas.
- The ESMP outlines a five-year plan to reduce their company-wide greenhouse gas emissions.
- Eversource specifically calls out benefits for low-income customers, EJ communities, and climate-vulnerable neighborhoods.



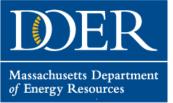
SUMMARY: UNITIL

- Unitil's customer benefits focus on reducing the cost to the rate payer while improving accessibility while reducing energy reduction and greenhouse gas emissions.
- While each project has a bullet stating "benefits EJC and non-EJC communities," there is no specific information about how this is done and what these benefits are.
- Unitil references promoting and enabling energy storage and electrification technologies.



TAKEAWAYS

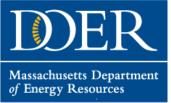
- All three ESMPs lack detail and explanation of customer benefits, particularly the benefits specific to EJ and vulnerable communities.
- Eversource calls out proposed projects in EJ communities and the intended community climate resilience benefits.
- Eversource's explanation of grid reliability and resilience is crucial to grid modernization.
- Unitil's plan is designed to reduce customer loads by 2% and that financial savings flow to the customers.
- National Grid and Unitil's plans lack specificity on customer benefits for EJ, low-income, and climate vulnerable communities.



Section 9: 2035-2050 solution set

SUMMARY: ELECTRIC VEHICLE CHARGING

- The EDCs explore managed charging as a clean energy solution.
- Each of the EDCs explore the best practices for load management when considering customer charging preferences.
- All three EDCs discuss the potential of managed charging relative to at-home, workplace, public, fleet, vehicle-to-grid, vehicle-to-home, and vehicle-to-load charging.
- **National Grid**'s plan discusses electric vehicle charging, the challenges of managed charging, and its negative impacts on electric grid conditions. It outlines a variety of managed charging methods (i.e., residential at-home, public, workplace, fleet, vehicle-to-grid (V2G), vehicle-to-home (V2H), and vehicle-to-load (V2L)).
- Eversource's plan focuses on electric vehicle charging infrastructure, the increased demand in the overall system, and managing demand. More so it discusses managed charging and the increased demand to the grid from electric vehicle charging.
- **Unitil**'s plan discusses their time-of-use (TOU) rates for residents with EVs and the need to consider demand management when thinking about "off-peak" charging (page 135).
- Unitil has not completed an analysis of incentives to attract customers to participate, especially in EJ communities.
 They mention the opportunity to incentivize users to discharge back to the grid (page 136).



Section 9: 2035-2050 solution set

TAKEAWAYS

• For Eversource and National Grid, Section 6 detailed incentive programs for electric vehicle charging stations in low-income and EJ communities.



SUMMARY: OVERALL

- In response to the Massachusetts Clean Energy Center (MassCEC) report on the workforce needing to support the state's energy goals, each of the EDCs summarized how they are hiring and training for the future.
- According to the Commonwealth's reports and modeling, the state needs an additional ~38,000 workers to support grid modernization and to reach the state's clean energy goals.



SUMMARY: NATIONAL GRID

- National Grid's plan discusses the need to hire more and increase the number of employees in the electric and gas sectors to build the electric distribution network proposed in the ESMP.
 - References multiple reports conducted by the Commonwealth the Commonwealth's 2050 Decarbonization Roadmap Study, MassCEC's Workforce Needs Assessment, and the Commonwealth's CECP for 2025 and 2030
 - Job types identified: temporary and permanent, union, non-union, and management roles.
 - National Grid's "strategic workforce development" will enable the company to hire people that are underrepresented in the current workforce.



SUMMARY: EVERSOURCE

- Eversource's plan emphasizes the importance of hiring new and emerging skill sets and the development of a proactive recruiting strategy.
- Section 12 offers details on their "holistic approach to talent development" referencing their Diversity and Inclusion Council and Business Resource Groups, academic institutions, community and strategic partners.
- Notable workforce development programs include Electric Power Utility Technology Program and Clean Energy Pathways:
 - Clean Energy Pathways aims to expand the energy efficiency workforce and increase access to individuals who are historically underrepresented
- Eversource applied to the U.S. Department of Energy Grid Resiliency and Innovation Partnership (GRIP) program in March 2023. This funding would create a pipeline for clean energy jobs with local partnerships. The application included a community engagement plan which is designed to lead to a community benefit agreement (page 532).



