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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider Revisions to the Planning Reserve Margin for Reliable and Cost-Effective Electric Service.

Rulemaking 08-04-012
(Filed April 10, 2008)

**ADMINISTRATIVE LAW JUDGES' RULING INVITING
COMMENTS ON RESTARTING THE PROCEEDING**

1. Summary

Comments on restarting this planning reserve margin proceeding may be filed and are due February 23, 2010. Upon review of the comments, the assigned Commissioner will issue a revised scoping memo for the proceeding. Alternatively, if it appears to be more appropriate, a proposed decision that would close the proceeding will be prepared for the Commission's consideration.

2. Background

The Assigned Commissioner's Ruling and Scoping Memo dated September 30, 2008 (Scoping Memo) determined the issues to be considered in Phases I and II of this proceeding and the procedures and timetable for their resolution.¹ The Scoping Memo noted that there was broad consensus among

¹ The Order Instituting Rulemaking designated Phase I as the forum to evaluate and adopt a computer model and detailed data requirements to establish capacity and reserve obligations required to maintain a range of reliability levels. Phase II was designated to (1) apply this methodology to study, determine, and adopt a capacity and reserve requirement for the Resource Adequacy (RA) program; and (2) create a mechanism to repeat this assessment for future Long-Term Procurement Plan (LTPP) and RA cycles. Phase II was also designated as the forum to determine whether to

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parties that bringing greater analytical rigor and transparency to the establishment of the planning reserve margin (PRM) requires sophisticated computer modeling software and expertise. To fill this need, the Scoping Memo approved a plan whereby a concurrent California Independent System Operator (CAISO) study would be integrated with this proceeding. The CAISO study relied on a CAISO contract with General Electric Energy (GE Energy) using GE Energy's Multi-Area Reliability Simulation (MARS) Software. The Scoping Memo found that integrating the processes would make the GE MARS modeling capabilities available for the development of the record of this proceeding.

The Scoping Memo also approved an open working group process, established and coordinated by the Energy Division, to develop and evaluate study assumptions and data requirements, and to address other issues related to the modeling of PRM options. The Scoping Memo found that the working group approach had considerable promise to identify and narrow issues and promote greater understanding of the PRM modeling process.²

After the modeling and working group processes had been underway for several months, the Energy Division informed the Administrative Law Judge (ALJ) that funds that the CAISO had allocated for the GE Energy MARS modeling work were exhausted. Accordingly, since the modeling activity that is

pursue an optional Phase III. Phase III, if opened, would (1) refine the methodology and data sets by including economic optimization of customer preferences and (2) possibly evaluate location-specific reliability assessments in conjunction with the Local Capacity Requirements analytical process. The Scoping Memo consolidated Phase I and Phase II.

² Appendix 1 to this ruling is a summary, prepared by the Energy Division, of the working group activity during 2008.

at the heart of this proceeding was being discontinued, by e-mail notice to parties dated February 27, 2009, the ALJ suspended the procedural schedule so that issues pertaining to funding for modeling consultants could be addressed.

3. Discussion

In consultation with the assigned Commissioner, we have determined that this proceeding should either be reactivated, if funding for necessary modeling work can be secured, or closed in the absence of such funding. One option, upon which this ruling seeks comment, is to require that the three large regulated investor-owned utilities (IOUs)³ provide such funding subject to rate recovery from both bundled and unbundled customers. Under this approach, the IOUs would file advice letters to establish memorandum accounts in which the costs of providing funding for modeling would be tracked. Costs could be allocated among the IOUs on a revenue share basis, as is done in the case of intervenor compensation awards in multi-utility proceedings.

Under the IOU-based funding approach, it appears that it would be necessary to select one of the IOUs to function as the contracting party. In this event, we anticipate that the Energy Division would have an important role with respect to contract management and oversight, including making reasonable opportunity for all parties to access modeling capabilities. We seek comment on these points as well.

Irrespective of the funding source, it is clear that there will be a need for focus and efficiency in the performance of modeling. Toward that end, the

³ Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company.

Energy Division has issued a report entitled “Proceeding Status Update and PRM Modeling Manual – R.08-04-012” (Staff Modeling Manual) that would provide guidance for the work going forward.⁴ This ruling seeks comment on whether this manual provides necessary and appropriate guidance for the modeling process that should be required for purposes of this proceeding.

