DRAFT MEMORANDUM OF THE GMAC EQUITY WORKING GROUP October 23, 2023

I. BACKGROUND

Pursuant to G.L. c. 164, §§ 92B-92C, the Grid Modernization Advisory Council (GMAC) is charged with reviewing and providing recommendations to the state's investor-owned electric distribution companies' (EDCs) electric-sector modernization plans (ESMPs). The Equity Working Group, a subcommittee of the GMAC, was established on September 14, 2023, to review the inclusion of equity in the electric sector modernization plans (ESMPs). The Council's full Charter is located at the Grid Modernization Advisory Council's website.

The Equity Working Group is comprised of Grid Modernization Advisory Council members, two members external to the Council and the Massachusetts Department of Energy Resources. The state's investor-owned electric distribution companies (EDCs) have one non-voting representative.

The Equity Working Group consists of the following representatives:

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

In this document, the Equity Working Group presents justice-oriented equity definitions, a set of comments from the ESMP review, and recommendations for the EDCs' ESMPs. The Equity Working Group proposes the following recommendations to revise the electric sector modernization plans (ESMPs) first published in September 2023 by National Grid, Eversource, and Unitil.

I. DEFINITIONS

The ESMPs have differing definitions of the term equity throughout the documents. The Equity Working Group encourages that the EDCs use consistent definitions to ensure that customers are given the same consideration no matter where they reside in the Commonwealth. We support the use and application of the below definitions from the energy and planning literature in the ESMPs and metrics.

Referencing the Pacific Northwest National Laboratory's definition of equity:

Energy equity recognizes that disadvantaged communities have been historically marginalized and overburdened by pollution, underinvestment in clean energy infrastructure, and lack of access to energy-efficient housing and transportation. An equitable energy system is one where the **economic**, **health**, **and social benefits of participation** extend to all levels of society, regardless of ability, race, or socioeconomic status. Achieving energy equity requires intentionally designing systems, technology, procedures, and policies that lead to the fair and just distribution of benefits in the energy system.

Energy justice can be defined as follows:1

Distributive justice is focused on the injustices regarding the physical benefits and risks of energy systems such as the location of production facilities or the access of energy services.

Procedural justice calls for equal and fair procedures. Everyone regardless of social status, income, or race should be allowed to participate in decision-making processes.

Recognition justice is focused on identifying which part of society is affected by injustice, recognizing and addressing others' needs.

II. COMMENTS FROM REVIEW OF THE ESMPS

After reviewing the ESMPs, the Working Group developed several high-level comments on the draft ESMPs.

The EWG has several high-level concerns. The EDCs failed to provide meaningful stakeholder engagement for input prior to drafting the ESMPs, limiting their level of input in this overall process from the outset. The ESMPs do not articulate clear goals related to equity, or even a baseline of current equity issues experienced among EDC customers. The ESMPs discuss equity primarily in the context of stakeholder engagement, workforce development, energy efficiency, and electric vehicle infrastructure program incentives. The ESMPs do not address key impacts in areas of affordability or reliability in environmental justice communities. In addition:

- Identification and definitions of customer base and locations of environmental justice communities vary from plan to plan. These should be consistent across plans and presented via visualizations.
- The GMAC expressed concerns that the Community Engagement Stakeholder Advisory Council (CESAG)
 would contribute to "working group fatigue" and be potentially replicative of other efforts. The CESAG
 should not be utility-led and should include direct community leadership. Members should be compensated.
 Ideally, the CESAG could nest within an existing process rather than creating an entirely new body.
- All three ESMPs lack detail and explanation of customer benefits, particularly net benefits specific to
 environmental justice and vulnerable communities. There is very little quantification of benefits throughout
 the plan. It was not possible for the Equity Working Group to evaluate the ESMPs' impact on affordability
 and recognition justice without this data, which are top priorities for environmental justice communities.
- Grid modernization is likely to affect rate design, which may have a disproportionate impact on low- to
 moderate-income ratepayers. The plans do not offer details on how the EDCs will mitigate those impacts.
 We would encourage a broader conversation about rate reform and rate-design options with the Department
 of Public Utilities (DPU) and other advisory bodies such as the GMAC, where appropriate.
- The ESMPs, but in particular Unitil's and National Grid's, lack specificity and detail about their hiring and training processes, efforts to target environmental justice communities and underrepresented groups in workforce development, and employee retention. The plans should articulate how the EDCs will complement and build on existing efforts to recruit underrepresented groups and discuss how the EDCs are working to not just train but retain new workers and offer additional specifics about the type of job growth and job transitions expected with electrification.
- The ESMPs described incentive and financing programs targeted for low- to moderate- income customers. Equity requires a holistic approach. Beyond incentivizing the cost of equipment, the utilities need to engage low- to moderate-income customers and environmental justice communities to understand their current relationship with the electricity system; hear and respond to what customers want from the electric grid in the future; and work with community partners to target outreach about future distribution infrastructure and customer-facing opportunities to support the grid.

