Joint Comments of the Natural Resources Defense Council, Sierra Club California, Environmental Defense Fund, and California Environmental Justice Alliance on the *Joint Workshop on Southern California Electricity Infrastructure and Reliability Issues*

CEC 2013 Integrated Energy Policy Report, 13-IEP-1D

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I. Introduction and Summary

The Natural Resources Defense Council (NRDC), Sierra Club California, Environmental Defense Fund (EDF), and California Environmental Justice Alliance (CEJA) appreciate the opportunity to offer these comments on the California Energy Commission's (CEC or the "Commission") *Joint Workshop on Southern California Electricity Infrastructure and Reliability Issues*, and the Preliminary Reliability Plan for Los Angeles Basin and San Diego ("Preliminary Reliability Plan") prepared by staff of the Energy Commission, the California Public Utilities Commission (CPUC), and the California Independent System Operator (California ISO) in consultation with other state agency staff and the affected utilities. NRDC, Sierra Club California, EDF, and CEJA are non-profit membership organization with interests in minimizing the societal costs of the reliable energy services that Californians demand. We appreciate the CEC's convening of the many relevant agencies and organizations for the joint workshop. Our comments are summarized as follows:

- **We fully support the Reliability Plan's endorsement of existing procurement processes and recommend letting those full public processes come to their final resolution in order to best ensure reliability in the Southern California region.**
- **We urge the joint agencies not to rush to judgment in supporting new conventional generation based on preliminary estimates of need, as the most recent procurement model results indicate that there may not be any additional need beyond what was already authorized this year.**
- **We urge the joint agencies to conduct a full public process analyzing the costs and benefits of CAISO's application of heightened NERC/WECC reliability requirements prior to any agency making any need determination.**
- **We urge the agencies to accelerate the aggressive deployment of cost-effective preferred resources, which is a "no regrets" strategy due to the significant customer benefits produced by these resources. We support the direction of SCE's living pilot program for deployment of cost-effective geo-targeted preferred resources.**

- **We additionally recommend that joint energy agencies refrain from rushing to judgment based on the Reliability Plan, because significant amounts of cost-effective energy efficiency were omitted from those preliminary estimates, which displace the need for over 1,300 MW of new need in 2022.**
- **We additionally recommend that joint energy agencies refrain from rushing to judgment based on the Reliability Plan, because significant amounts of additional demand-response resources are available, which is another high priority loading order resource that can avoid the need for significant amounts of fossil-fuel based capacity during the planning period.**
- **We encourage the joint agencies, as well as the highest levels of state government, to begin outreach to the local governments and communities that will be impacted by authorizations of new conventional or preferred resources in their neighborhoods, in support of this historic opportunity to replace significant amounts of conventional generation with cleaner alternatives.**

II. Discussion

1. **We fully support the Reliability Plan's endorsement of existing procurement processes and recommend letting those full public processes come to their final resolution in order to best ensure reliability in the Southern California region.**

The Preliminary Reliability Plan endorses the existing processes that are currently underway at various agencies: "The reliability plan can be summarized as three key actions identifying challenging goals that will be fully vetted in the public decision making processes of the appropriate agency."[1] As indicated in this Preliminary Reliability Plan, we strongly encourage these joint agencies to respect the various agencies public processes by allowing the appropriate agencies to conduct thorough and final assessments of the issues properly before them. For example, the California Public Utilities Commission's (CPUC) Long Term Procurement Plan (LTPP) proceeding is presently analyzing the very question of how much, if any, need for new resources exists in the Southern California region, above and beyond the roughly 2,000 MW already authorized earlier this year.[2] The CPUC routinely (every year for Resource Adequacy and every two

[1] Joint Staff, *Preliminary Reliability Plan for LA Basin and San Diego*, Prepared by Staff of the California Public Utilities Commission, California Energy Commission, and California Independent System Operator, DRAFT (August 30, 2013).

