Letter O16

From: Maris Brancheau
To: CAP
Subject: RE: Comments on San Diego County's Climate Action Plan and Draft Supplemental Environmental Impact Report
Date: Monday, September 25, 2017 1:22:12 PM
Attachments: Comments on SD CAP and DSEIR.pdf

Attached please find formal comments of the Protect Our Communities Foundation on the County's Draft Climate Action Plan and Draft Supplemental EIR.

Thank you for including these comments in the record. I O16-1

Maris Brancheau
for Protect Our Communities Foundation

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Response to Comment Letter O16

Protect Our Communities Foundation
Maris Brancheau, Esq
September 25, 2017

O16-1 The comment provides introductory remarks. No further response is required.

September 25, 2017

To: Maggie Soffel
Land Use/Environmental Planner
County of San Diego
Planning & Development Services
5510 Overland Avenue, Suite 310
San Diego, CA 92125

SENT VIA EMAIL to CAP@sdcounty.ca.gov

RE: Comments on San Diego County's Climate Action Plan and Draft Supplemental Environmental Impact Report

Dear County officials:

These comments are submitted on behalf of the Protect Our Communities Foundation (POC) on the San Diego County Draft Supplemental Environmental Impact Report (DSEIR) to the 2011 General Plan Update Environmental Impact Report and the County's proposed Climate Action Plan (CAP). POC's position is that the DSEIR improperly dismissed the Distributed Generation Only alternative when substantial evidence exists that it is a viable alternative and the proposed CAP is unclear, contradictory, and lacks enforceability. O16-2

POC is a San Diego County based 501(c)(3) nonprofit dedicated to protecting wild and rural communities and the people, plants, and animals that inhabit them from destructive, industrial energy infrastructure development. POC advocates on behalf of Southern California utility ratepayers, rural communities, wildlife, and our environment against fossil fueled energy development and in support of transition to sustainable energy systems. POC and its board members, members, and supporters have advocated before the Public Utilities Commission and other state agencies for the past decade representing the unique perspective of small and medium-sized communities throughout Southern California. O16-3

The County was directed to issue a revised Climate Action Plan and supplement its General Plan EIR to include enforceable climate change mitigation measures in Sierra Club v. County of San Diego, 231 Cal. App. 4th 1152.[1] The initial climate mitigation measures in the County's General Plan Update EIR relied on unfunded programs to support the required GHG emissions reductions by 2020 and did not contain enforceable O16-4

[1] Sierra Club v. County of San Diego, 231 Cal. App. 4th 1152

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O16-2 The comment states that the Draft SEIR improperly dismissed the Distributed Generation Alternative. The comment offers no evidence to support its statement. The Distributed Generation Alternative was evaluated in Section 4.2.5 on page 4-9 of the Draft SEIR. As described therein and also below, the availability of residential and commercial space to generate the projected demands in absence of large-scale renewable energy is limited. Also, the County cannot require property owners to sell the electricity they generate to a specific entity. Without sufficient space currently or projected to be available and with the legal limitations of this alternative, the feasibility of whether this alternative could meet most objectives of the CAP, specifically to reduce community and County operations GHG emissions is speculative. As such, the County eliminated this alternative from further consideration.

O16-3 The comment provides background information about the Protect Our Communities Foundation. The County acknowledges this comment. No further response is required.

O16-4 The comment summarizes past litigation on the County's previous CAP (2012). The County acknowledges this comment. This comment is not related to the adequacy of the Draft SEIR, therefore, no further response is required.

GHG reduction measures that would achieve the specified emission reductions. The Court of Appeal affirmed that the County failed to render a "written determination of environmental impact" before approving the CAP and (GHG) Thresholds project. It also affirmed that the County never made the required findings that the effects of the CAP and Thresholds project were examined, mitigated, or avoided.[2] The Court of Appeal found that an EIR was required for the CAP itself and the proposed CAP was not analyzed as part of the Programmatic EIR that analyzed the General Plan Update.[3]

O16-4 cont

POC offers the following comments on the proposed CAP and DSEIR for the County's consideration, in the context of the Court of Appeal's findings regarding the inadequacy of the originally proposed CAP and relevant sections of the associated PEIR. POC asserts that the DSEIR and new draft CAP do not go far enough to correct the issues originally identified by the Court of Appeal.

O16-5

I. **Draft Supplemental Environmental Impact Report**

A. ***Rejection of the Distributed Generation Alternative Is Improper because the Alternative Meets Project Objectives, is Feasible, and Avoids Significant Environmental Impacts***

The Distributed Generation Alternative would remove the large-scale renewable energy program component of GHG Reduction Measure E-2.1 and would instead promote the construction of distributed generation systems.[4]

The DSEIR states that if large, utility-scale components were eliminated from this measure, then additional distributed generation sites and infrastructure (e.g., rooftops, individual lots) would be required to make up the gap and still achieve 90% renewable energy by 2030 – enough to offset 230,365 MTCO2e.[5]

O16-6

The DSEIR goes on to state that this is equivalent to installing 971 GW of solar projects in addition to the solar installations that would occur under GHG Reduction Measure E-2.2 and E-2.3 (see Attachment 1 of Appendix C).[6] 971 GW is equivalent to 971,000 MW, approximately 200 times SDG&E's peak load of about 4,700 MW.[7] This quantity is clearly wrong. However, Appendix C is confidential and therefore not available for public review to determine the nature of the error. Attachment 1 to Appendix C should be made public, as it is the basis for rejecting the Distributed Generation Alternative as a viable option. The County has not presented substantial evidence that Distributed Generation would not meet the project objectives, is infeasible, or fails to avoid

[2] *Id.* at 1171-72.
[3] *Id.* at 1175.
[4] Draft DSEIR, p. 4-10.
[5] *Id.* at p. 4-9.
[6] *Id.*, at p. 4-9.
[7] "Electric Use in San Diego Reaches New All-Time Peak Record," (Accessed September 24, 2017) At: https://www.sdge.com/newsroom/press-releases/2014-09-19/electric-use-san-diego-reaches-new-all-time-peak-record

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O16-5 The comment provides introductory remarks to comments that follow. No further response is required.

O16-6 The comment states that the Draft SEIR improperly dismissed the Distributed Generation Alternative and states that the calculations for this alternative were not made public. The commenter referred to the unavailability of Appendix C of the Draft SEIR. However, Appendix C of the Draft SEIR refers to confidential documentation supporting the Cultural Resources discussions of the Draft SEIR. The calculations referred to in the Distributed Generation Alternative are based on calculations shown in Appendix C of the CAP as related to GHG Reduction Measures E-2.1, E-2.2, and E-2.3. Total energy demand under the Distributed Generated alternative is projected from the GHG reductions estimated for GHG Reduction Measure E-2.1 using electricity emission factors used in the GHG forecast. The corresponding demand for distributed generation is based on the average solar electricity generation in the county (1,665 kWh per kW of solar panel) as shown in the calculations for GHG Reduction Measure E-2.2 and E-2.3. A consolidated calculation spreadsheet has been included in as an attachment to this letter for clarity.

