BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to Address Other Issues Related to Net Energy Metering.	Rulemaking 20-08-020 (Filed August 27, 2020)

APPLICATION OF THE CENTER FOR BIOLOGICAL DIVERSITY, THE PROTECT OUR COMMUNITIES FOUNDATION, AND THE ENVIRONMENTAL WORKING GROUP FOR REHEARING OF DECISION 22-12-056

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Pursuant to Public Utilities Code section 1731(b)(1) and Rule 16.1 of the Commission Rules of Practice and Procedure, the Center for Biological Diversity ("the Center"), the Protect Our Communities Foundation ("PCF"), and the Environmental Working Group ("EWG") submit this Application for Rehearing of Decision 22-12-056, Decision Revising Net Energy Metering Tariff and Subtariffs ("Decision"). The Commission voted to adopt the Decision at its meeting on December 15, 2022, thereby enacting a new successor tariff to the current Net Energy Metering ("NEM") tariff. The Center, PCF, and EWG are parties eligible to file applications for rehearing pursuant to Rules 1.4 and 16.2 of the Rules of Practice and Procedure; the Administrative Law Judge ("ALJ") granted the Center's and EWG's motions for party status on June 7, 2022, and June 17, 2021, respectively, and PCF submitted comments on the order instituting rulemaking in this proceeding on October 5, 2020. This application is timely because it is filed and served 30 days after the date the Commission issued the Decision, on December 19, 2022.[1]

[1] *See* Cal. Code Regs., tit. 20, § 16.1; Pub. Util. Code § 1731(b)(1).

I. INTRODUCTION

In the Decision, the Commission adopts a successor to the current NEM tariff that fails to meet the statutory requirements for a successor tariff set forth in Public Utilities Code section 2827.1.[2] To cure this legal error, the Commission must grant this application for rehearing and reverse its adoption of the Decision.

Contrary to Public Utilities Code section 2827.1(b), the successor tariff will neither ensure the continued sustainable growth of distributed renewable generation nor encourage the spread of those resources to Disadvantaged Communities ("DACs"). The Decision presents prospective NEM customers with an unattractive economic value proposition and a longer payback period. Record evidence demonstrates that these changes will dramatically decrease growth of NEM resources in direct violation of section 2827.1(b)(1)'s mandate. The Decision's justification for disregarding this record evidence—a purported need to balance other statutory directives—ignores the statutory language, which commands the Commission to achieve *all* of the statute's goals.

The Decision also unlawfully leaves behind residents of DACs and low-income customers. Disregarding section 2827.1's mandate that the successor tariff itself "include specific alternatives designed for growth" in DACs, the Decision declines to adopt an Equity Fund as part of the successor tariff. Instead, the Decision improperly relies on a *separate* program to replace the Equity Fund, despite that program's different purpose and uncertain funding, as well as a lack of evidence that the other program will actually increase access to distributed generation in DACs. The Decision also fails to adopt an accurate cost of solar for

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[2] Further unspecified references are to the Public Utilities Code.

low-income customers and declines to adopt community solar or storage programs that could expand access to DACs, further undermining the Decision's ability to meet section 2827.1's equity-enhancing requirements.

In addition to these flaws, the Decision also disregards section 2827.1's requirement that the Commission evaluate the *total* costs and benefits of behind-the-meter ("BTM") generation. Instead, the Decision improperly dismisses quantifiable benefits excluded from the Avoided Cost Calculator ("ACC"), even while acknowledging that those benefits have some value. On the other side of the ledger, the Decision inaccurately assesses costs by relying on participant bill savings, rather than the actual costs of serving NEM customers. The Decision's emphasis on bill savings and the related Ratepayer Impact Measure ("RIM") test to evaluate cost-effectiveness also violates prior Commission decisions and section 2827.1. Both authorities require the Commission to analyze the tariffs' cost-effectiveness to the electrical system as a whole, and not, as the RIM test measures, their effects on non-participants.

The Decision's failure to meet the requirements of section 2827.1 constitutes legal error. The Commission must grant the application for rehearing and reverse its adoption of the Decision.

II. STANDARD OF REVIEW

Rule 16.1(c) requires an application for rehearing to "set forth specifically the grounds on which the applicant considers the order or decision of the Commission to be unlawful or erroneous."[3] An application for rehearing "alert[s] the Commission to a legal error, so that the

[3] California Public Utilities Commission ("CPUC" or "Commission"), Rules of Practice and Procedure, Rule 16.1; *see also* Cal. Code. Regs., tit. 20, § 16.1(c).

Commission may correct it expeditiously."[4] Pursuant to section 1757, which applies in a ratesetting proceeding such as this one,[5] a reviewing court must reverse a decision if, *inter alia*, "the commission has not proceeded in the manner required by law," its "decision . . . is not supported by the findings," the "findings . . . are not supported by substantial evidence in light of the whole record," or the decision "was an abuse of discretion."[6]

The Commission's decision must be reversed if its interpretation of the Public Utilities Code fails to "bear a reasonable relation to statutory purposes and language,"[7] or if it is not supported by the "plain meaning" of the statute.[8] The courts are the ultimate arbiter of statutory interpretation.[9] Courts owe less deference to the Commission's interpretation of the Public Utilities Code than to its interpretation of its own regulations.[10]

Pursuant to section 1705, Commission decisions must contain findings of fact and conclusions of law to assist a reviewing court "to determine whether [the Commission] acted arbitrarily" and thus abused its discretion.[11] The Commission must make its findings based on

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[4] Cal. Code Regs., tit. 20, § 16.1(c).

[5] R.20-08-020, Joint Assigned Commissioner's Scoping Memo and Administrative Law Judge Ruling Directing Comments on Proposed Guiding Principles at 7 (Nov. 19, 2020).

[6] Pub. Util. Code § 1757(a).

[7] *Greyhound Lines, Inc. v. P.U.C.* (1968) 68 Cal.2d 406, 410-11.

[8] *Bd. of Trustees of Cal. State Univ. v. Public Employee Relations Bd.* (2007) 155 Cal.App.4th 866, 876 (vacating agency's decision where its interpretation of a statute it administers was not supported by the plain meaning of the statutory language).

[9] *New Cingular Wireless PCS, LLC v. P.U.C.* (2016) 246 Cal.App.4th 784, 807 ("The final word on questions of statutory interpretation always rests with the judiciary.").

[10] *Util. Consumers Action Network v. P.U.C.* (2010) 187 Cal.App.4th 688, 698.

[11] *Cal. Manufacturers Assn. v. P.U.C.* (1979) 24 Cal.3d 251, 258-59 (citation omitted); *see also Cal. Hospital Assn. v. Maxwell-Jolly* (2010) 188 Cal. App. 4th 559, 567-68 (arbitrary and capricious decision will be reversed for abuse of discretion); *Roddenberry v. Roddenberry* (1996) 44 Cal.App.4th 634, 651-52 (purpose of substantial evidence review is to uncover "irrational findings and thus preclude the risk of affirming a finding that should be disaffirmed as a matter of law") (citation omitted).

substantial evidence in the "whole record;" it must consider "all relevant evidence, including evidence detracting from the decision."[12] Substantial evidence is evidence of "ponderable legal significance"[13] that is "reasonable in nature, credible, and of solid value such that a reasonable mind might accept it as adequate to support a conclusion."[14] Ultimately, if the Commission "fail[s] to comply with required procedures, appl[ies] an incorrect legal standard, or commit[s] some other error of law," its decision will be reversed on appeal.[15]

III. ARGUMENT

A. The Decision violates the statutory mandate for any successor tariff to ensure the continued growth of distributed generation in California.

The Decision acknowledges the Legislature's unambiguous mandate for any successor tariff to "*ensure*[] that customer-sited renewable distributed generation *continues to grow sustainably*."[16] The Decision, however, fails to comply with this mandate.

Section 2827.1 sets forth the requirements for the Commission's new net metering tariff. In that section, the Legislature affirmatively mandates that in developing any new tariff, the Commission "shall do *all* of the following."[17] The very first of the requirements that follows this statement commands the Commission to "ensure[ ] that customer-sited renewable distributed generation continues to grow sustainably."[18] By including the word "continues"—meaning "to

[12] *The Utility Reform Network v. P.U.C.* (2014) 223 Cal.App.4th 945, 959 (citation omitted).

[13] *People v. Johnson* (1980) 26 Cal.3d 557, 576 (citation omitted).

[14] *S. Coast Framing, Inc. v. Worker's Compensation Appeal Bd.* (2015) 61 Cal.4th 291, 303 (citation omitted).

[15] *Pedro v. City of Los Angeles* (2014) 229 Cal.App.4th 87, 99.

[16] Decision at 55 (quoting Pub. Util. Code § 2827.1(b)(1)) (emphasis added).

[17] Pub. Util. Code § 2827.1(b) (emphasis added).

[18] *Id.* § (b)(1).

maintain without interruption a condition, course, or action,"[19]—the Legislature required the Commission to maintain current growth rates for distributed generation.

By adopting a successor tariff that increases payback periods and decreases bill savings, the Decision will devastate solar adoption rates and thus fail to ensure the continued sustainable growth of distributed generation. Various parties have demonstrated that extending the payback period for solar investments to as long as nine years, as the Decision does, will seriously diminish solar adoption.[20] Parties also cited evidence from other states showing extreme decreases in solar adoption rates after those states adopted tariffs making rooftop solar less economically attractive.[21] Indeed, the Decision itself acknowledges that "[t]he inability to achieve higher bill savings and reasonable payback periods are barriers to increased participation by low-income customers."[22]

Rather than address this evidence that the Decision will decrease the growth of distributed generation, the Decision claims that the parties citing this evidence are inappropriately elevating the mandate for continued growth above the other requirements in

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[19] *See* "Continue," Merriam-Webster.com Dictionary, Merriam-Webster, https://www.merriamwebster.com/dictionary/continue (accessed Dec. 15, 2021) (defining "continue" as "to maintain without interruption a condition, course, or action"); *Stephens v. County of Tulare* (2006) 38 Cal.4th 793, 801-02 (explaining that statutory interpretation looks to "the plain meaning of the actual words of the law;" citing to Webster's dictionary to discern the plain meaning of a word).

[20] *See, e.g.*, CSA-01 at 61:24-62:3, 63 (analysis of NREL dGen model and NREL study showing that customer willingness to adopt solar drops precipitously as the payback period increases from 5 to 10 years); PCF Opening Comments on PD at 11-13. As PCF demonstrates – and the Decision does not adequately refute – the available evidence suggests that the substantially increased payback period will markedly diminish distributed solar investments.

[21] SVS-01 at 11, 13 (after Nevada changed its NEM tariff, the rate of new installations decreased 94% from its peak); SVS-02 at 8-9 (after Hawaii changed its NEM tariff, the rate of new installations decreased 80% from its peak).

