STATE OF MAINE
PUBLIC UTILITIES COMMISSION

MAINE PUBLIC UTILITIES COMMISSION Proceeding to Identify Priorities for Grid Plan Filings Docket No. 2022-00322	**JOINT COMMENTS OF ACADIA CENTER, CONSERVATION LAW FOUNDATION, MAINE CLIMATE ACTION NOW, MAINE CONSERVATION VOTERS, NATURAL RESOURCES COUNCIL OF MAINE, SIERRA CLUB, AND THE UNION OF CONCERNED SCIENTISTS** January 31, 2024

Background

On November 1, 2022, the Public Utilities Commission ("Commission") initiated a Proceeding to Identify Priorities for Grid Planning Filings pursuant to LD 1959, An Act Regarding Utility Accountability and Grid Planning for Maine's Clean Energy Future, Public Law 2022, Chapter 702.[1] Acadia Center, Conservation Law Foundation, Maine Climate Action Now, Maine Conservation Voters, the Natural Resources Council of Maine, Sierra Club, and the Union of Concerned Scientists share a strong interest in utility planning as a vehicle for ensuring that investments in the transmission and distribution (T&D) infrastructure serve Maine state obligations to reduce greenhouse gas (GHG) emissions and achieve the climate change and clean energy requirements of Title 38, section 576-A and section 577, subsection 1, and of Title 35-A, section 3210, as cost effectively, quickly, and equitably as possible. To that effect, we have participated actively in stakeholder workshops and filed detailed comments in this case (Item Nos. 63 and 80) and the preceding case, the Commission-initiated Inquiry into the Process to Identify the Priorities for Grid Plan Filings, Docket No. 2022-00290 (Item Nos. 3, 4, and 9).

On November 13, 2023, in Docket No. 2022-00322, the Commission issued five staff memos, which it listed as Attachments A through E. On December 21, 2023, the Commission issued two additional memos, Attachments F and G. It requested that stakeholders who wish to file written feedback on these memos do so by January 31, 2024. At the January 12, 2024, workshop in this proceeding, staff announced that this would likely be the last opportunity for written comment prior to the Commission issuing its final planning directive to the utilities. We appreciate this opportunity to provide additional input and jointly offer the following comments in response to the staff memos, for the consideration of the Commission as well as other interested parties.

[1] Available at http://www.mainelegislature.org/legis/bills/display_ps.asp?ld=1959&PID=1456&snum=130.

Introduction

Jurisdictions around the country are adopting integrated grid planning in response to growing utility expenditure in distribution system infrastructure.[2] As Maine adopts policies to meet its climate requirements—including deploying hundreds of thousands of heat pumps and zero-emission vehicles and meeting new demand for electricity with clean, Maine-based renewable energy—investments in the distribution system are poised to grow sharply.

New analysis suggests that Maine will have to triple its distribution grid capacity to meet load growth under beneficial electrification over the next 25 years, unless it takes a concerted action to enhance grid flexibility.[3] Strategic planning for load flexibility can halve projected infrastructure costs by making more efficient use of existing grid infrastructure and distributing costs to the private sector, where customer-driven investments in clean, distributed energy resources can be designed to provide substantial benefits to the T&D system.[4]

Regulatory practices like integrated grid planning are also being used to provide for meaningful engagement between regulators, stakeholders, customers, third-party providers, and the public to help design more appropriate, least-cost, lower-risk solutions to meet state goals in a rapidly changing sector. A transparent planning process can bring accountability while centering the voices of historically overburdened and underserved populations in delivering solutions that advance equity, improve public health, *and* achieve our climate and clean energy goals.

We urge the Commission to view integrated grid planning as a critical tool for vetting, avoiding, and carefully staging utility investments, and to use the planning process to bring to light information and perspectives that can assist the Commission, in this and other proceedings, fulfill its essential purpose of ensuring safe, reasonable, and adequate service, at just and reasonable rates, while reducing greenhouse gas emissions.[5] With leadership from the Commission, integrated grid planning can help build the equitable, participatory, and affordable grid that Maine needs for a decarbonized future.

Select highlights of our recommendations are summarized as follows:

- The Commission should establish a technical advisory group to meet at least quarterly over the 18-month planning period to allow input to be incorporated into the planning

[2] Distribution system investments accounts for the largest and growing share of capital expenditure for investor-owned utilities nationwide, thirty-two percent in 2021, according to Edison Electric Institute, Industry Capital Expenditures with Functional Detail (June 2022), at https://www.eei.org/issues-and-policy/finance-and-tax#financialdata.

[3] Brattle on behalf of Governor's Energy Office, Maine Energy Plan, Pathways to 2040, p. 25, at https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/ME%20GEO%20Pathways%20-%20Stakeholder%20Meeting%203%20-%2016Nov2023.pdf.

[4] Ibid, pp 25-28; see also forthcoming updates from Brattle on the high load flexibility scenario, as presented for the Maine Climate Council Demand Management Workshop, January 19, 2024.

[5] https://legislature.maine.gov/statutes/35-A/title35-Asec101.html; https://legislature.maine.gov/statutes/35-A/title35-Asec103-A.html

work and analysis. The group should meet monthly at the beginning of the planning process as inputs and assumptions are finalized, and then less frequently as the process moves forward and stakeholders are brought together to review any results or outputs. External review by independent experts will help to identify potential gaps in the utilities' analysis, develop consensus, and enable greater transparency and independent vetting.

- The Commission should require the utilities to develop a rigorous framework to assess both positive and negative environmental and equity impacts of grid plans on environmental justice, low-income, and disadvantaged communities with quantifiable metrics to track and report progress.

- The Commission should require the utilities to perform a Benefit-Cost Analysis (BCA) as part of their planning efforts that fully accounts for relevant costs and benefits to aid in evaluating proposed solutions and alternative investments. The Commission should use the National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources (NSPM) to develop a distribution BCA that builds on existing methodologies in use by Maine's utilities, Efficiency Maine Trust, and others.[6]

- The Commission should elevate the shift from static snapshot to probabilistic time-series data and analysis in utility planning and operations to a top-tier priority for the 10-year planning horizon.

Our more detailed comments and recommendations appear below, organized in response to staff memos, Attachments A through G.

Grid Plan Priorities (Attachment G)

In Appendix G, the Commission requests comments on three proposed priorities for the utilities' 10-year plans. As a general comment, we encourage the Commission to provide a greater degree of specificity and ambition in the articulation of these priorities.

As Priority 1, the Commission suggests: Reliability and resilience improvements while keeping costs affordable and facilitating the achievement of the State's climate action and greenhouse gas emission reduction policies. We find this priority to align too closely with the fundamental obligations of the regulated electric utilities to offer additional guidance in the present context. As proposed, the first priority essentially reiterates the statutory definition of a grid plan from section 3147 subsection 1.C, which states:

> "Grid plan" means a 10-year integrated grid plan developed in accordance with this section designed to improve system reliability and resiliency and enable the cost-effective achievement of the greenhouse gas reduction obligations and climate policies pursuant to Title 38, section 576-A and section 577, subsection 1.[7]

[6] https://www.nationalenergyscreeningproject.org/national-standard-practice-manual/
[7] https://legislature.maine.gov/statutes/35-A/title35-Asec3147.html

For these reasons, we recommend Priority 1 be more specific and actionable, against which utilities should be held accountable over the course of the 10-year planning period. The priority should focus on *how* the utilities should achieve those competing objectives. For example:

> Control costs to ratepayers while balancing reliability, resilience, and GHG reduction requirements through:
>
> 1) Improved deployment of non-wires alternatives (NWAs) by implementing process efficiencies, standardizing data quality and filing requirements, and improving transparency and participation. (This could be measured by number of completed projects, ratepayer savings, number of third-party participants in selected NWA projects, etc.)
> 2) Deriving system benefits from the utilization of distributed energy resources (DERs) or third-party and customer-sited resources (in the form of avoided distribution system upgrades, reliability benefits, avoided transmission costs, shifted loads, etc.).
> 3) Load shifting through rates to delay, defray, or reduce investments in utility infrastructure. (This could be measured by peak reduction, load shifted and shaped, etc.)
> 4) Other areas of focus for the next 5- and 10-year periods.

Embedded in Priority 1 is the issue of removing barriers to non-wires alternatives. In one of the recent technical workshops in this docket, questions were raised about what exactly the barriers to NWA deployment are. At a high level, barriers exist as a result of the existing incentives that utilities have when making investment decisions. Under a Cost-of-Service Regulation framework, utilities earn relatively high rates of return on traditional capital expenditures ("CapEx") such as poles, wires, and substations. This creates a financial incentive to propose CapEx investments in long-term plans, rather than non-wires alternatives (such as battery storage, demand response, and distributed generation, among other solutions) because NWA are traditionally defined as an operating expense (Op-Ex), which may not be as financially lucrative for utilities given that Op-Ex investments are passed through to ratepayers without an added return for the utility.

This dynamic was addressed in part by the Maine Legislature's 2019 decision to create an NWA Coordinator role at the Office of the Public Advocate (OPA). While this process has made some progress in advancing NWA, several key challenges have slowed more meaningful change. For example, data requests from the OPA to the utilities have only resulted in outdated and insufficient information, leading to an inability to fairly consider NWA on a level playing field. The utility's integrated grid plan should help to make NWA truly business-as-usual for utilities, rather than an add-on once traditional investments have already been considered. This is a theme that reoccurs throughout our comments here and in previous filings.

