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CUSTOMERS FIRST

**Intermountain Power Project**  
**SITLA Board Meeting**  
**February 17, 2022**



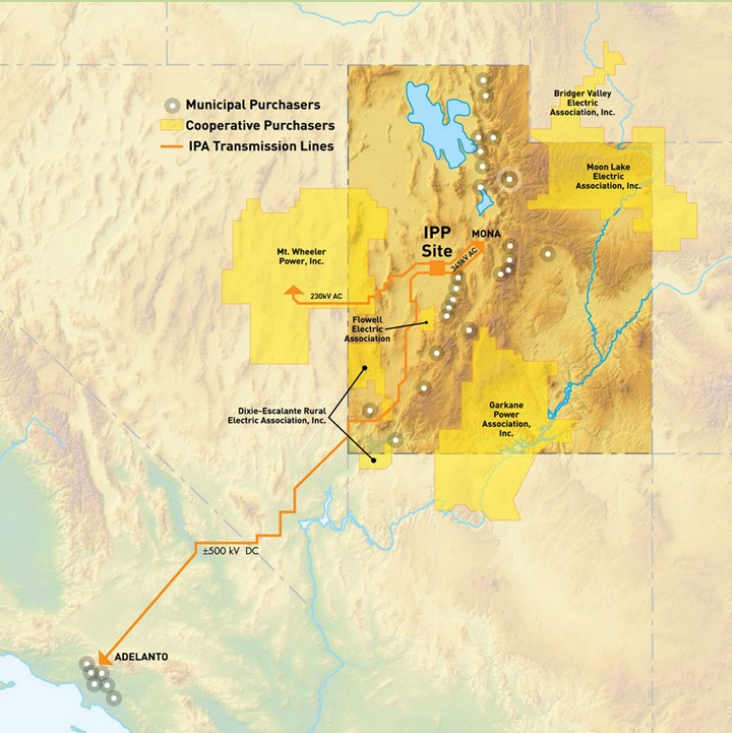
## VISION

To make IPP an example of Green Energy for the world

## MISSION STATEMENT

To build an economical green energy future for our stakeholders through reliable, operable, and maintainable generation and transmission with the safety of the people, the environment, and our communities as our number one priority

# Who is IPP?



- 35 Total Participants
- 23 Utah Municipalities
- 6 Utah Cooperatives
- 6 California Municipals
  - Los Angeles
  - Anaheim
  - Riverside
  - Pasadena
  - Burbank
  - Glendale



