

Agenda Report

July 20, 2015

TO: Honorable Mayor and City Council

THROUGH: Municipal Services Committee (July 14, 2015)

FROM: Water and Power Department

**SUBJECT: APPROVAL OF THE INTERMOUNTAIN POWER PROJECT ("IPP")
RENEWAL AGREEMENTS BETWEEN THE INTERMOUNTAIN POWER
AGENCY AND THE CITY OF PASADENA**

RECOMMENDATION:

It is recommended that the City Council:

1. Find that the approval of the Second Amendatory Power Sales Contract ("Contract Amendment"), Renewal Power Sales Contract ("Renewal Contract"), and Agreement for Sale of Renewal Excess Power ("Excess Renewal Agreement") (together, the "IPP Renewal Agreements") with the Intermountain Power Agency ("IPA") is categorically exempt from the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines sections 15301, 15302 and 15061(b)(3);
2. Authorize the City Manager or his designee to execute the IPP Renewal Agreements under the terms and conditions specified therein;
3. Authorize the City Manager or his designee(s) to participate in the subscription process associated with the Renewal Contract and Excess Renewal Agreement administered by the IPA for a project participation share of up to 40 MW;
4. Direct the City Manager or his designee(s), upon the completion of the IPP Renewal Project subscription process, to report back to the City Council the final subscription result, particularly in terms of Renewal Contract and Excess Renewal Agreement MW and percentage entitlement shares allocated to Pasadena Water and Power ("PWP"), and any adjustment in the ultimate renewal project capacity as a result of the renewal subscription process;
5. Authorize the City Manager, or his designee(s), to execute any documents necessary to effectuate and administer the IPP Renewal Agreements that are consistent with the policies established by the City Council; and
6. Direct the City Clerk to file a Notice of Exemption pursuant to CEQA by July 31, 2015.

EXECUTIVE SUMMARY:

The IPP consists of two 900 MW coal-fired generating units, totaling 1,800 MW, together with the associated Southern Transmission System (“STS”), Northern Transmission System (“NTS”) and related substation, switchgear and other equipment, located near Delta, Utah. All of these assets are owned by the Intermountain Power Agency (“IPA”), a separate legal entity and a political subdivision of the State of Utah. PWP has fully-funded, and has the rights to use, a portion of these facilities under two existing agreements that expire on June 15, 2027. Since IPP came on line in 1987, it has typically provided about 50% of the annual energy supply needed for PWP’s retail electric customers. Under the existing contracts, none of the purchasers have rights to the STS or NTS beyond June 15, 2027 unless they participate in a contract extension for the existing coal units, which is not allowable under California law.

All of the IPP purchasers, including PWP, wish to extend their STS and NTS rights to access the renewable and conventional resources in the area, and most current participants wish to build a new generation project (“Renewal Project”) to replace the existing coal plants. Due to the challenges of building new power generation facilities, the existing facilities, permits, water rights, and supportive community make IPP an attractive site for future generation resources. The project participants and IPA have been cooperatively negotiating future generation and transmission alternatives over the last three years, and have reached a general consensus reflected in the recommended IPP Renewal Agreements.

As a first step, to secure future rights to transmission and/or generation, all 36 participants including the City of Pasadena (“Pasadena”) are required to amend the existing contracts. Under the proposed Contract Amendment, the coal plants will be retired by 2025 and the purchasers will receive a pro-rata share of the Renewal Project for the remaining term of the contract through June 15, 2027 based on their current share of IPP. The proposed Contract Amendment also enables IPA to develop and offer shares in the Renewal Project that is fueled with natural gas or renewables, as opposed to the existing coal-fired renewal option.

At this time, the Renewal Project is expected to be a combined cycle natural gas-fired facility between 600 and 1,200 MW. An alternative configuration may be proposed that could include a combination of natural gas and renewable generation. The characteristics cost and other details of the Renewal Project will be developed by the participants after the existing contracts are amended. The recommended Renewal Agreements provide Pasadena an opportunity to participate in developing the details of the Renewal Project, and an option to remain in or opt out by August 3, 2019 when the project’s suitability to Pasadena becomes clearer.

Assuming a 1,200 MW Renewal Project is built, PWP’s generation capacity will be reduced by about one-third and the all-in energy costs are expected to be higher than what would otherwise have been available from the existing coal units during the final two and one-half years of the contract. Likewise, greenhouse gas emissions and other environmental impacts would be substantially reduced.

