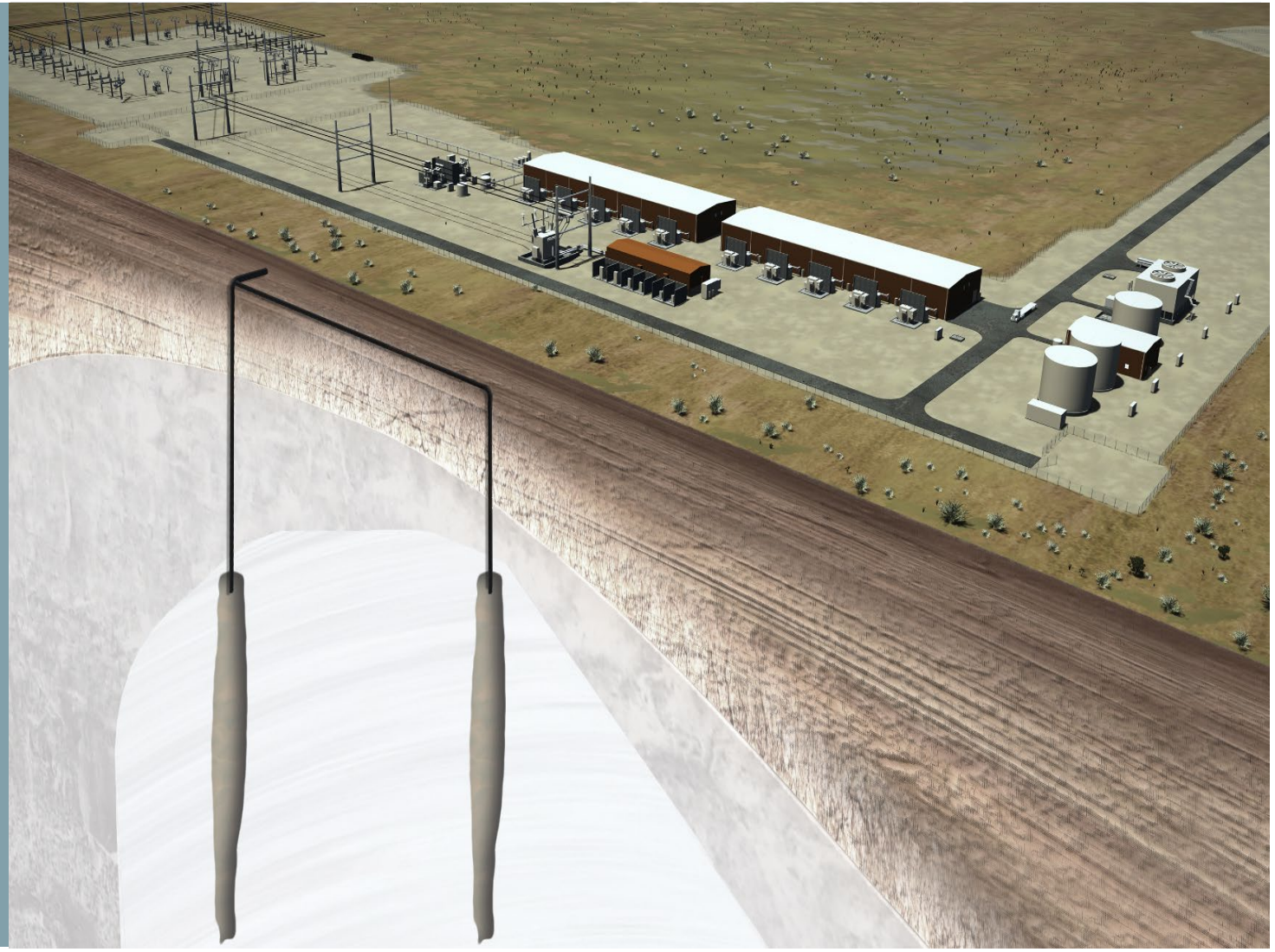
MOVE THE WORLD FORWARD MITSUBISHI HEAVY INDUSTRIES GROUP

Building the World's 1st Clean Hydrogen Hub – ACES Delta

Michael Ducker
SVP, Head of Hydrogen Infrastructure
Mitsubishi Power



MITSUBISHI POWER

Hub Background

- Launched in 2019 through joint venture between Mitsubishi Power and Magnum Development initially targeted as the World's Largest Renewable Energy Storage project dubbed "ACES" (Advanced Clean Energy Storage)
- Focus has shifted to building nation's first at scale industrial clean hydrogen hub, with anchor offtake secured by the Intermountain Power Agency
- Phase 1 project for 220 MW / 100 TPD of green H2 production and 300 GWh / 11,000 tonnes working gas H2 storage
- Represents world's largest single storage site for any type of hydrogen and largest renewable H_2 project under construction as of June 2022