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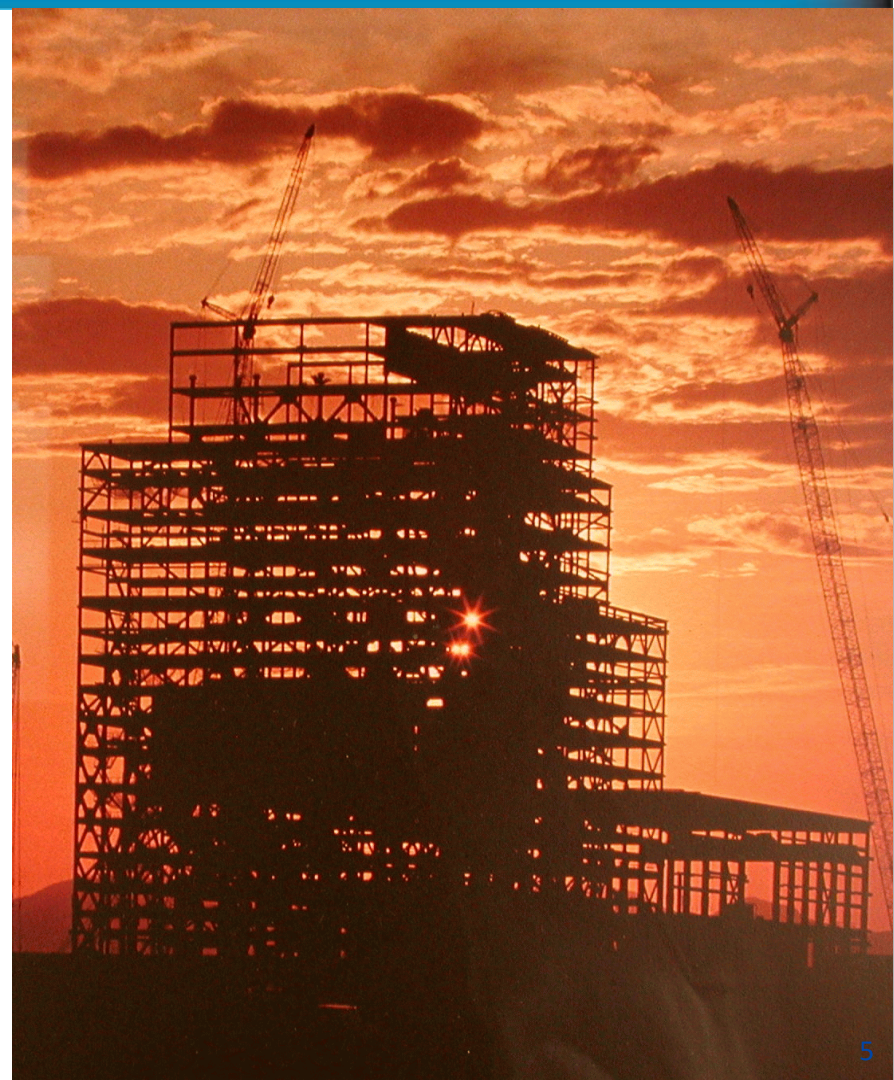
# THE INTERMOUNTAIN POWER PROJECT



- **LOCATION: DELTA, UTAH**
- **OWNED BY THE INTERMOUNTAIN POWER AGENCY (IPA)**
- **35 PROJECT PARTICIPANTS (23 UTAH AND 6 CALIFORNIA MUNIS; 6 UTAH COOPS)**
- **TWO COAL UNITS – 1,800 MW NET CAPACITY**
- **NORTHERN AND SOUTHERN TRANSMISSION SYSTEMS**
- **CURRENT LADWP WIND INTERCONNECTIONS**
  - **MILFORD WIND: 287 MW**
  - **PLEASANT VALLEY: 82 MW**
- **COAL CLOSURE BY 2025**
- **LADWP IS THE PROJECT MANAGER AND OPERATING AGENT**

