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www.winston.com October 1, 2012 MOSCOW NEW YORK NEWARK PARIS SAN FRANCISCO SHANGHAI WASHINGTON, D.C.

Energy Division California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102

Re: Comments of BrightSource Energy, Inc. on Draft Resolution Number E-4522 (Alternate)

Dear Energy Division Tariff Unit:

BrightSource Energy, Inc. ("BrightSource") provides the following comments on draft Resolution Number E-4522 (Alternate) ("Alternate Draft Resolution"), issued in response to Southern California Edison Company ("SCE") Advice Letter No. 2339-E, as amended by AL 2339-E-A, AL 2339-E-B, AL 2339-E-C and AL 2339-E-D (the "SCE Advice Letter"). The SCE Advice Letter requests California Public Utilities Commission ("Commission") approval of five executed power purchase and sales agreements ("PPSA") between SCE and affiliates of BrightSource: Solar Partners XVI and Solar Partners XVII (collectively, the "Rio Mesa PPSAs"); Solar Partners XVIII and Solar Partners XIX (collectively the "Siberia PPSAs"); and Solar Partners XX ("Sonoran West PPSA").

BrightSource has reviewed the Alternate Draft Resolution as well as the original draft Resolution Number E-4522, as amended ("Original Draft Resolution"). While BrightSource is disappointed that neither the Original Draft Resolution nor the Alternate Draft Resolution would grant approval of all of the SCE-BrightSource PPSAs, BrightSource supports the Alternate Draft Resolution. The Alternate Draft Resolution, by approving units deploying BrightSource's second and third generation solar thermal technology, will enable SCE's customers to benefit from the enhancements in BrightSource's power tower design. These benefits include the provision of power qualities associated with synchronous turbines, highly reliable output, and, with BrightSource's third generation unit, the operational flexibility, increased renewable energy generation and enhanced capacity value unique to solar thermal plants that incorporate solar thermal storage. As the grid evolves and renewables penetration increases, the value to SCE's customers of these units can be expected to increase as well.

The Alternate Draft Resolution recognizes that the SCE-BrightSource PPSAs constituted a single package. As BrightSource noted in its comments on the Original Draft Resolution, the Rio Mesa Solar Electric Generating Facility ("Rio Mesa") project will deploy BrightSource's second generation technology (following the first-generation Ivanpah Solar Electric Generating System). This project introduces substantial enhancements to the solar power tower technology that improve its value, including significantly increased operating efficiencies (as reflected in higher capacity factors) and reduced land usage (per unit of output). The Rio Mesa project will require the first commercial project financing of the solar power tower technology without federal loan guarantees. It is also a critical part of the platform needed to develop the third generation projects, such as the Sonoran West project. The third generation design builds on the enhancements of the second generation by adding dispatchable solar thermal storage, which will provide further value to SCE's customers-- through provision of energy dispatch, ancillary services, support for renewable integration and capability to meet changing definitions of Resource Adequacy net qualifying capacity-- particularly as grid needs change with increasing renewables penetration.¹ The Alternate Draft Resolution proposes to approve the Rio Mesa 2 PPSA and the Sonoran West PPSA, and would thus preserve the overall deal structure necessary to facilitate the technology improvements needed to provide enhanced value to SCE's customers. Therefore, BrightSource requests that the Commission approve the Alternate Draft Resolution, as modified to address the concerns described below.

As BrightSource noted in its comments on the Original Draft Resolution, comparing 2011 Renewables Portfolio Standard ("RPS") solicitation bids to the executed BrightSource PPSAs is inappropriate because (a) non-binding RPS solicitation bids do not reflect the full value that is expressed in the final price of a negotiated contract, which is backed by significant development security, and (b) evaluation of bid prices in isolation fails to recognize the significance of viability, including the fact that BrightSource is one of the very few developers in the solar-thermal energy field that has demonstrated an ability to successfully transform a bid into a fully developed and financed project. It is equally important to provide renewable energy designers with an incentive to offer the benefits of improvements in their technology to counterparties.

