BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider Annual Revision to Local Procurement Obligations and Refinements to the Resource Adequacy Program.	Rulemaking 08-01-025 (Filed January 31, 2008)

PROPOSALS OF THE LARGE-SCALE SOLAR ASSOCIATION ON PHASE 2 ISSUES

Andrew B. Brown
Christopher T. Ellison
Brian S. Biering

Ellison Schneider & Harris L.L.P.
2600 Capitol Avenue, Suite 400
Sacramento, CA 95816-5905
Tel: (916) 447-2166
Fax: (916) 447-3512
Email: abb@eslawfirm.com

Attorneys for The Large-Scale Solar Association

January 15, 2009

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider Annual Revision to Local Procurement Obligations and Refinements to the Resource Adequacy Program.	Rulemaking 08-01-025 (Filed January 31, 2008)

PROPOSALS OF THE LARGE-SCALE SOLAR ASSOCIATION ON PHASE 2 ISSUES

I. Introduction and Summary

Pursuant to the October 30, 2008, Assigned Commissioner Ruling and Scoping Memo ("Scoping Memo") setting forth the schedule for Phase 2 issues, and the January 7, 2009 ALJ Ruling extending service deadline, the Large-scale Solar Association ("LSA") [1] hereby presents its proposals specifically addressing the determination of Net Qualifying Capacity ("NQC") for large solar projects, including new installations, in a manner that appropriately reflects differences in technologies and the use-limited nature of the solar resources.[2] As explained below, LSA also recommends continued use of the Maximum Cumulative Contribution ("MCC") procurement limitation on LSE's Resource Adequacy ("RA") portfolios as a means of appropriately reflecting the capacity contribution from use-limited resources.

II. Comments and Proposals

A. The Resource Adequacy Program Should Recognize and Anticipate The Growth of Renewables Capacity

Among the issues identified in the scoping memo, LSA is particularly focused on potential amendments to the net qualifying capacity ("NQC") counting rules for intermittent resources. NQC reflects the quantity of a resource's capacity that can be counted and used by load serving entities ("LSEs") in satisfaction of their RAR capacity procurement obligations. Resources providing RA capacity have a "must-offer" obligation to schedule energy or to otherwise make that capacity available to the CAISO, consistent with the CAISO Tariff. [3] Setting appropriate NQC values for

---

[1] LSA is trade organization representing eleven of the nation's largest developers and providers of utility-solar resources, including entities with approximately 4 Gigawatts under contract in California. There are multiple technologies represented in LSA, including both photovoltaic and solar thermal utility-scale solar companies – most of which are also developers. LSA companies are leaders in the industry, developing the technology and strengthening markets to facilitate significant penetration of renewable energy into the power sector in the western United States. LSA is actively involved in California, Arizona, Nevada as well as regional and federal venues when appropriate. We collaborate to ensure the appropriate policy pathways are in place to support climate-friendly solar development. Other states where LSA is involved include New Mexico, Colorado, Utah and Texas.

[2] *See* R.08-01-025 Scoping Memo, available at: http://docs.cpuc.ca.gov/efile/RULINGS/92975.pdf

[3] *See*, CAISO Tariff § 40.6A.4 available at: http://www.caiso.com/2085/2085f28e65fa0.pdf.

Renewable Portfolios Standard ("RPS")-eligible resources is particularly important to ensure that LSEs can capture all of the value from both an RPS and RAR perspective, for the benefit of their ratepayers. In California and elsewhere, significant changes in energy policy mean increased development of solar resources that will provide GHG-friendly energy throughout the day on a readily forecastable basis. A significant expansion of solar resources is underway in California, with 4 Gigawatts of capacity under contract to help meet RPS requirements. Moreover, expectations are that the RPS targets will be expanded, consistent with Governor Schwarzenegger's November 17, 2008 Executive Order.[4] Because solar offers energy throughout a significant portion of each day, it is important that the resources' NQC values reflect the value of the underlying capacity.