SUMMARY: UNITIL

- Unitil's plan mirrors that of National Grid and Eversource stating that more workers are needed to meet demand and expand the network as outlined in the plan.
- Unitil then shifted their focus to their history of hiring, training, and retaining a diverse workforce of field experts and technical staff (meter and substation technicians, line workers, store-room clerks, etc., to install/monitor/maintain the AMI infrastructure).
 - Each of these positions has a path to progress and improve.
 - Unitil mentions mentorship opportunities particularly for those with less experience.
 - Unitil also works with colleges and universities to ensure that new graduates have the skills and tools to be successful.



TAKEAWAYS

- All of the EDCs cite one or more of the Commonwealth's report(s), arguing that the energy sector will require more
 workers to support the state's clean energy goals.
- All three plans discuss the need to hire more employees in the electric and gas sectors to be able to meet the distribution networks proposed.
- Eversource's ESMP is the only one to specifically address EJ communities, women, first generation, multi-lingual, etc. groups of people that they target in hiring.
- Eversource includes a number of recent programs and funding opportunities that support their hiring of diverse backgrounds.
- Both Unitil and National Grid's plans lack specificity and detail about their hiring and training processes, targeting EJ
 communities and underrepresented groups, and employee retention.
- Eversource's ESMP is the only one to specifically address EJ communities, women, first generation, multi-lingual, etc., groups of people that they target in hiring.
- Both National Grid and Unitil's plan lack information and details about the demographics of disadvantaged communities, how they would target these communities in the hiring process, and what training would entail.



THOUGHTS FROM AEG GRID MODERNIZATION STAKEHOLDER CHALLENGE

Thoughts From AEG Grid Modernization Stakeholder Challenge

Mary Wambui Ekop - POUA





SYSTEMIC CHANGE ON CLIMATE, HEALTH AND EQUITY BY ENGAGING COMMITTED LEADERS AND ORGANIZATIONS ACROSS 10 US MARKETS.





AEG STAKEHOLDER CHALLENGE FORMAT

3-part competition to enable inclusive stakeholder mobilization

Part 1: Speaker Challenge

4 speakers compete to align participants on a critical obstacle to collectively overcome.

Regarding <TOPIC>, to achieve <CITY/REGION'S> Climate, Health & Equity goals, a critical obstacle to collectively overcome in 12 months is

Part 2: Breakout Challenge

Leaders develop + pitch 12 months solutions as intersectional teams.

Part 3: Task Force Challenge

Volunteer Task Force Leaders deliver the 12 month solution + 90 day sprint.

CRITICAL INFRASTRUCTURE | BUILDING ELECTRIFICATION **GRID MODERNIZATION | MOBILITY & CLEAN TRANSPORTATION**

2022 Task Force 2022 12-Month Volunteers Task Forces

12 Month Solutions Achieved since 2021

Quarterly Milestones Achieved Since 21Q1







23Q3 Stakeholder Challenge: Grid Modernization August 17th @ 8:00am - 12:30pm

Holland & Knight, Boston, MA

DERIVED 12-MONTH CRITICAL OBSTACLE

Building trust & understanding with customers & communities with health based decision making to enable meaningful collaboration to deliver an electrification-based energy transition, equitably & affordably.



MELISSA LAVINSON Head of Corporate Affairs, New England



JONATHAN BUONOCORE Assistant Professor Dept. of Environmental Health

nationalgrid





23Q3 Stakeholder Challenge: Grid Modernization August 17th @ 8:00am - 12:30pm Holland & Knight, Boston, MA