The commenter states that the 971 gigawatt (GW) estimate of solar projects is wrong. The County acknowledges the error in reported power requirements for the Distributed Generation Alternative. The 971 GW value was incorrectly described as the power rating needed for the Distributed Generation Alternative. The value should have been reported as 970 gigawatt-hours (GWh), the estimated electricity demand that the Distributed Generation Alternative would need to meet. (A watt is a unit of power, while a watt-hour is a unit of energy. A solar panel rated at 10 kilowatts (kW) running for 5 hours would generate 50 kilowatt-hours (kWh) of energy in the form of electricity.) Without GHG Reduction Measure E-2.1 under the Distributed Generation Alternative, there would be an emissions gap of 229,852 MT CO_2e for 2030. Based on the electricity emissions factor of 0.236875 MT CO_2e per megawatt-hour (MWh) estimated for 2030 the County would need to support an annual electricity demand of 970 GWh by

	2030 with distributed renewable sources. Using the average solar generation rate of 1,665 kWh per kW of solar panel, this electricity demand could be supported by distributed solar projects with a total power rating of 583 MW. This potential demand for distributed solar would be separate from the solar installations that would occur under GHG Reduction Measures E-2.2 and E-2.3. This error has been corrected in the Final SEIR. This correction does not change the conclusion in the Final SEIR that the Distributed Generation Alternative is infeasible due to the reasons described below. The factors used in this calculation are also shown in Appendix C of the CAP. As stated in the Draft SEIR, the availability of residential and commercial space within the unincorporated County to generate the projected demands in absence of large-scale renewable energy facilities is limited. Based on the average potential solar energy generation per household, the Distributed Generation Alternative would require the participation of 115,065 homes by 2030, in addition to the 130,175 homes that would already install rooftop solar under GHG Reduction Measure E-2.3, for a total participation of 245,240 homes. The County is forecasted to have a total of 192,925 households by 2030 – less than the number of homes needed to meet the demand under Distributed Generation Alternative and GHG Reduction Measure E-2.3. Also, based on available solar permit data from the County since FY13/14, approximately 7,666 households already have solar systems installed. This would mean that accounting for existing homes that installed rooftop solar before 2014 and the 130,175 homes participating under GHG Reduction Measure E-2.3, only 55,084 households would be available to support the Distributed Generation Alternative in 2030. To meet the remaining demand under the Distributed Generation Alternative, another 304 MW of solar would need to be installed, equivalent to another 59,981 household solar installations. Assuming residential opportunities for solar installations are at capacity and the remaining solar demand (304 MW) was

supported by commercial land uses, this alternative would require approximately 20 million additional square feet of commercial roof space. This calculation assumes an average solar power rating of 1 kW per square meter, a module efficiency of 16 percent, a tilt of 20 degrees, and a flat roof base. The commercial roof space needed based on these assumptions 19.2 million square feet, which is more than the 16.7 million square feet requirement estimated by the commenter.

The commenter also asserts that the Draft SEIR incorrectly calculated the available non-residential roof space as 2.3 million square feet as a portion of the 235 million square feet available in the entire County. (As mentioned in Chapter 4, a 2009 solar feasibility study for San Diego County estimated that the entire County has 235 million square feet of commercial and industrial roof space in 2005, not accounting for any roof obstructions such and HVAC and other equipment [Anders and Bailek 2009].) The commenter correctly identifies this error. This value was incorrect for two reasons, and has since been corrected to 18.7 million square feet in the Final SEIR. First, as the comment correctly points out, the 10 percent assumption of the portion of countywide jobs located in the unincorporated County was applied incorrectly as 1 percent of total 235 million square feet of countywide commercial and industrial roof space. Second, the 10 percent value was incorrect because it was based on the percent of countywide industrial jobs, excluding commercial jobs, that were located in the unincorporated county. In contrast, unincorporated jobs, including both industrial and commercial jobs, account for 6.5 percent of countywide in 2030. The corrected calculation of available non-residential roof space, including 2030 adjustments from the Anders and Bailek's 2005 roof estimate, has been included as an attachment to this letter.

The 18.7 million square feet of non-residential roof space is still less than the 19.2 million square feet of non-residential roof space needed to meet the electricity demand under the Distributed Generation Alternative. The usable roof space may

	even be lower after accounting for roof use for HVAC and other equipment. Even if enough roof space were available to support this alternative (or if enough solar systems were to be installed on parking lots), the County is limited in its jurisdiction to not only require solar installations on existing private structures/facilities but is also limited in requiring property owners to sell the electricity they generate. An alternative that relies solely on distributed generation to achieve the County's renewable electricity goal would be contingent upon participation from willing property owners. To achieve the sizable reductions under GHG Reduction Measure E-2.1, the County would need to execute agreements with multiple property owners to install the systems and to sell the generated power, proceed with installation of such systems, and have them operational by 2030. Whether the County can get adequate participation to achieve 229,852 MT CO_2e of reductions is speculative. Without sufficient current or projected space available and due to the logistical and legal limitations with distributed generation, the feasibility of this alternative and its ability to meet most objectives of the CAP, specifically to reduce community and County operations GHG emissions or to incorporate feasible and effective GHG reductions measures, is speculative. As such, the County eliminated this alternative from further consideration.

significant environmental impacts.[8] Further, CEQA requires that "Information relevant to the significant effects of a project, alternatives, and mitigation measures which substantially reduce the effects shall be made available as soon as possible by lead agencies, other public agencies, and interested persons and organizations." The County has failed to meet this burden in regards to its decision to reject Distributed Generation as a viable alternative.[9]

O16-6 cont.

The math regarding the amount of solar necessary on non-residential buildings in the unincorporated areas of the County is completely wrong. The DSEIR states: [10]

> Even if 100 percent of all homes have installed solar by 2030, making up the gap would entail additional installation of 265 MW of solar projects, requiring 16.7 million square feet of roof space. A 2009 solar feasibility study for San Diego County estimated that the entire County has 235 million square feet of commercial and industrial roof space (Anders and Bailek 2009). With unincorporated County jobs accounting for approximately 10% of Countywide jobs, this leads to an estimated 2.3 million square feet of available non-residential roof space in the unincorporated County – less than what would be required to install 265 MW of solar.

Ten percent of 235 million square feet is 23.5 million square feet, not 2.3 million square feet as stated in the DSEIR. 16.7 million square feet of roof space would be necessary to meet the need. This does not even consider using available commercial parking space to meet some of the need, instead of relying exclusive on roof space. The amount of available commercial parking lot PV capacity is at least equal to the commercial rooftop capacity.[11]

O16-7

There is more than enough commercial roof space in the unincorporated areas of the County based on the data provided in the DSEIR itself, 23.5 million square feet versus 16.7 million square feet, to meet the identified need. When commercial parking lot space is included, available commercial solar capacity doubles to about 47 million square feet. There is approximately three times more commercial solar capacity than necessary to meet the stated need of 16.7 million square feet.

The elimination of Distributed Generation as a standalone alternative is not based on substantial evidence because it is based on erroneous information. Under CEQA, evidence that is clearly inaccurate or erroneous is not substantial evidence.[12]

CEQA requires the County to look at "alternatives to proposed actions affecting the environment" in its EIR.[13] The purpose of discussing alternatives is to assess whether less

O16-8

[8] CEQA Guidelines § 15126.6(c).
[9] Cal. Pub. Res. Code § 21003.1(b).
[10] *DSEIR*, at p. 4-9.
[11] Powers Engineering, *San Diego Smart Energy 2020*, May 2008, p. 31, Table 7-2.
[12] Cal. Pub. Res. Code § 21082.2(c).

O16-6
3

O16-7 The comment states that the math and data presented to dismiss the Distributed Generation Alternative is wrong. The error is acknowledged and the corrected value of 16.9 million square feet (6% of 235 million square feet) has been provided in the Final EIR. See the response to comment O16-6.

O16-8 The comment describes the requirements of CEQA alternatives analysis and states the Distributed Generation Alternative is feasible. Please refer to response to comment O16-2, O16-7, and O16-8. See Master Response to Comment 8 on the reasonable range of alternatives.

environmentally damaging options exist and to "foster informed decision-making and public participation."[14] The EIR must include a "range of [reasonable] alternatives to the project [that] include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen . . . significant effects, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."[15] Along with its range of alternatives, the EIR must "evaluate the comparative merits of the alternatives," and the County must "explain the reasons underlying [its] determination" to choose the proposed alternative.[16]

O16-8 cont.

