



MEMO

To: Zach Walker, City Manager
From: Mark Randall, Assistant City Manager
Subject: IPL Production Update & Discussion of Next Steps
Date: October 28, 2019, 2019

This memo has been prepared per your request to provide an update on the Blue Valley Power Plant and combustion turbines, and to present for discussion possible next steps and Council decision points related to IPL Production. The memo includes the following:

1. An update on the possible closure of the Blue Valley Power Plant, including a recap of the evaluation process, current status of the plant, and possible next steps. Next steps would include closure, a Transition Plan for impacted employees, and repurposing of the facility.
2. An update on the 6 combustion turbines, including a recap of the evaluation process, current status, and next steps. Also submitted along with this memo is the full evaluation report which compared the continued use of the existing CT's to replacement options in the near term.

I hope this report will serve to answer some of the questions recently posed by members of the City Council, and provide them with information they may find useful in making some important decisions in the very near future regarding production assets at Independence Power & Light.

An update on the possible closure of the Blue Valley Power Plant

Recap:

The background and timeline on this dates back to November of 2017, when the City Council approved a contract with Burns & McDonnell for an Energy Master Plan. The results of that study were initially presented to the Council on August 27, 2018, and a final report was issued on September 20, 2018. The Master Plan was also presented to the Public Utility Advisory Board (PUAB). The report included the following determinations and recommendations regarding the Blue Valley Plant:

- The Blue Valley units have reached the end of their technical and economic useful lives.
- IPL should consider retiring the units from service as soon as possible.
- IPL should issue a Power Supply RFP (request for proposals) for capacity alternatives to replace Blue Valley, with less emphasis on energy.

As a member of SPP (Southwest Power Pool) Independence purchases the bulk of its energy from the Pool, but is required to have available if called upon energy production capacity of 12% above peak load. Capacity changes require SPP approval.

In accordance with the recommendations of the energy Master Plan, the City contracted with Burns & McDonnell to prepare a Power Supply RFP to replace Blue Valley capacity. The RFP was issued on November 15, 2018. Proposals were submitted by 7 companies. Analysis of the proposals indicated that there are lower cost options for supplying the SPP-required capacity currently provided by Blue Valley. The most cost effective of the options was a power purchase agreement with Oneta, a 1,133 MW natural gas combined cycle plant located in Coweta, Oklahoma, which went into service in 2002.

On May 20, 2019, the City Council approved a 10 year capacity only contract with Oneta in the amount of \$13.6 million for 45 MW. The City may elect to increase its purchase up to 70 MW. The contract also included an opt-out provision if transmission upgrade costs exceed \$1 million. In August, 2019, the City was notified that the owner of Oneta, LS Power Equity Advisors, has entered into an agreement to sell the facility to Argo Infrastructure Partners. The sale will have no impact on the Oneta contract with the City.

Current Status:

The City notified SPP in May of its intention to replace Blue Valley capacity with a purchased power agreement with Oneta. We are awaiting an SPP determination about transmission upgrade costs, but initial indications are that these costs will be well below the \$1million opt-out threshold. In Meanwhile, the Production Division is working to maximize profit generation from Blue Valley prior to closure. Increased operation of Blue Valley and the 6 combustion turbines has resulted in approximately \$350,000 in net profit (over and above personnel costs and fuel) since the start of the fiscal year. While profitability has thus increased, Blue Valley remains a more costly option than buying capacity from Oneta. Also, the current level of production would not be sustainable long term with the aging equipment. It makes sense, however, to maximize the production of Blue Valley in the near term to maximize revenue before closure.

Next Steps:

- **Closure:**

It's anticipated that SPP will approve the capacity change on or about November 15, 2019. Six months after notification is given, the City may close the plant. June 1, 2020 has therefore been established as a tentative date for plant closure, but the exact date will be per the direction of the City Council.

- **Transition Plan for Impacted Production Employees:**

The 2019-20 Budget includes 40 full time positions in the Production Division of IPL, down from 60 in 2017-18. The Energy Master Plan recommended retaining as many as 23 FTE's in a much-reduced Production Division focused on the care and operation of the 6 combustion turbines not associated with the Blue Valley Plant. Closure of the Blue Valley Plant as outlined in the Energy Master Plan will result in the elimination of at least 17 positions and possibly more. It's therefore essential to develop a Transition Plan for employees impacted by the expected closure of Blue Valley.

