INTERMOUNTAIN POWER AGENCY
BOARD OF DIRECTORS MEETING
AUGUST 8, 2023

MINUTES

A meeting of the Intermountain Power Agency (IPA) Board of Directors was held on August 8, 2023, at the Sheraton Hotel, 1895 Sidewinder Drive, Park City, Utah, as well as via Zoom virtual meeting. The following participated:

BOARD MEMBERS PRESENT

Nick Tatton – Vice Chair
Eric Larsen – Secretary
Allen Johnson - Treasurer - Virtual
Mark Montgomery
Joel Eves
Bruce Rigby

OTHERS IN ATTENDANCE

Cameron Cowan	IPA
Blaine Haacke	IPA
Linford Jensen	IPA
Vance Huntley	IPA
Cody Combe	IPA
Michelle Miller	IPA
Lisa Harris	IPA
Caitlyn Cottrell	IPA
Ryleigh Hair	IPA - Virtual
Marlene Conrad	IPA - Virtual
Saif Mogri	IPA Consultant
Eric Bawden	Holland & Hart
Mark Buchi	Holland & Hart – Virtual
Scott Hughes	Hurricane - Virtual
Jon Finlinson	IPSC
Kevin Miller	IPSC
Mark Shipley	IPSC
John Ward	John Ward Inc
Greg Huynh	LADWP
Lori Morrish	LADWP
Kevin Peng	LADWP
Jentrie Willey	OLAG - Virtual

INTRODUCTIONS AND ANNOUNCEMENTS

The meeting commenced at 1:00 p.m. conducted by Vice Chair, Nick Tatton. Mr. Tatton welcomed everyone to the meeting and declared a quorum was present to conduct business.

IPA BOARD VICE CHAIR ITEMS

Mr. Tatton said there was none.

BOARD COMMITTEE REPORTS

Mr. Larsen said the Project Entity Oversight Committee requested report has been submitted.

OPERATING AGENT AND PROJECT MANAGER Q&A

Mr. Tatton asked the Board if they had any questions for Mr. Huynh, Operating Agent, and Ms. Morrish, Project Manager. There were no questions.

RESOLUTION IPA-2023-017 CONSIDERATION OF APPROVAL OF INCREASE IN EXPENDITURE AUTHORITY UNDER AGREEMENT NO. 722 (INTERMOUNTAIN SWITCHYARD)

Mr. Tatton asked Ms. Morrish to provide a description of Resolution IPA-2023-017. Ms. Morrish provided the description and asked if there were any questions. Hearing none, Mr. Tatton asked for a motion to approve Resolution IPA-2023-017.

> **Mr. Rigby made a motion to approve Resolution IPA-2023-017. Mr. Montgomery seconded the motion. A vote by all Board members participating in the meeting was taken and the vote was unanimous in the affirmative.**

RESOLUTION IPA-2023-018 CONSIDERATION OF APPROVAL OF AUTHORIZATION TO EXECUTE PROFESSIONAL SERVICES AGREEMENT NO. R23-020 (CONVERTER STATION PROJECT MANAGEMENT)

Mr. Tatton asked Ms. Morrish to provide a description of Resolution IPA-2023-018. Ms. Morrish provided the description and the additional detail of a total of $4.6 million rather than $3 million and asked if there were any questions. Hearing none, Mr. Tatton asked for a motion to approve Resolution IPA-2023-018.

> **Mr. Eves made a motion to approve Resolution IPA-2023-018 with a limit not to exceed $4.6 million. Mr. Larsen seconded the motion. A vote by all**

Board members participating in the meeting was taken and the vote was unanimous in the affirmative.

RESOLUTION IPA-2023-019 CONSIDERATION OF APPROVAL OF INTERMOUNTAIN POWER AGENCY SIXTY-THIRD SUPPLEMENTAL POWER SUPPLY REVENUE BOND RESOLUTION ESTABLISHING A DECOMMISSIONING FUND FOR COAL-FIRED GENERATING UNITS

RESOLUTION IPA-2023-020 CONSIDERATION OF APPROVAL OF INTERMOUNTAIN POWER AGENCY SIXTY-FOURTH SUPPLEMENTAL POWER SUPPLY REVENUE BOND RESOLUTION ESTABLISHING A DECOMMISSIONING FUND FOR ACTUAL STS DECOMMISSIONING COST

RESOLUTION IPA-2023-021 CONSIDERATION OF APPROVAL OF INTERMOUNTAIN POWER AGENCY SIXTY-FIFTH SUPPLEMENTAL POWER SUPPLY REVENUE BOND RESOLUTION ESTABLISHING A DECOMMISSIONING FUND FOR PROJECT COMPONENTS

Mr. Tatton asked Mr. Cowan to provide a description of Resolutions IPA-2023-019 – IPA 2023-021. Mr. Cowan provided the description and asked if there were any questions. Hearing none, Mr. Tatton asked for a motion to approve Resolutions IPA-2023-019 – IPA 2023-021.

Mr. Larsen made a motion to approve Resolutions IPA-2023-019 – IPA-2023-021. Mr. Montgomery seconded the motion. A vote by all Board members participating in the meeting was taken and the vote was unanimous in the affirmative.

RESOLUTION IPA-2023-022 CONSIDERATION OF APPROVAL OF USE OF EXCESS AMOUNTS IN IPA DEBT SERVICE RESERVE ACCOUNT TO PAY COSTS OF ACQUISITION AND CONSTRUCTION OF GAS REPOWERING

Mr. Tatton asked Mr. Cowan to provide a description of Resolution IPA-2023-022. Mr. Cowan provided the description and asked if there were any questions. Hearing none, Mr. Tatton asked for a motion to approve Resolution IPA-2023-022.

Mr. Rigby made a motion to approve Resolution IPA-2023-022. Mr. Eves seconded the motion. A vote by all Board members participating in the meeting was taken and the vote was unanimous in the affirmative.

INTERMOUNTAIN POWER SERVICE CORPORATION (IPSC) ENVIRONMENTAL REPORT

Mr. Tatton asked Mr. Finlinson to give the IPSC Environmental Report update as of August 8, 2023.

Mr. Finlinson reported the following related to Reports and Testing: The annual MATS 30-day mercury testing is underway. It started July 1, 2023. After four valid tests, Unit 1 is averaging 38.1 pounds per year and Unit 2 is averaging 29.7 pounds per year. Stantec and Cascade Drill completed installing the four new wells in the Northwest corner of the site.

Mr. Finlinson reported the following related to the Evaporation Pond 2: H2J is onsite this week inspecting the evaporation ponds for problems with the liners and making minor repairs. H2J have found significant problems with the liner in Pond 2. The IPSC Environmental team is continuing to work with IPSC Maintenance to lower the levels in Evaporation Ponds 2 and 4.

Mr. Finlinson reported the following related to the Kit Fox: With the permission of the Utah Division of Wildlife Resources, the IPSC Environmental Team trapped and relocated six kit foxes from the west side of the evaporation ponds. The foxes are listed as a sensitive species in Utah.

