

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



FILED

10-19-09
04:59 PM

Order Instituting Rulemaking to Continue
Implementation and Administration of California
Renewables Portfolio Standard Program

Rulemaking 08-08-009
(August 21, 2008)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON ADMINISTRATIVE LAW JUDGE'S RULINGS REGARDING
PRICING APPROACHES AND STRUCTURE FOR A FEED-IN TARIFF
AND GRANTING EXTENSION IN PART AND ADDING PRICE
STRUCTURE EXAMPLE FOR COMMENT**

Donald C. Liddell
DOUGLASS & LIDDELL
2928 2nd Avenue
San Diego, California 92103
Telephone: (619) 993-9096
Facsimile: (619) 296-4662
Email: liddell@energyattorney.com

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

October 19, 2009

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue
Implementation and Administration of California
Renewables Portfolio Standard Program

Rulemaking 08-08-009
(Filed August 21, 2008)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
ON ADMINISTRATIVE LAW JUDGE’S RULINGS REGARDING
PRICING APPROACHES AND STRUCTURES FOR A FEED-IN TARIFF
AND GRANTING EXTENSION IN PART AND ADDING PRICE
STRUCTURE EXAMPLE**

Pursuant to the *Administrative Law Judge’s Ruling Regarding Pricing Approaches and Structures for a Feed-In Tariff*, issued on August 27, 2009 and a subsequent *Administrative Law Judge’s Ruling Granting Extension in Part and Adding Price Structure Example for Comment* issued by Burton W. Mattson on September 11, 2009, (“ALJ’s Rulings”), the California Energy Storage Alliance (“CESA”)¹ hereby submits these comments on the additional example question provided for comment (Item 13, Example “E”). CESA is an *ad-hoc* advocacy group made up of renewable energy system integrators, consultants and energy storage system manufacturers. CESA’s mission is to expand the role of energy storage to promote faster adoption of renewable energy and a more stable and secure electricity grid in California.

I. INTRODUCTION.

CESA appreciates the opportunity to comment in this proceeding, and in particular, on the second ALJ Ruling requesting additional comment on performance payments for renewable technologies coupled with energy storage that can guarantee on-peak energy delivery. Energy storage has been widely acknowledged to be a resource that is critical to managing variability

¹ The California Energy Storage Alliance consists of A123 Systems, Beacon Power, Chevron Energy Solutions, Debenham Energy, Enersys, Fluidic Energy Inc., Ice Energy, Inc., Prudent Energy, PVT Solar, StrateGen Consulting, Xtreme Power Solutions and ZBB Energy Corporation.

and capacity in the modern grid.² The need for energy storage increases quickly with higher penetration levels of renewable energy that is not dispatchable. For example, an April 2006 National Renewable Energy Laboratory (“NREL”) study analyzed the deployment of solar PV on a very large scale to provide a large fraction of a system’s electricity. The resulting NREL report found that “under high penetration levels and existing grid-operations procedures and rules, the system will have excess PV generation during certain periods of the year. This excess PV generation results in increased cost, which can increase dramatically when PV provides on the order of 10%-15% of total electricity in demand in systems that are heavily dependent on inflexible baseload steam plants.”³ To help mitigate these cost impacts, the NREL report goes on to state that “energy storage represents the “ultimate” solution to the problems of intermittency. Not only could energy storage absorb the excess PV generation, but it could also aid in increasing the overall flexibility of electric power systems by decreasing dependence on traditional baseload generation.”⁴

CESA understands that the Feed in Tariff (“FIT) is but one component of California’s renewable energy policy, and applauds the Commission for its leadership in anticipating the future impacts of high degrees of renewable penetration, and potential solutions for mitigating the impacts that are negative.⁵ Because of inherent difficulties of siting and permitting very large centralized renewable energy generation, CESA believes that smaller (<20MW) distributed renewable energy systems sited closer to load centers will become increasingly more important to achieving California’s RPS goals over time.

II. PRINCIPLES ADOPTED IN SB 32 CALL FOR HIGHER FIT PRICING WHEN RENEWABLES ARE FIRMED WITH ENERGY STORAGE.

The Governor signed SB 32 into law on October 11, 2009, expanding the scope of the

² Electricity Advisory Committee, “*Bottling Electricity: Storage as a Strategic Tool for Managing Variability and Capacity Concerns in the Modern Grid*” December 2008. Copies of this report are available at <http://www.oe.energy.gov/eac.htm>

³ NREL Conference Paper NREL/CP-620-39683 “*Very Large Scale Deployment of Grid-Connected Solar Photovoltaics in the United States: Challenges and Opportunities*” P. Denholm and R. Margolis April 2006

⁴ NREL Report, page 5.