[2] D.13-02-015 and D.13-03-029 authorized respectively up to 1800 MW in the LA Basin and 345 MW in the San Diego local area earlier this year. CPUC, *Decision Authorizing Long-Term Procurement For Local Capacity Requirements*, R.12-03-014 (February 13, 203); CPUC, *Decision Determining San Diego Gas & Electric Company's Local Capacity Requirement And Granting Partial Authority To Enter Into Purchase Power Tolling Agreements*, A.11-05-023 (March 28, 2013).

years for long term procurement) assesses the various options to maintain reliability in the Southern California region (among others).

The Preliminary Reliability Plan is has not adequately assessed all reliability issues associated with the retirement of the San Onofre Nuclear Generating Station (SONGS). The Preliminary Reliability Plan relies on the testimony that CAISO filed in the CPUC's Long Term Procurement Plan (LTPP) proceeding. In that testimony, CAISO rightly recommends that the Commission in order to holistically assess reliability in Southern California, the proceeding must account for the impacts of CAISO's 2013/2014 planning transmission cycle, which can have draft results introduced into the proceeding in winter of 2014.[3] CAISO recommends:

> that the [CPUC] wait to make a decision about the need additional resources until the ISO has completed its studies of potential transmission mitigation solutions (including the need for additional reactive support). With that information, the Commission can then consider the appropriate resource "mix" that can meet the local reliability needs arising from the SONGS retirement. Such a mix can include additional preferred resources and other alternatives to conventional resources, depending on location and effectiveness.[4]

CAISO also rightly recommends accounting for the Energy Commission's 2013 IEPR demand forecast which will adopted in December 2013.[5] All of these factors will significantly affect the reliability analysis and any subsequent need for conventional generation. The Preliminary Reliability Plan's recommendations to consider new procurement are simply preliminary and no substantive decision should be made before all the facts are considered in the full and public LTPP proceeding.

In order to best maintain reliability and further the state's clean energy goals, we recommend letting the full public processes come to their proper and final resolution, which will include consideration of environmental costs, financial costs, and general stakeholder input.

[3] Track 4 Testimony of Robert Sparks on Behalf of the California Independent System Operator Corporation, R.12-03-014, p. 30.
[4] *Id*., p. 31.
[5] *Id*., p. 30.

2. We urge the joint agencies not to rush to judgment in supporting new conventional generation based on preliminary estimates of need, as the most recent procurement model results indicate that there may not be any additional need beyond what was already authorized this year.

The joint agencies should not rush to judgment on any of the estimates of need for new conventional resources because the information in the Preliminary Reliability Plan is only preliminary. In fact, new model results in the appropriate proceeding to address this question (the LTPP) already reveal that there may not be additional need, for SCE and/or SDG&E, beyond what was already authorized in 2013. SCE stated that its model results show that it does not need any *additional* conventional generation to meet reliability, showing a need of 1,055 MW in the LA Basin and 1,200 MW of recently authorized generation, which more than meets that need.[6] The reason that there might not be any new resources needed to meet reliability requirements is because there are many options to meet reliability requirements, but not all of those options have been considered in the preliminary estimates contained in the Preliminary Reliability Plan.[7] Rather, the CPUC's LTPP proceeding can fully assess all the various options to meet long term procurement needs and reliability requirements. Because there is already disagreement[8] about how much, if any, new conventional generation is needed to meet reliability requirements, it would be premature for the joint agencies to support the authorizations of any conventional resources before these questions have come to final resolution in the LTPP. Because there may be no need for additional conventional generation to meet reliability requirements in Southern California, we urge the joint agencies not to rush to judgment.

3. We urge the joint agencies to conduct a full public process analyzing the costs and benefits of CAISO's application of heightened NERC/WECC reliability requirements prior to any agency making any need determination.

