# BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Promote Policy and Program Coordination and Integration in Electric Utility Resource Planning.

Rulemaking 04-04-003 (Filed April 1, 2004)

## COMMENTS OF POWEREX CORP. ADDRESSING THE STAFF "CAPACITY MARKETS WHITE PAPER"

GOODIN, MACBRIDE, SQUERI, RITCHIE & DAY, LLP James D. Squeri 505 Sansome Street, Suite 900 San Francisco, CA 94111 Telephone: (415) 392-7900 Facsimile: (415) 398-4321 E-Mail: jsqueri@gmssr.com

Date: September 23, 2005 Attorneys for POWEREX CORP.

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

Order Instituting Rulemaking to Promote Policy and Program Coordination and Integration in Electric Utility Resource Planning.

Rulemaking 04-04-003 (Filed April 1, 2004)

#### Comments of Powerex Corp. Addressing the Staff "Capacity Markets White Paper"

In accordance with Chief Administrative Law Judge's Ruling dated

August 25, 2005, Powerex Corp. ("Powerex") submits its comments on the Staff White

Paper entitled "Capacity Markets White Paper."

Power x is the marketing subsidiary of British Columbia Hydro and Power Authority ("BC Hydro"). Powerex sells power at wholesale in the United States pursuant to market-based rate authority granted by the Federal Energy Regulatory Commission ("FERC"). Powerex has actively participated in this proceeding given its long history of supplying power to the California market and because the availability and reliable provision of such power will be affected by the policies addressing Resource Adequacy Requirements ("RAR") adopted in this proceeding, including policy matters raised by the Staff White Paper.

Powerex would like to applaud the Commission Staff for producing a highly informative primer on capacity markets. It is an excellent foundation from which to build upon as the Commission furthers its investigation of capacity markets.

The paper acknowledges throughout that the CAISO control area is dependent on external resources to meets its capacity targets (approx. 20%). In addition to the acknowledged fact of the CAISO's reliance on imports, it must also be recognized that the CAISO control area is also part of a broader regional market providing

transmission services to its customers and enabling the regional trade of energy between the seasonally diverse Pacific Northwest and California and Desert Southwest. Powerex would encourage the Commission to assure that the benefits of this inter-regional trade not be jeopardized in the process of developing a CAISO-operated capacity market. Powerex hopes to continue its involvement in any future proceeding to investigate capacity markets and assist the CAISO and Commission to work through the multitude of "seams" issues that will arise.

Powerex now offers its initial comments addressing those issues that Commission Staff asked interested entities to focus upon in their comments.

#### (1) "Lessons Learned and Related Policy Questions" outlined in Section VI.E:

Powerex understands that the eastern markets do not rely on import resources to the degree that the CAISO control area does. This significant difference between the two regions and the fact that the CAISO is the only organized market in the Western US reinforces the need to insure that a CAISO capacity market provides sufficient payments to encourage external resources to participate relative to other western market opportunities.

#### (2) Staff's recommendations outlined in Section VII:

Recommendation 2: Further investigate alternative availability metrics (e.g. UCAP v. ISO-NE's proposed metric based on performance during shortage conditions) and ensure development of an availability metric that is applicable to hydro, wind, thermal and other generation technologies, and to appropriate demand response products.

Powerex supports this recommendation to investigate alternative availability metrics and believes that capacity from external sources (i.e. imports) should also be considered in such a review.

Recommendation 5: Consider protecting against capacity exports during times of tight supply through the use of capacity prices that fluctuate seasonally.

Since the current Western market is an energy only market with a forward price curve that reflects a seasonal shape, it would be reasonable to assume that the capacity markets would naturally follow a similar shape. Powerex believes that there needs to be further research into the implications of a restriction on "capacity exports" that goes beyond the use of seasonal capacity prices.

Recommendation 6: Investigate the dependability of capacity import contracts during times of high West-wide load.

Powerex would suggest that the Commission Staff consult the CAISO to determine the actual historical performance of imports compared with internal resources. The CAISO has made reference to the dependability of imports in past technical conferences with stakeholders and stated that imports are a highly reliable product and far more reliable compared to any individual, internal generating unit.

The Staff White Paper seemingly reflects the exact opposite viewpoint when it implies that imports are potentially less reliable than internal generating units which "can easily be secured during emergencies" and suggests that this implied lack of comparative reliability may justify applying higher penalties for default by capacity import contracts. Powerex believes that there should be equitable treatment of internal and external capacity resources (demand or supply side), and the Commission Staff

should not have a preconceived bias in its approach to the performance issue of capacity contracts. There needs to be a clear demonstration of need to prove that dependability of capacity imports are a problem before imposing higher penalties for non-performance and/or a different price-setting mechanism than that used for internal capacity contracts.

