BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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

REPLY COMMENTS OF CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON ORDER INSTITUTING RULEMAKING

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For: CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES

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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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

REPLY COMMENTS OF CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON ORDER INSTITUTING RULEMAKING

The Center for Energy Efficiency and Renewable Technologies (CEERT) respectfully submit these Reply Comments on Order Instituting Rulemaking (R.) 20-05-003 (Integrated Resource Plan (IRP), filed on May 7, 2020, with a "date of issuance" of May 14, 2020. These Reply Comments are timely filed and served pursuant to the Commission's Rules of Practice and Procedure.

I.
THE IRP MODELING MUST BE IMPROVED TO ENSURE THAT CALIFORNIA IS ON THE RIGHT TRACK TOWARDS MEETING ITS CLIMATE POLICY GOALS

The California Environmental Justice Alliance, the Sierra Club, the Natural Resource Defense Council, and the Union of Concerned Scientists (Joint Parties) state that:

> "CARB has found that in order to meet the 2050 GHG emission reduction target under Executive Order B-30-15, as well as the 2032 national ambient air quality standard for ozone pollution, California must transition to zero-emission technologies for *both* electricity generation and transportation [emphasis added]"[1]

However, the 46 million metric ton (MMT) greenhouse gas (GHG) emission target set by the California Public Utilities Commission (the Commission) in the last IRP cycle does not reflect the pending work that the electric sector must do in order for California to meet its mandated

[1] Joint Parties Opening Comments, at p. 1.

climate goals. The 46 MMT target is too high to meet the above mandates, as well as goals outlined in Senate Bill 100 (SB 100).

CEERT is among many other parties, including Vote Solar, Large-Scale Solar Association (LSA), and the Solar Energy Industries Association (SEIA), Defenders of Wildlife (Defenders), and Southern California Edison (SCE) insisting that setting the correct target is critical in successfully decarbonizing California's electric grid.[2] While CEERT appreciates the Commission adding in the 38 MMT GHG emission goal to last cycle's decision, CEERT maintains that the Commission must set an even lower target. Furthermore, in order to actually yield any meaningful results from setting the lower targets and objectively analyze the best path forward, the Commission must take the extra step and direct the CAISO to study the lower targets. This step is vital in sending correct market signals, encouraging investment, and incentivizing innovation to phase out fossil generation.

The Commission initially settled on the 46 MMT target in part due to erroneous, outdated modeling. CEERT agrees with various other parties including SCE, the California Independent System Operator (CAISO), Green Power Institute (GPI), Protect Our Communities Foundation (PCF), and the Joint Parties that the modeling used in the IRP process must be ground-truthed and improved to accurately reflect the changing grid.[3] This may include transitioning to a more sophisticated model to replace RESOLVE. CEERT strongly agrees with the Joint Parties that:

> "…ground-truthing [modeled GHG emissions] on an on-going basis ensures that the Commission's [Reference System Plan] RSP and [Preferred System Plan] PSP actually will meet SB 32's requirements. This ground-truthing is necessary to ensure integrity of the process"[4]

[2] Opening Comments of Vote Solar, LSA, and SEIA, at p. 3; Opening Comments of Defenders at p. 4; Opening Comments of SCE at p. 14.
[3] Opening Comments of SCE at p. 8; Opening Comments of CAISO, at p. 10; Opening Comments of GPI at pp. 1-2; Opening Comments of PCF, at pp. 9-10; Joint Parties Opening Comments, at p. 14.
[4] Joint Parties Opening Comments, at p. 16.

It is essential that the modeling be continuously ground-truthed in order to accurately assess whether or not California is on track to successfully, equitably, and affordably decarbonize the grid.

In addition to ground-truthing and transitioning to a more sophisticated modeling system, CEERT agrees with parties such as San Diego Gas and Electric Company (SDG&E), Vote Solar, LSA, and SEIA, the California Energy Storage Alliance (CESA), and the American Wind Energy Association of California (AWEA-CA)[5] that analytical improvements should also include extending the modeling to a 2045 planning horizon to prepare for the broader and long-term goals of SB 100. Furthermore, in line with our Opening Comments, CEERT agrees with Small Business Utility Advocates (SBUA) and GPI that the Commission should also take into account the effects of the COVID-19 pandemic on forecast modeling and should perform an analysis on these impacts in its updated modeling.[6]

II.
THE COMMISSION MUST PRIORITIZE THE EQUITABLE AND ORDERLY TRANSITION AWAY FROM FOSSIL FUEL GENERATION IN THIS IRP CYCLE.

