

From: mbelively@aol.com

Sent: 12/6/2012 1:32:48 PM

liddell@energyattorney.com (liddell@energyattorney.com);
Arthur.O'Donnell@cpuc.ca.gov (Arthur.O'Donnell@cpuc.ca.gov);
tdarton@pilotpowergroup.com (tdarton@pilotpowergroup.com);
lwisland@ucsusa.org (lwisland@ucsusa.org); matthew@turn.org
(matthew@turn.org); jleslie@mckennalong.com (jleslie@mckennalong.com);
whitney@clean-coalition.org (whitney@clean-coalition.org);
mike_windpower@yahoo.com (mike_windpower@yahoo.com);
AKaplan@BrownRudnick.com (AKaplan@BrownRudnick.com);
ehsieh@a123systems.com (ehsieh@a123systems.com); cathy.karlstad@sce.com
(cathy.karlstad@sce.com); rick_noger@praxair.com (rick_noger@praxair.com);
douglass@energyattorney.com (douglass@energyattorney.com);
igoodman@commerceenergy.com (igoodman@commerceenergy.com);
adam.green@solarreserve.com (adam.green@solarreserve.com);
gbass@noblesolutions.com (gbass@noblesolutions.com); cpacc@calpine.com
(cpacc@calpine.com); rkmoore@gswater.com (rkmoore@gswater.com);
info@3PhasesRenewables.com (info@3PhasesRenewables.com);
KSEngineers@aol.com (KSEngineers@aol.com); ATrial@SempraUtilities.com
To: (ATrial@SempraUtilities.com); karlk@dietzedavis.com (karlk@dietzedavis.com);
lflowers111@gmail.com (lflowers111@gmail.com); dkates@sonic.net
(dkates@sonic.net); katherine.krause@DirectEnergy.com
(katherine.krause@DirectEnergy.com); Joseph.williams@cwt.com
(Joseph.williams@cwt.com); RegRelCPUCCases
(/O=PG&E/OU=Corporate/cn=Recipients/cn=RegRelCPUCCases); ssmyers@att.net
(ssmyers@att.net); nes@a-klaw.com (nes@a-klaw.com);
clamasbabbini@comverge.com (clamasbabbini@comverge.com); mtierney-
lloyd@enernoc.com (mtierney-lloyd@enernoc.com); bcragg@goodinmacbride.com
(bcragg@goodinmacbride.com); kelly@votesolar.org (kelly@votesolar.org);
gmorris@emf.net (gmorris@emf.net); GloriaB@anzaelectric.org
(GloriaB@anzaelectric.org); Huffman, Mark (Law)
(/O=PG&E/OU=Corporate/cn=Recipients/cn=MRH2);
andrea.morrison@directenergy.com (andrea.morrison@directenergy.com);
abb@eslawfirm.com (abb@eslawfirm.com); tomb@crossborderenergy.com
(tomb@crossborderenergy.com); dorth@krcd.org (dorth@krcd.org);
barmackm@calpine.com (barmackm@calpine.com);
californiadockets@pacificcorp.com (californiadockets@pacificcorp.com);
VidhyaPrabhakaran@dwt.com (VidhyaPrabhakaran@dwt.com);
blake@consumercal.org (blake@consumercal.org); bmarshall@psrec.coop
(bmarshall@psrec.coop); dansvec@hdo.net (dansvec@hdo.net);
wrostov@earthjustice.org (wrostov@earthjustice.org); jack@casaraquel.com
(jack@casaraquel.com); Reid, Alice L (Law)
(/O=PG&E/OU=Corporate/cn=Recipients/cn=ALR4); ames_doug@yahoo.com
(ames_doug@yahoo.com); mehta.associates@ymail.com
(mehta.associates@ymail.com); knakatani@calhrc.org (knakatani@calhrc.org);