Hub Structure

- MPW provide in-kind/seconded resources focused on:
  - Development
  - Engineering / Procurement
  - Commercial / Origination
- Magnum provide in-kind/seconded resources
  - Underground storage expertise
  - Permitting
  - Commercial / Local relationships
- Officers comprised from both companies

ACES DELTA

MITSUBISHI POWER

MAGNUM Enabling Renewables

Project Location – Delta, UT

EXCLUSIVE RIGHTS TO DELTA SALT DOME

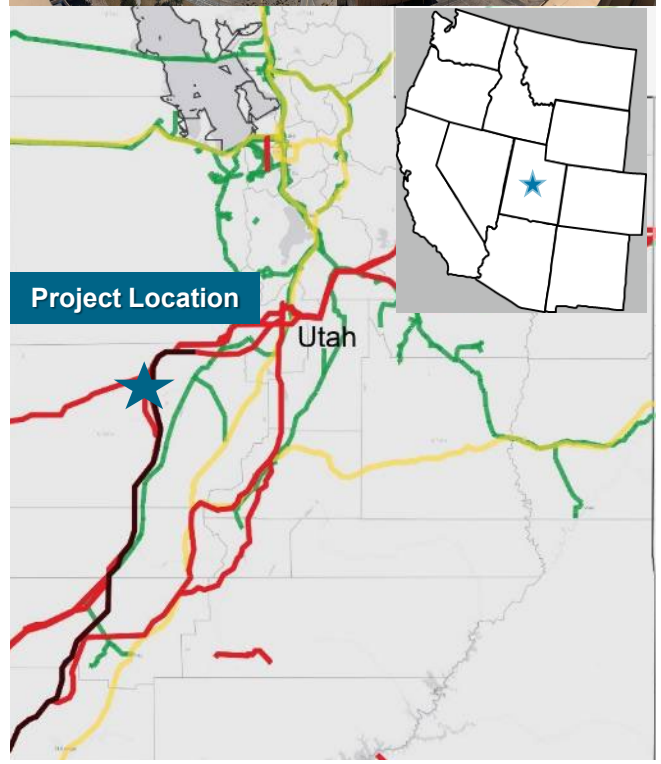
- Only known “Gulf Coast” style domal-quality salt in the west capable of large caverns
- Large-scale storage necessary for the west coast to decarbonize via green hydrogen

