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Joint Comments re Community Energy Resilience Investment Program

Joint Comments of The World Business Academy, The Climate Center, Center for Biological Diversity, Local Government Sustainable Energy Coalition, 350 Bay Area, Local Clean Energy Alliance, and Microgrid Resources Coalition Following the September 12, 2023 Community Energy Resilience Investment (CERI) Program Workshop

Additional submitted attachment is included below.







Joint Comments of

The World Business Academy, The Climate Center, Center for Biological Diversity, Local Government Sustainable Energy Coalition, 350 Bay Area, Local Clean Energy Alliance, and Microgrid Resources Coalition Following the September 12, 2023 Community Energy Resilience Investment (CERI) Program Workshop

September 29, 2023

The World Business Academy, The Climate Center, Center for Biological Diversity, Local Government Sustainable Energy Coalition, 350 Bay Area, and Local Clean Energy Alliance ("Joint Non-Profit Parties" or "Parties") hereby submit these comments to the California Energy Commission ("Commission") regarding the September 12, 2023 Community Energy Resilience Investment (CERI) Program Workshop ("CERI Workshop").

The Joint Non-Profit Parties appreciate the presentation offered at the CERI Workshop and all the work the Commission Staff have done and are doing to determine the most effective pathway towards incentivizing investment in community energy resilience. The purpose of these comments is to respond to the following discussion questions raised on Slides 22-26 of the Staff CERI Workshop presentation,¹ and to recommend that the Commission include Community Choice Aggregation agencies (CCAs) as eligible entities and remove transmission owners and operators.

Project Group	Round 1 Available Funding		Proposed Maximum		Anticipated # of Awards
Group 1: Large LSEs	~\$51M	\$15M	\$25M	109%**	2-3

Question 1: For large Load Serving Entities, should the proposed minimums and maximums be increased, decreased, or are they currently appropriate?

The proposed minimum and maximum are both too high. Many desirable projects within a large loadserving entity (LSE) service territory may not meet the current \$15 million minimum threshold. A proposed minimum threshold of \$1 million and maximum threshold of \$5 million would allow project sites, designed to be a launch point for investment in concert with the broader objectives of a community energy resilience plan, to be located in disadvantaged communities within the service territory of a large

¹ California Energy Commission, "Staff Workshop - Community Energy Resilience Investment (CERI) Program Development," September 12, 2023, <u>https://www.energy.ca.gov/event/workshop/2023-09/staff-workshop-community-energy-resilience-investment-ceri-program</u>

LSE. A reduced minimum/maximum funding threshold would also allow between 10 to 50 projects to be distributed more evenly within the large LSE service territories located throughout California.

Round 1 Available Proposed Proposed Match Anticipated Funding Maximum **Project Group** Minimum Requirement **# of Awards Group 2: Small** ~\$13M \$4M \$9.5 M 33% 1-3 **LSEs**

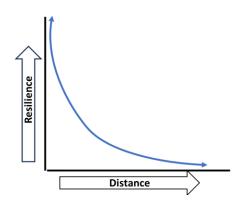
Question 2: For small Load Serving Entities, should the proposed minimums and maximums be increased, decreased, or are they currently appropriate?

As mentioned above, the proposed minimum and maximum are both too high. A smaller minimum/maximum funding threshold (in this case \$1 - \$2 million) would allow for more project inclusivity, especially in lower-income communities, many of which will require funding for the development of community energy resilience plans that are a fundamental step towards effectively building community energy resilience. In this regard, CERI funds should be flexible to respond to community needs, and in certain situations, this could require grants smaller than \$1M.

Question 3: To determine resiliency impact, our proposed scoring formula includes: outage risk, highheat risk, and wildfire risk. Do you agree or disagree with this approach?

While heat and wildfire risk constitute primary threats to California communities, the risk of a power outage resulting from ALL sources (heat, wildfire, flooding, sea-level rise, mudslides, debris flows, earthquakes, public safety power shutoffs, etc.) should be factored into a comprehensive, holistic scoring formula where community energy resilience serves as a backstop against disruption from ALL potential risks.

