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STATE OF CALIFORNIA
Energy Resources Conservation

In the Matter of: **APPLICATION FOR CERTIFICATION OF THE STANTON ENERGY RELIABILITY CENTER**	**Docket No. 16-AFC-01** **Intervenor Clean Coalition**

Clean Coalition Opening Testimony in Stanton Energy Reliability Center Application for Certification, including Clean Coalition Opening Testimony Supplement - Stanton Energy Center Solar+Storage Costing model

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Attachment: "Clean Coalition Opening Testimony Supplement - Stanton Energy Center Solar+Storage Costing model.xlx"

CLEAN COALITION OPENING TESTIMONY

I. Introduction

The Clean Coalition respectfully requests the Energy Commission to fully evaluate a full range of feasible alternatives to the Stanton Energy Reliability Center (SERC) to meet a reasonably broad objective. Specifically, California Energy Commission (CEC) staff should:

1) evaluate an a reasonable range of alternatives that meet most underlying objectives of the project,
2) fully evaluate the potential for Dispatchable Demand Response (DDR) to meet the local reliability needs, rather than dismissing DDR without substantial evidence to support such a dismissal,
3) fully evaluate dispatchable solar+storage alternatives, which are cost-effective and feasible,
4) fully evaluate a multi-site Battery Energy Storage Alternative of adequate size to meet the local reliability needs, rather than using artificial geographic constraints to contrive an inadequate alternative.

This testimony provides substantial evidence for evaluation of the feasible energy efficiency, dispatchable demand response, and distributed solar+storage renewable projects as alternatives for SERC that were unreasonably rejected in the Final Staff Assessment. The Clean Coalition's Opening Testimony also suggests that the Battery Energy Storage Alternative analyzed in the FSA was unjustifiably limited and rejected. As a result, the SERC appears to lock in California ratepayers to more expensive, dirty power for many decades to come. Since the SERC proposal was first submitted to SCE five years ago, technological advances in distributed energy resources have fundamentally changed the range of feasibility. We provide an analysis of such alternatives to foster a more careful and thoughtful consideration of renewable energy alternatives to natural gas peakers that are likely to become carbon-stranded assets when California determines it can no longer emit carbon.

II. The list of alternatives in the Final Staff Assessment is unreasonably and illegally narrow.

Additional information on distributed energy resources is necessary, because the Final Staff Assessment (FSA) released on June 7, 2018, unreasonably rejected feasible alternatives. CEQA requires that an FSA, as an EIR-equivalent document, "should not exclude an alternative from detailed consideration merely because it "would impede to some degree the attainment of the project objectives." (Cal. Code Regs., tit. 14, § 15126.6, subd. (b).) The factual errors (distributed solar can be dispatchable), unreasonable alternative screens (which excluded alternative site locations even though they would be feasible for alternative project designs) and unreasonably evaluated inappropriately-sized battery energy storage alternatives, all show that these resources were rejected as too small.[1] Furthermore, the FSA rejected several alternatives based on factual errors or by applying unreasonably narrow project objectives. [2] (If one of the objectives is to use the Applicant's technology, then it hardly surprises that alternative technologies and designs are rejected.) For example:

- Energy efficiency and demand response technologies were erroneously excluded on an apparent assumption that demand response or energy efficiency in excess of planning assumptions cannot be attained.
- Distributed solar (constituting the majority of distributed renewables) was excluded on an erroneous assumption that such resources are not dispatchable, but of course solar with co-located solar is every bit as dispatchable as natural gas, and is arguably more flexible.

The rationales provided for each rejection do not meet the CEQA requirements. Under CEQA, "[i]n determining the nature and scope of alternatives to be examined in an [CEQA analysis], the Legislature has decreed that local agencies shall be guided by the doctrine of 'feasibility.'" (Citizens *of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 564-565.)* "Feasible" means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (Pub. Res. Code § 21061.1.) *"A* potentially feasible alternative that might avoid a significant impact must be discussed and analyzed in an EIR so as to provide information to the decision maker about the alternative's potential for reducing environmental impacts." (Habitat and *Watershed Caretakers v. Regents of the University of California (2012) 213* Cal.App.4th 1277.)