(3) Appropriate roles and responsibilities of the Commission and CAISO in the development, design, and potential implementation of capacity markets in California outlined in Section VIII:

Powerex believes that the lead role of how to reconcile "seams" issues such as imports and exports and purchases outside of California, and how to determine appropriate penalties for not meeting performance targets as it relates to imports and exports should be assigned to the CAISO. The CAISO has the day-to-day operational and technical expertise, staff, and relationships with a broad constituency of stakeholders that rely on the CAISO for transmission and reliability services.

Powerex appreciates the opportunity to comment on the Staff White Paper and looks forward to continued participation in the Commission process of developing reasonable and appropriate RAR standards and policies.

### Respectfully submitted this September 23rd, 2005 at San Francisco,

#### California.

GOODIN, MACBRIDE, SQUERI, RITCHIE & DAY, LLP James D. Squeri 505 Sansome Street, Suite 900 San Francisco, California 94111 Telephone: (415) 392-7900 Facsimile: (415) 398-4321

E-mail: jsqueri@gmssr.com

By <u>/s/ James D. Squeri</u> James D. Squeri

Attorneys for POWEREX CORP

2879/001/X69917.v1 09/23/05

#### **CERTIFICATE OF SERVICE**

I, Arthur Newmark, certify that I have on this 23rd day of September, 2005 caused a copy of the foregoing **COMMENTS OF POWEREX CORP.** 

#### ADDRESSING THE STAFF "CAPACITY MARKETS WHITE PAPER";

**R.04-04-003** to be served on all known parties to R.04-04-003 via e-mail to those listed with e-mail on the CPUC service website, and via U.S. Mail to those without e-mail service. Hand Deliveries have been sent via messenger to the following:

Jack Fulcher
Energy Division
California Public Utilities Commission
Room 4A
505 Van Ness Avenue
San Francisco, California 94102
jef@cpuc.ca.gov

I declare under penalty of perjury that the foregoing is true and correct. Executed this 23<sup>rd</sup> day of September, 2005 at San Francisco, California.

/s/ Arthur Newmark
Arthur Newmark

2879/001/X69946.v1

ENERGY AMERICA, LLC

KEITH MCCREA SUTHERLAND, ASBILL & BRENNAN keith.mccrea@sablaw.com

ROGER A. BERLINER MANATT, PHELPS & PHILLIPS, LLP rberliner@manatt.com

LISA DECKER lisa.decker@constellation.com

GARSON KNAPP FPL ENERGY, LLC garson\_knapp@fpl.com

JAMES ROSS RCS INC. jimross@r-c-s-inc.com

OCCIDENTAL POWER SERVICES, INC.

BP ENERGY COMPANY

TOM SKUPNJAK CPG ENERGY toms@i-cpg.com

APS ENERGY SERVICES COMPANY, INC.

NEW WEST ENERGY CORPORATION

LISA URICK SAN DIEGO GAS & ELECTRIC COMPANY lurick@sempra.com

HOWARD CHOY COUNTY OF LOS ANGELES hchoy@isd.co.la.ca.us

DAVID L. HUARD MANATT, PHELPS & PHILLIPS, LLP dhuard@manatt.com

MARGARET R. SNOW MANATT, PHELPS & PHILLIPS msnow@manatt.com

RANDALL W. KEEN MANATT PHELPS & PHILLIPS, LLP pucservice@manatt.com

CONSTELLATION NEWENERGY, INC.

MAUREEN LENNON WHITE & CASE mlennon@whitecase.com MICHAEL MAZUR 3 PHASES ELECTRICAL CONSULTING

TANDY MCMANNES SOLAR THERMAL ELECTRIC ALLIANCE mcmannes@aol.com

OUIET LLC

GREGORY S.G. KLATT DOUGLASS & LIDDELL klatt@energyattorney.com

KEVIN DUGGAN CAPSTONE TURBINE CORPORATION

kduggan@capstoneturbine.com

DANIEL W. DOUGLASS DOUGLASS & LIDDELL douglass@energyattorney.com

AMERICAN UTILITY NETWORK (A.U.N.)

