BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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COMMENTS OF THE NATURAL RESOURCES DEFENSE COUNCIL (NRDC) AND THE VOTE SOLAR INITIATIVE (VOTE SOLAR) ON THE 2012 ENERGY DIVISION STRAW PROPOSAL ON LTPP PLANNING STANDARDS

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I. INTRODUCTION AND SUMMARY

Pursuant to the May 17, 2012 "Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge" (Scoping Memo),[1] and pursuant to Rules 1.9 and 1.10 of the California Public Utilities Commission's (CPUC or Commission) Rules of Practice and Procedure, the Natural Resources Defense Council (NRDC) and The Vote Solar Initiative respectfully submit these comments on the "2012 Energy Division Straw Proposal on LTPP Planning Standards" issued on May 10, 2012 (Staff Proposal).

NRDC is a non-profit membership organization with a long-standing interest in minimizing the societal costs of the reliable energy services that a healthy California economy requires. We have participated in numerous California Public Utilities Commission (CPUC or Commission) proceedings over the last three decades with a particular focus on representing our California members' interest in the utility industry's delivery of cost-effective energy efficiency programs, renewable energy resources, and other sustainable energy alternatives. In this proceeding, we focus on representing our nearly 100,000 California members' interest in receiving affordable energy services and reducing the environmental impact of California's energy consumption. These opening comments are provided in support of NRDC's position that California electricity

[1] CPUC, *Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge*, R.12-03-014, p. 10 (May 17, 2012).

billpayers and the environment will be best served by an integrated portfolio of resources that includes all cost-effective energy efficiency savings to offset the need for more costly and polluting power plants and other infrastructure.

Vote Solar is a California non-profit, public benefit corporation with Internal Revenue Code ("I.R.C.") § 501(c)(3) status, working to fight global warming, increase energy independence, decrease fossil fuel dependence, and foster economic development by bringing solar energy into the mainstream.

NRDC/Vote Solar support the Commission's efforts to develop integrated system resource plans that will provide insight into the best resource portfolio over the long-term to achieve the Commission's objective of meeting customers' energy services needs at the lowest overall cost, risk, and environmental impact.[2] NRDC/Vote Solar's comments on the 2012 Energy Division Straw Proposal on LTPP Planning Standards include the following:

- We recommend that the Commission explicitly include demand side resources in its guiding questions in order to be consistent with the State's and this Commission's loading order.
- We urge the Commission to provide an opportunity to comment on efficiency assumptions once those assumptions are actually released and provided to stakeholders for meaningful review
- We recommend that the Commission include estimates of incremental uncommitted energy efficiency that account for the full impacts of future efficiency.
- We recommend that the Commission increase the assumed level of behind the meter, small solar photovoltaic energy generation.
- We support the Staff Proposal's assumption that once through cooling (OTC) plant retirements take into account the portion of plants that plan to comply through technology changes as opposed to retirement.

[2] "The Legislature further finds and declares that in order to ensure that the citizens of this state continue to receive safe, reliable, affordable, and environmentally sustainable electric service, it is essential that prudent investments continue to be made in all of the following areas: . . . (3) To ensure cost-effective energy efficiency improvements. (4) To achieve a sustainable supply of renewable energy." Cal. Public Util. Code § 399(c).

- We support Sierra Club's recommendation to analyze a higher Renewable Portfolio Standard (RPS) target.

Energy Division provided a comment template for these planning assumptions, so we designate below each of our comments with the relevant category, noted in brackets.

II. COMMENTS ON THE 2012 ED STRAW PROPOSAL ON LTPP PLANNING STANDARDS

[Template Category #1: General, Guiding Principles]

A. We recommend that the Commission explicitly include demand side resources in its guiding questions in order to be consistent with the State's and this Commission's loading order.