From a physical standpoint, true energy resilience can only be achieved through the proximity to load of distributed energy resources ("DERs") that can continue to provide electricity services during grid outages. Community energy resilience projects designed to serve essential community needs during grid outages can remove vulnerability to large stretches of transmission and distribution infrastructure along which one or more segments can act as potential failure points creating a power outage. This inverse relationship between resilience and distance can be viewed as a parabolic curve (see graph below),



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where on-site or adjacent electricity supply capacity provides a virtually complete level of energy resilience, which decreases rapidly with increased capacity-to-load distance and the addition of intermediate grid infrastructure components that are subject to failure at some point during their expected lifespan. At some indeterminate point, this precipitous reduction in resilience value flattens out as the level of resilience approaches zero due to the increasing number of potential failure points that inevitably accumulate over longer distances.

Given this inverse physical relationship between energy resilience and the distance between capacity and load, the Joint Non-Profit Parties are concerned that the prevalence of transmission and distribution infrastructure activities (hardening power system infrastructure, weatherizing transmission and distribution system components, vegetation and fuel-load management, etc.) as "Eligible Measures" on Slide 14, as well as the inclusion of "Transmission owners and operators" as "Eligible Entities" on Slide 13, will divert a majority of limited program grant funds to projects that may modestly reduce the risks of upstream grid failure but provide no resilience benefits when grid failure occurs, thus severely limiting the achievable community-level resilience value of the CERI Program.

This predilection towards utility-scale infrastructure solutions is symptomatic of California's legacy approach towards energy development, as evidenced in the recent Senate Bill 100 Kickoff Workshop held on August 22, 2023 ("SB 100 Workshop") "to discuss findings and recommendations from the 2021 SB 100 Joint Agency Report and the plan to address these findings and recommendations as the 2025 SB 100 Joint Agency Report is developed."²

Attached hereto as Exhibit A and incorporated herein by reference are comments filed after the SB 100 workshop by certain joint non-profit parties ("SB 100 Comments"), expressing serious concerns "based on the record thus far that the Agencies [CEC, CPUC, CARB] are looking exclusively at approaches to SB 100 compliance that rely entirely on procuring utility-scale generation and transmission while limiting the contribution of DERs to various options for load modification using BTM [behind-the-meter] customer deployments." In particular, the CEC should not rely on the CPUC's techno-economic screen, which excludes substantial areas suitable for rooftop solar and other DERs, including urbanized industrial areas. Already developed and industrialized areas present significant rooftop potential for solar generation that poses virtually no land-use concerns and that local jurisdictions have already identified, yet the CPUC, CEC, and CAISO omit this potential resilience resource. Moreover, omitting this potential also ignores significant opportunities for community solar plus storage projects that provide significant benefits to environmental justice communities. As a corrective measure, the joint non-profit parties urged the Agencies to "begin an evaluation of a Max DG Pathway with an estimation of the technical potential of installing PV arrays on the built environment ... for deploying renewable energy supply resources that could provide a sizeable portion of the renewable energy production required to comply with SB 100."³

² Senate Bill 100 Kickoff Workshop <u>Docket Log (23-SB-100)</u>, <u>https://www.energy.ca.gov/event/workshop/2023-08/senate-bill-100-kickoff-workshop</u>

³ Comments of The Climate Center, Center for Biological Diversity, Local Government Sustainable Energy Coalition, 350 Bay Area, Local Clean Energy Alliance Following the August 22, 2023 SB 100 2025 Joint Agency Report Kickoff Workshop, September 8, 2023, pp. 3-4, <u>https://efiling.energy.ca.gov/GetDocument.aspx?tn=252192&DocumentContentId=87198</u>

The Joint Non-Profit Parties urge the Commission to incorporate the above perspective articulated in the parties' SB 100 comments into the CERI program. As the primary focus of the CERI Program should involve promoting investment in community energy resilience based on co-location of capacity with load, the above concerns and suggested approach are central to achieving these critical objectives. Moreover, the eligibility of any grid infrastructure investments for CERI funds should be limited to only those local facilities needed to connect and manage the DERs operating within the affected areas of the DER-based projects. Finally, we urge the Commission to remove transmission-based stakeholders as entities eligible for CERI funds. As there are innumerable other programs directed towards funding transmission infrastructure upgrades, including transmission-based stakeholders in CERI solicitations would only serve to reduce available funds for projects that confer true energy resilience through a community energy resilience plan based on co-location of local energy capacity with demand.

Question 4: Will technical assistance be needed in the application phase to ensure equitable participation and project success? If so, what type of assistance?

Robust technical assistance provided early in the process to affected communities, primarily in the form of community energy resilience plan development grants, will be essential for CERI project ROI, particularly in communities of need that lack planning resources. Such assistance should focus on developing solutions within the community's energy landscape covering both natural and built environments, and how that landscape can utilize distribution infrastructure to best serve the community's energy needs. In addition, funds should be allocated for the development of an online community energy resilience portal that provides universal access to existing and future community energy resilience plans, with the objective of creating replicable templates addressing common elements affecting community energy resilience.