The Distributed Generation Alternative is feasible and must be identified as such in the DSEIR. A fatal flaw in the DSEIR is rejection of the Distributed Generation Alternative as infeasible.

B. The CAP Must Prioritize Distributed Renewable Energy to Avoid Substantial Industrialization of Undeveloped Land and Related Flora/Fauna Impacts

The DSEIR does not adequately explain why "implementation of GHG Reduction Measure E-2.1 would necessarily result in the construction and operation of new large-scale renewable energy systems, including large-scale solar photovoltaic, concentrator solar, geothermal systems, and/or wind turbines to achieve the County's 90% renewable energy goal."[17] The DSEIR goes on to point-out some of the disadvantages of large-scale renewable energy systems, stating "Large-scale renewable energy systems, specifically wind, geothermal, and solar energy, require large, undeveloped land that are productive for generating renewable energy," and "large-scale wind turbines infrastructure generally includes wind turbines (300-500 feet tall at the blade tip), substation, meteorological towers, overhead and underground collector cable system, and overhead transmission lines." The DSEIR explicitly acknowledges that large-scale renewable energy systems have significant scenic vista, scenic resource, and nighttime lighting and glare impacts.[18]

O16-9

These large-scale projects, with their known substantial environmental impacts, would be subject to a separate environmental review process according to the DSEIR:[19]

> All large renewable energy projects would be subject to discretionary review and required to obtain a Major Use Permit (MUP). As part of the County's discretionary review process all large renewable energy projects would be evaluated under CEQA and would be required to implement mitigation measures to minimize all significant impacts to the extent feasible related to GHG emissions.

[13] Cal. Pub. Res. Code §§ 21001(g); 21100(b)(4).
[14] CEQA Guidelines § 15126.6(a) & (b).
[15] CEQA Guidelines § 15126.6(a) & (c).
[16] *Id.* § 15126.6(a) & (c).
[17] DSEIR at p. 2.7-27.
[18] *Id.*, at p. 4-15.
[19] *Id.*, *at* p. 2.7-28.

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O16-9 The comment request that the County prioritize distributed renewable energy projects and rank distributed energy as a preferred alternative. It also excerpts a portion of Section 21002 of the California Public Resources Code, but omits a key portion. The entirety of this section is included below, with emphasis added on the omitted portion.

> The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

Therefore, the County disagrees with the assertion that the adoption of the CAP and GHG Reduction Measure E-2.1 must not result in significant and unavoidable impacts.

As described on pages 4-9 to 4-10, the Distributed Generation Alternative which would result from a limitation placed upon GHG Reduction Measure E-2.1 resulting in the prohibition of large-scale renewable energy facilities, was determined to be infeasible because there would not be sufficient sites and infrastructure in the county to support enough distributed generation facilities to reach the intended GHG emissions reductions. Refer to response to comment O16-6 above. The County acknowledges that there are multiple options and paths that could be taken to achieve implementation of GHG Reduction Measure E-2.1; however, because the reduction targets assigned to this measure represent a substantial component of overall reductions, and available distributed

	generation infrastructure (as described in the Distributed Generation Alternative and in response to comment O16-6 above) are not available to meet generation needs, the County reasonably presumed that absent other advancements in technology and infrastructure, there could be the potential to induce demand for additional large-scale renewable energy projects as a result of adopting GHG Reduction Measure E-2.1. This is a reasonable assumption based on the data available. As a result, the County appropriately evaluated the environmental implications of additional renewable energy infrastructure. The commenter also cites CARB's recommendation for lead agencies to prioritize on-site design features and direct investment in GHG reduction in the vicinity of the project out of context. CARB in its 2017 Scoping Plan Update provides this guidance to lead agencies when addressing GHG mitigation measures for land use development projects. See page 2.7-37 of the Draft SEIR for more information. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project.

The DSEIR states, "CARB recommends that, "lead agencies prioritize on-site design features and direct investments in GHG reductions in the vicinity of the project (CARB 2017)."

The DSEIR makes clear that building-level distributed solar and wind have a substantial role in achieving CAP GHG reduction targets, stating that "GHG Reduction Measures E-1.1, E-2.1, E-2.2, E-2.3, and E-2.4 could result in energy efficiency retrofits on existing residential and non-residential structures, including rooftop or ground-mounted solar photovoltaic or small wind turbines, upgraded mechanical systems, and other similar improvements on new construction," and "installation and operation of small-scale solar photovoltaic or small wind turbines, and implementation of building retrofits would lead to a reduction in GHG emissions in the County."[20]

The DSEIR notes that distributed renewable energy projects are unlikely to have significant ancillary environmental impacts, stating:[21]

> The installation of rooftop solar photovoltaic energy systems generally does not require substantial construction activities, such as earthmoving or operation of heavy-duty equipment. Rooftop solar photovoltaic energy panels also do not require substantial operational activities, only minor maintenance activities such as regular inspections, repairs, and removing debris as necessary. Due to the nature of the improvements, it is likely that retrofits would occur in areas of existing development, and new development would contain energy-efficient mechanical equipment. Under both scenarios, implementation of new mechanical equipment or new renewable energy equipment would generally occur in developed areas of the County, would be regulated by the County Zoning Ordinance Section 6952(b) and require a building permit upon demonstrating consistency with the zoning criteria.

Due to the known adverse environmental effects of large-scale, industrialized renewable energy projects, alluded to in the DSEIR, POC requests that the CAP prioritize distributed renewable energy projects and that the DSEIR rank distributed energy as a preferred alternative. It is the "policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures which will avoid or substantially lessen the significant environmental effects of such projects."[22]

O16-9 cont.

C. The Direct Investment Program to "Close the Gap" if Required GHG Reduction Measures Prove Inadequate Is Insufficiently Described to Provide Reasonable Assurance to the Public that It Will Be Available

O16-10

[20] *Id.*, at p. 2.7-33.
[21] *Id.*, at p. 2.7-27.
[22] Pub. Res. Code § 21002.

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O16-10 The comment states that no information is provided on the level of investment the Local Direct Investment Program would fund and whether the County has financial resources to meet the level of investment. Please refer to Master Response 3 regarding local direct investment projects. The County has provided the appropriate level of detail at the program, or first tier, level of analysis. Please see Master Response 10 use of a Program EIR. The local direct investment program is required by 2020 to implement GHG Reduction Measure T-4.1. However, to provide the decision makers with an estimate of costs associated with implementation of GHG Reduction Measure T-4.1, the County has conducted a preliminary analysis to determine the cost and possible implementation strategies (including existing and possible future funding sources) of the local direct investment program. The Preliminary Assessment of the County of San Diego Local Direct Investment Program is included as an attachment to the Planning Commission Hearing Report.

According to the DSEIR, The CAP relies on Measure T-4.1 related to direct investment projects to reduce GHG emissions to close the emissions gap after implementation of other local measures.[23] Implementation of GHG Reduction Measure T-4.1 would result in a variety of direct investment in local projects that would offset carbon emissions within the unincorporated county by 2030.[24] The County states that carbon offsets achieved through implementation of Measure T-4.1 will be in addition to any GHG reductions achieved through other CAP measures or any GHG reductions already assumed through state GHG reduction actions or otherwise required by law, mandate, or condition of a permit.[25] Nowhere is there a description of the level of investment the Direct Investment Program will be expected to fund, whether the County has the financial resources to meet this level of investment without additional sources of revenue being identified, and how those additional sources of revenue will be generated if needed (fees, grants, taxes, or other). This information must be included in the proposed CAP in order to determine whether the mitigation measure is reasonably achievable and based on substantial evidence.