We recommend that CAISO's application of heightened NERC/WECC reliability standards be decided upon only after public vetting and a thorough analysis of relative costs and benefits of this criterion. Increasing the stringency of California's reliability

[6] In SCE's LTPP opening testimony, Figure II-2, titled "Results of SCE's Studies," shows 1,055 MW of New LA Basin Generation needs, but 1,200 MW of Track 1 New Conventional Generation Authorizations, which more than meets that local need. SCE, *Track 4 Testimony of Southern California Edison Company*, CPUC Long Term Procurement Plan proceeding, R.12-03-014, p. 3 (August 26, 2013)

[7] "The development of Mesa Loop-In and the strategically located Preferred Resources could displace the need for any additional new LCR resources, while still meeting NERC Reliability Standards." *SCE LTPP Opening Testimony* at 3.

[8] "SCE's identified NERC-based reliability need is lower than the CAISO's identified local reliability need." *SCE LTPP Opening Testimony* at 2.

criteria should not occur through an informal adoption process because of this decision's significant financial impacts on customers. More stringent reliability criteria could cost consumers significant amounts of money to pay for additional, unnecessary generation. Increased costs also put load serving entities within the CAISO balancing authority at a competitive disadvantage to other balancing authorities, both inside and outside of California. If there are special circumstances where more stringent reliability criteria may be required, those need to be identified and thoroughly vetted through a public process.

In the case of its SONGS analysis, CAISO is applying a heightened reliability standard that has not yet been vetted: an N-1-1 contingency during a 1-in-10 peak year event with no load shedding. N-1-1 events are classified as a "multiple contingency" event, or Category C event, and assume simultaneous loss of two transmission lines. Controlled load shedding, with no specified cap, is one of the mitigation techniques allowed under NERC to address this type of multiple contingency event. The cost of controlled load shedding of non-critical electrical load, for up to several hours once every ten years in the unlikely event two transmission lines are both offline, may have little to no cost to the customers that are without power at the time of the event. However, the cost of meeting an N-1-1 event with only generation and transmission and no load shedding will be significantly higher because of the additional resources needed to meet that heightened standard.[9] Notably, LADWP permits load shedding to address multiple contingency events. The Public Utilities Commission has previously rejected as having "little justification" the option to only rely on generation solutions (as opposed to operational solutions like load shedding) to address a Category C event in determining resource adequacy requirements.[10] Use of heightened NERC standards and the ability to mitigate Category C events using load drop are decisions with significant cost implications for customers. The decision to use a heightened reliability standard to determine need following the SONGS' retirement must be made in a transparent and public process.

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[9] "As a result [of CAISO's studies using a more stringent reliability standard than SCE], SCE's identified NERC-based reliability need is lower than the CAISO's identified local reliability need." *SCE LTPP Opening Testimony* at p. 3.

[10] LADWP, 2012 Ten-Year Transmission Assessment (Dec. 2012), http://www.swrcb.ca.gov/water_issues/programs/ocean/cwa316/docs/energy_comp/10yta_2012_5.pdf; California Public Utilities Commission, Decision 06-06-064, Opinion on Local Resource Adequacy Requirements at 17, 20 (June 30, 2006), http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/57644.PDF.

4. **We urge the agencies to accelerate the aggressive deployment of cost-effective preferred resources, which is a "no regrets" strategy due to the significant customer benefits produced by these resources. We support the direction of SCE's living pilot program for deployment of cost-effective geo-targeted preferred resources.**

Rather than rushing to judgment for conventional resources, we encourage the joint agencies to accelerate the aggressive procurement of geo-targeted cost-effective preferred resources, like supporting and ramping up efforts put forth in SCE's living pilot program.[11] Supporting the aggressive and accelerated deployment of preferred resources aligns with the state's loading order and provides a "no regrets" strategy to procuring resources because it results in significant benefits accruing to customers.[12] The "loading order," the California Energy Commission and the CPUC's ("joint energy agencies") shared procurement policy, establishes that they must prioritize the procurement of cost-effective preferred resources over that of conventional generation.[13] Consistent with this Commission's policy, we recommend that the joint agencies support a strategy to invest first in energy efficiency, demand response, other cost-effective preferred resources, and energy storage. This strategy should be implemented through accelerated decisions at the appropriate agencies, and reflected as state policy in the CEC's Integrated Energy Policy Report.