Question 5: What program criteria should be required to ensure meaningful community engagement?

The first step in investing in community energy resilience should involve proactive investment in the subject community through funding development of a community energy resilience plan that identifies the most critical electricity services to the community based on its risk exposure, inventories potential distributed energy capacity within the local landscape and identifies optimal areas for locating DERs and local energy systems. Although some affluent communities have already allocated resources in this regard, most communities in need do not have the internal capacity to take this first step, which should be considered a prerequisite in a CERI project's description and implementation.

Another important consideration in project scoring involves the proposed site's relative public exposure and standing within the community and should describe how the project will serve to incentivize further private investment as part of a broader community energy resilience plan. Indeed, for disadvantaged communities in need of planning resources, funds allocated for "Technical assistance in developing community energy resilience plans" should be added as an "Eligible Measure" as shown on slide 14 of the workshop presentation. Conversely, the CEC should not award CERI funds to any projects that do or perpetuate harm and local pollution in disadvantaged communities. For instance, as the DAC Advisory Group recently commented at its September 2023 meeting, the CEC must stop awarding EPIC funds to combustion projects located in disadvantaged communities.

One additional matter of concern

The list of eligible entities (slide 13) does not include Community Choice Aggregation agencies (CCAs). The Joint Non-Profit Parties have two concerns with this omission. First, the CCAs as creations of local governments are well-suited in both their local accountability and their technical expertise to work with communities in their service areas to develop community energy resilience plans and identify projects suitable for CERI funding. Second, the IOUs in whose distribution service areas the CCAs operate are eligible entities as distribution providers. But the IOUs are also LSEs and as such they view CCAs as their direct competitors to provide retail electric service. This structural arrangement – the IOUs being both distribution providers and LSEs – creates an incentive for IOUs to favor distribution-related CERI projects in the non-CCA areas to the detriment of community resilience in the CCA areas. As a remedy to mitigate this potentially considerable bias in CERI funding, the Joint Non-Profit Parties urge the Commission to include CCAs as eligible entities for CERI funding.

Conclusion

For the reasons discussed in these comments, the Joint Non-Profit Parties urge the Commission to:

- 1. Reduce the minimum and maximum grant amounts as recommended above;
- 2. Include the development of a community energy resilience plan as a CERI "eligible measure" and a project prerequisite for incentivizing local investment in community energy resilience;
- Place greater emphasis on DER-based projects that will provide resilient electricity to communities when grid outages occur, rather than over-emphasizing upstream infrastructure measures that may reduce the risk of grid outages but provide no community benefits when outages occur;
- 4. Align and coordinate program objectives with the Max DG pathway scenario described in the SB 100 Comments as a foundational principle underlying the CERI program; and
- 5. Include CCAs as eligible entities for CERI funding and remove transmission owners and operators.

In all cases, investment efforts in developing community energy resilience must start and end with identifying and serving the needs of communities.

Respectfully submitted,

/s/ Robert Perry, on behalf of The World Business Academy

/s/ Lorenzo Kristov, PhD, on behalf of The Climate Center

/s/ Roger Lin, Center for Biological Diversity

/s/ Marc Costa, Board Chair, Local Government Sustainable Energy Coalition

/s/ Claire Broome, 350 Bay Area

/s/ Allie Detrio, Microgrid Resources Coalition

/s/ Elsa Wefes-Potter, Local Clean Energy Alliance

<u>Exhibit A</u>

Joint Comments of

The Climate Center, Center for Biological Diversity, Local Government Sustainable Energy Coalition, 350 Bay Area, Local Clean Energy Alliance

Following the August 22, 2023 SB 100 2025 Joint Agency Report Kickoff Workshop

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Joint Non-Profit Parties Comments on SB 100 2025 Joint Agency Report Kickoff Workshop

Additional submitted attachment is included below.



Docket 23-SB-100 SB 100 2025 Joint Agency Report

Comments of The Climate Center, Center for Biological Diversity, Local Government Sustainable Energy Coalition, 350 Bay Area, Local Clean Energy Alliance Following the August 22, 2023 SB 100 2025 Joint Agency Report Kickoff Workshop

September 8, 2023

The Climate Center, Center for Biological Diversity, Local Government Sustainable Energy Coalition, 350 Bay Area, and Local Clean Energy Alliance ("Joint Non-Profit Parties" or "Parties") hereby submit these comments to the California Energy Commission, California Public Utilities Commission and California Air Resources Board ("Agencies") regarding the August 22, 2023 SB 100 2025 Joint Agency Report Kickoff Workshop ("Workshop").