O16-10 cont.

D. New Developments Must Be Net Zero Through On-Site Design Features and Mitigation Measures

The California Energy Efficiency Strategic Plan (CEESP) targets that all new residential construction be zero net energy, through on-site design features and mitigation measures, by 2020, per proposed revisions to the Title 20 and Title 24 of the California Building Code.[26,27] The CAP must be consistent with this state policy. The only adequate CAP treatment of new projects is net zero, identified as Option 2 (Net Zero):[28]

O16-11

> Option 2 (Net Zero): GPA project applicants shall reduce all project GHG emissions to zero to achieve no net increase over baseline conditions (carbon neutrality). Project emissions shall be reduced to zero through on-site design features and mitigation measures and off-site mitigation, including purchase of carbon offset credits by the applicant or its designee.

[23] DSEIR, p. 2.7-22.
[24] *Id. at*, p. 2.7-23.
[25] *Id. at*, p. 2.7-24.
[26] CPUC Decision D.08-09-040, *Order Instituting Rulemaking to Develop the Commission's Energy Efficiency Strategic Plan*, September 18, 2008, p. 1. "Today, we adopt the California Long-Term Energy Efficiency Strategic Plan (Plan), and require that its adopted strategies be incorporated into energy efficiency program planning and implementation starting in 2009." Also, D.10-09-047, *Order Instituting Rulemaking to Examine the Commission's Post-2008 Energy Efficiency Policies, Programs, Evaluation, Measurement, and Verification, and Related Issues*, September 23, 2010 (authorized 2011 update to Plan).
[27] CPUC and CEC, *California Energy Efficiency Strategic Plan - New Residential Zero Net Energy Action Plan 2015-2020*, June 2015, p. 1. "The Residential New Construction Zero Net Energy (ZNE) Action Plan (Action Plan or the Plan) is designed to operationalize the California Long-term Energy Efficiency Strategic Plan's (CEESP) goal to have 100% of new homes achieve ZNE beginning in 2020."
[28] *Id. at*, p. 2.7-39. Pages 7-8, "To measure the effectiveness and provide clear benchmarks for progress of the Action Plan, the following overarching benchmarks have been developed. By 2020, all new homes are ZNE Code or ZNE Ready homes (single-family and low-rise multifamily) - Title 24 pt 6, Title 20 promotes ZNE."

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O16-11 The comment references the California Energy Efficiency Strategic Plan (CEESP) that specifies that all new residential construction be zero net energy by 2020. The comment states that the CAP must be consistent with this State policy. GHG Reduction Measure E-1.1 of the CAP would require all new residential development to meet the State's ZNE standards by 2020 and require all new non-residential development to meet the State's ZNE standards by 2030. This is required by each new discretionary project through the CAP Consistency Review Checklist Item 4a. The County would amend Title 9 of the San Diego County Code of Regulatory Ordinances (County Construction Codes) to update these standards. Therefore, the County's CAP is consistent with the State's direction. The comment confuses this reduction measure with CAP Mitigation Measure M-GHG-1 as discussed below.

The comment appears to be referring to CAP Mitigation Measure M-GHG-1 regarding GHG emission reduction options for GPAs (see page 2.7-36 of the Draft SEIR). The comment states the only option should be Option 2 (Net Zero) and that allowing offsite mitigation and carbon offset credits in this option causes it to be in conflict with state requirements that all new residential construction be net zero by 2020. The comment conflates zero net energy, which is referenced in the comment, with zero net emissions, which is presented as Option 2 under CAP Mitigation Measure M-GHG-1 for GPAs. Construction standards, which may require zero net energy in the future building code, only address building energy and do not account for the total GHG emissions associated with new development. New development would need to comply with ZNE standards as specified in GHG Reduction Measure E-1.1. The CAP addresses the totality of GHG emissions resulting from new development including construction emissions and vehicle miles traveled. In addition, CAP Mitigation Measure M-GHG-1 applies to GPAs that propose development density/intensity above what is designated in the 2011 GPU. Option 2 under this mitigation measure allows GPAs to achieve zero net emissions to ensure that they don't conflict with the CAP. Before considering off-site mitigation and carbon offset

	credits, the GPAs would need to incorporate all relevant measures from the CAP Checklist for New Development, which includes ZNE requirements, and other feasible onsite mitigation measures. Therefore, CAP Mitigation Measure M-GHG-1 does not preclude achievement of the State's ZNE goals as suggested in this comment. See Master Response 12 related to mitigation hierarchy and the use of carbon offset credits.

However, off-site mitigation and carbon offsets are unnecessary when each new structure, by itself, is net zero. Off-site mitigation and carbon offsets must be deleted from Option 2 as they conflict with the California state policy objective that all new residential construction, structure by structure, be net zero by 2020. O16-11 cont.

E. The Direct Investment Program Is the Tool the County Identifies as Its Bridge to Achieving CAP Goals and Should Be Utilized to Support, If Necessary, Rapid Conversion of Existing Buildings to Net Zero

The CEESP (as revised 2011) sets targets for existing residential and commercial structures: 1) 25 percent of existing residences near net zero by 2020, 2) 50 percent of existing commercial structures net zero by 2030.[29] These California Energy Efficiency Strategic Plan targets for existing residential and commercial buildings must be included in the proposed CAP and acknowledged in the DSEIR discussion of the distributed renewable energy alternative and its impact on GHG reductions. Acknowledging the California Energy Efficiency Strategic Plan targets also puts in context the draft CAP targets identified in Measure E-2.3 that requires installation of photovoltaic (PV) electrical systems in existing residential development to offset 32 percent of electricity use in existing homes by 2020 and 80 percent by 2030.[30] The draft CAP targets do not include commercial buildings, unlike the CEESP. Instead of creating building PV targets that are unrelated to state policy targets, the CAP should adopt the "25 percent by 2020" and "50 percent by 2030" ZNE existing building targets established in the California Energy Efficiency Strategic Plan, and should adopt them for both existing residential and commercial buildings.[31,32] O16-12

The DSEIR states that limitation of the large-scale renewable systems from Measure E-2.1 would require Measures E-2.2 and E-2.3 to require a larger percentage of PV electrical systems on new non-residential and on existing residential.[33] As noted, the state has a target of 50 percent of non-residential commercial buildings achieving net zero by 2030. The DSEIR does not acknowledge this or how much this quantity of commercial building solar would reduce the amount of GHG reductions assumed from large-scale renewable systems. O16-13

[29] CEESP, revised 2011, p. 20 and p. 34. (Accessed September 24, 2017) Available online at: http://www.cpuc.ca.gov/General.aspx?id=4125.
[30] DSEIR at, p. 4-10.
[31] The CEESP, revised 2011, targets a 70 percent reduction in electricity use in 25 percent of existing residential buildings by 2020. The CAP should adopt a ZNE target for 25 percent of existing residential buildings by 2020. Under California's net-metering program, retrofitting solar PV onto existing residential and commercial buildings at least as cost-effective offsetting 100 percent grid electricity usage as it is offsetting 70 percent of grid electricity usage.
[32] The CEESP projects that approximately 25 percent of existing commercial buildings will be ZNE in order to meet the target of 50 percent of existing commercial buildings achieving ZNE by 2030. See: CPUC, *California Energy Efficiency Strategic Plan - Zero Net Energy Action Plan: Commercial Building Sector 2010-2012*, August 31, 2010, Appendix C, p. 34.
[33] *Id. at*, p. 4-10.