Pasadena has the following options at this time:

(1) *Not amend the existing contracts (do nothing):*

The Renewal Project cannot proceed for any of the participants and the coal units will continue to operate. PWP will continue to receive the existing level of energy and capacity rights until the end of the contract term on June 15, 2027. After the contract expires, PWP will not have any rights to use the generation or transmission assets that Pasadena has paid for over the years. PWP will have to find alternative generation resources to fill the large gap created by the loss of IPP. Those resources and logistics are yet to be developed.

(2) *Amend the existing contracts but do not subscribe to Renewal Project:*

PWP will continue to receive the existing level of energy and capacity until December 31, 2024 and receive two-thirds or less of the existing level from the smaller Renewal Project between January 1, 2025 and June 15, 2027. There will be no provision to extend the IPP generation contract. Pasadena will be provided with up to 50% (at Pasadena's discretion) of its existing transmission capacity access under a separate agreement to be negotiated with the Los Angeles Department of Water and Power ("LADWP") by November 1, 2018. Pasadena will have to find alternative generation resources to fill a large gap created by the loss of IPP power. Those resources and logistics are yet to be developed.

(3) *Amend the existing contracts and subscribe to Renewal Project with option to opt out by August 3, 2019 (Recommended):*

PWP will continue to receive the existing level of energy and capacity until December 31, 2024 and receive two-thirds or less of the existing level from the smaller Renewal Project between January 1, 2025 and June 15, 2027. There will be a provision to extend the IPP Renewal Project generation and/or transmission contracts for 50 years. PWP will have the opportunity to participate in developing the details of the Renewal Project that will suit PWP. There will be an option to reduce Pasadena's initial commitment to the Renewal Project participation level by 20% or opt-out by August 3, 2019, if needed. Pasadena will preserve its right to at least 50% of its existing transmission access, either directly from IPA or under contract with LADWP if PWP opts out of the Renewal Project.

The all-in energy costs of the Renewal Project are expected to be higher than what would otherwise have been available from the existing coal units during the final two and one-half years of the contract. PWP estimates incurring additional costs of approximately \$25 million over this period as a result of the early retirement; however, the actual costs may vary significantly depending upon capacity, energy, and emission costs at the time. Currently, PWP's Stranded Investment Reserve has sufficient funds to cover the increased cost exposure, and such funds should continue to be held in the Stranded Investment Reserve to offset these potential future cost increases, consistent with the intent of the Stranded Investment Reserve.

The recommended actions, which are consistent with the Integrated Resource Plan adopted by the City Council on June 22, 2015, would accelerate meeting the greenhouse gas reduction goals, provide PWP with continued access to the IPP transmission systems, and provide access to a resource that could meet a portion of PWP's future energy needs through June 2077.

BACKGROUND:

Existing Power Sales Contracts

The City of Pasadena is one of 36 power purchasers under the power sales contracts that expire on June 15, 2027. The other California purchasers include the cities of Anaheim, Burbank, Glendale, Riverside and LADWP. LADWP is the largest purchaser and the Operating Agent for IPP. The remaining 30 purchasers are from Utah. All purchasers pay a pro-rata share of IPP's fixed costs each month based on their respective contract share. The debt service, which currently represents over one-third of IPP's total energy cost, is scheduled to be fully paid off by the end of fiscal year 2023.