Mr. Finlinson said the Sevier Bridge Reservoir is about 25% full (56,791 acre-feet). Last week, the website showed the reservoir 28% full (78,236). There is about 38 cfs coming into Sevier Bridge Reservoir and 464 cfs being released. There is about 210 cfs going into Piute Reservoir.

Mr. Finlinson said the Dam construction project is going well.

Mr. Tatton thanked Mr. Finlinson for his report.

Report attached below.

REPORT ON PUBLIC RELATIONS/MEDIA ATTENTION

Mr. Ward, IPA's Public Relations Consultant, gave the Board the Public Relations/Media Update on the Renewal Project as of August 8, 2023.

Mr. Ward said the Communications Revamp is currently under way with additional communication resources now on board under the IPP Renewed Project Manager's budget. The near-term activities include the following: commence branding shift from legacy project to IPP Renewed, increased face to face outreach to Utah civic organizations, the IPA website is being rebuilt, the development of additional support media, including social media-friendly graphics and time-lapse construction video, the

restart of social media outreach, and the monthly project update advertisements in the Millard County Chronicle-Progress.

Mr. Ward said the Outreach Opportunities include the following: Supporting lobbying team on outreach to elected officials with an updated IPP Renewed Power Point presentation and an updated time-lapse construction video; Coordinating public messaging by IPP Renewed contractor organizations; Responding to increasing interest by trade and national news media; and future events. The future Outreach Opportunities include the following: the Utah League of Cities and Towns Annual Meeting on September 6-8, 2023, the One Utah Summit in Cedar City on October 3-4, 2023, the IPA member City Council project update briefing in Fall 2023, the Utah media editorial board briefings in Fall 2023, the Utah Association of Counties Building Utah Conference in April 2024, the Utah Republican State Convention in April 2024, the Chambers of Commerce, the Civic Groups, and the Policy Organizations dates are to be determined.

Mr. Ward reviewed with the Board the revised IPP Renewed Banners, the revised IPP Renewed trifold brochure, and the new media support of photography, videos and ads.

Mr. Ward asked the Board for questions. There were none.

Mr. Tatton thanked Mr. Ward for the report.

Report attached below.

ENGINEERING REPORT

Mr. Mogri, IPA's Engineering Consultant, provided a detailed report on the NERC IBR/DER Reliability Assessment including managing the pace of generation retirements, the reliable interconnections of IBR, accommodating large amounts of DER, and managing essential reliability services. Mr. Mogri discussed in detail the following: the trends and implications for reliability, the differences between IBR and Synchronous Generation, CAISO Solar disturbances, the description of disturbances, the solar disturbance profile, and the cause of reduction. Mr. Mogri finished with the assessment recommendations.

Mr. Eves asked for Mr. Mogri's report to be emailed to the Board.

Mr. Mogri asked the Board for questions. There were none.

Mr. Tatton thanked Mr. Mogri for the report.

Report attached below.

CONSIDERATION OF APPROVAL OF 2024 IPA BOARD OF DIRECTOR'S MEETING CALENDAR

Mr. Tatton reviewed with the Board the proposed calendar for the 2024 Meeting Schedule—IPA Board of Directors. Mr. Cowan said the dates being approved are the IPA Board meeting dates.

Mr. Tatton asked for a motion to approve the 2024 Meeting Schedule—IPA Board of Directors.

> **Mr. Montgomery made a motion to approve the 2024 Meeting Schedule—IPA Board of Directors. Mr. Rigby seconded the motion. A vote by all Board members participating in the meeting was taken and the vote was unanimous in the affirmative.**

Report attached below.

POTENTIAL CONSIDERATION OF CLOSED MEETING

Mr. Tatton asked for a motion to strike the potential consideration of closed meeting from the agenda and defer it to a later date.

> **Mr. Larsen made a motion to strike the potential consideration of closed meeting from the agenda and defer it to a later date. Mr. Montgomery seconded the motion. A vote by all Board members participating in the meeting was taken and the vote was unanimous in the affirmative.**

POTENTIAL DISCUSSION OF BOARD VACANCY AND POTENTIAL ELECTION TO FILL BOARD VACANCY ON INTERIM BASIS

Mr. Tatton asked the Board for their recommendation on filling the Board vacancy.

> **Mr. Rigby made a motion to table the filling of the Board vacancy until the September 18, 2023, Board meeting. Mr. Montgomery seconded the motion. A vote by all Board members participating in the meeting was taken and the vote was unanimous in the affirmative.**

POTENTIAL DISCUSSION OF AND POTENTIAL APPROVAL OF SETTLEMENT OF LITIGATION

> **Mr. Montgomery made a motion to strike the potential discussion of and potential approval of settlement of litigation from the agenda and defer it to a later date. Mr. Larsen seconded the motion. A vote by all Board members**

participating in the meeting was taken and the vote was unanimous in the affirmative.

ADJOURN

Mr. Tatton thanked everyone for their comments and asked for a motion to adjourn.

Mr. Rigby made a motion to adjourn. Mr. Larsen seconded the motion. A vote by all Board members participating in the meeting was taken and the vote was unanimous in the affirmative. The meeting was adjourned at 1:59 p.m.

TIME AND PLACE OF NEXT MEETING

Monday, September 18, 2023, 1:00 p.m., at the IPA Office located in South Jordan, UT.

Minutes taken by Michelle Miller.

IPA Board Meeting Environmental Update Aug 8, 2023

Reports and Testing

The annual MATS 30-day mercury testing is underway, started July 1. After 4 valid runs, Unit 1 is averaging 38.1 pounds/year and Unit 2 is averaging 29.7 pounds/year.

Stantec and Cascade Drilling completed installing four new wells NW corner of site.