[22] Decision at 226 (Finding of Fact "FoF" 197).

Section 2827.1.[23] The Decision then ignores the central question of whether the Decision in fact satisfies the requirements of Section 2827.1(b)(1) itself. Instead, the Decision contends that so long as the Commission "*consider[s]*" the tariff's impact on distributed generation growth and appropriately "*balances* the requirements" of Section 2827.1(b), it has complied with the Legislature's command, regardless of whether Section 2827.1(b)(1) itself is satisfied.[24] On that basis, the Commission "finds a nine-year simple payback for stand-alone solar to be reasonable."[25]

The Legislature neither instructed the Commission simply to take each of these mandates into account, nor called for a result that appropriately balances among them. Rather, the Legislature commanded that the new tariff "shall *do all* of the following," *including ensuring distributed generation "continues to grow sustainably*."[26] The Decision simply ignores whether the new Tariff, will, in fact, meet this mandate, despite considerable evidence that it will not.

Implicitly recognizing this weakness, the Decision recharacterizes sustainable growth as being dependent on addressing the purported cost-shift.[27] The Decision suggests that sub-paragraphs (3) and (4) of section 2827.1(b) include a requirement that the Commission address the cost-shift.[28] Those provisions require, respectively, that the successor tariff be "based on the costs and benefits" of renewable generation facilities and "[e]nsure that the total benefits of the

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[23] Decision at 56-57.

[24] *Id.* at 57-58 (emphasis added).

[25] Decision at 79.

[26] Pub. Util. Code § 2827.1(b)(1) (emphasis added).

[27] Decision at 58 ("[a]llowing the net energy metering tariff to result in growing costs shifted to nonparticipant ratepayers is not sustainable to the overall health of net energy metering").

[28] Decision at 156-57.

. . . tariff to all customers and the electrical system are approximately equal to the total costs."[29] As an initial matter, the Decision misinterprets these sub-paragraphs. Balancing costs and benefits "to all customers and the electrical system" does not require an evaluation of a cost shift *between* two customer groups, but rather a cost-effectiveness test analyzing effects on all customers as a collective whole.

But even assuming that section 2827.1 speaks to cost shifts, in prioritizing the cost shift, the Decision does exactly what it accuses parties of doing: elevates one of the statutorily mandated Section 2827.1(b) factors above the others, making the mandate for sustainable growth contingent on addressing the claimed cost-shift. In so doing, the Commission commits legal error by reading the explicit command of Section 2827.1(b)(1) out of the statute.[30]

To be sure, elsewhere the Decision purports to conclude that the Commission cannot both ensure continued growth and address the purported cost-shift, and thus cannot satisfy all the requirements of Section 2827.1.[31] However, if in fact that were the basis for the Decision, basic administrative law principles dictate that the Commission must at the very least *explain* why it chose to elevate resolution of one mandate over the other.[32] But that is not what the Decision does. Instead, the Decision claims to be balancing among mandates, rather than explaining why

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29 Pub. Util. Code § 2827.1(b)(3)-(4).

30 *See, e.g., B.B. v. County of Los Angeles,* (1990) 10 Cal. 5th 1, 22 (courts should not construe "[w]ords in a statute … as surplusage") (quoting *Rumetsch v. City of Oakland* (1933) 135 Cal. App. 267, 269); *Bostock v. Clayton County* (2020) 140 S. Ct. 1731, 1738-41 (giving full effect to all terms in a statute).

31 *See* Decision at 108 (claiming the Commission is charged with reconciling "conflicting requirements of the statute"); *id.* at 217 (FoF 107: "It is the Commission's responsibility to balance the multiple and, sometimes, conflicting requirements of the statute.").

32 *Cf. Beverly Hills Unified School Dist. v. Los Angeles County Metropolitan Transportation Authority* (2015) 241 Cal. App. 4th 627, 659 (agency "must explain in detail its reasons" for the key choices in its decision-making); *Wilderness Watch, Inc. v. U.S. Fish & Wildlife Serv*ice (9th Cir. 2010) 629 F.3d 1024, 1039 (agency "must, at the very least, explain why addressing one variable is more important than addressing the other variables").

it chose to elevate one mandate – the purported cost-shift – over another. Because the Commission makes the duty to ensure continued growth of distributed solar subservient to addressing the purported cost-shift, without either acknowledging that choice or explaining the underlying rationale, the Decision cannot stand as written.[33]

B. The Decision violates the statutory mandate for any successor tariff to include specific alternatives designed for growth among residential customers in disadvantaged communities.

The Legislature, in section 2827.1(b)(1), separately mandated that the successor tariff must also "include specific alternatives designed for growth among residential customers in disadvantaged communities."[34] The Decision expressly rejects the Joint Utilities' argument that this requirement is satisfied by addressing the purported cost shift alone, finding that the statute also requires affirmative steps to "increase participation by [those] in low-income households and [DACs]."[35] However, by eliminating the proposed Equity Fund, rejecting a separate cost of solar installation analysis for low-income communities, and improperly deferring consideration of the benefits of NEM community solar systems and other benefits of BTM generation that particularly accrue to DAC and other low-income community residents, the Commission fails to fulfill this mandate.

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33 Because the Legislature instructed the Commission to take into account the "*total* benefits" associated with compensating distributed generation, PUC Code § 2827.1(b)(4) (emphasis added), the Decision should have accounted for the benefits the Commission has thus far not yet quantified. *See* Decision at 58-71. Had it done so, the Decision could have fulfilled both mandates by retaining approximately the existing payback period for distributed generation investments to ensure continued growth, and determining that this approach appropriately accounts for those as-yet unquantified benefits.

34 *See* Decision at 89 (quoting Pub. Util. Code § 2827.1(b)(1)).

35 Decision at 92.

1. By improperly relying on AB 209 to replace the Equity Fund, the Commission has not designed an alternative for growth among residential customers in disadvantaged communities.

The Decision acknowledges the central equity issue in this proceeding: "[DACs] should not continue to be left behind with respect to clean energy options, including electrification and storage."[36] The Decision also claims that "the successor tariff will include elements to . . . increase participation by households in low-income households [*sic*] and disadvantaged communities."[37] In addressing participation by DAC and other low-income communities, the Decision discusses proposals for an "Equity Fund" that would rely on the rate structure to generate funds to allow DACs to obtain the benefits of distributed solar opportunities.[38] Both the Joint Utilities and other advocates recommended such a fund to fulfill the Legislature's mandate to serve DACs.[39]

However, without expressly determining that an Equity Fund is not necessary to fulfill this aspect of Section 2827.1(b), the Decision rejects the fund for a different reason: because the Legislature passed AB 209, which is designed to serve DACs.[40] By resolving this issue in this manner, the Decision makes multiple legal errors.

Section 2827.1(b) mandates that *the tariff itself* ensure distributed solar growth among residential customers in DACs: it sets forth a list of goals the Commission must accomplish "[i]n developing the standard contract or tariff" itself.[41] The Equity Fund satisfies this mandate,

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[36] *Id.*
[37] *Id.*
[38] Decision at 178-79.
[39] *Id.*
[40] Decision at 180-81.
[41] Pub. Util. Code § 2827.1(b).

relying on the Tariff to raise funds for growth in DACs. AB 209, on the other hand, is not part of the Commission's Tariff, and thus cannot satisfy the Legislature's mandate.

By concluding that AB 209 satisfies Section 2827.1(b)'s mandate related to DACs, the Decision implicitly finds that the new statute repealed the express command of Section 2827.1(b). However, the Decision does not even try to demonstrate that AB 209 represented such a repeal by implication.[42] Certainly nothing in AB 209 suggests that in enacting this program the Legislature intended to relieve the Commission of its obligation, in "developing the standard contract or tariff," to "include specific alternatives designed for growth among residential customers in" DACs.[43] To the contrary, because AB 209 concerns only customers who acquire storage systems, the Legislature intended that program to serve a different, if albeit complementary, goal for DACs. AB 209 provides storage incentives primarily to low-income residential customers who have *already* installed new BTM systems.[44] But AB 209 does not address section 2827.1(b)'s concern: access to those solar systems in the first place. In sum, the Decision erred by relying on separate legislation to ignore a long-standing mandate. The Commission must either reinstate the Equity Fund, or affirmatively explain why such a Fund is no longer necessary to ensure that the Tariff itself will achieve the requisite growth of customer-sited renewable distributed generation in DACs.

Even setting aside the legal flaws described in the previous two paragraphs, the Decision also fails to meaningfully address another serious concern: AB 209 has not been funded, and it remains uncertain whether funding will be provided. As the Decision concedes, AB 209 funds

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42 *Tuolumne Jobs & Small Business Alliance v. Superior Court* (2014) 59 Cal. 4th 1029, 1039 (reiterating the "strong presumption against repeal by implication").

43 Pub. Util. Code § 2827.1(b)(1).

44 *See* Pub. Util. Code § 379.10(a)(1), (2).

are still subject to legislative appropriation.[45] The State's anticipated budget shortfall jeopardizes this funding.[46] In addition, AB 209 Self-Generation Incentive Program ("SGIP") funds are only earmarked for 2023-24.[47] Given the limited success of the SGIP program to reach residential equity customers to date, there is also uncertainty over whether the balance of the fund will rest with the Commission post-2024. If the balance of the fund reverts to the General Fund, the Commission will lose a significant mechanism to ensure the continuous growth of the NEM program in DAC and other low-income communities.

In response to this concern, the Decision simply declares that this funding *will* in fact be provided, "given the climate crisis and the important climate policies [in the] budget."[48] This terse declaration does not satisfy the Commission's fundamental obligation to satisfy the Legislature's command. Moreover, barely a month after approval of the Decision, the Governor cut $270 million from the AB 209 fund, due to the budget shortfall.[49] This highlights not only the uncertainty of both the amount and longevity of AB 209 funds, but also the Decision's insufficient and incorrect reasoning. In contrast, adopting an Equity Fund could provide certainty that funds *will* be available to serve DACs. Thus, at bare minimum, the Commission should stay this aspect of the Decision until AB 209 funding is resolved – and if the funding is not provided, the Commission should reconsider the Equity Fund. Otherwise, the Commission's claimed

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45 Decision at 180.

46 *See* 2023-2024 Budget, California Fiscal Outlook at 1 ("State Faces $24 Billion Budget Problem and Ongoing Deficits. Under our outlook, the Legislature would face a budget problem of $24 billion in 2023-24"), *available at* https://lao.ca.gov/reports/2022/4646/CA-Fiscal-Outlook-111622.pdf.

47 *See* California State Budget Addendum at 6, *available at* https://www.ebudget.ca.gov/2022-BudgetAddendum.pdf.

