



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

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Order Instituting Rulemaking to Develop  
Additional Methods to Implement the California  
Renewables Portfolio Standard Program.

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R.06-02-012

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

R.08-08-009

**POST WORKSHOP COMMENTS OF IBERDROLA RENEWABLES, INC.**

April 30, 2010

William H. Booth  
Law Office of William H. Booth  
67 Carr Dr.  
Moraga, CA 94556  
Tel: (925) 376-7370  
Email: [wbooth@booth-law.com](mailto:wbooth@booth-law.com)

Counsel for Iberdrola Renewables, Inc.

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Iberdrola Renewables, Inc. ("Iberdrola Renewables") hereby submits its Post Workshop Comments in response to the Ruling of ALJ Simon issued April 26, 2010. Iberdrola Renewables welcomes this opportunity to respond to the specific questions set forth in ALJ Simon's Ruling, and to highlight the information and proposals it provided both in its Responses to the Pre-Workshop Questions issued by the Energy Division and during its PowerPoint and oral presentation at the Workshop. We applaud the Energy Division for promptly following up on the directive in Decision 10-03-021<sup>1</sup>, holding the Workshop and investigating whether and how RPS-eligible renewable projects that do not have a first point of interconnection with a California Balancing Authority Area (CBAA) can reliably and verifiably deliver bundled renewable energy to load serving entities ("LSEs") within the State. The facts presented during the Workshop are vital to the Commission in these proceedings. Iberdrola Renewables respectfully requests that the Commission include in the record in this proceeding the PowerPoint presentation provided by Iberdrola Renewables at the April 23 Workshop and the associated discussion of it to inform

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<sup>1</sup> D.10-03-021 at 103.

the Commission's decision on the important question of how to define, evaluate and measure "bundled" RPS-eligible contracts.

***Introduction and Background on Iberdrola Renewables***

Iberdrola Renewables is a developer, marketer, and operator of renewable electric generation in California, across the Western Electric Coordinating Council (“WECC”) region, and nationally. More than one-third of Iberdrola Renewables’ electric generation portfolio is in the WECC region, including approximately 375 MW of wind capacity operating in California. Iberdrola Renewables is focused on delivering renewable energy to utility customers in ways that make it easier and cheaper for those utilities to grow their renewable portfolios. Renewable energy is a desirable good but its most commonly-available forms in large quantities do not always easily integrate into utilities’ long-established resource portfolios. As described in its pre-Workshop Comments and Workshop PowerPoint presentation, Iberdrola Renewables addresses this challenge in many contracts by 1) securing transmission service to deliver energy to California LSEs from out-of-state locations; and 2) providing firming and shaping services in conjunction with its transmission service to smooth out the intra-hour and inter-hour irregularities of intermittent renewable generation like wind power so LSEs receive products that are more predictable in form and manageable in operations. Iberdrola Renewables also has proposed policy parameters for evaluating proposed transactions as bundled; these parameters were contained in the company’s pre-Workshop Comments and its PowerPoint presentation and are reiterated in response to Question #4, below.

## ***Responses to Specific Questions***

***1. How may the North American Electric Reliability Corporation (NERC) e-tag protocols be used to verify that RPS-eligible generation has been delivered to California? Please address firm transmission arrangements, dynamic transfer arrangements, and firming/shaping arrangements.***

As was demonstrated in our presentation at the April 23, 2010 Energy Division workshop, NERC E-tags provide auditable information to demonstrate that RPS-eligible generation has been delivered to California. The information contained in the E-tag will provide at a minimum the following information to assist in verifying the deliveries:

- The source and sink control areas
- The purchase and selling entities involved
- The source of energy, the transmission paths, and associated points of receipt and points of delivery
- The type of transmission product being used
- The scheduling entities
- A contract ID that links the E-tag with the California Energy Commission (CEC) renewable facility certification number
- The Token field that includes the RPS Identifier with the CEC Renewable Facility Certification number
- The date and hours of the delivery
- The amount of energy delivered

Under the type of firming and shaping product described by Iberdrola Renewables in the Workshop, the E-tag provides similar information to enable verification of generation and delivery; however, the source may be either a specified facility (the eligible renewable resource or another facility for firming energy), or an unspecified facility but specified provider (also for firming energy). Examples of the relevant portions of an E-tag were included in Iberdrola Renewables' PowerPoint presentation at the April 23 Workshop, at pages 15 and 16.