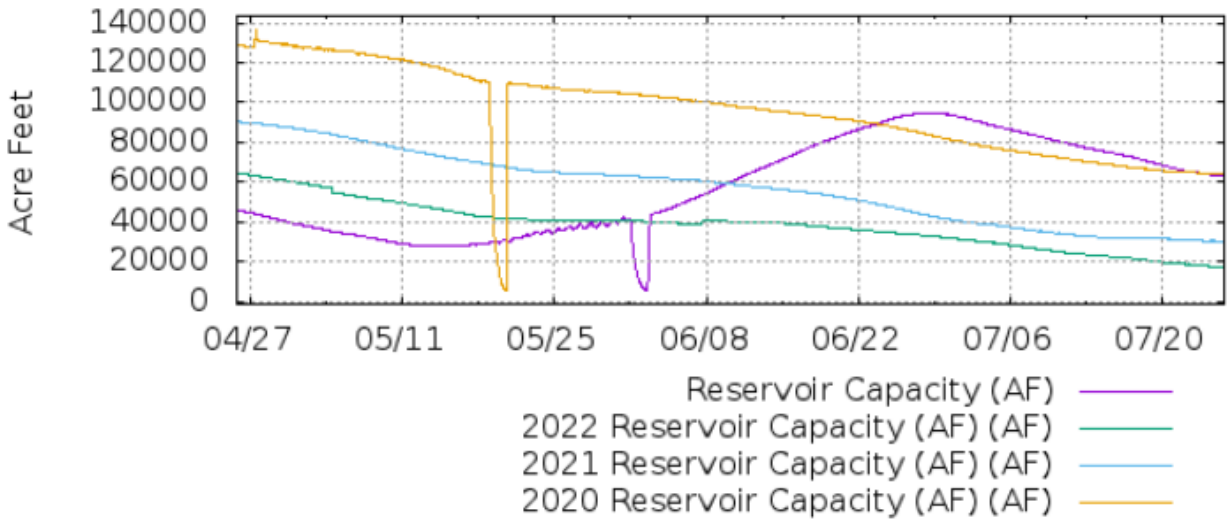
Evaporation Pond 2

H2J is onsite this week inspecting the evaporation ponds for problems with the liners and making minor repairs. They have found significant problems with the liner in Pond 2. We are continuing to work with Maintenance to lower the levels in Evaporation Ponds 2 and 4.

Water

The gauge at Sevier Bridge Reservoir is reading about 25% full (56,791 acre-feet) today. Last week, the website showed the reservoir 28% full (62,435). There is about 38 cfs coming into Sevier Bridge Reservoir and 464 cfs being released. There is about 210 cfs going into Piute Reservoir.

The construction project is going well on the dam.



IPP Renewed

Public Relations UPDATE
IPA Board of Directors

August 8, 2023

John Ward

Intermountain Power Agency

Communications Director

wardo@wardo.com

801-560-9801

Communications Revamp Under Way

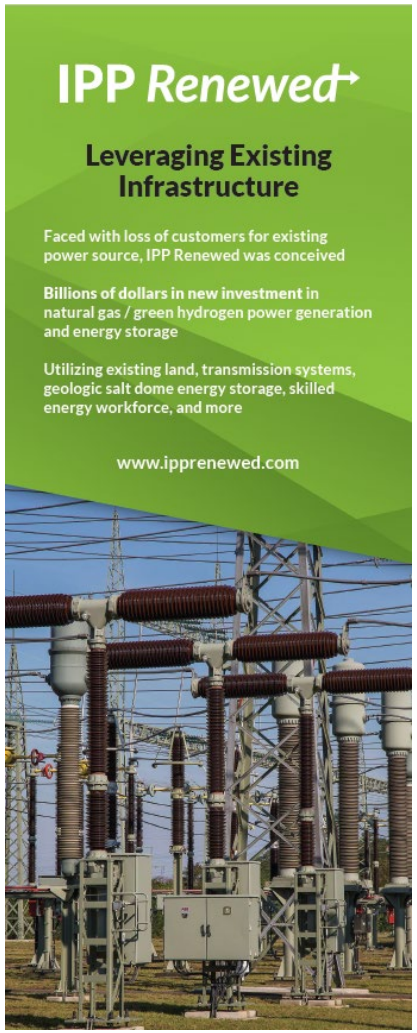
- Additional communication resources now on board
- Near-term activities include:
  - Commence branding shift from legacy project to IPP Renewed
  - Increased face-to-face outreach
  - IPA website rebuild
  - Development of additional support media, including social media-friendly graphics and video assets
  - Restart of social media outreach
  - Monthly project update advertisements in *Millard County Chronicle-Progress*

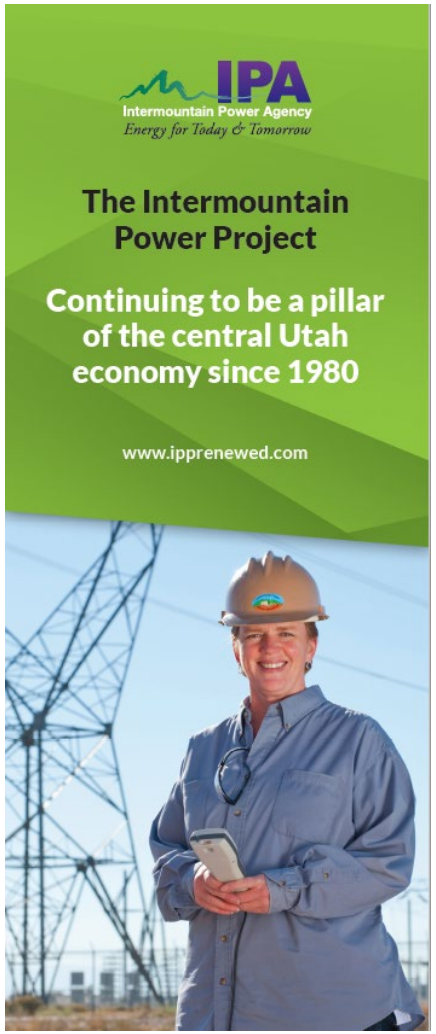
Outreach Opportunities

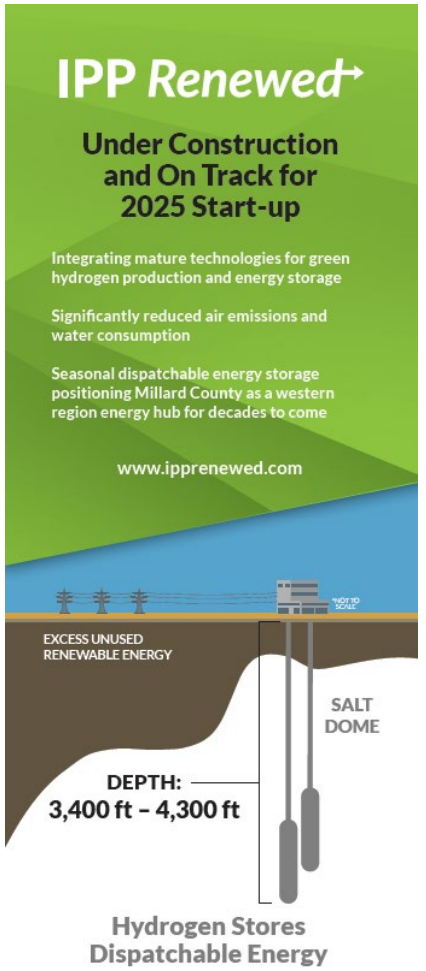
- Supporting lobbying team on outreach to elected officials
  - Updated IPP Renewed PowerPoint presentation now in use
  - Time-lapse construction video updated frequently
- Coordinating public messaging by IPP Renewed contractor organizations
- Responding to increasing interest by trade and national news media
- Future events:
  - **Utah League of Cities and Towns Annual Meeting – Salt Lake City, Sept. 6-8, 2023**
  - **One Utah Summit – Cedar City, Oct. 3-4, 2023**
  - Another round of IPA member City Council project update briefings – Fall 2023
  - Another round of Utah media editorial board briefings – Fall 2023
  - Utah Association of Counties Building Utah Conference - April 2024
  - Utah Republican State Convention - April 2024
  - Chambers of Commerce, Civic Groups, Policy Organizations TBD