Additionally, Priority 2 appears to be a means rather than an end. We recommend that the Commission provide more specificity in terms of the ultimate goals that improved data quality will support, e.g., enabling accelerated deployment of non-wires alternatives. "Maximize its use

in distribution system planning" and "leverage investments in Advanced Metering Infrastructure" (AMI) are also unclear and would benefit from added detail about how AMI data should be leveraged.

As a sub-bullet under Priority 2 is listed the "move toward time-series planning models." We recommend the Commission elevate this issue as a stand-alone priority to reflect the importance of shifting to time-series data and analysis as a foundational step toward creating the flexible and participatory grid of the future.

Integrated distribution system planning requires evaluation of many contingencies and complexities that conventional planning of a one-way power system did not require. Being able to characterize, communicate, predict, and manage specific T&D constraints under increasingly dynamic grid conditions (due to growth in DERs) will help us solve many of the challenges that we have identified as priorities throughout the stakeholder process. Challenges such as reliability, resilience, cost control, interconnection, NWA, demand flexibility, DER utilization, and equity-centered grid solutions, will all be better served by having a more granular understanding of dynamic conditions across the system and internalizing that information into utility practices.

Recognizing the need for enhanced visibility, Maine's utilities are investing in hardware upgrades like supervisory control and data acquisition or SCADA systems. It is what the utilities do with the data that flows from these investments that will determine whether or how quickly those investments will serve our goal of creating a clean, affordable, flexible grid.

Throughout these stakeholder meetings, there has been general consensus that a shift from static snapshots to probabilistic time-series analysis will be a necessary evolution in distribution system operations and planning. Where there has been less consensus, and less clarity, is how and when this shift should happen.[8] This is where the Commission's oversight and leadership could be invaluable, particularly in the context of the integrated grid planning process.

By making a shift to time-series analysis a top-tier priority for the current planning iteration, the Commission could help force a difficult issue and require the utilities to begin to develop a roadmap to guide this complex transition in planning and operations. The Commission should require the utilities to address thorny issues like how planning standards need to change, how compliance with ISO standards could be maintained, necessary software and hardware upgrades, staff training, changes to the operational center, changes to interconnection practices, etc. We recommend this be a top priority for this grid plan.

Regarding Priority 3, we support comments made by stakeholders during the workshop on January 12, 2024, to the effect that while utility planning for demand flexibility is crucial — and we strongly support its prioritization – the current framing of the issue as characterized under Priority 3 does not capture the roles currently played by Maine's utilities. Additionally, rate design options, while squarely in the domain of the utilities, are not limited to promoting adoption of EVs, but rather beneficial electrification more broadly.

[8] See for example discussion in the April 25, 2023, stakeholder workshop.

Grid Plan Outline (Attachment A)

In its November 13, 2023, filing, the Commission requested comment on a staff outline, which "summarizes content that Staff would expect to see included in the utilities' grid plans." The outline appears below in full, with proposed amendments underlined in red.

Beyond our suggestions below, we would also remind the Commission that these filing requirements represent a valuable opportunity to get data and information into the public record and request clarification on any aspect of utility business, assets and operations that may serve the Commission in this and other cases. It may be helpful to survey staff currently assigned to other cases on how these filing requirements could support their work in related proceedings, such as upcoming rate cases, minimum service standards metrics pertaining to DER interconnection under section 301,[9] non-wires alternatives, or other long-term initiatives, for instance.

1. Vision for the Evolving Grid
    a. Discussion of balancing and prioritization of reliability, cost-effectiveness, and clean energy requirements as identified in statute (e.g. Public Law 2021, ch. 702) and Commission decisions (e.g. 2022-00322 Order)
    b. Roles of third-party stakeholders in Grid Needs Assessment and Grid Plan, including the stakeholder engagement plan
    c. Role of demand flexibility in reducing costs and emissions
    d. Technology and policy deployment strategies necessary to meet objectives during the planning horizon
    e. Efforts planned or currently underway regarding regulatory and policy changes such as:
        i. Utility role in DER aggregation mechanisms (FERC Order 2222)
        ii. Generator interconnection reforms (FERC Order 2023)
        iii. Other recent FERC or MPUC orders
        iv. Recent federal or state laws (e.g.. IRA)
    f. Regional cost-sharing assessment
    g. Description of how the proposed plan will meet State energy policy goals
    h. Description of how the proposed plan aligns with transmission system planning processes
2. System Overview
    a. Transmission and Distribution System Data
        i. Total distribution substation capacity in kVA
        ii. Total distribution transformer capacity in kVA
        iii. Total miles of overhead distribution wire

[9] https://legislature.maine.gov/statutes/35-A/title35-Asec301.html

iv. Total miles of underground distribution wire
v. Transmission and Distribution Asset Health Reports
vi. Total number of distribution premises
vii. Number of customer meters with advanced meter infrastructure (AMI), those without AMI, planned AMI investments, and overview of functionality available
viii. Existing and planned modeling software
ix. Percentage of substations and feeders with monitoring and control capabilities and planned additions. Include a description of monitoring and control capabilities and any appropriate differences in functionality or data availability where appropriate.
x. A summary of existing system visibility and measurement (feeder-level and time interval) and planned visibility improvements; include information on percentage of system with each level of visibility (e.g., max/min, daytime/nighttime, monthly/daily reads, automated/manual)
xi. SAIDI/SAIFI data for the past five years at the system level

b. Financial Data
   i. Historical distribution and transmission system spending for the past ~~5~~ 10 years [the grid plan is defined in statute as a 10-year plan[10]], broken down by year or years and by category. For each category, provide a description of what items and investments are included
   ii. Projected distribution and transmission system spending for ~~5~~ 10 years into the future by year or years for the same categories [the grid plan is defined in statute as a 10-year plan[11]]
   iii. Planned distribution and transmission capital projects, including drivers for the project, timeline for improvement, and summary of anticipated changes in historic spending
   iv. Description of preliminary cost recovery plans and how regulatory approval will be sought

c. DER Deployment
   i. Current DER deployment by type, size, and geographic dispersion
   ii. Total number of projects and nameplate kW of DER generation system which completed interconnection to the system in each of the prior 5 years, broken down by DER technology type (e.g., solar, combined solar/storage, storage, etc.)
   iii. Total number and nameplate kW of queued DER systems as of time of filing, broken down by DER technology type (e.g., solar, combined solar/storage, storage, etc.)

[10] Subsection 1.C at https://legislature.maine.gov/statutes/35-A/title35-Asec3147.html
[11] Ibid.

iv. Total number of electric vehicles in service territory (known or estimated)
v. Total number and capacity of public electric vehicle charging stations (known or estimated)
vi. Number of units and megawatt (MW) or megawatt-hour (MWh) ratings of battery storage

3. Forecasting and Scenario Development
    a. Baseline Planning Scenario
        i. Load forecast based on the 2022 CELT, including DG, transport electrification, and heating electrification forecasts, disaggregated by utility to the distribution circuit level
        ii. Supply forecast based on the 2023 CELT, including planned retirements, new resources with capacity supply obligations, and existing generation
    b. High DER Penetration & Electrification Planning Scenario
        i. Load forecast based on the 2023 CELT, including distributed generation, transport electrification, and heating electrification forecasts, disaggregated by utility to the distribution circuit level
        ii. Supply forecast based on the 2023 CELT, including planned retirements, new resources with capacity supply obligations, and existing generation; augmented with resources to be procured through state RFPs that are not represented in the CELT forecast
4. System Modeling and Needs Identification
    a. Distribution planning criteria and current practices for needs identification (e.g., reliability/cost analysis)
        i. Alignment with minimum service quality standards set under MPUC Ch. 320 rules and 35-A M.R.S. § 1303(2)
        ii. Alignment with any other service quality targets (e.g., rate case mechanisms, internal goals, benchmarking levels)
    b. ~~Any~~ Critical review of current practices and proposed changes for improvement
    c. Summary of distribution and transmission system needs
        i. Analysis of feeder and substation-level deficiencies/grid needs given the deployment rates of DER and beneficial electrification (BE) consistent with Section 3 of the outline
        ii. Preliminary assessment of potential solutions to grid needs, including rate design, non-wires alternatives, load management, flexible interconnection, and planned capital investments
    d. Climate Resilience Plan results
    e. Time-series modeling progress and utilization
    f. Data availability to public/third parties
5. Solutions Identification and Evaluation

a. Capital project evaluation and alternative comparison framework, including benefits and risks considered, quantification of value (reliability, environmental, efficiency, equity, etc.), resource cost and capabilities assumptions
    i. Scorecard, benefit-cost analysis, and/or planning engineering analysis
    ii. Framework design and implementation details subject to discussions by stakeholders in Solutions Evaluation Working Group
b. Application of the capital project evaluation and alternative comparison framework to major projects
c. NWA
    i. Description of how this step and outputs interact with NWA planning requirements and coordination process with Efficiency Maine Trust (EMT)
    ii. Implementation status of the October 19, 2022, Memorandum of Understanding between the Office of the Public Advocate and CMP[12]
    iii. Critical assessment of current processes, including ways to harmonize NWA and integrated grid planning to improve their effectiveness for identifying cost savings to ratepayers through alternatives to utility capital projects
d. Reconciliation of future needs across multiple potential scenarios
e. Impact of EMT programs or other programs on capital investment needs, including collaborative efforts with EMT to identify possible impacts beyond EMT triennial plan period
f. Equity and environmental justice impacts assessment framework