The Joint Non-Profit Parties appreciate the detailed presentations offered at the Workshop and all the work the Agencies are doing to determine the most effective pathway to achieve the mandates of SB 100. The purpose of these comments is to urge the Agencies to include a "maximum distributed generation" ("Max DG") pathway in the 2025 Report pathway analysis. The analysis of this pathway should include estimates for the technical potential of maximizing solar photovoltaic installations on developed sites such as warehouse roofs, parking lots, shopping centers, highway rights-of-way and irrigation canals, and assess the extent to which realizing the technical potential would reduce the need to build additional utility-scale renewable generation and high-voltage transmission while providing local energy and non-energy benefits and avoiding problematic land-use issues. This pathway should also be adaptable for inclusion in each pathway the Agencies develop and assess, and not be isolated to only the proposed DER Focus pathway.

In the following comments the Parties express our concern that the analysis approaches the Agencies have taken to date, as well as the approach outlined at the Workshop, exclude a Max DG pathway from consideration. As we explain below, the structure of the Pathway Analysis presented at the Workshop will preclude the possibility of a Max DG pathway being identified as a candidate Capacity Expansion Resource Portfolio, due in large part to the positioning of Non-Energy Benefits/Impacts and Land Use Analysis in the analysis process flow. The approach presented at the Workshop inappropriately relegates Non-Energy Benefits/Impacts and Land Use Analysis to an inferior subsidiary position, applying them as an afterthought to the portfolio formation. Based on several prior analyses cited below, the Parties believe that a Max DG pathway would be extremely beneficial for achieving the SB 100 mandates cost-effectively and with due consideration of non-energy benefits/impacts and land use concerns and should be explicitly included in the SB 100 2025 Report analysis.

Contact Kurt Johnson The Climate Center 1275 – 4th St. #191 Santa Rosa, CA 95404 kurt@theclimatecenter.org 970-729-5051

Missing from the SB 100 Analysis: A Maximum Distributed Generation Pathway

The SB 100 activities to date and the study plan described at the Workshop focus primarily on the need to build bulk system assets, i.e., utility-scale generation and transmission, to meet SB 100's 2045 mandates. Estimates of the need for bulk system assets assume that most if not all distributed energy resources ("DERs") will be deployed on end-use customer premises, behind the meter ("BTM"), and will provide services and benefits to the state's power system only in the form of conventional demand response and its newer variations such as load shifting and load flexibility services. In other words, there seems to be no consideration of locally-deployed DERs, particularly front-of-meter ("FOM") distributed renewable generation and storage, as a significant contributor to the supply of renewable energy to meet the SB 100 mandates.

The 2021 SB 100 Joint Agency Report issued in March 2021, for example, includes only two types of solar PV generation, "customer solar" and "utility-scale solar," in its core and study scenarios.¹ The companion Inputs and Assumptions document states, in its discussion of candidate resources: "Candidate solar photovoltaic resources are represented as either utility-scale or distributed."² The Inputs & Assumptions document offers no definition of distributed solar, but the discussion of solar profiles later in that document considers only utility-scale and behind-the-meter solar.³

The 2021 Report frequently mentions concerns about land-use impacts, but only in terms of "balance[ing] clean electric grid infrastructure needs with efforts to restore, conserve, and strengthen natural and working lands."⁴ The 2021 Report's extensive discussion of land use and environmental impacts⁵ lays out a number of important considerations that must be taken into account in siting utility-scale generation and transmission, but there is no suggestion to explore the potential of maximizing solar installations on the built environment, which would avoid land-use issues.

Perhaps most tellingly, the Governor's May 2023 Clean Energy Transition Plan includes only utility-scale solar in its projections for clean electricity resources by 2030 and 2045.⁶ The Plan also notes the lack of "significant procurement of certain diverse resources – such as offshore wind, geothermal generation, and long-duration energy storage – needed to meet the state's clean and reliable portfolio" and attributes the lack of results to the development complexities of those resource types and the "fragmentation among [CPUC-jurisdictional retail] sellers."⁷ Here again, by excluding solar installations on the built environment in the potential resource mix, the Plan eliminates resources that are inherently local, use conventional resource types, avoid land-use concerns, and can be scaled to serve the renewable portfolio needs of California's diverse load-serving entities.