The Staff Modeling Manual was written with the intention of providing analysis to support the LTPP and RA proceedings. The Staff Modeling Manual was however written before scenarios are set to be defined by the LTPP proceeding, so the manual may need to be refined at a later date to incorporate those scenarios. Commission staff will seek to ensure that should additional modeling work be funded and completed, that the modeling will enable comparison of the scenarios arising from the LTPP proceeding.

Finally, we anticipate that if funding is identified and the proceeding is restarted, the workshop processes established by the Scoping Memo would be followed under a similar schedule. We note that it will be necessary to set a new deadline for resolving the proceeding in accordance with Public Utilities Code Section 1701.5. Parties may comment on such scheduling and related procedural matters.

IT IS RULED that comments on restarting this proceeding may be filed and are due February 23, 2010. Comments should address the following:

- a. Funding mechanisms and contract management for necessary modeling work.

⁴ The Staff Modeling Manual was posted by the Energy Division on its website on February 3, 2010 and is available at the following link:
http://www.cpuc.ca.gov/PUC/energy/Procurement/RA/PRM_reports_documents.htm.

- b. Whether the Energy Division's Staff Modeling Manual provides an appropriate study approach that should guide the performance of modeling required for this proceeding.
- c. Scheduling and related procedural matters.
- d. Whether it is preferable to terminate the proceeding at this time and reinitiate consideration of the planning reserve margin when funding is available.

Dated February 8, 2010, at San Francisco, California.

/s/ DAVID M. GAMSON for
Mark S. Wetzell
Administrative Law Judge

/s/ DAVID M. GAMSON
David M. Gamson
Administrative Law Judge

APPENDIX 1

2008 Working Group Summary

This appendix serves as a summary of working group activity during the summer of 2008. Much of the working group discussion is also referenced in the applicable section of the PRM report Section 5. After the initial June PRM workshops, working groups met and attempted to formulate proposals for modeling various inputs in the PRM study. The process served to educate Energy Division staff, and prepare Energy Division staff for the writing of this report and modeling manual. Working Group 1 met on October 3 to discuss the proposed language in the Energy Division Proposal that Energy Division staff circulated, but did not meet any other times during the summer. Working Group 5 met only on July 1, shortly after the initial PRM workshops, to reiterate the inputs the working group recommended for the Preliminary 1A run, and did not meet any other time during the summer. Included here is a brief summary of the major issues confronted by the groups, a listing of working group members that signed up at or shortly after the June 2008 PRM workshops, and a listing of working group meetings drawn from records kept by Energy Division staff. Please also refer to the PRM reports posted on the PRM page of the CPUC website, for more information on individual working group activities: http://www.cpuc.ca.gov/PUC/energy/Procurement/RA/PRM_reports_documents.htm.

Working Group 1: This working group was tasked with discussing the issues in Section 4.1, including policy related issues. Key issues include the choice of reliability metric (LOLE, EUE, etc.) measurement of outage event, inclusion of emergency resources, and the measurement of reliability based on the “annual” method or the “monthly” method. Several other issues arose, that are summarized in the PRM modeling manual and in previous PRM reports released in June and October, 2008. This working group met only once in October. Due to the interactions between inputs and the fact that several members were in more than one group, several issues for discussion in Working Group 1 were developed and referenced in other working groups as well. After discussion in other working groups developed and educated participants, Energy Division staff drafted a set of proposed recommendations related to issues that were in contention. Key issues highlighted by working group members were measurement of outage events, the annual versus monthly discussion, and the use of emergency reserves from outside the CAISO. These issues are well developed in the PRM report itself, thus are not discussed here. Consensus on several topics was not reached, but many comments by working group

participants were highlighted and incorporated into the Energy Division PRM draft report sent out in October in preparation for the October workshops, and those comments that were not specifically incorporated into the recommendations were noted in the report.

Working Group 2: This group met frequently over the summer and dealt with subjects included in Section 4.2 of the PRM report. Key topics included the amount of renewable generation to be installed in future years, how to develop hourly (every hour of the year) performance profiles of those new renewable resources, and how to work around a perceived constraint of the vendor's model that required a direct paring of load and intermittent resource profiles to measure variability of generation. Less attention was given to discussion of hydro assumptions. Energy Division staff took the working group discussion into account when producing this report and also took advantage of independent analysis.