48 Decision at 180.

49 Governor's Budget Summary (January 2023) at 46, *available at* https://ebudget.ca.gov/FullBudgetSummary.pdf.

commitment to equity will ring hollow, as it will be evident that the Commission is prepared to gut an inventive policy for customers in DACs without providing any assurance that there will be separate funding available to at least partially mitigate this blow.

AB 209 also lacks the Equity Fund's critical elements for community engagement.[50] The December 2021 Proposed Decision addressed the socio-economic, regulatory, and structural barriers to clean energy deployment in DACs and explained how an Equity Fund would focus specifically on "creat[ing] improved access to distributed energy resource technology for low-income customers and disadvantaged communities."[51] By contrast, funding from the SGIP for technologies alone, absent adequate marketing, education, and outreach strategies, will not allow distributed generation to grow in DAC and other low-income communities.

The Commission cannot design specific alternatives for growth of rooftop solar among residential customers in DAC and low-income communities without addressing the barriers to greater penetration of clean energy resources.[52] As evidenced by the progress of the Electric Program Investment Charge funded Advanced Energy Community project in Avocado

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50 *See* R.20-08-020, Proposed Decision (December 13, 2021) at 135, 138 (the Equity Fund would have included "an inclusive process with disadvantaged communities, environmental justice groups, and consumer advocates to determine how the funds should be spent to address barriers to adoption in these communities.").

51 *Id.* at 138, Conclusion of Law 42 ("The Commission should establish an equity fund to address the low adoption rate of distributed generation in low-income households.").

52 *See* Pub. Util. Code § 2827.1(b)(1) (requiring "specific alternatives designed for growth among residential customers in disadvantaged communities."); SB 350 Low-Income Barriers Study, Part A (December 2016) (examining barriers to and opportunities for solar photovoltaic energy generation, as well as barriers to and opportunities for access to other renewable energy by low-income customers), *available at* https://assets.ctfassets.net/ntcn17ss1ow9/3SqKkJoNIvts2nYVPAOmGH/fe590149c3e39e51593231dc60eeeeff/TN214830_20161215T184655_SB_350_LowIncome_Barriers_Study_Part_A__Commission_Final_Report.pdf; CPUC Environmental and Social Justice Action Plan Version 2 at 9 ("[to] serv[e] all Californians, [the CPUC] must acknowledge that some populations in California face higher barriers to access to clean, safe, and affordable utility service."), *available at* https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/esj-action-plan-v2jw.pdf.

Heights/Bassett,[53] and the evaluation of the Commission's San Joaquin Valley DAC Pilot Projects,[54] community engagement, marketing, and education, in particular through funded partnerships with community-based organizations, is critical to eliminate barriers to participation in DAC and low-income communities.[55] Failure to address marketing, education, and outreach further runs contrary to the Commission's Rate Design Principles that recommend adequate outreach and engagement to ensure continuous growth of programs, especially in DAC and low-income communities.[56]

Finally, AB 209 does not address the Decision's fundamental failure to protect DAC and other low-income residents from the effects of gutting net metering itself. The Decision recognizes, "[t]he inability to achieve higher bill savings and reasonable payback periods are barriers to increased participation by low-income customers."[57] Yet, even after providing CARE customers with limited, additional compensation for exports, the successor tariff is deliberately

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53 *See, e.g.*, CEC Advanced Energy Community Deployment Around Existing Buildings in DACs (January 2019) ("The advanced energy community design and financing approach aims to address longstanding structural and programmatic barriers."), *available at* https://www.energy.ca.gov/publications/2019/advanced-energy-community-deployment-around-existing-buildings-disadvantaged

54 *See* Evergreen Economics SJV DAC Pilot Projects Process Evaluation (October 20, 2022) (detailing the benefit of "Community Energy Navigators" increasing program participation through effective community outreach and education), *available at* https://www.calmac.org/publications/SJV_DAC_Process_Evaluation_Final_Report_102022.pdf.

55 *See also*, *e.g.*, GRID Alternatives, 2022 Marketing Education and Outreach Plan at 5, *available at* https://gridalternatives.org/sites/default/files/2022-04/DAC-SASH%202022%20MEO%20plan_March%202022%20FINAL.pdf (achieving 82% of Installations Forecast in DAC-SASH Program).

56 D.15-07-001, Decision on Residential Rate Reform for PG&E, SCE, and SDG&E and Transition to Time-of-Use Rates (July 13, 2015) at 27-28 ("Transitions to new rate structures should emphasize customer education and outreach that enhances customer understanding and acceptance of new rates."); *see also* SEIA/Vote Solar Opening Brief (August 31, 2021) at 39 (a customer's "willingness to invest in solar or solar [paired with] storage is ultimately tied to their ability to understand" their compensation.)

57 Decision at 226 (FoF 197); *see also* NRD-01 at 10.

designed to *increase* the number of years to payback.[58] The Commission thus increases the same barriers to lower-income customer adoption that it ostensibly aims to reduce. This approach not only contradicts the Guiding Principles, but it also violates the terms of section 2827.1, which requires that the successor tariff include alternatives "designed for *growth*" in DACs.[59]

2. By rejecting a specific low-income cost of solar installation, the Commission frustrates any mechanism to grow BTM generation in disadvantaged communities.

The Decision further fails to meet section 2827.1(b)(1)'s mandate because it uses an inaccurate installation cost for low-income customers. To ensure that the sub-tariff is cost-effective within a reasonable timeframe, and thus will increase participation among low-income customers, the Decision must accurately estimate installed solar costs and likely payback periods. Nevertheless, the Decision rejects substantial evidence in the record and fails to recognize the true costs of installing solar in low-income communities.

As noted by several parties, the Decision's reliance on $3.30 per watt underestimates the actual cost of installing solar generation, and therefore, improperly calculates the payback period.[60] The Commission aims to deliver a 9-year payback for solar-only CARE-enrolled

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58 Decision at 77 (acknowledging that the successor tariff will i*ncrease* payback periods). Evidence in the record demonstrates that targeting a payback period of no more than 7 years is necessary to ensure the continuity of growth in BTM generation mandated by section 2827.1. *See e.g.* CALSSA Opening Brief (August 31, 2021) at 20, citing CSA-01 at 60:15-61:23.

59 Pub. Util. Code § 2827.1(b)(1) (emphasis added).

60 *See* Opening Comments of SEIA/Vote Solar on Proposed Decision (November 30, 2022) at 3 (noting that the $3.87/watt rate in LBNL Tracking the Sun Report is a more reliable number, especially given inflation and supply-chain issues); Opening Comments of California Solar and Storage Alliance on Proposed Decision (November 30, 2022) at 3; Opening Comments of Grid Alternatives/Sierra Club/Vote Solar on Proposed Decision (November 30, 2022) at 5-6 (cost is $4.28/watt for DAC customers); *see also* Reporter's Transcript Vol. 2, 202:20-25 (Testimony of Joint Utilities witness Dr. S. Tierney) ("Q: Do you agree that if a customer was also paying interest or financing charges on a loan to fund a purchase [of a solar installation] that would extend the payback period? A: Under that hypothetical, I—presumably so."); *see also* Reporter's Transcript Vol. 10, 1857:25-1858:7 (Testimony of NRDC witness Mohit

customers and calculates the level of ACC Adder necessary to meet that target. However, since the Decision calculated this level of support based on the $3.30 per watt installed cost, and the installed cost for low-income customers is demonstrably too low, the corresponding ACC Plus Adder is similarly too low. The Commission fails to take into account the higher costs associated with serving low-income customers, who typically face additional financing costs.[61] Low-income households often do not have the available capital to purchase their systems outright or to reduce system cost through the Investment Tax Credit, so financing and third-party ownership provides the only viable pathway to access rooftop solar and storage.[62] The SB 350 Low-Income Barriers Study confirms that challenges obtaining upfront financing—whether because of poor credit, lack of collateral, insufficient access to private funding, or inability to take on additional debt—prevents access to clean energy resources in DACs and other low-income communities.[63]

GRID Alternatives, Sierra Club, and Vote Solar reference the DAC-SASH report in the record, detailing installed costs of solar at $4.28 per watt, which includes these financing and other third-party costs for low-income customers.[64] Other record evidence suggests that

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Chhabra) ("Q: Would a customer who is paying interest on loans to finance a NEM system have a longer or shorter payback period compared to a customer who purchased a system in cash, holding all else equal. A: . . . [E]verything else equal, if someone pays cash, that means they aren't paying interest, and so—so yeah, they'll have a lower payback period.").

61 SVS-03 at 28 (stating that cash purchase "is an option available mostly to wealthier customers who can afford the initial cash outlay"); Reporter's Transcript Vol. 10, 1857:8-16 (Testimony of NRDC Witness M. Chabra) (concluding that lower-income customers are more likely to require financing or loans to install a NEM system).

62 *Id.*

63 SB 350 Low-Income Barriers Study, Part A at 2-4, 35-36 (December 2016), *available at* https://assets.ctfassets.net/ntcn17ss1ow9/3SqKkJoNIvts2nYVPAOmGH/fe590149c3e39e51593231dc60eeeeff/TN214830_20161215T184655_SB_350_LowIncome_Barriers_Study_Part_A__Commission_Final_Report.pdf.

64 GRID Alternatives, Sierra Club, and Vote Solar Opening Comments on Proposed Decision (November 30, 2022) at 5-6.

financing costs could result in payback periods 60% longer than "simple" payback period calculations that ignore interest payments.[65] The Commission, however, dismisses these observations, stating that "DAC-SASH, with its unique requirements, is not analogous to the net billing tariff, where a homeowner is making their own choices in an open, competitive market."[66] This reasoning is insufficient and not based on any record evidence. A DAC-SASH eligible homeowner is also making their own choices in an open, competitive market.

The Decision claims that the $3.30 per watt estimate contemplates financing costs, but it arbitrarily estimates the cost of installation, landing between the National Renewable Energy Laboratory and the Lawrence Berkeley National Laboratory's *Tracking the Sun* reports' estimated values, rather than relying on substantial evidence in the record for a more accurate estimate specific to low-income customers. Both of these reports are based on the "average" solar customer; they do not focus exclusively on low-income customers, as GRID *et al.* recommend. Yet the Commission, in order to design an alternative for continuous growth in DACs, must examine costs for exclusively low-income, or at least DAC customers, especially if the Commission is to adhere to the mandate to design a "*specific* alternative" for DACs.

3. By improperly deferring consideration of community solar and storage, the Decision fails to ensure growth of BTM generation among residential customers in disadvantaged communities.