ANNETTE GILLIAM SOUTHERN CALIFORNIA EDISON COMPANY annette.gilliam@sce.com

BERJ K. PARSEGHIAN SOUTHERN CALIFORNIA EDISON COMPANY berj.parseghian@sce.com

BETH A. FOX SOUTHERN CALIFORNIA EDISON COMPANY beth.fox@sce.com

CASE ADMINISTRATION SOUTHERN CALIFORNIA EDISON COMPANY case.admin@sce.com

JAMES WOODRUFF SOUTHERN CALIFORNIA EDISON COMPANY woodrujb@sce.com

MICHAEL A. BACKSTROM SOUTHERN CALIFORNIA EDISON COMPANY michael.backstrom@sce.com

ELIZABETH HULL CITY OF CHULA VISTA ehull@ci.chula-vista.ca.us

SEMPRA ENERGY SOLUTIONS

DONALD P. GARBER SEMPRA ENERGY dgarber@sempra.com FREDERICK M. ORTLIEB CITY OF SAN DIEGO fortlieb@sandiego.gov

GEORGETTA J. BAKER SEMPRA ENERGY gbaker@sempra.com

THEODORE ROBERTS SEMPRA ENERGY troberts@sempra.com

KEITH MELVILLE SAN DIEGO GAS & ELECTRIC COMPANY KMelville@sempra.com

MICHAEL SHAMES UTILITY CONSUMERS' ACTION NETWORK mshames@ucan.org

WILLIAM E. POWERS POWERS ENGINEERING bpowers@powersengineering.c

CORAL POWER, LLC.

PILOT POWER GROUP, INC.

JOSEPH R. KLOBERDANZ SAN DIEGO GAS & ELECTRIC jkloberdanz@semprautilities.co

WENDY KEILANI SAN DIEGO GAS & ELECTRIC wkeilani@semprautilities.com

WENDY KEILANIA SAN DIEGO GAS & ELECTRIC COMPANY WKeilani@semprautilities.com

JOHN W. LESLIE LUCE, FORWARD, HAMILTON & SCRIPPS, LLP jleslie@luce.com

KEITH E. FULLER ITRON, INC. keith.fuller@itron.com

COMMERCE ENERGY, INC.

COMMERCE ENERGY, INC.

AOL UTILITY CORP.

CITY OF CORONA DEPARTMENT OF WATER & POW

GEORGE HANSON CITY OF CORONA george.hanson@ci.corona.ca.us CHRIS KING
CALIFORNIA CONSUMER
EMPOWERMENT
chris@emeter.com

MARC D. JOSEPH ADAMS, BROADWELL, JOSEPH & CARDOZO mdjoseph@adamsbroadwell.co m

JEANNE SOLE CITY AND COUNTY OF SAN FRANCISCO jeanne.sole@sfgov.org

JOSEPH PETER COMO CITY AND COUNTY OF SAN FRANCISCO joe.como@sfgov.org

MARION PELEO CALIFORNIA PUBLIC UTILITIES COMMISSION map@cpuc.ca.gov

MICHEL PETER FLORIO THE UTILITY REFORM NETWORK mflorio@turn.org

OSA ARMI SHUTE MIHALY & WEINBERGER LLP armi@smwlaw.com

Amy C Yip-Kikugawa CALIF PUBLIC UTILITIES COMMISSION ayk@cpuc.ca.gov

Karen P Paull CALIF PUBLIC UTILITIES COMMISSION kpp@cpuc.ca.gov

Regina DeAngelis CALIF PUBLIC UTILITIES COMMISSION rmd@cpuc.ca.gov

KAREN TERRANOVA ALCANTAR & KAHL, LLP filings@a-klaw.com

NORA SHERIFF ALCANTAR & KAHL LLP nes@a-klaw.com

ROD AOKI ALCANTAR & KAHL, LLP rsa@a-klaw.com

SHERYL CARTER NATURAL RESOURCES DEFENSE COUNCIL scarter@nrdc.org

EDWARD V. KURZ PACIFIC GAS AND ELECTRIC COMPANY evk1@pge.com

JENNIFER K. POST PACIFIC GAS AND ELECTRIC COMPANY jlkm@pge.com

JOHN W. BOGY PACIFIC GAS AND ELECTRIC j0b5@pge.com

MARY A. GANDESBERY PACIFIC GAS AND ELECTRIC COMPANY magq@pge.com

BRIAN CRAGG GOODIN, MAC BRIDE, SQUERI, RITCHIE & DAY bcragg@gmssr.com

BRIAN T. CRAGG GOODIN MACBRIDE SQUERI RITCHIE & DAY LLP

bcragg@gmssr.com

CHRISTOPHER HILEN DAVIS WRIGHT TREMAINE, LLP chrishilen@dwt.com

EDWARD W. O'NEILL DAVIS WRIGHT TREMAINE LLP

edwardoneill@dwt.com

JAMES D. SQUERI GOODIN MACBRIDE SQUERI RITCHIE & DAY LLP jsqueri@gmssr.com

jsqueri e gmssi.com

JEANNE B. ARMSTRONG RITCHIE & DAY, LLP jarmstrong@gmssr.com

JOSEPH M. KARP WHITE & CASE LLP jkarp@whitecase.com

STEVEN F. GREENWALD DAVIS WRIGHT TREMAINE, LLP stevegreenwald@dwt.com

LISA A. COTTLE WHITE & CASE LLP lcottle@whitecase.com

MARK R. HUFFMAN PACIFIC GAS AND ELECTRIC COMPANY mrh2@pge.com SARA STECK MYERS LAW OFFICES OF SARA STECK MYERS ssmyers@att.net