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O16-12 The comment states that California Energy Efficiency Strategic Plan (CEESP) targets for existing residential and commercial buildings must be included in the CAP. The comment states the CAP should adopt the CEESP targets. The CEESP is a statewide plan that includes the long-term vision and goals for each economic sector in California. The plan is not binding on local agencies such as the County. The CAP focuses on new development because of the County's regulatory authority related to building and development permits. The County has a greater ability to affect GHG reductions on new development rather than existing development based on the County's authority to issue building and development permits. There currently is no similar County authority over existing structures, but the CAP will require the County to create additional programs and incentives to achieve measurable GHG reductions from existing buildings. The reductions from these programs and incentives have been conservatively estimated based on participation rates from similar programs (refer to Appendix C to the CAP for details). In addition, the State has established energy efficiency targets through SB 350 which requires a doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030. The California Energy Commission (CEC) is working closely with other State agencies, including the California Public Utilities Commission (CPUC), the California Air Resources Board (CARB), and the California Independent System Operator (CAISO), to implement the bill. The County will track implementation of SB 350 energy efficiency standards and consider additional local measures to achieve energy efficiency in existing buildings if any gaps are identified.

The commenter also states that the CAP targets do not include commercial buildings, unlike the CEESP. This is not correct. CAP Consistency Review Checklist Item 4a sets forth the requirement of new non-residential development, which is 10% greater efficiency than 2016 Title 24 and ZNE by 2030.

O16-13 The comment states that the Distributed Generation Alternative does not acknowledge that the state has a target of 50% of non-residential commercial buildings achieving next

	zero by 2030. The CAP and Draft SEIR conservatively do not apply a reduction credit for energy efficiency improvements in existing buildings because the implementation details are still being developed at the State level. See Response to Comment O6-12.

The DSEIR also states that under Measure E-2.4 a Distributed Generation Alternative could also require renewable energy generation from County facilities, the feasibility of which is not known and would require an amendment to the County's 2015 – 2020 Strategic Energy Plan.[34] Requiring renewable energy generation from County facilities is feasible. The County is a Direct Access entity,[35] responsible for contracting for its own power supply. Therefore the County can choose to cover its facilities with solar panels, and supplying itself with all the power from those solar panels, without a need for further authorization from SDG&E or the CPUC. The DSEIR should clarify that the County can amend its 2015 – 2020 Strategic Energy Plan as necessary to conform to carrying-out the Distributed Generation Alternative. O16-14

The DSEIR is incorrect to imply that changes in law would be necessary to successfully realize the Distributed Generation Alternative.[36] Californians have added over 5,000 MW of rooftop solar to date because it both saves money on electric bills and increases the value of the home or business.[37] San Diego County is the state's leader in voluntary additions of rooftop solar. This program is successful under existing law because it is cost-effective for customers. The County has identified the tool it will use to assure compliance with mitigation measures is the Direct Investment Program. The CAP must project how much direct investment may be necessary for the Distributed Generation Alternative to achieve the targeted GHG reduction targets compared to the base case compliance strategy. Given the rapid reduction in the cost of solar power, and the ever-increasing cost of grid power, one reasonable scenario is that there is no net investment cost to the County to achieve the 2030 GHG reduction targets using the Distributed Generation Alternative.[38] O16-15

F. Energy Efficiency Goals Are Inadequate Compared to Existing State Targets

The proposed CAP energy efficiency targets are substantially lower than state targets. The CEESP targets energy efficiency reductions of at least 25 percent for residential, commercial, and industrial categories by 2020.[39] The Strategic Plan also targets a 50 percent improvement in efficiency in the HVAC sector by 2020, and a 75 percent improvement by 2030.[40] The County provides no justification for the minimal goal of achieving energy efficiency improvements of just 1 percent in existing residential and non-residential buildings in the unincorporated County by 2030. POC believes the O16-16

[34] *Id. at*, p. 4-10.
[35] SDG&E Direct Access webpage, September 21, 2017: https://www.sdge.com/customer-choice/electricity/direct-access-faq.
[36] DSEIR, p. 4-7. While some of the above reduction measures may be possible from a technological standpoint (such as achievement of zero net energy in existing buildings), there are currently no legal mechanisms that require many of these improvements, especially improvements to existing homes and businesses which may account for a majority of emissions in the future as new construction becomes increasingly more efficient.
[37] See California Distributed Generation Statistics website, September 21, 2017: http://www.californiadgstats.ca.gov/.
[38] See NREL, *U.S. Solar Photovoltaic System Cost Benchmark: Q1 2017*, September 2017, Figure ES-1, p. vi: https://www.nrel.gov/docs/fy17osti/68925.pdf.
[39] California Energy Efficiency Strategic Plan, January 2011, p. 20, p. 29, and p. 41.
[40] *Id.* at p. 53.

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O16-14 The comment states that the Draft SEIR should clarify that the County can amend its 2015-2020 Strategic Energy Plan to carry out the Distributed Generation Alternative. The comment is referring to a statement on page 4-10 of the Draft SEIR regarding renewable generation at County facilities. This statement has been amended as follows for clarification. This change does not alter the conclusions of the Draft SEIR.

Page 4-10, end of first full paragraph is revised as follows:

"In addition, under Measure E-2.4, a Distributed Generation Alternative could ~~also~~ require additional renewable energy generation from County facilities, ~~the feasibility of which is not known and~~ which would require an amendment to the County's 2015-2020 Strategic Energy Plan. The County's 2015-2020 Strategic Energy Plan identifies the feasible actions the County can take to increase renewable energy facilities on its buildings. Currently, 2.8% of the County's operational electricity is provided by onsite renewable sources. As defined in the County's 2015-2020 Strategic Energy Plan, increasing onsite renewable generation is one of the County's top sustainability priorities and efforts are already underway to increase onsite generation to meet both the goals of the 2015-2020 Strategic Energy Plan and the targets in the CAP. Expansion of renewable energy generation at County facilities beyond what is currently identified may not be feasible due to the limited suitability and availability of eligible County sites. The balance of available sites include older facilities that would require significant upgrades to roofing or electrical systems, facilities that are not properly oriented to accommodate solar, buildings that are in locations planned to be redeveloped, or buildings that are in locations where the County cannot confirm its presence onsite for the next 25 years. Therefore, an alternative that would require expansion of renewable energy generation at County facilities may not be feasible without further study."

O16-15 The comment states that it is incorrect to say that changes in law would be necessary to successfully realize the Distributed Generation Alternative. The comment also states that the Draft SEIR should identify how much local direct investments would

		be required to achieve targeted GHG reduction if the Distributed Generation Alternative were implemented. To realize the GHG emissions reductions required to meet the 2030 target, the County would need to implement new ordinances that would require mandatory renewable energy systems on private property, thereby making this alternative infeasible because as stated on page 4-9 of the Draft SEIR, there are not enough homes in the County that could participate voluntarily to achieve the targeted emissions. The CAP sets a target of 90% renewable electricity by 2030. Under both a large-scale renewable scenario and a distributed generation, the overall reductions would be the same as they are based on the 90% target. Therefore, the amount of local direct investments required would also be the same as the proposed project, assuming all other measures stay the same. Regardless, the CAP includes a monitoring component that will monitor the County's progress towards achieving reduction targets. Should progress occur faster in one area (e.g., rooftop solar), the inventory and the CAP can be adjusted to account for these advancement
	O16-16	The comment states the CAP's energy efficiency targets are low and does not provide justification for the minimal goal. The CAP is a comprehensive plan to achieve county-wide GHG emissions reductions for the existing land use map that was approved with adoption of the 2011 GPU. The CAP establishes 2020 and 2030 GHG emissions reductions targets, and a 2050 goal and contains 11 strategies, 30 GHG reduction measures, and numerous supporting efforts that are organized under five GHG emissions categories including built environment and transportation, energy, solid waste, water and wastewater, and agriculture and conservation. As described on page 5-2 of the CAP, each of the components of the CAP is intended to functionally decrease GHG emissions. The CAP will be implemented through a combination of regulations, programs, incentives, outreach, and educational activities and County efforts complement and build on other federal and State efforts to reduce GHG emissions. In other words, implementation of the CAP and achievement of the 2030 target and 2050 goal

	will be a county-wide effort. Please also refer to response to comment O16-12.

