Comment Letter AA

SDGE
A Sempra Energy utility

September 29, 2015

Rebecca Malone
Associate Planner
City of San Diego Planning Department
1222 First Avenue, MS 501
San Diego, CA 92101

Re: San Diego Climate Action Plan, Project No. 2015021053: Comments To Draft Program Environmental Impact Report

Dear Ms. Malone:

The San Diego Gas & Electric Company (SDG&E) is pleased to provide the following comments on the draft Program Environmental Impact Report (PEIR) on the City of San Diego's draft Climate Action Plan (CAP).

The following comments are being provided consistent with CEQA guidelines, "to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences.... in light of what is reasonably feasible." To the extent these comments address energy components of the Climate Action Plan; they are focused on the analysis and assumptions underlying these components of the Climate Action Plan and are applicable without regard to how energy procurement is or may be conducted in the future. SDG&E supports customer choice, and nothing herein is intended to take any position on the merits of Community Choice Aggregation or any other potential alternatives that may become available to customers.

"Providing a roadmap to achieve GHG reductions"

1. The Climate Action Plan and the PEIR contain insufficient data to corroborate the carbon reduction estimate of approximately 2,603,944 MT CO2e in carbon reduction from "Community Choice Aggregation or a Similar Program" by 2035. Neither the Climate Action Plan nor the PEIR includes *energy use* estimates and projections which are necessary to calculate and replicate the GHG reduction estimates that are the goals of the Climate Action Plan. The accuracy of the Estimated GHG Reduction Potential of Local Strategies in Table 3.1 of the Climate Action Plan (page 30), and repeated in Table 2-3 of the PEIR (page 2-16), cannot be established by the data provided in both documents and their appendices. The Climate Action Plan and the PEIR are

AA-1

Response to Comment AA-1

CAP Appendix A has been updated to include a more detailed methodology for how the GHG reduction from implementation of a CCA or another program was determined. Please see specifically CAP Appendix pages A-5 through A-10 for the methodology for CCA or another program. Greater detail has been provided for the forecasted GHG reductions for all of the CAP Actions.

predicated upon the clear and correct GHG reduction targets. It is imperative that the math behind this target, and all other actions that impact electric usage, be transparent and readily available in order to provide a reliable Climate Action Plan roadmap for evaluation by San Diego's decision makers. AA-1

2. In *Strategy 2.1: Clean and Renewable Energy*, neither the Climate Action Plan nor the PEIR appropriately separate the GHG reductions that would be achieved by State mandates alone in the absence of a Climate Action Plan, from those that are attributed to a "Community Choice Aggregator or a Similar Program" by 2035.

   This is a critical data point that will enable decision makers to assess the City's actionable GHG reduction targets that correspond to a 100 percent renewable goal. The roadmap must have a correct GHG reduction target. Without clear identification of this actionable target, decision makers cannot properly plan nor assess the environmental effectiveness, costs, and social equity of the strategies, actions, and supporting measures to achieve the remaining actionable percentage of GHG carbon reductions after deducting reductions that will happen *on their own* under State mandates without action by the City.

   As presented in the Climate Action Plan and PEIR, the GHG reductions listed as part of *Strategy 2.1: Clean and Renewable Energy* overstate the actual GHG reductions that would occur from a "Community Choice Aggregation Program or Another Program" and understate carbon reductions from State mandates by 2035. *Strategy 2.1: Clean and Renewable Energy* of Table 3.1 states that "Community Choice Aggregation Program or Another Program" will result in an approximate 2.6 million MT CO2e reduction by 2035. The GHG reductions attributed to "Community Choice Aggregation Program or Another Program" were determined by calculating the difference between the 2010 GHG baseline and zero GHG emissions associated with 100 percent renewable power, assuming the amount of energy that will be served under this program.[1] This calculation fails to account for much higher renewable content required under State mandates than that included in the 2010 baseline. AA-2

   The Climate Action Plan recognizes both the current 33 percent renewable portfolio standard (RPS) and the State's most recent direction to increase this percentage.[2] Senate Bill 350 recently approved by the Legislature would require 50 percent renewables by 2030. The Climate Action Plan assumes that the portfolio of those not choosing "Community Choice Aggregation Program or Another Program" for energy will be at least 60 percent renewable and assigns that corresponding GHG reduction to the California RPS. The Climate Action Plan states that extrapolating SDG&E's current renewable supply trend in complying with the state's renewable mandates would yield a renewable content of about 67%.[3] Yet, the GHG reduction from this

[1] The method used to calculate this value is explained in page B-25 of the Appendices.
[2] See page 21 for baseline RP assumption.
[3] See Appendices page B-6.