LYNNE BROWN CALIFORNIANS FOR RENEWABLE ENERGY, INC.

1 brown123@hotmail.com

MAURICE CAMPBELL CALIFORNIANS FOR RENEWABLE ENERGY,

mecsoft@pacbell.net

CALPINE POWERAMERICA-CA, LLC

AVIS CLARK CALPINE CORPORATION aclark@calpine.com

LINDA Y. SHERIF CALPINE CORPORATION linda.sherif@calpine.com

MARJORIE OXSEN CALPINE CORPORATION moxsen@calpine.com

RICK NOGER PRAXAIR PLAINFIELD, INC. rick\_noger@praxair.com

WILLIAM H. BOOTH LAW OFFICE OF WILLIAM H. BOOTH wbooth@booth-law.com

ERIC C. WOYCHIK STRATEGY INTEGRATION LLC

eric@strategyi.com

RAMONA GONZALEZ EAST BAY MUNICIPAL UTILITY DISTRICT ramonag@ebmud.com

REED V. SCHMIDT BARTLE WELLS ASSOCIATES rschmidt@bartlewells.com

GREGG MORRIS GREEN POWER INSTITUTE gmorris@emf.net

JOHN GALLOWAY UNION OF CONCERNED SCIENTISTS jgalloway@ucsusa.org

CLYDE MURLEY CONSULTING ON ENERGY AND ENVIRONMENT clyde.murley@comcast.net NANCY RADER CALIFORNIA WIND ENERGY ASSOCIATION nrader@calwea.org

TOM BEACH CROSSBORDER ENERGY tomb@crossborderenergy.com

PATRICK MCDONNELL AGLAND ENERGY SERVICES, INC. pcmcdonnell@earthlink.net

JENNIFER HOLMES ITRON INC. jennifer.holmes@itron.com

MICHAEL E. BOYD

CALIFORNIANS FOR RENEWABLE ENERGY, INC. michaeledwardboyd@sbcglobal

JUSTIN D. BRADLEY SILICON VALLEY MANUFACTURING GROUP jbradley@svmg.org

BARRY F. MCCARTHY MCCARTHY & BERLIN, LLP bmcc@mccarthylaw.com

C. SUSIE BERLIN MC CARTHY & BERLIN, LLP sberlin@mccarthylaw.com

CHRISTOPHER J. MAYER MODESTO IRRIGATION DISTRICT

chrism@mid.org

JOY A. WARREN MODESTO IRRIGATION DISTRICT joyw@mid.org

ROBERT SARVEY CALIFORNIANS FOR RENEWABLE ENERGY, INC. sarveybob@aol.com

DAVID KATES DAVID MARK AND COMPANY dkates@sonic.net

BARBARA R. BARKOVICH BARKOVICH & YAP, INC. brbarkovich@earthlink.net

JOHN R. REDDING ARCTURUS ENERGY CONSULTING johnrredding@earthlink.net JAMES WEIL AGLET CONSUMER ALLIANCE jweil@aglet.org

JOHN C. GABRIELLI GABRIELLI LAW OFFICE gumbrelli@cs.com

SHAWN SMALLWOOD, PH.D. puma@davis.com

GEETA O. THOLAN CALIFORNIA INDEPENDENT SYSTEM OPERATOR gtholan@caiso.com

GRANT A. ROSENBLUM CALIFORNIA INDEPENDENT SYSTEM OPERATOR grosenblum@caiso.com

MATTHEW V. BRADY MATTHEW V. BRADY & ASSOCIATES matt@bradylawus.com

DAN L. CARROLL DOWNEY BRAND LLP dcarroll@downeybrand.com

DOUGLAS K. KERNER ELLISON, SCHNEIDER & HARRIS LLP dkk@eslawfirm.com

GREGGORY L. WHEATLAND ELLISON, SCHNEIDER & HARRIS glw@eslawfirm.com

LYNN HAUG ELLISON, SCHNEIDER & HARRIS, LLP lmh@eslawfirm.com

STEVEN KELLY INDEPENDENT ENERGY PRODUCERS ASSN steven@iepa.com

DIANA MAHMUD STATE WATER CONTRACTORS dmahmud@mwdh2o.com

RONALD LIEBERT CALIFORNIA FARM BUREAU FEDERATION rliebert@cfbf.com

MICHAEL ALCANTAR ALCANTAR & KAHL LLP mpa@a-klaw.com

DONALD W. SCHOENBECK RCS, INC.

