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California Energy Commission
1516 Ninth Street
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RE: Docket # 11-IEP-1G – Draft Renewable Power in California: Status and Issues

Dear Commissioners:

San Diego Gas & Electric Company (SDG&E) appreciates the opportunity to provide written comments in reaction to the California Energy Commission's staff draft report, "*Renewable Power in California: Status and Issues"* (Draft Report). The Draft Report attempts to discuss in a comprehensive manner the issues relating to renewables development in California. As is obvious by the over 300 pages of discussion, there are many and complex issues that impact renewable energy development. CEC Staff deserves commendations for its effort at synthesizing this complex topic. And, while the Draft Report has done a fairly good job of identifying the issues, the issues are more complex than even the Draft Report suggests. SDG&E's comments focus on important issues that the Draft Report did not discuss or did not emphasize adequately, but that are fundamental to developing policy in the State.

Our main comments concentrate on the following critical issues:

1. Rate impact: The Draft Report fails to address rate impacts of renewables policy and means to mitigate them.
2. Program confusion: The Draft Report fails to identify the conflict in existing programs and the failure of those programs to support renewables goals.
3. Permitting: The Draft Report fails to propose cures for permitting roadblocks.
4. The Draft Report understates the gravity of distribution system impacts of Distributed Generation (DG).
5. Distributed Generation numerical assumptions are unsupported and ignore rate impacts.

General Overview:

One of the main problems with California policy on renewables is that the State has adopted multiple programs without recognizing in advance either their consequences or how the programs interact. Instead of allowing its main renewables program – the Renewable Portfolio Standard – to work, and making adjustments as needed to protect customers from program flaws, the State has created other programs all with the same apparent purpose – to reach a designated renewables target.

Aside from confusion, these competing programs do not result in the optimal selection of renewable sources that achieve 33% renewables at lowest cost to consumers. Indeed, it appears that cost to consumers is not even a motivating force behind the State's policy decisions in adopting most of these programs. This is surprising because rate impacts are very important. Indeed, current Tier 3 and Tier 4 rates for SDG&E already far exceed the highest retail rate that SDG&E's customers paid during the

energy crisis, rates that the State ultimately found untenable during the energy crisis. Likewise, in some parts of the state, from month to month, customers have seen bills double or triple because of the multiple effects of cost increases and rate design flaws. The level of these rates has been exacerbated by anachronistic renewables policies that do not take into account the interests of electric customers. Ignoring rate and bill impacts of these policies can only ensure their ultimate demise; at some point, these impacts will simply be too great and trigger a backlash against the investments they were intended to support. State policies should support a sustainable market structure that will not collapse under its own weight.

An important example is the interrelationship of programs with the State's RPS. The utilities are well on the way to achieving the 33% target, although, as the report points out, there are important permitting and siting issues that need to be addressed to protect California consumers. These other programs are a diversion from the effort to achieve 33% renewables. The State needs to have a clearer understanding of the role these programs play as compared with efforts to meet 33% renewables. Sweeping conclusions that these programs will help to meet renewables targets are misleading since most of them do not contribute toward the 33% target.

While we recognize the interest in considering distributed generation alternatives, the development of DG should not interfere with the efforts to meet the RPS already underway. If DG can help meet those goals less expensively, DG can benefit our customers. On the other hand, we are concerned that DG may result in added costs, increasing customer rates, because of economies of scale and added distribution system costs. These added distribution system costs are not reflected in the consideration of the relative value of DG, are not generally paid by DG owners, and are not internalized in the decision-making for adding DG. SDG&E is concerned that these impacts will inevitably lead to higher cost, inefficiency, and potentially, negative operating impacts that are ignored by policy makers.

So, while the Draft Report is an admirable first step in thinking about long-term strategies and solutions, it is incomplete and omits some critical concerns.

Specific comments:

1. **Rate Impact**:

The Draft Report lacks any discussion of the impacts on retail rates of the programs it discusses and potential means to mitigate any unacceptable impacts. For example, SBx1 2 (Ch. 1, Statutes of 2011-12 First Extraordinary Session) makes it clear that the State's 33% renewables policy is not a policy to be achieved at any cost. It specifically requires the PUC to develop cost limitations to protect consumers. None of the DG programs currently in effect contain similar protections, and the Draft Report sidesteps the issue of impact on customer rates altogether, as if it were a non-issue.

