Exhibit JAR-1 No. _____
Date: July 23, 2012
Witness: James A. Ross

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans	Rulemaking 12-03-014 (Filed March 22, 2013)

PREPARED REPLY TESTIMONY OF

JAMES A. ROSS

ON BEHALF OF THE

COGENERATION ASSOCIATION OF CALIFORNIA

July 23, 2012

REGULATORY & COGENERATION SERVICES, INC.

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INTRODUCTION AND SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Q PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A My name is James A. Ross. I am a member of the consulting firm of Regulatory & Cogeneration Services, Inc. (RCS), a utility rate and economic consulting firm. My business address is 500 Chesterfield Center, Suite 320, Chesterfield, Missouri 63017. A statement of my qualifications is attached as Appendix A.

Q ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A This testimony is presented on behalf of the Cogeneration Association of California.

CAC is an *ad hoc* association representing the power generation, power marketing and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A This testimony addresses the June 25, 2012 testimony of R. Thomas Beach on behalf of the California Cogeneration Council (CCC). Specifically, this testimony addresses Mr. Beach's testimony with respect to Combined Heat and Power (CHP) facilities serving the need for local area generating resources in the Los Angeles (LA) Basin and Big

Creek/Ventura local capacity areas resulting from California Independent System Operator (CAISO) studies evaluating the retirement of certain once-through cooling (OTC) power plants.

Q PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.

A My conclusions and recommendations are as follows:

CAISO TESTIMONY AND CA ENERGY POLICY

- An integral component of the stated California energy policy is the "loading order" encompassed in the established Energy Action Plan (EAP). This loading order establishes procurement priorities for long-term electric resources. The state's first priority in the loading order is to encourage energy efficiency; the second priority is to stimulate the development of renewable generation and distributed generation, including efficient CHP facilities. Moreover, Governor Brown's Clean Energy Jobs Plan sets a goal to "develop 6,500 MW of combined heat and power over the next 20 years" (i.e., by the year 2030).

- In stark contrast, the CAISO's testimony in this case, with respect to 2021 local capacity area need, argues for conventional fossil-fueled generation as the first priority for long-term procurement – negating the state's adopted loading order and the Governor's energy policy goals.

- At the core of the CAISO testimony is the tenet that it is not prudent "to rely on uncommitted resources for assessing future local system needs and ensuring the reliability of the bulk power system." Apparently, the term "uncommitted resources" only applies to Energy Efficiency (EE) and CHP resources. Combined-cycle resources and simple cycle combustion turbine facilities that are only "planned to be operational by 2021" are exempt from the CAISO's definition of "uncommitted resources." This preference for utility/merchant generation is counter to the espoused California energy policy and reflects a bias that jeopardizes the successful implementation of that energy policy.

- Apparently the CAISO's definition of "uncommitted resources" (albeit only applicable to EE and CHP resources) also extends to certain existing operational CHP facilities. I am aware of about 60 MW of existing CHP capacity in the Western LA Basis sub-area and about 70 MW of additional capacity in the Big Creek/Ventura area.

RECOMMENDATIONS

- The Commission should reject designation of conventional fossil-fueled generation to satisfy the local capacity need in this proceeding. The priority for satisfying the identified need should be consistent with the loading order. More

importantly, the Commission should assure that every reasonable effort has been made to first procure the existing capacity within these local capacity areas before considering the procurement of capacity from new resources.

- The Commission should establish a rebuttable presumption that existing resource offers priced no greater than the cost of new conventional fossil generation be deemed reasonable in the IOU procurement process. The IOUs should not be allowed to reject economical offers from existing resources and subsequently enter into long-term procurement of new conventional fossil resources at prices equal to or greater than those offered by those existing resources without a rigorous assessment.

SUCCESSFUL IMPLEMENTATION OF CA ENERGY POLICY

CAISO Testimony and California Energy Policy

Q TO SET SOME CONTEXT FOR YOUR RECOMMENDATIONS, WHAT ARE THE RESULTS OF THE CAISO LOCAL CAPACITY NEED EVALUATION?

A My understanding of Table 1 to Mr. Sparks' May 23, 2012 testimony is that the original assessment shows a need in 2021 ranging from about 2,400 MW to 3,900 MW in the Western Los Angeles LA Basin sub-area, except the environmentally-constrained scenario that shows a need ranging from about 1,900 MW to 2,900 MW. Additionally, 430 MW of need in Moorpark, a sub-area of the Big Creek / Ventura local capacity area, was determined.

In subsequent testimony, the CAISO presented the "CPUC environmentally constrained portfolio" (mid net load condition) result from the updated Sensitivity Study that appears to reduce the need in the Western LA Basin sub-area in 2021 to a range of about 1,000 MW to 1,700 MW (including SONGS).