In addition to ensuring that the modeling is accurate, and the correct GHG emission target is set as a result, CEERT stands with Vote Solar, LSA, and SEIA in their disagreement with the Commission's recommendation that the procurement track focus solely on system reliability.[7] CEERT agrees with the Joint Parties that focused procurement direction in local capacity areas is vital in transitioning from gas fired generation equitably while still maintaining reliability, due to the fact that "many natural gas plants in disadvantaged communities provide

[5] Opening Comments of SDG&E, at p. 7; Opening Comments of Vote Solar, LSA, and SEIA, at p. 4; CESA, at pp. 2-3; AWEA-CA, at p. 4.
[6] Opening Comments of SBUA, at p. 4; Opening Comments of GPI, at pp. 1-2.
[7] Opening Comments of Vote Solar, LSA, and SEIA, at p. 6.

local resource adequacy."[8] Therefore, CEERT seconds the Joint Parties' recommendation that the Commission "requests that the CAISO provide information from its recent local analysis to inform where and what type of resources [load serving entities (LSEs)] should procure in select local areas to facilitate reducing reliance on fossil fuel plants."[9]

CEERT is among numerous parties, including, but not limited to, the Joint Parties, the California Community Choice Association (CalCCA), Defenders, Environmental Defense Fund (EDF), the California Wind Energy Association (CalWEA), and The Utility Reform Network (TURN) that strongly encourage the Commission to prioritize the orderly transition away from natural gas resources and the procurement of clean resources to replace that capacity in this IRP cycle.[10] In particular, retiring gas plants located in disadvantaged communities must be a top priority of this IRP process, which is further consistent with SB 350's "mandate to minimize air pollutants with an early priority for reductions in disadvantaged communities".[11] CEERT supports the Joint Parties' proposed criteria used to identify local capacity areas that should be prioritized. These criteria include prioritizing Local Capacity Areas that suffer the worst air quality, have a high percentage of Disadvantaged Communities (DACs), and areas where retirements and siting of preferred resources is consistent with community priorities.[12]

In step with these criteria, CEERT also agrees with the Joint Parties and CalWEA that the LA Basin and the Greater Fresno Local Capacity Requirement (LCR) Areas should be prioritized in this cycle,[13] as these areas have some of the worst air quality in California and are home to

[8] Joint Parties Opening Comments, at p. 3.
[9] Joint Parties Opening Comments, at p. 6.
[10] Joint Parties Opening Comments, at p. 5; Opening Comments of CalCCA,at pp. 2-4; Opening Comments of Defenders, at p. 5; Opening Comments of EDF, at pp. 6-7; Opening Comments of CalWEA, at pp. 3-5; Opening Comments of TURN, at pp. 2-3.
[11] Joint Parties Opening Comments, at p. 2.
[12] *Id*., at p. 8.
[13] Joint Parties Opening Comments, at p. 3; Opening Comments of CalWEA, at pp. 9-10.

many of the most disadvantaged communities in the state.[14] While California has been a leader in passing historical environmental policies, the implementation of those policies must occur with equity as a top concern.

A new study by the University of California, Los Angeles concluded that per-capita levels of electricity and natural gas consumption within DACs are about half of those seen within their more affluent counterparts.[15] This finding is extremely concerning considering that these areas not only have some of the worst air quality in the state in part due to nearby fossil fuel plants, but the people living in these highly affected areas on average use only a small fraction of the energy and gas produced from those plants. Therefore, CEERT strongly agrees with parties such as Defenders, CalWEA, PCF, TURN, and the Joint Parties that the extremely harmful plants in near disadvantaged communities must be retired first.[16] Furthermore, the replacement of these facilities with clean energy must be effectively planned for and procured in a just, equitable, and affordable way.

The Regenerate California Campaign, a joint initiative of CEJA and the Sierra Club, models the approach that the state should use in the evolution to a cleaner electric grid. CEERT supports the Regenerate California Campaign's vision of community-based transition away from fossil fuels to create a regenerative and just clean energy economy.[17] The Commission should study the availability of local system capacity investments in disadvantaged communities to reduce emissions and accelerate the retirement of gas plants in these areas.