6. Technology, Policy, Integration, and Systems Investments
    a. Grid modernization roadmap implementation status
    b. Demand flexibility plan
        i. Analysis of available and emerging technologies, policies, rates, and practices necessary to enable load management and flexibility.
        ii. Description of the utility's plans to deploy demand flexibility technology, policy, prices, and practices to use existing infrastructure more efficiently
        iii. Description of the utility's plans to deploy demand flexibility technology, policy, prices, and practices to utilize third-party investments to the benefit of the T&D system more effectively
    c. ADMS/DERMS vision, plans, evaluation, and compatibility or synergies with third-party entities such as EMT
    d. Technology investments related to distribution planning and operations
    e. Feasibility review of Grid-Enhancing Technologies (GETs) on transmission and distribution systems, including regional cost sharing implications
    f. Rate design

[12] Item No. 19, Docket No. 2020-00125.

i. Assessment of load shifting and load shaping potential
ii. Critical review of current demand charges across classes and rate options, including impacts on State climate and clean energy goals

g. DER interconnection
    i. Technical interconnection requirements and screening process
    ii. Hosting capacity (generation/load) process and results: Analysis of DER and load hosting capacity, including locational benefits of DER and areas of existing or potential system congestion
h. Application processing and queue management (load and generation)
i. System integration and data management
j. Investment plans over 10-year planning period
a. Investment and operational plans over a 2-5-year planning period [pursuant to the statutory requirement that specifies plans must include "An identification of cost-effective near-term grid investments and operations needed to achieve the priorities identified in subsection 2"[13]]

7. Environmental, Equity, and Environmental Justice
    a. Describe the environmental justice and equity impact assessment framework, including quantifiable metrics and intended use and application
    b. Report quantified metrics
    c. Describe how the environmental, equity, and environmental justice impacts were taken into consideration and weighted against other priorities in the planning process
    d. Include a list of all outreach or events where the environmental, equity, and environmental justice impacts were addressed, along with specific examples of how this impacted the grid plan
    e. Include a list of any required follow up, enforcement, or additional planned outreach that addresses the environmental, equity, and environmental justice impacts of the grid plan
8. Pilot Projects and Technology and Policy Development
    a. Roadmap for shifting to probabilistic time-series data and analysis
    b. Existing pilot projects status and findings
    c. Emerging rate design and/or demand response concepts being considered for pilot development
    d. Actual solution performance vs. assumptions
    e. Emerging technologies or applications being explored
    f. Emerging needs likely to require new tools or solutions
    g. Timeline and staging/dependencies for implementing new technologies
9. Assessment
    a. Proposed metrics to measure grid plan success and solutions performance

[13] Subsection 4.D.6 at https://legislature.maine.gov/statutes/35-A/title35-Asec3147.html.

against (at end of planning cycle)

i. Metrics that track integrated grid plan priorities
ii. Metrics as developed for the environmental justice and equity impact assessment framework
iii. Performance-based metrics used in implementing Minimum Service Standards pursuant to Section 301 and other application of performance-based regulation
iv. DER and load forecast vs. actuals
v. Actual solution performance vs. assumptions
vi. Lessons learned
vii. Proposed changes to future planning assumptions and methodologies

Stakeholder Engagement (Attachment F)

We recommend that the Commission consider two primary tracks for stakeholder engagement, both during and after the 18-month planning period. First, public education sessions will be an important venue for sharing information. Second, the Commission should require the convening of a technical advisory group to meet regularly throughout the planning process.

Public education sessions should occur at regular intervals to create a venue for the utilities to share updates on the work and to communicate what integrated grid planning is and why it is important for Maine and its residents.[14] These sessions should allow the general public to provide input on their priorities for the plans and should follow best practices to enable full accessibility and participation. Moreover, both the utilities and the Commission should consider, at minimum, creating a website to share resources on integrated grid planning.[15] The utilities and the Commission should also consider a process by which to respond to public input.

A technical advisory group would consist of industry expert volunteers who can provide independent peer review of planning methodologies, tools, and modeling results throughout the planning process. The Commission could identify particular entities or backgrounds to be included in an advisory group to ensure that a sufficiently broad set of perspectives is represented, for example: Efficiency Maine Trust; the Governor's Energy Office; Office of the Public Advocate, the Non-Wires Alternatives Coordinator; city representatives; representatives of various industry and interest groups, e.g., demand response, electric vehicles, energy storage, solar developers, industrial consumers, and environmental advocacy groups; as well as research organizations with engineering expertise in transmission and distribution planning.

[14] See the Hawaiian Electric's materials on the public meetings it held during Hawaii's Integrated Grid Planning process. *Hawaii Powered: Integrated Grid Plan,* May 2023, Appendix A. https://hawaiipowered.com/igpreport/IGP-Report_Final.pdf

[15] See, for example, the Hawaii Public Utilities Commission's IGP website https://puc.hawaii.gov/energy/integrated-grid-planning-docket-for-hawaiian-electric-2018-0165/) and Hawaiian Electric's IGP website (https://www.hawaiianelectric.com/clean-energy-hawaii/integrated-grid-planning).

A technical advisory group should meet at regular intervals on a particular topic to provide input in a more detailed manner than may be possible in an educational forum for the general public—and in a more thorough manner than has been possible during the initial process with stakeholders to develop the planning directive to the utilities. We recommend technical advisory sessions meet monthly at the beginning of the planning process as inputs and assumptions are finalized, and then less frequently (e.g., quarterly) as the process moves forward and stakeholders are brought together to review any results or outputs. Topics for discussion, such as grid needs assessment or solutions development, would be scheduled at relevant decision points to allow input to be incorporated into the planning work and analysis. Independent experts can help to identify potential gaps in the utilities' analysis, develop consensus, and enable greater transparency and independent vetting. By enabling information exchange and dialogue during the 18-month planning process, this forum would also make the 60-day public review of the grid plans easier for stakeholders.

The Hawaii Integrated Grid Planning proceeding provides a useful model. Its Technical Advisory Panel met approximately monthly between September 2018 and February 2023 as it aligned with planning milestones and updates in order to review and consider a range of topics, including assumptions related to distributed energy resource forecasts, load and peak forecasts, reliability planning criteria, grid needs assessments, and solution evaluation and optimization, among other issues.

In order to make the technical advisory group effective, group members should receive meeting materials with sufficient time beforehand to review and provide input during the meeting. At each subsequent meeting, the utilities should clearly demonstrate how feedback was or was not incorporated into their work (and why). Although the technical advisory group could be facilitated by the utilities, the Commission should set clear protocols for participation.

Our recommendation of a technical advisory group is consistent with those suggested by the Governor's Energy Office (GEO) in its September 1, 2023, filing. In its comments, GEO stated: "During the 18-month period, an advisory group should be convened at regular intervals, perhaps once a month, to discuss the evolving grid plan with utilities, to ensure stakeholder priorities are being incorporated, and to share information out to the public in plain language and accessible formats. The advisory group should have authority to elevate concerns to the Commission for resolution. The advisory group should include an independent technical expert, who should also review all final models that inform the grid plan."[16]

The integrated grid planning process is intended to enable a more accessible and transparent planning process. As LD 1959 states: "[A] covered utility shall ensure to the greatest extent practicable that any information related to the filing is provided in a forum accessible to interested parties and all relevant data and distribution planning modeling tools are available to interested parties. Nothing in this section prohibits the commission from holding additional proceedings if the commission determines it is necessary to meet the purposes of this section." (Sec. 8. 35-A MRSA §3147, paragraph 5). By requiring public education forums and creating a

[16] Reply to August 1 Procedural Order Request for Information and Comment of the Maine Governor's Energy Office, September 1, 2023, page 4.

venue for independent review, the Commission can help ensure that the planning process is truly transparent.

Specific Considerations for Tribal Engagement

There are numerous recent developments that make the first iteration of Versant's grid plan an opportune time for concerted tribal engagement on utility infrastructure planning. A 2023 U.S. Department of Energy (DOE) prize is supporting Maine tribes to create a Solar Steering Committee, including the forthcoming establishment of a Wabanaki Sustainable Energy Coordinator position. Additionally, some of the tribes in Maine have received federal funding from the Grid Resilience State and Tribal Formula Grants.[17] Coordination between the utilities and tribes on grid infrastructure upgrades will support success in these efforts.

Versant, in coordination with the PUC's Tribal Liaison and Solar Ombudsman, should work with tribal representatives to develop specific plans and requirements for outreach and related training events. Outreach workshops could be organized quarterly or biennially, geared toward building capacity among tribal representatives, including: issue level setting, participation in relevant proceedings before the PUC, removing barriers to access to utility and government programs (e.g., programs of the Efficiency Maine Trust, Maine Housing, Public Utilities Commission, Office of Public Advocate, Governor's Energy Office, etc.), and other areas of interest as identified by participants. This necessarily should include the use of intervenor funding through the PUC to financially compensate tribal representatives for time, participation, consultant fees, and other costs to participation.[18]

In its guidance order to utilities, the PUC should issue detailed requirements for tribal stakeholder engagement for Versant to undertake both during the 18-month plan development phase and the implementation phase once the plans have been approved. The utility should be required to submit meeting materials and notes and demonstrate how grid plan outcomes were affected by the input received during community meetings. The guidance should require all related activities be reported in Versant's environmental justice and equity assessment, pursuant to statutory requirements.

Environmental, Equity and Environmental Justice Impacts Assessment (Attachment B)

Maines's grid planning law explicitly requires utilities to conduct "An assessment of the environmental, equity and environmental justice impacts of grid plans," as one of at least six elements to include in the plans. This requirement is consistent with P.L. 2022 ch. 735 (LD 2018), that requires the PUC and the Department of Environmental Protection (DEP) to incorporate equity and climate impacts into State agency decision making and prioritizes funding for environmental justice and frontline communities to intervene or participate in PUC and DEP proceedings.