Response to Comment AA-2

Comment noted. Revisions to the CAP and CAP Appendix A separate out the emissions reductions associated with Community Choice Aggregation or another program that are attributable to the statewide Renewable Portfolio Standard. This change decreased the amount of reductions achieved at the local level, and increased the amount at the State level—the overall level of reductions remained the same.

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State RPS program is not deducted in the calculation for the energy associated with "Community Choice Aggregation Program or Another Program." The GHG intensity of City residents not choosing the "Community Choice Aggregation Program or Another Program" would be that of the SDG&E resource portfolio - approximately 262 lbs./MWHr.[4] Thus, the GHG reductions achieved from moving from the 2010 baseline to 67% renewables in 2035, including GHG reductions from State mandates, would result in about 1.7 million MT CO2e in reductions, or about 65 percent of the entire reduction, attributable to State mandates. This 1.7 million MT CO2e is erroneously attributed to "Community Choice Aggregation Program or Another Program" in the Climate Action Plan and the PEIR. AA-2

This portion of GHG reduction should be removed from the "Community Choice Aggregation Program or Another Program" line and moved to the State policy section in Table 3.1 of the Climate Action Plan and in the corresponding tables of the PEIR. This correction does not change the total reductions in the Climate Action Plan; it just correctly identifies the driving factor for these GHG reductions. Once corrected, this leaves 35 percent of the total (uncorroborated) 2.6 million MT CO2e in GHG reductions in *Strategy 2.1: Clean and Renewable Energy* for City decision makers to consider achieving under "Community Choice Aggregation Program or Another Program." AA-3

3. The 100 percent renewable level is untested in the PEIR. A major element of the Climate Action Plan is to achieve an energy supply with near zero GHG emissions. This is a noble, bold, but untested strategy in terms of both cost and maintaining electric system reliability that the residents of San Diego have grown accustomed to and will continue to expect in the future. The City does not operate its own electrical grid and will be relying on the California Independent System Operator (CAISO) to balance supply and demand. The City needs to consider that not only them but other parties, including every electric supplier in the state, will be increasing the use of renewables to meet state mandates at a minimum. The Climate Action Plan assumes that the City can buy any mix of large-scale renewables that it wants, including using Renewable Energy Credits, and as long as at the end of the year the total renewable energy production equals total energy city use, then the Climate Action Plan has achieved its goal. AA-4

   This is far from achieving the goal stated on page 35 of the Climate Action Plan: "Achieving 100% renewable energy on the city-wide grid by 2035." In fact, whether buying actual large-scale renewable power, relying on new local distributed renewable power, or relying on virtual renewable power through RECs from any location (there is no stated limit that the City's purchases have to be in California), the Climate Action Plan would necessarily rely on the use of local natural gas-fired power

[4] See Appendices page B-24 for the assumption regarding SDG&E's portfolio in meeting the state's RPS mandate. The intensity was calculated assuming the non-renewable power was natural gas with an emission rate of 810 lbs./MWH.

Response to Comment AA-3

See Response to Comment AA-2. All GHG reductions attributable to State actions have been categorized as such in the CAP and the FEIR.

Response to Comment AA-4

As specified in the CAP, on page 35, the City will "[c]omplete a citywide Community Choice Aggregation Feasibility Study" as part of the implementation strategy for Action 2.1, which will consider these issues. Calculations are based on reasonable assumptions. Please see CAP Chapter 3 regarding CAP implementation monitoring and reporting, including annual reporting.