dws@r-c-s-inc.com

BRIAN M. JONES M.J. BRADLEY & ASSOCIATES, INC. bjones@mjbradley.com

CARLO ZORZOLI ENEL NORTH AMERICA, INC.

carlo.zorzoli@enel.it

ANDREA WELLER STRATEGIC ENERGY, LTD aweller@sel.com

MARY LYNCH CONSTELLATION ENERGY COMMODITIES GROUP mary.lynch@constellation.com

ERIC YUSSMAN FELLON-MCCORD & ASSOCIATES eyussman@knowledgeinenergy com

TRENT A. CARLSON RELIANT ENERGY tcarlson@reliant.com

GARY HINNERS RELIANT ENERGY, INC. ghinners@reliant.com

MICHAEL A. CRUMLEY EL PASO CORPORATION michael.crumley@elpaso.com

WAYNE TOMLINSON EL PASO NATURAL GAS william.tomlinson@elpaso.com

DAVID SAUL SOLEL, INC. dsaul@solel.com

CYNTHIA K. MITCHELL ECONOMIC CONSULTING INC.

ckmitchell1@sbcglobal.net

CURTIS KEBLER GOLDMAN, SACHS & CO. curtis.kebler@gs.com

KEVIN R. MCSPADDEN MILBANK, TWEED, HADLEY &MCCLOY LLP kmcspadden @ milbank.com

NORMAN A. PEDERSEN HANNA AND MORTON LLP npedersen@hanmor.com COLIN M. LONG
PACIFIC ECONOMICS
GROUP
cmlong@earthlink.net

ROGER PELOTE WILLIAMS POWER COMPANY, INC. roger.pelote@williams.com

FRANK J. COOLEY SOUTHERN CALIFORNIA EDISON COMPANY frank.cooley@sce.com

JANET COMBS SOUTHERN CALIFORNIA EDISON COMPANY janet.combs@sce.com

LAURA GENAO SOUTHERN CALIFORNIA EDISON COMPANY laura.genao@sce.com

DON WOOD PACIFIC ENERGY POLICY CENTER dwood8@cox.net

TIM HEMIG REGIONAL ENVIRONMENTAL BUSINESS NRG ENER tim.hemig@nrgenergy.com

DANIEL A. KING SEMPRA ENERGY daking@sempra.com

ROB RUNDLE SANDAG rru@sandag.org

KEITH W. MELVILLE SEMPRA ENERGY kmelville@sempra.com

DONALD C. LIDDELL, P.C. DOUGLASS & LIDDELL liddell@energyattorney.com

THOMAS CORR SEMPRA ENERGY tcorr@sempra.com

YVONNE GROSS SEMPRA ENERGY ygross@sempraglobal.com

ABBAS M. ABED SAN DIEGO GAS & ELECTRIC amabed@semprautilities.com

IRENE M. STILLINGS SAN DIEGO REGIONAL ENERGY OFFICE irene.stillings@sdenergy.org JOSEPH KLOBERDANZ SAN DIEGO GAS & ELECTRIC COMPANY jkloberdanz@semprautilities.co

KELLY M. MORTON SAN DIEGO GAS & ELECTRIC kmorton@sempra.com

MICHAEL SCHMIDT SAN DIEGO GAS AND ELECTRIC COMPANY mschmidt@semprautilities.com

SUSAN FREEDMAN SAN DIEGO REGIONAL ENERGY OFFICE susan.freedman@sdenergy.org

CENTRAL FILES SAN DIEGO GAS & ELECTRIC centralfiles@semprautilities.co m

JOSE C. CERVANTES CITY OF SAN DIEGO jcervantes@sandiego.gov

KURT J. KAMMERER SAN DIEGO REGIONAL ENERGY OFFICE kjk@kjkammerer.com

MARK SHIRILAU ALOHA SYSTEMS, INC. marks@alohasys.com

CHARLES R. TOCA UTILITY SAVINGS & REFUND, LLC ctoca@utility-savings.com

MARK J. SKOWRONSKI SOLARGENIX AT INLAND ENERGY GROUP mjskowronski@inlandenergy.c

JUNE M. SKILLMAN jskillman@prodigy.net

RENEE HOFFMAN CITY OF ANAHEIM rhoffman@anaheim.net

JIM MCARTHUR ELK HILLS POWER, LLC jmcarthur@elkhills.com

LAUREN CASENTINI D & R INTERNATIONAL lcasentini@drintl.com DIANE I. FELLMAN LAW OFFICES OF DIANE I. FELLMAN diane\_fellman@fpl.com

