

2018 Annual Meeting: Renewal Project on Track Following Alternative Repowering Approval

With the approval of the Alternative Repowering plan by IPA's Board and members, as well as the California Energy Commission, the IPP Renewal Project is now fully defined and moves into the engineering phase, IPA Chair Ted Olson, City of Ephraim, told members at the December 4, 2018, annual meeting.

The commissioning of natural gas generating units—on track for completion no later than July 1, 2025—and investment in new transmission equipment is designed to position the Project to attract additional opportunities for energy development. "The vision is that IPP will be an energy hub rather than just a generating and transmission facility," Olson said.

In addition to the construction of the new generating units and related infrastructure (see "Planning Underway for Construction of Gas Generators, Transmission Infrastructure" below), the Project anticipates the potential requirement for grid-scale energy storage to meet the goal of integrating intermittent generating resources to provide the majority of electric load. To that end, the IPP Site Development Policy Subcommittee has been reactivated (see "Subcommittees to Guide IPP Facilities Retirement, Potential New Energy Project Development" below) to formulate policies regarding potential development of new energy assets, such as compressed air energy storage and hydrogen processing and storage.

Other highlights of the annual meeting included:

• The Intermountain Generating Station's equivalent availability reached 92.8% for FY 2018—up from 90.9% the previous year. The forced outage rate of 0.03% was the second-best performance in



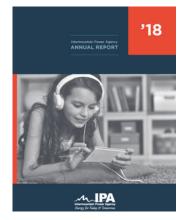
IPA Chair Ted Olson, City of Ephraim, delivers the chairman's report at the IPA 2018 annual meeting.



Bruce Rigby, Kaysville City, was re-elected to a fouryear term on the IPA Board commencing January 1, 2019.

Project history, while the equivalent forced outage rate of 0.48% rated the fifth-best performance ever.

- The Operating Agent has determined that the Project's coal ash impoundments do not meet the design criteria required for continued operation under EPA's CCR rule and that groundwater sampling has shown statistically significant concentrations of certain constituents in monitoring wells near the impoundments. IPA and the Operating Agent are now developing plans for how to close the generating units and impoundments—as well as corrective actions to address the regulated constituents detected in groundwater near the ponds.
- Bruce Rigby, representing Kaysville City, was re-elected to serve a four-year term on the IPA Board commencing January 1, 2019. Rigby was first selected to the IPA Board in 2016 and serves on the Finance and Audit committees.
- A resolution was adopted establishing a procedure to be used to determine the elected representative to the Renewal Contract Coordinating Committee for the 18 Utah cities that do not have individual representation on the committee. The next election for this position will be conducted at the IPA Annual Meeting in 2022.





IPA's 2018 <u>annual report</u>, annual <u>operating report</u> <u>video</u>, and <u>Annual Disclosure</u> <u>Statement</u> are available for viewing at the preceding links.

Planning Underway for Construction of Gas Generators, Transmission Infrastructure

IPA has appointed the Los Angeles Department of Water and Power (LADWP) to be Operating Agent and Project Manager of the generating units and converter stations to be built as part of the Renewal Project. LADWP officials Paul Schultz, Director External Energy Resources Division, and Lori Morrish, Project Manager for the IPP Renewal Project, briefed annual meeting attendees on construction planning for these Project assets.

The Alternative Repowering will include the construction and installation of two advanced-class 1x1 combined-cycle, natural gasfired power blocks—each consisting of one gas turbine, a heat recovery steam generator train, and a single steam turbine—with an approximate total net generation capability of 840 MW, together with auxiliary equipment. Combined, the generators will be capable of supporting 2,400 MW of Southern Transmission System HVDC



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operations. The timetable for the generation portion of the Project is as follows:

Advertise OEM RFP	March 2019
Award OEM Contract	September 2019
Advertise EPC RFP	April 2021
Award EPC Contract	December 2021
First Fire (Gas Unit 1/Gas Unit 2)	July/October 2024
Gas Unit 1 In Service	February 2025
Gas Unit 2 In Service	March 2025



With respect to transmission, the IPP Coordinating Committee's (IPPCC) Generation and Transmission Subcommittee, of which Morrish serves as chair, is recommending a greenfield approach rather than refurbishment of existing converter stations. Required upgrades to the Adelanto Switchyard, to be designed and built by LADWP forces, are in the conceptual engineering phase. Redesign of the IPP Switchyard, now in the conceptual design phase, will be carried out by Black & Veatch as part of an EPC contract. The timetable for the transmission portion of the Project is as follows:

Advertise IPP Switchyard RFP	June 2019
Advertise Reactive Power Equipment RFP	August 2019
Advertise Converter Station RFP	May 2020
Adelanto Switchyard Detailed Engineering	December 2020
IPP/Adelanto Switchyards In Service	April 2023/2024
Reactive Power Equipment In Service	October 2025
Converter Stations In Service	January 2026
Transmission System Commissioning Complete	April 2026

Subcommittees to Guide IPP Facilities Retirement, Potential New Energy Project Development

The IPP Coordinating Committee (IPPCC) has approved the formation of a subcommittee to guide decommissioning and retirement of existing coal units, as well as the reactivation of a second subcommittee to develop policies regarding potential energy projects beyond gas repowering. Both are to be assisted by staff of the Operating Agent/Project Manager, IPSC, and IPA and will bring approved recommendations to the IPPCC during its regular meetings.



