



Memorandum

To: ISO Board of Governors

From: Keith Casey, Vice President, Market & Infrastructure Development

Date: March 8, 2017

Re: Decision on reliability must-run designations for the Yuba City Energy Center and the Feather River Energy Center

This memorandum requires Board action.

EXECUTIVE SUMMARY

In its November 28, 2016 letter to Steve Berberich, attached for reference, Calpine Corporation indicated its intention to remove the following four “peaker” generating units from the relevant Participating Generator Agreement(s), making them unavailable for ISO dispatch effective January 1, 2018:

- Yuba City Energy Center
- Feather River Energy Center
- King City Energy Center
- Wolfskill Energy Center

At Calpine’s request in the letter, the ISO conducted the necessary studies to confirm whether the absence of these units would create unacceptable reliability impacts.

Further, in the event that one or more of the generating units were found to be needed for reliability, the letter cited timing and other concerns with the ISO’s capacity procurement mechanism, including the need for capital investment and other resource planning requirements, which would preclude waiting until October 2017 to take action.

The ISO has conducted the necessary studies, and determined that the Yuba City Energy Center and the Feather River Energy Center are required for the reliable operation of the transmission system. The ISO’s reliability needs cannot be addressed with other alternatives within the 2018 calendar year.

Management therefore seeks Board approval of the designation of these two generating units as reliability must-run resources. Management notes that neither the RMR designation nor the execution of an RMR agreement precludes the resources from

being procured as resource adequacy resources. In instances where a resource is both an RMR and a resource adequacy resource, the compensation available under the RMR agreement would be adjusted accordingly to ensure the absence of duplicative compensation, but the RMR contract would be available to compensate for costs that are not recoverable under the resource adequacy power purchase agreement.

Management recommends the following motion:

Moved, that the ISO Board of Governors authorizes Management to designate the Yuba City Energy Center and the Feather River Energy Center for reliability must-run service contingent upon execution of a reliability must-run contract with rates, terms and conditions acceptable to Management, as described in the memorandum dated March 8, 2017.

DISCUSSION AND ANALYSIS

Of the four generating stations identified by Calpine in its November 28, 2016 letter to Steve Berberich, two units have been found to be required for reliability reasons:

- a. Yuba City Energy Center – required to meet local capacity requirements in the Pease sub-area. The sub-area local capacity requirement in the area has been determined to be 100 MW, and there are only 82 MW of other resources in the sub-area, resulting in a deficiency without the 47 MW Yuba City Energy Center.
- b. Feather River Energy Center (Bogue) – required to reduce local area voltages. High voltages on the 115 kV system in the Bogue area have been observed and managed in real time through the voltage dispatch of the Feather River Energy Center. The evolving voltage profiles due to transmission system limitations and distribution system power factors are being incorporated into transmission planning models to develop longer-term solutions.
- c. Wolfskill Energy Center – no local reliability need identified to date.
- d. King City Energy Center – no local reliability need identified to date.

For clarity, the four units remain under contract until the end of 2017 and are included in resource adequacy showings for 2017.

In the normal course established in recent years, the ISO would allow the 2018 resource adequacy procurement process to run its course, request the Board for authority to extend existing RMR contracts, and to designate those resources needed for RMR service pending the preliminary resource adequacy showing in the third quarter of 2017. If a resource needed for reliability was not procured for resource adequacy service, the ISO would explore other mechanisms, such as the capacity procurement mechanism, which a resource is not obligated to accept, or the RMR option.

Calpine's November 28 letter indicates that neither the capacity procurement mechanism option nor the standard time-frame described above for an RMR arrangement is viable, and

needs either to move forward after March 2017 with staffing plans for the changing status of the units, or have sufficient assurance of revenue stream to invest in needed capital maintenance to continue to make needed resources available. Accordingly, Calpine requests that if any of the units are in fact needed in 2018, that the ISO make this determination by the end of March 2017.

In light of the reliability needs, ISO Management proposes to designate the two needed units as reliability must-run resources under tariff section 41. Calpine would then be expected to develop its proposed cost of service. ISO staff would then work with Calpine along with the responsible utility and CPUC to review Calpine's proposed cost of service, including any proposed capital investments. Subject to the resource adequacy showings in the third quarter of 2017, the RMR agreement would be executed as necessary and filed with FERC by Calpine.

POSITIONS OF THE PARTIES

The ISO has presented the situation to stakeholders on a stakeholder call that took place on March 6, 2017.

Stakeholder questions and comments received during the call focused on several themes:

- The visibility of the costs Calpine would be seeking recovery of was questioned. The ISO noted that the development of those costs occurs after the designation is made and explained that pre-filing negotiations are confidential but will include the CPUC and PG&E under non-disclosure agreements. The RMR contract is a rate-schedule of the RMR owner and must be filed at FERC and, therefore, cost information will be publicly available at that time.
- Stakeholders questioned the voltage support requirement for the Feather River generation. The ISO explained the voltage need, that the voltage control capability of the generation has been used in 2016, and reiterated that this will be examined in future transmission planning cycles looking for the best overall solution for transmission and distribution.
- A number questions regarding process and the mechanics of the RMR designation, of CPM processes, and risk-of-retirement mechanisms were fielded.

Written stakeholder comments are being received after the preparation of this memo, and will be discussed further at the Board meeting.

CONCLUSION

Management recommends and seeks the ISO Board approval of the designation of the Yuba City Energy Center and the Feather River Energy Center as reliability must-run resources.