For firm deliveries of baseload renewable energy as well as for delivery of intermittent generation on a firm and shaped basis as described at the Workshop by Iberdrola Renewables, E-tags demonstrating delivery of energy may be matched with metered output data from the generator to quantify the amount of renewable energy credits ("RECs") that may be claimed from the facility.

Iberdrola Renewables does not have experience in California with dynamic transfer arrangements.

***2. What, if any, are the implications for ratepayers and for the administration of the RPS program of defining a California balancing authority area as that of a balancing authority located primarily in California (as set out in the pre-workshop comments of Pacific Gas and Electric Company, Iberdrola Renewables, and Shell Energy North America), rather than as a balancing authority having substations in California (as set out in the pre-workshop comments of San Diego Gas & Electric Company and Sempra Generation).***

Iberdrola Renewables has no additional comments beyond those contained in its pre-Workshop Comments on the merits of including or excluding the BAs that have any substation in California but it has focused on the related question – asked in the pre-Workshop questions and discussed during the Workshop – of what physical assets are included as synonymous with the scheduling points for injecting power into California. Iberdrola Renewables in its pre-Workshop Comments cited the California-Oregon Border (COB) delivery point and the Malin and Captain Jack substations typically associated with COB as synonymous. LS Power, in its pre-Workshop Comments provided a list of Physical Tie or Scheduling Point Names. Iberdrola Renewables

notes inclusion of Malin but not Captain Jack on this list. Iberdrola Renewables proposes inclusion of these points and the Captain Jack substation. The latter is a crucial substation for delivering power on Bonneville Power Administration's Southern Intertie to California.

***3. At what points in a transaction utilizing firm transmission is it possible for the buyer to remarket the energy? Is it possible to trace and verify any remarketing using information from NERC e-tags?***

As Iberdrola Renewables documented in its pre-Workshop Comments and Workshop presentation for transactions it has implemented in California and asserts should be treated as bundled, energy delivered into California associated with an RPS-eligible facility will have an accompanying NERC E-tag that will demonstrate that the sink for the energy is a California point of delivery. Once delivered, this energy will become part of the overall mix of energy within California. To the extent an LSE needs to sell length in the real-time market, such sales would result in the creation of new NERC E-tags.

It is very important to note two things with respect to this question: first, this same circumstance applies for California-based renewable generation or generation imported into California –remarketing and tracking renewable generation happen the same way for in-state generation and imports of generation from other States and BAAs; and, second, sales of energy by LSEs to balance supply with demand are typically system sales and not generator-specific. Irrespective of remarketing any short-term portfolio length, the procurement of delivered renewable generation (in-state or from other states) will increase the share of renewable generation in the LSEs' portfolios and displace conventional generation from those portfolios.

***4. What transactional parameters should be required if firm transmission transactions are considered bundled? Consider, for example, the type, capacity and duration of transmission arrangements; contractual obligations of the buyer and seller for the RPS contract; and after-the-fact verification.***

At the April 23 workshop, Iberdrola Renewables focused on two types of firm transactions that the company currently engages in with California counterparties. These examples were provided to address the Commission's interest in determining whether deliveries using firm transmission arrangements may be counted as bundled transactions rather than REC-only transactions. There likely are other arrangements beyond the types described in the Iberdrola Renewables' presentation but Iberdrola Renewables is focusing its Comments on firm deliveries of baseload and intermittent generation. Iberdrola Renewables proposes the following parameters that, if provided to Commission in an advice letter filing, should create a presumption that the product being procured is a bundled product:

- A. Demonstration that the transaction includes a commitment to use firm transmission for at least the final leg of a delivery path to a CBAA or associated scheduling point (e.g., COB or the Malin or Captain Jack substations). Securing firm transmission on a major transmission line into California indicates a commitment to deliver power on a predictable, ongoing basis to a CBAA. Short-term firm or non-firm transmission on earlier legs, may be the only delivery options in advance of upgrades or if long-term firm is not available but short-term firm or non-firm is in ample supply. The transmission rights can be held by the Generator, the LSE, or a third-party providing a firming and shaping service to provide an incremental delivery of energy to the LSE and California.
- B. The firm transmission right should be transmission considered "long-term firm" under FERC's OATT, and should include a rollover right.