SITE CENTRALLY LOCATED TO WECC

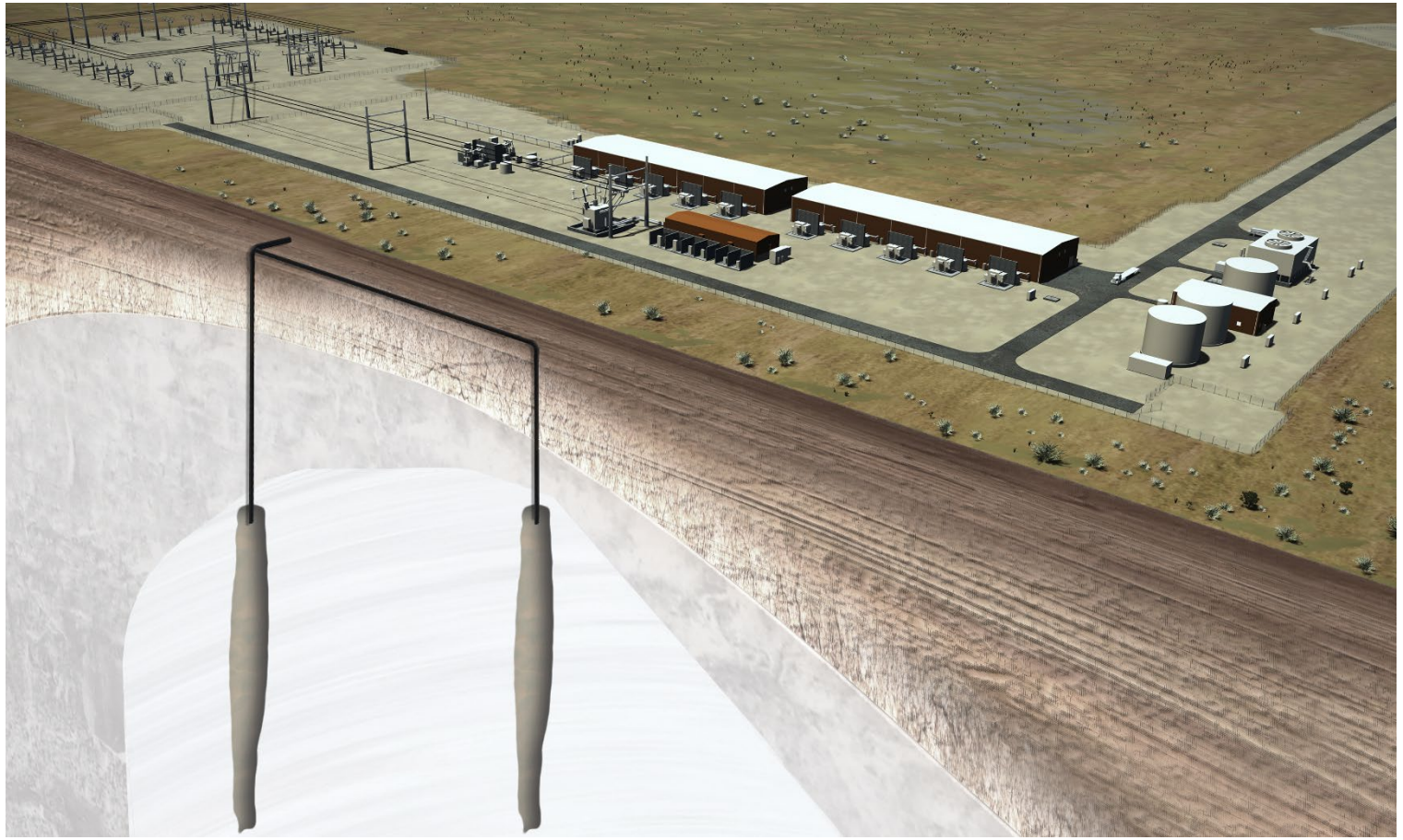
- California through HVDC Transmission Line
- Major WECC Utilities through AC Tie
- TransWest Express Transmission Line will tie site into WY & NV

SIGNIFICANT SITE ADVANTAGES

- Rail and highway access