5. **We additionally recommend that joint energy agencies refrain from rushing to judgment based on the Reliability Plan, because significant amounts of cost-effective energy efficiency were omitted from those preliminary estimates, energy efficiency that can displace the need for over 1,300 MW of new need in 2022.**

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[11] SCE's living pilot program proposes aggressive and geo-targted procurement of cost-effective preferred resources. SCE, *Track 1 Procurement Plan Of Southern California Edison Company Submitted To Energy Division Pursuant To D. 13-02-015*, R.12-03-014 (August 30, 2013). ("SCE anticipates that part of its response to the announced SONGS retirement will be the aggressive and targeted Pilot discussed in Chapter V.B below. The Pilot will utilize all or a portion of the optional 400 MW of preferred and ES resource authority (i.e. the difference between the 1800 MW maximum authority and the 1400 MW minimum authority) to move forward with Preferred Resource and ES procurement, if the New LCR RFO fails to competitively acquire all of SCE's LCR procurement authorization." Available at: www.sce.com/wps/portal/home/procurement/LCR-RFO.

[12] Authorizing only cost-effective preferred resources is a no regrets strategy because these resources save customers money, displace needs for conventional generation in constrained local areas, and clean the air, both of greenhouse gases and other conventional pollutants.

[13] "The 'loading order' established that the state, in meeting its energy needs, would invest first in energy efficiency and demand-side resources, followed by renewable resources, and only then in clean conventional electricity supply." CPUC/CEC, *Action Plan 2008 Status Update*, p. 1 (2008). Available at: http://www.cpuc.ca.gov/PUC/energy/resources/Energy+Action+Plan/.

The estimates contained in the Reliability Plan are not ripe on which to make decisions because the preliminary estimates omit significant amounts of energy efficiency (in addition to the considerations raised in Section 4, above). Energy efficiency is the least cost resource to meet energy needs and the joint energy agencies must prioritize its procurement through the Loading Order. In fact, at the September 9, 2013 workshop, ISO/CPUC/CEC joint presentation showed that unlike most resources, energy efficiency actually meets both reliability needs and state policy objectives: it reduces our energy needs, capacity needs, voltage support needs, and GHG emissions.[14] Given that energy efficiency is the state's top priority resource, and that it satisfies both reliability as well as policy needs, it is imperative that the joint agencies base their decision making on final estimates of projected energy efficiency.

However, the preliminary estimates of forecasted energy efficiency in the Reliability Plan are approximately 1,300 MW too low in the SONGS study area. The energy efficiency on which ISO's estimate of 2,300 MW of new need is based,[15] is based on an outdated draft estimate of projected energy efficiency. The energy efficiency assumptions are based on the first draft of the CPUC's potential study that was released in March 2013; however, that potential study did not analyze any future energy efficiency codes and standards, at both the state and federal level, among other factors. The most recent draft of the CPUC potential study[16] does include some additional codes and standards, among other factors, and the results have increased significantly.[17] Based on

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[14] The row for energy efficiency satisfies all reliability and policy needs presented in the slide ironically titled "No single resource can meet both reliability needs and state policy objectives." E. Randolph (CPUC), S. Bender (CEC), P. Pettingill (ISO), *Southern California Reliability – Preliminary Plan*, Slide 7 (September 9, 2013).

[15] "The ISO's recently filed analysis in the LTPP Track 4 proceeding indicated a residual need (after consideration of authorized resources and consideration of forecast uncommitted energy efficiency) of approximately 2300 to 2500 MW." *Preliminary Reliability Plan*, at 7.

[16] CPUC/Navigant, *2013 California Energy Efficiency Potential and Goals Study Final Draft Report* (August 6, 2013). Available at: http://demandanalysisworkinggroup.org/documents/2013_08_16_ES_Pup_EE_Pot_final/2013_California_Energy_Efficiency_Potential_and_Goals_Study_Final_Draft_20130807.pdf.