C. The amount of firm transmission reserved should be sufficient to deliver at least 75 percent of the expected average annual output of the eligible renewable resource;

D. In addition to providing otherwise-required periodic reports, parties to the transaction agree to provide to the Commission access to the data that demonstrates generation and delivery (i.e., E-tags, metered output data) to enable the Commission to verify compliance with the terms of the transaction.

E. Parties to the transaction agree to reconcile metered output data from the renewable resource using WREGIS Certificates and energy deliveries to the point of delivery identified in the transaction on a quarterly basis.

If arrangement for delivery on a transmission segment is not as described above, then parties to the transaction should provide information to demonstrate how it plans deliveries.

***5. Which topics discussed at the workshop appear to be resolved? What is the resolution, and what is the basis for concluding that a resolution has occurred?***

The April 23 workshop answered affirmatively that generation and delivery of renewable energy on firm transmission, when the generator does not have a first point of interconnection with a California Balancing Authority, may be demonstrated and audited. The workshop discussion demonstrated that these transactions should be categorized as bundled transactions.

The workshop also highlighted the array of different transactions that are lumped under the “firmed and shaped” category and drew out significant differences among them. Transactions involving the generation and delivery of intermittent generation through firm transmission were demonstrated to provide a product that also should be treated as bundled.

A question associated with this latter form of arrangement is: "on what basis to count firming energy and RECs." One party voiced concern over counting as bundled any imports that are not delivered on a real-time basis. Several other parties stated or suggested some level of flexibility in matching generation and deliveries was appropriate – a reasonable way to manage

the intermittent nature of wind and solar to provide reliable, predictable power to LSEs, make efficient use of the transmission system, and keep ratepayer costs reasonable. The value of flexibility – reliability benefits to the CBAAs – were clearly described by the California Independent System Operator participant who noted that firmed and shaped deliveries of renewable energy maintain system reliability and relieve CBAs of additional in-state integration requirements compared with delivery of intermittent renewables through dynamic transfer. Additionally parties indicated that the energy delivery profile from firmed and shaped energy provides a more valuable product, and may have capacity attributes assigned. Congestion risk is also minimized, as is the risk of non-delivery. Firmed and shaped deliveries also have a stronger likelihood of displacing conventional generation. However, several parties made clear that firming energy should be incremental to energy already under contract. This incremental requirement would assure additional energy is delivered into CA.

Several issues raised during the Iberdrola Renewables presentation were discussed at length. Between written Comments and discussion at the Workshop, Iberdrola Renewables asserts there are clearly demonstrated reasons for treating as bundled deliveries using firm transmission along the parameters proposed by the company.

1. Efficient use of transmission capacity by intermittent resources: As previously noted, transmission rights and schedules may not align with the generation profile of a renewable generator, nor should they. While baseload generation may efficiently reserve transmission capacity closer to its nameplate capacity, such a requirement would be costly to consumers and highly inefficient for generation resources with capacity factors generally in the range of 20-35 percent. Delivery of an incremental renewable resource through the RPS will displace an incumbent source of generation, typically gas or coal, within the same time period (other resources, such as nuclear and run-of-river hydro, are generally not dispatchable) or forestall the construction of a new conventional resource – also typically gas or coal in the WECC. Rather than firmed and shaped deliveries requiring a “supplement of brown power for the green,” these

transactions actually create a *displacement* of brown power by the green, thus not only generating power without any GHG emissions but also displacing traditional resources, further benefiting the greater environment.

2. Multiple transmission paths from source to sink: The number of paths through which a delivery is arranged should be immaterial to the eligibility of a delivered product. Provided the E-tag may verify transmission of the energy from source to California sink, the number of paths does not matter. There are practical limits to delivering through multiple non-California-BAAs, however. One limit is physical (i.e., transmission constraints) but the more practical limit may be financial – the imposition of charges for multiple “wheels” will render a distant renewable resource less economic to deliver to California. Some flexibility to redirect deliveries to optimize transmission efficiency will allow renewable energy generated outside the state of California and will further California’s use of new green energy.

