

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**



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Order Instituting Rulemaking to Continue Electric )  
Integrated Resource Planning and Related )  
Procurement Processes )  
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Rulemaking 20-05-003  
(Filed May 7, 2020)

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**OPENING COMMENTS OF PENINSULA CLEAN ENERGY AUTHORITY,  
CITY AND COUNTY OF SAN FRANCISCO, MARIN CLEAN ENERGY, AND  
REDWOOD COAST ENERGY AUTHORITY ON THE EMAIL RULING INVITING  
COMMENTS ON NATURAL GAS ISSUES**

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**I. INTRODUCTION**

Peninsula Clean Energy Authority (“Peninsula”), City and County of San Francisco<sup>1</sup> (“San Francisco”), Marin Clean Energy (“MCE”)<sup>2</sup>, and Redwood Coast Energy Authority (“RCE”) (collectively “Joint CCAs”) respectfully submit these comments on the October 13, 2021 *Email Ruling Inviting Comments on Natural Gas Issues* (“Ruling”).

The Joint CCAs are concerned by the proposal presented in *Considering Gas Capacity Upgrades to Address Reliability Risk in Integrated Resource Planning* (“Staff Paper”) either to allow or, worse, require Load Serving Entities (“LSEs”) to forego building much needed renewable resources in favor of gas expansions. As demonstrated by modeling by the California

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<sup>1</sup> CleanPowerSF is the Community Choice Aggregator (“CCA”) for the City and County of San Francisco operated by the San Francisco Public Utilities Commission.

<sup>2</sup> MCE, California’s first community choice aggregator (“CCA”), is a not-for-profit public agency that began service in 2010 to address climate change by reducing energy-related greenhouse gas emissions with renewable energy and energy efficiency at cost-competitive rates while offering economic and workforce benefits, and creating more equitable communities. MCE provides electricity service to more than one million residents and businesses in 36 member communities across Contra Costa, Marin, Napa, and Solano counties with a 1,200 MW peak load.

Energy Commission, such a change would undermine both reliability and California's decarbonization efforts.

## **II. DISCUSSION**

### **A. The Commission should not allow fossil gas expansions to reduce statewide build of renewable generation and storage.**

The Commission should neither allow nor require gas capacity to be used to substitute for the renewable build ordered in Decision ("D.") 21-06-035. Either option would undermine both achievement of California's long term decarbonization goals and grid reliability in the medium term. Energy Commission modeling has demonstrated that swapping renewables for gas reduces reliability. Furthermore, reductions in renewable build requirements will undermine the high pace of renewable procurement needed over the next 25 years to achieve zero or near-zero emissions in 2045. Since state decarbonization targets likely will require retirement of the gas fleet, there is a significant risk gas facilities brought online in the 2020s would become stranded assets. Finally, this proposal would likely result in the Commission increasing its reliance on the efforts of CCAs to meet these objectives.

### **B. Arguments for allowing fossil gas resources to displace batteries are unfounded and are not grounded in the record.**

Despite modeling results indicating that fossil gas resources are unneeded and would undermine reliability, Staff offers speculative concerns, but none are supported by evidence. Furthermore, since the grid needs are for batteries according to both Energy Commission and Staff's modeling, a 24-7 resource is not the correct replacement.

#### **i. Commission concerns that storage will be delayed are speculative and not grounded in the record.**

Concerns that supply chain issues may delay battery deployments fail to recognize that the same supply issues would also affect any gas retrofits, so gas projects would not resolve

issues of project delays that may be caused by supply chain issues.<sup>3</sup> While impacts from the supply chain are occurring, even if some projects are delayed, the Energy Commission’s analysis demonstrates that delaying one-fifth of the projects by a year would not have significant impacts on reliability.<sup>4</sup> Regardless, the supply chain issues that might affect battery projects will also affect gas retrofit projects, especially when retrofits involve installing batteries.