gotschall@ti-sd.com (gotschall@ti-sd.com); rfo@sovereignenergy.net
(rfo@sovereignenergy.net); toconnor@edf.org (toconnor@edf.org);
proceedings@megawattsf.com (proceedings@megawattsf.com); bgross@caiso.com
(bgross@caiso.com); skelly@MarinEnergy.com (skelly@MarinEnergy.com);
david@nemtzw.com (david@nemtzw.com); CentralFiles@SempraUtilities.com
(CentralFiles@SempraUtilities.com); sephra.ninow@energycenter.org
(sephra.ninow@energycenter.org); case.admin@sce.com (case.admin@sce.com);
mrw@mrwassoc.com (mrw@mrwassoc.com); DWTCPUCDOCKETS@dwt.com
(DWTCPUCDOCKETS@dwt.com); blaising@braunlegal.com
(blaising@braunlegal.com); klatt@energyattorney.com (klatt@energyattorney.com);
JanMcFar@sonic.net (JanMcFar@sonic.net); spauker@wsgr.com
(spauker@wsgr.com); Erin.Grizard@BloomEnergy.com
(Erin.Grizard@BloomEnergy.com); ttutt@smud.org (ttutt@smud.org);
Diane.Fellman@nrgenergy.com (Diane.Fellman@nrgenergy.com); ek@a-klaw.com
(ek@a-klaw.com); HRasool@SempraUtilities.com
(HRasool@SempraUtilities.com); sean.beatty@genon.com
(sean.beatty@genon.com); lwhouse@innercite.com (lwhouse@innercite.com);
marcie.milner@shell.com (marcie.milner@shell.com);
michelle.d.grant@dynegy.com (michelle.d.grant@dynegy.com);
steven.huhman@morganstanley.com (steven.huhman@morganstanley.com);
cpuc@primuspower.com (cpuc@primuspower.com); akbar.jazayeri@sce.com
(akbar.jazayeri@sce.com); amber.wyatt@sce.com (amber.wyatt@sce.com); klr@a-
klaw.com (klr@a-klaw.com); nellie.tong@dnvkema.com
(nellie.tong@dnvkema.com); pcarson@energycentral.com
(pcarson@energycentral.com); jbryan@codaenergy.com (jbryan@codaenergy.com);
mdetsky@dietzedavis.com (mdetsky@dietzedavis.com);
n.davidson@renewableanalytics.com (n.davidson@renewableanalytics.com);
ddivine@eaglecrestenergy.com (ddivine@eaglecrestenergy.com);
tandrews@calmac.com (tandrews@calmac.com); LManz@viridityenergy.com
(LManz@viridityenergy.com); Richard.S.Flood@jci.com
(Richard.S.Flood@jci.com); Doug.Hackley@Calenergy.com
(Doug.Hackley@Calenergy.com); janderson@viridityenergy.com
(janderson@viridityenergy.com); jspilman@gridflexenergy.com
(jspilman@gridflexenergy.com); AAmirali@starwood.com
(AAmirali@starwood.com); SLowe@EagleCrestEnergy.com
(SLowe@EagleCrestEnergy.com); Nancy.Allred@sce.com
(Nancy.Allred@sce.com); skincaid@makerscapital.com
(skincaid@makerscapital.com); dadams@viridityenergy.com
(dadams@viridityenergy.com); JJudson-mcqueeney@ces-ltd.com (JJudson-
mcqueeney@ces-ltd.com); NODonovan@LREnergy.com
(NODonovan@LREnergy.com); rokeefe@xtremepower.com
(rokeefe@xtremepower.com); sdavis@kngrid.com (sdavis@kngrid.com);
michael.stelts@panasonic.com (michael.stelts@panasonic.com); art@ucan.org
(art@ucan.org); abrown@xtremepower.com (abrown@xtremepower.com);
afreifeld@viridityenergy.com (afreifeld@viridityenergy.com); sahm@clean-
coalition.org (sahm@clean-coalition.org);