IPP Renewed

Outreach Support – Revised Exhibit

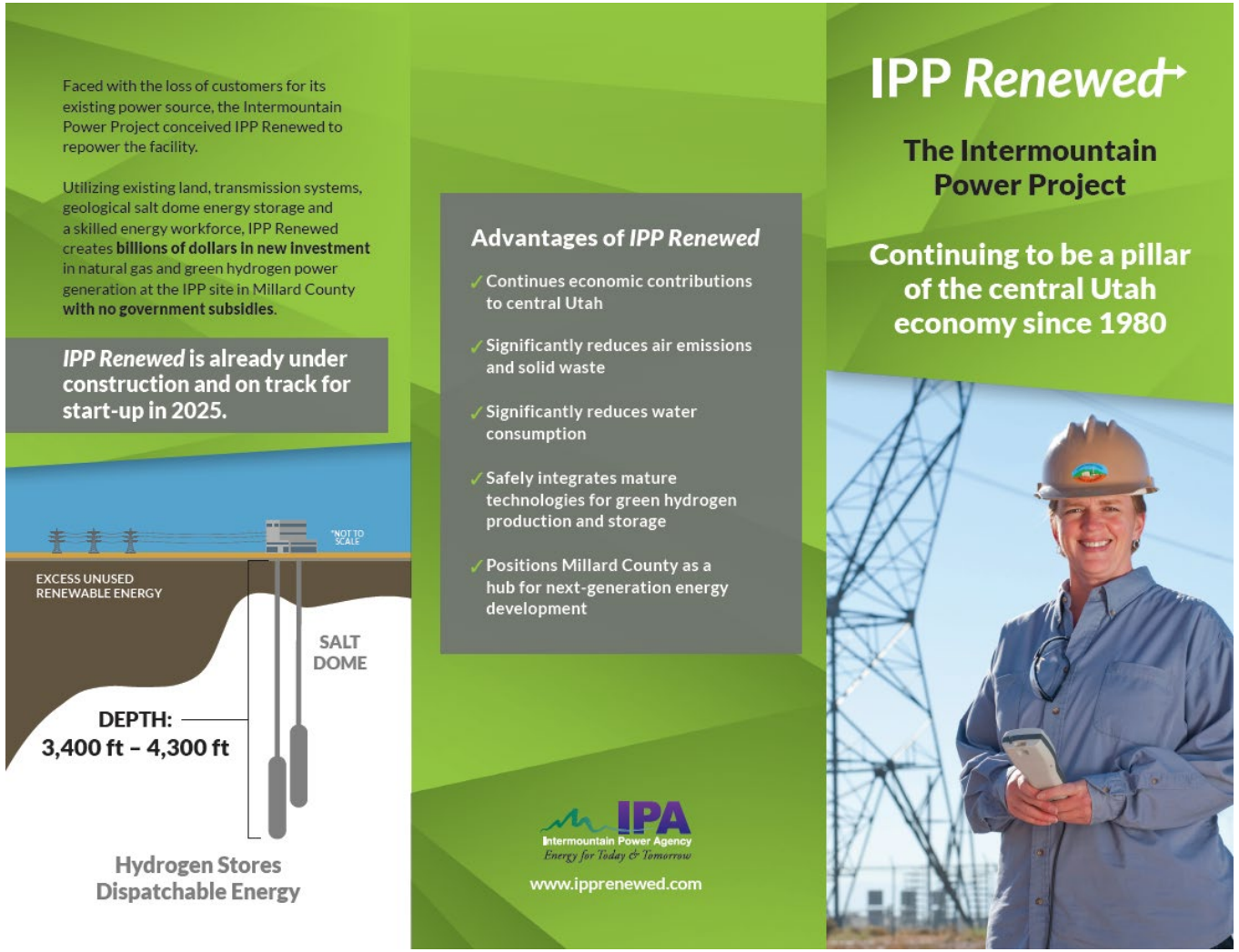






IPP Renewed

Outreach Support - Revised Handout, Part I



IPP Renewed

Outreach Support - Revised Handout, Part II

A Proud History of Power Generation

Intermountain Power Project (IPP) has been producing electricity in Delta, Utah for almost 40 years.

In addition to electricity generating facilities, IPP includes two electricity transmission systems and various support facilities - **all built with no taxpayer investment or economic development incentives.**

Since inception, IPP has paid more than $720 million in state and local taxes while creating highly compensated, skilled employment opportunities for central Utah.

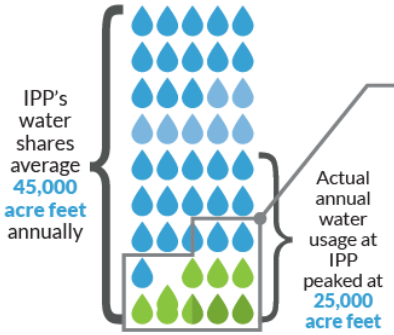
Proven Technology for the Next Chapter

The transformational IPP Renewed project includes repowering the facility through:

- Installing new natural gas-fueled electricity generating units
- Turbines will be capable of utilizing 30 percent hydrogen at start-up and increasing over time
- 840 megawatts net generation output
- Modernizing IPP's Southern Transmission System linking the project to Southern California
- Development of green hydrogen production and long-term storage capabilities.

Hydrogen

When too much renewable energy is generated in the region and cannot otherwise be used, it will power an electrolysis system to create hydrogen which is stored in underground salt caverns beside the power plant. Hydrogen can then be used in the turbines as dispatchable power – solving a problem for renewable energy by creating a system that acts as a battery for energy.



The Intermountain Power Project has achieved 100% beneficial use of its water in every year of operation by leasing unused water shares to agriculture.

Responsible Stewardship of Utah's Water

The new facility will only use a fraction of the water presently consumed by the existing power plant.