In addition, while BrightSource appreciates the Alternative Draft Resolution's acknowledgement that solar thermal projects are the appropriate benchmark for these contracts, it is not clear that the analysis of these contracts recognize the range of values that are not yet fully quantified but are beneficial to the utility's customers by increasing reliability and/or reducing the overall cost of the energy supply. Among these benefits include those provided by the synchronous generators deployed in BrightSource's projects, which provide similar short-term reliability and operational benefits to the system as those used in conventional power plants,² and at no additional cost.

¹ <u>See, e.g.</u>, Denholm, P. and M. Mehos, Enabling Greater Penetration of Solar Power via the Use of CSP with Thermal Energy Storage, National Renewable Energy Laboratory, Technical Report, NREL/TP-6A20-52978 (Nov. 2011), available at <u>http://www.nrel.gov/csp/pdfs/52978.pdf</u> (demonstrating that solar thermal units with storage can enhance reliable integration of other technologies); Denholm, P., S.H. Madaeni and R. Sioshansi, Capacity Value of Concentrating Solar Power Plants, National Renewable Energy Laboratory, Technical Report, NREL/TP-6A20-51253 (June 2011), available at <u>http://www.nrel.gov/docs/fy11osti/51253.pdf</u> (discussing the capacity value of solar thermal technologies as grid conditions change) ; Mills, A., and R. Wiser, "Changes in the Economic Value of Variable Generation at High Penetration Levels," LBNL-5445E (June 2012), available at <u>http://eetd.lbl.gov/ea/emp/reports/lbnl-5445e.pdf</u>.

² These benefits include reactive power support, dynamic voltage support, voltage control, inertia response, primary frequency control, frequency and voltage ride-through, small signal stability damping, and the ability to mitigate Sub-Synchronous Resonance.

The Commission should also revise the Alternate Draft Resolution to remove references to denial of the Siberia PPSAs based on concerns relating to conflicts with military training. According to the Department of Defense Siting Clearinghouse, which under federal law provides the sole authority to assess whether a conflict exists between a renewable energy facility and military activities,³ "[b]y law and delegation, ONLY the Secretary of Defense (SECDEF) or Deputy Secretary of Defense (DEPSECDEF) may object to a project proposal."⁴ Accordingly, the Commission should revise the discussion at pages 2 and 16 of the Alternate Draft Resolution to remove references to denial of the Siberia PPSAs based on concerns related to military training, as those concerns were not assessed by the Department of Defense Siting Clearinghouse and no determination has been made with respect to those concerns by the Secretary of Defense or the Deputy Secretary of Defense.

For the foregoing reasons, BrightSource respectfully requests that the Commission approve the Alternate Draft Resolution, as modified in accordance with these comments.

Respectfully submitted,

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³ Section 358(e)(2) of the Ike Skelton National Defense Authorization Act for Fiscal Year 2011, Pub. Law 111-383 (the "Clearinghouse Act")(2011)

⁴ DoD Siting Clearinghouse, Office of the Deputy Under Secretary of Installations and Environment, Frequently Asked Questions web page, available at <u>http://www.acq.osd.mil/dodsc/about/faq.html</u> (last checked Sep. 28, 2012)(capitalization emphasis in the original).

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the

COMMENTS OF BRIGHTSOURCE ENERGY, INC. ON DRAFT RESOLUTION NUMBER E-4522 (ALTERNATE)

on all known parties to R.11-05-005, along with the additional parties pursuant to instructions on the cover letter to Draft Resolution E-4522 (Alternate), by sending a copy via electronic mail and by mailing a properly addressed copy by first-class mail with postage prepaid to each party named in the official service list without an electronic mail address.

Executed on October 1, 2012, at San Francisco, California.

<u>s/ Lisa Schuh</u> Lisa Schuh