margaret.miller@brookfieldrenewable.com
(margaret.miller@brookfieldrenewable.com); Berlinski@BeaconPower.com
(Berlinski@BeaconPower.com); SDeb@EnergyOnLine.com
(SDeb@EnergyOnLine.com); jLin@strategen.com (jLin@strategen.com);
rspolek@besciences.com (rspolek@besciences.com); TJS@cyp-res.com (TJS@cyp-
res.com); steve.eckert@BrookfieldPower.com
(steve.eckert@BrookfieldPower.com); CalConsumersAlliance@gmail.com
(CalConsumersAlliance@gmail.com); msloustcher@codaelectric.com
(msloustcher@codaelectric.com); WJKeese@aol.com (WJKeese@aol.com);
csullivan@zbbenergy.com (csullivan@zbbenergy.com); pdarcy@sna.sanyo.com
(pdarcy@sna.sanyo.com); tory.lauterbach@cw.com (tory.lauterbach@cw.com);
yana@clean-coalition.org (yana@clean-coalition.org); Cherry, Brian K
(/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=BKC7);
elizaveta.malashenko@cpuc.ca.gov (elizaveta.malashenko@cpuc.ca.gov);
thomas.roberts@cpuc.ca.gov (thomas.roberts@cpuc.ca.gov); Haertle, Steve
(/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=SRH1);
lmh@eslawfirm.com (lmh@eslawfirm.com); joyw@mid.org (joyw@mid.org);
jeanne.sole@sfgov.org (jeanne.sole@sfgov.org); eric@ethree.com
(eric@ethree.com); filings@a-klaw.com (filings@a-klaw.com); Cotroneo, Eileen
(/O=PG&E/OU=Corporate/cn=Recipients/cn=EFM2); cem@newsdata.com
(cem@newsdata.com); e-recipient@caiso.com (e-recipient@caiso.com);
jim.metropulos@sierraclub.org (jim.metropulos@sierraclub.org);
mdjoseph@adamsbroadwell.com (mdjoseph@adamsbroadwell.com);
rl@eslawfirm.com (rl@eslawfirm.com); sue.mara@RTOadvisors.com
(sue.mara@RTOadvisors.com); Gong, Alice
(/O=PG&E/OU=Corporate/cn=Recipients/cn=AxL3); Patry, Daniel
(/O=PG&E/OU=Corporate/cn=Recipients/cn=DbP0); kowalewskia@calpine.com
(kowalewskia@calpine.com); andykatz@sonic.net (andykatz@sonic.net);
steven@iepa.com (steven@iepa.com); dgrandy@caonsitegen.com
(dgrandy@caonsitegen.com); atrowbridge@daycartermurphy.com
(atrowbridge@daycartermurphy.com); juliettea7@aol.com (juliettea7@aol.com);
sberlin@mccarthy.com (sberlin@mccarthy.com); ehadley@reupower.com
(ehadley@reupower.com); kdw@woodruff-expert-services.com (kdw@woodruff-
expert-services.com); Monica.Schwebs@bingham.com
(Monica.Schwebs@bingham.com); mary.wiencke@pacificcorp.com
(mary.wiencke@pacificcorp.com); rvn@a-klaw.com (rvn@a-klaw.com);
chris@emeter.com (chris@emeter.com); brian.theaker@nrgenergy.com
(brian.theaker@nrgenergy.com); bmcc@mccarthy.com
(bmcc@mccarthy.com); david@ceert.org (david@ceert.org);
jbaird@earthjustice.org (jbaird@earthjustice.org); dbehles@ggu.edu
(dbehles@ggu.edu); acsmith@stoel.com (acsmith@stoel.com);
JMauldin@adamsbroadwell.com (JMauldin@adamsbroadwell.com);
matt.vespa@SierraClub.org (matt.vespa@SierraClub.org); TLindl@kfwlaw.com
(TLindl@kfwlaw.com); dchia@solarcity.com (dchia@solarcity.com);
cpuc@libertyutilities.com (cpuc@libertyutilities.com); Patwa, Daidipya
(/O=PG&E/OU=Corporate/cn=Recipients/cn=D2PA); TRH@cpuc.ca.gov