⁵ See, Executive Order S-21-09 issued by the Governor on September 15, 2009. “The ARB may delegate to the PUC and the CEC any policy development or program implementation responsibilities that would reduce duplication and improve consistency with other energy programs such as demand response, energy efficiency and energy *storage*. [emphasis added]”, page 2.

feed-in tariff program in a number of important ways.⁶ The impact of the new statute on the issues in this proceeding is, of course unknown as of today. However, it is assured that whatever pricing approach that is determined in this, or successor or related proceedings, will be based on the following principles put forward in SB 32:

- “A tariff for electricity generated by renewable technologies should recognize the environmental attributes of the renewable technology, the characteristics that contribute to peak electricity demand reduction, reduced transmission congestion, avoided transmission and distribution improvements, and in a manner that accelerates the deployment of renewable energy resources.”
- “The payment shall be the market price determined by the commission pursuant to Section 399.15 and shall include all current and anticipated environmental compliance costs, including, but not limited to, mitigation of emissions of greenhouse gases and air pollution offsets associated with the operation of new generating facilities in the local air pollution control or air quality management district where the electric generation facility is located.
- “The commission may adjust the payment rate to reflect the value of every kilowatt hour of electricity generated on a time-of-delivery basis.”

Based on these principles, the new statute suggests that any pricing approach adopted by the Commission should include higher payments for renewables firmed or delivered on peak. This can be accomplished by energy storage.

III. THE STAFF-PROPOSED RENEWABLE AUCTION MECHANISM WILL LIKELY NOT STIMULATE DEVELOPMENT OF INTEGRATED RENEWABLE ENERGY STORAGE PROJECTS

CESA appreciates the Energy Division Staff’s Proposal dated August 26, 2009, which sets forth the staff-proposed Renewable Auction Mechanism, or "RAM" and agrees with many of the articulated pros and cons. However, with respect to integrated energy storage and renewable projects, CESA believes that under the proposed auction mechanism, energy storage would not stand any chance to succeed, even if combined energy storage with renewable projects were

⁶ Chapter 328, filed October 11, 2009. SB 32 amends §388.20 and adds §387.6 to the California Public Utilities Code.

allowed to bid as a separate 'firm' renewable peaking product. Without price certainty, or clear administrative guidance as to the value of renewable energy generation coupled with energy storage for such projects to deliver power on peak, existing developers would not be willing to invest time and significant cost to develop such a joint project. Moreover, based on existing renewable energy time of delivery factors it is far from certain that the pricing levels utilities would be willing to pay under any realistic pricing expectation would overcome the added cost of energy storage. In order to justify the added cost of energy storage, a bidder would need for its proposal to be evaluated with full consideration of all additional value streams that energy storage provides, such as the value of absorbing excess renewable generation, the avoided cost of upgrading substations and feeders and an explicit capacity value for firm on peak delivery (\$/kW/year), as is apparently recommended in SB 32.

IV. CONCLUSION.

CESA appreciates this opportunity to comment on the ALJ's Rulings, and looks forward to working with the Commission and other parties to evolve FIT pricing levels and the program in general. As noted, SB 32 sets forth several principles that call for higher pricing for renewable energy projects firmed and/or delivered on peak with energy storage. These requirements make the staff-proposed RAM challenging for integrated renewable energy and storage projects. Clearly, for such projects to actually be developed under the FIT program, developers would require sufficient higher prices to overcome the added cost of energy storage (and appropriately value the benefits) and, just as importantly, certainty of pricing to ensure that their long-lead investments in project development would be worthwhile.

Respectfully submitted,



Donald C. Liddell
DOUGLASS & LIDDELL

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

Date: October 19, 2009

VERIFICATION

I, Donald C. Liddell, am counsel for the California Energy Storage Alliance and am authorized to make this Verification on its behalf. I declare under penalty of perjury that the statements in the foregoing copy of *Comments of the California Energy Storage Alliance on Administrative Law Judge's Rulings Regarding Pricing Approaches and Structure for a Feed-In Tariff and Granting Extension in Part and Adding Price Structure Example for Comment*, filed in *R.08-08-009*, are true of my own knowledge, except as to matters which are therein stated on information or belief, and as to those matters I believe them to be true.

Executed on October 21, 2009 at Woodland Hills, California.