- Significant acreage to support expansions, renewable development, and new industrial growth
- Local permitting expertise and local/state government support



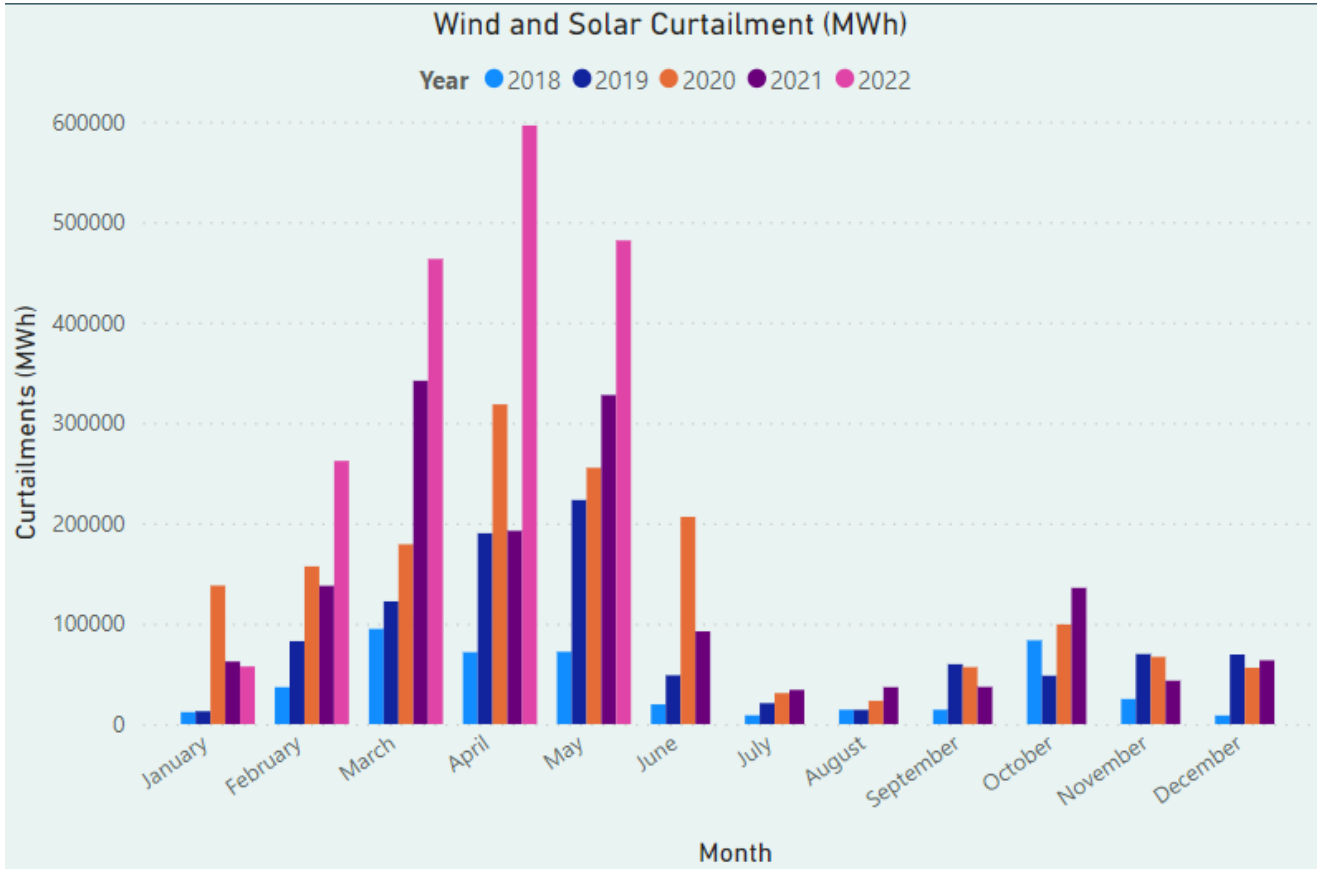
Advanced Clean Energy Storage Hydrogen Hub Phase 1 Project Details