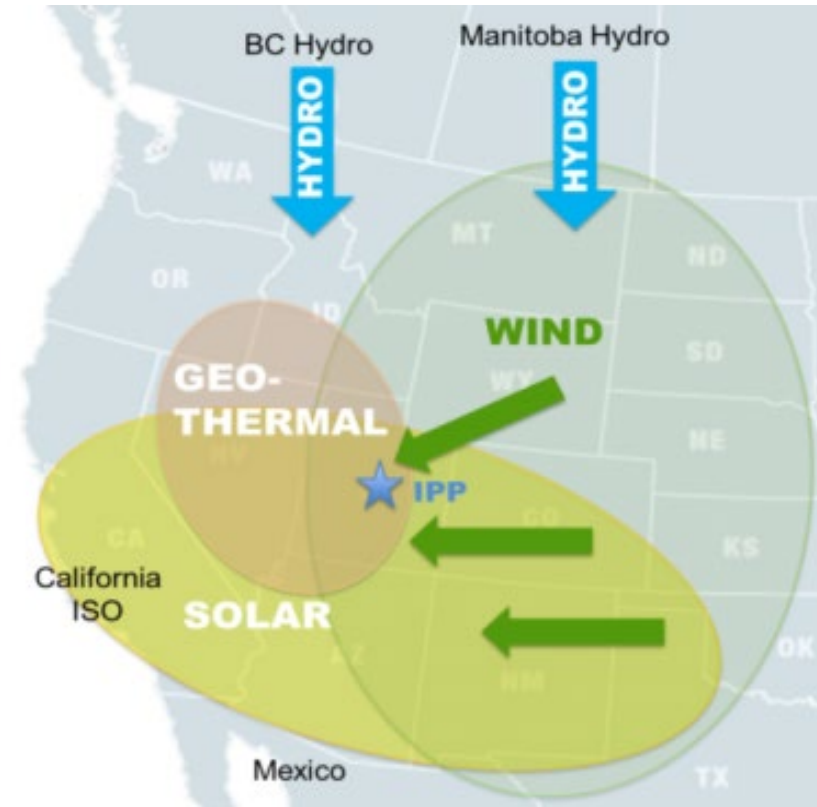
# IPP *Renewed*➔

- Coal units will be replaced by two combined-cycle power generation trains totaling 840 MW
- Provides dispatchable energy required to maintain reliability and support HVDC transmission
- Units capable of integrating with renewable resource variability
- DC Converter stations to be replaced
- Needed to meet LADWP's 100% Renewable Goals



# Utah's Renewable Hub

- IPP sits in a confluence of renewable resources
- Currently interconnected about 400 MW of wind generation and geothermal
- 2,300 MW of current solar interconnection requests in queue
- 1,500 MW of Wyoming wind interconnects currently being discussed
- Considered the “Western Renewable Energy Hub”



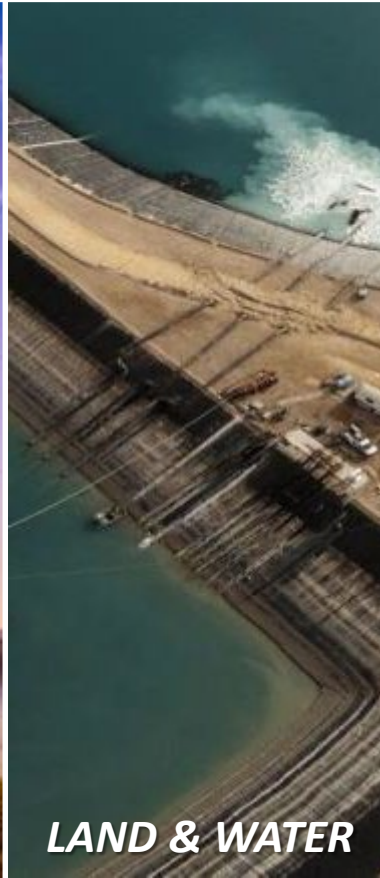
# Unlocking IPP's Green Hydrogen Potential