We urge the Commission to adopt key questions to guide this LTPP process in a direction that takes into account the priority of energy efficiency and demand-side resources in this Commission's Energy Action Plan and the loading order. The State's "loading order" established in the EAP II identifies energy efficiency as the state's top priority resource.[3] State law codifies this policy and requires that any procurement need must be met first with efficiency.[4] The state also established that efficiency should explicitly be considered a resource to maintain grid reliability.[5]

Currently, the guiding questions ("problem statements") in Staff's proposal neglect to mention energy efficiency and other demand-side resources as some of the resources being planned for in this procurement cycle. For example, problem statement #1 reads: "What new infrastructure needs to be constructed to ensure adequate reliability,

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[3] "As stated in EAP I and reiterated here, cost effective energy efficiency is the resource of first choice for meeting California's energy needs. Energy efficiency is the least cost, most reliable, and most environmentally-sensitive resource, and minimizes our contribution to climate change." CPUC/CEC, *Energy Action Plan II*, Implementation Roadmap for Energy Policies (October 2005). Available at: http://docs.cpuc.ca.gov/published/REPORT/51604.htm.

[4] "The electrical corporation shall first meet its unmet resource needs through all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible." Cal. Public Util. Code § 454.5(b)(9)(C).

[5] "Energy efficiency investments . . . help improve systemwide reliability by reducing demand in times and areas of system congestion, and at the same time reduce all California electricity users' costs. These investments also significantly reduce environmental costs associated with California's electricity consumption, including, but not limited to, degradationn of the state's air, water, and land resources." Cal. Public Util. Code § 399(e)(3).

both for local areas and the system generally, during the planning horizon?"[6] Instead, the problem statement should identify *resources* (both demand- and supply-side) that meet customers need for energy services, and not focus only on physical infrastructure to be constructed. Additionally, the problem statement should take into consideration the cost and environmental implications of those resources, not just reliability. Thus, we propose a problem statement #1 that aligns with the State's loading order (additions underlined, deletions struck out): "What new resources ~~infrastructure~~ need~~s~~ to be authorized ~~constructed~~ to ensure that customers' receive reliable and cost-effective energy services that meet the State's environmental goals ~~adequate reliability, both for local areas and the system generally,~~ during the planning horizon." For the same reasons, we propose realigning problem statement #2 to read: "What mix of resources ~~infrastructure~~ minimizes cost, risk, and environmental impacts to customers over the planning horizon?" In order to fulfill the mandate of the State's Energy Action Plan, this proceeding must plan to address, at the outset, efficiency and clean energy resources. Therefore, we recommend realigning the proceeding's guiding questions as identified above.

[Template Category #5: Demand-side Assumptions, Incremental Energy Efficiency]

B. We urge the Commission to provide an opportunity to comment on efficiency assumptions once those assumptions are actually released and provided to stakeholders for meaningful review.

We recommend that the Commission adopt estimates of incremental uncommitted energy efficiency that accurately account for all impacts of future cost-effective energy efficiency codes, standards, and programs. However, the ED Proposal does not provide nor reference the magnitude of these assumptions. The ED Proposal plans to rely on a CEC report, and states that "the Energy Commission's updated incremental uncommitted forecast [is] expected in May 2012."[7] Unfortunately, that report will likely not be released until late June. Consequently, we are unable to review the report that will describe the magnitude of this incremental uncommitted energy efficiency estimate,

[6] *ED Proposal* at vi.
[7] *ED Proposal* at xii.

along with all the assumptions used to derive such an estimate. Previously, the Energy Commission's report on incremental uncommitted energy efficiency was a voluminous report, coming in two installments, and totaling over 200 pages.[8] The Energy Commission's 2012 report will undoubtedly provide a significant amount of substantive information that requires review. Since this information has not yet been released, it is impossible to make recommendations on ED's proposal for energy efficiency at this time. For example, one of ED's questions in the comment template is: "Are there any significant demand-side assumptions that have been missed? If so please identify, provide sources, and the MW and GWh magnitude and likelihood." It is impossible to know if there are missing demand-side assumptions when the report on future efficiency savings is missing itself. Therefore, we urge that the Commission to provide stakeholders an opportunity to *meaningfully* comment on efficiency assumptions at the "scenario stage" of this proceeding, currently set for August 1, 2012,[9] with the expectation that the CEC's report will be available for review before that time.