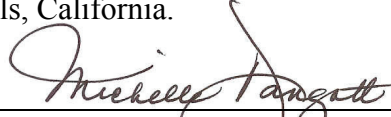
Donald C. Liddell
DOUGLASS & LIDDELL

Counsel for the
CALIFORNIA ENERGY STORAGE ALLIANCE

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the *Comments of the California Energy Storage Alliance on Administrative Law Judge's Rulings Regarding Pricing Approaches and Structure for a Feed-In Tariff and Granting Extension in Part and Adding Price Structure Example for Comment* on all parties of record in proceeding *R.08-08-009* by serving an electronic copy on their email addresses of record and by mailing a properly addressed copy by first-class mail with postage prepaid to each party for whom an email address is not available.

Executed on October 21, 2009, at Woodland Hills, California.



Michelle Dangott

CERTIFICATE OF SERVICE – R. 08-08-009

abl@cpuc.ca.gov
abb@eslawfirm.com
abiecunasjp@bv.com
abrowning@votesolar.org
aeg@cpuc.ca.gov
aes@cpuc.ca.gov
alex.kang@itron.com
amber@iepa.com
ams@cpuc.ca.gov
amsmith@sempra.com
andy.vanhorn@vhcenergy.com
arno@recurrentenergy.com
artrivera@comcast.net
as2@cpuc.ca.gov
atrowbridge@daycartermurphy.com
Audra.Hartmann@Dynergy.com
bari@pge.com
bbaker@summitblue.com
bcragg@goodinmacbride.com
bdicapo@caiso.com
bepstein@fablaw.com
bernardo@braunlegal.com
beth@beth411.com
bill@fitcoalition.com
blaising@braunlegal.com
bobgex@dwt.com
boudreauxk@calpine.com
brbarkovich@earthlink.net
bruce.foster@sce.com
bsb@eslawfirm.com
bwm@cpuc.ca.gov
c.mentzel@cleanenergymaui.com
cadowney@cadowneylaw.com
californiadockets@pacificorp.com
case.admin@sce.com
castille@landsenergy.com
cathy.karlstad@sce.com
cec@cpuc.ca.gov
cem@newsdata.com
CentralFiles@semprautilities.com
chad@cenergypower.com
Christine@consciousventuresgroup.com
ciw@cpuc.ca.gov
ckebler@SempraGeneration.com
claufenb@energy.state.ca.us
cleni@energy.state.ca.us
cleni@energy.state.ca.us
clyde.murley@comcast.net
cmkehrein@ems-ca.com
cmmw@pge.com
cni@cpuc.ca.gov
cpechman@powereconomics.com
cponds@ci.chula-vista.ca.us
cpuccases@pge.com
cpucdockets@keyesandfox.com
cpucrulings@navigantconsulting.com
craig.lewis@greenvolts.com
crmd@pge.com
css@cpuc.ca.gov
csteen@bakerlaw.com
cswoollums@midamerican.com
ctd@cpuc.ca.gov
cte@eslawfirm.com
ctorchia@chadbourne.com
cwooten@lumenxconsulting.com
Cynthia.A.Fonner@constellation.com
Dan.adler@calcef.org
danielle@ceert.org
david.oliver@navigantconsulting.com
davidb@cwo.com
davido@mid.org
dbp@cpuc.ca.gov
dcarroll@downeybrand.com
dcover@esassoc.com
demorse@omsoft.com
dennis@ddecuir.com
derek@evomarkets.com
dgeis@dolphingroup.org
dgrandy@caonsitegen.com
dgulino@ridgewoodpower.com
dhuard@manatt.com
Diane.Fellman@nexteraenergy.com
dietrichlaw2@earthlink.net
dkk@eslawfirm.com
dniehaus@semprautilities.com
DocToxics@aol.com
dorth@kcred.org
dot@cpuc.ca.gov
Douglas@Idealab.com
douglass@energyattorney.com
dsaul@pacificsolar.net
dseperas@calpine.com
dsh@cpuc.ca.gov
dtownley@infiniacorp.com
dvidaver@energy.state.ca.us
dws@r-c-s-inc.com
echiang@elementmarkets.com
ecl8@pge.com
ed.mainland@sierraclub.org
ed.smeloff@sunpowercorp.com
edwardoneill@dwt.com
EGrizard@deweysquare.com
eisenblh@email.laccd.edu
ej_wright@oxy.com
ek@a-klaw.com
eks@cpuc.ca.gov
elaine.duncan@verizon.com
ELL5@pge.com
elvine@lbl.gov
email@semprasolutions.com
emello@sppc.com
e-recipient@caiso.com
eric.cherniss@gmail.com
evk1@pge.com
farrellytc@earthlink.net
fhall@solarelectricsolutions.com
filings@a-klaw.com
fjs@cpuc.ca.gov
fortlieb@sandiego.gov
freesa@thirdplanetwind.com
garrett.hering@photon-international.com
garson_knapp@fpl.com
gary.allen@sce.com
general.counsel@greenvolts.com
george.wiltsee@sce.com
GloriaB@anzaelectric.org
gmorris@emf.net
GouletCA@email.laccd.edu
gpetlin@3degreesinc.com
gtd@cpuc.ca.gov
gteigen@rcmdigesters.com
GXL2@pge.com
hal@rwitz.net
hanigan@encous.com
hans@recurrentenergy.com
harveyederpspc@hotmail.com
hcronin@water.ca.gov
hlouie@energy.state.ca.us
hrait@energy.state.ca.us
hrasool@semprautilities.com
hurlock@water.ca.gov
HYao@SempraUtilities.com
info@calseia.org
jackmack@suesec.com
James.Stack@CityofPaloAlto.org
janice@strategenconsulting.com
janreid@coastecon.com
jarmstrong@goodinmacbride.com
jay2@pge.com
jbarnes@summitblue.com
Jcox@fce.com
jdalessi@navigantconsulting.com
jeanne.sole@sfgov.org
Jeff.Hirsch@DOE2.com
jeffgray@dwt.com
jenine.schenk@apses.com