County's goals of 1 percent in 2030 and 4 percent by 2050 are far too low to effectuate the most cost-effective reduction in GHG possible by employing more robust energy efficiency programs that are consistent with the CEESP.

For example, commercial building "chiller plant" cooling systems can be converted to variable speed operation and simplified control to improve efficiency. The initial conversions to this ultra-efficient operating format resulted in an average energy-use reduction of 54 percent over a three-year period.[41]

Effective application of all-variable-speed operation to an existing chiller plant was realized at the County's North County Regional Center, with 610,000 square feet of air-conditioned space (courthouse, offices, and jail). The retrofit was completed and commissioned in December 2003 at a cost of $423,700. Two years later, the entire plant was averaging less than 0.5 kW per ton, saving the county more than $175,000 a year. The simple payback for this upgrade was less than two-and-a-half years. The North County Regional Center also received a $205,447 incentive payment from SDG&E, reducing the payback period to 1.3 years.[42]

The County has experience achieving major advances with energy efficiency measures and must incorporate more aggressive energy efficiency targets into the proposed CAP.

O16-16 cont.

G. The Identification of the Enhanced Investment Program Alternative As Superior is Based on an Improper Rejection of the Distributed Generation Alternative

The DSEIR compares the 100 Percent Renewable Energy Alternative to the Enhanced Direct Investment Program Alternative as the basis for asserting that the Enhanced Direct Investment Program Alternative is the environmentally superior alternative. The 100 Percent Renewable Energy Alternative would implement a CAP reduction measure that would increase renewable energy consumption from 90 percent proposed under the project to 100 percent renewable energy by 2030. This analysis is inadequate because the Distributed Generation Alternative was dismissed even though substantial evidence exists that it is a viable alternative that should be fully studied.

O16-17

The DSEIR rejects the 100 Percent Renewable Energy Alternative as the environmentally superior alternative because of the substantial environmental impacts of the large-scale renewable energy projects that would presumably be required to provide the renewable energy. Significant scenic vista, scenic resource, and nighttime lighting and glare impacts would be created by the large-scale renewable energy projects.[43] None of these impacts

O16-18

[41] B. Erpelding, P.E., San Diego Regional Energy Office, *Ultraefficient All-Variable Speed Chilled-Water Plants – Improving the energy efficiency of chilled-water plants through the utilization of variable speed and the optimization of entire systems*, HPAC Engineering, March 2006, pp. 35-43

[42] B. Erpelding, P.E., San Diego Regional Energy Office, *Ultraefficient All-Variable Speed Chilled-Water Plants – Improving the energy efficiency of chilled-water plants through the utilization of variable speed and the optimization of entire systems*, HPAC Engineering, March 2006, pp. 35-43.

[43] DSEIR at, p. 4-15.

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O16-17 The comment asserts that the discussion of the environmentally superior alternative was inadequate because the Distributed Generation Alternative was rejected. Please refer to response to comments O6-6, O6-7, O6-14, and O6-15. For the reasons discussed in the Draft SEIR and the responses to comments cited, the Distributed Generation Alternative continues to be considered infeasible by the County. As such, the discussion of the environmentally superior alternative is adequate as described in the Draft SEIR.

O16-18 The comment asserts that the discussion of the environmentally superior alternative was inadequate because the Distributed Generation Alternative was rejected. Please refer to response to comment 016-17.

would be created by distributed renewable energy projects. However, the Distributed Renewable Energy Alternative was rejected on the erroneous assumption that insufficient distributed renewable energy alternatives are available. A 100 Percent Renewable Energy Alternative utilizing distributed renewable energy is feasible and must be identified as environmentally superior. O16-18

H. The County Has Sufficient Information to Evaluate Specific 2050 Emission Reductions, and Associated Mitigation Measures, Necessary to Achieve the 2050 GHG Reduction Target

Transportation accounts for 57 percent of County GHG emissions in the 2014 baseline.[44] GHG emissions from electricity production will be largely or completely eliminated by 2030 under the proposed CAP. Therefore, the GHG reductions between 2030 and 2050 will have to come primarily from transportation sources. Those sources will have to be converted from gasoline or diesel to electric, and the electricity supplying these vehicles will have to come from renewable energy resources.

The California policy target for electric vehicles is that they comprise approximately 15 percent of the auto population in the state by 2025.[45] There were approximately 14.5 million registered automobiles in California in 2015.[46,47] Therefore, if the target is reached, there will be approximately 2 million EVs on the road in California in 2025.

The County cannot conclude that it conducted a legally adequate investigation, in asserting that the determination that future strategies and measures to address 2050 emissions are too speculative to be considered in assessing the impact of the proposed CAP, when the action necessary to achieve the 2050 goal – comprehensive vehicle electrification – is obvious. The direct investment mechanism, Mitigation Measure T-4.1, is also an off-the-shelf tool available to the County to accelerate conversion to electric vehicles to stay on track with 2050 GHG reduction targets for the transportation sector.

The County's assertion that mitigation measures for 2050 are too speculative is not legally defensible. CEQA requires "where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures should not be deferred until some future time."[48] O16-19

[44] DSEIR, p. 2.7-42, Table 2.7-1.
[45] Russ Mitchell, "Bolt EV helps boost electric car sales by 91% in California," *Los Angeles Times*, May 20, 2017, http://www.latimes.com/business/autos/la-fi-hy-ev-sales-california-20170519-story.html.
[46] Statista, "Number of registered automobiles in California 2015, by type," https://www.statista.com/statistics/196024/number-of-registered-automobiles-in-california/.
[47] There are approximately the same number of trucks as automobiles registered in California. In 2012, there were 13.2 million automobiles registered and 13.6 trucks registered. See: https://www.reference.com/vehicles/many-registered-vehicles-california-52c20f61bcb10e9d#.
[48] CEQA Guidelines § 15126.4(B).

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O16-19 The comment states that the County's assertion that mitigation measures for 2050 are too speculative is not legally defensible. The comment asserts that reductions to meet 2050 goals will have to come primarily from transportation sources and would require vehicles to convert to electric. Please refer to the Draft SEIR on page 2.7-22 regarding the speculative nature of achievement of the 2050 goal because it is not possible to speculate about technological advances and future changes in state and federal laws beyond 2030. After adoption, the CAP measures and supporting efforts would be implemented and progress monitored periodically. It is likely that new measures will become available to enable further GHG reductions. The County focused on measures that would be enforceable, achievable, and measurable to achieve the 2030 reduction target. The County also considered a climate stabilization alternative that would require achievement of 80% below 1990 levels by 2030. This alternative was considered but rejected as it would not meet the fundamental purpose of a CEQA alternative, which is to reduce or avoid the significant environmental impacts of the project. Please refer to Section 4.2.3 of the Draft SEIR for discussion on the infeasibility of additional measures required to reach this target. With respect to electric vehicles, the County has proposed the new GHG Reduction Measure T-3.5, Install Electric Vehicle Charging Stations, a measure that aligns with existing supporting efforts, and would result in the installation of 2,040 Level 2 electric vehicle charging stations through public-private partnerships at priority locations in the unincorporated county. This measure will help provide charging infrastructure for electric vehicles. The type of vehicle driven is an individual choice and the County cannot require a certain type of vehicle to be used by residents (i.e., comprehensive vehicle electrification). However, the County is committed to staying in-step with changing fleets and taking action to promote a shift towards electric vehicles.