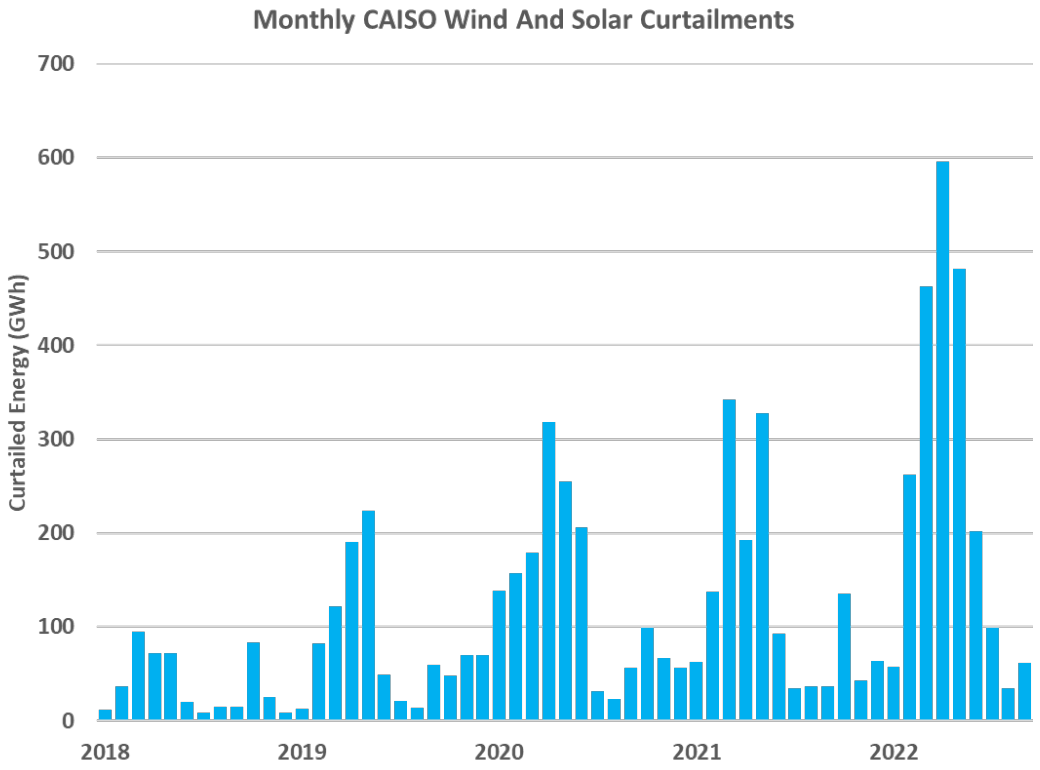


MAGNUM Enabling Renewables

MITSUBISHI POWER

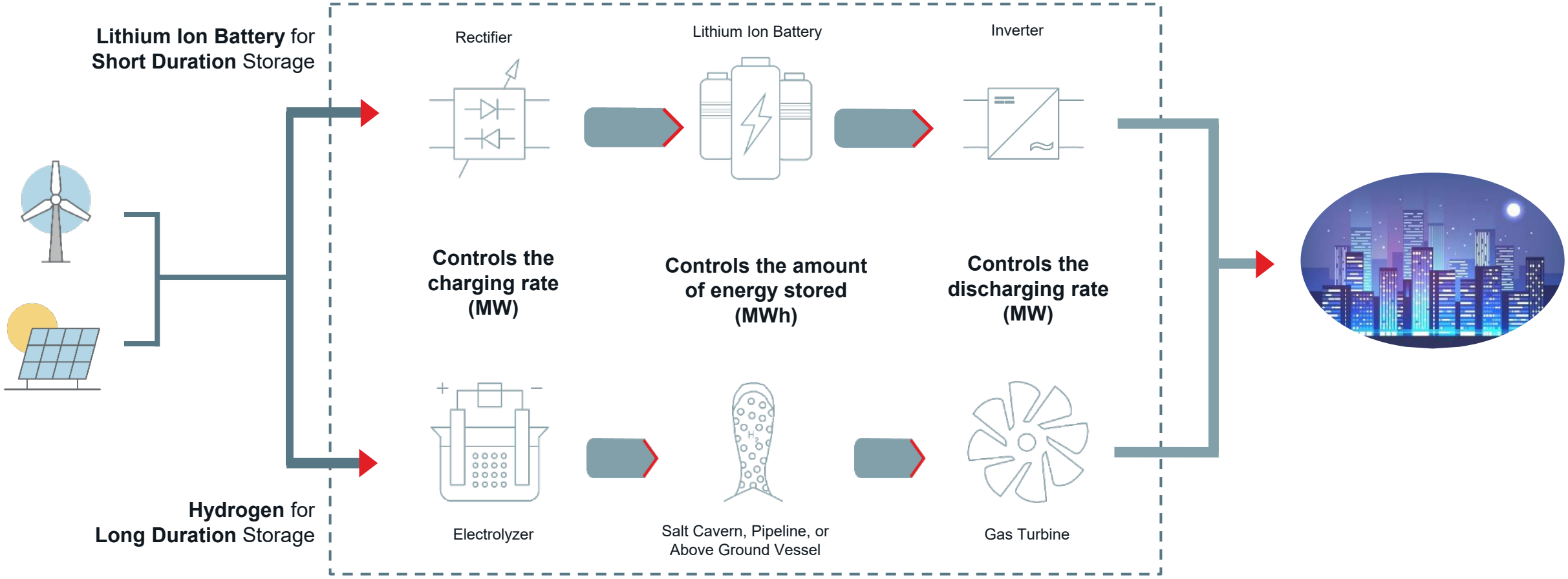
Western US Renewable Curtailments





Record curtailments and seasonality of curtailments continue to grow without more energy storage

Energy Storage Use Cases: Hydrogen and Batteries



Hydrogen and batteries will work together to reliably and cost effectively balance a renewable-heavy grid

Project Scope

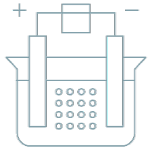
IPA Intermountain Power Agency *Energy for Today & Tomorrow*

Renewable Oversupply

Excess renewable energy for long-duration storage

ACES DELTA

220 MW
100 Tonnes/day



Electrolyzer

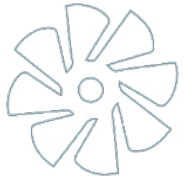
11,000 tonnes

Salt Cavern

ACES 1 to provide:

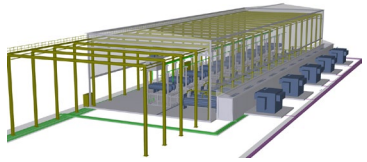
- *Conversion services of electricity into hydrogen via electrolysis;*
- *Storage services of hydrogen via salt caverns*
- *Base facility infrastructure necessary to operate facilities and deliver hydrogen to IPA*