An agency's decision is arbitrary and capricious if it fails to consider important aspects of the issue before it.[67] The record details the importance of community solar and the benefits more

65 SVS-03 at 51.
66 Decision at 84.
67 *The Lands Council v. Powell* (9th Cir. 2005) 395 F.3d 1019, 1026.

affordable systems can confer to DAC and other low-income communities.[68] The Decision further recognizes "that a community renewable energy program tariff has the potential to benefit the grid and ratepayers."[69]

Nevertheless, the Commission continues to defer community solar and community storage proposals. The Commission reasons that such programs would be "premature" in light of scheduled proceedings.[70] Advocates have heard this same excuse for deferring proposed community energy programs since as early as 2013.[71]

NEM-based community solar and storage programs provide a meaningful opportunity to expand access to NEM to customers who would otherwise be unable to participate—especially renters, who generally have lower incomes than homeowners, and who have been historically under-represented among NEM participants. Approximately 44 percent of residential IOU customers are renters who have very limited access to NEM solar, but are ideal candidates for

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[68] *See e.g.* California Environmental Justice Alliance Public Comment Letter on CPUC's Net Energy Metering 3.0. Rulemaking (R.)20-08-020 Addressing Community Solar (June 10, 2022) at 3 ("Community solar presents a major opportunity to enable [environmental justice] communities to tap into the health, resilience, and economic benefits of clean energy . . . Community solar can provide much needed economic benefits to EJ communities through utility bill savings, wealth building, workforce development and family-sustaining jobs . . . community solar offers the chance to improve air quality in communities bearing the brunt of life-threatening pollution. Building out clean energy projects will increase local energy capacity which can thereby reduce the need for fossil fuel plants and decrease local air pollution.")

[69] Decision at 188.

[70] *Id.*

[71] *See, e.g.*, R.12-06-013, Residential Rate Proposal of The Interstate Renewable Energy Council, Inc. for a CleanCARE Pilot Program and Limited Comments on Net Energy Metering Impacts (May 29, 2013) (proposing a shared renewables program); D.16-01-044, Decision Adopting Successor to Net Energy Metering Tariff (Feb. 5, 2016) at 39, 102-03 (deferring effort to design alternatives for disadvantaged communities); D.17-12-009, Decision Resolving Petitions for Modification of Decision 16-11-022 (Dec. 20, 2017) at 398-403 (deferring consideration of the CleanCARE program).

community solar. Further, well-designed community solar and storage programs could realize considerable grid and ratepayer benefits.[72]

By postponing its determination on community solar, the Commission undermines its stated commitment to equity and fails to expand access to NEM to lower-income customers.

C. The Commission commits legal error by failing to account for the benefits and costs of BTM generation.

The Public Utilities Code directs the Commission to (1) ensure that any NEM tariff is "based on the costs and benefits" of BTM resources, and (2) ensure that the tariff's "*total benefits* . . . to all customers and the electrical system are approximately equal to [its] *total* costs."[73] Implementing this directive requires an accurate assessment of the real benefits NEM systems provide and the actual costs of serving NEM customers. The Decision, however, improperly discounts NEM systems' demonstrated benefits while inflating the costs of BTM generation. Because the Decision inaccurately quantifies BTM generation's benefits and costs, the successor tariff fails to comply with section 2827.1's mandate.

1. The Commission's analysis of the benefits of NEM systems fails to comply with AB 327.

The Commission's analysis of the benefits of BTM generation is legally defective for two reasons: first, by exclusively relying on the ACC to value benefits and export compensation rates, the Commission departs from agency practice and the very design and purpose of the ACC; and second, the Commission's omission of several significant benefits of NEM systems in the ACC itself violates section 2827.1.

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72 In addition to expanding access to underserved populations, dispatchable community storage resources could promote grid stability and decrease costs for all customers. *See* TRN-01 at 56-57.

73 Pub. Util. Code § 2827.1(b)(3)-(4) (emphasis added).

a. The Commission commits legal error by relying exclusively on the ACC.

The Commission relies entirely on the ACC to quantify the benefits of BTM generation.[74] The Commission justifies its decision to ignore demonstrated benefits beyond those included in that tool (see section III.C.1.b, below) on the grounds that prior Commission decisions endorsed the use of the ACC.[75] Those prior decisions, however, cannot displace the obligations of section 2827.1, which requires the Commission to address the *total* costs and benefits of BTM generation when establishing a successor tariff.

Moreover, the Commission never intended the ACC to be used in isolation, as it is used in the Decision. The Decision relies upon three prior decisions to support exclusive use of the ACC in this proceeding: D.19-05-019 (adopting a cost-effectiveness analysis framework for all distributed energy resources ("DERs")); D.16-06-007 (updating portions of the Commission's cost-effective framework); and D.20-04-010 (the 2020 updates to the ACC).[76] Although these three decisions require use of the ACC, none recommends the *exclusive* use of the ACC to determine the benefits of DERs.

In fact, D.20-04-010 demonstrates that the ACC is used to determine only the avoided costs of DERs across Commission proceedings, or the "primary," but not total, benefits.[77] "Rather, these avoided costs are [then] compared with energy savings and other program

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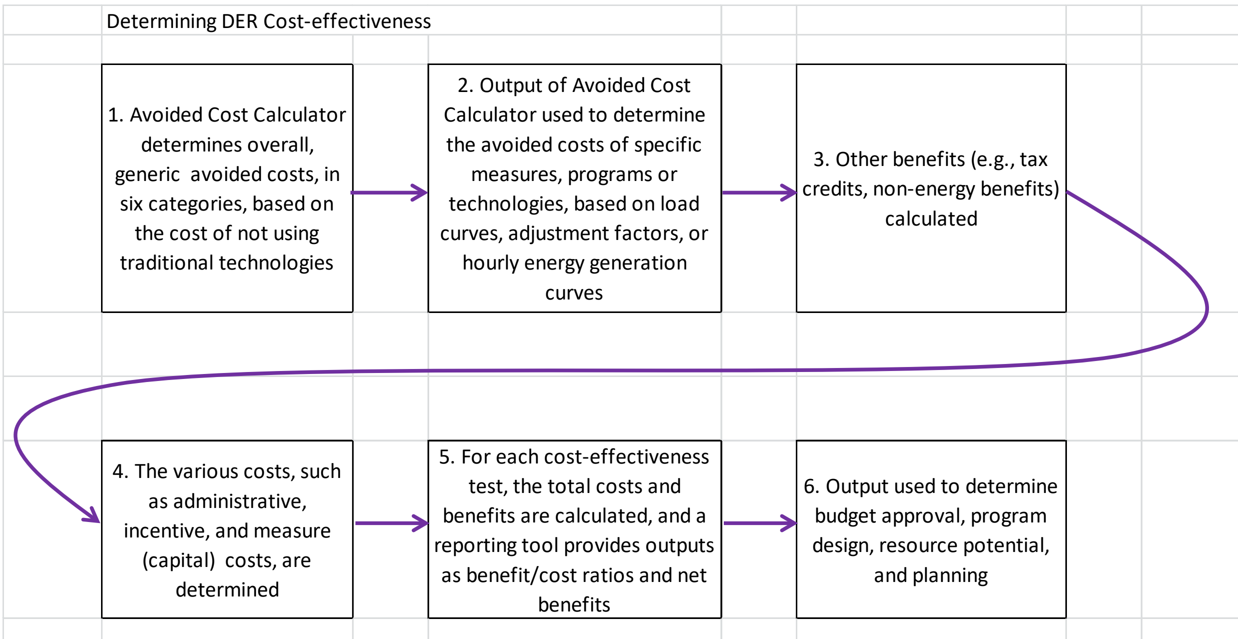
[74] Decision at 58.

[75] Decision at 58-59.

[76] Decision at 58-59; *see also* D.19-05-019, Decision Adopting Cost-Effectiveness Analysis Policies for All Distributed Energy Resources (May 21, 2019); D.16-06-007, Decision to Update Portions of the Commission's Current Cost-Effectiveness Framework (June 15, 2016); D.20-04-010, 2020 Policy Updates to the Avoided Cost Calculator (April 24, 2020).

[77] *See* D.20-04-010 at 4.

characteristics to [then] estimate program benefits."[78] The Commission's own guidance summarizes this established framework, detailed below.[79]



The Commission traditionally employs a three-part cost-effectiveness process. The first part (step/box 1) is to use the ACC to determine "overall and generic avoided costs."[80] The second part (steps/boxes 2 and 3) determines other benefits of specific DERs, and includes the specific example of "[o]ther benefits [such as] non-energy benefits." The third part (steps/boxes 4-6) then determines the costs of specific DERs and compares them to the benefits.[81] This three-

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78 *Id.* at 5.

79 CPUC Overview of the DER Cost-effectiveness Process, Figure 1, *available at* https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/energy-efficiency/ider-cost-effectiveness/cost-effectiveness-brief-overview.docx

80 *Id.*

81 CPUC Overview of the DER Cost-effectiveness process, *available at* https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/energy-efficiency/ider-cost-effectiveness/cost-effectiveness-brief-overview.docx.

part process highlights that the ACC alone cannot accurately represent the *total* benefits of DERs, but only six categories of "generic avoided costs." The Commission commits legal error by departing from its own processes and equating "generic avoided costs" to "total benefits," in contravention of section 2827.1.

Furthermore, in prior proceedings assessing non-energy benefits ("NEBs") or other societal costs, the Commission has already determined that the ACC *alone* is not capable of capturing the full suite of societal costs and benefits.[82] There are several benefits to rooftop solar that fall outside of these generic avoided cost buckets – such as local job creation, associated economic development, and resiliency or reliability – and which therefore may never appear in any iteration of the ACC. Pursuant to AB 327 and SB 350, the Commission *must* consider these benefits.[83]

In addressing the absence of social costs and non-energy benefits from the ACC, the Decision simply defers consideration of these benefits to a "successor proceeding to R.14-10-003."[84] The Decision, however, cannot guarantee that that proceeding will address the full range of social costs and non-energy benefits or that those benefits will be incorporated into the ACC. Relying on future refinements to the ACC that may not occur cannot cure the fact that the current ACC fails to capture benefits of NEM solar that are not per se "avoided."

[82] CPUC Societal Cost Test Impact Evaluation (January 2022) at 11 ("Neither IRP modeling nor DER avoided costs provide the entire picture of resource procurement, so examining the impact of societal costs from both perspectives is crucial."), *available at* https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/2019-2020-irp-events-and-materials/societal_cost_test_impact_evaluation.pdf.

[83] Pub. Util. Code § 400(a). ("The [C]ommission . . . shall . . . in furtherance of meeting the state's clean energy and pollution reduction objectives . . . [t]ake into account the use of distributed generation to the extent that it *provides economic and environmental benefits in disadvantaged communities*.") (emphasis added); Pub. Util. Code § 2728.1(b)(4).

[84] Decision at 66.