[1] FSA, Alternatives Section, p. 6 -1.
[2] FSA, Alternatives Section, p. 6 - 5.

Here, we know that, contrary to the the FSA's findings, demand response programs, energy efficiency measures, and distributed solar paired with advanced inverters and energy storage all present superior alternatives than the SERC and are in fact "feasible" under the CEQA. Each shortcoming is addressed below.

A. Demand response and energy efficiency are feasible alternatives to a portion of the generation needs and should not be rejected merely because they are "included in planning assumptions when determining new capacity needs and are not achievable alternatives by the applicant."

Demand Response is clearly a cost-competitive and feasible alternative to either natural gas peakers or distributed solar+storage alternatives. While some demand response is included in load planning forecasts, this in no way precludes establishing more demand response in addition to baseline assumptions.

In fact, demand response is potentially completely reliable and cost effective. A recent study by the Lawrence Berkeley National Laboratories found that in the Los Angeles Basin area approximately 1,700 MW of demand response opportunity could be potentially obtained at a cost of $100 per MWh.[3] If even a small fraction of the demand response opportunity above the meagre amount assumed in planning were to be deployed with automated or dispatchable basis with appropriate telemetry and control technologies, SCE would have a cost-effective and dispatchable resource adequate to meet reliability needs. Dispatchable Demand Response (DDR) "refers to planned changes in consumption that the customer agrees to make in response to direction from someone other than the customer. It includes direct load control of customer appliances such as those for air conditioning and water heating…"[4] DDR technologies have the capability to be fully reliable given that the load is under control of the grid operator, and with redundancy, achieving adequate fast-acting, reliable demand response should not be dismissed as infeasible absent substantial evidence

In addition, load management of peak demand can be addressed through price-based DR programs, which vary the electricity price to encourage changes in electricity use. These include time-of-use price (which assigns prices for different

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[3] "Demand Response Potential for California SubLAPs and Local Capacity Planning Areas An Addendum to the 2025 California Demand Response Potential Study" Lawrence Berkeley National Laboratories (April 2017) at 61.

[4] Integrating Increased Dispatchable Demand Response and Dynamic Price Response into NYISO Markets, available at https://www.ferc.gov/.../20110629082153-Jun29-SesB1-Masiello-KEMA-NYISO.pdf

blocks of time) and real-time pricing (which varies rates in responses to wholesale market prices.[5] Currently in California, all commercial, industrial and agricultural customers--and soon to be residential--are all on time of use rate plan.[6] Time-of-use rates are likely to reduce the amount of peak load once customers are incentivized to reduce their load during peak times, and can deploy technologies, such as "Smart-home" devices and behind-the-meter solar and energy storage to offset their energy use during peak hours. For example, SCE has implemented the Capacity Bidding Program, in which businesses can make monthly reductions (known as "bids") to their energy use and be compensated payments based on the actual energy reduction.[7] SCE also offers Critical Peak Pricing, which charges an increased rate on twelve days per year, but customers are given a one-day warning as to when those days will be. Customers also earn bill credits on their electricity bill from June through September that can significantly lower their annual costs.[8] Finally, SCE also offers Real-Time Pricing, under which prices are set according to season, temperature and time of day. Temperature-based rates are determined by the previous day's high temperatures in downtown Los Angeles as recorded by the National Weather Service.[9]

The need for a natural gas peaker plant such as SERC can be eliminated or reduced by reducing peak load through DR programs such as the ones enacted by SCE. Again, at the time the SERC was first proposed by the applicants, demand response programs may not have been as robust and the thriving industry that they are today. Today, demand response programs are specifically being paid for by all three IOUs in the state to reduce peak load by a set megawatt amount over the course of the year. Thus, the rejection of demand response programs in the Final Staff Assessment only serves to undermine the eight different[10] DR programs that SCE has implemented. Clearly, such DR programs have proven out to be both technically feasible, cost effective, and can meet the capacity requirements.