**ii. Commission concerns that storage will underperform are speculative and not grounded in the record.**

Additionally, Staff’s concerns of battery underperformance are similarly speculative. In fact, CAISO presented significant data demonstrating that batteries are performing largely as expected, shifting from ancillary services to provide energy in net peak hours in 2021.<sup>5</sup> The Energy Commission’s examination of charging energy shortfalls demonstrates that these issues would have no more than a negligible impact on reliability.<sup>6</sup> Thus, not only does Staff fail to provide evidence of unexpected performance issues, but the record suggests that such unexpected performance issues are not occurring. Additional data should be collected and evaluated, but absent concrete evidence of performance issues, this concern does not constitute a basis for ordering fossil gas procurement.

**iii. Commission concerns regarding battery safety ignore similar concerns with gas generation.**

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<sup>3</sup> CPUC. Procurement in Compliance with D.19-11-016 per February 1, 2021 Filings. [https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/ed\\_staff\\_review\\_of\\_feb2021\\_data\\_in\\_compliance\\_with\\_d1911016.pdf](https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/integrated-resource-plan-and-long-term-procurement-plan-irp-ltpp/ed_staff_review_of_feb2021_data_in_compliance_with_d1911016.pdf).

<sup>4</sup> California Energy Docket 21-ESR-01, Staff Report – Midterm Reliability Analysis, TN# 239881, Table 3. (“Energy Commission Staff Report”)

<sup>5</sup> Energy Commission Staff Report, at 15-16, see also, Energy Commission docket 21-ESR-01, Presentation for August 30 Lead Commissioner Workshop on Midterm Reliability Analysis, TN# 239554 (August 30, 2021), slide 58-60.

<sup>6</sup> Energy Commission Staff Report, Figures 7 & 8.

The Energy Commission Staff Report suggests that batteries suffer from safety concerns, but neglects to recognize that fossil gas plants suffer from similar issues. The Energy Commission’s Staff Report emphasizes a fire at a single 5MW storage facility in Arizona and an overheating event at Moss Landing, but it does not acknowledge the explosion and fire at the Russell City gas plant on May 27, 2021, which took 635MW offline just before the critical 2021 summer season.<sup>7</sup> Similarly, Staff’s analysis also fails to note the hundreds of MW of gas capacity that went offline or were subject to thermal derates of gas plants during the heat emergency of August 2020, causing rotating outages.<sup>8</sup> Thus, concerns about battery safety do not constitute a justification to replace these resources with others with similar issues.

**C. The Commission should reject any mandate for resources shown to be not needed for reliability**

The Commission should reject any proposal for a mandate for fossil gas resources which have been shown to be unneeded for reliability. The Energy Commission’s modeling shows that after 2022, there are no system resource needs for additional resources beyond those already ordered, and substituting gas erodes reliability. The Energy Commission’s modeling is abundantly clear that after 2022, there are no system resource needs for additional resources beyond those already ordered, and substituting gas erodes reliability.<sup>9</sup> All of the scenarios modeled, except for those substituting fossil gas generation for renewable procurement, have Loss of Load Expectations (“LOLE”) far below 0.1, demonstrating there is no need for additional resources for reliability. In addition, Energy Commission’s modeling demonstrates

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<sup>7</sup> <https://www.hayward-ca.gov/your-government/departments/city-managers-office/russell-city-energy-center>

<sup>8</sup> California Independent System Operator, California Public Utilities Commission, & California Energy Commission, Final Root Cause Analysis, January 2021, at 47.

<sup>9</sup> Energy Commission docket 21-ESR-01, Presentation for August 30 Lead Commissioner Workshop on Midterm Reliability Analysis, TN# 239554 (August30, 2021), slides 32-33

that substituting renewables with gas increases LOLE from extremely low levels (below 1 in 2,000) to nearly a 0.05 LOLE in 2026 (0.042). This study demonstrates allowing gas to be substituted degrades reliability.