MATTHEW FREEDMAN THE UTILITY REFORM NETWORK freedman@turn.org

NOEL A. OBIORA CALIFORNIA PUBLIC UTILITIES COMMISSION nao@cpuc.ca.gov

DANIELLE DOWERS S. F. PUBLIC UTILITIES COMMISSION ddowers@sfwater.org

SEAN CASEY SAN FRANCISCO PUBLIC UTILITIES COMMISSIO scasey@sfwater.org

DEVRA BACHRACH NATURAL RESOURCES DEFENSE COUNCIL dbachrach@nrdc.org

CHRIS ANN DICKERSON, PHD FREEMAN, SULLIVAN & CO. dickerson05@fscgroup.com

GRACE LIVINGSTON-NUNLEY PACIFIC GAS AND ELECTRIC COMPANY gxl2@pge.com

VALERIE J. WINN PACIFIC GAS AND ELECTRIC COMPANY vjw3@pge.com

ROSALIE E. JOHNSON AT&T COMMUNICATIONS OF CALIFORNIA, INC. rejohnson@att.com

PETER BRAY PETER BRAY AND ASSOCIATES petertbray@yahoo.com

CALIFORNIA ENERGY MARKETS cem@newsdata.com

JAMES A. BOOTHE HOLLAND & KNIGHT LLP james.boothe@hklaw.com

JEFFREY P. GRAY DAVIS WRIGHT TREMAINE LLP jeffgray@dwt.com

LISA WEINZIMER CALIFORNIA ENERGY CIRCUIT

lisa\_weinzimer@platts.com

LAW DEPARTMENT FILE ROOM PACIFIC GAS AND ELECTRIC COMPANY cpuccases@pge.com

MARGARET D. BROWN PACIFIC GAS AND ELECTRIC COMPANY mdbk@pge.com

ED LUCHA PACIFIC GAS AND ELECTRIC COMPANY ell5@pge.com

SEBASTIEN CSAPO PACIFIC GAS AND ELECTRIC COMPANY sscb@pge.com

ROBIN J. WALTHER rwalther@pacbell.net

BARRY R. FLYNN FLYNN RESOURCE CONSULTANTS, INC. brflynn@flynnrci.com

MICHAEL ROCHMAN SCHOOL PROJECT UTILITY RATE REDUCTION service@spurr.org

KEITH WHITE keithwhite@earthlink.net

ANDREW J. VAN HORN VAN HORN CONSULTING vhconsult@earthlink.net

JAY BHALLA INTERGY CORPORATION jay.bhalla@intergycorp.com

JACK PIGOTT CALPINE CORPORATION jackp@calpine.com

KENNETH ABREU CALPINE CORPORATION kena@calpine.com

STEVEN S. SCHLEIMER CALPINE CORPORATION sschleimer@calpine.com

GREGORY T. BLUE DYNEGY INC. greg.blue@dynegy.com MONA TIERNEY CONSTELLATION NEWENERGY, INC. mona.tierney@constellation.co m

WILLIAM H. CHEN CONSTELLATION NEW ENERGY, INC.

bill.chen@constellation.com

STANLEY I. ANDERSON POWER VALUE INCORPORATED sia2@pwrval.com

CATHERINE E. YAP BARKOVICH & YAP, INC. ceyap@earthlink.net

MRW & ASSOCIATES, INC. mrw@mrwassoc.com

DAVID HOWARTH MRW & ASSOCIATES, INC. mrw@mrwassoc.com

DAVID MARCUS dmarcus2@sbcglobal.net

CRAIG TYLER
TYLER & ASSOCIATES
craigtyler@comcast.net

EDWARD VINE LAWRENCE BERKELEY NATIONAL LABORATORY elvine@lbl.gov

RYAN WISER BERKELEY LAB rhwiser@lbl.gov

KAREN NOTSUND UC ENERGY INSTITUTE knotsund@uclink.berkeley.edu

PHILLIP J. MULLER SCD ENERGY SOLUTIONS philm@scdenergy.com

JAN REID COAST ECONOMIC CONSULTING janreid@coastecon.com

WILLIAM B. MARCUS JBS ENERGY, INC. bill@jbsenergy.com.