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[5] Federal Energy Regulatory Commission. 2015. Assessment of Demand Response and Advanced Metering. Washington, D.C.: Federal Energy Regulatory Commission.

[6] California Public Utilities Commission, Energy, Electric Rates, *What are TOU rates?* Found at: http://www.cpuc.ca.gov/General.aspx?id=12194

[7] Southern California Edison - Demand Response Programs. Capacity Bidding Program tab. Found at: https://www.sce.com/wps/portal/home/business/savings-incentives/demand-response/!ut/p/b1/hc9Lj4IwFAXg3-KCpfRYfKC7-giU6CBiELsxYLCSIDWIQ_z3UydunDh6d-fmO8m9RJCYiDL5zmVS56pMinsW_V3HdpjLQ3CsphPw8dBlC39KJ5xqsNUA_wzDp_6GiGdiz6OBJk4YRMsIrIe_wFkNKLgXzeb-uEPRpQ8wdDBzPV-DdWCBWwG-QsYsoP8Ab470iJCFSn8f3rIytWxJRJUdsiqrzGul18e6Pl9GBgw0TWNKpWSRmXt1MvCqclSXmsTPkpxPMXLeFumtaf0AcKY94w!!/dl4/d5/L2dBISEvZ0FBIS9nQSEh/?from=autodr#accordionGrp1-4-hash/accordionGrp1-2-hash/accordionGrp1-5-hash

[8] Ibid.

[9] Ibid.

[10] The programs are: Automated Demand Response, Time-of-Use Base Interruptible Program, Capacity Bidding Program, Critical Peak Pricing, Optional Binding Mandatory Curtailment, Real-Time Pricing, Schedule Load Reduction Program, Pumping and Agricultural Real-Time Pricing. *Supra,* Note 7.

B. Solar+storage with advanced inverters are reliable and fully dispatchable.

In addition, Staff is completely mistaken in claiming that distributed solar is not dispatchable. Given the reality of cost-effective co-located storage, storage+solar provides a reliable, dispatchable alternative to natural gas peakers that must be considered as an alternative to every natural gas application. When the engagement was first made between SCE and Stanton's proponent in 2013, renewable generation was not looked at as a reliable resources because the primary sources of fuel--wind and solar--were intermittent, and energy storage and advanced inverters were not in their more advanced stages as they are today. For example, the price of lithium -ion batteries has dropped from about $1,000 per kilowatt-hour in 2010 to about $209 per kWh in 2017,[11] while many other battery technologies have shown vast improvements.

Given that carbon emission must essentially stop within 14 years if international agreements to keep global warming to under 2°C,[12] California must place a premium on the ability to meet grid needs without a need to emit carbon after 2035. Should California in fact meet this scientific target, any natural gas plant in operation risks becoming a carbon-stranded asset. The consequences of exceeding 2°C are significant by any rational standard, so that CEQA significance thresholds that fall short of that target must be reevaluated.

These technologies also provide the same frequency regulation and voltage support functions as the proposed SERC project, because both rely on the same advanced inverter functions of the batteries in the SERC proposal. Advanced inverter functions allow for more elaborate monitoring and communication of the grid status, the ability to receive operation instructions from a centralized location, and the capability to make autonomous decisions to improve grid stability, support power quality, fault detection, and provide ancillary services.[13] Given that Stanton's main objective is to provide reliability in the region, the analysis calls for other types of technology that provides reliability, and does not provide the greenhouse gas footprint that the Stanton Energy Reliability Center would present. In identifying solar as a non-dispatchable resource, that assertion has now proven to be incorrect. Solar coupled

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[11] Daniel Rothberg, *Here comes the sun: Solar plus storage energy solutions get competitive,* GreenBiz. June 25, 2018. Found at:
https://www.greenbiz.com/article/here-comes-sun-solar-plus-storage-energy-solutions-get-competitive

[12] See, e.g.,
https://www.carbonbrief.org/analysis-how-much-carbon-budget-is-left-to-limit-global-warming-to-1-5c

[13] National Renewable Energy Laboratory, *Advanced Inverter Functions to Support High Levels of Distributed Solar: Policy and Regulatory Considerations*, NREL/BR-6A20-62612 - November 2014. Found at:
https://www.nrel.gov/docs/fy15osti/62612.pdf

with storage and advanced inverters does in fact make solar a dispatchable and controllable resource.