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plants to maintain grid stability, especially at peak usage hours in the evenings. Battery storage, deployed in unprecedented quantities and at great costs relative to natural gas-fired power plants, is a possible alternative. SDG&E is a leader in the deployment of battery storage and earlier this year achieved an unprecedented task, powering an entire community, Borrego Springs, for nine hours on renewable power and batteries alone. Neither the feasibility nor the grid impacts of new large-scale renewables projects and of small-scale renewable projects are analyzed in the PEIR. Neither peak natural gas requirements nor peak battery storage requirements needed to maintain the grid and reliable electric service when renewables are naturally unavailable are addressed in the PEIR. AA-4

Natural gas is needed to provide grid reliability, as more and more intermittent renewable resources are integrated into the system. In just the last five years, natural gas has enabled SDG&E to increase the amount of renewable energy in its portfolio by more than 20 percent -- from 11 percent in 2010 to 33 percent today. In that same time period, SDG&E has eliminated coal and nuclear as contracted energy sources from its portfolio. Natural gas electric generation will remain an important resource for ensuring reliability for the San Diego region and beyond, even as more and more renewable resources and energy storage solutions are integrated. The PEIR does not address the necessary interaction of renewables and natural gas or the operational and environmental effects of this interaction. While the vast majority of the rest of the nation grapples with weaning itself off coal and transitioning to natural gas, SDG&E has no contracts for coal-based power and has pioneered the use of natural gas to support increasing percentages of renewables in its energy mix. A discussion on natural gas is a necessary part of a credible energy roadmap. AA-5

The PEIR also does not address "the potential contribution of a large-scale pumped storage project toward meeting the City's renewable energy needs" mentioned in the Climate Action Plan (page 24). This potential "multi-year renewable energy project at the San Vicente Reservoir" would be in partnership with the San Diego County Water Authority. Under state law, large-scale hydroelectric pumped storage projects are not eligible for the renewable portfolio standard (Renewables Portfolio Standard Eligibility Commission Guidebook, California Energy Commission. May 2012, pages 19-28). Moreover, pumped storage uses water and gravity to store and dispatch energy. It does not generate energy, renewable or otherwise. Pumped storage relies on purchased energy to pump water from one basin to another in order to exploit price arbitrage opportunities in the pricing of electricity at different times of day. The carbon content of a pumped storage project's electricity is that of the energy used to pump water into a storage basin. State law notwithstanding, the purchased electricity to pump water into a storage basin would have to be 100 percent renewable for such a project to be considered a renewable storage project. AA-6

Response to Comment AA-5

Natural gas is not a 100 percent renewable energy source, and thus, was not included specifically in the CAP strategies. CAP Appendix A includes natural gas, as it is an energy source currently in use.

Response to Comment AA-6

The CAP's reference to the "potential contribution of a large-scaled pumped storage project toward meeting the City's renewable energy needs" is in a list of examples of the "Growing Presence of Renewable Energy in San Diego." It describes a partnership between the City and the San Diego County Water Authority to conduct an in-depth study of the feasibility of a multi-year renewable energy project at San Vicente Reservoir. The CAP does not include any reductions attributable to this reference.

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At this point, neither the Climate Action Plan nor the PEIR have provided a roadmap or analyzed the feasibility of a roadmap to achieve 100 percent renewables. That roadmap to examine the feasibility of 100 percent renewables should use the same definition of renewables that is used for the State RPS so that a consistent standard is employed to measure incremental GHG emission reductions from the 2010 baseline that would occur under current and prospective state law and mandates. AA-7

"Conform to California Laws and Regulations"

The Regulatory Sections of the PEIR do not account for Senate Bill 350 (DeLeon), the Clean Energy and Pollution Reduction Act of 2015. On September 11 of this year, the Legislature approved SB 350, which sets a 50 percent renewable requirement for retail sellers of electricity, set a goal to double the amount of energy efficiency savings in the state and mandates a review of energy efficiency rebates and incentives to achieve the goal, and states Legislative intent to support electric charging and natural gas infrastructure. This bill and several active applications at the California Public Utilities Commission are likely to change the amount of carbon reductions in both the electric sector, the natural gas sector, and the transportation sector that will result from state mandates. The carbon reduction and costs to achieve *Strategy 1: Water & Energy Efficiency in Buildings*, for example, are very likely to be affected by the mandated review and potential changes to rebates and incentives ordered by the California Energy Commission and the CPUC. Although the timing of SB 350 and ongoing and expected regulatory proceedings at the CPUC complicate inclusion in the PEIR, there is no doubt that these issues will affect, and potentially reduce significantly, the carbon reduction targets of the City beyond state mandates. AA-8