(TRH@cpuc.ca.gov); Fukui, Lucy
(/O=PG&E/OU=Corporate/cn=Recipients/cn=L GK2);
mary.hemmingsen@brookfieldpower.com
(mary.hemmingsen@brookfieldpower.com); shears@ceert.org (shears@ceert.org);
sreineccius@gmail.com (sreineccius@gmail.com); BAdams@EnerVault.com
(BAdams@EnerVault.com); francis.taylor@enersys.com
(francis.taylor@enersys.com); nate.sandvig@enxco.com
(nate.sandvig@enxco.com); waltnerlaw@gmail.com (waltnerlaw@gmail.com);
f.schubert@renewableanalytics.com (f.schubert@renewableanalytics.com);
aviramontes@lbl.gov (aviramontes@lbl.gov);
shaun.logue@brookfieldrenewable.com (shaun.logue@brookfieldrenewable.com);
irene@igc.org (irene@igc.org); ericg@votesolar.org (ericg@votesolar.org);
Jim.Hicks@state.or.us (Jim.Hicks@state.or.us); paul.stith@greenonramp.com
(paul.stith@greenonramp.com); yaron@voltmetrix.com (yaron@voltmetrix.com);
cpuc-r1012007@olivineinc.com (cpuc-r1012007@olivineinc.com);
aadeyeye@earthjustice.org (aadeyeye@earthjustice.org); dhawkins3@mac.com
(dhawkins3@mac.com); whholmes@stoel.com (whholmes@stoel.com);
kevin.snyder@hdrinc.com (kevin.snyder@hdrinc.com); martinc@mid.org
(martinc@mid.org); sean.kagiyama@nedosv.org (sean.kagiyama@nedosv.org);
Greenacre, Wade (/O=PG&E/OU=Corporate/cn=Recipients/cn=WAG9);
farshid.arman@siemens.com (farshid.arman@siemens.com);
abining@energy.state.ca.us (abining@energy.state.ca.us); aloke.gupta@cpuc.ca.gov
(aloke.gupta@cpuc.ca.gov); audrey.lee@cpuc.ca.gov (audrey.lee@cpuc.ca.gov);
kim.johnson@RiverbankPower.com (kim.johnson@RiverbankPower.com);
borion@lawyersforcleanenergy.com (borion@lawyersforcleanenergy.com);
chloe.lukins@cpuc.ca.gov (chloe.lukins@cpuc.ca.gov);
rahmon.momoh@CPUC.CA.GOV (rahmon.momoh@CPUC.CA.GOV);
david.peck@cpuc.ca.gov (david.peck@cpuc.ca.gov); jason.simon@cpuc.ca.gov
(jason.simon@cpuc.ca.gov); amy.yip-kikugawa@cpuc.ca.gov (amy.yip-
kikugawa@cpuc.ca.gov); pkulkarn@energy.state.ca.us
(pkulkarn@energy.state.ca.us); wendy.al-mukdad@cpuc.ca.gov (wendy.al-
mukdad@cpuc.ca.gov); christopher.villarreal@cpuc.ca.gov
(christopher.villarreal@cpuc.ca.gov); keith.white@cpuc.ca.gov
(keith.white@cpuc.ca.gov); meridethmolly.Sterkel@cpuc.ca.gov
(meridethmolly.Sterkel@cpuc.ca.gov); Rebecca.lee@cpuc.ca.gov
(Rebecca.lee@cpuc.ca.gov); karin.Hieta@cpuc.ca.gov (karin.Hieta@cpuc.ca.gov);
alan.Wecker@cpuc.ca.gov (alan.Wecker@cpuc.ca.gov); devla.singh@cpuc.ca.gov
(devla.singh@cpuc.ca.gov); robert.levin@cpuc.ca.gov (robert.levin@cpuc.ca.gov);
dulce.gonzalez@senerusa.com (dulce.gonzalez@senerusa.com);
olivier@thegreenfrog-sv.com (olivier@thegreenfrog-sv.com);
farzad.ghazzagh@cpuc.ca.gov (farzad.ghazzagh@cpuc.ca.gov)