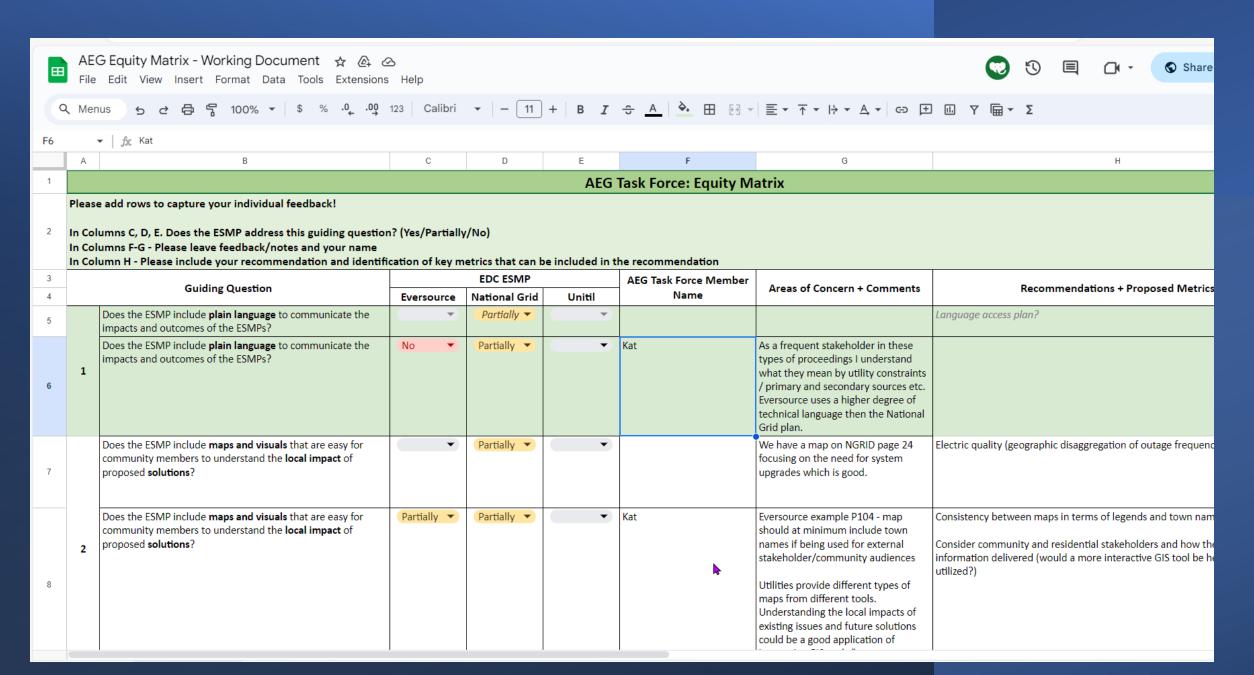
12-MONTH & 90-DAY GOAL

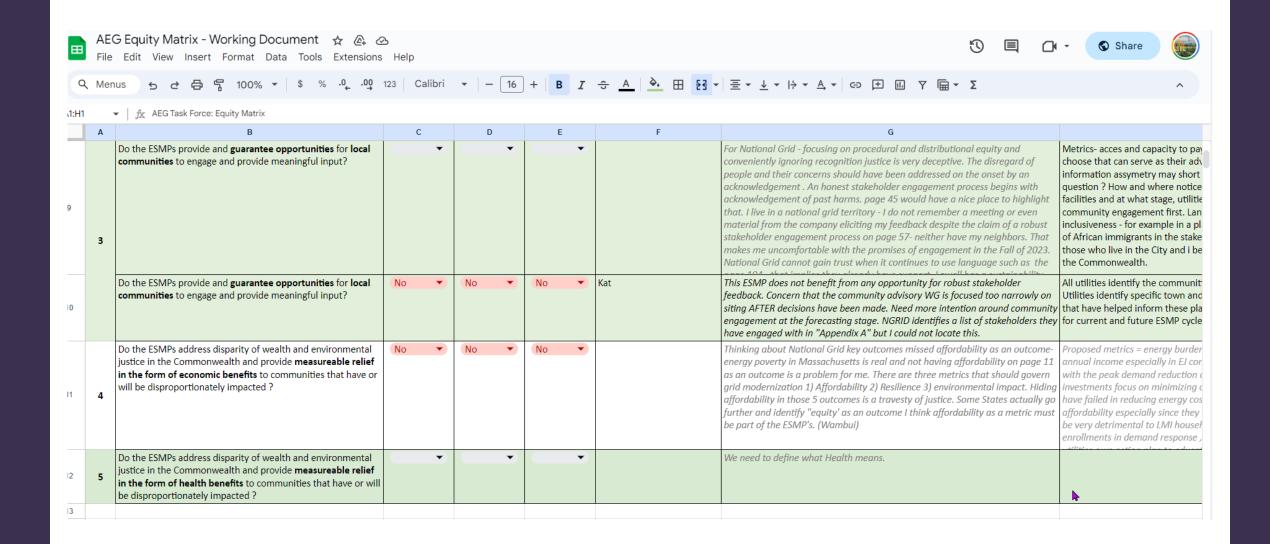
90 DAY:

Improve understanding of Electric Sector Modernization Plans (ESMPs) by providing maps visibility into investments and EJ communities; bring front and center equity metrics that already exist into Grid Modernization Advisory Council (GMAC) decision making.

