Data Center Load Growth and Pumped Storage

Pumped storage hydropower is uniquely positioned to support **American dominance** in artificial intelligence.

60 GW

of pumped storage in the **development pipeline**

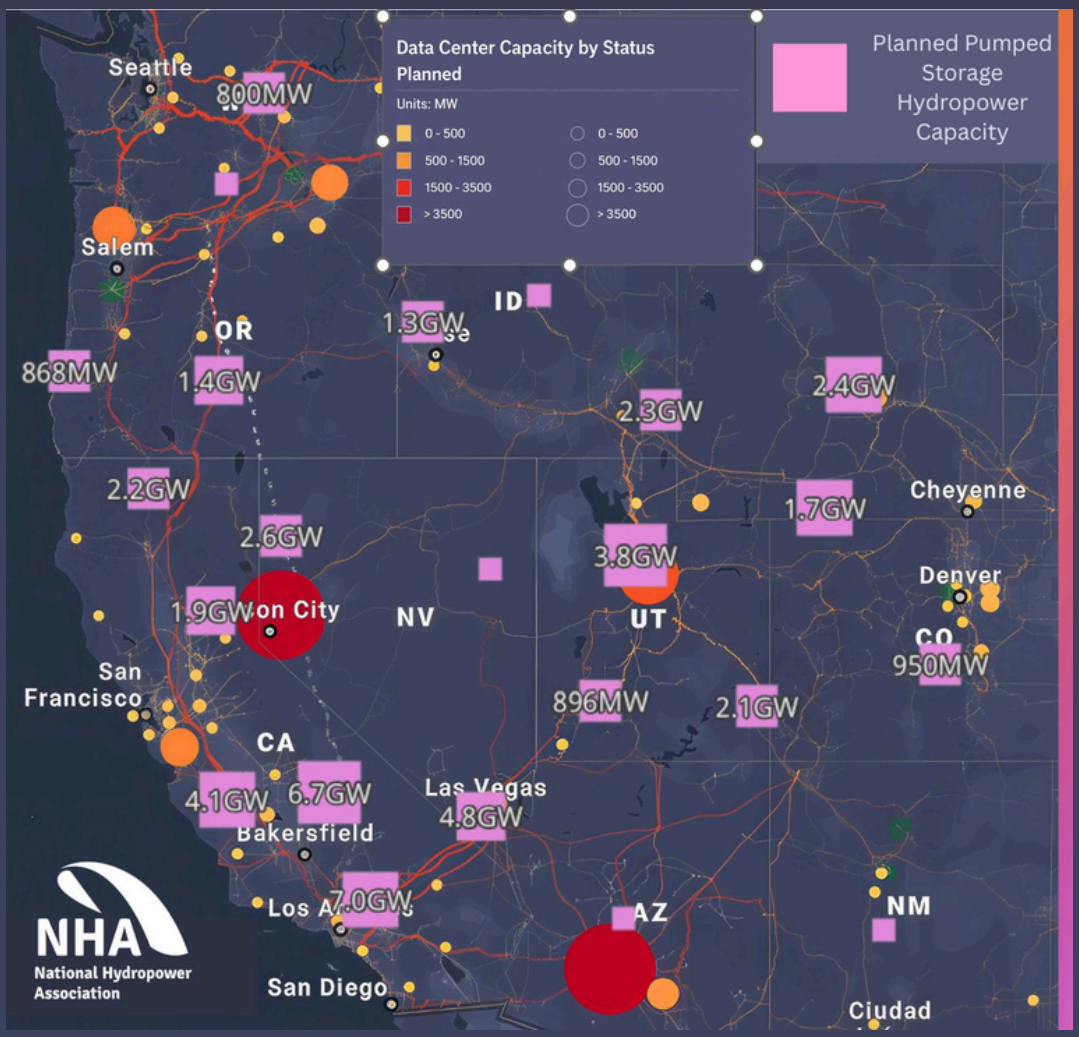
85%

Located in the **Western** U.S.

1,134 TWh

of demand in the WECC by **2035**

We need **long duration, energy storage (LDES)** to stabilize the grid for both ratepayers and hyperscalers



Data from Baxtel, NREL, and ORNL

How Pumped Storage Accelerates Speed to Power

1. Pumped storage provides the **foundational reliability services** necessary for the rapid addition of new generation and load.
2. Long duration pumped storage **optimizes the efficiency** of existing generation and new nuclear.
3. Pumped storage hydropower **serves as a transmission asset** to expand transfer capability without new wires.



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Yet, wholesale markets still fail to value long duration storage, creating revenue uncertainty which **prevents** development and **reduces** grid stability.

Market Failures

1. Foundational reliability services like **inertia**, **voltage** supply, and **black start** have no market value
2. Capacity accreditation models value **short**, daily peaks rather than **long**, extended stress
3. Opportunity cost for holding extended **reserves** has no market value

How the DOE and FERC can address this challenge

DOE should work directly with **FERC** to initiate a Section 206 rulemaking directing RTOs and ISOs to remove barriers to long-duration energy storage participation in wholesale markets.

and leverage ongoing research at Argonne National Laboratory