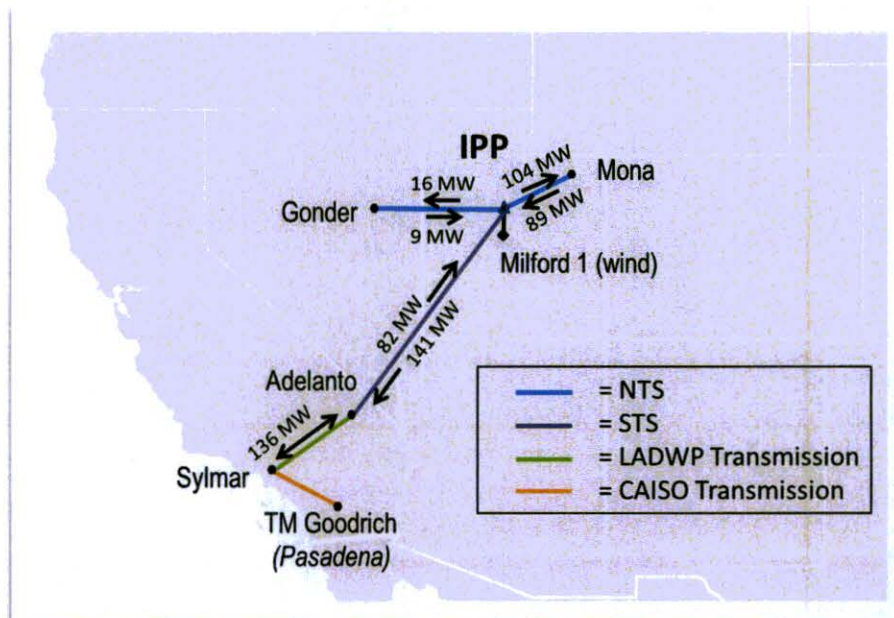
The Utah purchasers have assigned most of their generation and transmission to certain California purchasers, including Pasadena, under the current excess power sales agreements for much of the existing power sales contract term.

Pasadena's maximum generation entitlement share, including both the existing power sales agreement and excess power sales agreement, is equal to approximately 108 MW or 6% of the total IPP capacity. In calendar year 2014, IPP provided approximately 46% of PWP's electrical generation, and accounted for almost 90% of PWP's greenhouse gas emissions.

Transmission

One of the most valuable assets associated with IPP in the coming years will be access to the high voltage transmission between California, Utah and Nevada. The reduced generating capacity of the Repowered Project will free up additional room for resources in the vicinity of IPP to be delivered over the existing transmission lines. Utah and Nevada have high potential for supplying renewable resources. Two future development sites for solar and compressed air energy storage are located adjacent to IPP property. Pasadena's current entitlements on IPP related transmission systems are shown in Figure 1.

Figure 1 - Pasadena's Current IPP Transmission Capacity



If Pasadena signs the Contract Amendment, regardless of whether it declines to participate in the Renewal Project in the first place or later opts out of the Renewal Project, LADWP (a major participant in the Renewal Project) has agreed to provide Pasadena with a certain amount of any IPP transmission not provided by IPA, together with the segment of transmission owned by LADWP from Adelanto to Sylmar. The contractual terms will be negotiated by November 1, 2018. Under this arrangement, if Pasadena opts out of the Renewal Project, LADWP will provide to Pasadena up to 50% (at Pasadena's discretion) of Pasadena's existing transmission capacity allocations from June 16, 2027 through June 15, 2077. A 50% share of Pasadena's existing IPP related transmission systems is sufficient to meet foreseeable needs to access resources from this region to serve PWP's retail electric needs.

Second Amendatory Power Sales Contract

Under the proposed Contract Amendment, the existing 1,800 MW IPP coal-fired project will be replaced by January 1, 2025 with a natural gas repowering project that is currently expected to include two combined cycle power blocks and associated equipment with a maximum design capacity of 600 MW each (1,200 MW total). The new power plant must satisfy the California greenhouse gases emission performance standard, which is currently no more than 1,100 pounds of carbon dioxide emissions per MWh. The size of the natural gas repowering project may be reduced and/or supplemented with renewable resources.

Renewal Power Sales Contract

IPA will offer the Renewal Contract within 45 days of the effective date of the Contract Amendment. The term of the Renewal Contract is from June 16, 2027 through June 15, 2077 (50 years). Once the renewal process is complete, IPA will begin the engineering, design, detailed cost estimates, and project development activities related to the Renewal Project. Project development will commence by 2020 and the Renewal Project commercial operation date is to be no later than January 1, 2025.

According to PWP staff analysis the termination of coal energy in 2025 and receiving reduced amount of substitute energy from the Renewal Project until June, 2027 would result in an additional cost of approximately \$25 million. The analysis included the anticipated all-in cost of energy from the Renewal Project, energy procurement from the market to make up for the short fall compared to energy that would have been received from the coal plant if it operated through 2027, capacity purchase, and the coal facilities decommissioning cost. Due to retirement of IPP's existing debt by 2023, the comparative costs of IPP as a coal-fired resource are expected to be relatively low in the last few years under the existing agreements as compared to the estimated cost of the Renewal Project and other replacement resources when the coal fired generating units are retired.