C. The alternative of Solar+Storage needs to be in the Alternatives, particularly in regards to costs.

Missing from the list of CEC alternatives is the possibility of solar added to storage to increase the reliability element that is in line with Stanton's objectives. In all future Applications for Certification, the Energy Commission should mandate that all applicants compare their natural gas-fired generation source to the possibility of a combination of distributed solar paired with energy storage and advanced inverters. This type of alternative would be more in line with California's energy future, would represent a proven technology, and not contribute to local and global greenhouse gas emissions.

Solar+storage has a proven and deployed track record of delivering cost-effective energy on a sustained and dispatchable basis. For example, the AES 28 MW of solar and 20 MW / 100 MWh PV solar and storage project on Kaua'i is delivering power at bundled price of 11 cents per kW, which is cheaper than what the average American currently pay for electricity (U.S. residential electricity prices averaged 12.5 cents/kWh in October 2016). This Kauai example will also provide for 11% of the total electricity consumption throughout the Island of Kauai starting in 2018. The Kauai Island Utility Cooperative (KIUC) also signed a contract for 17 megawatts of solar with Tesla Powerpack batteries with 13 megawatts of power and 52 megawatt-hours of energy for 13.9 cents per kilowatt hour.[14] To show how rapidly costs are declining, in June 2018, KIUC announced that a 25-year power purchase agreement with AES for a 19.3 MW-solar park paired with a 70 MWh energy storage system for 10.8 cents per kilowatt hour.[15] The recently announced 100 MW solar and 120 MWh storage for Tucson Electric Power will provide power at a bundled Power Purchase Agreement (PPA) rate of less than 4.5 cents per kWh. These types of low prices and proven demonstrations of solar plus storage technology should warrant further attention in the alternatives analysis of all future AFCs at the Energy Commission. Until feasible DER alternatives have been reviewed, the Commission is in no position to make an informed decision regarding the feasibility of these solutions, much less determine the relative merits of less environmentally destructive approaches.

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[14] Kaua'i Island Utility Cooperative, *SolarCity Selects Battery System for Kaua'i Co-op Solar Storage Project.* February 11, 2016. Found at: http://kiuc.coopwebbuilder2.com/sites/kiuc/files/PDF/pr/pr2016-0216-solar.pdf

[15] Renewables Now, *Hawaii regulators approve solar-plus-storage project on Kauai,* June 26, 2018. Found at: https://renewablesnow.com/news/hawaii-regulators-approve-solar-plus-storage-project-on-kauai-617670/

To assist the Commission in envisioning what a solar+storage project would look like, the Clean Coalition has modeled an illustrative example of a solar+storage project that could meet the same dispatch characteristics of the SERC operating with a 60% capacity factor (see Attachment 1, "Clean Coalition Opening Testimon Supplement - Stanton Energy Center Solar+Storage Costing model.xlx"). The 185 MW solar + 100 MW/590 MWH battery system is estimated to have an all-in 30-year cost of $500 million, significantly lower than the all-in 30-year cost of SERC, which we estimate to exceed $700 million, including O&M and fuel costs at $35/MWh. (see Table 1) These costs include supplemental battery capacity to allow for degradation and as a margin to against depth of discharge. Naturally, should cost assumptions shift, the overall cost would also shift, but under no realistic range of assumptions does the solar+storage alternative appear to be anything other than cost-competitive, if not outright cheaper.

Ultimately, it is critical that the Energy Commission compare like for like when evaluating natural gas peaker plants against distributed generation alternatives. Rather than choosing arbitrary limitations to develop designs that are facially inadequate to achieve the underlying objectives, it is critical to start with an approximate design that can match the proposed project and then evaluate this design for feasibility.