jennifer.chamberlin@directenergy.com
jf2@cpuc.ca.gov
jfleshma@energy.state.ca.us
jgorberg@lspower.com
jgreco@terra-genpower.com
jim.howell@recurrentenergy.com
jim.metropulos@sierraclub.org
jjg@eslawfirm.com
jjw@cpuc.ca.gov
jkarp@winston.com
jleslie@luce.com
jluckhardt@downeybrand.com
jm3@cpuc.ca.gov
jmcfarland@treasurer.ca.gov
jmcmahon@crai.com
jmh@cpuc.ca.gov
jna@speakeasy.org
jnelson@psrec.coop
jody_london_consulting@earthlink.net
Joe.Langenberg@gmail.com
johnredding@earthlink.net
jon.jacobs@paconsulting.com
Joni.Templeton@sce.com
jordan.white@pacificorp.com
joyw@mid.org
jpross@sungevity.com
jrobertpayne@gmail.com
jsanders@caiso.com
jscancarelli@flk.com
jsp5@pge.com
jsqueri@gmssr.com
judypau@dwt.com
juliettea7@aol.com
jweil@aglet.org
jwoodwar@energy.state.ca.us
jwright@semprautilities.com
kar@cpuc.ca.gov
karen@klindh.com
karly@solardevelop.com
kdusel@navigantconsulting.com
keith.mccrea@sablaw.com
keithwhite@earthlink.net
kelly.cauvel@build-laccd.org
ken.alex@doj.ca.gov
kenneth.swain@navigantconsulting.com
kerry.eden@ci.corona.ca.us
kerry.hattevik@nrenergy.com
kfox@keyesandfox.com
khassan@sempra.com
kjsimonsen@ems-ca.com
klatt@energyattorney.com
kmills@cfbf.com
kowalewskia@calpine.com
kswitzer@gswater.com

kwh@cpuc.ca.gov
kyle.l.davis@pacificorp.com
kzocchet@energy.state.ca.us
lau@cpuc.ca.gov
leichnitz@lumospower.com
lfavret@3degreesinc.com
lgonzale@energy.state.ca.us
liddell@energyattorney.com
lmh@eslawfirm.com
lpark@navigantconsulting.com
LPaskett@FirstSolar.com
lterry@water.ca.gov
lwisland@ucsusa.org
lynn@lmaconsulting.com
m.stout@cleantechamerica.com
marcel@turn.org
marcie.milner@shell.com
Marla.Dickerson@latimes.com
martinhomec@gmail.com
martinhomec@gmail.com
mary@solutionsforutilities.com
masont@bv.com
matthew@turn.org
mc3@cpuc.ca.gov
mcarboy@signalhill.com
mchediak@bloomberg.net
mclaughlin@braunlegal.com
mcmahon@solar Millennium.com
mday@goodinmacbride.com
mdeange@smud.org
mdjoseph@adamsbroadwell.com
mgarcia@arb.ca.gov
mhyams@sfwater.org
michaelboyd@sbcglobal.net
michaelgilmore@inlandenergy.com
mike.montoya@sce.com
mjd@cpuc.ca.gov
mjh@cpuc.ca.gov
mjs@cpuc.ca.gov
mmazur@3PhasesRenewables.com
MMCL@pge.com
mniroula@water.ca.gov
MoniqueStevenson@SeaBreezePower.com
mpa@a-klaw.com
mpo@cpuc.ca.gov
mpr-ca@coolearthsolar.com
mprior@energy.state.ca.us
mramirez@sfwater.org
mrh2@pge.com
mrl@cpuc.ca.gov
mrw@mrwassoc.com
mwt@cpuc.ca.gov
nao@cpuc.ca.gov
ndesnoo@ci.berkeley.ca.us

