**Comments of the Natural Resources Defense Council (NRDC) and
the Environmental Defense Fund (EDF) and the Clean Coalition and the Renewable and
the Appropriate Energy Laboratory at University of California, Berkeley (RAEL)
on the
EnerBaseline Methodology in the 2015 California Energy Efficiency Potentials and Goals
Study**
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I. Introduction and Summary

NRDC, EDF, and Clean Coalition appreciate this opportunity to provide written comments to Energy Division regarding the methodology used in the 2015 California Energy Efficiency Potentials and Goal Study to determine baseline energy use of various energy efficiency measures. On December 15, 2014, Aaron Lu requested comments via email from stakeholders on the issue of energy efficiency baselines in the 2015 potential study, prepared by Navigant for the Commission. Accordingly, we respectfully submit these comments addressing the questions raised in the December 15, 2014 email and attached documents.

In general, we support Energy Division and Navigant Consulting's approach to determining baseline energy use in the 2015 potential study, with slight modifications. Critically, the calibration process must not be applied in a manner that reduces or eliminates all the newly identified savings that come from redefining baselines. We also recommend improving the locational aspects of energy efficiency in the 2015 potential study – here, with respect to different baselines.

II. We support the general methodology of studying the greatest potential to using an existing baseline model, with slight modifications.

The Navigant memo circulated as an attachment to the December 15, 2014 email proposes seven key methodological steps to reassess baseline energy consumption for various energy efficiency measures. We support all of them with the following modifications and prioritizations.

1) Identification of key measures: We support prioritizing specific measures from key sectors and end uses in order to maximize efficiency of the process.

2) Describing policy background: We do not support Navigant's expending of significant resources toward researching the historic policy contexts and how code baseline emerged as the "preferred" method to calculate savings. With Commission orders in hand, we

recommend moving forward expeditiously with updates to the baselines, and
deprioritizing time spent summarizing policy background.

3) Coordinate with CEC staff on potential in existing buildings: We support this
coordination.

4) Coordinate with ex ante teams and experts: We recommend that consultation extend to
the California Technical Forum, publicly owned utilities (like LADWP) and academic
researchers – in addition to the regulatory agencies, consultants, and the IOUs proposed
in the memo.

5) Review and assess data sources: We support this step and recommend a high priority
here, to ensure that changes to the baseline are based on a robust body of evidence.

6) Propose new baselines for selected measure: Being the penultimate step in redefining
baselines, we urge keeping a high priority on this result throughout the process.

II. On incorporation into the model: It is critical that improvements to the baseline methodology are allowed to increase potential savings levels to above historic savings levels.

We encourage allowing potential study estimates to reflect the new savings potential from
changing the baseline model. By changing the definitions of baseline energy use, new savings
potential could be identified in this potential study. However, "calibrating" the results of the
potential study after-the-fact, would effectively remove this newly identified savings potential
caused by a redefined baseline. Calibration is the process of normalizing potential study results
to historic levels of achievements. If a potential study identifies savings above levels of what was
historically achieved, then calibrating the results will lower the amount of savings potential to
below what the study found. This practice was applied in the 2013 potential study. We opposed
that practice then, and we do so again here. Instead, the potential study should reflect the actual
potential identified, without the downward calibration to historic results.

The current memo (composed by Navigant Consulting and distributed by Energy Division in
the December 15, 2014 email) proposes to incorporate the new savings from a change in baseline
assumptions in a way that does not allow the calibration process to erase all the newfound
savings. By calibrating the model to historic levels of savings first, and then incorporating the
new unit energy savings data, these newfound savings will not get erased in the calibration
process. Because we do not support calibrating potential study results downward to historic
levels , we support this methodological change. It is critical that the Commission allow newly

identified savings opportunities to increase the levels of potential and goals to above historic levels.

III. We also recommend increasing locational capabilities of the potential study model, including when determining baselines.

While the proposed update to the PG methodology should improve the accuracy of estimates for the baseline potential of energy-efficiency and other demand-side resources, it would be a lost opportunity to not address the locational aspects of energy saving potential in the 2015 study. We have previously advocated for improving locational data of energy efficiency in order to increase the ability for resource planners to rely fully on energy efficiency as a resource—and we do so here again. In order to pave the path for the potential study to address locational aspects of energy efficiency potential, the Commission and Navigant should start by including locational information about new baselines.

We propose that in the process of updating the PG model, the Commission and Navigant should analyze of energy efficiency potential at varied geospatial scales, down to clusters of 100's accounts and up to the statewide estimate, based on differentiated baseline estimates. Navigant could also include a careful assessment of meter and sub-meter data (e.g., SmartMeter and appliance-level monitoring from HAN) for estimating baseline efficiency levels. Even if SmartMeter data are not used in the model, the data sources currently proposed (RASS, CLASS, CEUS, etc.) all include geospatial data for tens of thousands of households and businesses in California that participated in the surveys. This could form the foundation for a simple extension of the analysis to explore the amount of cost-effective potential at a range of spatial scales (e.g., statewide, climate zone, zip code, census tract, etc.). Afterwards, we recommend that the Commission and Navigant distribute the fine-scale geospatial and time-of-use baseline estimates that are generated as part of the analysis in formats that are useful for incorporating into operational decisions and secondary analytics.