IPA Intermountain Power Agency *Energy for Today & Tomorrow*



Gas Turbine

Convert stored hydrogen back into electricity via a hydrogen-capable gas turbine

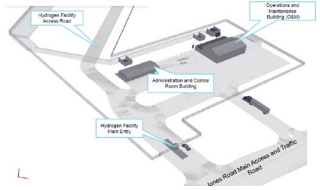


Conversion Services

- Electrolysis / Gas Separators
- MV Transformers / Rectifiers
- Distributed Control System
- Install / Associated Indirects

Storage Services

- Caverns / Wellheads
- Brine Ponds / Leaching Systems
- H_2 Compressors and Pipelines
- Install / Associated Indirects



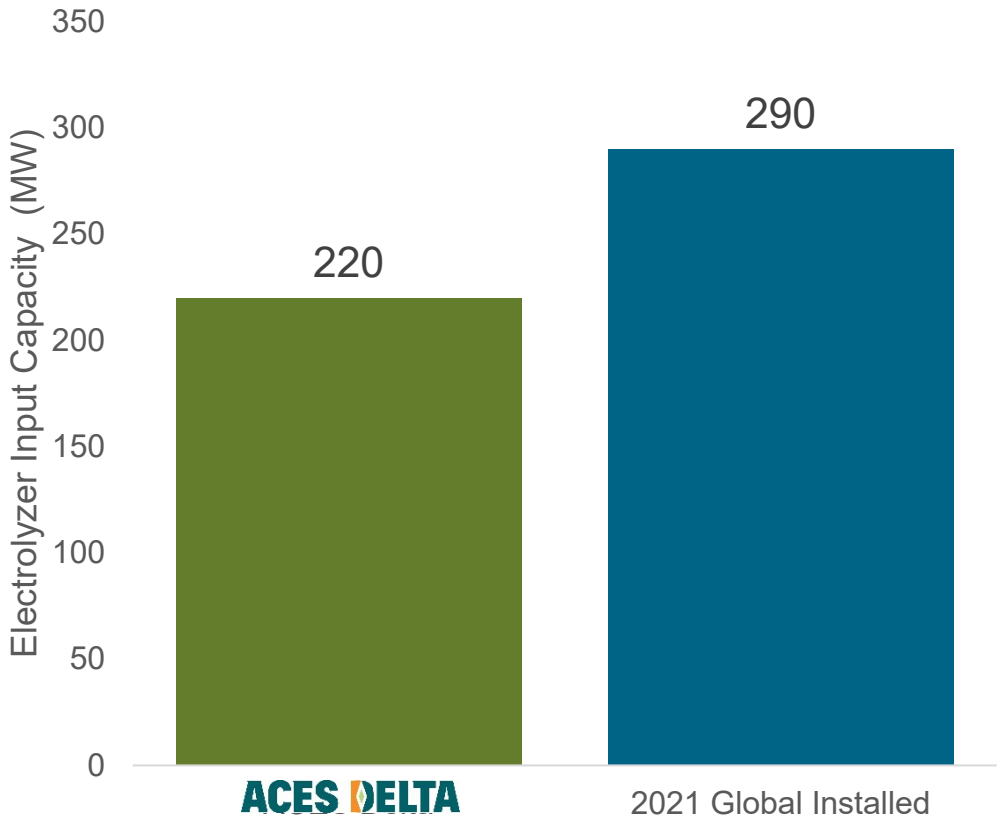
Base Facility Infrastructure

- HV Switchyard
- BOP (Cooling / Demin / Emergency Systems)
- Buildings / Roads / Foundations
- Install / Associated Indirects