**D. The Commission should reject any technology-specific mandate for fossil gas.**

The Commission should continue its existing approach and firmly reject the proposal for any technology specific mandate for fossil gas resources, especially when alternatives have not even been considered, much less analyzed. Even if there were credible arguments for some firm resource as a hedge against unforeseen events, Staff has made no attempt to demonstrate that fossil gas generation is uniquely suited to this role, especially when clean firm resources that would not undermine decarbonization efforts, have been shown to improve reliability compared to portfolios containing additional amounts of fossil gas resources.<sup>10</sup> If the Commission were to consider a firm resource mandate, LSEs should be free to procure clean firm resources, which would perform similar functions while improving GHG reduction performance.

**III. REQUESTED FEEDBACK ON SPECIFIC ISSUES POSED IN THE RULING**

***1. The assumptions and conclusions of the RESOLVE analysis that includes gas capacity upgrades as a candidate resource.***

**A. The analysis of greenhouse gas emissions is too imprecise to conclude this proposal would not increase greenhouse gas emissions.**

Estimates of the emissions impacts in the Staff Report are too imprecise to conclude that this proposal would not increase emissions each year through 2045, because RESOLVE does not have the granularity to draw conclusions about the emissions impacts of upgrading CAISO's gas fleet. Precise estimates are important, because evaluating the full cost of the proposal depends on the levels of emissions. Claims that the proposal would not result in increased emissions after

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<sup>10</sup> Considering Gas Capacity Upgrades to Address Reliability Risk in Integrated Resource Planning, October 2021, ("Staff Paper"), at 4.

2030 has not been independently corroborated in a more granular Production Cost Model. RESOLVE is a capacity expansion tool that cannot be relied upon for estimating emissions, especially when compared to more granular Production Cost Models such as SERVM, which historically has differed from the RESOLVE model by a wide margin (for example showing that RESOLVE estimates of 37.6 MMT in 2020 significantly underestimated CAISO system emissions, which were closer to 49.3 MMT.)<sup>11</sup> The fact that RESOLVE reports emissions consistent with the limits imposed in the model does not provide a reliable estimate of how the selected portfolio would actually perform when dispatched in CAISO markets, which do not impose an aggregate GHG limit on dispatch. When comparing emissions results between RESOLVE and the real world, RESOLVE underestimates real world emissions by many millions of metric tons.<sup>12</sup> Staff recognizes the need to develop more robust analyses on the impact of the gas upgrade proposal on emissions.<sup>13</sup> Until there are firm analyses demonstrating this proposal would not increase emissions, the Commission should not move forward.

**B. The analysis fails to evaluate other firm technologies that could address concerns without undermining reliability and greenhouse gas targets.**

Deploying gas resources to address resource diversity concerns would not be appropriate until alternative clean resources have also been evaluated. If clean resources are able to meet the same needs as fossil gas resources would, without increasing emissions, these should be preferred. These and other technologies are likely to be critical in full decarbonization of the grid and so represent much longer-term investments than gas retrofits which would only be useful for a limited time.<sup>14</sup> Such resources would provide superior GHG performance, and may

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<sup>11</sup> See, e.g., IRP Model Improvement and GHG Ground Truthing Webinar, December 9, 2020, at 30.

<sup>12</sup> *Id.*

<sup>13</sup> Staff Paper, p. 16.

<sup>14</sup> Long, J, Baik, E., Jenkins, J, Kolster, C., Chawla, K. Olson, A, Cohen, A, Colvin, M, Benson, S., Jackson, R., Victor, D, & Hamburg, S., *California needs clean firm power and so does the rest of the*



also provide for lower annual capacity costs, since clean resources would be able to operate past 2045, unlike fossil gas resources, allowing longer amortization periods and a greatly reduced risk of stranded assets. The Commission should analyze alternatives before making a decision regarding the best approach to mitigate important concerns of grid reliability and pollution.

**C. The cost-effectiveness calculations in the Staff Report do not adequately focus on the most likely fossil gas generation financing scenarios.**

Any cost-effectiveness analysis should be based on real-world cost estimates, reflect the reality of the necessary schedule of decarbonization to avoid stranding these assets in the future, and reflect the realities of contracting gas resources.