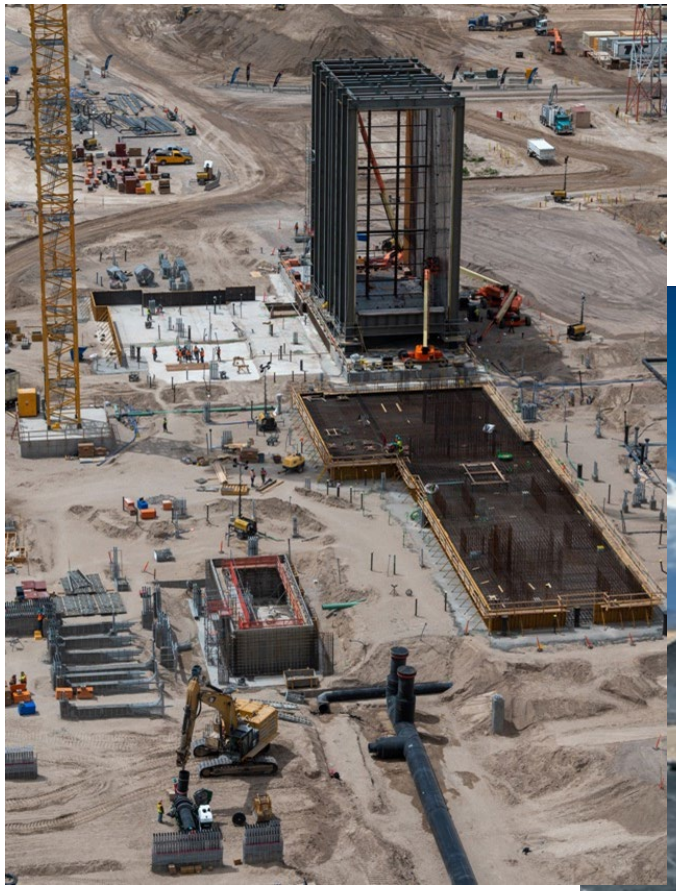
In 1979, prior to construction of the Intermountain Power Project, the Project acquired water shares averaging 45,000 acre feet annually at a cost significantly above its agricultural value.

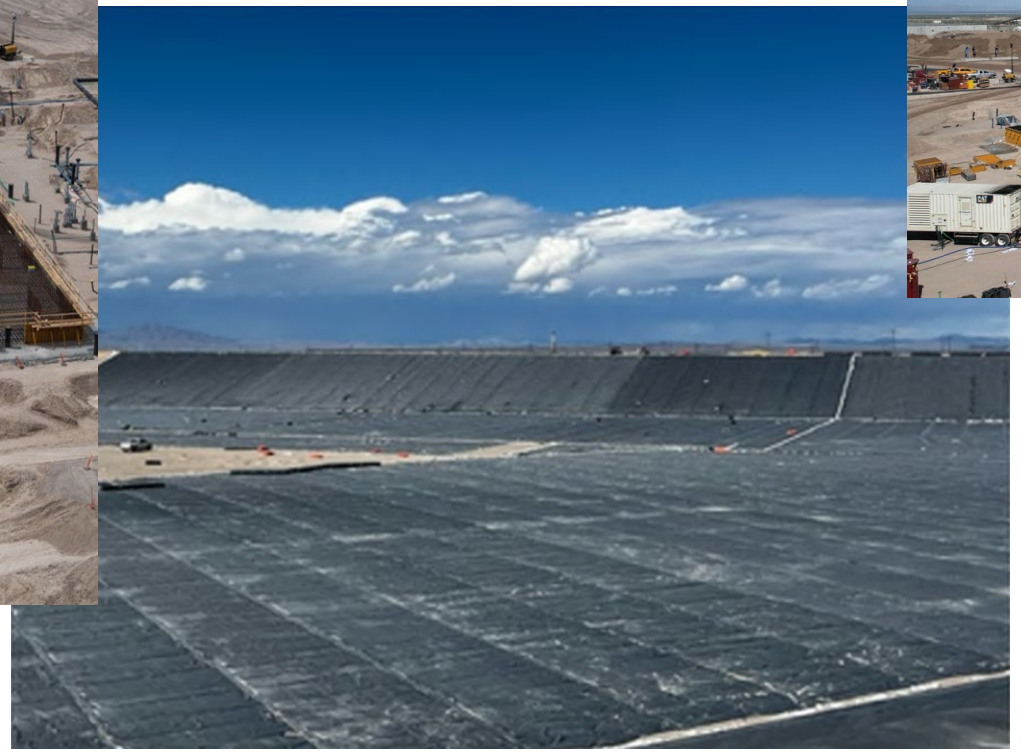
= 1,000 acre feet of water

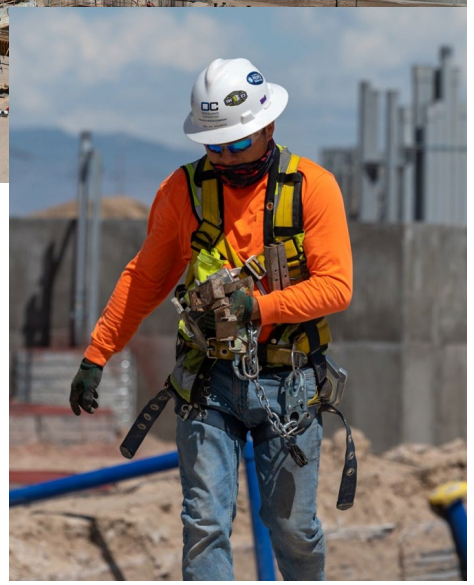
- Current water usage: **12,500 acre feet** annually
- Projected water usage for IPP Renewed gas-fueled units: **6,500 acre feet** annually
- Projected water usage to produce 100% hydrogen: **2,500 acre feet** annually
- Salt cavern storage development: **7,000 acre feet** of water annually for **only two years**