[17] https://www.energy.gov/articles/biden-harris-administration-announces-34-million-states-and-tribal-nations-strengthen.

[18] Eligibility Guidelines from Chapter 840, https://www.maine.gov/mpuc/about/intervenor-funding.

To effectively carry out this requirement, the Commission should require the utilities to develop a framework to assess both positive and negative environmental and equity impacts of grid plans on environmental justice, low-income, and disadvantaged communities with quantifiable metrics to track and report progress.[19] This is necessary to ensure transparency and accountability in utility grid plans. Key elements of the framework should include: 1) identifying and defining what specific benefits and costs are being created by the grid plan, 2) quantifying how much benefits are resulting from grid plan investments, and 3) tracking and reporting who is receiving the benefits to evaluate progress.

While quantifying how much money is flowing to disadvantaged communities is an important metric, it does not go far enough. It is also critical to understand and track the benefits that flow from grid investments. Research from the Pacific Northwest National Laboratory on energy equity discusses a range of indicators that illustrate and support the need for a broader consideration for equity outcomes in utility grid plans:

> "To enhance the process of advancing an equitable energy future requires understanding and expanding the available measurement mechanisms. Indicators such as income, age, race, ethnicity, geographic location, energy access, energy use intensity, energy affordability, access to renewable energy, incentive accessibility, access to public services, community engagement, etc. can be used to represent the relevant equity outcomes for collecting baseline equity measurements."[20]

Talia Lanckton and Subin DeVar with the Initiative for Energy Justice also describe this important distinction between "how much" and "how well":[21]

> "How much" a utility carried out an action may be measured through metrics such as the amount of people reached or amount of money spent on a certain project or program, while "how well" an action was completed can function as a way of linking the utility actions and equity indicators by identifying which equity outcomes a specific action intends to improve and measuring the actual change observed as a result of the action.

The Commission needs to ensure that grid plans allow stakeholders to determine "how well" CMP's and Versant's investments are working, and not just "how much" they are spending.

There are several examples from federal- and state-level initiatives, policies, and programs the Commission should consider in developing a framework with quantifiable metrics for utility grid plans in Maine. The Maine Climate Council Equity Subcommittee

[19] The Commission has defined "environmental justice population" in Chapter 840 of its rules concerning "Intervenor and Participant Funding."
[20] Pacific Northwest National Lab, 2021, Review of Energy Equity Metrics. Available at: https://www.pnnl.gov/main/publications/external/technical_reports/PNNL-32179.pdf at 16.
[21] Initiative for Energy Justice, 2021, Justice in 100 Metrics. Available at: https://iejusa.org/wpcontent/uploads/2021/03/Justice-in-100-Metrics-2021.pdf at 5.

recommendations also provide some useful examples of quantifiable metrics that the utilities could adopt or adapt for use in their grid plans.[22]

Federal Examples

At the federal level, both the White House and the Department of Energy (DOE) have issued guidance with specific metrics to measure impacts of meeting the Justice 40 initiative, established in 2021 by Executive Order 14008.[23] The overall goal of this initiative is to ensure that at least 40 percent of the benefits of certain federal investments are delivered to disadvantaged communities. A range of investment categories are included, such as climate change, clean energy, and energy efficiency. Interim implementation guidance from the White House Office of Management and Budget (OMB)[24] directed federal agencies managing Justice40 programs to: (1) identify the benefits of Justice40 programs, (2) determine how those programs distribute benefits, and (3) calculate and report on how they are reaching the 40 percent goal set by the Justice40 initiative.

OMB's interim guidance also establishes the need to develop benefit methodologies that determine what constitutes a benefit from a program while recognizing that benefits may be different across programs. The guidance requires federal agencies to describe the benefits that result from selected programs and details how agencies must report progress to ensure transparency and accountability. In particular, federal agencies must report on the:

- Benefit methodology.
- Target benefits of a program, as a list of the types of benefits each program is set to deliver.
- Share of benefits directed to disadvantaged communities.
- Share of benefits not directed to disadvantaged communities.
- Share of benefits with unknown direction, including an explanation of why the direction of the benefits cannot be determined.
- Geographical distribution of benefits and program funding at the census block level. For programs that do not target benefits geographically, data must indicate the characteristics of the communities receiving those benefits.
- Amount of program funding received by disadvantaged communities.

Following the release of OMB's interim guidance, federal agencies are now implementing their own frameworks to ensure compliance and that program benefits reach disadvantaged communities. For instance, the DOE has issued guidance entitled "Creating a

[22] https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/MCC_EquitySubcommitteeInterimReport_Feb2022.pdf

[23] The White House, 2021, Executive Order on Tackling the Climate Crisis at Home and Abroad. Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-theclimate-crisis-at-home-and-abroad/

[24] The White House, 2021, Executive Office of The President Office of Management and Budget Interim Implementation Guidance for the Justice40 Initiative. Available at: https://www.whitehouse.gov/wpcontent/uploads/2021/07/M-21-28.pdf

Justice40 Initiative Plan"[25] to guide applicants when proposing projects to be considered under the Justice40 requirement. DOE's guidance document includes information on how to conduct an Energy and Environmental Justice Assessment, which must identify a project's positive (benefits), neutral (uncertain), or negative (harm) impacts and describe how these impacts are distributed. The guidance provides information on how to develop a Justice40 Implementation Strategy, which must outline actions to maximize benefits and minimize harm and include a plan to measure, track, and report project impacts.

As part of DOE's efforts to support implementation of Justice40, it identified a group of eight Justice40-relevant benefits and possible benefit metrics to consider in project applications for funding, outlined in Table 1.[26]

Table 1. DOE Justice40 benefits and benefit metrics and units.[27]

Benefits	Metrics and units
• Not specified	• Dollars spent by DOE Covered Programs in disadvantaged communities
• Decreased energy burden	• Dollars saved in energy expenditures due to technology adoption in disadvantaged communities • Energy saved or reduction in fuel by disadvantaged communities
• Decreased environmental exposure and burdens	• Avoided air pollutants (CO2 equivalents, NOx, SO2, and/or PM2.5) in disadvantaged communities • Remediation impacts on surface water, groundwater, and soil in disadvantaged communities • Reduction of legacy contaminated waste in disadvantaged communities
• Increased parity in clean energy technology access and adoption	• Clean energy resource [MWh] adopted in disadvantaged communities
• Increased access to low-cost capital	• Dollars spent by source and purpose and location • Leverage ratio of private to public dollars • Loan performance impact through dollar value of current loans and of delinquent loans (30-day or 90-day) and/or number of loans (30-day delinquent or 90-day default)
• Increased clean energy enterprise creation and	• Number of contracts and/or dollar value awarded to businesses that are principally owned by women, minorities, disabled veterans, and/or LGBTQ persons

[25] U.S. Department of Energy, 2022, Creating a Justice40 Initiative Plan. Available at: https://www.energy.gov/sites/default/files/2022-08/Creating%20a%20Justice40%20Initiative%20Plan_8.2.22.pdf
[26] U.S. Department of Energy, 2023, Justice40 Initiative Office of Economic Impact and Diversity. Available at: https://www.energy.gov/diversity/justice40-initiative
[27] U.S. Department of Energy, 2022, General Guidance for Justice40 Implementation. Available at: https://www.energy.gov/sites/default/files/2022-07/Final%20DOE%20Justice40%20General%20Guidance%20072522.pdf

contracting (Minority Business Enterprise/ Disadvantaged Business Enterprise)	
• Increased clean energy jobs, job pipeline, and job training for individuals	• Dollars spent and/or number of participants from disadvantaged communities in job training programs, apprenticeship programs, STEM education, tuition, scholarships, and recruitment. • Number of hires from disadvantaged communities resulting from DOE job trainings • Number of jobs created for disadvantaged communities because of DOE program • Number of and/or dollar value of partnerships, contracts, or training with minority serving institutions (MSIs)
• Increased energy resiliency	• Increase in community resilience hubs in disadvantaged communities • Number and size (MWh) of community resilience infrastructure deployed in disadvantaged communities (e.g., Distributed solar plus storage, utility scale, DERs, microgrids)
• Increased energy democracy	• Number of stakeholder events, participants, and/or dollars spent to engage with organizations and residents of disadvantaged communities, including participation and notification of how input was used • Number of tools, training for datasets/tools, people trained and/or hours dedicated to dataset/tool and technical assistance and knowledge transfer efforts to disadvantaged communities • Dollars spent or number of hours spent on technical assistance for disadvantaged communities • Dollar value and number of clean energy assets owned by disadvantaged communities' members

The DOE further clarifies that the initial list of benefits may not cover all existing benefits and that a single project may not deliver all these benefits. Additionally, the guidance calls for all benefits to be quantifiable, measurable, and trackable, as much as possible.

This guidance is relevant to Maine. Efficiency Maine Trust, GEO, DOT, DOH, and other state agencies are receiving and applying for funding from federal agencies, such as DOE, EPA, DOT, the Department of Health and Human Services (DHHS), that are responsible for implementing federal programs included in the Inflation Reduction Act (IRA), the Infrastructure Jobs and Investment Act, and other policies that are subject to Justice40 guidance. These programs will directly impact low-income customers and disadvantaged communities in CMP's and Versant's service territories through incentives, funding, and financing programs for energy efficiency, solar, storage, weatherization, heating assistance, heat pumps, electric vehicles and charging infrastructure, and other technologies. Since the costs, benefits, and outcomes from these programs and investments will be tracked and reported by state agencies and Efficiency

Maine Trust, close coordination between these entities and the utilities will be required to put this information into a format that is useful for including in grid plans.