The CMAP Alternative

The PEIR provides an "Alternatives" analysis within Chapter 8 (pages 8-1 to 8-14). This analysis compares the Project (Climate Action Plan) to both the No Project alternative and a previously developed plan that was not adopted, namely the 2012 Climate Mitigation and Adaptation Plan (CMAP).

The CMAP was the initial GHG reduction plan considered by the City that provided policy direction and identified actions that the City and community could take to reduce GHG emissions consistent with AB 32. The City released a draft of the CMAP in August, 2012, but the plan was never adopted. This Alternative would adopt and implement the 2012 Draft CMAP instead of the CAP. The CMAP Alternative establishes a planning horizon of 2013-2035 and includes the following: quantifies GHG emissions from community-at-large and City operations; establishes reduction targets for 2020, 2035 and 2050; identifies strategies and measures to reduce GHG levels, focusing on those that the City has authority to implement; and provides guidance for monitoring progress on an annual basis. In addition, the CMAP Alternative highlights climate change vulnerabilities, adaptation strategies, and recommendations for further research. The CMAP Alternative, similar to the proposed Project, focuses on four categories of GHG sources and associated reduction strategies: AA-9

Response to Comment AA-7

The purpose of the CAP is to assess the policies and actions needed to reduce emissions to meet specified targets. Please see CAP Chapter 3 regarding CAP implementation monitoring and reporting, including annual reporting.

Response to Comment AA-8

Recent changes to legislation either remain consistent with current GHG estimates in the CAP or are anticipated to generate additional reductions. The CAP calculations assume a 50 percent level of renewable energy for 2030, consistent with SB 350. Please see CAP Chapter 3 regarding CAP implementation monitoring and reporting, including annual reporting. Please also see Response to Comment U-5.

Response to Comment AA-9

The Draft EIR has been revised to reflect that the CMAP Alternative is the environmentally superior alternative in that it would eliminate or reduce the severity of impacts related to the implementation of large-scale renewable energy projects. The commenter is correct that local GHG emissions achieved under the CAP would be lower than those in the CMAP Alternative, but that overall reductions in the CAP would be greater than those shown in the CMAP because additional state and federal reductions are included in the CAP. The lower locally-achieved actions are due to rapidly changing federal and state regulatory environment. Where state and federal programs result in certain greenhouse gas emissions reductions, implementation of certain local measures become obsolete.

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The PEIR notes that "the CMAP Alternative would implement local programs that would achieve a projected reduction of about 1.6 million MT of CO2e below business as usual by 2020, and about 3.3 million MT by 2035…. However, the CAP projects much higher reductions from State and federal programs, such that the overall GHG reduction by 2035 is substantially higher than projected in the CMAP." The PEIR concludes:

> "[there is] little difference in severity of impacts between the Project and the alternatives. The No Project Alternative would have an additional significant impact related to GHGs, since it would not implement the policies regarding reduction of GHGs contained in the General Plan. The CMAP Alternative would have somewhat reduced impacts related to land use, but would not be as effective as the CAP in reducing GHG emissions."

This last statement appears to be the result of the fact that State and federal GHG mandates that will result in future GHG reductions within the City were never incorporated into the CMAP. In any case the PEIR concludes that the Climate Action Plan is the environmentally superior alterative because both the No Project alternative and the CMAP alternative would have greater impacts related to GHGs than the proposed Climate Action Plan. The table below (which was not provided in the PEIR) indicates that the conclusion of the environmental superiority of the Climate Action Plan seems to be based on only one criteria – inclusion of future projected GHG reductions attributable to both state and federal programs. It is clear that the CMAP alternative would result in more substantial local GHG reductions by 2020 and comparable local GHG reductions by 2035.