12-MONTH:

File the ESMPs with robust stakeholder feedback.





Additional Thoughts.

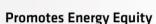
- Should the GMAC EWG establish equity values or success criteria and then check the ESMP's against that criteria to see if they meet muster and if they do not make recommendations that bring the plans to that point.
- For example, Connecticut PURA established affordability as a key component of their grid modernization strategy.
- Other elements of an equitable grid are access, resilience (Does the grid action or investment accelerates clean energy transition in EJM's that face the highest risks from climate crises), Process/procedural justice —is there meaningful participation in siting decisions and are there tools to facilitate community engagement such as provision of \$ for technical experts that represent community interests? Intervening capacity building for communities? Recognition justice — have the ESMP's acknowledged and recognized past systems marginalization of disadvantaged groups?
- Finally do ESMPS's extend financial benefits to communities from investments and how? Are they directly mitigating systemic environmental impacts on disadvantaged communities from energy exploitation of indigenous communities – restorative justice

An Example from New Mexico



Strengthens Reliability

Smart meters will provide customers the ability to access energy usage information, as well as their solar generation data. Distribution upgrades will allow faster responses to outages, sometimes allowing power to be restored remotely without sending a crew.



A proportionately large segment of New Mexico's population is low-income. Grid modernization will help provide fair treatment in how benefits and burdens are distributed, providing more affordable and fairer access to energy.





Stimulates Job Creation and Economic Development

New Mexico's sustainable energy policies provide a competitive edge. Grid modernization will enhance that edge by providing reliability and integrating more rooftop solar, attracting more businesses to our state, creating new jobs.

PNM GRID MODERNIZATION PLAN

Helps transition to a Carbon-free Future

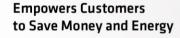
By modernizing the grid, we will be able to integrate more solar capacity into our energy mix. The improved technology more seamlessly connects renewable energy generated by homeowners throughout the system.





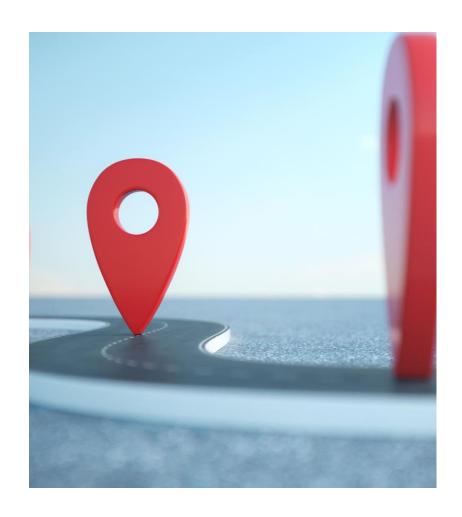
Protects Against Cyberattacks

Modernizing the grid will strengthen cyberattack defense efforts. The North American Electric Reliability Corp. (NERC) has identified cybersecurity as a major concern. We're committed to protecting our customers' data and complying with NERC guidelines.



Residential and business customers will be able to monitor their electrical consumption in real time, allowing them to adjust their usage and avoid unexpected costs.





Resources- Still gathering

- Climate & Economic Justice Screening Tool: https://screeningtool.geoplatform.gov/en/#7.88/42
 https://screeningtool.geoplatform.gov/en/#7.88/42
 https://screeningtool.geoplatform.gov/en/#7.88/42
 https://screeningtool.geoplatform.gov/en/#7.88/42
- CoBE https://cobeapp.forhealth.org/home



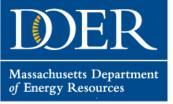
Discussion

QUESTIONS FOR CONSIDERATION



Questions for consideration

- 1. What are historical inequities we would like to see addressed in the ESMPs?
- 2. What and where within the ESMPs are concerns of the EWG and equity frameworks?
- 3. What are equity metrics we would like to see measured in the plans?
- 4. How would we like to structure our comments and review?



Wrap-up

Meeting 2

Tuesday, October 10 | 11 a.m. to 12:30 p.m. via Zoom

Meeting goals:

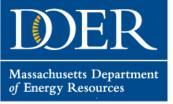
- Confirm minimum standards for equity metrics in the ESMPs
- Identify recommendations for / on behalf of the full GMAC

Meeting 3:

Date and time TBD (but before October 27)

Meeting goals:

- Confirm recommendations for / on behalf of the full GMAC
- Allow opportunity for public comment



Wrap-up

Feedback

- Meeting strengths and improvables
- Process strengths and improvables