I. DSEIR Comment on Energy Storage Is Obsolete and Unsupported

The DSEIR states that, "Large amounts of energy cannot by stored based on current technologies and electricity must be produced as it is used."[49] POC disputes this statement and requests the basis for the County's assertion. Energy storage is already being deployed on a large scale throughout San Diego County. Before discounting energy storage as a feasible alternative the County should provide all data, studies, thorough legal analysis relied upon by the County for the statement. CEQA requires the County to look at "alternatives to proposed actions affecting the environment" in its EIR.[50] The purpose of discussing alternatives is to assess whether less environmentally damaging options exist and to "foster informed decision-making and public participation."[51]

O16-20

II. County's Proposed Climate Action Plan

A. Mechanism for Achieving 90 Percent Reduction in GHGs from Electricity Usage Are Unclear, Contradictory, and Confusing

The proposed CAP states that "Major measures include achievement of 90% renewable energy in the county by 2030, increased installation of rooftop photovoltaics (PV) in new and existing development, achievement of energy efficiency in existing buildings, and a water heater replacement program."[52]

This measure, E-2.1, will achieve 90% for the electricity transmitted through the grid and does not include electricity generated by individual sources, such as a home with rooftop solar or wind. The proposed CAP indicates an undefined Renewable Energy Program in cooperation with SDG&E will achieve this target. There is no discussion of why SDG&E, currently subject to a 50 percent RPS in 2030, would commit to provide grid power with 90 percent renewable energy content to the County. Is the County proposing to take credit for any renewable energy production under contract with SDG&E and within the County limits and counting toward the 90 percent renewable energy target for 2030? This would not be legitimate, as that renewable power would be equally attributable to all SDG&E customers.

The proposed CAP provides no clear description or enforcement mechanism to assure that 90 percent of grid power delivered to the County customers will be renewable energy.

Mitigation Measure E-2.4, "Increase Use of Renewable Electricity for County Operations," is inconsistent with Measure E.-2.1. The County is committing to generate only 10 percent of the County's operational electricity with renewables by 2020 and 20 percent by 2030, when Measure E-2.1 is targeting 90 percent of grid power serving

O16-21

[49] DSEIR, p. 2.6-1.
[50] Cal. Pub. Res. Code §§ 21001(g), 21100(b)(4).
[51] CEQA Guidelines § 15126.6(a) & (b).
[52] Proposed CAP, p. 3-39.

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O16-20 The comment states that energy storage has occurred throughout the County and that the Draft SEIR should provide data to support the statement that large amounts of energy cannot be stored based on current technologies. The statement the comment refers to (page 2.6-1) is intended to characterize the current energy system of San Diego Gas and Electric (SDG&E) where energy is generally produced as it is used. In 2010, Assembly Bill 2514 directed the California Public Utilities Commission to adopt an energy storage program and procurement target. The combined energy storage target for Pacific Gas and Electric Company, Southern California Edison, and SDG&E is 1,325 megawatts by 2020, with installations required by the end of 2024. The energy storage target for Community Choice Aggregators and other electric service provider is one percent of their annual 2020 peak load by 2020 with installation required by 2024. As of November 2017, SDG&E reports 104 megawatts of existing or in-process energy storage projects, tracking toward their energy storage target of 165 megawatts by 2020. The County will track and evaluate opportunities to integrate energy storage technology to achieve CAP targets for renewable electricity.

O16-21 The comment contends that the CAP relies on an undefined Renewable Energy Program under GHG Reduction Measure E-2.1. The comment asks whether the County would take credit for any renewable energy production under contract with SDG&E within the County limits and counting toward the 90% renewable energy target for 2030. Further, the comment states the CAP does not provide an enforcement mechanism to ensure 90% of the grid power delivered to the County is renewable energy. Finally, the comment states the County should achieve a higher percentage of renewables for County facilities.

The comment misinterprets the Renewable Energy Program to only be achieved through cooperation with SDG&E. GHG Reduction Measure E-2.1 sets a 90% renewable electricity target for the County and specifies various options that alone, or in combination, could achieve this specified target. These

	options could include a partnership with SDG&E, Community Choice Aggregation or another similar program. The County could also investigate opportunities to develop a regional or joint effort with other jurisdictions seeking to achieve similar renewable energy goals through a partnership (e.g., Joint Powers Authority). Therefore, the County is not solely relying on SDG&E to achieve 90% renewable electricity by 2030 although that is one of the options that could be considered. Electricity supply companies in California (i.e., investor-owned utilities, electric service providers, and community choice aggregators) are required to achieve a 50% Renewables Portfolio Standard (RPS) by 2030. The County as the electricity procurer under the Renewable Energy Program would be required to achieve this level of renewables under State law. Moreover, the measure sets a higher renewable electricity target of 90%. Therefore, credit for achievement of 50% RPS is appropriate as the electricity supplier for the unincorporated county would need to comply with this requirement regardless of the entity implementing the program. The County commits to meeting the 90% renewable electricity target and will provide options to the decisionmakers after CAP adoption as required by GHG Reduction Measure E-2.1. As SDG&E will still transmit and distribute electricity to County residents and businesses, it is important to outline in the CAP how the County can partner with either the investor-owned utility, a community CCA, or through a regional joint-power authority. The feasibility and effectiveness of these options will be considered by the County before proceeding with an option. The commenter also states that GHG Reduction Measure E-2.4 is inconsistent with GHG Reduction Measure E-2.1. Please refer to response O1-33. It should also be pointed out that the commenter mislabels GHG Reduction Measure E-2.4 by calling it “mitigation.” Please see Master Response to Comment 13 on the difference between the GHG Reduction Measures and CAP Mitigation Measures in the Final SEIR to reduce impacts from the GHG Reduction Measures.

County residents being renewable energy by 2030. The County's target for County operations must be consistent with the target in Measure E-2.1. The County should utilize direct purchase or on-site production of energy to achieve a goal above and beyond 10 percent renewable generation for County operations by 2020. O16-21 cont.

B. *The County's CAP Strategy to Decarbonize the On-road and Off-road Vehicle Fleets Is Inadequate and Largely Ignores Conversion to Electric Vehicles*

The "Strategy T-3: Decarbonize On-road and Off-road Vehicle Fleet" ignores the rapid conversion of vehicle fleets in California from fossil fuel to electric.[53] As previously noted, the California policy target for electric vehicles is that they be approximately 15 percent of the auto population in the state by 2025.[54] None of the T-3 mitigation measures address meeting or accelerating this statewide electric vehicle conversion target to achieve major transportation sector GHG reductions by 2030. O16-22

Regarding the plan's goal to "Reduce County Employee Vehicle Miles Traveled (VMT)," POC recommends a target of 50 percent GHG reduction from transportation sources by 2030, through a combination of VMT reduction and transition to electric vehicles, instead of the 20 percent VMT reduction goal in the CAP.[55] If California meets its current electric vehicle adoption targets, and County employee adoption of electric vehicles is proportionate to the statewide adoption rate, the County will achieve the equivalent of the vehicle GHG reduction goal, a 20 percent VMT reduction, by doing nothing at all. O16-23

Further, to improve measure T-3.4, "Reduce the County's Fleet Emissions[56], POC suggests that the County institute a "no idle" mitigation measure, whereby County vehicles are turned off and then restarted if they are to be stopped for more than a minute. Idling contributes to carbon dioxide emissions and wastes more gas than turning off an engine.[57] The County should also require that County-owned vehicles be completely turned off to save on fuel and emissions when the vehicles are not in use. For example, San Diego County Sheriff deputies in the unincorporated area of Borrego Springs have been observed to leave their Department-issued SUVs running for long periods of time while the deputies are inside their stations. The vehicles are presumably left running to keep them cool and so that the CAD, computer and radio does not need to re-boot when restarting the vehicle, however, the County could reduce its GHG impact by instituting a policy wherein any county vehicle should not be allowed to run unattended for long periods of time, especially with the air conditioning running. O16-24