[Template Category #5: Demand-side Assumptions, Incremental Energy Efficiency]

C. We recommend that the Commission include estimates of incremental uncommitted energy efficiency that account for the full impacts of future efficiency.

We recommend that the Commission adopt estimates of incremental uncommitted energy efficiency that reasonably account for future efficiency codes, standards, and programs at a level that reflects efficiency as California's top priority resource. As mentioned above, the actual information about which of those efficiency policies will be included in ED's proposal and how much savings they will provide is not yet available, (and therefore stakeholders have not had an opportunity for review). However, that

[8] CEC, Incremental Impacts of Energy Efficiency Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecast (May 2010). Available at: http://www.energy.ca.gov/2010publications/CEC-200-2010-001/CEC-200-2010-001-CTF.PDF. CEC, Incremental Impacts of Energy Efficiency Policy Initiatives Relative to the 2009 Integrated Energy Policy Report Adopted Demand Forecast Attachment A: Technical Report, Consultant Report (January 2010). Available at: http://www.energy.ca.gov/2010publications/CEC-200-2010-001/CEC-200-2010-001-ATA.PDF.

[9] CPUC, Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge, R.12-03-014, p. 10 (May 17, 2012).

report aside, the methodology outlined in the ED Proposal already undervalues future efficiency and should be revised to include all reasonably-likely-to-occur and cost-effective energy efficiency in the "Mid Case." California law requires procurement of energy efficiency at the top of the loading order and requires the CEC to establish building and appliance standards to capture cost effective energy efficiency opportunities. This legal framework has been in place in California for over thirty years and ED can reasonably assume that it will continue. ED's proposal acknowledges that the 2012 Potential Study,[10] which might be the basis for the CEC's unreleased report, excludes "impacts from deep retrofits, financing, or expanded behavior programs."[11] ED proposes to broaden the spread between the low and high cases in order to account for these excluded demand-side savings. However, expanding the spread between low and high is not a realistic way to account for these additional demand-side savings. Additional energy efficiency savings will only increase the amount of demand-side savings—regardless of low or high case. Therefore, a more realistic approach to account for these excluded savings is to include the amount of savings in the mid case itself, as well as in the low and high cases.[12]

[Template Category #20: Supply-side Assumptions, Renewable Resources]

D. We recommend that the Commission increase the assumed level of behind the meter, small solar photovoltaic energy generation.

At page 12 of the Staff Proposal, for the "low" case, 2200 MW of behind the meter, small solar photovoltaic generation (PV) is assumed. This assumption is based on the embedded CED forecast. The "mid" and "high" cases represent increases to the "low" base of 300 MW and 800 MW, respectively. These projections fall well short of the more likely customer-sited PV penetration California will reach over the next ten years. The base "low" case is identical to the already weak CED PV forecast, and then

[10] CPUC/Navigant, *Analysis To Update Energy Efficiency Potential, Goals, and Targets for 2013 and Beyond* (March 2012). Available at: http://www.cpuc.ca.gov/NR/rdonlyres/5A1B455F-CC46-4B8D-A1AF-34FAAF93095A/0/2011IOUServiceTerritoryEEPotentialStudyFinalReport.pdf.
[11] *ED Proposal* at xii.
[12] "Assumptions should take a realistic view of expected policy-driven resource achievements in order to ensure reliability of electric service and track progress toward resource policy goals." *ED Proposal* at viii.

even weaker growth is used to project the "mid" and "high" case. Indeed, the CED forecast is essentially identical to the Commission's CSI goals[13], the use of which wrongly presumes that the only PV driver is the CSI program. Indeed, the CSI program was designed to lower the cost of solar installation to make it more competitive- with the expectation that the end the program would begin the era of real growth in small scale PV generation.