**RENEWABLES**



**TRANSMISSION**



**LAND & WATER**



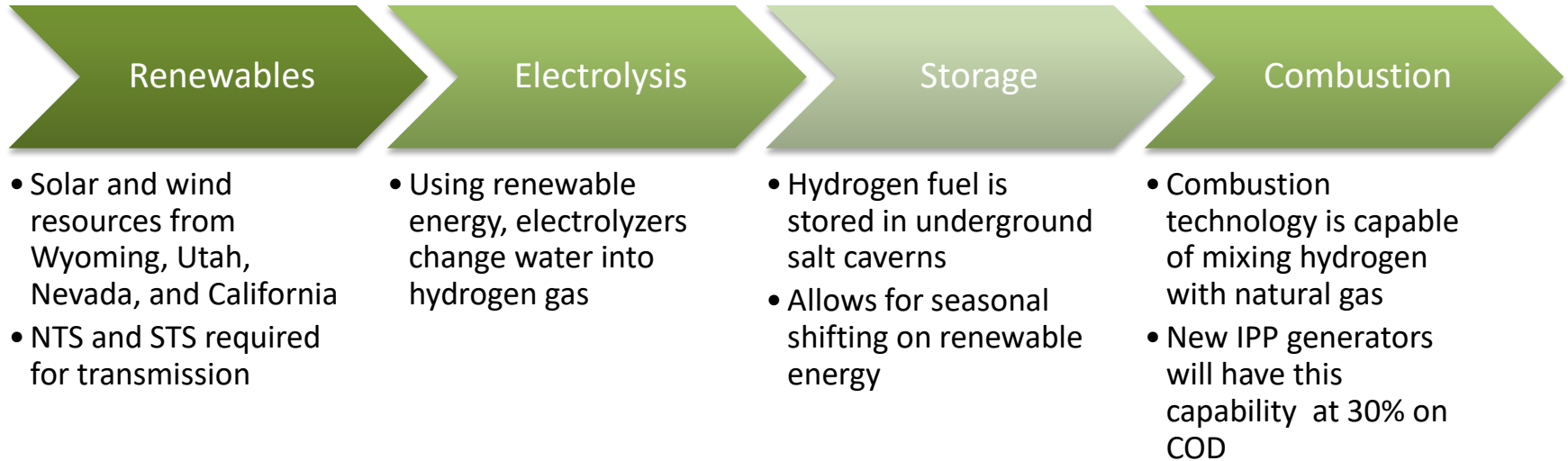
**SALT DOME**



**PEOPLE**

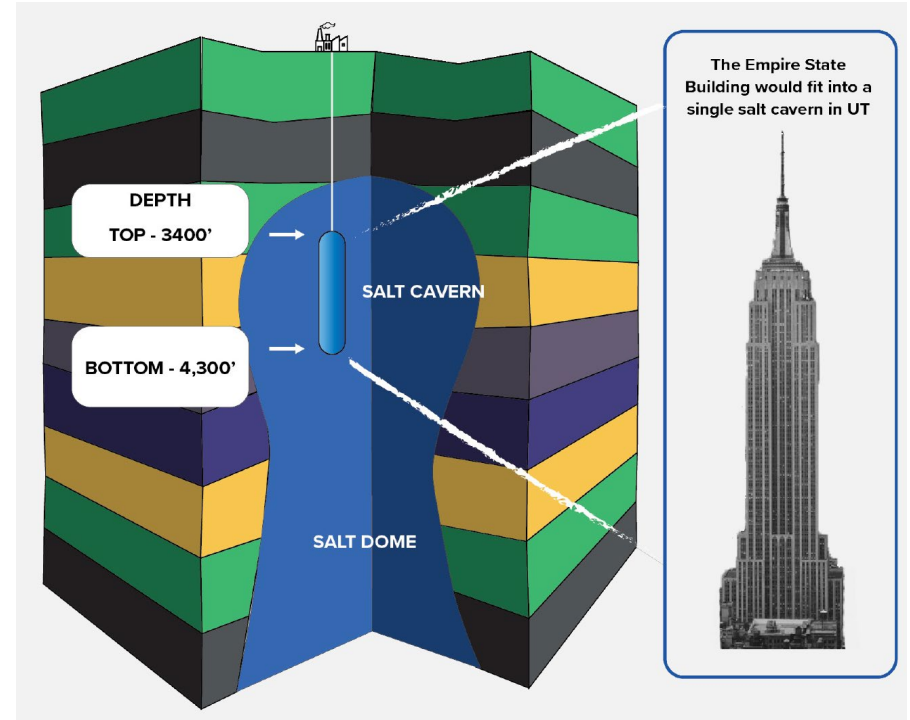
# Green Hydrogen Future

*The hydrogen pathway at IPP represents a first-of-its-kind opportunity for the western energy grid. Utilizing its existing transmission capabilities to power hydrogen-generating electrolyzers, the fuel can be either stored in the massive geologic salt formation or burned in the existing combustion generators.*