***6. Which topics discussed at the workshop appear to require further work? What is the basis for that evaluation?***

***7. Any other issues related to the use of TRECs discussed at the workshop that the commenter believes should be addressed further.***

***Question #8: Does the commenter have any recommendations on how to take advantage of firm transmission or another scheduling mechanism for RPS procurement in the near term, i.e. between now and 2012, taking into consideration the physical limits of the transmission system? Please describe those limits, providing documentation supporting your recommendation, and discuss the value of your proposal to the ratepayer. How, if at all, would the answer change for the medium (2012-2015) and longer term (2015-2020)?***

With respect to firm transmission deliveries (for both baseload and intermittent renewable generation), Iberdrola Renewables has provided a series of recommendations for cost-effective procurement of bundled products through its pre-Workshop Comments, its Workshop presentation, and the Comments in response to the previous questions, above. It is abundantly clear to Iberdrola Renewables that firm transmission capacity is significantly limited and will

remain so for quite some time. These limits are one reason why Iberdrola Renewables has emphasized the importance of a firm transmission threshold of 75 percent of the expected annual average output of a facility – to promote more efficient use of a scarce transmission resource in order to provide renewable energy at reasonable cost to California ratepayers.

As several workshop participants observed, there are means, in addition to firm transmission, to deliver renewable energy to California when the first point of interconnection is not a CBAA. The Iberdrola Renewables proposals are not meant to be the only means of establishing delivery; rather, they are proposed and documented to give the Commission confidence that it may add these types of transactions to the category of “bundled” transactions not subject to the REC-only cap in D.10-03-021.

***Question #9: How would the commenter apply the valuation components identified by PG&E and SCE in their cost-benefit valuation methodology\* presentations to the various shaped and firmed RPS contract structures that were presented by Energy Division staff at the workshop\*\*? Commenters should describe what valuation components are relevant to each of these contract structures and reasons why they take a given view. Additionally, how does the existence of a pseudo-tie or dynamic scheduling arrangement within a given RPS contract impact the applicability and/or magnitude of the various valuation components identified by PG&E and SCE in their cost benefit valuation methodology?***

***\* Valuation components identified on page 4 of SCE's presentation included the following:***

- Levelized costs: Contract Payments, Transmission Cost, Debt Equivalence Mitigation Expense, Integration Cost***
- Levelized benefits: Energy Value, Capacity Value, Shaping and Firming***

***\*\* See page 6 of the Intro presentation, which can be found at <http://www.cpuc.ca.gov/PUC/energy/Renewables/hot/070824recworkshop.htm>***

While Iberdrola Renewables has not been able to analyze the proposed valuation components in detail, delivery of a renewable resource from outside a CBAA to a CBAA that has been firmed and shaped to provide for a predictable long-term supply of energy has value with respect to integration and capacity that are superior to a delivery of intermittent renewable energy that is

scheduled through dynamic transfer. Deliveries of firmed and shaped intermittent energy are also a more efficient use of transmission resources than intermittent renewable energy using dynamic transfer, helping to keep expenses lower for California customers.

Dated: April 30, 2010

Respectfully submitted,

/s/

William H. Booth  
Law Office of William H. Booth  
67 Carr Dr.  
Moraga, CA 94556  
Tel: (925) 376-7370  
Email: [wbooth@booth-law.com](mailto:wbooth@booth-law.com)

Counsel for Iberdrola Renewables, Inc.

**VERIFICATION**

I am the attorney for Iberdrola Renewables, Inc. in this matter. Iberdrola Renewables is absent from the Town of Moraga, where my office is located, and under Rule 1.11(d) of the Commission’s Rules of Practice and Procedure, I am submitting this verification on behalf of Iberdrola Renewables for that reason. I have read the attached “Post-Workshop Comments of Iberdrola Renewables, Inc.” dated April 30, 2010, and the attached “TREC Workshop Presentation”. I am informed and believe, and on that ground allege, that the matters stated in these documents are true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 4th of May, 2010, at Moraga, California.

\_\_\_\_\_/s/\_\_\_\_\_  
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William H. Booth  
Law Office of William H. Booth  
67 Carr Dr.  
Moraga, CA 94556  
Tel: (925) 376-7370  
Email: wbooth@booth-law.com

Counsel for Iberdrola Renewables, Inc.

**CERTIFICATE OF SERVICE**

I, the undersigned, declare that I am employed in the County of Contra Costa, California, that I am over the age of eighteen years and not a party to the within action. My business address is 67 Carr Drive, Moraga, California 94556.