The Commission should only consider the high-cost estimates and short amortization periods to capture the downside risks. The “low” cost estimates are unlikely to be realistic because these are below the current value of Resource Adequacy, which are approximately \$5.20/kW-month, or \$62.40/kW-year (as measured by RA-only market transactions).<sup>15</sup> Since the value of the Resource Adequacy alone falls between the high and very high values, the Joint CCAs question whether the “low” or “high” values are realistic. If costs were this low, generators would likely already be planning upgrades to capture this value, yet the large volume of permitted but unbuilt projects cited in the analysis suggests that upgrade projects are not economical.

In addition, the 25-year amortization period apparently used in the RESOLVE model may also be unrealistic. It is unclear that retrofit projects can obtain such long-term contracts. For example, contracts for CCGT2 resources from Southern California Edison’s (“SCE’s”)

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*world: Three detailed models of the future of California’s power system all show that California needs carbon-free electricity sources that don’t depend on the weather.* (2021) Issues in Science and Technology, available at: <https://www.edf.org/sites/default/files/documents/LongCA.pdf>.

<sup>15</sup> *Calculation of the Market Price Benchmarks for the Power Charge Indifference Adjustment Forecast and True Up*, issued November 2, 2020 by ED staff pursuant to D. 19-10-001, Table 1.

public 38 MMT IRP filing suggest typical terms are closer to 5 to 7 years.<sup>16</sup> Furthermore, decarbonization requirements may force retirements by the mid 2040s implying an amortization period considerably less than 25 years.<sup>17</sup> Most critically, the scientific reality is that limiting temperature increases to below 2°C requires full decarbonization by 2045, according to the IPCC.<sup>18</sup>

Combining the most likely capacity costs and shorter amortization periods results in a range of costs closest to the “very high” cost values. Thus, of the results of the Staff study, the Commission should make decisions solely based on the “very high” values as the most conservative and most reasonable estimates which raises significant risks of imposing unreasonable costs on ratepayers. System benefits are unlikely to exceed the \$15 to 50 million in savings cited for the “very high” cost scenario.<sup>19</sup> These savings are so modest that even small errors in calculation could completely eliminate any actual savings, especially when considering the costs to the public of the impacts of the emissions.

These savings are dwarfed by the increase of hundreds of millions of dollars spent by the IOUs increasing their wildfire prevention efforts to address the impacts of decades of carbon emissions.<sup>20</sup>

**D. The cost effectiveness calculations presented in the Staff Report should incorporate the full social and mortality costs of fossil gas generation.**

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<sup>16</sup> Appendix E.1 Resource Data Template – SCE 38 MMT Preferred Conforming Portfolio [PUBLIC], available at [https://www.sce.com/regulatory/CPUC-Open-Proceedings \(R.20-05-003\)](https://www.sce.com/regulatory/CPUC-Open-Proceedings (R.20-05-003)).

<sup>17</sup> Executive Order B-55-18, available at <https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf> (ordering the California Air Resources Board to plan for full decarbonization by 2045)

<sup>18</sup> Intergovernmental Panel on Climate Change (2018) Global Warming of 1.5°C Report, Chapter 2, at 95, [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15\\_Chapter2\\_Low\\_Res.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter2_Low_Res.pdf).

<sup>19</sup> Staff Paper, at 12.

<sup>20</sup> California Public Utilities Commission, Utility Costs and Affordability of the Grid of the Future: An evaluation of Electric Costs, Rates, and Equity Issues Pursuant to P.U. Code Section 913.1, at 34-35.