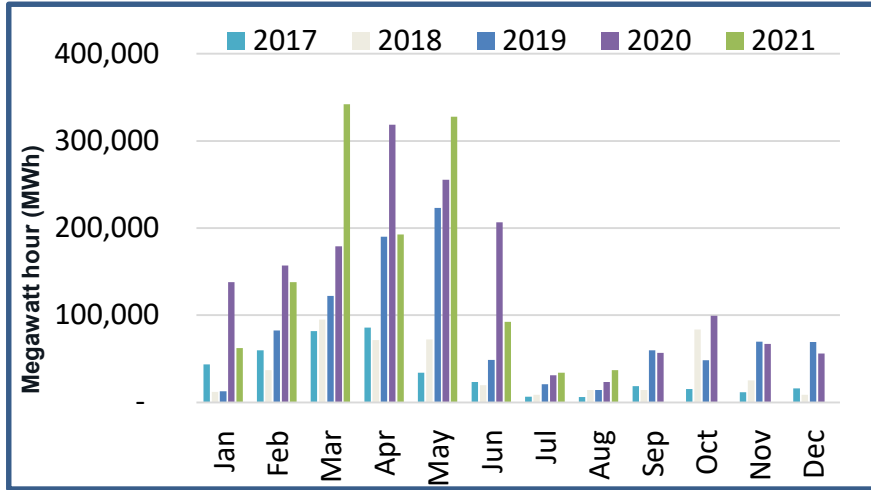
# Salt Dome at Intermountain: A Unique Opportunity

- Underground salt dome beneath Intermountain
- Suitable for storing green hydrogen
- Created by solution mining
- 1 cavern = 5,500 tons H<sub>2</sub> storage
  - “Equivalent” to 1 million fuel cell cars
  - “Equivalent” to 14,000 tube trailers
- Over 100 caverns possible near Intermountain
- Allows for **SEASONAL SHIFTING** of energy storage



# Surplus and Deficit Signal Need for More Storage Options

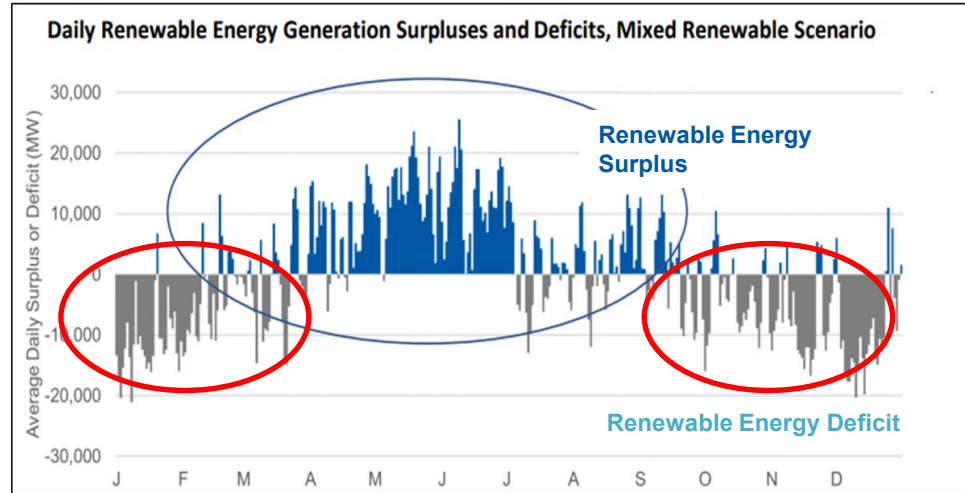
## CALIFORNIA WIND AND SOLAR CURTAILMENTS HIT RECORD HIGH IN MARCH 2021



Source: CAISO  
Data compiled Sep 2021  
<http://www.caiso.com/informed/Pages/ManagingOversupply.aspx>