Table 1 - Comparative costs of SERC and illustrative Solar+storage alternative

	Solar + Storage		**SERC**
Nameplate (MW) (solar)	185		98
Cost per Watt	$1.85		
PV System Costs	$342,250,000		
Energy storage (MW)	100		20
Energy storage (MWH)	445		
Degradation margin (MWh)	148		
Installed Cost ($/MWh)	$335,000		
Energy Storage Cost	$198,655,000		
Total cost before ITC	$540,905,000		
With ITC	$378,633,500		
Energy storage (2029)	$26,704,537		
Energy storage (2039)	$14,383,467		
Total Capital Costs	**$419,721,505**	**Capital Cost**	**$150,000,000**
Annual O&M	$2,775,000	Annual O&M	$1,460,000
		MWh/year (60% CF)	515,088
Fuel Costs	$0	Annual Fuel (@$35/MWH)	$18,028,080
30 year O&M	$83,250,000	30 year O&M	$43,800,000
30 year Fuel	$0	30 year Fuel	$540,842,400
Total Potential Cost	**$502,971,505**		**$734,642,400**

Furthermore, although the project site might not have adequate space for 185 MW of PV, neither locating the entire project on this particular site, nor employing a particular technology constitute any underlying objective. This PV can be installed on this or comparable sites. While the site itself includes sufficient area to deploy on the order of 30MW by itself, Stanton and surrounding areas include more than enough industrial, warehouse, and parking lot area to host such capacity. For comparison, the Preferred Resources Pilot Area in Orange County was estimated to have siting capacity for over 160 MW of siting opportunities for PV installations of 50kW and larger.[16] Similarly, the 100MW/129 MWh Hornsdale Power Reserve fits on roughly 5 acres, suggesting that the SERC site itself has capacity to host a substantial fraction of the needed energy reserve to replace this project with a solar + storage project.

The failure to consider distributed generation solar+storage alternatives that may extend to other sites beyond the Stanton SERC site unwisely eliminates superior alternatives from consideration and leave ratepayers and Californians worse off. Limiting consideration to only alternatives that can fit on a single site amounts to a policy decision that geographic compactness is a more important criterion than either carbon emission or ratepayer cost-effectiveness. We are extremely confident that this does not reflect the priorities or the vision of the California Energy Commission which has recently engaged in such forward-thinking approaches such as requirements for solar on all new residential construction.

Renewable generation with storage is reliable, dispatchable and not intermittent Thus, both a solar+storage alternative and the Battery Energy Storage Alternative have the capability to absorb utility-scale renewable generation throughout the state. The Energy Commission must not consider the Stanton proposal in a vacuum, but rather evaluate the full range of viable alternatives as they would fit together with all other aspect of California's electricity grid, and the public health at large.

D. The Battery Energy Storage Alternative provided in the Final Staff Assessment was superior to the original Staton proposal and was improperly rejected.

Even if the Commission were to not include a solar+storage alternative, the analysis of the 100 MW/50 MWh Battery Energy Storage Alternative (BESA) is woefully inadequate. This alternative would include substantial benefits in avoiding on-site use

[16] http://www.clean-coalition.org/resource/solar-siting-surveys/sce-prp/

of fossil fuels for power generation and contributed to meeting the local capacity requirement.[17] The FSA also acknowledged that the likely sources to charge the batteries would "tend more towards surplus electricity (i.e., excess solar and wind generation) than fossil fuel-based sources,"[18] The FSA also acknowledged the benefits of battery energy storage in that it can provide reliability services, including frequency regulation, transmission congestion relief, electric supply reserve capacity, voltage support, and load shifting.[19] Battery storage can provide operational flexibility, having the capability to discharge electricity back to the grid virtually instantaneously.