[17] Due to updates to the potential study alone, the new best estimate for projected energy efficiency is 736 MW higher in SCE and SDG&E's territories than the previous estimate, both of which were conducted by the CEC in order to determine the amount of energy efficiency that is incremental to its forecast. Previous estimate: 1,160 MW in 2022; new estimate: 1,896 MW. Respectively: Gamson/Florio, *Revised Scoping Ruling And Memo Of The Assigned Commissioner And Administrative Law Judge*, R. 12-03-014, p. 4 (May 21, 2013); CEC staff, *Proposed Incremental Achievable EE Scenarios MS Excel*, Low Case Total, "Adjusted for Overlap," Scenario 2 (August 16, 2013). Available at: http://demandanalysisworkinggroup.org/documents/2013_08_16_ES_Pup_EE_Pot_final/IA_summarytotals_v4.xlsx.

this updated potential study, and the CEC's analysis of additional energy efficiency (what is incremental to its forecast), and the CEC's busbar analysis of local impacts from energy efficiency, NRDC's best estimate for the amount of projected energy efficiency that is reasonably expected to occur, is over 1,300 MW higher than what was included in the figures in the Preliminary Reliability Plan.[18] Because there are 1,300 MW of additional energy efficiency that can displace the need for supply-side resources, and the highest priority placed on energy efficiency, any decision making about long term procurement issues should fully account for this low-cost resource.

6. **We additionally recommend that joint energy agencies refrain from rushing to judgment based on the Reliability Plan, because significant amounts of additional demand-response resources are available, which is another high priority loading order resource that can avoid the need for significant amounts of fossil-fuel based capacity during the planning period.**

The Preliminary Reliability Plan relies on past estimates of demand response decided in the CPUC's LTPP proceeding.[19] However, a recently published CPUC Staff Report found that neither SCE nor SDG&E took full advantage of even available DR programs in 2012. According to the report, the IOUs "used their DR programs fewer times and hours than the programs' limits…In contrast, the Utilities dispatched their peaker power plants far more frequently in 2012 in comparison to 2006 – 2011 historical averages."[20] We recommend including more robust estimates of demand response in resource planning processes to ensure that this resource is utilized to its full potential, including targeted procurement of third-party demand response resources.

Similarly, greater voluntary enrollment in Southern California Edison's *existing* time-variant tariff – and improvements in San Diego Gas and Electric Company's current

[18] 1,305 MW of additional energy efficiency in the SONGS study local areas (LA Basin and San Diego) were omitted from the studies relied upon in the Preliminary Reliability Plan. 1,305 MW = 576 MW from including the incremental savings from natural-occurring energy efficiency + 116 MW from using the Mid Case estimates in San Diego's local area instead of Low Case (because service territory is no larger than local area and CPCU expects Mid Case results at the service territory level) + 613 MW from the updated potential study (revised downward from 736 MW according to the CEC's previous busbar analysis, which resulted in a reduction factor of 0.77).

[19] ISO's Track 4 studies, on which the Reliability Plan is based, was conducted pursuant to assumptions decided in the CPUC Revised Scoping Memo, which is 1,329 MW of DR in 2022 in Southern California, and 1,186 MW of which occurs within the local areas impacted by the retirement of SONGS. CPUC, *Revised Scoping Ruling And Memo Of The Assigned Commissioner And Administrative Law Judge*, R.12-03-014, p.7 (May 2012).

[20] Lessons Learned From Summer 2012 Investor Owned Utilities' Demand Response Programs, Public Utilities Commission Staff Report, May 1, 2013, www.cpuc.ca.gov/NR/rdonlyres/523B9D94-ABC4-4AF6-AA09-DD9ED8C81AAD/0/StaffReport_2012DRLessonsLearned.pdf, page 1.

voluntary tariff – could reduce potential peaks beyond what both investor-owned utilities forecast may be needed ten years from now. According to EDF's analysis, if 20% of SCE's customers enrolled in its existing time-variant tariff, it would reduce peak demand by about 630 MW. If half of SCE's customers enrolled, almost 1,600 MW of demand would be avoided at peak.[21] These high enrollment numbers have been reached in states like Arizona, by Arizona Public Service Company. Authorizing conventional generation without utilizing measures to increase enrollment in these programs would increase costs to billpayers.