In general parties were unable to reach consensus on a source for how much nameplate capacity of generation would be installed in various parts of the CAISO. There was a variety of data sources for that, and Energy Division staff created a recommendation based on working group discussion.

Working Group members struggled with how to create and utilize production profiles for not only the existing intermittent generation, but the incremental intermittent generation installed in the future, that would incorporate and properly model the variability of generation from intermittent generation. Discussion was hampered by perceived restrictions in the MARS model and in data available. No consensus was reached, but parties suggested two major approaches. One approach was to use existing analysis produced for the CEC and NREL focusing on a limited number of years to create an expected production profile based on assumptions of new generation construction. The other approach was to use actual generation from certain recent years and continuing to correlate that with actual historical loads for each hour. There was limited discussion of any stochastic representation such that the MARS application could step through intermittent generation profiles randomly or non-chronologically. There was also limited knowledge of the inputs used or generated by CAISO and CPUC for RETI and 33% analyses, thus the working groups were constrained in their approach.

Working Group 3: Working group members were tasked with development of load forecasts, load shapes, load uncertainty, and demand response characterizations as discussed in Section 4.3 of the PRM report. Some inputs were not controversial, such as demand response characterizations and the use of the CEC IEPR forecasts, and these recommendations from the Preliminary 1A report were held over into the working group discussion. Means of creating load shapes to represent historical and projected patterns, and to properly quantify load uncertainty, were the primary subjects of working group meetings.

Discussion on these inputs was constrained by the perceived need to maintain the linkage between actual historical load profiles and historical intermittent generation profiles. The working group tried to work around this due to perceived misrepresentation of actual extreme load events and exaggeration of peak events, and two primary approaches were discussed. These are summarized in the PRM report. Working Group members discussed expanding the set of historical years used, running each actual load shape without scalars applied and combining the results, or of creating synthetic load shapes also from actual historical periods, to represent expected load shapes at different levels of uncertainty. Overall consensus was not achieved but significant progress was made in educating participants and developing proposals.

Working Group 4: This group was tasked with developing the list of generating units in CAISO and assigning outage rates to the conventional resources as discussed in Section 4.4 of the PRM report. This group also discussed the way to represent scheduled outages. An updated list of units was created from the CAISO generating capability list posted to the CAISO website. This list classified units according to NERC class types such as wind, solar, cogeneration, nuclear, geothermal, diesel, and a variety of classifications for steam and gas turbine units based on size. The working group worked to apply industry standard forced outage data (based on GADS data) to these classes of units so as to create the proper input for the MARS model. The process of classifying units and applying GADS class averages to conventional units is discussed in the PRM report.

Working Group 5: This group developed inputs related to transmission and imports, and their work is summarized in Section 4.5. This group met once, and proposed to apply the Preliminary 1A inputs from the June PRM workshops to the final PRM study. The group discussed means of quantifying and modeling the internal transmission constraints between study areas within CAISO, and in quantifying expected import amounts flowing into CAISO from external areas.

Working group discussion and workshop discussion reviewed the approach discussed in the PRM report, and Energy Division staff reviewed earlier work to create the recommendations in this report.

