STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Illinois Commerce Commission On Its Own Motion vs Ameren Illinois Company d/b/a Ameren Illinois Order Requiring Ameren Illinois Company to file an Initial Multi-Year Integrated Grid Plan and Initiating Proceeding to Determine Whether the Plan is Reasonable and Complies with the Public Utilities Act.	)	Docket No. 22-0487

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")

AND

ENVIRONMENTAL DEFENSE FUND

MAY 11, 2023

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I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q: Please state your name and business address.

A: My name is Guillermo Pereira. My business address is Two Brattle Square, Cambridge, Massachusetts, 02138.

Q: By whom are you employed and in what capacity?

A: I am employed by the Union of Concerned Scientists ("UCS") as a Senior Energy Analyst in the Climate and Energy Program. In this role, I conduct research and analysis to advance our understanding of state and regional energy transformation including integrated grid planning, market design, equitable energy storage. This work supports the transition toward sustainable energy systems with high shares of renewables and distributed energy resources.

Q: Please describe the Union of Concerned Scientists.

A: The Union of Concerned Scientists was founded in 1969 by scientists and students at the Massachusetts Institute of Technology. UCS employs scientists, analysts, and engineers to develop and implement innovative, practical solutions to some of the most pressing problems that society faces today—from developing sustainable ways to feed, power, and transport humanity, to reducing the threat of nuclear war. UCS's mission is to put rigorous, independent science to work by combining technical analysis and effective advocacy to create policy solutions for a healthy, safe, and sustainable future.[1]

[1] For more information, including UCS's history and mission statement, visit: https://www.ucsusa.org/about-us.

Q: Please describe your educational background.

A: I hold a Ph.D. in Sustainable Energy Systems, a Masters in Energy for Sustainability, with a specialization in Energy Systems and Energy Policies, and a Bachelor's in Management from the University of Coimbra, Portugal.

Q: Please describe your work experience and professional background.

A: In my current role at UCS, I focus on research and analysis of state and regional energy issues to support increasing shares of renewable energy and distributed energy resources. My work contributes to UCS efforts to reform wholesale electricity market designs to increasing shares of clean energy technologies. I also contribute to UCS's state-focused efforts for policies that enable clean energy technologies, including distribution grid planning and equitable energy storage.

Prior to joining UCS I was a Senior Research Associate at the University of East Anglia, England, where I focused on assessing frameworks for customer participation in the energy transition drawing on evidence from UK, France, and the EU policies. Before that, I was a Postdoctoral Research Associate at the University of Manchester, England, where I developed research focused on understanding how incumbent utilities adapt their business models to integrate sustainable energy technologies. This work included extensive analysis of three decades of utility investments through mergers and acquisitions, joint ventures, and strategic alliances by large European utilities. This research was an evolution of my PhD work focused on electricity distribution utility adaptation, drawing on novel data from over 100 utilities and assessing their ability to adapt to changing policies and technologies.

My research on sustainable energy systems has spanned a range of topics including energy efficiency governance and job creation, utility business model adaptation, regulatory adaptation to solar distributed energy generation, utility investment in sustainable energy technologies, and green investments in COVID-19 recovery policy packages. This research advanced projects developed in collaboration with multidisciplinary teams of experts from the University of Coimbra, Portugal; Boston University; Massachusetts Institute of Technology; the Federal University of Rio de Janeiro, Brazil; the University of Manchester and the University of East Anglia, England. The outcomes of my research are available in scientific peer reviewed journals including Energy Policy, Renewable and Sustainable Energy Reviews, Energy Efficiency, and Energy Research and Social Science. My Curriculum Vitae, including a list of publications, is attached to this testimony as JNGO/EDF Exhibit 4.01.

Q: Have you previously testified before this Commission as an expert?

A: No.

Q: Have you provided testimony or comments in other proceedings or venues?

A: I have submitted testimony to the Michigan Public Service Commission on DTE's 2022 Rate Case (Case No. U-20836). I have prepared or assisted with the preparation of comments to the Illinois Commerce Commission on the Multi-Year Integrated Grid Plans workshop process, the Midcontinent Independent System Operator on market design, resource adequacy, and distributed energy resources, and the Massachusetts Department of Energy Resources on clean energy market design. I have also submitted comments to the Federal Energy Regulatory Commission (Dockets No. ER23-1195, EL23-28, ER22-1640).

Q: Are you sponsoring any exhibits?