The Phase 2 Scoping Memo includes the issue of potential revisions to NQC for intermittent resources. This issue has been touched upon previously: In the 2007 RA Staff Report ("2007 Staff Report"), CPUC Energy Division ("ED") Staff stated that NQC counting rules should be reviewed and potentially revised in the 2008 RAR proceeding, R.08-01-025.[5] The 2007 Staff Report, like the 2006 Staff RA Report before it, indicates solar resources' relatively strong production profile during a few selected days of peak system loads.[6]

Although the Staff Proposals presented in March 2008 tended to lump wind and solar technologies together in the discussions of intermittent resources, the bulk of the NQC discussion in the prior years' Staff Reports focuses primarily on wind resources. The data presented in the Staff Reports supports grouping wind and solar technologies together, but there are distinctions in the productions profiles. The contribution from large solar capacity output during high stress conditions, which is very high relative to other intermittent resources, must be appropriately valued.

CPUC-jurisdictional LSEs have two major procurement obligations relevant to intermittent resources for which they must optimize their portfolios—the RA Requirement as well as the Renewable Portfolio Standard ("RPS"); to ensure that these obligations prioritize reliability — counting rules must recognize and value the important distinctions between the contributions that different intermittent renewables can provide, unnecessarily increasing RAR compliance costs— and potentially undermining the intent of the RPS to increase the proportion of the energy supply that is clean and renewable.

Under the current rules, NQC values for solar and wind are calculated based on a rolling, three-year historical average during SO 1 summer peak hours (noon to 6 pm).[7] LSA would like to

---

[4] *See*, Executive Order S-14-08, available at: http://gov.ca.gov/executive-order/11072/.

[5] CPUC, 2007 Resource Adequacy Report Produced by The Staff of the CPUC (April 15, 2008), available at: http://docs.cpuc.ca.gov/word_pdf/REPORT/81717.pdf

[6] CPUC 2006 Resource Adequacy Report Produced by The Staff of the CPUC (March 16, 2007), p. 34, available at: http://docs.cpuc.ca.gov/word_pdf/REPORT/65960.doc. The Staff Report stated that the intermittent, non-dispatchable nature of wind resources complicates the calculation of NQC values for wind resources. *See,* 2007 RA Final Report, p. 4.

[7] *See,* D. 05-10-042, *Opinion on Resource Adequacy Requirements* (October 27, 2005), p. 71, available at: http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/50731.pdf. When considering major changes to the current NQC counting rules, it is particularly relevant to recall the Commissions discussion, at page 74:

> We are unwilling to adopt a rule that could cause LSEs to contract for large amounts of capacity that will not be called upon, because there is little assurance

point out that the 2006 Staff Report shows that solar resources performed between 12 percent below and 8 percent above NQC.[8] The 2007 Staff Report did not provide stand-alone solar information, but rather included passing references in some of the discussion with wind.[9] The performance of solar resources is attributable to fundamental technology differences and that the nature of intermittent events impacting solar production —typically cloud cover associated with potential storms—tend not to be the dominant weather condition during peak demand events such as heat storms and, moreover, are predictable within grid operating timeframes, enhancing grid reliability by allowing grid operators the information and time to plan accordingly. For this reason LSA questions the reasonableness of suggesting a need to adjust the NQC counting rules for solar.

RA Capacity is the "most basic" form of capacity supporting system demand and should include capacity that provides energy throughout the day. If, as some parties argued in Phase I of this proceeding, intermittent resources serve only as an energy product and not as a capacity product, RA requirements and associated compliance costs will be substantially overinflated, particularly as California increases its reliance on intermittent resources in the process of attaining RPS requirements. Other values of capacity are reflected in the various Ancillary Services ("AS") products for which technologies capable of providing such products can seek certification with CAISO and thereby gain other, incremental market value reflected in the differentiated CAISO AS markets. The RAR procurement obligation (as opposed to other obligations imposed on loads via the CAISO Tariff) was not intended to dictate specific procurement of other types of capacity reflected in AS products, but rather was intended to require sufficient system and local generic capacity is made available to the CAISO to ensure reliable grid operation. The production limitations of solar should be captured consistent with the existing LSE RA procurement limitation reflected in the maximum cumulative contribution ("MCC") metric as a means of avoiding over-reliance on use limited resources. Solar generation capacity, which provides highly useful energy during peak periods, could be unreasonably reduced if it is not properly valued within the RA context, undermining not only solar and its contributions to RPS but potentially reducing solar's ability to support wind, thus limiting the quantity of wind that can be reliably integrated into the CAISO grid.