Yet the rate impacts of DG programs, particularly on customers that do not have DG, could be profound and could be further magnified by contorted rate design required by state statutes adopted during the energy crisis that long ago became a counterproductive anachronism. Distributed generation tends to be relatively more costly than larger renewables. The Draft Report acknowledges the presence of these economies of scale, but dismisses them as either unimportant or disappearing (*see, e.g.* p. 15). Prudent planning in the interest of managing retail electricity rates would favor taking advantage of the cost efficiencies that exist in order to lessen the rate impacts of the program, not ignoring those efficiencies and favoring unnecessary added costs to retail customers. Unfortunately, the Draft Report makes the double mistake of ignoring the importance of cost efficiencies as well as the rate impacts of decisions that

depend on less efficient, and more costly, renewable alternatives. Were the State to continue to pursue policies on this basis, it would be a substantial policy error.

Additionally, the rate impact and cost responsibility associated with distribution system costs to accommodate DG are not discussed. To the extent that ratepayers are asked to pay for distribution system upgrades caused by DG, it provides DG with price signals that it is reasonable to locate projects anywhere, regardless of the cost to integrate the resource, because the generator does not bear the cost consequences of location decisions. That is a recipe for higher cost and inefficient siting of generation, neither of which is good policy, and both of which result in higher rates for customers.

Rate increases caused by DG, either because the DG itself is more expensive, or because siting decisions impose added costs to customers are magnified by distortions in rates mandated by current law. As costs increase, those costs are placed into upper tiers of residential rates; this problem is magnified by the fact that many DG investments (such as by Net Energy Metering customers) reduce the number of upper tier customers that are available to pay these costs. This provides price signals, unrelated to the cost to serve, that encourage those who can avoid these higher tier rates to do so by installing solar. Importantly, those upper tier customers that cannot afford solar, or do not own a home, have no ability to escape these costs, and are left entirely unprotected under these policies. As a result, under existing utility rate design a net zero energy customer would not pay anything to SDG&E for the electricity network service they use to ensure electricity is available when they need it. Since a disproportionate number of solar investments are being made by the wealthiest utility residential customers, the direct result of this is to shift the responsibility to pay for utility services from the wealthiest residential customers to those less wealthy. Moreover, wealthier customers that install DG can also avoid paying their share of public purpose programs, such as support for low income customers.

The Draft Report does not even identify this problem even though it is probably the single most significant element that could impact the sustainability of the state's DG programs. As DG programs for residential customers increase, current rate design shifts increasing costs to relatively lower income customers. At the levels suggested in the Draft Report, the shifting of costs in SDG&E's service area alone will be in the tens to hundreds of millions of dollars every year. This is a fundamental policy issue not addressed in the Draft Report, but one that is critical to address properly going forward.

2. The Battle of the Programs

State renewables policy is further confused by a myriad of competing programs, most of which have unclear objectives. Of these programs, the RPS has the clearest purpose – 33% renewables at the lowest cost. The California Solar Initiative (CSI) also has a clear objective, although it is generally framed as a spending program to support solar. Unfortunately, however, the CSI has virtually no relationship to the RPS because virtually none of the production under the CSI contributes to meeting RPS goals. Accordingly, the relationship between CSI and renewables targets has never been established from a policy perspective.

There is an alphabet soup of other programs, most of which have produced little of use to the state or to meeting RPS target, including the SGIP, the ERP, FITs, and NEM. These programs sometimes compete with each other or with other important state programs, interfering with the most efficient and least costly means of bringing resources to the benefit of ratepayers. An example of this can be clearly seen in the implementation of the CSI program. CSI law requires "reasonable and cost-effective energy efficiency improvements in existing buildings as a condition of providing incentives for eligible solar energy systems". Yet, the program ultimately was implemented with a mere requirement that an online home

energy survey be submitted as part of the CSI application process. Nothing more was required for fear of slowing down the solar installation process, based on solar industry concerns. As a result of this implementation decision, it is likely that many PV systems were oversized; resulting in greater out-of-pocket cost to customers and higher CSI incentives paid on the larger PV system. In practice, the implementation of CSI resulted in less energy efficiency, and less incentive to pursue energy efficiency.