IPP Renewed

New Support Media – Photography and Video

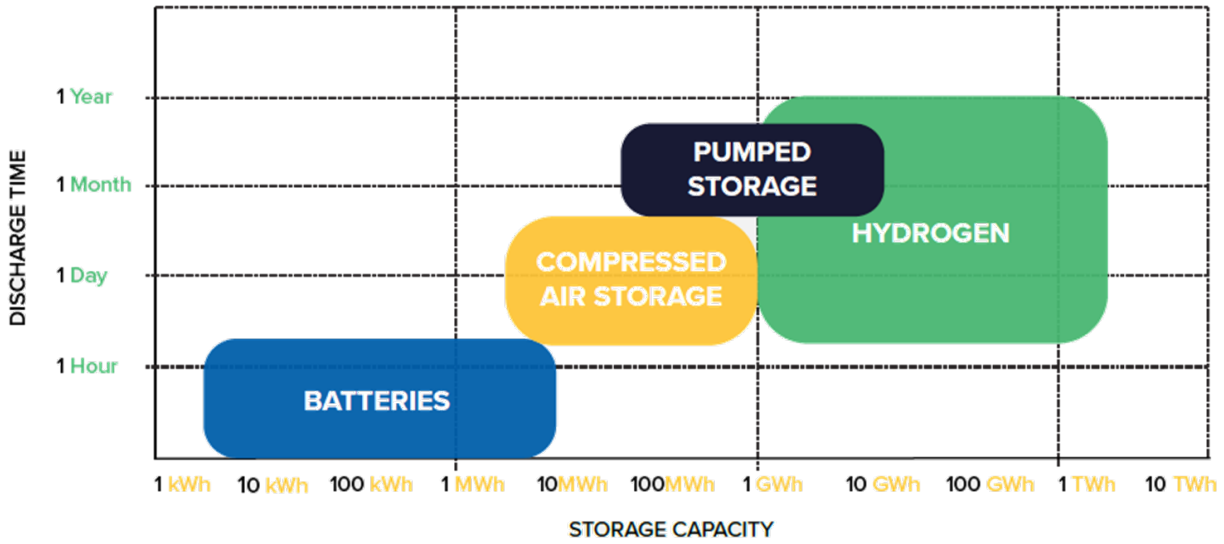


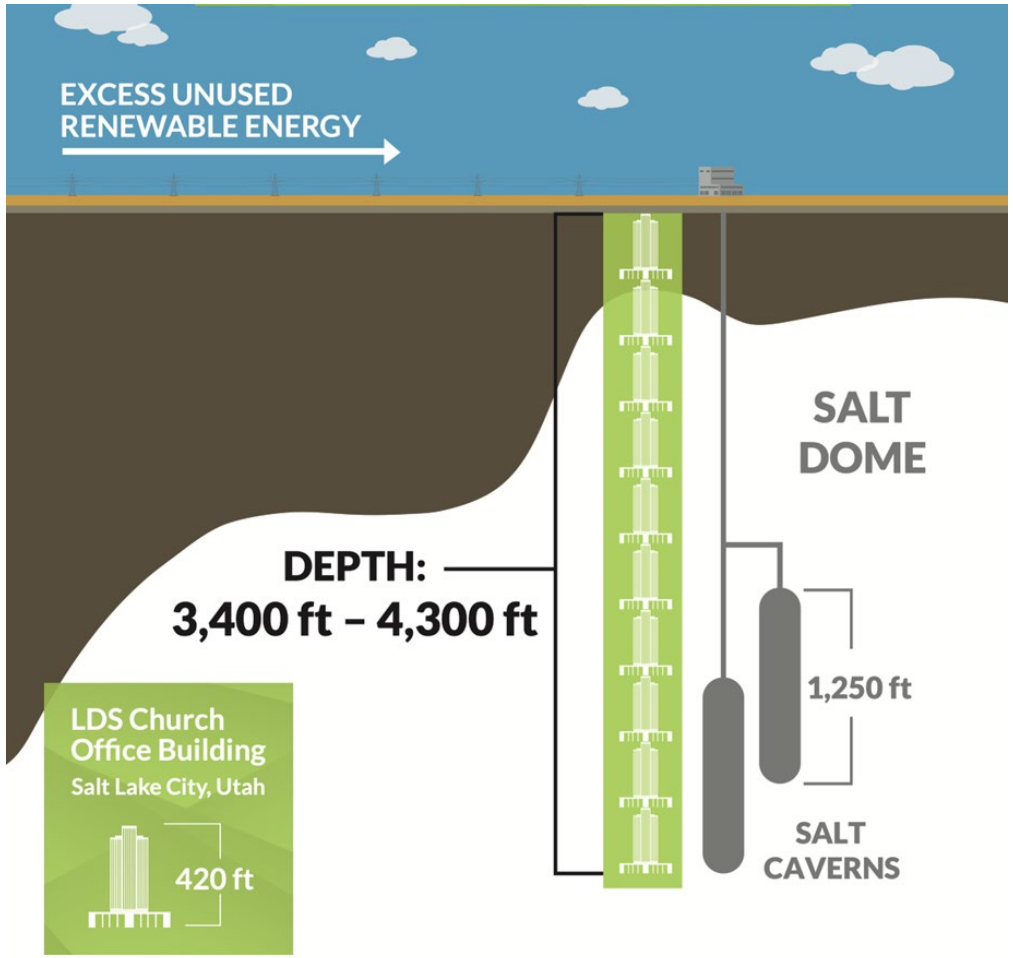




IPP Renewed

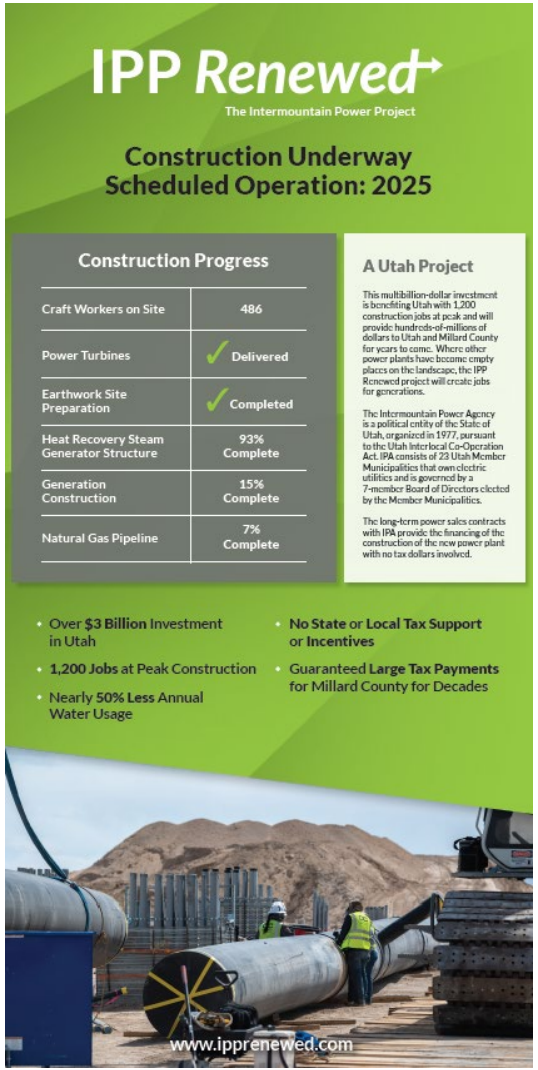
New Support Media - Improved Infographics