Most critically, cost effectiveness evaluation of fossil fuel resources should consider the full costs to ratepayers. While some ratepayer costs are charged on electricity bills, externalities, like wildfire costs, drought impacts and heatwave costs, are also paid by ratepayers. The Commission has previously recognized that these costs need to be incorporated in portfolio planning in the Integrated Resources Planning proceeding in D.19-05-019. The Decision emphasized the importance of using the high impact values because of “extensive evidence that the [federal] Interagency Working Group’s average values underestimate the damage costs associated with climate change, [because] a list of damages [are] excluded from the Interagency Working Group’s estimates: damages from wildfires, costs of climate change associated with electricity infrastructure including effects of extreme heat, and impacts of flooding.” It is time the Commission begins incorporating the costs values established in that decision.<sup>21</sup>

Incorporating these values would comply with the direction of the legislature that “in addition to other ratepayer protection objectives, a principal goal of electric and natural gas utilities' resource planning and investment shall be to minimize the cost to society of the reliable energy services that are provided by natural gas and electricity...”<sup>22</sup>. Public Utilities Code 701.1 makes clear that, “in calculating the cost-effectiveness of energy resources, including conservation and load management options, the commission shall include, in addition to other ratepayer protection objectives, a value for any costs and benefits to the environment, including air quality.”<sup>23</sup>

If the Commission were to apply the cost values identified in D.19-05-019, the potential savings reported in the Staff Paper are all but eliminated by the social costs of the carbon emissions. If the real-world emissions as estimated by RESOLVE are even fractionally too low,

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<sup>21</sup> D.19-05-019, at 40-42, Ordering Paragraphs 5 through 7.

<sup>22</sup> Public Utilities Code § 701.1(a).

<sup>23</sup> Public Utilities Code § 701.1(c).

there are no ratepayer savings from this proposal. For example, applying the “High Impact” value from D.19-05-019 to the “very high” cost scenario suggests that these costs would reduce the cost savings by approximately \$14 million, which is already greater than the low end of the cost savings range reported by staff.<sup>24</sup> If the RESOLVE estimates are as little as 0.25 MMT below real-world emissions that would result, any cost savings are completely eliminated. Given the strong likelihood that RESOLVE underestimates real-world emissions as described above, the Commission should not conclude this proposal would result in real world cost savings.

Recent advances in climate science have also provided quantitative estimates of a portion of the excess deaths attributable to carbon emissions, and the Commission should consider these excess deaths when making decisions. Scientifically, carbon emissions contribute to increased temperatures going forward and such increases will increase the frequency and severity especially of lethal heat waves.<sup>25</sup> Recent scientific work has estimated that every ton of carbon emissions will result in excess deaths from these increased heatwaves through 2100 on the order of  $2.26 \times 10^{-4}$  excess death<sup>26</sup> per ton of carbon emitted.<sup>27</sup> Since these estimates were not available when the Social Costs of Carbon were calculated in D.19-05-019 or the cost estimate discussed therein, these mortality costs should be reflected in estimates of the externality costs borne by the public. The Joint CCAs highlight the importance of this issue because many of these impacts are

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<sup>24</sup> D.19-05-019 “High impact values in 2025 are \$138/ton. D.19-05-019, at Table 2. Staff Paper Figure 9 shows 2026 emissions increases of approximately 100,000 tons in 2026, suggesting the social costs are on the order of \$13.8 million, although there is a high statistical error around this estimate.

<sup>25</sup> IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [MassonDelmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)], Cambridge University Press. In Press. at finding A.3.

<sup>26</sup> These estimates do not include the deaths attributable to fires, floods, droughts or famine.

<sup>27</sup> D.L. Besler (2021) The mortality cost of carbon, *Nature Communications* 12:446, <https://doi.org/10.1038/s41467-021-24487-w>.

likely to occur among vulnerable populations across the Global South.<sup>28</sup> The Commission should be cautious about pursuing limited cost savings without considering such an important impact, which would increase the human cost of our energy sector.