The renewables programs the State has adopted are also a scatter shot of ideas that policymakers have developed over the years, not coordinated in any way, and largely without clear objectives. The programs are not pursued to ensure cost effectiveness and do not depend on net benefits to customers for the money they pay to support the programs. Some programs have resulted in periodic mistakes, such as funding projects that sell to entities located out of state, providing funding incentives to projects in amounts that exceed project costs, or providing funding to projects which cease operating shortly after receiving such funding. This mix of programs has also completely obscured the cost of renewable subsidies that is being imposed on customers. These errors tend to point out the lack of clear purpose that plagues the State's renewable programs other than the RPS.

We are significantly concerned with the lack of clear program objectives, the potential for one program to interfere with another, and the lack of transparency as to what incentives are actually being paid, by whom and to whom. And, we are concerned that the State appears unwilling to assess critically the impacts of these programs and improve or replace the ones that provide cost but no value. We are specifically concerned about the near term and longer term rate impacts of these programs. For example, the net energy metering program already results in substantial cost shifts that hurt customers that cannot or do not participate in adding on-site generation. These cost shifts will continue to grow in the future and will become unsustainable. Similarly, unlike CSI incentives, which are designed to decline over time as the price of solar declines, NEM incentives increase over time as the price of PV declines, a situation that clearly results in the payment of unnecessary and excessive cross-subsidies.

We think it is time to reassess the myriad of programs and how they will work to support, and not compete or interfere with, the State's renewables goal of 33% renewables at the lowest cost, as opposed to being just alternative ways to spend customer money.

3. Permitting:

The Draft Report's discussion of permitting recognizes the challenges that permitting in the State can create that will impair the ability to meet renewables targets. By our observation, permitting time for major projects in California is 2-3 times as long as for permitting projects out-of-state, and permitting cost could be as much as 5 times more inside California than outside of the State. This is directly a product of a lack of motivation by policymakers to improve the permitting process, and a tendency of permitting agencies to not take sufficiently seriously adherence to time deadlines that already exist in statute. We must respectfully disagree with the Draft Report's assertion that CEC generation permitting generally takes 12 to 18 months from application to final decision. A review of the agency's permitting history shows that, while the CEC does meet those dates for some projects, project decisions do not consistently occur within 18 months of application. In the past, there has been dialogue about moving permitting for non-thermal generation to the CEC. As we recall, the concerns expressed about such a proposal included the added time and cost of such a change.

The CEC is not, by any means, alone in extending the time or increasing the cost for permit decisions. For example, it took at least 3 years to permit the Sunrise Transmission line in California. In contrast, the Pawnee-Smoky Hill 345 kV line in Colorado took 16 months for the Colorado Public Service

Commission to grant a certificate. The permitting, siting, and land rights costs are also substantially higher in California. For example –

- The Pawnee-Smoky Hill 345 kV Line (Colorado) is about $90,000 per mile
- The Sunrise Transmission Line is around $1.5 million per mile

Balanced solutions are difficult and SDG&E does not claim to have all of the answers to these difficult questions. Some of the approaches that SDG&E has considered in the past that might address some of the problems include --

CPUC

1. Issue default project approvals if statutory times limits are not met.
    - Statutory time requirements exist, but the CPUC does not meet those deadlines
    - This is used in some other states already. For example, the State of New Mexico provides: "The commission shall issue its order granting or denying the application within nine months from the date the application is filed with the commission. Failure to issue its order within nine months is deemed to be approval and final disposition of the application; provided, however, that the commission may extend the time for granting approval for an additional six months for good cause shown." N.M. STAT. § 62-9-1(C).

2. CPUC should exercise its rebuttable presumption to rely upon California Independent System Operator (CAISO) economic and reliability justification for "need".
    - Avoid duplicative CPUC and intervenor analysis of prior CAISO analysis

3. Impose limits on the open-ended nature of interventions by strictly interpreting the rules for compensation; provide intervenors incentives to settle
    - Over $2 million paid in Sunrise intervenor compensation. This prospect gives intervenors an incentive to obstruct and extend the transmission licensing process.

CEQA

1. Limit environmental review to clearly defined CEQA scope guidelines.
    - Minimize "scope creep" unnecessarily beyond CEQA law.

2. Impose funding limits on Environmental Impact Report (EIR) consultants to minimize study expansion and extension.
    - Over $16 million paid by ratepayers to CPUC consultants to prepare Sunrise EIR.

3. Establish a mitigation bank; reduce ratios from 3:1 to 1:1.

CEC

1. Eliminate formal court-type administrative hearings on license applications to simplify proceedings and reduce opportunities for delaying tactics.
2. Eliminate duplicative CEC staff analysis by requiring the CEC to rely on analyses/reviews and mitigations of other agencies, particularly for air and water impacts.