B. MCC: A Tool For Ensuring Resource Adequacy And Valuing Use-Limited Resources

LSA believes that the maximum cumulative contribution ("MCC") procurement limitation found in today's existing RA compliance rules, could be an appropriate tool for recognizing the capacity value of solar and other use-limited resources. The MCC procurement limit provides a way to maintain an appropriate NQC value for resources while balancing the impact of use-limitations, whether those limitations are due to intermittent fuel availability or limitations on unit operations due to environmental constraints. Although initially developed to address the nature of certain block energy procurement, the MCC tool could provide a means to address an expanding base of use-limited or intermittent capacity that is expected to serve California and elsewhere in the WECC.[10] With the application of appropriate MCC categories (which would be developed in

---

that such a rule would create reliability benefits that outweigh the cost of that capacity.

[8] *See,* CPUC 2006 RA Final Report, p. 6.

[9] *See,* CPUC 2007 Report, *passim*.

[10] See, e.g., "Renewable Integration Issues", June 26, 2008, presentation by Doug Larson, Western Interstate Energy Board, Western Interconnection Regional Advisory Body, slide 11, highlighting an alternative way of looking at

recognition of major changes in the resource mix and Balancing Authorities' operational needs), LSEs cannot build out a RA resource portfolio that "over-relies" upon use-limited resources or other resources to the detriment of system reliability.

Under existing RA procurement rules, an LSE can only satisfy its procurement obligation with a specified percentage of resources within each MCC category. The 2006 Staff Report stated that the MCC Counting Convention was necessary to accommodate energy contracts as part of RA.[11] As a result, MCC categories were built around standardized energy contract structures rather than a study of monthly differentiated use limitation. The Staff Report suggested that as RA becomes more established and LSEs procure capacity products, the MCC may need to be revised or eliminated for all but limited use resources.[12] Rather than eliminating the MCC tool in light of the phase out of LD contracts, LSA proposes that the MCC procurement limitation mechanism be kept, and that the MCC "bucket" category for specific resources also be specified in the CAISO's NQC listings, to assist parties transacting RA capacity under a standardized product.[13] Eliminating the MCC mechanism should be avoided because it provides a reasonable way to balance the full RA capacity value of different types of use-limited resources, while acknowledging expected production limitations.

C. NQC For New Intermittent Resources

In the Workshop Materials presented at the March 24-25, 2008 RA Implementation workshop, CPUC Staff presented a proposal for determining the NQC value for new intermittent resources.[14] Under the CPUC Staff proposal #4, a unit's operating history would be used to the greatest extent possible.[15] Absent that data, the qualifying capacity ("QC") calculation would rely on Transmission Access Charge ("TAC") area data to determine the expected output of a new solar resource.

LSA is proposing a minor change to the first year NQC determination for new solar resources. California is expecting a significant number of new, large-scale solar resources of varying technology types to come online in the near future. The determination of NQC for new resources is of particular concern to LSA because its members are proposing new projects in different solar resource locations, with different technology types that have some differences in generation profiles.[16] Because of this diversity, application of a TAC-based production assumption like that applied to wind would not be appropriate. To avoid these problems, LSA proposes that for

---

generation additions available at http://www.wecc.biz/documents/meetings/Joint/2008/June/Renewable%20Integration%20Issues%20WECC%206-08.ppt.

[11] *See,* 2006 Report, pg. 46.

[12] *Id.*

[13] Consistent with the CAISO Tariff provisions associated with Use Limited Resources, CAISO could validate the MCC bucket categorization specified by the resource when it makes its NQC submission.

[14] *See,* March 24-25, 2008 RA Workshop Materials and Agenda for 2009 RA Implementation. Please contact Brian Biering at bsb@eslawfirm.com if you require these materials.

[15] *Id.* at p.5.

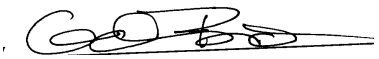
[16] *See,* "Joint Proposal of Southern California Edison and San Diego Gas and Electric for Determining Net Qualifying Capacity of Wind and Solar Resources (April 18, 2008), p. 2. Please contact Brian Biering at bsb@eslawfirm.com if you require this document.

the first years of operation, the NQC value for the resource should be set using a proxy value for the specific technology at that location, with subsequent year's NQC values set via the averaging mechanism in the Staff's proposals.[17] This approach could potentially mesh well with proposals addressing the mid-year addition of new RA resources.[18]

LSA believes that a more appropriate and accurate assessment of the RA value for solar resources would be for NQC to be based on specific units' proxy value as historical data builds, along with a means to accommodate any phase-in of additional capacity as solar generation system expansions take place. Reliance on TAC-based production data (which may exist for other technologies like wind) may not appropriately account for technological innovations associated with new generations of solar resources, or nuances in solar resource locations. LSA's proposal would therefore provide a legitimate bridge over the first four years of facility operation until such time as there is sufficient project-specific operating history to provide a complete rolling three-year production average.