A consultant has been retained to assist the City Human Resources Division to develop a Transition Plan, including early retirement options. This plan is expected to be ready for Council consideration in December, 2019. It's hoped that the plan will also serve as a blueprint which could be used if and when similar situations arise in other City operations. In any case, the goal is to have a plan in place to present to Production employees well in advance of actual plant closure.

- **Repurposing:**

The location, condition, size, and construction of the Blue Valley Plant suggest that it would be a prime candidate for repurposing as opposed to dismantling. While some remediation work, such as the removal of the smokestack and equipment will be necessary after closure, some of this has

already been done, including the process of bringing the old ash pond into compliance with environmental standards. The old brick facility has been well maintained, and is believed to be a good candidate for repurposing. Since the Energy Master Plan recommendations were made public, the City has received a handful of enquiries about the site. Clearly it would be wise to evaluate the options and be in a position to act as soon as practicable after plant closure on June 1, 2020.

The City Manager recently authorized Lynch Consulting Services to begin a preliminary assessment of repurposing options for presentation to the City Council. This assessment could include reuse of the site by the City for various purposes, including new forms of energy production. It could also identify commercial repurposing which could provide economic development opportunities. It's anticipated that the assessment will lead to an RFP process which will hopefully provide the Council with a variety of options for reuse of the site. The consultant is expected to have the initial repurposing report completed and ready for Council consideration by November, 2019.

An Update on the 6 Combustion Turbines

Recap:

In addition to evaluating the continued operation of the Blue Valley Plant, the 2018 Burns & McDonnell Energy Master Plan also looked at the 6 CT's. The Master Plan report made the following recommendations regarding the combustions turbines:

- Continue to maintain combustion turbines as they provide low cost capacity
- Continue to evaluate replacement of existing turbines with reciprocating engines
- Re-evaluate combustion turbine in the next Master Plan

In 2019, the City issued the Power Supply RFP which resulted in the Oneta power purchase agreement to replace Blue Valley Power Plant capacity. A side benefit of that study was updated market information, including potential revenue from energy produced by new, more efficient units. Recently, City staff were asked to go back and revisit the CT portion of the 2018 Burns & McDonnell Energy Master Plan report, taking into account the updated market cost information. That research confirmed that for the near term at least, the existing CT's are still the lowest cost option for SPP-required capacity.

Current Status:

The 6 CT's date back to the 1960's and 70's, and are nearing the end of their useful lives. As mentioned in the 2018 Master Plan, however, the units have been remarkably well maintained, although the two "J" units were not as economical or reliable as the "H" and "I" units. Nevertheless, it's anticipated that the units could continue to operate for several years if properly maintained. According to Burns & McDonnell, it's possible some of the units could continue to operate for another 20 years with the replacement of major components. The cost of maintenance, however, should be taken into account when deciding just how long these units should remain in service.

The CT's continue to provide a considerable amount of the City's capacity requirements, and for that reason continue to be of critical importance. They continue to be regularly called upon by the Southwest Power Pool. Combined, the CT's provide 93 MW of capacity. This compares to 45 MW of capacity lost with the expected Blue Valley closure, which is being replaced through a ten year contract with Oneta for \$13.6 million. Clearly, replacing the CT's would come at a significant cost to IPL.

While the need to eventually retire the units is obvious, Burns & Mac and City staff concur that the existing CT's can continue to operate for the present, and are the most cost-effective solution at this time.

Next Steps:

Ideally, IPL should continue to operate the existing CT's for a few years, using this grace period to stabilize finances and prepare for the financial impact of replacing these units. The City will need to continue to monitor capacity trends and the relative costs/benefits of various options for replacing the CT capacity. Since the end of their useful lives is rapidly approaching, a plan for replacing the CT's, including the financing component, should be developed during this grace period for future consideration by the City Council.

Accompanying this memo is a copy of the full report analyzing various options for the possible replacement of the 6 combustion turbines.