3. CEC should adopt standards for impacts that are not addressed by local and/or other agencies so that reviews are routine, expeditious, and developers can anticipate what is required. Currently, the CEC has few such standards.

In addition, we think there is much merit to creating swift closure to any judicial processes governing permitting so that a challenge to permitting is not used as a means simply to delay a project out of existence. For example, AB900 (Chapter 354, Statutes 2011) provides for streamlined judicial processes for certain types of projects designated by the Governor as "environmental leadership development projects". The State should inquire whether further refinements and expansions of this program should be added.

4. **Distribution System Impacts and Solutions**

The Draft Report correctly describes an array of issues that need to be addressed in order to integrate large amounts of DG with the distribution system. These are not small issues, and their resolution will take time and cost money. While the implementation of smart grid technologies is likely to improve the ability to integrate DG into the system, the Draft Report is overly optimistic in its conclusions on the ability to integrate DG. For example, some technologies the Draft Report praises, such as solid state transformers, are not really available for commercial use today. A policy established today that depends on a technology that is not yet in use needs to be tempered. Second, the development of smart grid comes at a cost. While the State has spent hundreds of millions of dollars in support of renewables over the years, it is not yet clear how much the State is prepared to spend to ensure an advanced distribution system. Historically, sometimes policymakers have considered similar types of upgrades to be "gold plating" of the system. It remains to be seen whether the State will be more open to these measures going forward. The Draft Report does not recognize these realities.

The importance of the impact of DG on the distribution system cannot be understated. The scope of potential impact and the appropriate remedies are not fully known today, so their cost is not fully known. Location, size, and operating characteristics of DG can have significantly variable effects on distribution circuits and feeders. SDG&E is already experiencing localized issues as a result of DG operation. The quick and massive expansion of DG envisioned in Draft Report portends widespread issues without clear solutions. The Draft Report needs to recognize that the State needs to understand when such issues will arise and what their remedies are before creating strategies whose inevitable result will be to create those issues.

5. **Distributed Generation Targets and Assumptions**

A key aspect of the Draft Report is the issues raised by the target of 12,000 MW of distributed generation by 2020. Establishing targets such as this can be an effective way of forcing thinking on creative ways to achieve stretch goals. At the same time, in respect of electric service, it is essential to understand the issues and potential consequences of such a target – particularly how it will affect rates and operating reliability.

SDG&E has looked at the 12,000 MW target as a starting point for discussion, since it is apparent that it was not derived based on an analysis of operating impacts, costs, or other consequences. There is nothing wrong with setting such a point for reference, but it needs to be considered as a basis on which the needed analysis is conducted. Unfortunately, the Draft Report does not make this clear.

Likewise, our review of the assumptions of how the 12,000 MW was allocated across the state leads us to conclude that there was no rigorous assessment that underlay either the initial May, 2011 proposal, or the updated numbers contained in the report. Certainly, it is obvious that the numbers were not based on proportional impacts, operations, or rate impacts, or, for that matter, how, if at all, they relate to the RPS obligations, under which all utilities are making long-term commitments today. Similarly, there does not appear to be a recognition of how this numerical proposal ties into the fact that the State's investor owned utilities are already well on their way to reaching 33% renewables using methods that take advantage of competitive pricing to minimize the cost to customers.

Likewise, it is apparent that the assumptions do not address the impacts on the distorted rate designs required by current law that already create massive cost shifts and whether the DG target envisions continuing or reforming these cost shifts. The larger the DG target, the more likely that this distorted rate design will result in levels of cost shifts that are not sustainable. This problem must be addressed at the outset, not after implementation of targets is well underway and an increasing supply of generators become vested in continuing current untenable cost shifts.

Thus, we suggest the key thresholds for establishing a workable policy that results in substantial growth of distributed generation must necessarily include an understanding of the rate and operating issues and how they can be address properly. Again, unless the Draft Report emphasizes this point, it does a disservice to the State by implying that these are not important issues on which future development necessarily hinges.

Conclusion:

SDG&E commends the CEC for presenting the complex issues surrounding an expanded renewables program and appreciates the opportunity to point out the significant issues that require much further attention in order to protect our customers from unnecessary added cost or adverse operating impacts. We stand ready to work with the CEC to elaborate further on all of these issues and discuss appropriate remedies.

Yours sincerely,