On May 4, 2010, I electronically re-served a true copy of the document described as **POST WORKSHOP COMMENTS OF IBERDROLA RENEWABLES, INC.** attached hereto on the accompanying service list:

Executed on May 4, 2010, at Moraga, California.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

\_\_\_\_\_/s/  
Christine Dable  
Legal Assistant to William H. Booth

SERVICE LIST  
R. 06-02-012, R.08-08-009

dgulino@ridgewoodpower.com  
ron.cerniglia@directenergy.com  
rick\_noger@praxair.com  
keith.mccrea@sablaw.com  
csmoots@perkinscoie.com  
rresch@seia.org  
garson\_knapp@fpl.com  
Cynthia.A.Fonner@constellation.com  
Lflowers@LSPower.com  
ken.baker@wal-mart.com  
ej\_wright@oxy.com  
sylvia.castillo@bsgclearing.com  
jordan.white@pacificorp.com  
rkeen@manatt.com  
mmazur@3PhasesRenewables.com  
susan.munves@smgov.net  
klatt@energyattorney.com  
douglass@energyattorney.com  
pssed@adelphia.net  
pssed@adelphia.net  
cathy.karlstad@sce.com  
Joni.Templeton@sce.com  
william.v.walsh@sce.com  
kswitzer@gswater.com  
kswitzer@gswater.com  
cponds@ci.chula-vista.ca.us  
AMSmith@SempraUtilities.com  
DAKing@SempraUtilities.com  
fortlieb@sandiego.gov  
GBass@SempraSolutions.com  
KHassan@SempraUtilities.com  
CentralFiles@SempraUtilities.com  
jleslie@luce.com  
tdarton@pilotpowergroup.com  
tdarton@pilotpowergroup.com  
GloriaB@anzaelectric.org  
wplaxico@axiopower.com  
kerry.eden@ci.corona.ca.us  
Joe.Langenberg@gmail.com  
dorth@krcd.org  
ek@a-klaw.com  
nes@a-klaw.com  
pepper@cleanpowermarkets.com  
holly@ausra.com  
jrichman@bloomenergy.com  
dbp@cpuc.ca.gov

dsh@cpuc.ca.gov  
mpo@cpuc.ca.gov  
nao@cpuc.ca.gov  
theresa.mueller@sfgov.org  
mhyams@sflower.org  
marcel@turn.org  
mpa@a-klaw.com  
wvm3@pge.com  
b.barnes@cleantechamerica.com  
bcragg@goodinmacbride.com  
jsqueri@gmsr.com  
jared.johnson@lw.com  
jarmstrong@goodinmacbride.com  
mday@goodinmacbride.com  
nmurray@naturener.net  
vidhyaprabakaran@dwt.com  
dhuard@manatt.com  
jkarp@winston.com  
jeffgray@dwt.com  
salleyoo@dwt.com  
sho@ogrady.us  
crmd@pge.com  
ECL8@pge.com  
ssmyers@att.net  
gpetlin@3degreesinc.com  
ralf1241a@cs.com  
wbooth@booth-law.com  
Audra.Hartmann@Dynergy.com  
kowalewskia@calpine.com  
jeremy.weinstein@pacificorp.com  
jody\_london\_consulting@earthlink.net  
jkepke@ch2m.com  
gmorris@emf.net  
lwisland@ucsusa.org  
ndesnoo@ci.berkeley.ca.us  
jpross@sungevity.com  
tomb@crossborderenergy.com  
janreid@coastecon.com  
johnrredding@earthlink.net  
jweil@aglet.org  
demorse@omsoft.com  
jsanders@caiso.com  
dennis@ddecuir.com  
jdalessi@navigantconsulting.com  
cmkehrrein@ems-ca.com  
dcarroll@downeybrand.com  
jmcfarland@treasurer.ca.gov  
jluckhardt@downeybrand.com  
steven@iepa.com  
abb@eslawfirm.com