AA-9

Projected GHG Reductions Resulting from Local Strategies – PEIR Alternatives

Plan	Projected Local GHG Reductions (below baseline) by 2020 Target Year	Projected Local GHG Reductions (below baseline) by 2035 Target Year
CMAP	1.6 million MT CO2e	3.3 million MT CO2e
CAP	0.4 million MT CO2e	3.5 million MT CO2e

The CMAP Alternative and Cost-Effectiveness

Many of the associated costs for the CMAP alternatives are known. Appendix III of the CMAP – Cost Effectiveness Methodology Documentation - provides cost-effectiveness estimates for the proposed Electric, Natural Gas and Transportation measures outlined within the plan. The expected costs for each measure analyzed are represented in 2010 dollars per metric ton of carbon dioxide equivalent ($2010/MT CO2e). Table 1 in Appendix III provides, at a glance, a high-level comparative analysis of those GHG reduction measures proposed in the CMAP that are most and least cost effective. This same level of cost effectiveness analysis is absent for the Climate Action Plan and the PEIR.

AA-10

Response to Comment AA-10

This comment does not address the adequacy of the Draft EIR. Regarding the CMAP Alternative more generally, please see Response to Comment AA-9.

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It is precisely the type of analysis that should be completed for all of the Climate Action Plan's proposed local GHG reduction measures (e.g., Strategies 1 through 5) to provide the City and its taxpaying residents with a clear, concise, and readily understandable map outlining the relative cost-effectiveness of each proposed strategy. The cost-effectiveness analysis would also provide a more rigorous baseline for determining the actual superiority of the Climate Action Plan relative to the No Project and CMAP alternatives, as outlined in the PEIR.

SDG&E strongly encourages the City of San Diego to complete a detailed analysis of the expected costs (in 2015 dollars) for each of the proposed local GHG reduction strategies prior to adopting the Climate Action Plan. The City has repeatedly stated that the Climate Action Plan, if adopted, will be reviewed annually without specifying what that review may include or what parameters it would be based upon. A thorough cost-effectiveness analysis, when completed, would provide a logical framework for annual review of each of the local GHG reduction strategies and their overall effectiveness in achieving the GHG reduction objectives outlined within the Climate Action Plan. The City has provided exactly this type of financial analysis with previous plans, so it is concerning that nothing has been provided to date for the Climate Action Plan.

AA-10

Transportation Alternatives

The Transportation Strategy focuses on reducing emissions by reducing vehicle miles traveled (VMT) through multimodal transportation options, and by decreasing the energy intensity per miles travel by reducing idling and increasing electric vehicle use by improving the electric vehicle infrastructure.

In addition to its support for electric vehicles, SDG&E strongly believes that natural gas is a critical component of equitable and sustainable energy and climate action policies. Unfortunately, the PEIR does not include the role and benefits of natural gas in the transportation sector. Contrary to the discussion in the PEIR, natural gas is not just used for "generating electricity" and "heating homes and businesses" (Draft EIR page 3.G-7). Natural gas is relied upon every day by residents and businesses throughout the City of San Diego to cook food, heat water, operate fleets (e.g., transit buses, school buses, refuse trucks), do laundry, and for space heating. San Diego's leading institutions – the military, universities and colleges, hospitals, hotels, restaurants, and leading manufacturers – depend on natural gas for their energy needs. Unfortunately, both the draft Climate Action Plan and the PEIR fail to consider the vital role of natural gas in San Diego and the well documented potential environmental benefits of natural gas, particularly with respect to electric generation to reliably meet daily peak usage and in reducing emissions from petroleum-based heavy-duty transportation.

AA-11

Response to Comment AA-11

See Response to Comment AA-5.