“FIRST OF A KIND MARKET APPLICATION” FOR LONG-DURATION ENERGY STORAGE

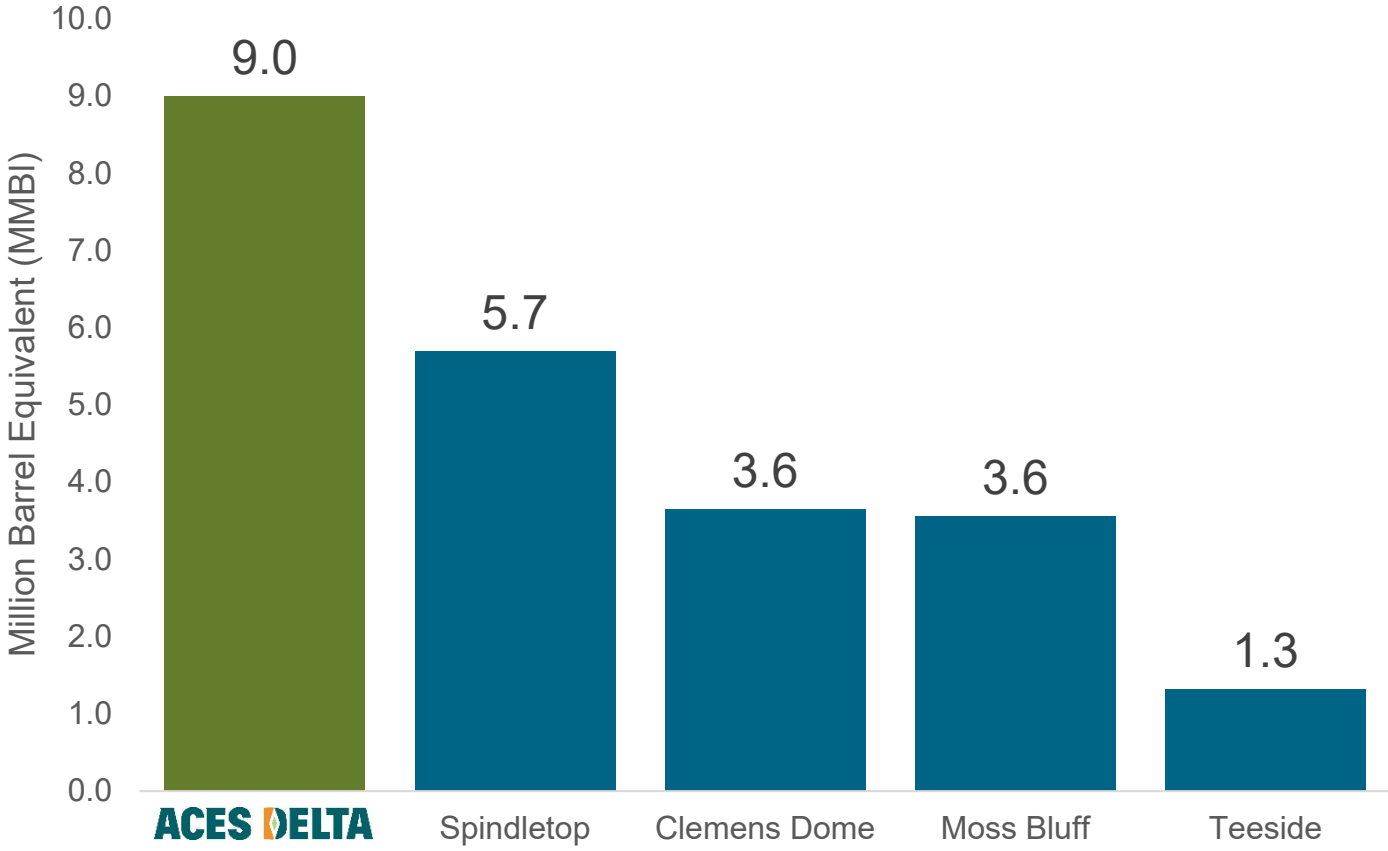
Project Magnitude as of June 3rd, 2022 Financial Close

Electrolyzer Global Installed Capacity[1]