dkk@eslawfirm.com  
glw@eslawfirm.com  
lmh@eslawfirm.com  
kmills@cfbf.com  
wwester@smud.org  
nelson@thnelson.com  
dmdubson@stoel.com  
kevin.lynch@iberdrolausa.com  
jcolive@bpa.gov  
Tom.Elgie@powerex.com  
WBlattner@SempraUtilities.com  
janice@strategenconsulting.com  
jf@pointcarbon.com  
mpf@stateside.com  
tciardella@nvenergy.com  
dan@energysmarthomes.net  
Derek@AltaPowerGroup.com  
EGrizard@deweysquare.com  
r.raushenbush@comcast.net  
tam.hunt@gmail.com  
mpr-ca@coolearthsolar.com  
Harry.Singh@RBSSempra.com  
DHecht@sempraTrading.com  
jansell@alternitywindpower.com  
tmartin@alternitywindpower.com  
steven.schleimer@barclayscapital.com  
ACRoma@hhlaw.com  
perlism@dicksteinshapiro.com  
MASullivan@hhlaw.com  
tszymanski@hunton.com  
vsuravarapu@cera.com  
tjaffe@energybusinessconsultants.com  
mannm@dteenergy.com  
cswoollums@midamerican.com  
abiecunasjp@bv.com  
judith.kim@walmartlegal.com  
rmccoy@ercot.com  
allison.heaton@macquarie.com  
andre.templeman@macquarie.com  
christi.nicolay@macquarie.com  
joe.paul@dynegy.com  
roxane.perruso@tac-denver.com  
bbaker@summitblue.com  
kjsimonsen@ems-ca.com  
dsaul@pacificsolar.net  
dbrooks@nvenergy.com  
chad\_dickason@soleonenergy.com  
freesa@thirdplanetwind.com  
dykema@thirdplanetwind.com  
chilen@NVEnergy.com

emello@sppc.com  
tdillard@sppc.com  
jgreco@terra-genpower.com  
ctorchia@chadbourne.com  
lmitchell@hanmor.com  
harveyederpspc@hotmail.com  
jackmack@suesec.com  
case.admin@sce.com  
gary.allen@sce.com  
rkmoore@gswater.com  
mary@solutionsforutilities.com  
mtmcewan@gmail.com  
TCorr@SempraGlobal.com  
liddell@energyattorney.com  
mshames@ucan.org  
marcie.milner@shell.com  
ccasselman@pilotpowergroup.com  
CentralFiles@SempraUtilities.com  
HRasool@SempraUtilities.com  
JWright@SempraUtilities.com  
DNiehaus@SempraUtilities.com  
bjnese@stoel.com  
billm@enxco.com  
shess@edisonmission.com  
csteen@bakerlaw.com  
rblee@bakerlaw.com  
michaelgilmore@inlandenergy.com  
hal@rwitz.net  
wes658@gmail.com  
sue.mara@rtoadvisors.com  
mdjoseph@adamsbroadwell.com  
michael.mcdonald@ieee.org  
matthew@turn.org  
paulfenn@local.org  
Dan.adler@calcef.org  
srovetti@sflower.org  
andre.devilbiss@recurrentenergy.com  
dcover@esassoc.com  
jim.howell@recurrentenergy.com  
luke.dunnington@recurrentenergy.com  
mflorio@turn.org  
nsuetake@turn.org  
nlong@nrdc.org  
bfinkelstein@turn.org  
snuller@ethree.com  
avege@firstwind.com  
fred.wellington@navigantconsulting.com  
MGML@pge.com  
gcooper@cpv.com  
Jennifer.Barnes@Navigantconsulting.com

filings@a-klaw.com  
cpuccases@pge.com  
spauker@wsgr.com  
vjw3@pge.com  
cmmw@pge.com  
nxk2@pge.com  
diarmuid@greenwoodenv.com  
arno@recurrentenergy.com  
cassandra.sweet@dowjones.com  
elizabeth.blase@lw.com  
jscancarelli@crowell.com  
joshdavidson@dwt.com  
lcottle@winston.com  
mchediak@bloomberg.net  
rhassan@fbr.com  
sdhilton@stoel.com  
stevegreenwald@dwt.com  
tkaushik@manatt.com  
katherine@evomarkets.com  
nfinerty@evomarkets.com  
joshdavidson@dwt.com  
judypau@dwt.com  
bobgex@dwt.com  
Diane.Fellman@nrgenergy.com  
cem@newsdata.com  
lisa\_weinzimer@platts.com  
atk4@pge.com  
imcgowan@3degreesinc.com  
alho@pge.com  
bari@pge.com  
regrelcpuccases@pge.com  
ELL5@pge.com  
GXL2@pge.com  
MMCL@pge.com  
MRGG@pge.com  
SEHC@pge.com  
rwalther@pacbell.net  
beth@beth411.com  
kerry.hattevik@nexteraenergy.com  
andy.vanhorn@vhcenergy.com  
sean.beatty@mirant.com  
rick\_noger@praxair.com  
sbeserra@sbcglobal.net  
phanschen@mofo.com  
timea.Zentai@navigantconsulting.com  
pletkarj@bv.com  
philha@astound.net  
dietrichlaw2@earthlink.net  
alex.kang@itron.com  
nellie.tong@us.kema.com