State Examples

Several states also have frameworks in place to quantify, track, and assess the environmental, equity and environmental justice impacts of utility grid plans that could be useful for developing a framework for utility grid plans in Maine. We highlight examples from California, Illinois, New York, Oregon, and Washington in Exhibit A. Unlike Maine, some of these states have state-specific environmental justice definitions and laws specifying the share of investments and benefits that should flow to disadvantaged communities. Some of these states have also developed their own screening tools based on these definitions.

Maine passed legislation last year to create a state specific environmental justice definition (LD 1621) that was placed on the special appropriations table and carried over to this year. It requires DEP to develop and implement procedures to ensure that environmental justice communities have full and complete opportunity to engage in environmental permitting, licensing, and enforcement. As part of this process, DEP will consider adopting environmental justice definitions and practices that reflect Maine's unique situations and communities to ensure that we pursue and achieve our environmental and climate requirements in an equitable manner. While the legislation pertains to DEP, the Commission should take note of DEP's implementation of the law, in part to ensure a more consistent framework for integrating environmental justice considerations into agency decision-making statewide.

In addition to testifying in support of this legislation, most of our groups also submitted joint comments to the Commission in Docket No. 2022-00299 to prioritize funding for environmental justice and frontline communities to intervene or participate in Commission proceedings.[28] Based on analysis by the Conservation Law Foundation, we laid out four possible state-specific definitions of environmental justice populations for the Commission to consider in our joint comments using criteria for income, race, and English proficiency that would cover an estimated 32 percent to 57 percent of Maine's population. We expressed a preference for the more inclusive definitions that captured either 52 percent or 57 percent. We also recommended that the Commission convene a stakeholder process to discuss these possible definitions and attempt to gain broad support for an EJ population definition.

While the Commission did not ultimately adopt our recommendation, this information will be useful for future discussions in Maine related to the implementation of LD 1621. Until a decision is made about a DEP-specific definition of environmental justice populations, and about whether that definition will be adopted and applicable more broadly, including at the Commission, utilities could use the federal Justice40 definition and federal screening tools such

[28] Joint Supplemental Comments of Conservation Law Foundation, Union of Concerned Scientists, Natural Resources Council of Maine, Acadia Center, Maine Conservation Voters, Maine Climate Action Now, and Slingshot. Amendments to Intervenor and Participant Funding Rule (Chapter 840), Maine Public Utilities Commission Docket No. 2022-00299, November 21, 2022, https://mpuc-cms.maine.gov/CQM.Public.WebUI/Common/ViewDoc.aspx?DocRefId={0DDF9B3A-9F16-47A0-B1C5-E1871356F2B8}&DocExt=pdf&DocName={0DDF9B3A-9F16-47A0-B1C5-E1871356F2B8}.pdf.

as EPA's EJ Screen environmental justice mapping and screening tool or the White House Council on Environmental Equity Climate and Economic Justice Screening Tool to assess the geographic distribution of impacts in their service territories. We do not believe a state-specific definition will conflict with the federal definition and Justice40 initiative goal. This federal program effectively serves as a floor that states can build on. A state-specific definition will allow Maine to target supplemental funding for populations not covered by the federal definition.

Benefits and Metrics

We recommend that the Commission consider the experience of the federal Justice40 Initiative and resources from other states with equity requirements to develop a framework with quantifiable metrics for CMP and Versant to include in their grid plans. The framework should lay out *how* it will ensure transparency and accountability in meeting Maine's requirement for utilities to assess the environmental, equity, and environmental justice impacts in their grid plans.

- To ensure *transparency* this framework should include, at a minimum:
    - The specific *benefits* it will focus on.
    - The *investments, projects, initiatives, and other capital and operational expenditures* that are linked to creating *benefits* above.
    - The method used to measure benefits being created.
    - The method to track who receives the benefits, to adequately measure benefits delivered to disadvantaged and non-disadvantaged communities.
    - The process to *report* regularly on progress.
- To ensure *accountability* this framework should include, at a minimum:
    - The process CMP and Versant will implement to *adjust* their grid plans and *build on best case practices* and *mitigate any limitations*, as needed to ensure it delivers benefits to disadvantaged communities.

We further recommend the utilities include, at a minimum, the following benefits and metrics in their grid plans:

- **Amount of funding and investments** in energy efficiency, weatherization, solar, storage, heat pumps, EVs, other DERs, and grid infrastructure made in disadvantaged communities compared to non-disadvantaged communities.
- **Decreased energy burden:** this could include reductions in energy expenditures in disadvantaged communities resulting from investments in these technologies and from heating assistance programs.
- **Decreased environmental burden:** this could include reductions in carbon dioxide emissions and other air pollutants from reducing fossil fuel use from investments in these technologies. Utilities could also quantify the dollar value of reducing these emissions using the federal social cost of carbon or allowance prices from the Regional Greenhouse Gas Initiative (RGGI) and public health benefits using models like EPA's Co-Benefits Risk Assessment (COBRA) model.
- **Increased reliability and resiliency:** this could include utility investments in hardening the grid and the number, size (MWh), and dollars invested in community resilience

infrastructure deployed in disadvantaged communities (e.g., distributed solar plus storage, microgrids, and NWAs) that result in a reduction in the duration and number of outages in disadvantaged communities. This could be measured using the System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) at the census track level. In addition, utilities could quantify the dollar value of avoided outages using tools like the National Renewable Energy Laboratory's Renewable Energy Integration & Optimization (REopt) model.[29] Utilities could also measure the reduction in peak demand through demand response programs.

- **Geographic distribution of these benefits and funding at the census block level.** To make the benefits and metrics meaningful to disadvantaged communities, utilities should quantify the impacts at the census block level within their service territories.
- **Improved procedural equity:** utilities should also document and quantify improvements in procedural equity. As proposed in DOE's Justice40 guidance, this could include the number of stakeholder events, participants, and/or dollars spent to engage with organizations and residents of disadvantaged communities, including participation and notification of how input was used. It could also include dollars spent or number of hours spent on technical assistance for disadvantaged communities.

We also recommend that the Commission or utilities conduct a stakeholder engagement process to get input on the metrics and methodology from low-income, environmental justice, and disadvantaged communities early on in the process of developing grid plans. In addition, we would recommend having them, and other stakeholders, review and provide comments on preliminary results and allow the utilities to make any adjustments before results are final. This will help ensure buy-in of the final results and of future investments and decisions as grid plans are implemented. Participant and intervenor funding from the Commission should be provided to these communities to facilitate and encourage participation in this process.

Because the environmental, equity, and environmental justice framework and impacts are relevant to several different sections of the proposed grid plan outline (e.g., the Solutions Evaluation Framework and the forecasting sections), they should be integrated throughout the plans and not just have it be a stand-alone section near the end of the plan that makes it feel like an afterthought.

Forecasting and Scenario Planning (Attachment C)

As described in our August 1, 2023, and September 1, 2023, joint comments, we do not believe that modeling only two scenarios is sufficient for the purpose of identifying possible pathways and solutions, or for accurately reflecting the broad set of uncertainties. Multiple scenarios would help reveal the varying impacts over time of many important factors, such as fuel and technology costs, load flexibility, rate design, among other issues, all of which may have an effect on load projections and solution evaluation. In our August 1, 2023, comments we referenced the example of Hawaii, where Hawaiian Electric modeled 10 scenarios based on

[29] https://reopt.nrel.gov/

factors of potential significance.[30] While we are not suggesting that Maine utilities undertake 10 scenarios, we do encourage careful consideration of key uncertainties likely to be of greatest consequence to system needs.

Moreover, we recommend that any "baseline" scenario be aligned with existing Maine climate and clean energy requirements, e.g., the statutory requirements set out by the Maine Climate Council, which are consistent with the high electrification forecast in ISO New England's Capacity, Energy, Loads, and Transmission (CELT) report, as well as the Governor's Energy Office's Pathway to 2040 study assumptions. Baseline and business-as-usual (BAU) forecasts should reflect existing laws and policies, including the Inflation Reduction Act. This approach is consistent with standard practice. For example, the U.S. Energy Information Agency's Annual Energy Outlook reflects existing laws, policies (including the IRA) and regulations in its baseline or business-as-usual forecast.

As discussed in the November 28, 2023, workshop, the most recent CELT forecasts do take statewide policies into account and, as a result of this update, may be "overcompensating" or projecting very high load growth. Therefore, we recommend the Commission consider requiring utilities to analyze low and high sensitivities around a central baseline scenario, with a minimum of three scenarios considered.

Also from the November 28, 2023, workshop discussion, it emerged that localized trajectories including municipal policies, such as the ambitious electrification programs in Portland and South Portland, are not reflected in the current CELT forecasts. Depending on modeling capabilities, sensitivities that account for localized variation may be highly informative.

Solutions Evaluation (Attachment E)

We recommend the Commission require the utilities to perform a Benefit-Cost Analysis (BCA) as part of their planning efforts. This is a position that we have stated in previous written comments and that was supported in comments by the Office of the Public Advocate, among other stakeholders, in the December 5, 2023, workshop.