Decommissioning

The latest estimates for the total cost of decommissioning IPP for all IPP participants were developed by consulting firm Sargent & Lundy in 2003, and ranged from approximately \$42 million to comply with legal retirement requirements then in existence, to approximately \$103 million to dismantle the generation station and return the ground to its native condition. IPA will develop new decommissioning cost estimate after the current contracts are amended. The new decommissioning cost estimate is expected to be considerably higher than the previous estimates. The existing contracts do not address decommissioning costs.

Under the proposed Contract Amendment and Renewal Agreements, IPA will include the cost of decommissioning of the coal units as a part of the Renewal Project financing. The decommissioning costs will be amortized over the duration of financing and included in the monthly fixed charges once the Renewal Project becomes operational. Under the proposed Contract Amendment, PWP's share of the decommissioning cost would be based on its current share of the existing coal units until June 15, 2027. Beyond that date PWP's share of decommissioning costs would be based on its share of the Renewal Project. If PWP decides not to participate in the Renewal Project or opts out, its decommissioning cost obligations will cease after June 15, 2027.

Renewal Project Reduction, Increase or Termination

During the initial subscription process, each existing purchaser will have the opportunity to elect their desired percentage participation in the Renewal Project. If the renewal Project is subscribed at least 85% but not 100%, each participant's share in the project will be increased proportionately to fulfill the required 100% subscription.

Pasadena and the California purchasers other than LADWP may terminate their participation in the Renewal Contract, or reduce their generation entitlement share by up to 20%, at any time prior to August 3, 2019. This reduced subscription amount will be added to LADWP's project share to keep the project 100% subscribed. This "off-ramp" provision allows time for the development of the repowering or alternative repowering design and cost estimates, evaluation by staff of the IPP Renewal Project versus other generation alternatives including options in the Los Angeles basin, and finalizing binding agreements in accordance with the LADWP Memorandum of Understanding (described below) regarding IPP related transmission and other issues.

Excess Renewal Power Sales

Under the Excess Renewal Agreement, Utah purchasers may elect to sell all or a portion of their rights to generation from the repowering project ("Excess Entitlement Shares"). California purchasers may elect to purchase these Excess Entitlement Shares made available under the Excess Renewal Agreement. LADWP is required to purchase the remainder of Excess Entitlement Shares not purchased by other California purchasers. Pasadena must be a party to the Excess Renewal Agreement in order to receive an allocation of rights on the NTS. The request to participate in the Renewal Project for a project participation share of up to 40 MW will include any Excess Power Sales allocation.

If The Gas Repowering Does Not Occur

If the gas repowering project does not occur despite the best commercial efforts of IPA, and assuming no project debt has been issued, the Renewal Contract and Excess Renewal Agreement will terminate. The original power sales contracts will be extended to June 15, 2032 to allow the decommissioning and retirement actions to be completed. The existing coal plant will not operate after June 15, 2027, and no replacement generation will be available from IPA during the decommissioning period. IPA will offer 50 year transmission service agreements to extend the transmission system entitlements of the purchasers (including Pasadena) under the original power sales agreement. IPA will prepare a retirement plan by October 3, 2023, and the retirement costs will be funded through the monthly power costs beginning with the 2024 power supply year.

Memorandum of Understanding

As a good faith effort, the General Managers of Burbank Water and Power, Glendale Water and Power, Pasadena Water and Power, Riverside Public Utilities, and the Los Angeles Department of Water and Power have agreed to certain terms deemed essential to recommending the IPP Renewal Agreements to their respective governing bodies. By signing the IPP Renewal Agreements, Pasadena is relying on LADWP to fulfill the commitments agreed upon among the General Managers. The LADWP Board passed a resolution on April 23, 2015 directing LADWP to work with the other California participants of IPP to continue to resolve their respective generation and transmission entitlements, rights and obligations associated with the Contract Amendment in a

manner consistent with all reliability rules, regulations and any applicable law for the unanimous execution of the Contracts.