The "mid" and "high" cases then assume only a small increase to the excessively low, CSI-only-based "low" case. Even the 800 MW increment in the "high" case represents only a levelized 80 MW per year of incremental PV. These assumptions are simply untenable considering California is currently adding approximately 25 MW per *month* of PV.[14] Granted, the CSI funding has influenced this growth. Nevertheless, in the absence of CSI incentives, a number of other relevant forces will continue to drive PV installations: 1) decreasing PV prices[15]; 2) Governor Brown's goal to increase renewable distributed generation[16]; 3) the recent interpretation of the NEM cap definition[17]; and 4) ongoing improvements to PV interconnection policies.[18] And these forces don't even begin to capture the 15,000 MW potential envisioned in the recent E3 report.[19]

Accordingly, NRDC/Vote Solar recommends the PV assumptions be revised as follows:

Low case: 3,000 MW,

Mid case: 4,500 MW, and

High case: 6,000 MW.[20]

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[13] I.e., general CSI plus NSHP. *See* http://www.cpuc.ca.gov/PUC/energy/Solar/aboutsolar.htm.
[14] *Id.*
[15] *See* http://www.cnbc.com/id/47006371/Small_Scale_Solar_Succeeds_as_Big_Players_Struggle.
[16] See http://www.renewableenergyworld.com/rea/news/article/2011/01/new-california-governor-jerry-brown-calls-for-feed-in-tariffs-to-develop-distributed-generation.
[17] *See* http://votesolar.org/2012/05/we-won-cpuc-unanimously-approves-net-metering-expansion-in-california/.
[18] *See* http://www.cpuc.ca.gov/PUC/energy/Procurement/LTPP/rule21.htm.
[19] *See* http://www.cpuc.ca.gov/NR/rdonlyres/8A822C08-A56C-4674-A5D2-099E48B41160/0/LDPVPotentialReportMarch2012.pdf.
[20] Distributed solar generation is expected to reach 5,300 MW by 2016. Solar Energy Industries Association, *California DG and Utility Solar Capacity* (May 2012). Thus, a high case of 6,000 MW in 2020 is reasonable, as is the mid case of 4,500 MW by 2020.

[Template Category #21: Supply-side Assumptions, Retirements]

E. We support the Staff Proposal's assumption that once through cooling (OTC) plant retirements take into account the portion of plants that plan to comply through technology changes as opposed to retirement.

We support the Staff Proposal's estimates of OTC plant retirements because they are informed by the implementation plans of plant operators. Because OTC plants are permitted to comply with the State Water Resources Control Board (SWRCB) OTC Policy through technology changes rather than plant retirement or repowering it is accurate to assume that not all OTC plants will retire by the SWRCB deadline, as is proposed in the mid and low cases. It is possible that those OTC plants without implementation plans to comply under Track 1 will choose retirement or fail to complete the performance requirements of the OTC policy and we therefore agree with using that assumption in the High Retirement Case. Assuming that some OTC plants will meet the SWRCB policy compliance tracks through technological changes, as is done in these cases, will prevent unnecessary procurement or transmission expenditures.

[Template Category #20F: Supply-side Assumptions, Renewable Resources, Long Term Target]

F. We support Sierra Club's recommendation to analyze a higher Renewable Portfolio Standard (RPS) target.

We understand that Sierra Club will recommend in their comments to these planning assumptions that the Commission analyze a higher RPS target than the proposed 40% in 2030. In order to meet our climate goals of 80% below 1990 levels by 2050, we will need to achieve a near-zero carbon electricity sector, likely yielding and electric grid with 75% RPS-eligible renewable.[21] Therefore, we support Sierra Club's recommendation of analyzing a 55% RPS target in 2030.

[21] California Council on Science and Technology, *California's Energy Future – The View to 2050*, p. 22 (May 2011).

III. CONCLUSION

NRDC/Vote Solar appreciate the opportunity to comment on the 2012 Energy Division Straw Proposal on LTPP Planning Standards. We urge the Commission to adopt our recommendations described above to ensure the utilities' analyses provide enough insight to enable the Commission to approve the best resource portfolio over the long-term to achieve its objective of meeting customers' energy services needs at the lowest overall cost, risk and environmental impact.

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Respectfully submitted,

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