¹ 2021 Report, pp 9-15.

² Inputs & Assumptions: CEC SB 100 Joint Agency Report, issued June 2020, p 34.

³ Id., pp 68-69.

⁴ 2021 Report; see recommendation 3, p 20.

⁵ Id., pp 111-114, and recommendation 3, p 134.

⁶ Building the Electricity Grid of the Future: California's Clean Energy Transition Plan; May 2023; p 7.

⁷ Id., p 15.

Turning to the Workshop presentations, the 2025 Report Vision proposes five pathways or scenarios that will be evaluated for purposes of the 2025 Report. It describes the "DER Focus" scenario as "Higher levels of local resources, including distributed energy and community solar"⁸ but offers no explanation of what types of distributed resources will be considered. Later the presentation indicates that the DER Focus pathway, compared to the "Reference Pathway," will feature a Climate Resilience Land Use Scenario; Demand Assumptions: DER Sensitivity; Increased DER; and More DR and Load Flexibility.⁹ The Parties understand, based on an email response from Erica Brand at the CEC, that further details about the DER Focus Pathway and the other pathways are not yet determined and will be defined by the Agencies through an Inputs & Assumptions workshop this fall.

The Parties look forward to participating in the upcoming SB 100 workshop process. At the same time, we are seriously concerned based on the record thus far that the Agencies are looking exclusively at approaches to SB 100 compliance that rely entirely on procuring utility-scale generation and transmission while limiting the contribution of DERs to various options for load modification using BTM customer deployments. We believe that this represents a serious blind spot in the SB 100 analytical approach by excluding from the start, with no opportunity for consideration, an entire field of resources that could accomplish SB 100's mandates faster, more cost-effectively and without the problematic land-use issues inherent in an approach that relies almost entirely on bulk system resources and load management.

Prior Estimates of the Technical Potential of Solar PV on the Built Environment

Maximizing solar PV installations on the built environment is not a new or particularly innovative idea, nor does its assessment require new analytical techniques. The following are examples of rigorous assessments of distributed PV technical potential which demonstrate the importance and feasibility of examining this potential carefully in the SB 100 2025 Report process.

The first rigorous analysis we point to is the January 2016 report from the National Renewable Energy Laboratory (NREL), which provides a "detailed data-driven analysis of the U.S. (national, state, ZIP-code level) rooftop PV availability and technical electricity-generation potential." One important finding of their state-by-state analysis is that "California has the greatest potential to offset electricity use — its rooftop PV could generate 74% of the electricity sold by its utilities in 2013." This was based on estimated potential installed capacity of 129 GW and annual generation of 194 TWh. For the whole United States, NREL found the technical potential of rooftop PV to be 1,118 GW of installed capacity and 1,432 TWh of annual energy generation, which equates to 39% of total national electricity sector sales.¹⁰ More recently, in June 2019 Google's Project Sunroof estimated a rooftop PV technical potential for California of 168 GW installed capacity and 249 TWh annual generation.¹¹

⁸ 2025 SB 100 Report Vision, slide 9.

⁹ Id., slide 11.

¹⁰ NREL, Rooftop Solar Photovoltaic Technical Potential in the United States: A Detailed Assessment; January 2016; for state-level totals see Table 6, pp 35-36; for breakdown by building size see Table 3, pp 26-27, and Table 5, pp 32-33. <u>https://www.nrel.gov/docs/fy16osti/65298.pdf</u>

¹¹ Google Project Sunroof: <u>https://sunroof.withgoogle.com/data-explorer/place/ChIJPV4oX_65j4ARVW8IJ6IJUYs/</u>

Looking at a different component of the built environment, a March 2021 paper in Nature, "Energy and water co-benefits from covering canals with solar panels," reported technoeconomic simulations of solar photovoltaic panels covering California's 6,350 km canal network. While it focused on avoided evaporation (a potentially large non-energy benefit in a more waterscarce future) it found that "The net present value of over-canal solar exceeds conventional overground solar by 20–50%, challenging the convention of leaving canals uncovered and calling into question our understanding of the most economic locations for solar power."¹²