nellie.tong@us.kema.com
nes@a-klaw.com
NFranklin@edisonmission.com
Nick.Allen@morganstanley.com
nick.chaset@tesseractosolar.com
nicole.fabri@clearenergybrokerage.com
nil@cpuc.ca.gov
nlr@cpuc.ca.gov
norman.furuta@navy.mil
npedersen@hanmor.com
nrader@calwea.org
nsuetake@turn.org
nxk2@pge.com
paulfenn@local.org
pdoughma@energy.state.ca.us
pepper@cleanpowermarkets.com
peter.pearson@bves.com
pfmoritzburke@gmail.com
phanschen@mofa.com
phil@reesechambers.com
pletkarj@bv.com
pmaxwell@navigantconsulting.com
porter@exeterassociates.com
psd@cpuc.ca.gov
pshaw@suntechamerica.com
pssed@adelphia.net
pstoner@lgc.org
ralf1241a@cs.com
ramonag@ebmud.com
rblee@bakerlaw.com
rbuckenham@calbioenergy.com
RegRelCPUCcases@pge.com
renee@gem-corp.com
rhassan@fbr.com
richard.chandler@bp.com
rick@sierraecos.com
rick_noger@praxair.com
rjgilleskie@san.rr.com
rkeen@manatt.com
rkmoore@gswater.com
rkn@cpuc.ca.gov
rliebert@cfbf.com
rmccann@umich.edu
rmiller@energy.state.ca.us
rmm@cpuc.ca.gov
robert.boyd@ps.ge.com
ron.cerniglia@directenergy.com
rprince@semprautilities.com
rresch@seia.org
rroth@smud.org
rsa@a-klaw.com
rschmidt@bartlewells.com
rwalther@pacbell.net
rwinthrop@pilotpowergroup.com

saeed.farokhpay@ferc.gov
sara@solaralliance.org
sas@a-klaw.com
sbeserra@sbcglobal.net
schurchi@energy.state.ca.us
sdhilton@stoel.com
sean.beatty@mirant.com
SEHC@pge.com
sgallagher@stirlingenergy.com
sha@cpuc.ca.gov
shess@edisonmission.com
sho@ogrady.us
skg@cpuc.ca.gov
sls@a-klaw.com
smk@cpuc.ca.gov
snuller@ethree.com
spauker@wsgr.com
srovetti@sflower.org
ssmyers@att.net
stephaniec@greenlining.org
steveb@cwo.com

wbooth@booth-law.com
wem@igc.org
wetstone@alamedapt.com
whgolove@chevron.com
Will.Brieger@doj.ca.gov
william.v.walsh@sce.com
wplaxico@heliosenergy.us
wwester@smud.org
ygross@sempraglobal.com
steven.schleimer@barclayscapital.com
steven@iepa.com
susan.munves@smgov.net
svn@cpuc.ca.gov
tam.hunt@gmail.com
Tashiana.Wangler@PacifiCorp.com
tbo@cpuc.ca.gov
tburke@sflower.org
tcarlson@rrienergy.com
tcorr@sempra.com
tdarton@pilotpowergroup.com
tdillard@sppc.com

ted@fitcoalition.com
tfaust@redwoodrenewables.com
tim@marinemt.org
tjaffe@energybusinessconsultants.com
tobinjmr@sbcglobal.net
todd.edmister@bingham.com
Tom.Elgie@powerex.com
tom_victorine@sjwater.com
tomb@crossborderenergy.com
tpomales@arb.ca.gov
trf@cpuc.ca.gov
trh@cpuc.ca.gov
troberts@sempra.com
tsolomon@winston.com
ttutt@smud.org
tzentai@summitblue.com
varaninie@gtlaw.com
vjw3@pge.com
vsuravarapu@cera.com
vwood@smud.org
wblattner@semprautilities.com