By way of illustration of one approach the Commission could take to incorporating these considerations, many regulatory agencies apply a statistical value of a life when evaluating the cost impacts of mortality of regulated activities. While these methodologies are highly complex, and beyond the scope of the current analysis, the Commission should examine the approaches taken by its partner public regulators. For example, the federal Environmental Protection Agency (“EPA”) reports a range of the value of statistical lives in the academic literature using a range of methods from \$0.85 million per life saved to nearly \$20 million.<sup>29</sup> The EPA itself uses approximately \$7.4 million per life. For illustration, estimates using EPA’s value would be that the carbon emissions estimated by RESOLVE would impose additional costs of \$418 million a year from causing more than 50 deaths a year under this proposal. While these estimates are merely indicators and development of robust mortality cost estimates would require considerable careful work, the rough magnitude of these social and mortality costs suggest the Commission should be extremely cautious in considering emissions impacts. If RESOLVE underestimates real-world emissions and the social and human costs are not reflected, additional gas

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<sup>28</sup> Doblus-Reyes, F.J., A.A. Sörensson, M. Almazroui, A. Dosio, W.J. Gutowski, R. Haarsma, R. Hamdi, B. Hewitson, W.-T. Kwon, B.L. Lamprey, D. Maraun, T.S. Stephenson, I. Takayabu, L. Terray, A. Turner, and Z. Zuo, 2021: Linking Global to Regional Climate Change. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press., available at [https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_Chapter\\_10.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter_10.pdf).

<sup>29</sup> Environmental Protection Agency, *Guidelines for Preparing Economic Analyses*, (December 2010, updated May 2014), Appendix B, Table B.1.

procurement may deliver illusory savings while imposing public costs that would make ratepayers and society worse off.

***2. Whether gas capacity upgrades at existing sites should be considered as eligible resources for the procurement requirements of D.21-06-035? If so, which of the various procurement process steps of D.21-06-035 would need to be amended, and how?***

The Commission should neither allow nor require gas capacity to be used to substitute for the renewable build ordered in D.21-06-035. Either option would undermine both achievement of California's long term decarbonization goals and grid reliability in the medium term.

First, allowing LSEs to reduce their renewable resource procurement would undermine deep decarbonization goals. Achieving near zero emissions in 2045 will require significant renewable and storage build every single year through 2045, as indicated by both SB100 modeling and modeling in this docket. The procurement in D.21-06-035 is broadly compatible with the trajectories of buildout modeled in SB100 (e.g. 1.7 to 2.7 GW of solar, 0.9 GW of wind, and between 1.7 and 2.2 GW of storage each year from 2021 through 2045).<sup>30</sup> Substituting gas for renewable build will necessarily reduce the required renewable build from 2021 through 2026. Reducing the procurement of storage and other renewables for the years 2023 through 2026 could jeopardize the trajectories required to achieve deep decarbonization by 2045.

Furthermore, Staff's analysis fails to consider the significant risk that once investments are made in upgrading fossil gas resources, it may prove difficult to force retirement of such resources to fully decarbonize the grid as accelerating climate change makes it increasingly imperative to achieve carbon neutrality in accordance with Executive Order B-55-018. By promoting such investments today, the Commission may be prejudicing future alternatives to full

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<sup>30</sup> Energy Commission docket 19-SB-100, Presentation – SB100 Draft results, TN# 234549.

decarbonization. The CEC study indicates clean firm resources can likely serve similar functions without this risk to decarbonization.<sup>31</sup>

Finally, allowing LSEs to swap gas for renewables may allow some LSEs to lean on the renewable energy procurement of others to keep the state on target for total renewable build needed to hit 2045 targets. As noted in the August 17 *Administrative Law Judge's Ruling Seeking Comments on Proposed Preferred System Plan*, the aggregated IRPs came in under system-wide GHG targets because several LSEs, namely CCAs, planned to more aggressive decarbonization and greater renewable procurement, while planned new build was substantially lower for ESPs and IOUs. As a result, the state is relying heavily on CCAs to build the renewables each year for California to stay on a trajectory to meet the state's 2045 goals. Allowing other LSEs to swap gas for renewables will only increase the Commission's already heavy reliance on CCA efforts to ensure enough renewables are built to stay on target for 2045 goals. CCAs set their goals in order to exceed state requirements and accelerate the transition to clean energy. The Commission should avoid allowing other LSEs to lean on CCA policies to meet state GHG goals. Doing so undermines the accelerating impact of those policies as it uses the excess accomplishment to achieve a required standard.