A: Yes, I am sponsoring the following exhibits:

- JNGO/EDF Ex. 4.01 Curriculum Vitae of Guillermo Pereira
- JNGO/EDF Ex. 4.02 Ameren response to Discovery Request CUB/EDF 1.07
- JNGO/EDF Ex. 4.03 Ameren response to Discovery Request RVJ 1.01

Q: On whose behalf are you appearing in this case?

A: I am testifying on behalf of the Environmental Law & Policy Center, Natural Resources Defense Council, Union of Concerned Scientists, and Vote Solar (collectively the "Joint Non-Governmental Organizations" or "Joint NGO") and the Environmental Defense Fund.

Q: What is the purpose of your testimony?

A: The purpose of this testimony is to analyze and provide recommendations to improve Ameren's (or "the Company") proposed grid plan to meet the Climate and Equitable Jobs Act's ("CEJA") requirement that utilities design their grid plans to bring at least 40% of the benefits of grid modernization and clean energy investments to Equity Investment Eligible Communities ("EIEC") in the Company's service territory.

Through my testimony, I: (1) describe my professional interpretation of the requirement set in CEJA based on my research and experience in the energy industry, (2) present my assessment of the Company's proposed approach against the requirement, (3) describe and provide background on initiatives at the federal and state levels focused on delivering benefits to environmental justice communities, and (4) share recommendations on how Ameren can improve its proposal to ensure the Company, the Commission, and all

community members are able to understand and track progress on how EIECs benefit from the proposed grid plan over time.

Q: Can you summarize your recommendations?

A: I recommend that Ameren:

- Consider the experience and resources from the federal Justice40 and other state examples to improve its proposal to meet CEJA's 40% benefits requirement.
- Present a framework that lays out how the Company plans to demonstrate progress in meeting CEJA's 40% benefits requirement to ensure transparency and accountability.

II. GRID PLAN REQUIREMENT TO DELIVER BENEFITS TO EQUITY INVESTMENT ELIGIBLE COMMUNITIES

Q: What is the requirement?

A: CEJA presents the need for grid plans to deliver benefits to EIEC communities both as (1) a guiding objective for the development of the plans and (2) as a requirement the plans must meet. The guiding objective establishing what each plan shall be designed to achieve in terms of delivering benefits to EIECs is set forth in Section 220 ILCS 5/16-105.17(d)(3):

> "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 the benefits of those benefits to Equity Investment Eligible Communities. Nothing in this paragraph is meant to require a specific amount of spending in a particular geographic area."

Section 16-105.17 (f)(2)(J)(i) requires utilities to present a "detailed plan" for achieving the performance metrics approved by the Commission in an earlier docket, including:

> "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."

Q: What is your interpretation of this requirement?

A: My professional interpretation is that this requirement aims to guarantee that the grid plan being proposed delivers outcomes that advance energy justice through grid investments for Illinois customers in EIECs. As defined by the Initiative for Energy Justice: [2]

> "Energy justice refers to the goal of achieving equity in both the social and economic participation in the energy system, while also remediating social, economic, and health burdens on those historically harmed by the energy system ("frontline communities"). Energy justice explicitly centers the concerns of marginalized communities and aims to make energy more accessible, affordable, clean, and democratically managed for all communities."

Due to this focus on supporting the delivery of benefits to EIECs, I interpret this requirement as focusing mainly on advancing distributive justice by directing that the grid plans be structured to ensure EIEC's receive an equitable share of benefits from Ameren's grid investments.

[2] https://iejusa.org/wp-content/uploads/2019/12/The-Energy-Justice-Workbook-2019-web.pdf

Q: How does the Company address this requirement in its proposed grid plan?

A: Ameren's proposal to meet the requirement is integrated throughout their grid plan filing. The Company indicates that it will "support efforts to bring 40% of the benefits of the clean energy transition to customers in equity investment eligible communities (EIECs)."[3] The Company discusses how CEJA's focus on equity is aligned with the Company's plan for the future of its grid.[4] This alignment is discussed from various angles, including: (1) the energy service it provides; (2) the jobs it creates through its operations; and (3) the contribution to economic development in its service region. The Company mentions it will:

> "[…] continue to invest in innovative and customer-focused programs to assist the most vulnerable people in our communities. We also have continued our heightened focused on energy equity for our customers, supporting equal access for all to our entire suite of products and services and entering, operating, and exiting communities in a way that focuses on community impact and seeks to facilitate benefits to our customers and the communities in which they live."[5]