The omission of any consideration of out-of-state methane leakage illustrates the ACC's limits. The ACC excludes any value for reductions in out-of-state methane leakage attributable to distributed generation because those reductions do not count towards the State's GHG reduction goals.[85] However, the ACC acknowledges that reducing methane leakage has a quantifiable societal benefit.[86] Because the ACC excludes known benefits of distributed generation, the Commission's exclusive reliance on the ACC violates section 2827.1, which demands an evaluation of "total" benefits.[87] The Commission's justification for excluding consideration of these benefits in this proceeding—that the ACC does not include them—only proves the limits of the ACC as a tool for adequately assessing total benefits of BTM generation.

The Commission exacerbates this error by tying the value derived from the ACC alone to export compensation rates. As the Joint IOUs concede, the ACC "was not designed to directly inform rate design."[88] To ensure just and reasonable rates, the Commission should defer diminishing the export value until it has completed its analysis of NEBs and considered how to incorporate the full suite of social costs and NEBs into decision-making. Further, because the ACC sets compensation for exports at a value demonstrably lower than the actual value of BTM generation, the Successor Tariff does not comply with section 2827.1's mandate to ensure that a NEM tariff reflect the actual benefits of BTM generation.

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[85] 2022 Distributed Energy Resources Avoided Cost Calculator Documentation (June 22, 2022) at 59, *available at* https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/demand-side-management/acc-models-latest-version/2022-acc-documentation-v1a.pdf.

[86] *Id.*

[87] We emphasize the need to consider out of state methane leakage, and not only in-state. As the Decision notes, "in-state methane leakage is already accounted for in the [ACC]," but not out-of-state methane leakage, so adequate consideration will not "result in the double counting of the benefit." *See* Decision at 70.

[88] CALSSA Opening Brief (August 31, 2021) at 90-91 citing IOU-01 at 125:3-4.

b. The ACC omits several benefits of NEM systems.

The record demonstrates multiple benefits of BTM generation excluded by the ACC. Those benefits have values greater than zero, yet the Decision gives these benefits no weight. This failure conflicts with the Commission's mandate under section 2827.1 to ensure that any NEM tariff be based on the total costs and benefits of BTM generation.[89]

The failure to properly account for the costs and benefits of BTM generation in violation of section 2827.1 provides grounds to set aside the Decision. As the Ninth Circuit stated in *Center for Biological Diversity v. National Highway Traffic Safety Administration* ("*NHTSA*"), where an agency must evaluate the costs and benefits of regulatory action, "it cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs" of that action.[90] In that case, the court rejected as arbitrary the agency's decision to ignore the benefits of carbon emissions reductions from increased gas mileage standards even though the agency admitted the value was not "zero."[91]

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89 *See* Jonathan S. Masur & Eric A. Posner, *Unquantified Benefits and the Problem of Regulation Under Uncertainty*, 102 Cornell L. Rev. 87, 89 (Nov. 2016) ("Cost-benefit analysis is a decision procedure that requires the decision-maker to estimate both the benefits and the costs of a regulation in monetary terms. If a regulator chooses not to monetize all the benefits or all the costs, it is not doing cost-benefit analysis. If it is not doing cost-benefit analysis, what is it doing?").

90 *Center for Biological Diversity v. Nat. Highway Traffic Safety Admin.* (9th Cir. 2008) 538 F.3d 1172, 1198-1201 (agency rule was arbitrary and capricious for failing to adequately monetize environmental factors); *see also Nat. Ass'n of Home Builders v. E.P.A.* (D.C. Cir. 2012) 682 F.3d 1032, 1040 ("[W]hen an agency decides to rely on a cost-benefit analysis as part of its rulemaking, a serious flaw undermining that analysis can render the rule unreasonable."); *California v. Bernhardt* (N.D. Cal. 2020) 472 F.Supp.3d 573, 615-16 ("Where an agency chooses to engage in a cost-benefit analysis, it cannot short shrift the benefits side of the equation by failing to monetize certain benefits."), *appeal docketed*, No. 20-16801 (9th Cir. Sept. 17, 2020); *Montana Environmental Information Center v. U.S. Office of Surface Mining* (D. Mont. 2017) 274 F.Supp.3d 1074, 1093-99 (agency analysis that quantified benefits but not costs was inadequate).

91 *NHTSA,* 538 F.3d at 1198, 1200; *see also High Country Conservation Advocates v. U.S. Forest Service* (D. Colo. 2014) 52 F.Supp.3d 1174, 1190-93 (finding an analysis of costs and benefits arbitrary where the record did not suggest that costs were zero, but "by deciding not to quantify the costs at all, the agencies effectively zeroed out the cost.").

Similarly here, the ACC and the Decision omit quantifiable avoided transmission costs, resiliency benefits, avoided land use impacts, and other NEBs and societal benefits. The Commission errs by improperly undervaluing or zeroing out these benefits.

i. The Decision improperly underestimates avoided transmission and distribution costs.

This proceeding presents two issues regarding the undervaluing of avoided transmission related infrastructure costs due to BTM generation: first, the degree that BTM generation contributed to the $2.6 billion savings to ratepayers from cancelled transmission projects in 2018; and second, the errors in the ACC's estimate of avoided transmission costs. While the Commission offers some, albeit deficient explanation in regards to the former, the Commission improperly and wholly disregards the latter.

First, the Decision asserts that CAISO refuted "the statement regarding [DER] saving $2 billion in avoided transmission costs . . . in the record of R.14-10-003."[92] CAISO, however, does not deny that distributed generation has contributed to eliminating the need for transmission projects. Rather, CAISO's remarks have confirmed that DERs can and do eliminate transmission costs:

> By meeting specific reliability or economic needs, a tailored portfolio of DERs can provide value in eliminating the need for specific transmission projects on a case-by-case basis . . . . [A]voided transmission costs from DERs are inherently project, location, and need specific.[93]

CAISO simply argues that, rather than attributing the cost reductions to all DERs, it would prefer the avoided costs be more granularly attributed to specific projects. As detailed below, the record

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[92] Decision at 204-05.

[93] R.14-08-013, Reply Comments of the California Independent System Operator Corporation (Aug. 23, 2019) at 4-5.

includes an example of this specific analysis – an illustrative evaluation of the SDG&E Sunrise Powerlink project – which demonstrates the errors in the ACC's estimate of avoided transmission costs.

Furthermore, as CAISO acknowledged,[94] distributed generation decreases gross peak load and shifts daily peak loads later in the day. NEM solar reduces peak load by 35% of installed capacity, and solar-plus-storage reduces peak load by 70% of installed capacity, according to ACC peak capacity allocation factors.[95] By decreasing peak loads, NEM solar also contributes to eliminating the need for transmission upgrades to serve higher peaks. For example, the Agricultural Energy Consumers and the California Farm Bureau Federation's witness concluded that NEM capacity has deferred 6,500 MW of capacity additions from 2006 to the present. He noted the close correlation between the growth of NEM and the decrease in load over that period.[96] Similarly, the record includes testimony from PCF describing how NEM solar has reduced peak load and decreased the need for additional transmission infrastructure, in part by moving the time of peak load later in the day.[97] The Decision fails to discuss this benefit of

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[94] *Id.* at 3-4.

[95] PCF-24 at pp. 20-22.

[96] AEC-01 at 9 ("Prior to 2006, the CAISO peak was growing at annual rate of 0.97%; after 2006, peak loads have declined at a 0.28% trend. Over the same period, solar NEM capacity grew by over 9,200 megawatts. The correlation factor or "R-squared" between the decline in peak load after 2006 and the incremental NEM additions is 0.93, with 1.0 being perfect correlation. Based on these calculations, NEM capacity has deferred 6,500 megawatts of capacity additions over this period, saving all ratepayers both reliability and energy costs while delivering zero-carbon energy.").

[97] PCF-01 at 6-8; see also Reporter's Transcript Vol. 6, 989:1-990:7 (Testimony of PCF witness T. Siegele) ("[W]hen I say 'Moving the peak to later in the day,' what I'm referring to is reducing the peak load earlier in the day such that the peak load in future years continues to move further and further into the afternoon and evening hours. And so by reducing the peak load and in turn moving it later in the day, that does decrease the amount of infrastructure that would be needed to serve customers. Q: Why would moving the peak later in the day reduce the amount of infrastructure needed to serve customers? You still have to meet the peak, don't you? A: Correct. . . . [T]ransmission and distribution infrastructure is

BTM generation.

Second, the 2021 Distributed Energy Resources Avoided Cost Calculator Documentation ("Documentation") also shows that the ACC's input value for transmission vastly understates transmission costs. The Documentation shows that the Avoided Cost Calculator used a PG&E forecast of $229.8M in capacity-related transmission projects for the five years from 2020 through 2025 to derive its marginal transmission capacity cost.[98] The forecasted amounts for SCE and SDG&E were $230 million and $21.85 million, respectively.[99]

Thus, the ACC inputs a total of $481,650,000 in capacity-related transmission projects for all three utilities for 2020-2025.[100] In contrast, the transmission-related revenue requirements for the three utilities in 2021 were more than $4 billion dollars.[101] There is a gross mismatch between the transmission costs input by the Avoided Cost Calculator—i.e., almost $500 million over *five* years—and the utilities' actual transmission spending—over $4 billion in *one* year alone. This mismatch between inputs into the Avoided Cost Calculator and actual costs further suggests that the ACC does not adequately account for BTM generation's transmission-related benefits. The Decision fails to address this discrepancy.

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designed and built . . . to accommodate the peak. If the peak is the same or decreasing, then that means that approximately the same amount of infrastructure that currently exists should be able to serve a lower peak in the future. . . . When I'm referring to the peak being later in the day, . . . if you take a look at demand curves, what you see is later in the day you have lower peak demand. And so by pushing the peak to later in the day, what you also see is [ ]generally a lower peak demand.").

[98] PCF-76 at 45.

[99] *Id.* at 47, 52.

[100] Reporter's Transcript Vol. 12, 2155:6-17 (Testimony of Cal Advocates Witnesses A. Buccholz and K. Rounds) ("Q: . . . So for all three utilities between 2021 and 2025, the Avoided Cost Calculator projects a total expenditure [on capacity-related transmission projects] of $481,650,000; correct? . . . A: I don't remember the figures to do the mental math, but I will take at face value that that is the total. Q: And that's to supply a total of 2,360 megawatts of projected load growth? . . . Witness Rounds: Sure.").

[101] PCF-35 at 36, Table 6.