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The newly formed IPP Facilities Retirement Subcommittee will recommend actions to be taken pursuant to the retirement from service of units, facilities, and properties that will be replaced or are no longer used due to the construction and operation of the repowering. The reactivated IPP Site Development Policy Subcommittee will formulate policies regarding potential development of new energy assets beyond those required for the gas repowering. Matters for initial consideration will be proposals for compressed air energy storage and hydrogen processing and storage.

IPA, IPSC to Conduct January 9 Public Meeting on Coal Ash Impoundments

The Intermountain Power Agency (IPA) and Intermountain Power Service Corporation (IPSC) will provide the public with an update on compliance with federal and state regulations affecting the Intermountain Power Project's coal ash impoundments. The meeting to be held at 6 pm on January 9, 2019, at the R.J. Law Community Center, in Delta, Utah—will include a discussion of the results of IPA's and IPSC's corrective measures assessment, an update on groundwater monitoring efforts, and an opportunity for public comment and questions.

For more information, contact Mike Utley at mike.utley@ipsc.com.

IPA Personnel in the News

Cameron Cowan has been named Assistant General Manager at Intermountain Power Agency. Cowan had served as Treasury Manager since July 2012. He joined IPA in 2006 as a Senior Auditor before being appointed Assistant Treasury Manager in 2010.

Dan Eldredge, IPA General Manager, has been selected by the Utah Foundation's Board of Trustees as its new Treasurer. He had previously served on the organization's Executive Board. The Utah Foundation is an independent, non-partisan public policy group carrying out research to help policymakers, business and community leaders, and citizens better understand complex issues and providing recommendations for policy change.



Cameron Cowan



Dan Eldredge



Energy Items of Interest

- Deseret News published, "PacifiCorp study prompts review of coal-fired power plants in six states, including Utah."
- Utility Dive published "Grid operators file plans with FERC on <u>integrating storage into wholesale</u> <u>markets</u>."
- EIA expects total <u>U.S. coal consumption in 2018</u> to fall to 691 million short tons, a 4% decline from 2017 and the lowest level since 1979.
- Converting to an all-electric vehicle fleet would boost <u>California's electricity requirements</u> by 47%, energy researchers report in the *Conversation*.
- The Hoover Dam could be retrofitted to add a wind- and solar-powered pump station, acting as an <u>energy storage unit</u> for the Southern California region.
- U.S. Energy Information Administration reported that November natural gas prices <u>increased</u> <u>beyond previous market expectations</u>.
- U.S. Senate <u>confirmed Department of Energy official Bernard McNamee</u> to serve on the Federal Energy Regulatory Commission for the remainder of a term ending in June 2020.
- FERC <u>rejected a proposal</u> from independent generators to establish a mandatory capacity market for the California Independent System Operator.
- Bloomberg NEF's most recent <u>Levelized Cost of Electricity analysis</u> concluded that onshore wind and solar now lead as the cheapest sources of new bulk power.
- Wood Mackenzie concluded that U.S. energy storage is <u>poised for rapid growth</u> and will be a \$4.5 billion market in 2023.
- Pacific Gas & Electric announced plans to install more than <u>2,200 MWh of battery storage</u> to replace three natural gas-fueled power plants.
- U.S. Energy Information Administration reported that the winter heating season is beginning with natural gas stocks at their <u>lowest level in 13 years</u>.
- Bloomberg published "U.S. natural gas holds gains after biggest jump in eight years."

Links

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Learn more about Intermountain Power Agency, please visit: www.ipautah.com

PowerLines is a publication of Intermountain Power Agency. The Intermountain Power Project includes a two-unit coalfueled generating station located near Delta, Utah, two transmission systems, a microwave communication system and a railcar service center, all built as a joint undertaking by 35 utilities in Utah and California.

Certain statements included in this communication constitute "forward-looking statements" within the meaning of the federal securities laws. Such statements are generally identifiable by the terminology used such as "anticipate," "plan," "envision," "become," "expect," "future," "potential," "continue" or other similar words and include statements regarding future operations of IPA. The achievement of certain results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements described to be materially different from results, performance or achievements expressed or implied by such forward-looking statements. Such risks include the ability to design, permit, finance and construct natural gas facilities at IPP, the continued payment by power purchasers under the contracts pursuant to which they purchase such power, the ability of third parties unrelated to IPA to continue to develop power and industrial facilities in the immediate area and other risks, uncertainties and other factors discussed from time to time in filings made by IPA pursuant to its continuing disclosure obligations through the Municipal Securities Rulemaking Board's Electronic Municipal Market Access system ("EMMA"), currently located at http://emma.msrb.org. IPA does not undertake any obligation to correct or update any forward-looking statements whether as a result of changes in internal estimates or expectations, new information, subsequent events or circumstances or otherwise.