Additionally, Ameren's grid plan also indicates the programs the Company has in place or will implement to support the equity goals of the grid plan, including:[6]

- Energy efficiency programs
- Beneficial electrification programs
- Targeted community engagement in EIECs
- Targeted site development and underutilized infrastructure in EIECs

[3] Ameren Exhibit 1.0GP at 14
[4] Ameren Exhibit 1.0GP at 17
[5] Ameren Exhibit 1.0GP at 17
[6] Ameren Exhibit 1.0GP at 18

- Education about the Energy Transition Assistance Fund Resources
- Available grants
- DER installations
- Implementation of the Company's approved performance metrics

The company explains how it meets CEJA's guiding objective (presented and discussed above)[7] through its Energy Efficiency and Beneficial Electrification Plan, the Equitable Energy Upgrade Program, Distributed Energy Resources programs and rebates (such as through the Illinois Solar for All program), as well as the Company's plan to achieve performance metrics and tracking metrics.[8]

Ameren's proposal to ensure benefits to EIEC communities is presented in Section 15 "Benefits Sharing" of the proposed grid plan.[9] In this section the Company indicates it supports benefits sharing through investments, education, and transparency and collaboration.[10]

The company identified a range of benefits in its grid plan, including: (1) reduced energy bills as a result of its energy efficiency and demand response offerings,[11] and as a result of community solar; [12] (2) improved DER adoption as a result of investment in the distribution system; [13] (3) job creation as a result of investments in the distribution

[7] Ameren Exhibit 2.1GP at 11.
[8] Ameren Exhibit 2.1GP at 244.
[9] Ameren Exhibit 2.1GP at 242.
[10] Ameren Exhibit 2.1GP at 242.
[11] Ameren Exhibit 2.1GP at 243.
[12] Ameren Exhibit 2.1GP at 243.
[13] Ameren Exhibit 2.1GP at 243.

system; [14] and (4) improved health as a result of a transition to renewable energy and electric vehicles. [15]

Q: What is your assessment of Ameren's plan to meet the requirement?

A: I welcome Ameren's recognition of equity and its willingness to incorporate equity-related concerns across the proposed grid plan. This indicates the Company acknowledges the importance of these items and the Company's role of delivering equity through its grid plan investments as required in CEJA. Ameren's grid plan addresses the cross-cutting nature of equity considerations by integrating it across its grid plan. The Company's grid plan discusses the need to support equity and to deliver benefits for EIEC communities across multiple dimensions and describes its various efforts including stakeholder engagement, data improvement needs, and benefits sharing.[16] The Company also indicates that, while its historical focus has been on overall system performance and a system focused approach to grid investments, it welcomes the opportunity and is currently considering how to evolve its systems and practices to internalize EIEC considerations.[17] The company also indicates its openness to collaborate with the Commission and other interested stakeholders on how to assess benefits related to this requirement.[18]

[14] Ameren Exhibit 2.1GP at 243.
[15] Ameren Exhibit 2.1GP at 243.
[16] Ameren Exhibit 2.1GP at 12 and Ameren Exhibit 2.1GP Appendix B: Legislative Mapping at 1 and 14-15.
[17] Ameren response to Discovery Request CUB/EDF 1.07.
[18] Ameren response to Discovery Request RVJ 1.01.

Q: How does the Company propose to track progress towards CEJA's equity goals?

A: While I welcome the Company's commitment to acknowledge equity concerns and efforts to deliver benefits to EIECs, Ameren's Grid Plan lacks important details on the framework or approach the Company plans to use to identify, measure, track, and report (1) what specific benefits are being created, (2) how much benefits are resulting from grid plan investments, and (3) who is receiving those benefits. These shortcomings create a barrier to understanding if the 40% minimum requirement is effectively being achieved. The Company indicates that the Performance and Tracking Metrics approved in Docket 22-0063[19] will play a role in meeting the Act's minimum 40% benefits requirement but doesn't lay out what performance metrics are relevant for this requirement or how the Commission should assess Ameren's performance against those metrics in consideration of the 40% requirement. With the currently proposed approach, the Company may indeed deliver benefits to EIEC communities, but the lack of an explicit framework for tracking progress results in a lack of transparency and accountability in meeting the 40% target. I encourage Ameren to develop a tracking framework and describe in its rebuttal testimony how it intends to share and use this framework with the Commission and the public to improve transparency and accountability for delivering on CEJA's equity goals.