In evaluating potential solutions, it is important to fully consider all the potential benefits that proposed solutions and alternative investments provide, including emissions reductions, cost savings, improved air quality and health effects, and environmental justice outcomes, among other criteria. The BCA should include all relevant costs and benefits, for example as outlined in the National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources (NSPM).[31]

The NSPM is a comprehensive 300-page guide for developing cost-effectiveness tests for conducting benefit-cost analyses of distributed energy resources that should be a valuable resource for utilities' planning efforts. This manual was used extensively by the Michigan Public Service Commission's Electric Distribution Planning Workgroup to develop their distribution

[30] https://hawaiipowered.com/igpreport/IGP-Report_Final.pdf
[31] https://www.nationalenergyscreeningproject.org/national-standard-practice-manual/

planning BCA over a series of five meetings, covering a six-month period.[32] Maine could follow a similar process that uses information from the manual and other sources to determine whether existing BCA methodologies used by Maine's utilities, Efficiency Maine Trust, and others are sufficient or whether additional elements should be added that are important for meeting state policy goals.

Additionally, when evaluating solutions, the utilities should clearly explain how federal funding may impact or offset any proposed investments that would otherwise have been borne by ratepayers. The plans should describe if proposed federal funding projects are in addition to or incremental to what would otherwise have been planned through the integrated grid plans.

Finally, in developing a screening tool, it will also be useful to evaluate whether or not anticipated cost savings were achieved after investments have taken place in order to consider any refinements to the screening tool that may be necessary in the future.

Hosting Capacity (Attachment D)

Hosting capacity maps are a tool to support an efficient, transparent, predictable, and fair interconnection process. To reiterate comments made by Efficiency Maine Trust in the January 12, 2024, workshop, how frequently the maps are updated is less important than having a process in place that allows new customers and new generators to interconnect more easily, and if the interconnection process does not improve, then hosting capacity maps will not help the situation no matter how frequently the utilities are updating them. We encourage the Commission and the utilities to view the maps within the larger context of data and how data should be utilized to support interconnection.

That said, the maps should be considered iterative, with a common understanding among stakeholders of the longer-term vision for using them to create significant procedural efficiencies to the benefit of both interconnecting customers and generators and the utilities. As evidenced by discussion in the December 7, 2023, workshop on the topic of hosting capacity maps, there is public confusion around the intended use and audience of the maps, despite the disclaimers posted on utility websites. The Governor's Energy Office raised a number of these points in comments during the December 7, 2023, workshop, including for example, articulating long-term goals of making 8760 profiles available, adding export functionality, standardizing across utility territories, and the need for clear and accessible documentation so the maps are not misused.

Conclusion

We appreciate the Commission's effort in guiding a public engagement process, including the opportunity to provide these written comments, and look forward to continued engagement to support the Commission in reforming Maine's grid planning practices to address the climate crisis.

[32] MI Power Grid: Electric Distribution Planning. Reconvened Workgroup Meeting: Distribution Planning Benefit Cost Analysis, November 3, 2021, online at: https://www.michigan.gov/mpsc/-/media/Project/Websites/mpsc/workgroups/elec-dist-planning/110321_BCA_presentation_final.pdf

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Exhibit A: State Examples of Equity Reporting Frameworks and Metrics

Illinois

In July 2023, the staff of the Illinois Commerce Commission (ICC) and other parties proposed an equity reporting framework for Ameren Illinois to include in its Multi-Year Integrated Grid Plan[33] to track progress in meeting the following requirements included in the 2021 Illinois Climate and Equitable Job Act (CEJA)[34]:

> "The Multi-Year Integrated Grid Plan ("the Plan") shall be designed to … support efforts to bring the benefits of grid modernization and clean energy, including, but not limited to, deployment of distributed energy resources, to all retail customers, and support efforts to bring at least 40% of those benefits to Equity Investment Eligible Communities [EIECs]. Nothing in this paragraph is meant to require a specific amount of spending in a particular geographic area." (Section 220 ILCS 5/16-105.17(d)(3))
>
> "A description of, exclusive of low-income rate relief programs and other income qualified programs, how the utility is supporting efforts to bring 40% of benefits from programs, policies, and initiatives proposed in their Multi-Year Integrated Grid Plan to ratepayers in low-income and environmental justice communities. This shall also include any information requested by the Commission or determined through Commission rules. Nothing in this subparagraph is meant to require a specific amount of spending in a particular geographic area." (Section 16-105.17(f)(2)(J)(i))

The proposal includes recommendations from testimony submitted in the docket by the Union of Concerned Scientists (UCS) and other non-governmental organizations ("Joint NGOs").[35] The proposed Equity Reporting Framework included five tables that Ameren could use as a starting point to report on the grid plan's support to bring at least 40 percent of the benefits of grid modernization and clean energy to EIECs. The content for each table is described below:

- Table 1 provides a template to report on projects, programs, and other activities related to clean energy
- Table 2 provides a template to report on projects, programs, and other activities related to grid modernization
- Table 3 provides a template to report on Ameren's Performance or Tracking Metrics established in Docket 22-0063, specifically metrics tracking progress on EIECs
- Table 4 provides a template of proposed relevant metrics that address energy equity

[33] Illinois Commerce Commission. Equity Reporting Framework Strawman Proposal (Exhibit 10.01), ICC Docket No. 22-0487 (Ameren), July 23, 2023. Available at: https://www.icc.illinois.gov/docket/P2022-0487/documents/339970/files/593008.pdf.

[34] https://www.ilga.gov/legislation/billstatus.asp?DocNum=2408&GAID=16&GA=102&DocTypeID=SB&LegID=135062&SessionID=110

[35] Direct Testimony of Dr. Guillermo Pereira, on behalf of Environmental Law & Policy Center, Natural Resources Defense Council, Union of Concerned Scientists and Vote Solar ("Joint NGO"), ICC Docket No. 22-0487 (Ameren), May 11, 2023. Available at: https://www.icc.illinois.gov/docket/P2022-0487/documents/337615/files/588410.pdf.

- Table 5 provides a template of proposed relevant metrics that address clean energy and grid modernization metrics

The ICC staff and Joint NGOs included preliminary information in the proposed tables that was taken directly from a review of Ameren's proposed grid plan. The parties also invited Ameren to respond with adjustments or clarification, provide the level of detail it is well-positioned to identify, and report on its distribution plan. On December 14, 2023, the ICC issued an order rejecting Ameren's and ComEd's multi-year integrated grid plans concluding that the plans failed to adequately assess meeting CEJA's requirement to bring at least 40 percent of benefits from proposed programs, policies, and initiatives to ratepayers in low-income and EJ communities. The ICC further directed the utilities to incorporate an equity reporting framework such as the one developed by the ICC staff and Joint NGOs in their refiled plans.

New York

New York's 2019 Climate Leadership and Community Protection Act[36] requires that disadvantaged communities receive at least 35 percent, with a goal of 40 percent, of the benefits of investments related to clean energy and energy efficiency programs to advance climate justice.[37] The statutory language included in the act is CLCPA § 75-0117:[38]

> "State agencies, authorities and entities, in consultation with the environmental justice working group and the climate action council, shall, to the extent practicable, invest or direct available and relevant programmatic resources in a manner designed to achieve a goal for disadvantaged communities to receive forty percent of overall benefits of spending on clean energy and energy efficiency programs, projects or investments in the areas of housing, workforce development, pollution reduction, low income energy assistance, energy, transportation and economic development, provided however, that disadvantaged communities shall receive no less than thirty-five percent of the overall benefits of spending on clean energy and energy efficiency programs, projects or investments and provided further that this section shall not alter funds already contracted or committed as of the effective date of this section."

The New York Public Service Commission (NYPSC) took steps to implement the state law's requirement by approving a metric to track whether 40 percent of the benefits of spending on clean energy and energy efficiency through the Clean Energy Fund flow to disadvantaged

[36] State of New York, 2019, Climate Leadership and Community Protection Act. Available at: https://legislation.nysenate.gov/pdf/bills/2019/S6599

[37] New York Department of Environmental Conservation, 2023, New York State Climate Justice Working Group Finalizes Disadvantaged Communities Criteria to Advance Climate Justice. Available at: https://www.dec.ny.gov/press/127364.html#:~:text=The%20Climate%20Act%20requires%20New,Climate%20Act%20prioritizes%20climate%20justice

[38] State of New York, 2019, Climate Leadership and Community Protection Act. Available at: https://legislation.nysenate.gov/pdf/bills/2019/S6599 at 16.

communities.[39] [40] In other words, the NYPSC metric is a commitment to track the delivery of benefits. The methodology for defining benefits necessary to report progress on this metric is part of the mandate of New York's Climate Justice Working Group. Expected benefits to be tracked may include: the level of direct investment, energy savings, energy bill savings, economic development including workforce training and jobs supported, and air quality improvements from clean energy investments in disadvantaged communities. New York's Climate Justice Working Group, together with other state agencies including the New York State Energy Research and Development Authority,[41] is working on the implementation of the benefits requirement in New York and considers the need for annual reporting by the agencies on the following:[42]

- Value and share of investments in disadvantaged communities and non-disadvantaged communities.
- Share of benefits associated with investments in disadvantaged communities and in non-disadvantaged communities.
- Reporting on other impacts in disadvantaged communities, including studies and evaluations to measure impacts that are not tracked based on investments.

This ongoing process in New York is also indicative of the need for a framework to operationalize a goal to ensure transparency and accountability in meeting Maine's requirement for utilities to assess the environmental, equity, and environmental justice impacts of their grid plans.

Oregon

In Oregon, HB 3141, passed in 2021, mandated the Oregon Public Utility Commission to define equity metrics to apply to the Energy Trust of Oregon,[43] and required an independent third party to report progress on an annual basis.[44] Table A-1 presents the summary of the approved equity metrics and a description of the equity dimension they seek to advance, as well as the barrier being addressed.