CALIFORNIA ENERGY COMMISSION (“CEC”) SB 1368 PUBLIC NOTICE:

Pursuant to the California Code of Regulations (“CCR”) Title 20, Section 2908(b)(3), the approval of the IPP Renewal Agreements constitutes a “covered procurement” (defined as a new contract commitment for the procurement of electricity with a term of five years or greater by a local publicly owned electric utility with a baseload generation power plant). Under the CCR regulations, Pasadena is required to provide a public notice at the time of approval by Pasadena governing bodies. The form of the required public notice is in Attachment 1. The public notice will be forwarded to the California Energy Commission (“CEC”) and the interested public on the listserv maintained by the CEC concurrent with the posting of the City Council meeting agenda whereby the IPP Renewal Agreements will be considered by the City Council, currently expected to take place on July 20, 2015.

CITY COUNCIL POLICY CONSIDERATION:

The approval of the proposed IPP Renewal Agreements with IPA is consistent with the City Council adopted 2015 Integrated Resource Plan and will support the City Council’s strategic goals for a sustainable economy and to sustain natural environmental resources for the use of future generations, and at the same time, contribute to the reduction of greenhouse gas emissions and impacts on climate change.

ENVIRONMENTAL ANALYSIS:

The approval of the IPP Renewal Agreements with the Intermountain Power Agency is determined to be exempt from CEQA for the following reasons:

1. The approval of the IPP Renewal Agreements is categorically exempt pursuant to CEQA Guidelines section 15301 as a minor alteration to an existing facility used to provide electric power.
2. The approval of the IPP Renewal Agreements is categorically exempt pursuant to CEQA Guidelines section 15302 as a replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity. Repowering pursuant to the Renewal Contract would replace 1,800 megawatts of coal-fired electric generation units with not more than 1,200 megawatts of gas-fired electric generation units (“Repowering”).
3. The approval of the IPP Renewal Agreements would not have a significant effect on the environment and is therefore exempt from CEQA under the general rule set forth in CEQA Guidelines section 15061(b) (3).
4. No unusual circumstances exist and thus the categorical exemptions are not subject to any applicable exception. IPA’s existing Intermountain Power Project has been in operation since the 1980s, and Repowering pursuant to the Renewal

Contract would reduce air emissions compared to baseline conditions. There is nothing unusual about the IPP Renewal Agreements or the Repowering.

FISCAL IMPACT:

This action will have no immediate fiscal impacts. Initially it will commit Pasadena to a new power purchase contract for up to 40 MW of a new gas-fired power plant or an alternative repowering project with an off-ramp to terminate or reduce participation by up to 20% by August 3, 2019 if it is determined that the project cost is not economical or better than available alternative resources. It will also allow Pasadena to finalize critical transmission arrangements with LADWP by November 1, 2018, preserving rights to access the NTS, STS and LADWP transmission lines for an additional 50 years after the expiration of the existing IPP contracts.

If all parties sign the recommended Contract Amendment, PWP anticipates incurring additional energy and capacity procurement costs estimated to be approximately \$25 million between January 1, 2025 and June 15, 2027 as a result of replacing energy deliveries from the existing coal units with the new Repowering Project. The magnitude of these additional expenses can vary significantly depending on numerous factors, including: Future market design and conditions, such as the cost of capacity, energy, coal, natural gas, and emissions; debt service and other operating expenses of the Renewal Project relative to those of the IPP coal-fired project; and, the amount and cost of replacement capacity and energy necessary to make up the difference between the amount of generation provided by the IPP coal-fired project and the smaller Renewal Project.

If Pasadena subscribes to the Renewal Project and exercises its rights to terminate participation in the new project by August 3, 2019, there may be other costs related to replacing the capacity, energy and other services provided by IPP that are difficult to quantify at this point in time, but that will be evaluated as specific actions are proposed.

If Pasadena determines that it is in its best interests to proceed with participation in the Renewal Project, Pasadena will incur a new debt obligation by January 1, 2021 and bear all related costs associated with participation in the new project for the fifty year term of the IPP Renewal Agreements.

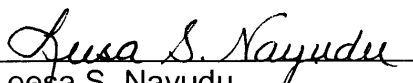
Any costs associated with this action will be recovered in the electric rates. The portion of increased costs associated with the early retirement or decommissioning of IPP may be offset, in whole or in part, by funds from the Stranded Cost Investment Reserve.

Respectfully submitted,



ERIC R. KLINKNER
Interim General Manager
Water and Power Department

Prepared by:



Leesa S. Nayudu
Resource Planning Manager
(Power Supply)

Approved by:



MICHAEL J. BECK
City Manager

ATTACHMENTS:

Attachment 1: California Energy Commission (CEC) SB 1368 Public Notice