Q: Why is a framework to track progress on benefits to EIEC needed?

A: The requirement set in CEJA establishes a minimum of 40% benefits that must reach EIEC communities resulting from Ameren's investments in grid modernization and clean energy. The legislature's decision to include a quantified element specifying the share of

[19] Ameren Exhibit 2.1GP at 244.

benefits that must flow to EIECs leads to the need for a framework that supports transparency and accountability to track the benefits related to the requirement. Without a tracking framework, the Company, the Commission, and Stakeholders will have no ability to understand progress over time to ensure that at least 40% of the benefits effectively reach EIEC communities.

III. A FRAMEWORK FOR TRANSPARENCY AND ACCOUNTABILITY

Q: What would a framework for transparency and accountability look like?

A: A framework for transparency and accountability would include key elements describing how the Company will (1) Identify and define what specific benefits are being created by the grid plan, (2) Quantify how much benefits are resulting from grid plan investments, and (3) Track and report who is receiving those benefits with a distinction for benefits delivered to EIECs and benefits delivered to non-EIECs, to evaluate progress. A framework building on these elements would mitigate the existing gap in the grid plan by introducing transparency on how the Company and the Commission can identify, quantify, track, and report benefits and estimate how much of those benefits are delivered to EIEC and non-EIEC customers in Ameren's service territory.

Q: Can you provide any evidence or support on existing practices related to frameworks that could support this requirement?

A: Yes. There are federal and state level experiences from initiatives, policies, or programs that have established objectives comparable to that set in CEJA and can serve as examples for the Company to consider improvements to its proposed approach.

Q: Can you describe existing practices at the federal level?

A: Yes. Justice40 is an initiative by the federal government, established by Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," with a goal to ensure that at least 40% of the overall benefits of certain federal investments are delivered to disadvantaged communities.[20] This initiative includes a range of investment categories, such as climate change, clean energy, and energy efficiency. The Justice40 initiative and its overall goal is comparable to CEJA's goals. The initiative is a relevant example because it provides details on the elements for transparency and accountability that a framework can include. Interim implementation guidance provided as part of the initiative by the White House Office of Management and Budget[21] directed federal agencies managing Justice40 programs to: (1) Identify the benefits of Justice40 programs,[22] (2) Determine how those programs distribute benefits, and (3) Calculate and report on how they are reaching the 40% goal set by the Justice40 initiative. Justice40's interim guidance also establishes the need to develop benefit methodologies that determine what constitutes a benefit from a program while also recognizing that benefits may be different across programs. The guidance requires agencies to describe the benefits that result from selected programs. Additionally, to ensure transparency and

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[20] 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-the-climate-crisis-at-home-and-abroad/

[21] 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/wp-content/uploads/2021/07/M-21-28.pdf

[22] Examples of benefits for clean energy and energy efficiency are included in the guidance, such as: (1) increased energy efficiency programs and resources, (2) deployment of clean energy, including renewable energy community projects, (3), establishment of community microgrids, and (4) reduction of energy burdens.

accountability the guidance details how agencies must report on their progress. 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 information at the census block level identifying the geographic distribution of benefits and program funding. 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 launch of Justice40 and the interim guidance discussed above, federal agencies are now implementing their own frameworks to ensure compliance and that benefits from their programs reach disadvantaged communities. For instance, the Department of Energy ("DOE") has issued guidance entitled "Creating a Justice40 Initiative Plan"[23] to guide applicants when proposing projects to be considered under the Justice40 requirement. This guidance document includes information on how to conduct

[23] 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

an Energy and Environmental Justice Assessment, which must identify a project's impacts. Impacts can be positive (benefits), neutral (uncertain), or negative (harm), and the assessment should further describe how these 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 its efforts to support implementation of Justice40, the DOE identified a group of eight Justice40-relevant benefits and possible benefit metrics to consider in project application for funding, outlined in Table 1 below.[24]

Table 1. DOE Justice40 benefits and benefit metrics and units. Source: DOE [25]

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 contracting (Minority	• Number of contracts and/or dollar value awarded to businesses that are principally owned by women, minorities, disabled veterans, and/or LGBT persons.

[24] U.S. Department of Energy, 2023, Justice40 Initiative Office of Economic Impact and Diversity. Available at: https://www.energy.gov/diversity/justice40-initiative
[25] 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

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.

Q: How are the White House and the DOE's Justice40 guidance documents relevant for the Company's proposed grid plan?