Moreover, testimony in the record provides the "specific analysis" recommended by CAISO to determine the extent of avoided transmission costs, further highlighting these deficiencies in the ACC. PCF testimony discussed the SDG&E Sunrise Powerlink project to provide an illustrative calculation of the value of distributed generation in deferring a specific transmission project.[102] While SDG&E's Sunrise Powerlink project was an outlier at the time in terms of its cost,[103] the example remains illustrative of current conditions because of the significant overall increase in costs from 2012 to the present.[104] PCF's testimony details that if SDG&E's Sunrise Powerlink project had been replaced by distributed generation, each distributed 6 kW NEM system would have avoided over $1,000 per year in transmission costs.[105] This avoided cost is significantly higher than the avoided transmission value of less than $87 per year per 6kW NEM system included in the Avoided Cost Calculator.[106] Additionally, when compared to the estimated net annual cost-of-service cost shift of $580-$780 per NEM system from a report from the Energy Institute at Haas,[107] the value derived from this "specific analysis" of the potential avoided cost of the Sunrise Powerlink project demonstrates that NEM systems' benefits in avoiding costs related to specific transmission projects could

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[102] NEM solar avoids the need for new transmission to (1) relieve grid congestion (i.e., reliability transmission projects) and (2) deliver remote solar and wind power to load (i.e., renewable energy transmission projects). The Sunrise Powerlink example quantifies the avoided renewable energy transmission benefit if NEM solar displaces an equivalent amount of new transmission-dependent remote solar and wind power, thereby eliminating the need for the transmission line.

[103] PCF-24 at 35.

[104] Reporter's Transcript Vol. 6, 982:2-25 (Testimony of Protect Our Communities Foundation witness T. Siegele).

[105] PCF-24 at 37.

[106] PCF-76 at 53, Table 20 (SDG&E Marginal Transmission Capacity Cost = $14.44/kW-yr). Therefore, avoided transmission capacity value of 6 kW NEM system in SDG&E territory = 6 kW x $14.44/kW-yr = $86.64/yr.

[107] PCF-24 at 40, Table 8.

eliminate the claimed cost shift.

Overall, using CAISO's recommended granular approach, the record shows that the Decision significantly undervalues the benefits of BTM generation. CAISO further explains that "developing a generic . . . transmission avoided cost is not feasible."[108] This reinforces the insufficiency of reliance on the ACC alone in the Commission's analysis, which merely produces such "generic avoided costs."

ii. The Decision improperly omits the value of resiliency.

The Decision also gives short shrift to the societal benefits of increased resiliency and reliability conferred by BTM systems. Despite record evidence of resilience's public health benefits, the Decision improperly dismisses these benefits as "individual,"[109] and further ignores the Commission and State's ongoing work to prioritize resiliency, especially in DACs and other low-income communities.

The evidence in this proceeding demonstrates that BTM systems with solar and paired storage generate resiliency-related benefits that accrue to society as a whole, and not just to individual participants. These benefits include the ability to generate onsite power during a heat wave.[110] For instance, when customers lose power during a heat wave, they may no longer have the ability to cool their homes.[111] This loss of cooling could lead to adverse health

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[108] R.14-08-013, Reply Comments of the California Independent System Operator Corporation (Aug. 23, 2019) at 4.

[109] Decision at 69.

[110] Reporter's Transcript Vol. 5, 892:6-9 (Testimony of Cal Advocates witness K. Rounds).

[111] Reporter's Transcript Vol. 3, 403:16-22 (Testimony of Joint Utilities witness S. Wray) ("If the customer is part of the power disruption and they don't have power, then it would be difficult to cool their home."); Reporter's Transcript Vol. 5, 894:5-9 (Testimony of Cal Advocates witness K. Rounds); Reporter's Transcript Vol. 9, 1628:3-7 (Testimony of TURN witness M. Chait).

consequences, such as increased emergency room visits and other adverse societal impacts,[112] including, in some circumstances, deaths.[113] A solar system paired with storage allows a customer to continue to meet electric power demand despite grid disruptions and avoid these costs.[114] Certainly, the resiliency-related benefits of customer-sited generation paired with storage go beyond avoiding adverse health consequences. Benefits of resilience also include avoiding food spoilage and waste due to loss of refrigeration, as well as continuity of education during times of remote schooling or otherwise.[115]

In the *NHTSA* case, the Ninth Circuit found the agency's cost-benefit analysis deficient for omitting the value of carbon emission reductions, even though parties had recommended and introduced certain values into the record. The agency had argued that there was an "extremely wide variation" in the estimates of avoided carbon emissions, and that parties "did not demonstrate that the unmonetized benefits . . . would alter the agency's assessment."[116] The Ninth Circuit held that this reasoning is "arbitrary and capricious for several reasons." In particular, the Ninth Circuit stated that, "while the record shows that there is a range of values, the value of carbon emissions reduction is certainly not zero." Importantly, the agency had

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[112] Reporter's Transcript Vol. 5, 894:10-895:5 (Testimony of Cal Advocates witness K. Rounds); Reporter's Transcript Vol. 9, 1628:8-12 (Testimony of TURN witness M. Chait).

[113] Reporter's Transcript Vol. 3, 405:15-24 (Testimony of Joint Utilities witness S. Wray).

[114] Reporter's Transcript Vol. 3, 405:15-24 (Testimony of Joint Utilities witness S. Wray).

[115] *See* Reporter's Transcript Vol. 9, 1628:23-1629:14 (Testimony of TURN witness M. Chait) ("Q: And do you agree that the loss of power during a multiday utility shutoff can result in food spoilage? A: Yes. Q: Or that it could prevent children from logging into school or completing homework? A: I think that that's possible. Q: Do you agree that there's a societal value to avoiding emergency room visits or premature deaths? A: I think that there's a personal value to that and there's probably a societal value to it also. I haven't quantified that or thought about it. Q: Okay. And do you agree that there's a societal value to ensuring children can attend schools consistently, [and] do their homework? A: Absolutely."); *see also* Reporter's Transcript Vol. 3 406:19-23, 407:5-16 (Testimony of Joint Utilities witness S. Wray).

[116] *NHTSA*, 538 F.3d at 1200.

conceded that the value was not zero, and "[b]y presenting a scientifically-supported range of values that does not begin at zero, Petitioners have shown that it is possible to monetize the benefit."[117]

Similarly, here, TURN's witness testified that resiliency benefits of BTM generation also accrue to society as a whole.[118] Although TURN did not attempt to quantify this societal benefit, TURN's testimony shows that the value is not zero.[119] The Solar Energy Industries Association ("SEIA") and Vote Solar also presented a value for a "resiliency adder," recommending a resiliency adder of $104 per kilowatt each year for residential net energy metering, and $106 per kilowatt each year for nonresidential.[120] Importantly, the Commission reasons that it already declined to include a value for resiliency in D.20-04-010, but that decision declined to adopt a value for reliability or resiliency as an "*avoided* cost *in the* [*ACC*]."[121] Because resiliency is not an avoided cost per se, the ACC alone cannot adequately consider it, but that does not mean that its value is zero.

The Decision, however, declines to adopt any value for resiliency, stating that resiliency benefits are "either private benefits or highly speculative and limited to unique circumstances; none of which would lead the Commission to ascribe a resiliency adder for all net energy metering customers."[122] The Decision then concedes that, "[w]hile declining to quantify resiliency benefits here, the Commission recognizes that evolving analysis and changing grid

117 *Id.*

118 *See* Reporter's Transcript Vol. 9, 1629:3-22 (Testimony of TURN witness Chait); *see also* Reporter's Transcript Vol. 3 406:19-23, 407:5-16 (Testimony of Joint Utilities witness Wray).

119 *See* Reporter's Transcript Vol. 9, 1631:13-19 (Testimony of TURN witness Chait).

120 SVS-03 at 18, Attachment B; Decision at 68.

121 D.20-04-010 at 70-71 (emphasis added).

122 Decision at 69.

conditions may result in more persuasive arguments in favor of quantifying resiliency benefits in the future, especially locational ones," yet it provides no mechanism to incorporate those benefits in the future.[123] Just as in the *NHTSA* case, while there may be disagreement over the specific value of resiliency, SEIA and Vote Solar presented substantial evidence that the value of resiliency does not begin at zero, which the Decision also acknowledges.

The record even details the Commission's current work to determine the value of resiliency.[124] The Commission's own presentation on the value of resiliency highlights that building resilient infrastructure is not only for private benefit, but both "a local and global goal."[125] By asserting that resiliency is a private benefit, the Commission apparently and improperly zooms in on only residential systems. Resilient infrastructure could, however, include resiliency hubs with NEM systems paired with storage in DACs, which would certainly confer a benefit to the whole community in, for instance, power safety/power shutoff events. This Decision also relies heavily on the Standard Practice Manual ("SPM") for its cost-effectiveness determinations,[126] which confirms that resiliency and reliability achieve societal or economy-

[123] Decision at 69-70.

[124] *See* Center for Biological Diversity Opening Comments on Proposed Decision (November 30, 2022) at 12, citing Scoping Memo for Microgrid Proceeding *available at* https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M432/K634/432634549.PDF at 6 ("this proceeding will assess the value of resiliency. . . . The analysis and measurement of resiliency's value may further our efforts to reach net zero emissions, expand investment in adaptive infrastructure and resiliency measures, while incorporating equity in grid planning.") *See also* Microgrids Proceeding Workshop – Track 5 Value of Resiliency (detailing a social burden index as an indicator of how hard people are working to meet their basic needs during an electric power outage) *available at* https://www.cpuc.ca.gov/events-and-meetings/r1909009-workshop-07-07-2022.

[125] *See* CPUC Initial Value of Resiliency Presentation, *available at* https://www.cpuc.ca.gov/resiliencyandmicrogrids (link available under "Recent News" heading).

[126] Decision at 232, Conclusion of Law 4: "The Commission should align its analysis in this proceeding with prior guidance from the Standard Practice Manual."

wide benefits. The SPM itself also documents the benefit of increased system reliability and resiliency, specifically from self-generation:

> [Benefits include a]voided costs of supply disruptions[, b]enefits to the economy of damage and control costs avoided by customers and industries in the digital economy that need greater than 99.9 level of reliable electricity service from the central grid, . . . decreased System Operator's costs to maintain a percentage reserve of electricity supply above the instantaneous demand[, and b]enefits to customers and the public of avoiding blackouts.[127]

The Commission's legal error here is even more egregious than that of the agency before the court in *NHTSA*. That agency had not even begun work to determine the value of carbon emission reductions, whereas here, the record details the Commission's continuing work to refine its range of values for resiliency. Substantial evidence in the record details that the value of resiliency for BTM generation is certainly not zero, and the Commission commits legal error by rejecting that evidence and also turning a blind eye to its own work and guidance.