Q DOES THE CAISO RECOMMEND ADOPTION OF THE UPDATED SENSITIVITY STUDY RESULTS FOR THE DETERMINING THE LOCAL CAPACITY NEEDS?

A No. Mr. Sparks cites a CAISO concern about relying on "uncommitted resources." His testimony is that, to the extent such uncommitted resources ultimately develop, such resources

"can be helpful" in reducing overall net-demand, but the CAISO does not believe it is prudent to rely on uncommitted resources for assessing future local system needs and ensuring the reliability of the bulk power system.

Q WHAT ARE THE CAISO PREFERRED RESOURCES FOR MEETING THE ASSESSED LOCAL CAPACITY NEED?

A My understanding of the CAISO testimony in this proceeding is that the CAISO's preferred resources for meeting the identified local capacity need are two 500 MW combined-cycle units and eighteen 100 MW combustion turbine units in the Western LA Basin and Big Creek / Ventura local capacity areas.

Q IS THE CAISO TESTIMONY CONSISTENT WITH THE CALIFORNIA ENERGY POLICY?

A No. As addressed by Mr. Beach in his June 26, 2012 testimony, an integral component of the stated California energy policy is the "*loading order*" encompassed in the established Energy Action Plan. This loading order establishes procurement priorities for long-term electric resources. The state's first priority in the loading order is to encourage energy efficiency; the second priority is to stimulate the development of renewable generation and distributed generation, including efficient CHP facilities. Moreover, Governor Brown's Clean Energy Jobs Plan sets a goal to "develop 6,500 MW of combined heat and power over the next 20 years" (i.e., by the year 2030).

In stark contrast, the CAISO's testimony in this case, with respect to 2021 local area needs, argues for conventional fossil-fueled generation as the first priority for long-term procurement – negating the state's adopted loading order and the Governor's energy policy goals.

Q IS THE CAISO TESTIMONY SYMPTOMATIC OF A BIAS THAT UNDERMINES THE SUCCESSFUL IMPLEMENTATION OF CALIFORNIA ENERGY POLICY?

A Yes. At the core of the CAISO testimony is the tenet that it is not prudent "*to rely on uncommitted resources for assessing future local system needs and ensuring the reliability of the bulk power system.*" Apparently, the term "*uncommitted resources*" only applies to EE and CHP resources. Combined-cycle resources and simple cycle combustion turbine facilities that are only "planned to be operational by 2021" are exempt from the CAISO's definition of "*uncommitted resources.*" This preference for utility/merchant generation is counter to the espoused California energy policy and reflects a bias that jeopardizes the successful implementation of that energy policy.

Q HOW DOES THE CAISO'S BIAS OF NOT RELYING ON "UNCOMMITTED RESOURCES" JEOPARDIZE ENERGY POLICY IMPLEMENTATION REGARDING CHP?

A In short, the CAISO's bias threatens long-term economical opportunities for both existing and potential new CHP facilities. As discussed earlier, a long-term procurement preference for "planned" conventional fossil-fueled generation resources can result in these resources being procured in place of CHP resources.

Q WHY ARE LONG-TERM ECONOMIC OPPORTUNITIES KEY TO CHP RETENTION AND DEVELOPMENT?

A For a typical CHP operation that produces more electrical energy than is consumed on site, the option to employ CHP is linked to the ability to harmonize the operation of the facility with the production requirements of the thermal host and the electrical needs of the utility. The commercial or industrial customer, which utilizes CHP to manage thermal energy requirements, must have a repository for the electrical energy that is generated from the CHP process. These types of companies which rely on the thermal energy output of a CHP facility for their core operations will only continue to operate under a CHP configuration for as long as such a configuration continues to be economic, provides a reasonable certainty of operational longevity and does not jeopardize their ability to produce their core business product.

In the absence of a long-term economical commitment, there is no guarantee that the industrial customer will have an outlet for the electrical energy that is produced in the CHP process. Moreover, the lack of a consistent commitment by the state in support of long-term economical conditions for the delivery of CHP generated electrical power presents the industrial customer with a significant amount of uncertainty as to whether it is prudent to continue to rely on CHP operations. Such uncertainty encourages the industrial customer to evaluate the installation of alternative sources of thermal energy

production to insure the long-term production required for its core business operations. Similarly, the continued operation of existing CHP is also discouraged.

Q WITH RESPECT TO CAPACITY FROM EXISTING CHP FACILITIES, DO THE CAISO OTC AND LCT STUDIES REFLECT ALL OF THE EXISTING CAPABILITY IN THE EVAUATED LOCAL CAPACITY AREAS?

A No. Apparently the CAISO's definition of "uncommitted resources" (albeit only applicable to EE and CHP resources) also extends to certain existing operational CHP facilities. Mr. Beach's testimony fails to identify this CAISO deficiency and his testimony could be construed as advocating priority for new resources over these existing resources. In this regard, I must draw a distinction with the testimony of Mr. Beach. There are valuable existing resources that should have first priority in procurement to meet local capacity need.