This alternative was inappropriately rejected, because Staff designed the alternative to be an inadequate alternative from the beginning. As with a solar+storage alternative, Staff limited the alternative to a single site and used geographic limitations as a justification to develop an alternative that could not meet the project alternatives. Such an approach does not constitute evaluating a reasonable range of alternatives. While CEC staff acknowledges that the BESA would contribute in meeting local capacity reliability needs and would reduce environmental impacts of two gas turbine generators, the FSA noted "this alternative would not provide an equivalent level of long-term, local reliability (i.e., greater than 50 MWh of energy) that the proposed project would."[20]

Storage also plays a key role in the renewable energy picture that SERC cannot: addressing curtailment and the duck curve. In addition to reliability benefits, large scale storage can help move solar generation into the evening ramp. The National Renewable Energy Laboratory has concluded that the introduction of increased amounts of renewable energy--which is exactly what California has been doing with several pieces of legislation and CPUC proceedings--increases the economic opportunities for energy storage.[21] The addition of renewables also increases the overall requirement for operating reserves, which may increase the market opportunities for storage devices providing these reserves.[22] Storage can also demonstrably reduce curtailment, potentially increasing the value of renewables, particularly at high levels of deployment.[23] In the most recent Annual Energy Outlook 2018 by the United States Energy Information Agency, they acknowledge that utility-scale wind capacity is projected to grow by 20 gigawatts, and utility-scale solar capacity is projected to grow

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[17] FSA, Alternative, p. 6-8.
[18] FSA, Alternatives, p. 6 - 11.
[19] FSA, Alternatives, p. 6 - 9. Permanent load shifting refers to the shifting of energy usage from one period of time to another on a recurring basis, often by storing energy produced during off-peak hours and using the energy during peak hours to support loads.
[20] FSA, Alternatives, p. 6 - 10.
[21] Kirby NREL Report, *supra* Note 6, p. 29.
[22] Kirby NREL Report, *supra* Note 6, p. 29.
[23] Kirby NREL Report, *supra* Note 6, p. 29.

by 127 GW.[24] Over this same period, utility-scale storage capacity is projected to grow by 34 GW.[25] Importantly, in the same report, the US E.I.A. stated that "battery-based storage costs are expected to continue to decline as utility-scale energy storage markets grow."[26] Therefore, energy storage prices continue to drop and make it a more attractive source of energy for load-serving entities.

In fact, the Clean Coalition-proposed solar+storage Alternative includes an estimate of the costs of 30 years of battery storage adequate to meet the fully performance of the SERC. Looking at just the storage component of the solar+storage component suggests that an adequate BESA (100MW, 590 MWh) would cost $198 million, quite competitive with the $150 million capital cost of the SERC, because batteries do not consume costly fuel. As the Clean Coalition demonstrates, a larger project would be both cost effective and provide precisely the same reliability services as the proposed project. Thus, a multiple-site BESA could meet these needs and be the better resource going into the future compared to Stanton because BESA would be better available to absorb new renewable resources long into California's future.

E. Part of the value of energy storage provides is the deferred investment in traditional generation sources.

In addition to the benefits of solar+storage or BESA in terms of reliability, the multi-site nature of such projects raises the prospect of such projects to provide additional value by deferring transmission or distribution investments beyond its operational value.[27]

III. Southern California Edison does not have the same level of need for this resource given their departing load to the community choice aggregators.

The need for this generation should also be reevaluated based on loss of load in SCE territory from Community Choice Aggregation. When SCE first received this proposal in their Local Capacity Requirement RFO in 2013, there was one operational community choice aggregator (CCA) in the state--Marin Clean Energy in Marin County. No CCA had formed in SCE's service territory; however, now there are four[28] with

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[24] U.S. Energy Information Administration, 2018 Annual Energy Outlook, p. 96.
[25] US EIA, 2018 Annual Energy Outlook, p. 96.
[26] US EIA, 2018 Annual Energy Outlook, p. 96.
[27] Brendan Kirby, Ookie Ma, Mark O'Malley, *The Impact of Wind and Solar on the Value of Energy Storage,* NREL, Found at: https://www.nrel.gov/docs/fy14osti/60568.pdf
[28] Pico Rivera Innovative Municipal Energy, Apple Valley Choice Energy, Lancaster Choice Energy and the Clean Power Alliance, which incorporates Los Angeles and Ventura county are all CCA's in SCE's service territory.