A: The White House and the DOE's Justice40 implementation guidance provides a reference framework for Ameren to consider further expanding its proposed approach to meeting CEJA requirements. The federal Justice40 goal and CEJA's 40% benefit target are very similar, so the guidance issued by the White House Office of Management and Budget and DOE's guidance document are highly relevant. In this case, the guidance aims to

support implementation and require federal agencies to determine and report on benefits and how these benefits are being delivered. The context provided about how DOE is working to translate the requirement from a goal into a framework for funding recipients provides a useful example for Ameren to consider when developing its own framework to ensure transparency and accountability.

Q: Can you describe some of those initiatives at the state level?

A: Yes. I will discuss initiatives from (1) California, (2) New York, (3) Oregon, and (4) Washington.

Q: Can you describe the case of California?

A: Yes. The California Climate Investments (CCI) initiative[26] invests the proceeds of the state's greenhouse gas cap-and-trade[27] auction to provide benefits to disadvantaged and low-income communities and households. The statute[28] underlying this initiative established that a minimum of 35% percent of the investments must provide a benefit to priority populations.[29] CEJA does not require a specific amount of expenditure in the grid plan but rather focuses on the value of the benefits created. The framework supporting the CCI initiative is noteworthy for its approach to identifying benefits resulting from its

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[26] California Climate Investments, 2023, Cap-and-Trade Dollars at Work. Available at: https://www.caclimateinvestments.ca.gov/

[27] California Air Resource Boards, 2023, Cap-and-Trade Program. Available at: https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/about

[28] 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

[29] California Climate Investments, 2023, Priority Populations. Available at: https://www.caclimateinvestments.ca.gov/priority-populations

investments. In CCI, for projects to count towards the minimum requirement set in statute, they must meet three criteria:[30] (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.[31] In Table 2 below, I present the specific benefits considered for projects in the category "[c]lean energy and energy efficiency" as these can be valuable for the Company's proposed grid plan.

Table 2. Benefits by project type considered in CCI's clean energy and energy efficiency projects. Source: CCI.[32]

Project type	Benefit provided
• Energy efficiency or renewable energy[33]	• 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);
	• 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);

[30] California Climate Investments, 2018, Funding Guidelines. Available at: https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/2018-funding-guidelines.pdf at 41.
[31] 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
[32] 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#:~:text=TCC%20Community-,Clean%20Energy%20and%20Energy%20Efficiency,-Agency
[33] 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/auction-proceeds/ccidoc/criteriatable/criteria-table-eere.pdf

	• 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[34]	• 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[35]	• 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[36]	• 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 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[37]	• 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).

[34] 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/auction-proceeds/ccidoc/criteriatable/criteria-table-cte.pdf

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

[36] 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/auction-proceeds/ccidoc/criteriatable/criteria-table-wuee.pdf

[37] 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/auction-proceeds/ccidoc/criteriatable/criteria-table-jobs.pdf

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. Ameren's plan identifies initiatives and programs that may benefit EIEC communities, but connecting those initiatives and programs to a specific set of benefits and a metric for how much of that benefit is being delivered, including an allocation tracking mechanism to assess the share of benefits flowing to EIECs and non-EIECs, would help align the grid plan with CEJA's requirement.

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.[38] The CEC efforts included the selection of the following nine metrics focused on energy equity to be used to track progress:[39] (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

[38] 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
[39] 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.

Clean Energy for Low-Income Communities Accelerator.[40] The metrics were selected to advance three goals: (1) access, (2) investment, and (3) reliability:[41]

> "**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.[42] This process is considering the set of indicators proposed as part of Justice40[43] (discussed above). CEC's process demonstrates the importance of revisiting equity reporting frameworks to ensure they continue to support transparency and accountability.

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[40] 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.

[41] 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.

[42] 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.

[43] 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.

Q: What do the California examples mean for the Company's proposed grid plan?

A: California's CCI program provides an example of how each proposed grid investment can be screened for the benefits it can provide to EIECs. For Ameren, it is important to consider that while many of its investments may deliver benefits to EIECs, its grid plan lacks a framework to outline and track details on the specific benefits being provided and how the benefits created are distributed. 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.

Q: Can you describe the case of New York?

A: Yes. New York's 2019 Climate Leadership and Community Protection Act[44] requires that disadvantaged communities receive at least 35%, with a goal of 40%, of the benefits of investments related to clean energy and energy efficiency programs to advance climate justice.[45] The statutory language included in the act is CLCPA § 75-0117:[46]

> "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

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

[45] 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.