[39] Columbia University Sabin Center for Climate Change Law. Available at https://climate.law.columbia.edu/content/ensure-disadvantaged-communities-receive-35-benefits

[40] New York Public Service Commission, 2021, Order Approving Clean Energy Fund Modifications. Case 14-M0094. Available at: https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={1F47A381-2C97- 4679-A763-E20FA30D4800} at 47.

[41] New York Public Service Commission, 2021, Order Approving Clean Energy Fund Modifications. Case 14-M0094. Available at: https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={1F47A381-2C97- 4679-A763-E20FA30D4800} at 50.

[42] New York Department of Environmental Conservation, 2022, Climate Justice Working Group Meeting. December 14, 2022. Available at: https://climate.ny.gov/- /media/Project/Climate/Files/CJWG12142022Presentation.pdf at 11.

[43] Energy Trust of Oregon. Available at: https://www.energytrust.org/.

[44] Public Utility Commission of Oregon, 2022, Equity and Impacted Communities. Available at: https://www.oregon.gov/puc/Documents/CCEA-Equity-Impacted-Communities.pdf

Table A-1. Equity metrics approved by Oregon Public Utility Commission[45]

Theme	Metrics Proposed	Equity Dimension	Barrier Addressed
Access to support for communities	Increased support to nonprofit organizations with a purpose to serve environmental justice communities or to support nonprofit-led initiatives serving environmental justice communities. Increased support can be incentives, training, and funding for energy efficiency upgrades, solar, or solar-with storage projects.	Structural, Distributive	Lack of capital to participate in traditional programs
Access to information	Increased funding to support targeted outreach to environmental justice communities including funding for community ambassadors, education, and workshops.	Procedural, Distributive	Connecting to trusted and relatable energy information
Energy burden reduction	New and expanded low-cost and no-cost offers to reduce energy burden created and launched.	Structural, Distributive	Lack of capital to participate in traditional programs
Community reliability and resilience	Solar and solar-with-storage system projects supported for low- and moderate-income residents in areas with limited infrastructure or high energy burden	Distributive	Limited resources and increased costs for projects in some areas

Oregon PUC staff proposed that the Energy Trust report annually and quarterly on these equity metrics and progress on specific performance targets.[46] The metrics set by the Oregon PUC are accompanied by the following performance targets for 2023:[47]

- **Metric: Access to Support for Communities.**
  Target: $1.8 million spent, a 15 percent increase from $1.6 million in 2022.
- **Metric: Access to Information.**

[45] Public Utility Commission of Oregon, 2022, In the Matter of Energy Trust of Oregon, Equity Performance Measure Recommendations for Energy Trust of Oregon. Docket No. UM 1158. Available at: https://apps.puc.state.or.us/orders/2022ords/22-478.pdf at 12

[46] Public Utility Commission of Oregon, 2023, 2023 performance measure recommendations for Energy Trust of Oregon. Docket No. UM 1158. Available at: https://edocs.puc.state.or.us/efdocs/HAU/um1158hau181217.pdf at 19.

[47] Public Utility Commission of Oregon, 2023, 2023 performance measure recommendations for Energy Trust of Oregon. Docket No. UM 1158. Available at: https://edocs.puc.state.or.us/efdocs/HAU/um1158hau181217.pdf at 15.

Target: 10 additional combined FTEs or community ambassadors focused on this effort, a roughly 35 percent increase in people over the 16.5 FTE and 12 community ambassadors in 2022.

- **Metric: Energy Burden Reduction.**
  Target: 10 total offers, a 25 percent increase from the 8 offers available in 2022.
- **Metric: Community Resilience.**
  Target: At least five Community Based Organizations engaged in creating and evolving the solar plus storage offers.

The Oregon Energy Trust's 2021 annual report includes a set of metrics on diversity, equity, and inclusion that are reported against explicit targets.[48] This example from Oregon provides another relevant reference for Maine's grid planning process on how to approach the implementation of a framework to meet equity goals, equity-centered metrics, and established performance targets.

Washington

In Washington, the Clean Energy Transformation Act of 2019 aims to support the equitable distribution of benefits. This legislation requires utilities to submit Clean Energy Implementation Plans that must include customer benefit indicators to ensure an inclusive approach to clean energy. Washington utilities are now taking steps to implement the requirements in their respective implementation plans. Table A-2 provides an overview of the indicators and metrics proposed by Puget Sound Energy.[49]

Table A-2. Puget Sound Energy Customer benefit indicators and metrics in the Clean Energy Implementation Plan.

Indicator	Metric	Expected Burdens Reduced
• Improved participation in clean energy programs from highly impacted communities and vulnerable populations	• Increase number and percentage of participation in energy efficiency, demand response, and distributed resource programs or services by PSE customers within highly impacted communities and vulnerable populations. • Increase percentage of electricity generated by distributed renewable energy projects.	• Lack of awareness andeducation • Cost of participation and economic barriers • Costs and potential bill increase

[48] Energy Trust of Oregon, 2023, 2021 Annual Report to the Oregon Public Utility Commission & Energy Trust Board of Directors. Available at: https://www.energytrust.org/wp-content/uploads/2022/04/2021-Annual-Report.pdf
at 46.

[49] Puget Sound Energy, 2022, Highly Impacted Communities and Vulnerable Populations, and Customer Benefit Indicators (CBI). Available at: https://irp.cdn-website.com/dc0dca78/files/uploaded/2022_0201_Chapter3.pdf at 20.

• Increase in quality and quantity of clean energy jobs	• Increase quantity of jobs based on: o Number of jobs created by PSE programs for residents of highly impacted and vulnerable populations o Number of local workers in jobs for programs o Number of part-time and full-time jobs by project • Increase quality of jobs based on: o Range of wages paid to workers o Additional benefits offered o Demographics of workers	• Access to high-quality jobs in clean energy
• Improved home comfort	• Increased dollar in net present value (NPV) in NEI benefits for EE programs.	• Lack of awareness andeducation • Cost of participation and economic barriers
• Increase in culturally and linguistically accessible program communications for named communities	• Increase outreach material available in non-English languages	• Lack of awareness and education
• Improved affordability of clean energy	• Reduce median electric bill as a percentage of income for residential customers • Reduce median electric bill as a percentage of income for residential customers who are also energy-burdened	• Cost of participation and economic barriers
• Reduced greenhouse gas emissions	• Reduce PSE-owned electric operations metric tons of annual CO2e emissions • Reduce PSE contracted electric supply metric tons of annual CO2e emissions	• Adverse climate impacts of CO2e emissions
• Reduction of climate change impacts	• Increase in avoided emissions times the social cost of carbon	• Adverse climate impacts of CO2e emissions
• Improved outdoor air quality	• Reduce regulated pollutant emissions (SO2, NOx, PM2.5)	• Adverse health impacts from air pollution
• Improved community health	• Reduce the occurrence of health factors like hospital admittance, and work loss days	• Adverse health impactsfrom air pollution
• Decrease frequency and duration of outages	• Decrease number of outages, total hours of outages, and total backup load served during outages using System Average Interruption Duration Index (SAIDI) and System Average	• Dependability of variable clean electricity sources like wind and solar

	Interruption Frequency Index (SAIFI) • Reduction in peak demand through demand response programs	
• Improved access to reliable, clean energy	• Increase number of customers who have access to emergency power	• Lack of awareness and education • Cost of participation and economic barriers • Dependability of variable clean electricity sources like wind and solar

Seattle City Light's Clean Energy Equity Plan[50] also defines a framework for measuring and reporting on equity indicators. Table A-3 provides a high-level overview of Seattle City Light's equity outcomes and indicators.

Table A-3. Seattle City Light equity outcome and indicators.[51]

Equity Outcome	Equity Indicator
• Community Assets	• Expenditures of existing and planned community energy projects
• Community Collaboration	• Locations of existing and planned community energy projects
• Economic Opportunities and Youth Pathways	• Career development
• Equitable Access	• Awareness of programs • Public energy education • Burden to program participation • Accessibility to non-single-family homeowners
• Healthy Planet, Healthy Lives	• Outdoor air pollution (concentration of diesel particulate matter in air and reduction of greenhouse gas emissions)
• Affordable & Reliable Electricity	• Feeder outages (causes, number, locations, average duration, average response time) by census tract • Response time to outages

As part of its Equity Plan, Seattle City Light identified all of its programs that contribute to advancing equity and grouped them under five themes: (1) affordability, (2) reliability, (3) energy efficiency, (4) supply of renewable energy, (5) and transportation electrification.[52]

[50] Seattle City Light, 2021, 2021 Clean Energy Implementation Plan Report. Available at: https://deptofcommerce.app.box.com/s/o94co7f5uq7qyjqu26rlx5u0q45mugu4/file/935167894168 at 38.
[51] Seattle City Light, 2021, 2021 Clean Energy Implementation Plan Report. Available at: https://deptofcommerce.app.box.com/s/o94co7f5uq7qyjqu26rlx5u0q45mugu4/file/935167894168 at 59.
[52] Seattle City Light, 2021, 2021 Clean Energy Implementation Plan Report. Available at: https://deptofcommerce.app.box.com/s/o94co7f5uq7qyjqu26rlx5u0q45mugu4/file/935167894168 at 64.

California

The California Climate Investments (CCI) initiative[53] invests the proceeds of the state's greenhouse gas cap-and-trade[54] auction to provide benefits to disadvantaged and low-income communities and households. The statute[55] underlying this initiative established that a minimum of 35% percent of the investments must provide a benefit to priority populations.[56] The framework supporting the CCI initiative is noteworthy for its approach to identifying benefits resulting from its investments.