possibly more on the way. When a city, such as the many cities in Los Angeles County that are joining the Clean Power Alliance, join a CCA they remove their community from SCE's energy procurement efforts and now have their energy procured from a local governmental entity. Given that Los Angeles is the largest urban area in SCE's service territory, and many of those cities are now expected to join a CCA, the projected peak load for SCE will undoubtedly decrease. Therefore, the 2013 determination of need for Stanton did not factor in the large class of departing load from SCE's generation procurement. By the time Stanton would open in 2020, it is likely that SCE will have even less customers to procure generation for. The time is not too late to reconsider where is still a public need for the project.

IV. Southern California Edison's projected use of Stanton's energy is undermined by the fact that SCE does not possess or control the dispatch rights of Stanton under contract, nor does SCE receive any direct energy or ancillary benefits.

Two Resource Adequacy Purchase Agreements (RAPAs) were approved by the California Public Utilities Commission (CPUC) for the SERC gas-fired generator[29] and for the energy storage contract.[30] Sierra Club and many other groups protested[31] the approval of the RAPAs precisely because it does not assure SCE of guaranteed access to energy output of Stanton. This lack of dispatch control, energy benefits and ancillary benefits by SCE is exacerbated by the reduced load SCE would have due to CCA departing load. Even if SCE executed this contract and built the SERC facility, it may come out in the end that SCE does not need SERC to meet SCE's reduced load. The CEC should also be mindful of the fact that under the RA-only agreement, the SERC must bid into the CAISO market as a RA resource pursuant to the CAISO Tariff.[32]

In the approval of the RAPAs, the California Public Utilities Commission specifically warned against the approval of the RAPAs to be used to preclude a thorough and robust environmental review process by the California Energy Commission. The Commission specifically finds that, "if the project is not approved by the CEC under CEQA, termination of a contract with SCE may result."[33] While Stanton has followed proper procedure in seeking approval of their RAPAs with the CPUC, this should afford them very little weight in the Application for Certification process. It is important to keep in mind that the NRG Puente Power Plant was also approved by the

[29] Cal. Pub. Util. Comm'n, Decision 15-11-041, p. 24
[30] Cal. Pub. Util. Comm'n, Decision 16-09-004, p. 7 - 8.
[31] Cal. Pub. Util. Comm'n, Decision 15-11-041, p. 24.
[32] Cal. Pub. Util. Comm'n, Decision 15-11-041, p. 24.
[33] Cal. Pub. Util. Comm'n, Decision 15-11-041, p. 29.

CPUC only to be later suspended in the Application for Certification process at the CEC.[34]

V. Conclusion: "You're not going to get anywhere if you are just adding more and more gas."

California is a state that understands the importance of ceasing carbon emissions to address climate change. SERC is expected to be in service well past 2040, well beyond the time at which California should have ceased fossil fuel generation. At the risk of seeming impertinent, we are agree with California Energy Commissioner Robert Weisenmiller, who was recently quoted in the Wall Street Journal criticizing the addition of fossil fuel power plants to the grid, saying "You're not going to get anywhere if you are just adding more and more gas. At some point soon we'll be permitting the last gas plant in California."[35]

While the Clean Coalition understands and appreciates the technological innovation that SERC brings to the table, it is unfortunately a cutting-edge improvement to a technology that must be obsolete if we are to meet our obligations to future generations. In this spirit, we are raising the above issues in an effort to assist the Commission in developing approaches and methods for evaluating solar+storage or other DER alternatives in every proposal for natural gas plants.

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[34] Cal. Pub. Util. Comm'n, Decision 16-05-050, p. 36.

[35] Erin Ailworth, *Natural Gas Under Assault in Some States After Brief Reign at the Top,* Wall Street Journal, March 18, 2018. Found at: https://www.wsj.com/articles/after-a-brief-reign-at-the-top-natural-gas-is-under-assault-1521378008