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Transportation accounts for nearly 44 percent of the region's GHG emissions, 88 percent of the region's SMOG, and 96 percent of the region's diesel particulate matter emissions.[5] Between the U.S.-Mexico border, the Port, the region's freeways, and a growing population, there can be no real "climate action" in the transportation sector without focusing on substituting natural gas for petroleum as a fuel source. Natural gas has 20 percent fewer emissions than diesel and 30 percent fewer GHG emissions than gasoline.[6] As noted by SANDAG, "[t]he state's 2050 vision for heavy-duty vehicles foresees CNG, LNG, propane, biodiesel and hybrid technologies with the greatest potential for displacing petroleum-based fuels and improving efficiency."[7]

AA-11

Without question, natural gas can be used to displace petroleum-based fuels to reduce air quality impacts and reduce GHG emissions. The draft Climate Action Plan and PEIR fail to consider natural gas as a transportation alternative and as a fundamental energy source for San Diego.

The Environmental Justice Alternative

Although the PEIR identifies an Environmental Justice Alternative, it is eliminated from further analysis in part because some actions, such as the development of transit and other alternative transportation modes specifically to service environmental justice communities "are not under the jurisdiction of the City" and the Environmental Justice Alternative is "not substantially different from the CAP" (Draft EIR page 8-3).
SDG&E agrees that the City does not have jurisdiction to implement many of the actions that would most effectively address climate change in a way that protects and benefits environmental justice communities, including low income communities and communities of color. But without analyzing the costs and benefits of the draft Climate Action Plan, the City cannot and should not assume that every citizen – including especially environmental justice communities – would not be adversely impacted.

AA-12

SDG&E Description Update

The Introduction and Environmental Setting (1-11) and Utilities (3.G-7) sections of the PEIR contains outdated information on SDG&E. Today, SDG&E has 3.4 million consumers that are served through 1.4 million electric meters and 870,000 gas meters. The PEIR states, "SDG&E produces electricity primarily at the Cabrillo (Encina) and South Bay Power Plants." The South Bay Power Plant, formerly owned by the Port of San Diego and operated by Dynegy, was retired from service on December 31, 2010, and imploded on February 2, 2013. The natural gas-fired Encina Power Station is owned by NRG Energy. It is not owned by SDG&E, therefore SDG&E does not produce power at that facility. SDG&E purchases electricity from the natural gas-fired Otay Mesa Energy Center owned by Calpine. SDG&E owns and operates the Palomar Energy Center in Escondido.

AA-13

[5] California Air Resources Board (CARB), California GHG Emissions Inventory 2000-2012, released May 2014; CARB, 2013 Almanac; CARB, California Toxic Inventory 2010 (http://www.arb.ca.gov/toxics/cti/cti.htm).
[6] California Energy Commission, US Department of Energy.
[7] SANDAG Regional Energy Strategy, page 96.

Response to Comment AA-12

As stated in Section 8, Alternatives, in addition to the lack of jurisdiction over transit projects, the environmental justice alternative was not selected because actions to improve conditions in environmental justice communities are already included in the General Plan, Housing Element, and CAP.

Response to Comment AA-13

The following text changes have been made:

> "SDG&E purchases raw energy supplies from various suppliers located outside of the city and transports those energy sources to local plants for processing. SDG&E purchases electricity from the Otay Mesa Energy Center, owned by Calpine, and SDG&E owns and operates the Palomar Energy Center in Escondido. ~~SDG&E produces electricity at the Cabrillo (Encina) and South Bay Power Plants, as well other smaller power plants in the San Diego area.~~ Once the energy is processed, it is sent to customers via SDG&E's system of transmission lines." (Introduction, page 1-11)

> "…Gas and Electric Substations and Transmission Lines, identifies some of SDG&E's facilities within the City. ~~SDG&E produces electricity primarily at the Cabrillo (Encina) and South Bay Power Plants, as well other smaller power plants~~ SDG&E purchases electricity from the Otay Mesa Energy Center, owned by Calpine, and SDG&E owns and operates the Palomar Energy Center in Escondido, which is then sent to customers through various transmission lines." (Section 3.G Utilities, Page 3.G-7)

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SDG&E looks forward to helping the City of San Diego develop its Climate Action Plan and achieve San Diego's environmental goals in the most effective and cost-effective way possible.

Thank you,

R. Scott Pearson
Director
Environmental Services