

REPORT FROM

OFFICE OF PUBLIC ACCOUNTABILITY

Date: June 22, 2018

To: The Board of Water & Power Commissioners
David Wright, General Manager, Department of Water & Power

From: Frederick H. Pickel, Ph.D., Executive Director/Ratepayer Advocate

Reference: Intermountain Power Plant (IPP) Alternative Repowering

RECOMMENDATION

The decision recommended by the Department of Water & Power (DWP) concerning Intermountain Power Authority (IPA) is a decision that, at this time, best serves the City's goals and objectives for reducing carbon emissions. DWP is acting in a manner consistent with Office of Public Accountability/Ratepayer Advocate's (OPA's) advice concerning Intermountain Power Project (IPP) in 2013, with the exception of providing the Board periodic public updates.

OPA supports adoption of the Alternative Repowering Plan (AP) of an 840 MW gas-fired combined-cycle generation plant at IPP. This increases space available on the IPP transmission lines for renewables, reduces gas-fired generation, and allows the elimination of the coal-fired generation.

This report is based on information regarding the IPP and AP available to the OPA as of June 21.

DISCUSSION

With respect to fossil emissions, the DWP has goals and objectives that are aligned with a large number of compliance obligations. There are many dates of compliance, and many interactions between the transmission and generation resources involved.

The DWP also is committed to evaluating the technical feasibility and cost of achieving 100% renewable power supplies, in a decade largely acknowledged to be after current compliance targets of all kinds are met. While all ratepayers would wish to have the benefit of this analysis now, and the benefits of an improved carbon footprint immediately, the DWP transmission

facilities are the tail that wags the dog when making technical trade-offs between sources and locations of generation in the short-run:

- OPA has read and reviewed the technical analysis supporting DWP's recommendation, and finds it thorough, and **biased in favor of maximizing renewable power delivery to Los Angeles**. Because of IPP site-specific technical transmission and generation requirements, at this time, natural gas fired generation cannot be wholly avoided.
- Significant challenge remains in preserving the level of reliability presently enjoyed. DWP will need to execute well, and that includes matters of renewable procurement and its transmission to the IPP hub. It presumes the de-centralized ownership of the facilities will continue to be a model for how to govern so many different types of owners and jurisdictions.
- To provide a subsequent test bed for more advanced transmission that is not now available to procure with confidence, DWP should proceed with the smaller natural gas commitment and secure the site's ultimate value for Los Angeles in the decades to come.
- Planning must factor in that renewables contracts that will use the IPP hub are not yet located with signed contracts. It is unrealistic to expect more than 30 utilities to have the same policies and demands for renewable power, and it is not easy to plan for transmission that will serve buyers and sellers not yet committed, from generating and transmission sources in substantial flux. At the same time, note that DWP has no legal right or recourse to install new transmission lines that will reach wind resources in the resource rich Rocky Mountain region.

The intersection of two limitations is affecting the balance of technical options now available:

1. It is not likely that DWP can predict commercial generation technology options that will be created more than 5 years in advance. The fastest starting and ramping fossil capability DWP can procure is relatively young, and will provide only 8 to 12 years of service before it is likely to need refurbishment at major expense.
2. It is not likely that DWP can predict commercial transmission technology options that will be created more than 10 years in advance. Industry standards for advanced automation of variable energy resources are undergoing rapid change, and this alters the character of what one would wish to procure for the future.

An important third limitation is affecting the size of generation: the uncertain final participation of utilities at IPP.

3. The exit options for certain other IPP participants expire November 2019. DWP cannot reliably predict exit in advance of commitments for AP on this date. DWP will be disadvantaged if it is burdened with additional entitlement shares of a 1200MW generation facility. The "path" to any smaller fossil generation commitment, or phased-

in execution thereof, is the path DWP is recommending because the options get better over time with fewer participants *and* smaller initial gas-fired generation.

RELATED ACTIVITIES

OPA notes that, while the City Council asked for periodic updates in 2013 on IPP, the City next authorized a process that included the Alternative Repowering Plan in 2015. Activities leading to this beneficial downsizing of IPP have occurred rapidly. The transmission analysis OPA reviewed on June 4, 2018 was begun in 2010. It was not finished until this May.

NEXT STEPS

- At this time, the National Electric Renewables Lab (NREL) is engaged with the DWP and the stakeholders in a comprehensive analysis of 100% renewable power for Los Angeles. Efforts at stakeholder engagement in this arena are different than typical Integrated Resource Plans or “report backs.” An important milestone recently met was concurrence that the scope of work is defined well enough for NREL to proceed with the modeling. OPA expects this work to enable the City and the Stakeholder Advisory Group to define Los Angeles’ objectives beyond 2030.
- OPA recommends that DWP continue on its current course of studying 100% renewable power, and once-through-cooling repowering, on a schedule that is kept updated with the Board when significant milestones are achieved or delayed.
- OPA recommends that DWP use its renewables procurement to maximize the storage sold to it by solar and wind competitors at the IPP hub, while minimizing its overall delivered cost.

This current IPP AP decision provides a path for DWP to continue to lead, by providing a secure and reliable place for pressing forward innovation in transmission, storage, and new generation options between 2025 and 2035.