[1]https://www.iea.org/reports/electrolysers

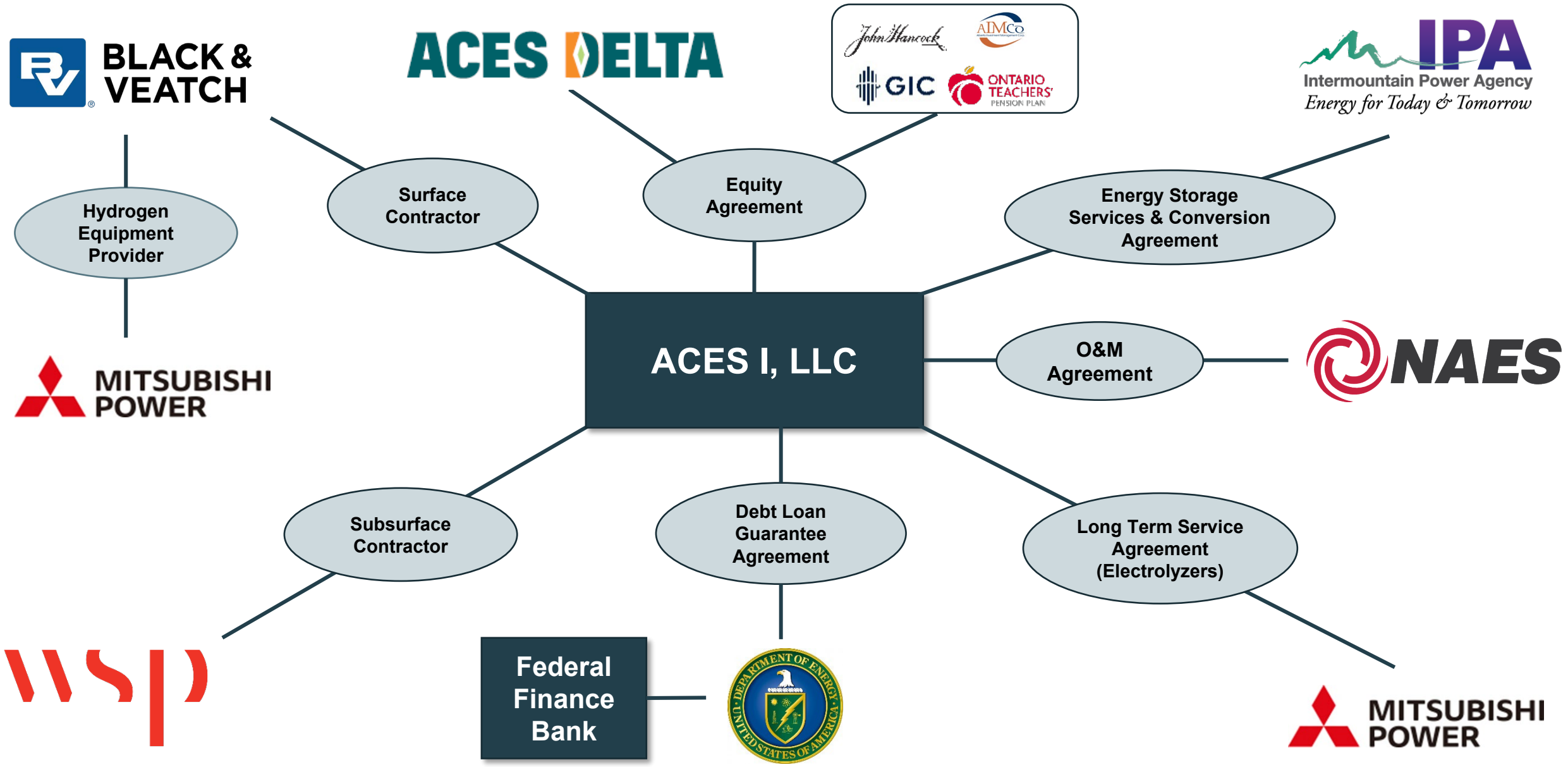
Estimated Global Hydrogen Storage Volumes[2]



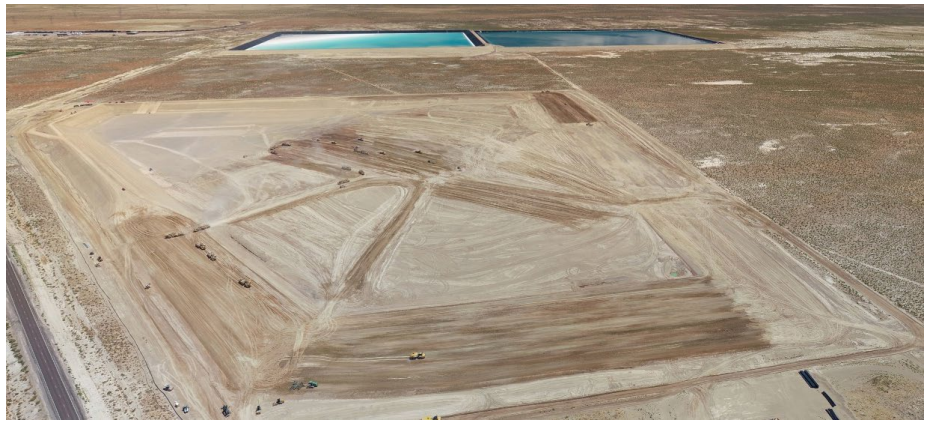
[2]IEA Global Hydrogen Review 2021

Nearly doubling worldwide installed electrolyzer capacity & the world's largest single storage site of H_2

Unprecedent Collaboration Across Parties



ACES Delta Progress Since June 3rd, 2022 Financial Close



ACES Delta Progress Since June 3rd, 2022 Financial Close

Drilling Rig Mobilization

Drilling Rig Mobilized – Drilling started

Drilling Complete – Solution Mining Started

“Empire State Building” sized cavern below ground… 10-feet tall wellhead above ground

ACES Delta Progress Since June 3rd, 2022 Financial Close

Thank You