Failing to account for resiliency further violates three Guiding Principles of this proceeding: (1) ensuring equity among customers; (2) maximizing the value of the resource to all customers; and (3) maximizing the value of the resource to the electrical system.[128] The Guiding Principles Decision also notes the importance of coordinating development of the successor tariff with the "Commission and California's energy policies, including but not limited to, Senate Bill 100 . . . and California Executive Order B-55-18."[129] The SB 100 Joint Agency Report details

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127 California Standard Practice Manual ("SPM") at 20 *available at* https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_public_website/content/utilities_and_industries/energy_-_electricity_and_natural_gas/cpuc-standard-practice-manual.pdf

128 Decision at 104.

129 D.21-02-007, Decision Adopting Guiding Principles for the Development of a Successor to the Current Net Energy Metering Tariff (Feb. 17, 2021) at 34.

the importance of considering NEBs, and specifically resiliency.[130] Similarly, Executive Order B-55-18 includes

> Order 5: "[a]ll policies and programs . . . shall seek to improve air quality and support the *health and economic resiliency* of urban and rural communities, particularly low-income and disadvantaged communities."[131]

Failing to account for NEBs generally, and in particular resiliency, runs contrary to the Decision's Guiding Principles, and the Commission should not have zeroed out this important benefit that particularly accrues to DACs. Even though organizations like TURN may not have quantified societal benefits related to resilience, and despite the ACC's omission of a value for resiliency-related benefits of customer-sited generation, as evidenced in the record and the Commission's ongoing work and State climate policy, resiliency benefits exist. At a minimum, the Decision should have at least weighed the qualitative value of resiliency and made a "reasoned determination" of how it, as one of the total benefits, compares to the total costs of BTM generation, as required by section 2827.1.[132] The Decision's failure to account for the value of resilience in any way is reversible error.

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[130] Senate Bill 100 Joint Agency Report (Mar. 15, 2021) at 20, *available at* https://www.energy.ca.gov/publications/2021/2021-sb-100-joint-agency-report-achieving-100-percent-clean-electricity

[131] Cal. Executive Order B-55-18 *available at* https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf (emphasis added).

[132] See *Bernhardt*, 472 F.Supp.3d at 615 ("recognizing that some costs and benefits are difficult to quantify, [an agency shall] propose or adopt a regulation only upon a *reasoned determination* that the benefits of the intended regulation justify its costs." (citation omitted)); *NHTSA,* 538 F.3d at 1198 ("NHTSA fails to include in its analysis the benefit of carbon emissions reduction in either quantitative or qualitative form.")

iii. The Commission improperly omits the value of avoided land use impacts.

The Commission similarly dismisses the value of avoided land-use impacts, stating that parties do not "offer any evidence that increased net energy metering installations will directly result in decreased utility scale projects."[133] But this narrow reasoning is insufficient and ignores avoided land use impacts from *transmission*, which both the ACC and the Decision acknowledge is avoided by distributed resources.

Agencies performing cost-benefit analyses cannot simply dismiss acknowledged benefits, even when those benefits are difficult to quantify. For example, in *California v. Bernhardt*, the District Court rejected the Bureau of Land Management's ("BLM") cost-benefit analysis to establish a 2018 rule, reasoning that "BLM's scant recognition of foregone benefits demonstrates that BLM did not appropriately weigh the costs against the benefits."[134] BLM had recognized the negative impacts posed by air pollution on human health and welfare, but "made no attempt to evaluate" them or "weigh them against the purported benefits."[135] The Court held that BLM "cannot short shrift the benefits side of the equation by failing to monetize certain benefits."[136]

Here, the Decision similarly fails to evaluate avoided land use impacts from reduced transmission projects due to BTM generation. By utilizing the ACC, which includes a value for avoided transmission costs (although generic and insufficient), the Decision recognizes that NEM systems displace the need for certain transmission infrastructure costs. There is only disagreement as to the extent of those costs. Because transmission infrastructure must be built

[133] Decision at 70-71.
[134] *Bernhardt*, 472 F.Supp.3d at 616.
[135] *Id.*
[136] *Id.*

somewhere, avoided transmission infrastructure buildout necessarily avoids associated land use impacts. Moreover, despite the Decision's claim about a lack of evidence for decreased utility-scale projects, fewer transmission projects necessarily imply fewer electricity generation projects, whether from utility-scale solar, or worse, expansion of fossil-fuel related infrastructure and their associated and avoided land use impacts. Just as with the health benefits at issue in *Bernhardt*, the Decision cannot provide scant recognition of avoided (transmission) land use impacts, and then "short shrift the benefits side of the equation."

iv. The Decision improperly omits the value of other NEBs and societal costs.

The record also details other NEBs and societal benefits of BTM generation, including avoided out-of-state methane leakage and local air quality benefits from decreased fossil fuel infrastructure in DACs.[137] The Decision commits legal error in disregarding these significant benefits, despite the availability of existing tools to estimate these benefit values.

In *High Country Conservation Advocates v. U.S. Forest Service*, the district court for the District of Colorado, citing to the NHTSA case, set aside the Forest Service's analysis of costs and benefits for failing to include an estimate of climate impacts.[138] The Forest Service had claimed that "[p]redicting the degree of impact any single emitter of [greenhouse gases] may have on global climate change . . . cannot be quantified or predicted at this time."[139] The District Court disagreed, noting that "a tool is and was available: the social cost of carbon protocol," even though the protocol was "provisional."[140] Consequently, the District Court determined that

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[137] *See* PCF Opening Brief (August 31, 2021) at 19; Center for Biological Diversity Opening Comments on Proposed Decision (November 30, 2022) at 2-3.
[138] *High Country Conservation Advocates*,52 F.Supp.3d at 1190-93.
[139] *Id.* at 1190.
[140] *Id.*

the Forest Service's analysis of costs and benefits was arbitrary, where the record did not suggest that costs were zero, but "by deciding not to quantify the costs at all, the agencies effectively zeroed out the cost."[141]

As detailed above in regards to out-of-state methane leakage, a similar tool is also available here: "out-of-state methane leakage could, in theory, be incorporated as a societal cost [in the ACC], paired with a societal carbon price."[142] The Decision should not have zeroed out the cost of avoided out-of-state methane leakage.

The Decision provides two additional reasons to not include this benefit, but both reasons are also deficient. First, the Decision dismisses this benefit because it is not unique to NEM.[143] This rationale is legally irrelevant. Section 2827.1 mandates that any successor tariff reflect the total benefits of *BTM generation*. It does not specify that such benefits must be unique to BTM generation. Second, the Decision reasons that D.22-05-002, the ACC update for 2022, declined to adopt a proposal to include out-of-state methane leakage in the ACC. In D.22-05-022, however, the Commission did not reject the existence of this benefit; rather, it directed the Energy Division to provide an "update during the next update of the [ACC]," given that CARB's GHG Inventory did not (yet) include this information.[144] This reasoning, coupled with the Commission's own finding that it is possible to quantify this benefit of BTM generation,

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141 *Id.* at 1192.

142 2022 Distributed Energy Resources Avoided Cost Calculator Documentation (June 22, 2022) at 59, *available at* https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/demand-side-management/acc-models-latest-version/2022-acc-documentation-v1a.pdf.

143 Decision at 70 ("some of these benefits (methane leakage, future transmission costs, and updated social cost of carbon) can be attributable to resources other than net energy metering, thus it is not appropriate to determine values only for net energy metering resources.")

144 D.22-05-002, Decision Adopting Changes to the Avoided Cost Calculator (May 6, 2022) at 47.

emphasizes that its value is not zero. "By deciding not to quantify the costs at all," the Commission "effectively zeroed out the cost," contrary to the requirements of section 2827.1.

The Commission has also developed a tool to calculate the societal benefits—including local air quality benefits—of distributed resources.[145] This tool, although "provisional," like the tool in *High Country Conservation Advocates*, is particularly important: "[e]nergy-related societal costs are especially relevant to California, as the state has some of the most degraded air quality in the United States, particularly in the Los Angeles Basin and in the Central Valley."[146] In developing the tool, the Societal Cost Test, the Commission confirmed that "[a]ir quality improvements are likely to bring significant human health benefits, particularly to disadvantaged communities which are often located near sources of air pollution."[147] Substantial evidence in the record details that local air quality benefits are not zero, but "by deciding not to quantify the costs at all," despite the existence of a currently available tool to do so, the Decision effectively and improperly "zeroed out the cost."[148]

2. The Decision's analysis of the costs of NEM systems fails to comply with AB 327.

Turning from benefits to costs, the Decision similarly "cannot put a thumb on the scale by . . . overvaluing the costs" of BTM generation.[149] The Decision errs in determining the costs of NEM systems in two regards: first, by equating NEM participant bill savings (minus avoided

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145 *See* D.19-05-019, Decision Adopting Cost-Effectiveness Analysis Policies for All Distributed Energy Resources (May 21, 2019) at 66-67, Ordering Paragraphs 4 through 7 (authorizing testing and evaluation of a Societal Cost Test and describing its components).

146 *See* CPUC Societal Cost Test Impact Evaluation (January 2022) at 10, *available at* https://www.ethree.com/wp-content/uploads/2022/01/CPUC-SCT-Report-FINAL.pdf

147 *Id.*

148 *High Country Conservation Advocates*, 52 F.Supp.3d at 1192.

149 *NHTSA,* 538 F.3d at 1198.

costs) to the cost shifted to non-participants; and second, in so doing, by improperly focusing on non-participants versus the entire electrical system.

a. The Decision commits legal error in conflating the purported cost shift to non-participants with NEM participants' bill savings.

The Decision treats bill savings as a proxy for the "impact on non-participant ratepayers . . . caused by the bypassing of infrastructure and other service costs embedded in volumetric rates."[150] This methodology is inconsistent with the Commission's prior decisions on load reduction programs, leads to anomalous results, and penalizes energy conservation efforts, and it therefore violates the Commission's established Loading Order. The Decision's treatment of bill savings unreasonably attributes more costs to NEM customers than to other customers who reduce energy use from the grid. This is inconsistent with the Public Utilities Code and the Guiding Principles Decision, and it is an abuse of discretion.[151] On the other hand, in line with the Commission's prior ratemaking determinations, a cost-of-service analysis provides a transparent and more accurate assessment of any cost shift due to BTM generation.

The Commission's treatment of bill savings in this proceeding assumes that any time customers reduce their electric bill—whether through energy efficiency, conservation, use of an alternative fuel (e.g., gas), or use of a customer owned generator—they shift the cost of grid maintenance to other customers. California, however, does not rely on bill savings to measure the cost of energy efficiency.[152]

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150 Decision at 47.

151 *See, e.g., NHTSA,* 538 F.3d at 1198; *National Association of Home Builders*, 682 F.3d at 1040.