Cc:

Bcc:

Subject: Re: Energy Storage Workshops slides and immediate actions

I participated in the conference on Monday, getting the slides streamed live over the Internet and listening to the dialog over the phone. But I seemed confused by the entire proceeding.

I am used to thinking of California as trying to restructure its electric utilities such that they own or control relatively little generating capacity. Listening to the discussion I came away with the impression that the utilities were going to be controlling the storage systems, or make decisions as to which storage systems are going to be the winners or the losers. My conclusion is that in eight to twelve years the California commission will end up having prudence hearings on whether the utilities prudently selected the storage systems that were installed, and that current process will result in suits by the losers for the decisions made by the utilities.

My above impression was exacerbated by the discussion of the governor's office representative who talked about plug and play systems. We already have an electric system that is plug and play as far as the physics are concerned. We just don't have a way to plug, play, and then pay or be paid, as I wrote four years ago in "The WOLF in Pricing: How the Concept of Plug, Play, and Pay Would Work for Microgrids", *IEEE Power & Energy Magazine*, January/February 2009.

I would think that the California ISO would be operating the market for storage systems. Certainly the pumped storage system would be participating the California ISO market. There just needs to be a short interval market in which small storage systems can participate, as is suggested in my above IEEE paper.

What am I missing?

Mark B. Lively

Utility Economic Engineer
19012 High Point Dr.
Gaithersburg, Md. 20879
301-428-3618 (voice and fax)
MBeLively@aol.com
<http://livelyutility.com/>
<http://blog.LivelyUtility.com/>

In a message dated 12/4/2012 7:11:30 P.M. Eastern Standard Time, Arthur.O'Donnell@cpuc.ca.gov writes:

Parties to the Storage Rulemaking,

Thank you all for your participation in our workshops on Energy Storage Use Cases and Policy Options.

Staff appreciates all your effort and the valuable feedback, which we will do our best to incorporate into the

Upcoming Interim Report—as we discussed.

Sometimes it takes a little while for documents to get posted on the CPUC Storage web page, so please find attached the two slide decks used for the workshops.

KEMA will provide us with a link to their slide deck, and we'll share that with you when

available.

We will hold off posting the Use Case documents until more complete versions are available; they will be added as Appendices to the Report.

Thanks, and a reminder:

Energy Division staff plans to hold a workshop in early January to discuss the energy storage procurement targets; most likely January 10, subject to confirmation of key participants schedules.

This workshop will cover energy storage procurement targets, with a specific focus on proposals that the Commission should consider as it evaluates these targets.

Parties are invited to consider a variety of procurement options, including a) global procurement targets, b) application and end use specific procurement targets,

c) pilot energy storage procurement programs, or market tests, and/or d) recommendations for other procurement proceedings.

This workshop will include a discussion of the process that the Commission should pursue to evaluate the scope and scale of energy storage procurement.

We'll issue guidance on the format and content well in advance.

Parties will be invited to provide formal presentations at this workshop that cover potential energy storage procurement proposals,

and subsequent to this workshop, parties will be invited to submit formal comments in response to the proposals presented at the workshop.

We will arrange for the workshop to be transcribed and request that it and any subsequent comments be incorporated into the record of the proceeding.

With Regards,

Arthur O'Donnell

Senior Regulatory Analyst

Grid Planning and Reliability

Energy Division

California Public Utilities Commission

415-703-1184

Email: ao1@cpuc.ca.gov