***3. Whether load serving entities that wish to contract with gas capacity upgrades at existing sites, if permitted by the Commission, should be required to demonstrate that they first attempted to procure non-emitting resources. If so, what should this demonstration consist of, and on what timeframe?***

See response to Question #2 and Question #4. Load Serving Entities seeking to use gas to meet the obligations of D.21-06-035 should demonstrate at minimum that they actively sought to procure non-emitting resources and also that the project would not result in a net increase in

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<sup>31</sup> Energy Commission Staff Report, at 7 *et seq.*

GHG emissions and would result in a net decrease in local criteria pollutant emissions in disadvantaged communities or non-attainment areas.

***4. If the Commission allows gas capacity upgrades at existing sites, whether the Commission should restrict or prohibit gas capacity upgrades in disadvantaged communities, as defined by the CalEnviroScreen tool, or impose some other/additional criteria.***

Staff's analysis neglects to assess whether there are significant environmental impacts to air quality that may need to be mitigated. The Commission should not allow LSEs to procure resources that are likely to increase local criteria pollutant emissions in disadvantaged communities. The Staff Paper lists "air quality" as an "area for further analysis" and acknowledges that "while some plant efficiency improvements may decrease the rate of criteria pollutant emissions, it is possible that increased plant dispatch could lead to overall greater emissions."<sup>32</sup> However, the failure to provide even a cursory attempt at analyzing the potential impacts of the gas upgrade and expansion proposal on local air quality across the state and in disadvantaged communities is troublesome. The Commission must ensure that load-serving entities' procurement "minimize[s] localized air pollutants and other greenhouse gas emissions, with early priority on disadvantaged communities."<sup>33</sup> Allowing LSEs to procure gas to meet their D.21-06-035 obligations is contrary to statute because it will likely not contribute to a minimization of local criteria air pollutants. Furthermore, adopting a policy that could compromise air quality for a reliability need that has already been addressed through the existing order for non-gas procurement (D.21-06-035) and for which it has been found that relying on non-emitting resources does not diminish reliability compared to portfolios that contain gas resources, is unwarranted.<sup>34</sup>

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<sup>32</sup> Staff Paper, p. 16.

<sup>33</sup> Public Utilities Code section 454.52(a)(1)(I). See also, Public Utilities Code § 701.1(c).

<sup>34</sup> Staff Paper, p. 4.



The Joint CCAs recommend that the Commission examine the local criteria pollutant impacts of each of the upgrade potential capacity amount scenarios before making a determination as to whether it should allow gas capacity upgrades to be considered eligible resources for procurement to meet D.21-06-035. Then, based on those results, if the Commission decides to allow gas capacity upgrades at existing sites, it should require LSEs conducting the gas upgrades to demonstrate that the upgrade will result in a net decrease in local criteria pollutant emissions. In particular, any upgrades to a gas plant under this proposal should be required to demonstrate it would decrease emissions of particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>), nitrogen oxides (NO<sub>x</sub>), and sulfur oxides (SO<sub>x</sub>), with decreases in any disadvantaged communities, non-attainment areas, or near sensitive receptors as the first priority.

#### **IV. CONCLUSION**

The Joint CCAs are concerned that the analysis used as the basis of the proposal in the Staff Paper is not robust and has significant omissions, which may lead to poor policy choices, while it ignores the conclusions of the California Energy Commission that substituting gas for renewables is not needed for reliability and would be detrimental for reliability. The proposed fossil gas upgrades may undermine efforts to fully decarbonize the grid in the future. For these reasons, the Joint CCAs respectfully request that the Commission adopt the recommendations made herein. The Joint CCAs look forward to working with the Commission to address California's energy needs.

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Respectfully submitted,

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