III. Conclusion

LSA appreciates the opportunity to address some of the issues raised in the earlier workshops and to present its proposals. LSA looks forward to working with stakeholders through the workshop process. LSA believes that care should be taken to appropriately distinguish technology types and recognize the capacity underlying energy production while balancing concerns about potential over-reliance on use-limited resources in LSEs' RA compliance filings. Generally speaking, the existing RA program NQC counting rules coupled with the MCC procurement limitation mechanism can provide the requisite balance. This will mean continuing the use of the MCC tool for establishing procurement limitations appropriate in light of the expansion of intermittent renewables. Moreover, the initial NQC value for new solar installations should be based upon initial production output tests, with adjustments for any phased-in capacity additions, pending accumulation of sufficient operating history to provide the three-year rolling average calculation.



Andrew B. Brown
Brian S. Biering
Ellison Schneider & Harris L.L.P.
2600 Capitol Avenue, Suite 400
Sacramento, CA 95816-5905
Tel: (916) 447-2166
Fax: (916) 447-3512
Email: abb@eslawfirm.com

January 15, 2009

Attorneys for Attorneys for The Large-Scale Solar Association

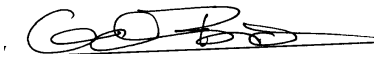
[17] See, CPUC Staff Proposal #4, *supra* note 12.

[18] See, Joint Proposals of CAISO, PG&E, SDG&E and SCE, January 9, 2009, pg 9.

Certificate of Service

I hereby certify that I have this day served a copy of *Proposals The Large-scale Solar Association on Phase 2 Issues* on all known parties to Rulemaking 08-01-025 by transmitting an e-mail message with the document attached to each party named in the official service list. Parties without e-mail addresses were mailed a properly addressed copy by first-class mail with postage prepaid.

Executed on January 15, 2009 at Sacramento, California.