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

> 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% of the benefits of spending on clean energy and energy efficiency through the Clean Energy Fund flow to disadvantaged communities.[47, 48] 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[49] 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:[50]

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

[48] New York Public Service Commission, 2021, Order Approving Clean Energy Fund Modifications. Case 14-M-0094. Available at: https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={1F47A381-2C97-4679-A763-E20FA30D4800} at 47.

[49] New York Public Service Commission, 2021, Order Approving Clean Energy Fund Modifications. Case 14-M-0094. Available at: https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={1F47A381-2C97-4679-A763-E20FA30D4800} at 50.

[50] 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.

- 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 process in New York, while ongoing, is also indicative of the need for a framework to operationalize a goal to ensure transparency and accountability in meeting CEJA's equity requirements. Ameren should consider New York's experience in its grid plan to better identify, quantify, and report its progress in meeting CEJA's 40% requirement.

Q: Can you describe the case of Oregon?

A: Yes. 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,[51] and required an independent third-party to report progress on an annual basis.[52] Table 3 below 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.

[51] Energy Trust of Oregon. Available at: https://www.energytrust.org/
[52] Public Utility Commission of Oregon, 2022, Equity and Impacted Communities. Available at: https://www.oregon.gov/puc/Documents/CCEA-Equity-Impacted-Communities.pdf

Table 3. Equity metrics approved by Oregon Public Utility Commission. Source: Oregon Public Utility Commission.[53]

Theme	Metrics Proposed	Equity Dimension	Barrier Addressed
• Access to support for communities	• Increased support to non-profit 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.[54] The metrics set by the Oregon PUC are accompanied by the following performance targets for 2023:[55]

- **Metric: Access to support for communities.**

  Target: $1.8 million spent, a 15 percent increase from $1.6 million in 2022.

[53] 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.
[54] 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.
[55] 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.

- **Metric: Access to Information.**

  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 5 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.[56] This example from Oregon provides another relevant reference on how to approach the implementation of a framework to meet equity goals including equity centered metrics and established performance targets. Ameren should consider Oregon's experience and resources to support the company in proposing a framework to ensure transparency and accountability in meeting the CEJA requirement.

Q: Can you describe the case of Washington?

A: Yes. In Washington, the Clean Energy Transformation Act of 2019 aims to support the equitable distribution of benefits. This legislation requires utilities to submit Clean

[56] 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.

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 4 provides an overview of the indicators and metrics proposed by Puget Sound Energy.[57]

Table 4. Puget Sound Energy Customer benefit indicators and metrics in the Clean Energy Implementation Plan. Source: Puget Sound Energy.[58]

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 and education • Cost of participation and economic barriers • Costs and potential bill increase
• 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 and education • 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	• Cost of participation and economic barriers

[57] 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.
[58] 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.

	• Reduce median electric bill as a percentage of income for residential customers who are also energy-burdened	
• 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 impacts from 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 Interruption Frequency Index (SAIFI) • Reduction in peak demand through demand response programs	• Dependability of variable clean electricity sources like wind and solar
• 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[59] also defines a framework for measuring and reporting on equity indicators. Table 5 provides a high-level overview of Seattle City Light's equity outcomes and indicators.

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

Table 5. Seattle City Light equity outcome and indicators.[60]

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.[61] Ameren should consider the experience of these Washington state utilities to support the company in proposing a framework to ensure transparency and accountability in meeting CEJA's 40% benefit requirement.

IV. RECOMMENDATIONS

Q: What are your recommendations for the Company?

A: I recommend that the Company consider the experience of the federal Justice40 Initiative and resources from other states with similar equity requirements to amend its grid plan to:

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

- Present a framework that lays out *how* it will ensure transparency and accountability in meeting CEJA's 40% benefits requirement.
- 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. When these relate or overlap with Ameren's Performance or Tracking Metrics established in Docket 22-0063 that should be explained.
    - The method to track who receives the benefits, to adequately measure benefits delivered to EIECs and non-EIECs.
    - The process to *report* regularly on progress.
- To ensure *accountability* this framework should include, at a minimum:
    - The process the Company will implement to *adjust* grid plan and *build on best case practices* and *mitigate any limitations*, as needed to ensure it delivers benefits to EIECs.

Q: Does this conclude your testimony?

A: Yes.