VIKKI WOOD SACRAMENTO MUNICIPAL UTILITY DISTRICT vwood@smud.org

CARLOYN KEHREIN ENERGY MANAGEMENT SERVICES cmkehrein@ems-ca.com SCOTT BLAISING BRAUN & BLAISING, P.C. blaising@braunlegal.com

CALIFORNIA ISO e-recipient@caiso.com

ERIC LEUZE CALIFORNIA INDEPENDENT SYSTEM OPERATOR eleuze@caiso.com

PHILIP D. PETTINGILL CAISO ppettingill@caiso.com

ROBERT SPARKS
CALIFORNIA
INDEPENDANT SYSTEM
OPERATOR
rsparks@caiso.com

BRIAN THEAKER WILLIAMS POWER COMPANY brian.theaker@williams.com

DAVID LA PORTE NAVIGANT CONSULTING

ED CHANG FLYNN RESOURCE CONSULTANTS, INC. edchang@flynnrci.com

BRUCE MCLAUGHLIN BRAUN & BLAISING P.C. mclaughlin@braunlegal.com

DAN GEIS AGRICULTURAL ENERGY CONSUMERS ASSO. dgeis@dolphingroup.org

KEVIN WOODRUFF WOODRUFF EXPERT SERVICES kdw@woodruff-expertservices.com

LOREN KAYE POLIS GROUP lkaye@ka-pow.com

MELANIE GILLETTE DUKE ENERGY NORTH AMERICA mlgillette@duke-energy.com

WILLIAM W. WESTERFIELD III STOEL RIVES LLP www.esterfield@stoel.com

ANDREW B. BROWN ELLISON, SCHNEIDER & HARRIS, LLP abb@eslawfirm.com GREG BROWNELL SACRAMENTO MUNICIPAL UTILITY DISTRICT gbrowne@smud.org

CAROLYN A. BAKER cabaker906@sbcglobal.net

KAREN NORENE MILLS CALIFORNIA FARM BUREAU FEDERATION kmills@cfbf.com

E. JESUS ARREDONDO NRG ENERGY, INC. jesus.arredondo@nrgenergy.co

KAREN LINDH LINDH & ASSOCIATES karen@klindh.com

NATHAN TOYAMA SACRAMENTO MUNICIPAL UTILITY DISTRICT ntoyama@smud.org

DON WINSLOW PPM ENERGY don.winslow@ppmenergy.com

G. ALAN COMNES DYNEGY POWER CORP. alan.comnes@dynegy.com

MARK C. TREXLER TREXLER CLIMATE+ENERGY SERVICES, INC. mtrexler@climateservices.com

SAM SALDER OREGON DEPARTMENT OF ENERGY samuel.r.sadler@state.or.us

LAURA J. SCOTT LANDS ENERGY CONSULTING INC. lscott@landsenergy.com

LOS ANGELES DOCKET OFFICE CALIFORNIA PUBLIC UTILITIES COMMISSION LAdocket@cpuc.ca.gov

Aaron J Johnson CALIF PUBLIC UTILITIES COMMISSION ajo@cpuc.ca.gov

Brian D. Schumacher CALIF PUBLIC UTILITIES COMMISSION bds@cpuc.ca.gov

Bruce Kaneshiro CALIF PUBLIC UTILITIES COMMISSION bsk@cpuc.ca.gov

Carol A Brown
CALIF PUBLIC UTILITIES
COMMISSION
cab@cpuc.ca.gov

Christine S Tam
CALIF PUBLIC UTILITIES
COMMISSION
tam@cpuc.ca.gov

Donald R Smith CALIF PUBLIC UTILITIES COMMISSION dsh@cpuc.ca.gov

Donna J Hines CALIF PUBLIC UTILITIES COMMISSION djh@cpuc.ca.gov

Eugene Cadenasso CALIF PUBLIC UTILITIES COMMISSION cpe@cpuc.ca.gov

Jack Fulcher CALIF PUBLIC UTILITIES COMMISSION jef@cpuc.ca.gov

Julie A Fitch CALIF PUBLIC UTILITIES COMMISSION if2@cpuc.ca.gov

Karen A Degannes CALIF PUBLIC UTILITIES COMMISSION kdg@cpuc.ca.gov

Karen M Shea CALIF PUBLIC UTILITIES COMMISSION kms@cpuc.ca.gov

Kenneth Lewis CALIF PUBLIC UTILITIES COMMISSION kl1@cpuc.ca.gov

Lainie Motamedi CALIF PUBLIC UTILITIES COMMISSION lrm@cpuc.ca.gov

Lisa Paulo CALIF PUBLIC UTILITIES COMMISSION lp1@cpuc.ca.gov

Manuel Ramirez CALIF PUBLIC UTILITIES COMMISSION mzr@cpuc.ca.gov Mark S. Wetzell CALIF PUBLIC UTILITIES COMMISSION msw@cpuc.ca.gov