In CCI, for projects to count toward the minimum requirement set in statute, they must meet three criteria:[57] (1) be located within a census tract identified as a disadvantaged community or low-income community or benefit residents of low-income households, (2) address a community or household need for the priority population, and (3) identify at least one direct, meaningful, and assured benefit that the project provides to priority populations. As part of its framework to support the delivery of benefits to priority populations, CCI has specific guidance for each project type, to streamline and help understand if a project meets the required criteria. A detailed set of benefits is available for agencies to understand if their projects provide meaningful benefits to priority populations.[58]

Table A-4 below includes the specific benefits considered for projects in the category "[c]lean energy and energy efficiency."

Table A-4. Benefits by project type considered in CCI's clean energy and energy efficiency projects.

Project type	Benefit provided
• Energy efficiency or renewable energy[59]	• Project provides energy efficiency upgrades to residents of a disadvantaged or low-income community or a low-income household (e.g., single- or multi-family housing units, shelters, college/university campus housing);

[53] California Climate Investments, 2023, Cap-and-Trade Dollars at Work. Available at: https://www.caclimateinvestments.ca.gov/
[54] California Air Resource Boards, 2023, Cap-and-Trade Program. Available at: https://ww2.arb.ca.gov/ourwork/programs/cap-and-trade-program/about
[55] California Senate Bill 535 (Chapter 830, Statutes of 2012). Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120SB535 and California Assembly Bill 1550 (Chapter 369, Statutes of 2016). Available at: https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB1550
[56] California Climate Investments, 2023, Priority Populations. Available at: https://www.caclimateinvestments.ca.gov/priority-populations
[57] California Climate Investments, 2018, Funding Guidelines. Available at: https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/2018-funding-guidelines.pdf at 41.
[58] California Climate Investments, 2023, CCI Quantification, Benefits, and Reporting Materials. Available at: https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials
[59] California Climate Investments, 2018, Evaluation Criteria for Providing Benefits to Priority Populations Energy Efficiency or Renewable Energy. Available at: https://ww2.arb.ca.gov/sites/default/files/auctionproceeds/ccidoc/criteriatable/criteria-table-eere.pdf

	• Project provides renewable energy and direct energy cost savings to residents of disadvantaged or low-income communities, or low-income households (e.g., solar photovoltaic systems or community solar); • Project reduces on-site criteria air pollutant or toxic air contaminant emissions through reduction of fossil fuel consumption via efficiency improvements or electrification; • Project reinvests energy or fuel cost savings that would otherwise be realized by the funding recipient into the same disadvantaged or low-income community, or to low-income households, to provide direct, meaningful, and assured benefits to residents (consistent with this or another benefit criteria table).
• Clean transportation and equipment[60]	• Project provides incentives for vehicles, equipment, or renewable transportation fuel that reduce criteria air pollutant or toxic air contaminant emissions, such as diesel particulate matter; • Project provides greater mobility and increased access to clean transportation for residents of a disadvantaged or low-income community by placing services in that community, including ridesharing, car-sharing, or other advanced technology mobility options (e.g., neighborhood electric vehicles, vanpooling, shuttles, smartphone application-based ride sharing services, bike-sharing services); • Project provides greater mobility and increased access to clean transportation for residents of a disadvantaged or low-income community, or a low-income household, by providing incentives for the retirement or replacement of older, higher-emitting vehicles.
• Woodsmoke reduction[61]	• Project replaces an existing wood-burning device with a more efficient heating device available for sale in California that meets the most stringent emission standard in the United States, and thereby reduces energy costs to residents; • Project provides incentives for residents located within a disadvantaged or low-income community or low-income households to avoid burning green waste and use approved alternative disposal practices;
• Water use and energy efficiency[62]	• Project provides water and energy use efficiency incentives or other services that provide direct water and energy costs savings to residents of a disadvantaged or low-income community or a low-income household (e.g., residential, commercial, agricultural); • Project improves, repairs, or replaces water system infrastructure within a disadvantaged or low-income community that provides direct water and

[60] California Climate Investments, 2018, Evaluation Criteria for Providing Benefits to Priority Populations Clean Transportation and Equipment. Available at: https://ww2.arb.ca.gov/sites/default/files/auctionproceeds/ccidoc/criteriatable/criteria-table-cte.pdf

[61] California Climate Investments, 2018, Evaluation Criteria for Providing Benefits to Priority Populations Woodsmoke Reduction. Available at: https://ww2.arb.ca.gov/sites/default/files/auctionproceeds/ccidoc/criteriatable/criteria-table-woodsmoke.pdf

[62] California Climate Investments, 2018, Evaluation Criteria for Providing Benefits to Priority Populations Water Use and Energy Efficiency. Available at: https://ww2.arb.ca.gov/sites/default/files/auctionproceeds/ccidoc/criteriatable/criteria-table-wuee.pdf

	energy cost savings to residents of a disadvantaged or low-income community, or a low-income household; • Project reduces on-site criteria air pollutant or toxic air contaminant emissions through the reduction of fossil fuel consumption via efficiency improvements or electrification.
• Job training and workforce development[63]	• Project provides high-quality (e.g., local living wages, health insurance, paid leave) jobs to priority populations. • Project provides job training to priority populations that is part of a program with an established placement record. • Project provides job training to priority populations that includes capacity building that leads to industry-recognized credentials (e.g., certifications, certificates, degrees, licenses, other documentation of competency and qualifications).

The list of projects above is a valuable reference as it provides specific benefits that can result from different project types focusing on clean energy and energy efficiency.

The California Energy Commission (CEC) has also been pursuing efforts to advance equity and track indicators to increase access to clean energy technologies in low-income and disadvantaged communities, as part of the implementation of the Clean Energy and Pollution Reduction Act (Senate Bill 350), passed in 2015.[64] The CEC efforts included the selection of the following nine metrics focused on energy equity to be used to track progress:[65] (1) high energy bills, (2) energy efficiency savings, investments, and customers served, (3) rooftop solar systems, (4) zero-emission vehicles, (5) abatement of health and safety issues, (6) energy resilience, (7) clean energy jobs, (8) small business contracts, and (9) the amount invested in innovation. The energy equity metrics were developed in collaboration with state agencies and stakeholders, as well as the DOE's Clean Energy for Low-Income Communities Accelerator.[66] The metrics were selected to advance three goals: (1) access, (2) investment, and (3) reliability:[67]

[63] California Climate Investments, 2018, Evaluation Criteria for Providing Benefits to Priority Populations Jobs Training & Workforce Development. Available at: https://ww2.arb.ca.gov/sites/default/files/auctionproceeds/ccidoc/criteriatable/criteria-table-jobs.pdf

[64] California Energy Commission, 2018, Energy Equity Indicators Tracking Progress. Docket No. 18-IEPR-08. Available at: https://www.energy.ca.gov/sites/default/files/2019-12/energy_equity_indicators_ada.pdf

[65] California Energy Commission, 2018, Energy Equity Indicators Tracking Progress. Docket No. 18-IEPR-08. Available at: https://www.energy.ca.gov/sites/default/files/2019-12/energy_equity_indicators_ada.pdf at 5.

[66] U.S. Department of Energy, Issue Brief: Using Data to Set Priorities and Track Success of Low-Income Energy Programs. Clean Energy for Low Income Communities Accelerator. Available at: https://betterbuildingssolutioncenter.energy.gov/sites/default/files/IB_Using%20Data%20to%20Set%20Priorities_Final.pdf at 6.

[67] California Energy Commission, 2018, Energy Equity Indicators Tracking Progress. Docket No. 18-IEPR-08. Available at: https://www.energy.ca.gov/sites/default/files/2019-12/energy_equity_indicators_ada.pdf at 6.

"**Access**. Advance access to clean energy, including actions to increase availability of product selection options, access to high-quality jobs, expansion of small business contracting opportunities, and improved access to nondebt financing offerings.

Investment. Increase clean energy investment in low-income and disadvantaged communities, including technology development and demonstration funding, infrastructure investments, emergency preparedness, technical assistance, and local capacity building. Capacity building includes workforce development, small business development, outreach, and education for clean energy.

Resilience. Improve local energy-related resilience, defined as energy services to support the ability of local communities to recover from grid outages and enjoy affordable energy in a changing climate. Local energy resilience includes energy reliability, energy affordability, health, and safety."

In 2022, the CEC started a process to improve the initial equity reporting framework to enable communities to understand and use their data, support actions to drive progress in clean energy, and increase data available to identify and address gaps.[68] This process is considering the set of indicators proposed as part of Justice40 (discussed above).[69] CEC's process demonstrates the importance of revisiting equity reporting frameworks to ensure they continue to support transparency and accountability.

California's CCI program provides an example of how each proposed grid investment can be screened for the benefits it can provide to disadvantaged communities. Additionally, CEC's recent efforts to improve its equity metrics reporting framework indicate the need to continuously consider the value added by different approaches to track progress on equity and identify adjustment needed.

[68] California Energy Commission, 2023, Final 2022 Integrated Energy Policy Report Update. Available at: https://www.energy.ca.gov/sites/default/files/2023-02/Adopted_2022_IEPR_Update_with_errata_ada.pdf at 41.
[69] California Energy Commission, 2023, Final 2022 Integrated Energy Policy Report Update. Available at: https://www.energy.ca.gov/sites/default/files/2023-02/Adopted_2022_IEPR_Update_with_errata_ada.pdf at 163.