Focusing only on US warehouse roof capacity as of 2019, not considering all sites of the built environment that might host solar PV, an article published in April 2023 by Environment America Research & Policy Center estimated 185.6 TWh annual generation potential from rooftop PV, of which California warehouses could account for 32.2 TWh annually.¹³ The June 2022 Los Angeles County Community Solar Map report by UCLA's California Center for Sustainable Communities estimated 2,762 MW of rooftop solar PV capacity potential, plus between 704 and 1408 MW of parking lot potential, all combined will produce 5.44 TWh annual generation. The UCLA analysis showed that 2.1 million of LA County's 3.3 million households' energy consumption could be offset by this generation capacity. The analysis was based on shared distribution circuit associations, to link residential electricity consumption values to nearby eligible PV sites in order to estimate how much nearby residential electricity use could be offset by solar PV generation at each site. This approach was used to minimize the potential for reverse power flows along any particular circuit in the event of a temporary excess of PV supply over demand.¹⁴

The Parties offer these prior studies as indicators that the technical potential of a Max DG pathway utilizing the built environment could be game changing for California, and therefore deserves explicit definition as a candidate SB 100 Pathway and careful assessment in the 2025 SB 100 Report process.

Including a Max DG Pathway in the 2025 SB 100 Report Analysis

The Joint Non-Profit Parties urge the Agencies to begin an evaluation of a Max DG Pathway with an estimation of the technical potential of installing PV arrays on the built environment, including warehouses, shopping malls, parking lots, highway rights-of-way, irrigation canals, and other structures whose on-site electricity demand is likely to consume little or none of the energy produced at those sites. In other words, these structures would serve as sites for deploying renewable energy supply resources that could provide a sizeable portion of the renewable energy production required to comply with SB 100. The energy produced by these resources would be procured in much the same way as energy from utility-scale generators is procured, that is, by load-serving entities in their supply portfolios to serve their customers. In addition, energy from some of these facilities could be procured directly by customers if and when California adopts

¹² McKuin, B., Zumkehr, A., Ta, J. *et al.* Energy and water co-benefits from covering canals with solar panels. *Nat Sustain* **4**, 609–617 (2021). <u>https://doi.org/10.1038/s41893-021-00693-8</u>

¹³ <u>https://environmentamerica.org/center/resources/solar-on-warehouses/</u>

¹⁴ https://solar.energyatlas.ucla.edu/methods.html

workable rules for community energy, a topic which is currently being considered in a CPUC proceeding.¹⁵

The Parties recognize that estimating technical potential has not been part of the SB 100 study methodology to date and appears not to be under consideration for the Pathway analysis for the 2025 Report, which proposes to rely on capacity expansion and production cost modeling.¹⁶ The Parties are concerned that the "Pathway Analysis" flowchart presented at the Workshop¹⁷ will never produce a Max DG pathway for consideration, because the "Pathway Definition" portion of the flowchart will formulate candidate capacity expansion portfolios prior to considering the non-energy benefits/impacts and land-use analysis. In other words, under the analysis proposed at the Workshop, the non-energy benefits/impacts and land-use analysis will be used to evaluate the alternative pathways *only after the candidate pathways have been formulated without considering those benefits and impacts*.

Moreover, the flowchart makes no provision for feedback from the non-energy benefits/impacts and land-use analysis to the portfolio formulation step, though it does provide for feedback and potential portfolio modification from the reliability modeling, which places non-energy and landuse benefits in an inferior subsidiary position. As a result, following the flowchart presented at the Workshop will treat non-energy benefits/impacts and land-use analysis as afterthoughts rather than building them into the portfolio formulation. The appropriate remedy for this omission would be to formulate a Max DG pathway as described in these comments at the beginning of the analysis and assess it fully alongside the other pathways.

Conclusion

For the reasons discussed in these comments, the Joint Non-Profit Parties urge the Agencies to include a Max DG pathway as described above as a candidate SB 100 Pathway at the beginning of the 2025 Report process, starting with a quantitative assessment of the technical potential of such a pathway and its impact in reducing the need for utility-scale generation and transmission additions.

Respectfully submitted,

/s/ Lorenzo Kristov, PhD, on behalf of The Climate Center

- /s/ Roger Lin, Center for Biological Diversity
- /s/ Marc Costa, Board Chair, Local Government Sustainable Energy Coalition
- /s/ Claire Broome, 350 Bay Area
- /s/ Elsa Wefes-Potter, Local Clean Energy Alliance

¹⁵ See California Assembly Bill 2316 (2022) and CPUC Docket A.22-05-022.

¹⁶ 2025 SB 100 Report Vision, slides 17-18.

¹⁷ Id., slide 16.