¹ Carnegie LaBelle, Michael, "In pursuit of energy justice," Energy Policy, Vol. 107, August 2017: 615-620.

- Currently the ESMPs use different reporting on the EJCs within their service territories. There is a lack of
 EJC-specific data to illustrate climate impacts, investment impacts, integrated gas-electric planning, and
 long-term solutions planning. The Equity Working Group recommends the EDCs to improve and publish
 EJC data. This includes adopting uniform mapping, customer counts by type of EJC by subregion, and
 reliability metrics (SAIDI/SAIFI/CKAIDI/CKAIFI) for EJCs versus the general territory.
- KATHRYN: Do we want to say something about the near-term emphasis (e.g., the. next five years) on building more substations versus DER and NWAs?

III. ESMP RECOMMENDATIONS

Below are the working group's recommendations to improve and enhance equity in the ESMPs. As an appendix to this document, the Equity Working Group provides specific recommendations for metrics and ways to resolve gaps in the ESMPs by category. The Equity Working Group requests responses from the EDCs on which of these metrics will be pursued for this ESMP, which metrics could be tracked in a future ESMP and suggestions for alternative metrics. At the time of writing, the suggested metrics on community engagement that the EDCs submitted are only responsive to procedural equity (see Appendix B for the EDCs' proposed engagement metrics).

PROCEDURAL

- Environmental justice and equity metrics should reflect the impact of the work, not
 just efforts. For example, the utilities offered to track attendance and the number of
 community engagement meetings. Metrics should also include how EDCs
 responded to customer concerns and which suggestions were implemented.
- All public-facing materials should be reviewed for plainspoken language, visualizations, clarity, transparency, and completeness.
- The electricity distribution companies (EDCs) should work to consolidate overlapping stakeholder engagement efforts to maximize the use of participants' time
- Stakeholder engagement should begin at the very earliest planning stages of all
 project types that will have impacts on consumers, including, but not limited to, rate
 impacts, service reliability, construction, disruptions, etc.
- Community-based organizations and community leaders should have representation and leadership within working groups created by the ESMPs (e.g., CESAG).
- The EDCs should track and publish baseline equity-related data and continue to provide regular progress updates.²

RECOGNITION

- The ESMPs should provide detailed workforce development plans to recruit, hire, train, and retain women, minorities, first generation, multi-lingual, and other underserved populations.
- 8. The EDCs should publicize linkages between grid modernization planning and overall environmental benefits that have historically disproportionately affected environmental justice communities, including reduced greenhouse gas emissions, improved air quality, improved health outcomes, and reduced excess mortality.

² See Appendix: GMAC Equity Working Group equity assessment table for detailed metrics.

DISTRIBUTIVE

- 9. Rates, incentives, and benefits associated with grid modernization should be clearly spelled out for consumers, along with programs to provide consumer choice and assistance for customers in arrears. The plans need to include the net benefits for customers after considering the anticipated costs of grid upgrades to help the GMAC, DPU, and other stakeholders determine what is fair and reasonable.
- 10. Environmental justice and low- to moderate-income communities should have priority access to innovative financing, technology, energy-efficiency upgrades, building weatherization, and electrification adoption.
- 11. The EDCs should work to rectify existing differences in service quality by working with environmental justice communities. The EDCs should also work to rectify anticipated future differences in service quality in communities whose infrastructure is vulnerable to climate change impacts, as identified by the EDCs' climate vulnerability assessments.