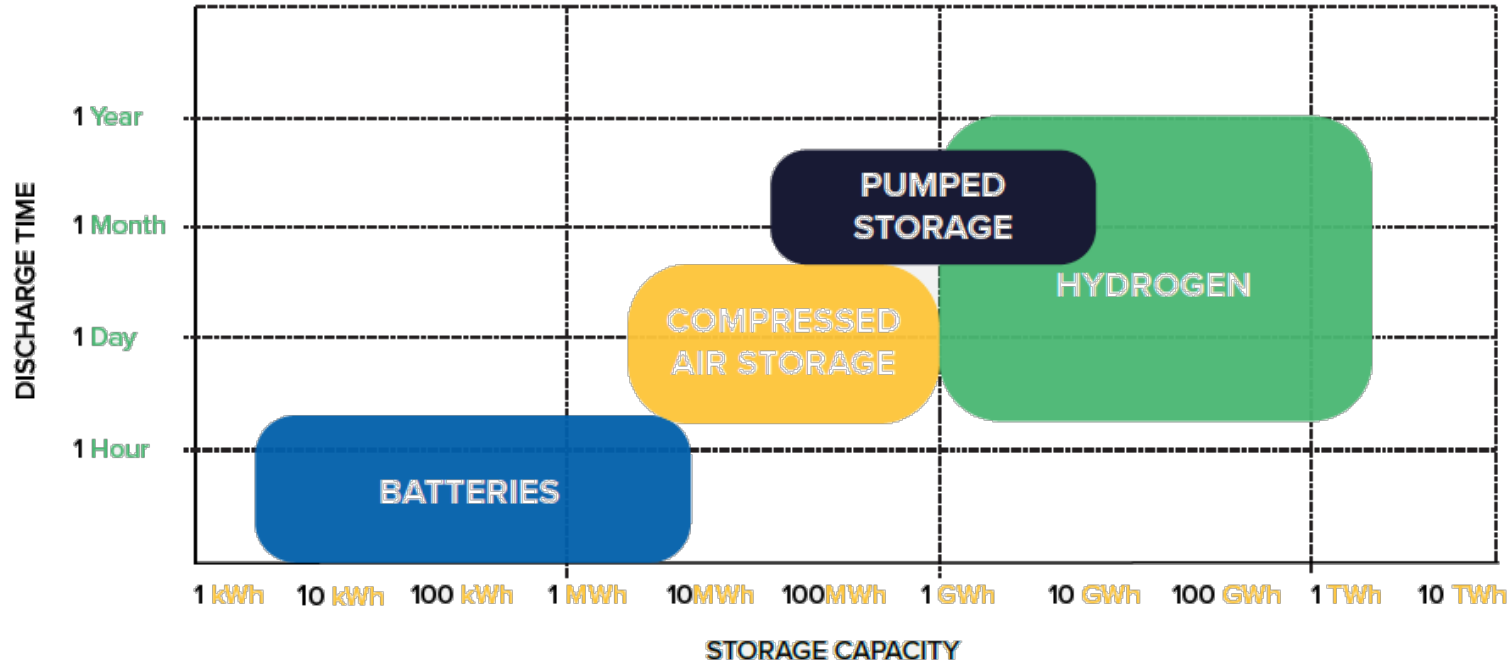
➤ At just 30% renewable integration, peak monthly curtailment exceeds 300,000 MWh

## CALIFORNIA SURPLUS AND DEFICIT PATTERNS UNDER A 100% RENEWABLE ENERGY SCENARIO



➤ Seasonal surplus and deficits signal need for long-duration energy storage “beyond the duck curve”