Andrew B. Brown

R.08-01-025 Service List
January 15, 2009

ron.cerniglia@directenergy.com
rick_noger@praxair.com
keith.mccrea@sablaw.com
Cynthia.A.Fonner@constellation.com
ahendrickson@commerceenergy.com
jims@vea.coop
derik.viner@constellation.com
mmazur@3PhasesRenewables.com
douglass@energyattorney.com
klatt@energyattorney.com
michael.backstrom@sce.com
rkmoore@gswater.com
DGarber@sempra.com
troberts@sempra.com
liddell@energyattorney.com
marcie.milner@shell.com
tdarton@pilotpowergroup.com
kerry.eden@ci.corona.ca.us
mflorio@turn.org
chh@cpuc.ca.gov
sara.oneill@constellation.com
sls@a-klaw.com
bcragg@goodinmacbride.com
jarmstrong@goodinmacbride.com
lcottle@winston.com
ssmyers@att.net
bkc7@pge.com
mrh2@pge.com
beth@beth411.com
wbooth@booth-law.com
linda.sherif@calpine.com
tomb@crossborderenergy.com
aivancovich@caiso.com
mgillette@enernoc.com
mary.lynch@constellation.com
braun@braunlegal.com
abb@eslawfirm.com
dansvec@hdo.net
jnelson@psrec.coop
jordan.white@pacificorp.com
jimross@r-c-s-inc.com
gschott@reliant.com
boudreauxk@calpine.com
tcarlson@reliant.com
fmobasheri@aol.com
case.admin@sce.com
karen.lee@sce.com
tcorr@sempraglobal.com
liddell@energyattorney.com
mshames@ucan.org
michael.evans@shell.com
rwinthrop@pilotpowergroup.com
ntang@semprautilities.com
RNicholson@Semprautilities.com
jleslie@luce.com
peter.pearson@bves.com
traceydrabant@bves.com
shess@edisonmission.com
igoodman@commerceenergy.com
mfrazee@anaheim.net
hvidstenj@kindermorgan.com
shawn_cox@kindermorgan.com
tracy.martin@ci.corona.ca.us
amorrison@strategicenergy.com
mtierney-lloyd@enernoc.com
dorth@krcd.org
ek@a-klaw.com
mpa@a-klaw.com
sue.mara@rtoadvisors.com
Diane_Fellman@fpl.com
rcosta@turn.org
theresa.mueller@sfgov.org
jhendry@sfwater.org
mramirez@sfwater.org
srovetti@sfwater.org
filings@a-klaw.com
rcounihan@enernoc.com
taj8@pge.com
jwoodruff@nextlightrp.com
koconnor@winston.com
vprabhakaran@goodinmacbride.com
irene@igc.org
cem@newsdata.com
CRMD@pge.com
ELL5@pge.com
GXL2@pge.com
JTL5@pge.com
sscb@pge.com
SEHC@pge.com
brflynn@flynnrci.com
jchamberlin@strategicenergy.com
jchamberlin@strategicenergy.com
kerry.hattevik@nrgenergy.com
sean.beatty@mirant.com
duggank@calpine.com
phil@auclairconsulting.com
dietrichlaw2@earthlink.net
brbarkovich@earthlink.net
ahaubenstock@brightsourceenergy.com
mrw@mrwassoc.com
cpucdockets@keyesandfox.com
rschmidt@bartlewells.com
nrader@calwea.org
philm@scdenergy.com
bmcc@mccarthylaw.com
sobrien@mccarthylaw.com
sberlin@mccarthylaw.com
blairj@mid.org
joyw@mid.org
rogerv@mid.org
demorse@omsoft.com
bburns@caiso.com
grosenblum@caiso.com
jmcclain@caiso.com
ppettingill@caiso.com
saeed.farrokhpay@ferc.gov
SLiu@caiso.com
sford@caiso.com
e-recipient@caiso.com
dennis@ddecuir.com
pmaxwell@navigantconsulting.com
kjohnson@caiso.com
edchang@flynnrci.com
rmettling@bluepointenergy.com
cmkehrein@ems-ca.com
Audra.Hartmann@Dynegy.com

brian.theaker@dynegy.com
dseperas@calpine.com
ddavie@wellhead.com
wynne@braunlegal.com
kdw@woodruff-expert-services.com
rachel@ceert.org
bernardo@braunlegal.com
blaising@braunlegal.com
steven@iepa.com
ferguson@braunlegal.com
bsb@eslawfirm.com
jjg@eslawfirm.com
karen@klindh.com
californiadockets@pacificorp.com
dbr@cpuc.ca.gov
edd@cpuc.ca.gov
eks@cpuc.ca.gov
fxg@cpuc.ca.gov
kd1@cpuc.ca.gov
ltt@cpuc.ca.gov
lau@cpuc.ca.gov
msw@cpuc.ca.gov
mjd@cpuc.ca.gov
phs@cpuc.ca.gov
rls@cpuc.ca.gov
vjb@cpuc.ca.gov
dmetz@energy.state.ca.us
dbeck@energy.state.ca.us
jwoodwar@energy.state.ca.us
lmarshal@energy.state.ca.us
mjaske@energy.state.ca.us
dvidaver@energy.state.ca.us
mringer@energy.state.ca.us

3 PHASES RENEWABLES LLC
3 Phases Renewables
2100 SEPULVEDA, SUITE 37
MANHATTAN BEACH CA
90266

DIANA ANNUNZIATO
AMERICAN UTILITY
NETWORK
10705 DEER CANYON DRIVE
ALTA LOMA CA 91737

DAVID J. COYLE
ANZA ELECTRIC CO-
OPERATIVE, INC (909)
PO BOX 391908 / 58470 HWY
371
ANZA CA 92539-1909

NATIONAL REGISTERED
AGENTS, INC
STRATEGIC ENERGY LLC
2030 MAIN STREET, SUITE
1030
IRVINE CA 92614

PAUL OSHIDERI
AOL UTILITY CORP.
12752 BARRETT LANE
SANTA ANA CA 92705

CORPORATE CREATIONS
NETWORK INC.
131-A STONEY CIRCLE 500
SANTA ROSA CA 95401