ramonag@ebmud.com  
ahaubenstock@brightsourceenergy.com  
bepstein@fablaw.com  
mrw@mrwassoc.com  
cpucdockets@keyesandfox.com  
kfox@keyesandfox.com  
cwooten@lumenxconsulting.com  
rschmidt@bartlewells.com  
clyde.murley@comcast.net  
nrader@calwea.org  
gtrobinson@lbl.gov  
rhwiser@lbl.gov  
ed.smeloff@sunpowercorp.com  
brad@mp2capital.com  
michael@mp2capital.com  
lynn@lmaconsulting.com  
anders.glader@elpower.com  
keithwhite@earthlink.net  
eric.cherniss@gmail.com  
shani@scvas.org  
sberlin@mccarthyllaw.com  
jrobertpayne@gmail.com  
davido@mid.org  
tomk@mid.org  
joyw@mid.org  
brbarkovich@earthlink.net  
dgrandy@caonsitegen.com  
rmccann@umich.edu  
martinhomec@gmail.com  
tobinjmr@sbcglobal.net  
bdicapo@caiso.com  
grosenblum@caiso.com  
saeed.farrokhpay@ferc.gov  
e-recipient@caiso.com  
david.oliver@navigantconsulting.com  
kdusel@navigantconsulting.com  
cpucrulings@navigantconsulting.com  
lpark@navigantconsulting.com  
pmaxwell@navigantconsulting.com  
lwhouse@innercite.com  
tpomales@arb.ca.gov  
amber@iepa.com  
mclaughlin@braunlegal.com  
pstoner@lgc.org  
bernardo@braunlegal.com  
blaising@braunlegal.com  
dseperas@calpine.com  
bsb@eslawfirm.com  
jgg@eslawfirm.com  
jdh@eslawfirm.com

esison@smud.org  
obartho@smud.org  
rroth@smud.org  
aorchar@smud.org  
bbeebe@smud.org  
mdeange@smud.org  
vwood@smud.org  
eddyconsulting@gmail.com  
bpurewal@water.ca.gov  
mniroula@water.ca.gov  
artrivera@comcast.net  
karen@klindh.com  
atrowbridge@daycartermurphy.com  
ehadley@reupower.com  
dbranchcomb@spi-ind.com  
sas@a-klaw.com  
deb@a-klaw.com  
jravenesanmarcos@yahoo.com  
californiadockets@pacificorp.com  
cbreidenich@yahoo.com  
jholmes@emi1.com  
rarego@lakeviewlight.com  
dws@r-c-s-inc.com  
pblood@columbiaenergypartners.com  
castille@landsenergy.com  
pbrehm@infiniacorp.com  
lindsay\_zaitsoff@transalta.com  
olga.beznosova@bctc.com  
jmcmahon@crai.com  
ab1@cpuc.ca.gov  
agc@cpuc.ca.gov  
as2@cpuc.ca.gov  
ams@cpuc.ca.gov  
aes@cpuc.ca.gov  
aeg@cpuc.ca.gov  
bwm@cpuc.ca.gov  
cjm@cpuc.ca.gov  
cni@cpuc.ca.gov  
css@cpuc.ca.gov  
dot@cpuc.ca.gov  
eks@cpuc.ca.gov  
gtd@cpuc.ca.gov  
jm3@cpuc.ca.gov  
jb9@cpuc.ca.gov  
jaa@cpuc.ca.gov  
jf2@cpuc.ca.gov  
kpp@cpuc.ca.gov  
lmi@cpuc.ca.gov  
mrl@cpuc.ca.gov  
mjs@cpuc.ca.gov

mjh@cpuc.ca.gov  
nlr@cpuc.ca.gov  
psd@cpuc.ca.gov  
rmm@cpuc.ca.gov  
smk@cpuc.ca.gov  
svn@cpuc.ca.gov  
sc1@cpuc.ca.gov  
tbo@cpuc.ca.gov  
kenneth.swain@navigantconsulting.com  
gcollord@arb.ca.gov  
ahuang@arb.ca.gov  
clausenb@energy.state.ca.us  
gbarkalo@energy.state.ca.us  
hrait@energy.state.ca.us  
kzocchet@energy.state.ca.us  
lgonzale@energy.state.ca.us  
rmiller@energy.state.ca.us  
pbarthol@energy.state.ca.us  
hcronin@water.ca.gov