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[14] Joint Parties Opening Comments, at pp. 9-11.
[15] Fournier, E.D., Cudd, R., Federico, F. and Pincetl, S., 2020. On energy sufficiency and the need for new policies to combat growing inequities in the residential energy sector. *Elem Sci Anth*, 8(1), p.24. DOI: http://doi.org/10.1525/elementa.419
[16] Opening Comments of Defenders, at p. 5; Opening Comments of CalWEA, at pp. 9-10; Opening Comments of PCF, at pp. 3-4; Opening Comments of TURN, at pp. 2-3; Joint Parties Opening Comments at p. 6.
[17] "About." *Regenerate California*, 2019, https://regeneratecalifornia.org/about/.

III.
ALIGNMENT BETWEEN THE IRP AND TPP, AS WELL AS BETWEEN THE IRP AND RA PROCEEDINGS IS VITAL TO SUCCESSFUL DECARBONIZATION.

In order for California to transition to a cleaner grid in the most just, equitable, and affordable way possible, the state must begin planning, coordinating and, perhaps most importantly, *procuring* now. CEERT agrees with Vote Solar, LSA, and SEIA, CalCCA, and PCF that affordability must be integrated into the IRP modeling.[18] As Vote Solar, LSA, and SEIA correctly stated in their Opening Comments:

> "D. 19-05-019 in R. 14-10-003 adopted a new Societal Cost Test ("SCT") and quantified several important societal benefits to be incorporated into planning and cost-effectiveness evaluations of both demand- and supply-side resources. The order stated that the Commission intends to pilot the use of the new SCT in IRP modeling in 2020, with further evaluation in 2021 of the SCT and how it should be used in Commission decision-making. This important continuing work should be within the scope of this new OIR."[19]

CEERT seconds this recommendation. Furthermore, CEERT agrees that "regularly-conducted and transparent procurement actions are essential to ensure that California can decarbonize the electric system at reasonable costs for ratepayers over time".[20] It is vital that this IRP result in actual procurement of clean resources. While modeling and planning is important and useful to an extent, implementation and action must result in order to maintain reliability and set California on the best, most cost-effective path to meet its climate goals.

Reliability and affordability are especially important in the face of the overlapping retirement of Diablo Canyon and expiration of the extended once-through-cooling (OTC) plants. As the CAISO correctly stated, a procurement decision in spring of 2021 "will not provide

[18] Opening Comments of Vote Solar, LSA, and SEIA, at pp. 4-5; Opening Comments of CalCCA, at p. 1; Opening Comments of PCF, at p. 6.
[19] Opening Comments of Vote Solar, LSA, and SEIA, at p. 4.
[20] Opening Comments of Vote Solar, LSA, and SEIA, at p. 5.

adequate time for resource procurement and construction prior to closing Diablo Canyon."[21] Furthermore, CEERT agrees with CESA that "…a procurement directive is necessary in 2020 in order to avoid disorderly requests-for-offer (RFO) processes and suboptimal procurement".[22] CEERT, along with parties such as AWEA-CA, Vote Solar, LSA, and SEIA, the Bioenergy Association of California (BAC), CESA, and CalWEA, maintain that replacement capacity must be met with a wide range of diverse, clean resources that do not increase GHG emissions.[23]

A diverse renewable portfolio will likely require reliability planning and new buildout. Therefore, CEERT agrees with SCE that:

> "The synchronizing of the planning and procurement processes must include all relevant planning processes that apply to system, flexible, and local RA, which would include comprehensive alignment between the IRP, the CAISO TPP, LCR, and flexible RA studies."[24]

In addition to SCE and CEERT, other parties including but not limited to Vote Solar, LSA, and SEIA, Golden State Clean Energy (GSCE), CESA, and the Joint Parties make the point that the IRP and TPP processes are inextricably connected. Making an orderly transition away from fossil-fuel generation and meeting California's mandated climate goals will likely require transmission investment and buildout to facilitate new, diverse resources coming online, such as long-duration energy storage.