APPENDIX A: EQUITY WORKING GROUP'S PROPOSED METRICS

Table 1. —Equity Assessment

Category	Problem Statement	How ESMPs Propose to Address This	EWG's Desired Outcomes from Final ESMPs	Metrics of Success
. Accessibility nd community ngagement	 a. Siting and grid modernization decisions have historically been made without significant stakeholder input b. Not all relevant information is shared with the public c. Information is overly technical and in many cases is not translated 	 d. Written informational materials are produced in multiple languages e. Utility-led Community Engagement Stakeholder Advisory Group (CESAG) f. DPU-required joint stakeholder meetings in Fall 2023 g. Eversource states the urgency of near-term projects (2025–2029) may afford less engagement than later (2030 and after) h. For projects, the utilities have stated they will engage impacted communities before submitting filings to the Energy Facilities Siting Board (however, it is unclear which specific projects this would apply to) i. Utilities have discussed negotiating community benefit agreements for communities impacted by projects, but form of agreements unclear. j. National Grid plans for public engagement on multiple channels, including translation where needed and an initiative to engage Federally Recognized Tribes in New England k. Eversource's pending Grid Resiliency and Innovation Partnership (GRIP) program application included a community engagement plan designed to lead to a community benefit agreement 	 Plain language is used / layman's terms and translation of materials Utilities provide easy-to-interpret visualizations There are clear avenues for input early in planning processes Stakeholder input is used to inform data-driven decisions Stakeholder engagement exists beyond infrastructure siting and is integrated more broadly with grid modernization investments Utilities publicize the data they currently have on equity (disparities in program participation, % of customers with high energy burden, etc.), enabling stakeholders to participate with full information about the baseline 	 r. Fewer customer complaints s. Fewer infrastructure siting delays t. Survey and other data indicate stakeholders' demonstration of positive and improving experiences with EDCs over time u. Participation is tracked and includes diverse demographics v. Documented responses to community comment presented in engagement and via the Communi Engagement Stakeholder Advisory Group w. Inventory of documents available in multiple languages x. Number of executed community benefits agreements y. Increase in community participation in utility surveys, events or other engagement venues from environmental justice communities z. Documentation of stakeholder partnerships and community leadership on working groups and committees

2. Workforce and economic benefits	 a. There is a lack of economic opportunities for historically underserved populations. The energy sector has a lack of diversity, particularly in leadership or higher-wage roles³ b. Immigrants, workers of color, and women are disproportionately impacted by wage and hour violations⁴ 	 c. Community Solar Resilience Program (Eversource) prioritizes workforce development for MWEs d. National Grid identified temporary and permanent, union, non-union, and management roles needed, and using a "strategic workforce development" program to hire underrepresented people in their workforce e. Eversource has workforce development programs, Electric Power Utility Technology Program and Clean Energy Pathways, which aims to expand the energy efficiency workforce and increase access to individuals who are historically underrepresented f. Eversource applied to the U.S. Department of Energy Grid Resiliency and Innovation Partnership (GRIP) program which would create a pipeline for clean energy jobs with local partnerships 	 g. Well-paid permanent jobs h. Full-time positions i. Jobs located within or near EJCs j. Jobs accommodating of different languages k. Workforce training for entry-level employees l. Opportunities for learning, development, and advancement m. Increased job safety n. Clear plans for recruitment, training and retention for underserved populations o. Integration of EDCs' efforts with existing training programs throughout Massachusetts 	 p. Hours of work per employee at minimum wage q. Number of additional jobs with livable wages r. Reduced hazardous occupational exposures resulting in injuries, deaths, and chronic disease s. An additional ~38,000 workers to support grid modernization and to reach the Commonwealth's clean energy goals t. Job placement rates for utility-proposed programs u. Post-training position retention rates for new employees v. Increases in local hire requirements or supplier diversity requirements w. All ESMPs need to be provide clarity on the incremental job impacts of the plan. Categories of anticipated job growth should be shared with public and educational partners. x. Job training programs by geographic service territories to address "training deserts"
3. Health benefits	 a. Emissions from burning natural gas b. Emissions from burning heating oil c. Emissions from grid electricity source mix d. While air emissions impact the entire state, recent studies have indicated impacts are higher in EJ communities⁵ 	 e. Eversource acknowledges inequities in health impacts from pollution/high GHG emissions plans to electrify transportation to mitigate impacts do not factor in equity f. National Grid generally highlights that EE programs and electrification measures will improve health overall and that EJ/LMI customers are currently impacted the most g. Plans offer no quantification of health benefits 	 h. Less air pollution i. Better indoor air quality j. Improved cardiovascular, respiratory, kidney, and cerebrovascular health outcomes k. Reduced excess mortality l. Improved quality of life m. Increased stakeholder education on climate-related health impacts 	 n. Reduced statewide incidences of heart disease, bronchitis, and lung cancer from inhalable particulate matter (PM) o. Reduced statewide incidences of asthma, respiratory and lung diseases from nitrous oxide (NOs) from fuel combustion p. Reduced statewide incidences of respiratory infections and lung disease from sulfur dioxide (SO₂) released from fuel combustion q. Calculations in the ESMPs of the incremental impact of the grid modernization plan on health indicators
4. Financial benefits and incentives	a. Renters, low-income, and non-English-speaking households are less likely to have used Mass Save energy efficiency incentives ⁶	 National Grid has incentives covering up to 100% of costs of EV charging equipment, energy efficiency upgrades, and weatherization for EJCs⁷ Eversource offers a plethora of EV charging equipment incentives for EJCs⁸ 	 j. Access to innovative financing or tech k. Installation of energy-efficiency upgrades l. Widespread updated weatherization to ready residential units for energy-efficiency upgrades 	n. Increases in: a. Community solar enrollment in EJCs b. Residential solar enrollment in EJCs c. EVSE enrollment in EJCs d. Energy-efficiency upgrade enrollment in EJCs