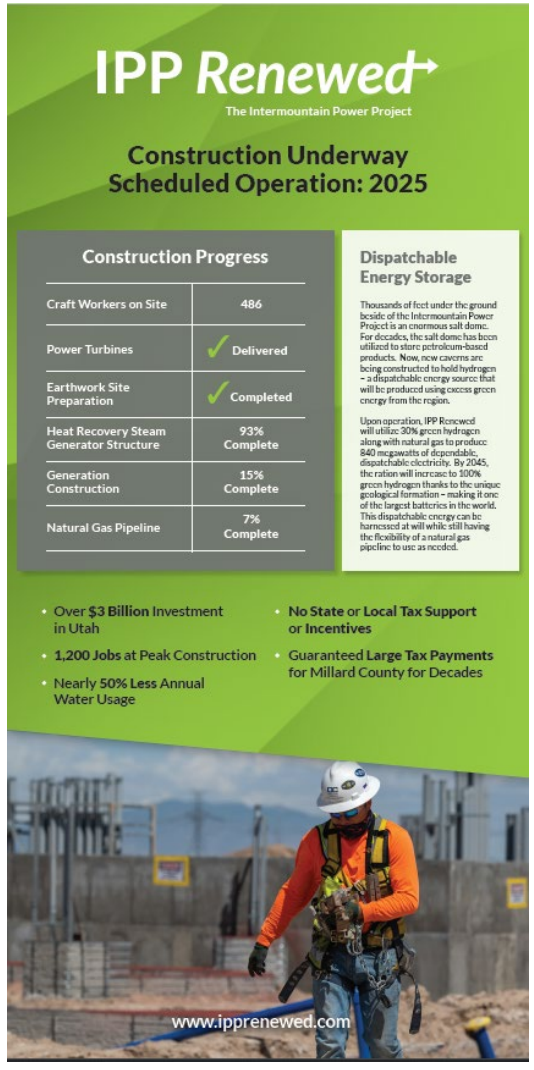


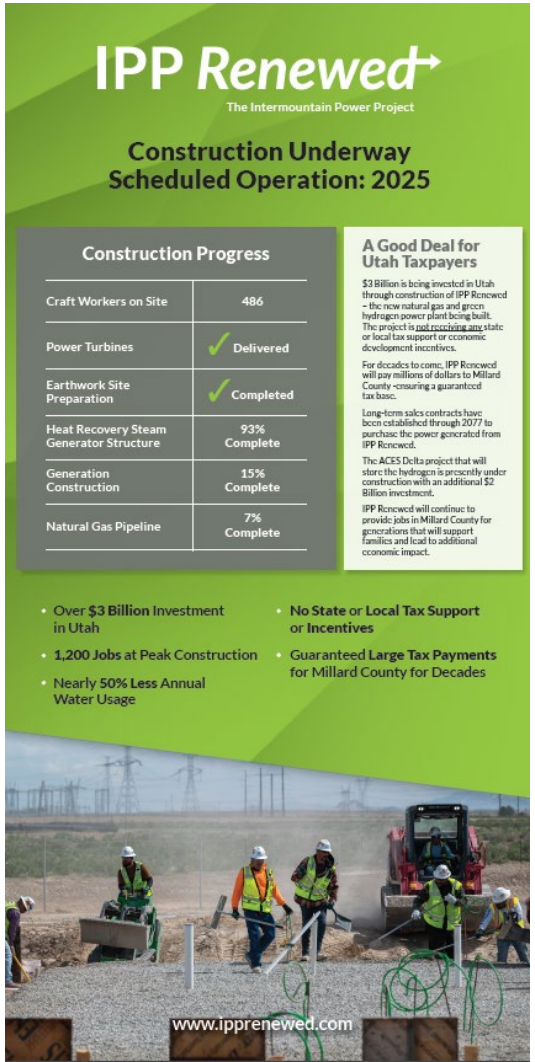


IPP Renewed

New Support Media – Monthly Project Update Ads







New Support Media – Other Items in Draft Stage

- Website content and images
- Construction video
  - Time-lapse
  - Construction update, plus 30- and 60-second features
- Social media plan
  - Facebook
  - YouTube
- Wikipedia updates plan
  - Intermountain Power Agency
  - Intermountain Power Plant
  - Delta, Utah

NERC IBR/DER Reliability Assessment

Saif Mogri

IPA Board Presentation

August 8, 2023

Resource Mix Changes and Implications for Reliability

- Managing Pace of Generation Retirements
- Reliable Interconnections of IBR
- Accommodating Large Amounts of DER
- Managing Essential Reliability Services

Trends and Implications for Reliability

- Peak Demand and Energy Growth
- Insufficient Transmission Capacity
- Emerging Electrification Challenges
- IBR and DER Performance

Difference Between IBR and Synchronous Generation

Inverter-Based Resources	Synchronous Generation
• Driven by power electronics and software	• Driven by physical machine properties
• No (or little) inertia	• Large rotating inertia
• Very low fault current	• High fault current
• Sensitive power electronic switches	• Rugged equipment tolerant to extremes
• Very fast and flexible ramping	• Slower ramping
• Very fast frequency control	• Inherent inertial response
• Minimal plant auxiliary equipment prone to tripping	• Sensitive auxiliary plant equipment
• Dispatchable based on available power	• Fully dispatchable
• Can provide essential reliability services	• Can provide essential reliability services