152 *See, e.g.*, D.21-05-031, Assessment of Energy Efficiency Potential and Goals and Modification of Portfolio Approval and Oversight Process (May 26, 2021) at 21-22 (treating energy savings as benefits,

Other than NEM solar customers, utility customers do not pay any "cost shift" penalty when they take action to reduce the use of utility-supplied electricity. These non-NEM actions could be drying clothes on a clothesline instead of in an electric dryer, or switching out an incandescent light bulb for an efficient LED. In these examples, the customer offsets electricity usage at the retail rate, the same framework used with NEM 2.0. But rather than accusing these customers of causing a cost shift, the Commission prioritizes these non-NEM actions to reduce electricity usage from the grid by identifying energy efficiency and demand response as the first resources to be relied upon, in the state's Loading Order, to meet new demand. NEM solar, like energy efficiency, also permanently reduces peak load: by 35% of installed capacity—70% for solar-plus-storage—according to ACC peak capacity allocation factors.[153] This reduction is a benefit, not a cost.

In attempting to justify the disparate accounting of NEM customer bill savings, the Decision states that "the grid must be always prepared for the intermittent decrease and increase of usage" by NEM customers.[154] The Decision's statement, while true, does not differentiate NEM customers from any other customer group. The grid provides increasing and decreasing energy to *all* customers based on each customers' instantaneous demand. Moreover, the utilities plan for both energy efficiency-related *and* BTM-related load reductions.[155] As with energy conservation, utilities are able to adjust their distribution and transmission need projections to

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rather than costs, and requiring use of the TRC and PAC tests to assess cost-effectiveness of energy efficiency resource acquisition programs).

153 PCF-24 at 20-22.

154 *See* Decision at 114-15.

155 Reporter's Transcript Vol. 12, 2088:6-12 (Testimony of Cal Advocates witness B. Gutierrez) ("Q: So when utilities project . . . future load, do they take into account projected . . . behind-the-meter solar system[s]? . . . [A (Mr. Gutierrez):] Yes, typically, they do include . . . BTM PV growth in their sales forecast.").

account for the growth of BTM generation. The Commission provides no logical reason to treat NEM customers' bill savings, but not those of other customers, as a cost shift to non-participants.

Compounding this error, the Decision then defers "the issue of accurately calculating a customer's energy and grid usage while ensuring that the grid is prepared for the intermittent decrease and increase of usage" to R.22-07-005.[156] By treating bill savings as shifted costs, however, the Commission has already and arbitrarily predetermined the outcome of that proceeding in regards to NEM customers.

By contrast, the NEM 2.0 Lookback Study's cost-of-service analysis accurately evaluates whether BTM generation shifts costs by determining the actual costs to serve NEM customers based on a comparison of "the customer bill from the analysis year to the utility's costs of servicing the customer in that year."[157] Unlike bill savings, the cost of service provides a transparent metric for determining whether NEM customers are paying their fair share. As the cost-of-service is established by the General Rate Cases for each utility, the assumptions underlying its analysis can be verified.[158] Furthermore, the Commission also routinely relies on cost of service when setting rates. Indeed, the cost of service is a guiding principle in ratemaking.[159] As stated by one Joint Utilities witness, "[t]he basis of all rates should be the cost of service."[160] Thus, even the Joint Utilities admit that basing rates on the cost of service should

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156 Decision at 115.

157 PCF-15 at 45.

158 PCF-15 at 45-46.)

159 Reporter's Transcript Vol. 1, 87:12-22 (Testimony of Joint Utilities' Witness Dr. C. Peterman) ("Q: [D]o you agree that the cost of service . . . is generally the metric used for establishing customer rates? A: It is a guiding principle. As you just talked about, it is oftentimes an aspiration.").

160 Reporter's Transcript Vol. 2, 347:13-18 (Testimony of Joint Utilities' Witnesses A. Pierce, R. Thomas, C. Kerrigan).

serve as “the foundation of an appropriate NEM successor tariff.”[161]

In dismissing this argument, the Decision incorrectly asserts that PCF has requested that the cost-of-service “replace the Avoided Cost Calculator,” which would upend three prior Commission decisions.[162] To clarify, PCF does not argue that cost-of-service should replace the ACC; the ACC purports to measure the *benefits* of BTM generation, while cost-of-service goes to the *costs* of generation and delivery.

By inflating the costs of BTM generation, the Decision fails to adhere to section 2827.1’s requirement to base the new tariff on the costs and benefits of BTM systems.

b. The Decision improperly focuses on costs to non-participants instead of cost-effectiveness to the electrical system as a whole.

The Decision also improperly focuses on costs to non-participants. The Decision’s emphasis on participant bill savings as costs to non-participants and its use of the related Ratepayer Impact Measure (“RIM”) test, which measures non-participants impacts, to evaluate cost-effectiveness violates prior Commission decisions and section 2827.1. Both authorities require the Commission to analyze the tariffs’ cost-effectiveness to the electrical system as a whole, and not, as the RIM test measures, their effects on non-participants.

Focusing on an alleged “cost shift” to non-participants contradicts sub-sections 2827.1(b)(3) and (b)(4), which require balancing costs and benefits “to all customers and the electrical system.” These sub-sections address NEM’s cost-effectiveness for the system as a whole, not effects on one ratepayer group. In focusing on nonparticipants, the Decision’s reading of section 2827.1(b)(3) and (4) replaces “all” customers with “some” customers.

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161 IOU-01 at 18.
162 Decision at 61.

Indeed, the legislative history of section 2827.1 further undermines the Decision's reading. As the Commission noted in an earlier NEM decision, earlier drafts of AB 327 had a "single focus on nonparticipant interests."[163] The Legislature, however, "broadened" the bill's focus to include "consideration of costs and benefits to *all customers and the electrical system*."[164] The Commission acknowledged that this broadened scope meant that the Legislature prioritized cost-effectiveness to all customers over non-participant impacts: "Had the Legislature intended to mandate the Commission completely prevent the potential for all cost-shifting, or that we base our determination solely on nonparticipant interests it could have done so in the statute itself. It did not."[165]

Moreover, the Commission's prioritization of the RIM test[166] runs contrary to the Commission's own guidance. The Standard Practice Manual states that the RIM test is best suited to compare demand-side management options,[167] which is not the case here, and cautions against using the RIM test "to evaluate a fuel substitution program," which *is* the case here to the extent that NEM systems displace fossil fuel infrastructure and combustion.[168] This is important because the Commission must be cognizant of the overarching environmental justice concern

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[163] D.16-09-036, Order Modifying Decision (D.) 16-01-044 And Denying Rehearing, As Modified (Sept. 22, 2016) at 7.

[164] *Id.*

[165] *Id.*

[166] Decision at 50 ("The RIM test is useful for examining whether disproportionate impacts occur on non-participants, as part of complying with the statute's requirements to ensure benefits approximately equal costs to all customers; such an examination cannot be conducted with the TRC test. Thus, the Commission should place more weight on the results of the RIM test.").

[167] CPUC, California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects (Oct. 2001) at 14, *available at* https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_public_website/content/utilities_and_industries/energy_-_electricity_and_natural_gas/cpuc-standard-practice-manual.pdf.

[168] *Id.* at 15.

embodied by SB 350's dual focus on pollution reduction and the elimination of barriers to solar deployment in DACs and other low-income communities.

The Commission's prioritization of the RIM test also conflicts with the Guiding Principles Decision, which directs the Commission to prioritize the total resource cost ("TRC") test when evaluating the NEM tariffs' cost-effectiveness.[169] As recognized by the Guiding Principles Decision and Standard Practice Manual, the TRC test is a more appropriate measure of BTM generation's total cost to the system as a whole—the precise analysis section 2827.1 requires.[170] Moreover, the Decision calculated a TRC score for the NEM 2.0 tariff of 0.84[171]—a score that would have been even higher had the Decision taken into account the societal benefits of distributed generation included in the Societal Cost Test variation of the TRC. *See* section III.C.1.b, *supra*.

D. The Decision's deferral of numerous significant considerations to other proceedings makes an accurate accounting of the successor tariff impossible.

The Decision defers numerous determinations to other proceedings. For example, the Decision concludes that community solar and storage programs—which could have significant grid and ratepayer benefits—would be premature in light of other proceedings.[172] The Decision also defers or redirects to other proceedings consideration of the grid benefits charge, non-bypassable charges, and updates to the Avoided Cost Calculator.[173]

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169 D.21-02-007 at pp. 6-7.

170 *See* CPUC, California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects (Oct. 2001), at 21 ("The [TRC] includes total costs . . . and also has the potential for capturing total benefits . . . ."); Pub. Util. Code § 2827.1(b)(4).

171 Decision at 15.

172 Decision at 188.

173 Decision at 59, 115, 117-18.

By re-routing consideration of several critical aspects of the required section 2827.1 analyses to at least *three* other proceedings—the Rulemaking to Advance Demand Flexibility Through Electric Rates, the updated Avoided Cost Calculator Proceeding, and the Community Solar Proceedings—the Decision obscures whether the successor tariff will meet the Legislature's requirements. As described in the sections above, changes to the ACC and the addition of community solar and storage programs could have dramatic impacts on the costs and benefits of BTM generation and the expansion of distributed resources in DACs. Additional fixed charges could similarly have a significant effect on system economics and payback periods by increasing participant costs. Thus, without the deferred issues resolved, it is not possible to show that the proposed tariff complies with the mandates of section 2827.1.

Parceling out decision-making into multiple different proceedings also hinders effective participation by members of the public. Unlike well-financed parties, such as the investor-owned utilities, nonprofits and other members of the public do not have the resources to easily participate in multiple, overlapping proceedings.

E. The Commission commits legal error in making major changes to the tariff for commercial and industrial customers without record basis.

By failing to prioritize the TRC, the Commission commits legal error by making drastic changes to the nonresidential NEM tariff. The Decision acknowledges that the NEM tariff for nonresidential customers scores higher than 1.0 under the TRC test—a score that demonstrates the program is cost effective.[174] The Decision also concludes that the cost-effectiveness tests "should not be used individually."[175] Nevertheless, the Decision then finds the nonresidential

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[174] Decision at 48-50.
[175] Decision at 65, 210; FOF 35 and FOF 36.

NEM tariff not cost effective based on its RIM test scores *alone*.[176] The record demonstrates that commercial and industrial customers pay more than the cost to serve them, and the TRC test shows that the NEM 2.0 tariff is cost-effective. The Commission's over-reliance on the RIM test to find that NEM 2.0 is not cost-effective violates the Standard Practices Manual and the Guiding Principles in this proceeding. The record does not support any proposed changes to the NEM 2.0 tariff for commercial and industrial customers, much less the Decision's direction to transition these users to a new tariff without any glidepath at all.

IV. CONCLUSION

For the foregoing reasons, the Center, PCF, and EWG respectfully request that the Commission grant this application for rehearing.

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176 Decision at 209; FOF 23 and FOF 24.

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