In addition to DR programs and time variant tariffs, the Flex Alert program has demonstrated a cost-effective ability to close short-term reliability gaps. It is likely that even greater amounts of MWs can gained from the next generation of behavioral programs. Further improving Flex Alert – by expanding the use of social and diverse media, for example – to increase the amount of temporary load the program can reliably deliver should be prioritized above authorizing additional fossil fuel facilities, when addressing low-probability temporary supply gaps.

7. **We encourage the joint agencies, as well as the highest levels of state government, to begin outreach to the local governments and communities that will be impacted by authorizations of new conventional or preferred resources in their neighborhoods, in support of this historic opportunity to replace significant amounts of conventional generation with cleaner alternatives.**

In order to ready the market for significant increases in preferred resources in specific locations in Southern California, we recommend outreach from the highest levels of state government, including the joint agencies, to the local governments and communities in these locations. It is critical to educate people about the significant and historic option before the state: to replace a 2,200 MW nuclear power plant with clean energy technologies in their homes and neighborhoods and to avoid as much conventional generation in their neighborhoods, as possible. Replacing fossil fuel generation is critical component to improving the already unhealthy air in the Los Angeles Basin. According to the South Coast Air Quality Management District, "a transition to zero- and near-zero emission technologies is necessary to meet 2023 and

[21] 1,572 MW of peak load reduction. J. Fine, *Residential Rate Design of Environmental Defense Fund*, page A-6 (May 29, 2013). Available at: http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M066/K295/66295654.PDF

2032 air quality standards and 2050 climate goals."[22] The Preliminary Reliability Plan's suggestion that pollution credits should be changed or created to continue allow unhealthy air contradicts the SCAQMD's goal, especially since the problem can be severely mitigated, or even solved, by a combination of preferred resources, energy storage and transmission upgrades.

In the San Diego region, the Preliminary Reliability Plan considers an energy park consisting of 1,000 MW of flexible gas-fired generation. Rather than relying on fossil fuels, greater emphasis should be placed on developments and fast-track pilots of flexible preferred resources (e.g. storage and event-based demand response) and preferred resources that reduce the need for flexible resources (e.g. energy efficiency). Pilots have been proposed in CPUC proceedings[23] which, if successful, could quickly increase the capacity of DR programs to fill emerging load gaps. Three DR pilots are being considered in the DR Order Instituting Ratemaking, two of which will test the ability of DR to participate in CAISO's wholesale energy market – specifically focusing on providing additional DR capacity in Southern California – and another which will examine the effectiveness of strategies to improve customer response to TOU and critical peak pricing rates. Where appropriate, these pilots should be viewed as "soft launches," designed with accelerated scalability in mind if they meet certain criteria (e.g., cost-effectiveness).

III. Conclusion

NRDC, Sierra Club California, EDF, and CEJA thank the CEC for the opportunity to comment on the *Joint Workshop on Southern California Electricity Infrastructure and Reliability Issues* and the Preliminary Reliability Plan for Los Angeles Basin and San Diego. We urge the joint agencies not to rush to judgment on procurement of conventional generation, but instead, to accelerate the aggressive deployment of cost-effective preferred resources in order to maintain reliability in Southern California. We thank you for considering our recommendations.

[22] Final 2012 Air Quality Management Plan, South Coast Air Quality Management District (Dec. 2012) p. 1-20.

[23] E.g., CPUC, *Order Instituting Rulemaking To Enhance the Role of Demand Response in Meeting the State's Resource Planning Needs and Operational Requirements* (docket number forthcoming).