[53] Proposed CAP, p. 3-26.
[54] Russ Mitchell, "Bolt EV helps boost electric car sales by 91% in California," *Los Angeles Times*, May 20, 2017, http://www.latimes.com/business/autos/la-fi-hy-ev-sales-california-20170519-story.html.
[55] Proposed CAP, Mitigation Measure T-2.3, p. 3-21.
[56] Proposed CAP, p. 3-34.
[57] See "Climate Effects of Idling," in "Idling Gets You Nowhere," available online at: https://www.edf.org/sites/default/files/9236_Idling_Nowhere_2009.pdf

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O16-22 The comment states that CAP Strategy T-3 does not address meeting or accelerating the statewide electric vehicle conversion target. As described on pages 3-27 through 3-35, the CAP proposes several measures that would focus on decarbonizing the on- and off-road fleet of vehicles within in the County. The Draft CAP contained multiple supporting efforts that would support the uptake of electric vehicles and in response to comments received, the County has developed a new GHG Reduction Measure (T-3.5 Install Electric Vehicle Charging Stations) which would result in the installation of 2,040 Level 2 electric vehicle charging stations through public-private partnerships in the unincorporated county by 2030. As described on pages 3-35 through 3-36 of the Final CAP, the measure builds on the State goal to increase the number of zero-emission vehicles to 1.5 million by 2025.

O16-23 The comment recommends the County set a target of 50% GHG emissions reduction from transportation sources by 2030 from VMT reduction and transition to electric vehicles. The County proposed 30 GHG Reduction Measures in the CAP that meet the required 2030 target. Please see Master Response 6 regarding transportation GHG reduction measures and Master Response 9 regarding the selection of GHG Reduction Measures. The County acknowledges this comment. The comment does not raise any issues pertaining to the adequacy of the Draft SEIR. The comment will be included as part of the Final EIR and made available to the decision makers prior to a final decision on the proposed project.

O16-24 The comment recommends the County require that County-owned vehicles be subject to a no idle mitigation measure. The County of San Diego, Department of General Services, Fleet Management Division maintains a vehicle/equipment idling procedure (County 2012). The purpose of the procedure is to establish guidelines and restrictions associated with idling vehicles and mobile equipment (referred to herein as "vehicles") that are owned or operated by the County. By limiting the amount of time that vehicle engines idle, San Diego County employees can play an important role in improving air

	quality, reducing the consumption of petroleum products, and reducing maintenance costs. Drivers must tum off the vehicle engine upon stopping at a destination, and must not allow an engine to idle at any location for more than one (1) minute. Emergency vehicles and equipment are exempt while engaged in operational activities such as fire, police or ambulance services. However, operators are encouraged to shut vehicles off whenever possible.

C. The County's CAP Guidelines for Determining Significance for Climate Change are Weak

In the draft guidelines document the County plans to distribute to developers the County does not provide demonstrable or meaningful measures that could be undertaken by a developer to reduce GHG emissions.

Section 4 lists sources for feasible mitigation measures, but the lists are outdated and the most recent of the four sources is more than seven years old. The County must provide more up-to-date mitigation measures to guide the reduction of GHG emissions. Section 5 indicates that the County will update the CAP every five years but not until 2025. Given the rapid developments in renewable energy capabilities, POC recommends that the County not wait until 2025 to update the document and proposes a 2020 start date for review and updates. O16-25

For the foregoing reasons, POC requests that the DSEIR be revised to include Distributed Generation as a fully-studied alternative and that the Draft CAP be revised to ensure the County has enforceable measures in place to ensure future developments in the County are in compliance and actual GHG reductions are realized. O16-26

Respectfully Submitted,

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O16-25 The comment claims that the Draft Guidelines for Determining Significance for Climate Change (Guidelines) document does not provide demonstrable or meaningful measures that could be undertaken by a developer to reduce GHG emissions. The County does not agree and would point the commenter to the CAP Consistency Review Checklist that is referenced in the Guidelines. The CAP Consistency Review Checklist lists all requirements applicable to new development required of developers. The comment states that the Guidelines should provide more up to date mitigation measures for GHG emission reductions and that the County's first update to the CAP be in 2020. The comment offers no data to support that information contained in the Guidelines is outdated. Further, lead agencies are required to ensure that all feasible mitigation is implemented to reduce a project's significant environmental effects. While measures may have been developed in the past, the age of the measures does not render them obsolete. If measures previously developed continue to require actions that would feasibly reduce GHG emissions, then those measures remain relevant, applicable, and feasible. The County engages in regular review of its Guidelines to make sure that they incorporate feasible and relevant information in the preparation of environmental analyses. The comment offers no evidence to dispute this. The comment does not raise any issues pertaining to the adequacy of the Draft SEIR. The comment will be included as part of the Final EIR and made available to the decision makers prior to a final decision on the proposed project.

O16-26 The comment provides concluding remarks. No further response is provided.

Distributed Generation Alternative Calculations

Equivalent Electricity Demand	2030
GHG Emissions offset by E-2.1 (MTCO2e)	229,852
Grid Emission Factors without E-2.1 (MTCO2e/MWh)	0.236875
MWh demand to be served by E-2.1	970,351

Solar Equivalent Calculations	
Annual kWh generated per kW of solar PV in San Diego County (from PV Watts)	1,665
Size of solar PV to meet MWh demand (MW)	582.65

Residential Solar Demand		ID
Average kW installed per household	5.06	A
Number of HH needed to meet Distributed Generation demand	115,065	B
Number of existing HH needed to meet 2030 target for E-2.3 (solar on existing homes)	130,175	C
Total HHs in the unincorporated County	192,925	D
Total HH solar systems needed to meet E-2.3 and E-2.1 (E=B+F)	245,240	E
HHs already participating in E-2.3	130,175	F
Residential solar permits between FY13/14 and half of FY 14/15	7,666	G
Remaining HHs in the unincorporated County that could support E-2.1 (H=D-F-G)	55,084	H
Remaining hypothetical HHs still needed to support E-2.1 (I=B-H)	59,981	I

Are there sufficient HH to support E-2.1?	No

HH = households

Non-Residential Solar Demand	2030
Remaining MW needed to be supported by non-residential (MW)	304
sq meter per kW	1
sqft per sq meter	10.8
Module efficiency	0.16
Size of PV area needed (sf)	20,432,985
Tilt Degree	20
Footprint of PV area needed (sqft)	19,200,725

Available Commercial Sqft

Existing Countywide Rooftop Area	
Area of commercial/industrial (sqft) (Anders and Bailek 2009)	235,047,321
Job Growth from 2005 to 2030	24%
Unincorporated Roof space in 2030	18,755,786.62

Source: Anders and Bailek 2009 (https://www.sandiego.edu/low/documents/centers/epic/060309_ASESPVPotentialPaperFINAL_000.pdf)

Estimated Unincorporated San Diego County Roofspace (Scaled from entire county by historical and forecasted number of Jobs and households) (sqft)

	2014	2020	2030	2040	2050
Commercial/Industrial	111,411,778	116,938,533	130,255,005	137,899,734	144,445,872

Employment Growth Rate from 2005 (All Industries)

San Diego-Carlsbad MSA	Number of Jobs	Growth Rate	Source
2005	1,305,300		http://www.labormarketinfo.edd.ca.gov/msa/sdiego.html
2014	1,355,900	3.8%	http://www.labormarketinfo.edd.ca.gov/msa/sdiego.html
2030	1,613,619	24%	SANDAG Series 13 Data