Membership in the working groups -

Working Group 1		Working Group 2		Working Group 3	
David Le	CAISO	Songshe Zhu	CAISO	Sue Mara	APSES
Songshe Zhu	CAISO	David Le	CAISO	David Le	CAISO
Kevin Duggan	Calpine	David Hawkins	CAISO	Kevin Duggan	Calpine
Mike Jaske	CEC	Kevin Duggan	Calpine	Mike Jaske	CEC
Barbara Barkovich	CLECA	Angela Tanghetti	CEC	Lynn Marshall	CEC
Tony Braun	CMUA	Jim Woodward	CEC	Barbara Barkovich	CLECA
Donald Brooks	CPUC ED	Mike Jaske	CEC	Frank Ghazzagh	DRA
Fred Mobasher	DRA	Michael Nyberg	CEC	Carolyn Kehrein	EMS
Charlynn Hook	DRA	David Vidaver	CEC	Katie Kaplan	Integrated Energy
Brian Theaker	Dynegy	Daryl Metz	CEC	Phil Muller	Mirant
Carolyn Kehrein	EMS	Kevin Dudney	CPUC ED	Susan OBrien	NCPA/BAMx
Katie Kaplan	Integrated Energy	Fred Mobasher	DRA	Rick Aslin	PG&E
Ali Amirali	LS Power	Don Smith	DRA	Tim Stegman	PG&E
Phil Muller	Mirant	Brian Theaker	Dynegy	Tom Miller	PG&E
Susan OBrien	NCPA/BAMx	Katie Kaplan	Integrated Energy	Antonio Alvarez	PG&E
Kerry Hattevik	NRG	Ali Amirali	LS Power	Sebastien Csapo	PG&E
Antonio Alvarez	PG&E	Susan OBrien	NCPA/BAMx	Alice Gong	PG&E
Curt Hatton	PG&E	Tom Miller	PG&E	Paul Nelson	SCE
Sebastien Csapo	PG&E	Curt Hatton	PG&E	Ben Montoya	SDGE
Alice Gong	PG&E	Antonio Alvarez	PG&E	Kevin Woodruff	TURN
Carl Silsbee	SCE	Alice Gong	PG&E	Mike Florio	TURN
Rob Anderson	SDGE	Bill Tom	PG&E		
Cory Smith	SDGE	Jan Grygier	PG&E		
Benson Joe	Strategic Energy	Sebastien Csapo	PG&E		
Kevin Woodruff	TURN	Eric Leuze	Reliant		
Mike Florio	TURN	Paul Nelson	SCE		
		Cory Smith	SDGE		
		Ben Montoya	SDGE		
		Mike Florio	TURN		
		Kevin Woodruff	TURN		

Working Group 4		Working Group 5	
Kevin Duggan	Calpine	Sue Mara	APSES
David Le	CAISO	David Le	CAISO
Lana Tran	CPUC CPSD	Mike Jaske	CEC
Donald Brooks	CPUC ED	Jim Woodward	CEC
Fred Mobasher	DRA	Barbara Barkovich	CLECA
Charlynn Hook	DRA	Tony Braun	CMUA
Claire Eustace	DRA	Frank Ghazzagh	DRA

Katie Kaplan	Integrated Energy		Brian Theaker	Dynergy
Phil Muller	Mirant		Katie Kaplan	Integrated Energy
Kerry Hattevik	NRG		Ali Amirali	LS Power
Curt Hatton	PG&E		Phil Muller	Mirant
Sebastien Csapo	PG&E		Susan OBrien	NCPA/BAMx
Alice Gong	PG&E		Kerry Hattevik	NRG
Eric Leuze	Reliant		Chifong Thomas	PG&E
Paul Nelson	SCE		Sebastien Csapo	PG&E
Alok Gandhi	SCE		Alice Gong	PG&E
Ben Montoya	SDGE		Paul Nelson	SCE
Cory Smith	SDGE		Mohan Kondragunta	SCE
Kevin Woodruff	TURN		Cory Smith	SDGE
Mike Florio	TURN		Kevin Woodruff	TURN
			Mike Florio	TURN

Working Group meeting Dates - all dates are in 2008:

Working Group 1	Working Group 2	Working Group 3
Oct 3	July 2	July 1
	July 9	July 23 - Joint WG2/3 meeting
	July 16	Aug 18 - Joint WG2/3 meeting
	July 23 - Joint WG2/3 meeting	Aug 21 - Joint WG2/3 meeting
	Aug 18 - Joint WG2/3 meeting	Aug 29 - Joint WG2/3 meeting
	Aug 21 - Joint WG2/3 meeting	Sep 26 - Joint WG2/3 meeting
	Aug 29 - Joint WG2/3 meeting	Oct 2 - Joint WG2/3 meeting
	Sep 26 - Joint WG2/3 meeting	
	Oct 2 - Joint WG2/3 meeting	

Working Group 4	Working Group 5
July 3	July 1
July 15	
July 29	
Aug 12	
Aug 26	
Sep 9	
Sep 24	
Oct 7	

(END OF APPENDIX 1)

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Dated February 8, 2010, at San Francisco, California.

/s/ OYIN MILON
Oyin Milon

N O T I C E

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