CESA correctly states that "the Reference System Plan has identified a clear need for long-duration storage…."[25] While short-term lithium ion batteries are important in this transition as well, creating a diverse portfolio that includes long-lead time resources such as long-duration

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[21] Opening Comments of CAISO, at p. 2.
[22] Opening Comments of CESA at p. 9.
[23] Opening Comments of AWEA-CA, at p. 6; Opening Comments of Vote Solar, LSA, and SEIA, at p. 3; Opening Comments of BAC, at p. 3; Opening Comments of CESA, at p. 10; Opening Comments of CalWEA, at p. 2.
[24] Opening Comments of SCE, at p. 16.
[25] Opening Comments of CESA, at p. 8.

storage will increase the resiliency of the grid. Long-duration storage is particularly important in mitigating seasonal uncertainty and extended periods of limited renewable generation, such as multi-day cloud cover. Overall, CEERT agrees with AWEA-CA that:

> "The ultimate goal of the planning track should be to enable procurement for both near-term and long-term needs to ensure that longer lead-time resources can be procured ahead of the 2030 timeframe"[26]

These longer lead-time resources take more time to plan for and procure but are essential in creating enough resource diversity and grid reliability for California to meet its climate goals on time and cost-effectively. Therefore, the Commission must begin effective planning now, starting with ensuring more transparent collaboration between the IRP and TPP processes.

CEERT agrees with parties such as CalWEA, AWEA-CA, and the Joint Parties that a key part of the necessary seamless feedback between the IRP and TPP processes includes the Commission instructing the CAISO to study the lower GHG targets.[27] The 46 MMT target is too high to meet the State's mandated GHG emission levels and will not yield accurate transmission planning results. In effect, transmission investment necessary for integration of vital renewable technologies, and therefore overall cost to the ratepayer, will be delayed until the end of the decade. As a result, investment costs will be ultimately higher as the state scrambles to meet its climate goals in the latter part of the decade. CAISO warns that:

> "…[T]he transmission planning process requires an actionable plan immediately if the Commission wishes to consider transmission-dependent resource buildouts such as out-of-state resources, offshore wind, or efforts to reduce local capacity needs. Even smaller scale transmission to interconnect or integrate new resources (e.g., battery and pumped storage resources identified in the recently approved Reference System Plan) may take several years to be completed…. Delaying transmission infrastructure development will delay capturing [benefits of renewable integration]."[28]

[2626] Opening Comments of AWEA-CA, at p. 3.
[27] Opening Comments of CalWEA, at p. 5; Opening Comments of AWEA-CA at p. 10; Joint Parties Opening Comments, at p. 15.
[28] CAISO Opening Comments, at p. 4.

In addition to more effective collaboration between the IRP and TPP, CEERT is among many other parties, including, but not limited to, the CAISO, SCE, AWEA-CA, Vote Solar, LSA, and SEIRA, and Middle River Power, LLC (MRP) that have also requested that the IRP and RA proceedings be better aligned to ensure that the IRP process is resulting in the most reliable, most cost-effective plan to meet the State's climate goals on time.[29] One of CEERT's greatest concerns is that continued lack of planning and procurement will result in further extension of harmful gas plants to meet reliability needs and prolong California's deep grid decarbonization transition, ultimately to the detriment of the ratepayer and people living in highly polluted areas.

IV.
THE COMMISSION SHOULD LOOK BEYOND THE TRADITIONAL AGENCY NETWORK AND HOLD AN EN BANC HEARING TO EVALUATE ALL POSSIBLE OPTIONS

CEERT agrees with GSCE that useful "studies have already been completed by other entities and should be utilized so the Commission does not slow its decision-making…[and] the Commission [should] calibrate modeling results with more open, least-regrets discussions and decisions."[30] While we strongly supports the continued interagency collaboration between the Commission and the California Energy Commission (CEC), California Air Resources Board (CARB), CAISO, and State Water Resources Control Board, CEERT also maintains that the Commission should broaden its scope of information and data beyond that of the traditional agency network to take into account all innovative solutions and technologies. This includes the unprecedented work being done by the Los Angeles Department of Water and Power (LADWP) and the National Renewable Energy Laboratory (NREL).

[29] Opening Comments of CAISO, at p. 7; Opening Comments of AWEA-CA, at p. 5; Opening Comments of Vote Solar, LSA, and SEIA, at p. 1; MRP, at p. 3.
[30] Opening Comments of GSCE, at p.7.

Finally, along with GSCE, CEERT encourages the Commission to hold an en banc hearing with the LSEs, interested parties, and other agencies with responsibilities for meeting statutory climate and clean energy goals prior to embarking deeper into this IRP cycle. An en banc hearing would allow these entities to share experiences and suggestions directly with the Commissioners, so that a real, feasible, and informed plan is established to set California back on track to meet its SB 100 and other mandated climate goals.

V.
CONCLUSION

CEERT appreciates this opportunity to provide these Reply Comments on the preliminary scope of R.20-05-003 (OIR).

Respectfully submitted,

July 6, 2020

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