³ Massachusetts Clean Energy Center, "Powering the future: a Massachusetts clean energy workforce needs assessment," July 2023, page 63. From https://www.masscec.com/sites/default/files/documents/Powering%20the%20Future A%20Massachusetts%20Clean%20Energy%20Workforce%20Needs%20Assessment Final.pdf, accessed October 19, 2023.

⁴ Secretary Marty Walsh, U.S. Department of Labor, "How we're addressing equity for underserved workers," April 22, 2022. From https://blog.dol.gov/2022/04/14/how-were-advancing-equity-for-underserved-workers, accessed October 3, 2023.

⁵ Boston College, MassCleanAir. From https://www.bc.edu/bc-web/centers/schiller-institute/sites/masscleanair.html, accessed October 19, 2023.

⁶ Massachusetts Clean Energy Center, EmPower program. From https://www.masscec.com/program/empower-massachusetts, accessed October 3, 2023. National Grid, Future Grid Plan, "Exhibit 6.3: Summary of EJC Incentives and Offerings," September 2023: page 238.

⁸ Eversource, Electric Sector Modernization Plan, "Table 42: Overview of EJC and low-income offerings," September 2023: page 282.

Working Draft – 10/23/23

	b.	Low to moderate income housing is more likely to have pre-weatherization barriers creating challenges for both energy efficiency and electrification	e. f. g. h. i.	Unitil currently offers low-income residential customers 100% of the cost of improvements for energy efficiency and up to 100% of EVSE installation costs for multi-unit dwellings (MUDs) of up to four units and \$1,700 of capital costs? Three programs—Eversource Community Solar Access Program (ECSAP), Community Solar Resilience Program, and Affordable Solar Access Program—are geared toward EJCs At present, additional net benefits such as health, economics, and greenhouse gas emissions are largely described qualitatively A public park atop Kendall Square underground substation is proposed (Eversource) EDCs identified 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; to be filed with the DPU in January 2024	m.	Widespread adoption of electric vehicles		 e. Customer ownership of DERs within EJCs f. Increased participation in all programs by renters g. Comparison of EV/Solar electrification adoption by zip code to identify communities underserved by programs h. Pre-weatherization and electrical upgrade support i. Net economic, greenhouse gas emissions, and health benefits resulting from ESMPs (in aggregate and per capita) j. Integration of tracking and metrics for renters from the EEAC process k. Tracking the offset of what non-wires solutions accomplish
5. Affordability	a. b.	Low-income Massachusetts households spend a disproportionately high percentage of their income on energy ¹⁰ As electrification increases energy usage, current rate structures may increase affordability challenges. Gas introduces significant volatility into the region's energy prices ¹¹	d. e. f. g. h.	Advanced metering infrastructure (AMI) Demand response Improved customer communications Distributed energy resources (DER) Eversource proposes an Affordable Solar Access Program and plans to tackle on-bill financing	i. j. k. l. m.	Access to utility incentives Future rates are designed fairly and with public participation Utility service charges are on an income-based sliding scale Consumer choice Utilities develop and enroll customers in arrear forgiveness programs	n. o. p. q. r. s. t.	residential energy rate (cents) per kWh Percent reduction (or increase) in bills Percent reduction in energy burden Reduction in number of customers with excess energy burden Reduction in number of customers in arrears Anticipated net cost per customer of ESMPs Rate reform recommendations and impacts of alternative rate structures for electrification customers, particularly in winter Percent and count of residential customers disconnected for non-payment
6. Resilience and reliability	a.	EJCs are receiving differing power quality and	c.	Resilient Neighborhoods Program (National Grid) is designed to address climate-related power outages, prioritizing EJCs	i.	Increased resilience against outages from infrastructure failures, storms, accidents, other	0.	Fewer incidences and shorter durations of power outages

 $^{^9}$ Unitil, ESMP 2025–2050, September 2023: page 66. 10 MassCEC Empower.