Maryam Ebke CALIF PUBLIC UTILITIES COMMISSION meb@cpuc.ca.gov

Meg Gottstein CALIF PUBLIC UTILITIES COMMISSION meg@cpuc.ca.gov

Merideth Sterkel CALIF PUBLIC UTILITIES COMMISSION mts@cpuc.ca.gov

Nilgun Atamturk CALIF PUBLIC UTILITIES COMMISSION nil@cpuc.ca.gov

Paul Douglas CALIF PUBLIC UTILITIES COMMISSION psd@cpuc.ca.gov

Philippe Auclair CALIF PUBLIC UTILITIES COMMISSION pha@cpuc.ca.gov

Robert Elliott CALIF PUBLIC UTILITIES COMMISSION rae@cpuc.ca.gov

Robert Kinosian CALIF PUBLIC UTILITIES COMMISSION gig@cpuc.ca.gov

Scott Logan CALIF PUBLIC UTILITIES COMMISSION sjl@cpuc.ca.gov

Shannon Eddy CALIF PUBLIC UTILITIES COMMISSION sed@cpuc.ca.gov

Stephen St. Marie CALIF PUBLIC UTILITIES COMMISSION sst@cpuc.ca.gov

Steve Linsey CALIF PUBLIC UTILITIES COMMISSION car@cpuc.ca.gov

Terrie D Prosper CALIF PUBLIC UTILITIES COMMISSION tdp@cpuc.ca.gov Theresa Cho CALIF PUBLIC UTILITIES COMMISSION tcx@cpuc.ca.gov

Valerie Beck CALIF PUBLIC UTILITIES COMMISSION vjb@cpuc.ca.gov

Zenaida G. Tapawan-Conway CALIF PUBLIC UTILITIES COMMISSION ztc@cpuc.ca.gov

MARGARET TOBIAS info@tobiaslo.com

ANDREW ULMER SIMPSON PARTNERS, LLP andrew@simpsonpartners.com

MICHAEL MESSENGER CALIFORNIA ENERGY COMMISSION Mmesseng@energy.state.ca.us

JAMES MCMAHON NAVIGANT CONSULTING, INC. JMcMahon@navigantconsultin

MEG GOTTSTEIN meg@cpuc.ca.gov

g.com

BRETT FRANKLIN CALIFORNIA ELECTRICITY OVERSIGHT BOARD bfranklin@eob.ca.gov

CONNIE LENI CALIFORNIA ENERGY COMMISSION cleni@energy.state.ca.us

Don Schultz CALIF PUBLIC UTILITIES COMMISSION dks@cpuc.ca.gov

JENNIFER TACHERA CALIFORNIA ENERGY COMMISSION jtachera@energy.state.ca.us

CALIFORNIA ENERGY COMMISSION kgriffin@energy.state.ca.us

KAREN GRIFFIN

MICHAEL JASKE CALIFORNIA ENERGY COMMISSION mjaske@energy.state.ca.us PIERRE H. DUVAIR CALIFORNIA ENERGY COMMISSION pduvair@energy.state.ca.us

Thomas Flynn CALIF PUBLIC UTILITIES COMMISSION trf@cpuc.ca.gov

TOM GLAVIANO
CALIFORNIA ENERGY
COMMISSION
tglaviano@energy.state.ca.us

Wade McCartney CALIF PUBLIC UTILITIES COMMISSION wsm@cpuc.ca.gov

PEGGY BERNARDY CALIFORNIA DEPARTMENT OF WATER RESOURCES dsandino@water.ca.gov

FERNANDO DE LEON CALIFORNIA ENERGY COMMISSION fdeleon@energy.state.ca.us

ARLEN ORCHARD SACRAMENTO MUNICIPAL UTILITY DISTRICT aorchar@smud.org

JOHN PACHECO CALIFORNIA DEPARTMENT OF WATER RESOURCES jpacheco@water.ca.gov

KENNETH GLICK CALIFORNIA ELECTRICITY OVERSIGHT BOARD kglick@eob.ca.gov

RON WETHERALL CALIFORNIA ENERGY COMMISSION rwethera@energy.state.ca.us

ROSS A. MILLER CALIFORNIA ENERGY COMMISSION rmiller@energy.state.ca.us

PUC/X69951.v1