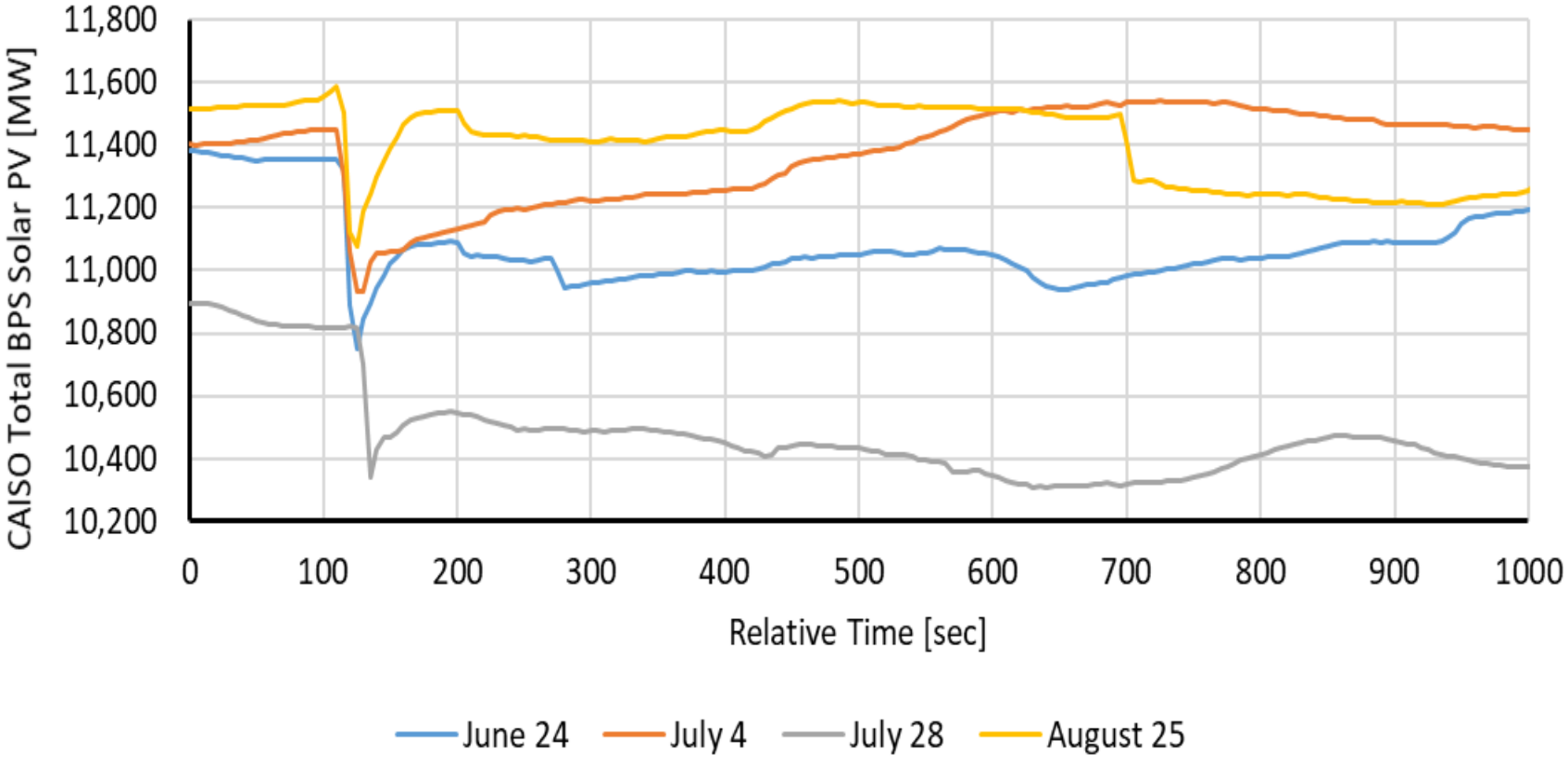
CAISO Solar Disturbances

Disturbance and Name	Initiating Fault Event	Description of Resource Loss*
June 24, 2021 "Victorville"	Phase-to-Phase Fault on 500 kV Line	Loss of 765 MW of solar PV resources (27 facilities) Loss of 145 MW of DERs
July 4, 2021 "Tumbleweed"	Phase-to-Phase Fault on 500 kV Line	Loss of 605 MW of solar PV resources (33 facilities) Loss of 125 MW at natural gas facility Loss of 46 MW of DERs
July 28, 2021 "Windhub"	Single-Line-to-Ground Fault on 500 kV Circuit Breaker	Loss of 511 MW of solar PV resources (27 facilities) Loss of 46 MW of DERs
August 25, 2021 "Lytle Creek Fire"	Phase-to-Phase Fault on 500 kV Line	Loss of 583 MW of solar PV resources (30 facilities) Loss of 212 MW at natural gas facility Loss of 91 MW at a different natural gas facility

Description of Disturbances

- **June 24, 2021, "Victorville Disturbance":** At 15:19:35 (3:19 p.m. Pacific), a 500 kV line relayed due to a phase-to-phase fault (3.5 cycle clearing), resulting in a reduction of 765 MW of solar PV resources across the area. 730 MW of the reduction occurred in the CAISO BA footprint, and 35 MW of the reduction occurred in the LADWP BA footprint. CAISO identified 27 solar PV facilities that reduced output as a result of the fault.
- **July 4, 2021, "Tumbleweed Fire Disturbance":** The Tumbleweed Fire burned under some 500 kV transmission lines and heavy smoke caused faults on both the #1 and #2 lines. At 15:01:33 (3:01 p.m. Pacific), #1 kV line relayed out on a phase-to-phase fault. Nine seconds later at 15:01:42 (3:01 p.m. Pacific), the #2 line relayed due to a phase-to-phase fault (3-cycle clearing). The faults caused CT#2 at a combined-cycle power plant to trip while loaded at 125 MW and a 605 MW reduction of solar PV resources. CAISO identified 33 solar PV facilities that reduced output as a result of the fault.
- **July 28, 2021, "Windhub Disturbance":** At 12:14:48 (12:14 p.m. Pacific), a 500 kV line and the 500/230 kV transformer bank tripped on differential protection for a single-line-to-ground fault (3.5 cycle clearing) while closing disconnects on a 500 kV circuit breaker that faulted internally at the substation. The breaker was being returned to service after scheduled maintenance. A 500 kV series capacitor internally bypassed at a nearby facility. CAISO observed a 511 MW reduction of solar PV resources across 27 facilities.
- **August 25, 2021, "Lytle Creek Fire Disturbance":** At 14:15:11 (2:15 p.m. Pacific), a fire burning in Lytle Creek caused a 500 kV line to trip. Some solar PV resources reduced output during this initial fault. The transmission line was returned to service at 14:28:00 (2:28 p.m. Pacific) and then subsequently tripped again at 14:29:10 (2:29 p.m. Pacific) due to a phase-to-phase fault (3-cycle clearing). An LADWP 287 kV line tripped due to fire in the area as well. CAISO recorded 583 MW of solar PV reduction across 30 facilities. A natural gas turbine also tripped that was carrying 212 MW when a 220 kV line exceeded a remedial action scheme (RAS) threshold and tripped. In addition, another natural gas turbine at a combined cycle plant tripped while carrying 91 MW.

Solar Disturbance Profile



Causes of Reduction

Cause of Reduction	June 24 [MW]	July 4 [MW]	July 28 [MW]	August 25 [MW]
Slow Active Power Recovery	111	193	184	91
Momentary Cessation	310	120	192	447
Cause Unknown	103	103	112	24
Inverter DC Voltage Unbalance	-	77	15	4
Inverter AC Overcurrent	49	74	17	13
Inverter DC Overcurrent	98	9	47	3
Inverter UPS Failure	-	4	-	-
Inverter Overfrequency	-	-	43	18
Inverter Underfrequency	14	-	-	-
Inverter AC Undervoltage	100	-	16	-
Total	**785**	**566**	**626**	**600**

Recommendations

- Performance Validation
- Develop a Ride Through Standard
- Analyzing and Reporting of Abnormal IBR Operations
- Monitoring Data
- Modeling and Quality Checks
- IBR Specific Performance Requirements
- Interconnection Requirements

Intermountain Power Agency
Energy for Today & Tomorrow

2024 MEETING CALENDAR
IPA BOARD OF DIRECTORS

January 16-17	UAMPS
January 18	IPSC Board Meeting
February 5 (Monday)	**9:00 A. M. – St. George, Utah**
February 20-21	UAMPS
February 27-March 1	APPA Legislative Rally – Washington, DC
March 5 (Tuesday)	**1:00 P.M. – Burbank, CA**
March 19-20	UAMPS
April 15 (Monday)	**1:00 P.M. – IPA, South Jordan, UT**
April 16-17	UAMPS
April 18	IPSC Board Meeting
May 20 (Monday)	**9:00 A.M – IGS, Delta, UT**
May 14-15	UAMPS
June 7-12	APPA National Conference- Seattle, Washington
June 18-19	UAMPS
July 15 (Monday)	**1:00 P.M – IPA, South Jordan, UT**
July 16-17	UAMPS
July 18	IPSC Board Meeting
August 6 (Tuesday)	**1:00 P.M – Park City, UT**
August 20-21	UAMPS
September 16 (Monday)	**1:00 P.M – IPA, South Jordan, UT**
September 17-18	UAMPS
October 15-16	UAMPS
October 21 (Monday)	**1:00 P.M. – IPA, South Jordan, UT**
October 17	IPSC Board Meeting
November 5 (Tuesday)	**1:00 P.M. – Burbank, CA**
November 19-20	UAMPS
December 3 (Tuesday)	**ANNUAL MTG – SLC, UT**
December 3 (Tuesday)	**1:00 P.M. – SLC, UT**
December 17-18	UAMPS