Q WHAT EXISTING CAPABILITY IN THE EVAUATED LOCAL CAPACITY AREAS WERE NOT INCLUDED IN THE CAISO STUDIES?

A I am aware of about 60 MW of existing CHP capacity in the Western LA Basis sub-area available from two CHP facilities. The Watson Cogeneration Company (Watson) is a nominal 400 MW topping-cycle CHP facility capable of reliably delivering approximately of 327 MW of capacity. In addition to Watson, the BP West Cost Products, LLC's Wilmington Calciner (Calciner) operates a 35.8 MVA nameplate rated bottoming-cycle CHP facility with net output capability of 29 MW. Both Watson and the Calciner are located in the CAISO designated Western LA Basin local capacity sub-area.

Furthermore, there is about 70 MW of existing capacity located in the Big Creek/Ventura area that is not included in the CAISO studies. Table 1 identifies the specific CHP projects and their available capacity to serve load in the CAISO local capacity area.

Table 1						
Line	**RESOURCE**	**LCR AREA NAME**	**LCR SUB-AREA NAME**	**LCT Study (MW)**	**Summer Capability (MW)**	**Additional Available Capacity (MW)**
1	Watson Cogeneration Company	LA Basin	Western	271.40	327.00	55.60
2	BP Wilmington Calciner	LA Basin	Western	21.46	29.00	7.54
3	Sub-total	LA Basin	Western			63.14
4	Sycamore Cogeneration Company	Big Creek/Ventura	Big Creek	230.23	300.00	69.77
5	Total					132.91

Recommendations

Q SHOULD CONVENTIONAL FOSSIL GENERATION BE DESIGNATED TO SATISFY THE LOCAL CAPACITY NEED IDENTIFIED BY THE CAISO IN THE PROCEEDING?

A No, the Commission should reject designation of conventional fossil-fueled generation as a priority for satisfying the local capacity need in this proceeding. The priority for satisfying the identified need should be consistent with the loading order. More importantly, the Commission should assure that every reasonable effort has been made to first procure the existing capacity within these local capacity areas before considering the procurement of capacity from new resources.

Q HOW CAN THE COMMISSION ASSURE THAT THE PROCUREMENT PROCESS WILL NOT BE BIASED IN FAVOR OF CONVENTIONAL FOSSIL GENERATION RESOURCES RATHER THAN EXISTING CAPABILITY WITHIN THE LOCAL CAPACITY AREA?

A The Commission should establish a rebuttable presumption that existing resource offers priced no greater than the cost of new conventional fossil generation be deemed reasonable in the IOU procurement process. The IOUs should not be allowed to reject economical offers from existing resources and subsequently enter into long-term

procurement of new conventional fossil resources at prices equal to or greater than those offered by those existing resources without a rigorous assessment.

Q DOES THIS CONCLUDE YOUR REPLY TESTIMONY?

A Yes, it does.

QUALIFICATIONS OF JAMES A. ROSS

Mr. Ross is a graduate of the University of Missouri, with the degrees of Bachelor of Science in Electrical Engineering and Master of Science in Engineering Management. After graduation in 1971, he was employed by Union Electric Company, a utility, which provides service to Metropolitan St. Louis, Missouri, and surrounding areas. While assigned to the Power Operation Function, Mr. Ross was responsible for system operation-related engineering evaluations, which included long-range and intermediate planning studies, various economic studies and computer simulation of system operations. In 1977 he was assigned to the Corporate Planning Function with responsibilities in capacity planning coordination activities and special studies.

Mr. Ross served on Edison Electric Institute committees and task forces, and participated in reliability, capacity planning, power plant siting and contract negotiation activities.

Subsequent to his approximate ten-year employment with Union Electric Company, Mr. Ross entered the field of utility rate and economic consulting. His experience includes evaluations related to various aspects of utility ratemaking, utility operation, utility planning, rate forecasting, contract negotiations and cogeneration activities. Mr. Ross is a member of Regulatory & Cogeneration Services, Inc. ("RCS"), utility rate and economic consultants. Through its offices in Chesterfield, Missouri and Vancouver, Washington, RCS provides a wide range of utility rate and economic consulting services. The members of RCS have extensive utility operation, planning, and rate-related experience and have for several years been engaged in providing electric and

gas utility-related consulting services to some of the largest corporations in the United States.

Mr. Ross has testified as an expert witness on utility rates, planning, contract negotiations and related matters before the regulatory commissions of Alabama, Arizona, California, Colorado, Florida, Idaho, Illinois, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Nevada, New York, Pennsylvania, South Carolina, Texas, Utah and Wyoming. Mr. Ross has also testified before the Federal Energy Regulatory Commission.