# Energy Storage Potential

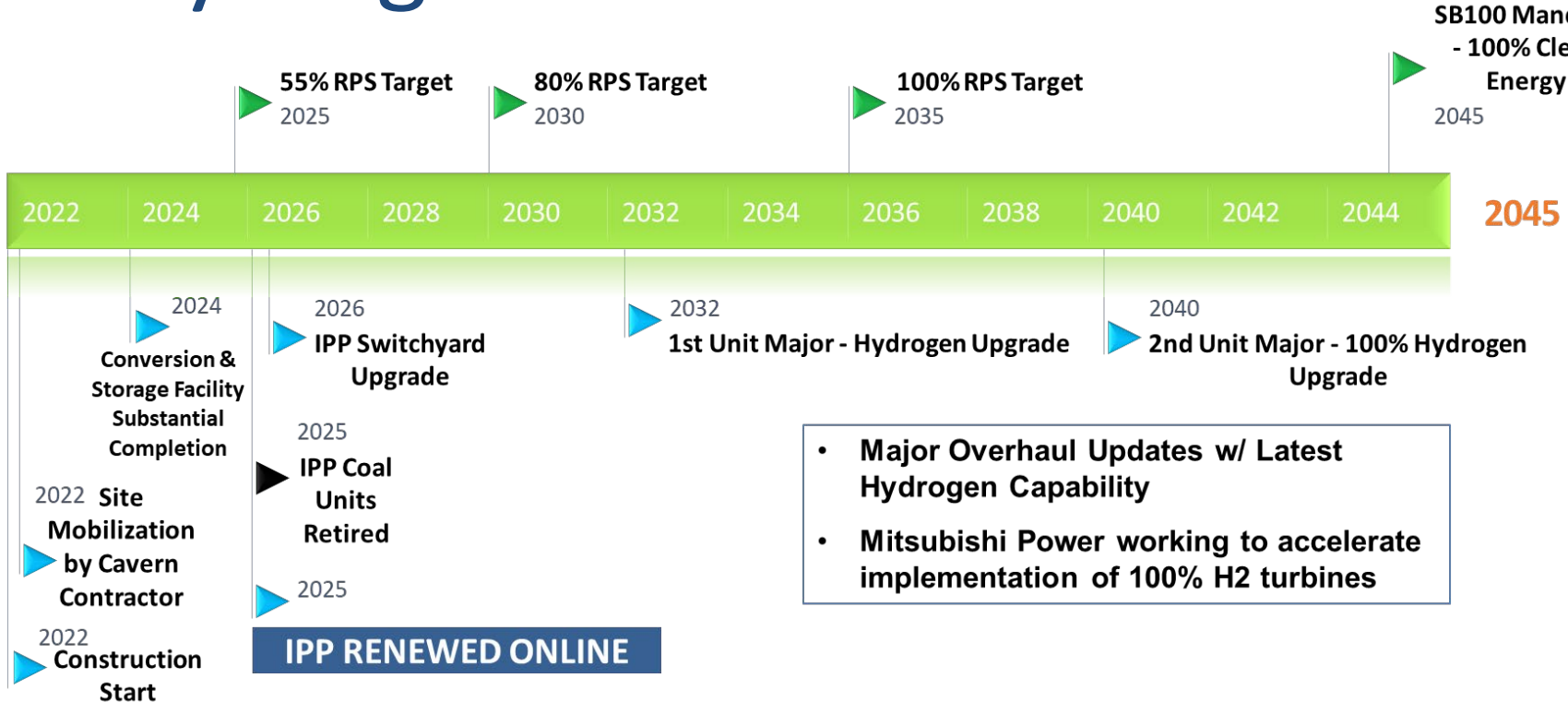


Source: Wood Mackenzie

# IPP Hydrogen Timeline

**SB100 Mandate  
- 100% Clean  
Energy  
2045**

**2022**



**2045**

- Major Overhaul Updates w/ Latest Hydrogen Capability
- Mitsubishi Power working to accelerate implementation of 100% H2 turbines



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Cameron Cowan  
IPA General Manager  
[Cameron@ipautah.com](mailto:Cameron@ipautah.com)

Kevin Peng  
IPP Generation Project Manager  
[Kevin.Peng@ladwp.com](mailto:Kevin.Peng@ladwp.com)

Greg Huynh  
IPP Operating Agent Manager  
[Greg.Huynh@ladwp.com](mailto:Greg.Huynh@ladwp.com)

Lori Morrish  
IPP Transmission Project Manager  
[Lori.Morrish@ladwp.com](mailto:Lori.Morrish@ladwp.com)