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Commented [cm1]: are there things we want to prioritize for renters?

Commented [kw2R1]: Flagging there are renter specific metrics in the EEAC process already being tracked that can be combined with GMAC process for comprehensive dashboard

Commented [cm3]: I know at least eversource has this but I'm not sure if it's referenced at all in the ESMP and how helpful it has been to customers so far

- reliability than other customers 12
- Urban heat island impacts denser, less forested communities across Massachusetts, which tend to be EJ communities ¹³
- d. Investments in vegetation management, hardening and undergrounding infrastructure across all plans
- e. There are proposed new design and construction standards based on results of climate vulnerability study
- f. Joint-EDC Equitable Transactional Energy Study offering "a more dynamic locational value compensation framework" to offer options for consumers to participate in virtual power plants (VPPs) that offer a better representation of distributed energy resources in EJCs
- g. Eversource plans to use their equity framework for construction of proposed new substations
- n. Plan lacks specific mention of EJCs and resiliency measures

- j. Reduced methane leaks
- k. Cleaner water for human consumption, recreation, and natural ecosystems
- Increased access to land for recreation, agriculture, and infrastructure; decreased erosion and ecosystem destruction
- m. Increased reliability against outages and/or brownouts
- n. Increased publication and access data to climate-related impacts on EJCs

- Fewer incidences and shorter durations of power outages
- q. Increased deployment of distributed energy resources in EJ communities during outages
- r. Shorter outage periods, particularly in EJC communities
- Targeted infrastructure investments based on climate vulnerability to flooding, heat and other anticipated impacts.
- t. Decrease or elimination of disconnection during heat waves

APPENDIX B: EDCS' PROPOSED STAKEHOLDER ENGAGEMENT METRICS

- 1. The number of outreach and involvement meetings **about the respective EDCs ESMP filing** with stakeholders, including EJCs, municipal leaders, community-based organizations and customers (i.e., residential, commercial and industrial, and DER customers)
- 2. The number of outreach and involvement meetings **about specific ESMP infrastructure projects** with stakeholders, including EJCs, municipal leaders, community-based organizations, and customers (i.e., residential, commercial and industrial, and DER customers)
- 3. The number and category of requests made as part of stakeholder feedback on specific ESMP infrastructure projects, classified into visual mitigation, access accommodations, work hours, right-of-way maintenance, informational accommodations, engineering accommodations, and damage prevention, as well as the EDCs' response to these requests classified as under consideration, implemented, not accepted with reason, and other.*

* Additional descriptions

- Visual mitigation: shrubs/tree planting or relocating objects out of a specific line of sight.
- . Access accommodations: adjusting work zones to allow for continuity of access for school bus, elderly services, or regional transit.
- Work hours: adjusting work hours to accommodate traffic/pedestrian management or construction noise.
- Right-of-way maintenance: backfilling and repaying based on feedback from stakeholders, usually public way managers such as DPW or DOT.
- Informational accommodations: using local feedback to tailor outreach methods such as timing of meetings, translation of content into appropriate languages, and ADA access.
- Engineering accommodations: adjusting engineering design, to the extent practicable, to address stakeholder concerns.
- Damage prevention: identifying conditions prior to construction to ensure the integrity of adjacent utilities, businesses, residents, and structures.

¹² Jill Collins, Conservation Law Foundation, "Not all electrical outages are experienced equally: utilities must act now to prevent further environmental injustice," February 8, 2023. From https://www.clf.org/blog/not-all-electrical-outages-are-experienced-equally/, accessed October 3, 2023.

¹³ Walkey, John, and Paula Garcia, Commonwealth Magazine, "For environmental justice communities, tackling climate change can't wait," September 22, 2023. From https://commonwealthmagazine.org/environmental-justice-communities-tackling-climate-change-can't wait," September 22, 2023. From https://commonwealthmagazine.org/environment/for-environmental-justice-communities-tackling-climate-change-cant-wait/, accessed October 3, 2023.