

# Exhibit to Agenda Item #2

Provide the Board an informational overview of the **Federal Energy Regulatory Commission (FERC)**.

Board Strategic Development Committee Meeting and Special SMUD Board of Directors Meeting

Tuesday, March 8, 2022, scheduled to begin at 5:30 p.m.

Virtual Meeting (online)

# Federal Energy Regulatory Commission (FERC) Overview



**Federal Power Commission  
established in 1920**

FERC in 1977

**Independent Federal Agency**

5 Commissioners

# FERC Commissioners



**Chairman Richard Glick**  
(Dem, June '22)



**James Danly**  
(Rep, June '23)



**Allison Clements**  
(Dem, June '24)



**Willie L. Phillips**  
(Dem, June '26)



**Mark C. Christie**  
(Rep, June '25)

# FERC's Scope of Regulation

Hydro  
Dams

Natural  
Gas

Electricity

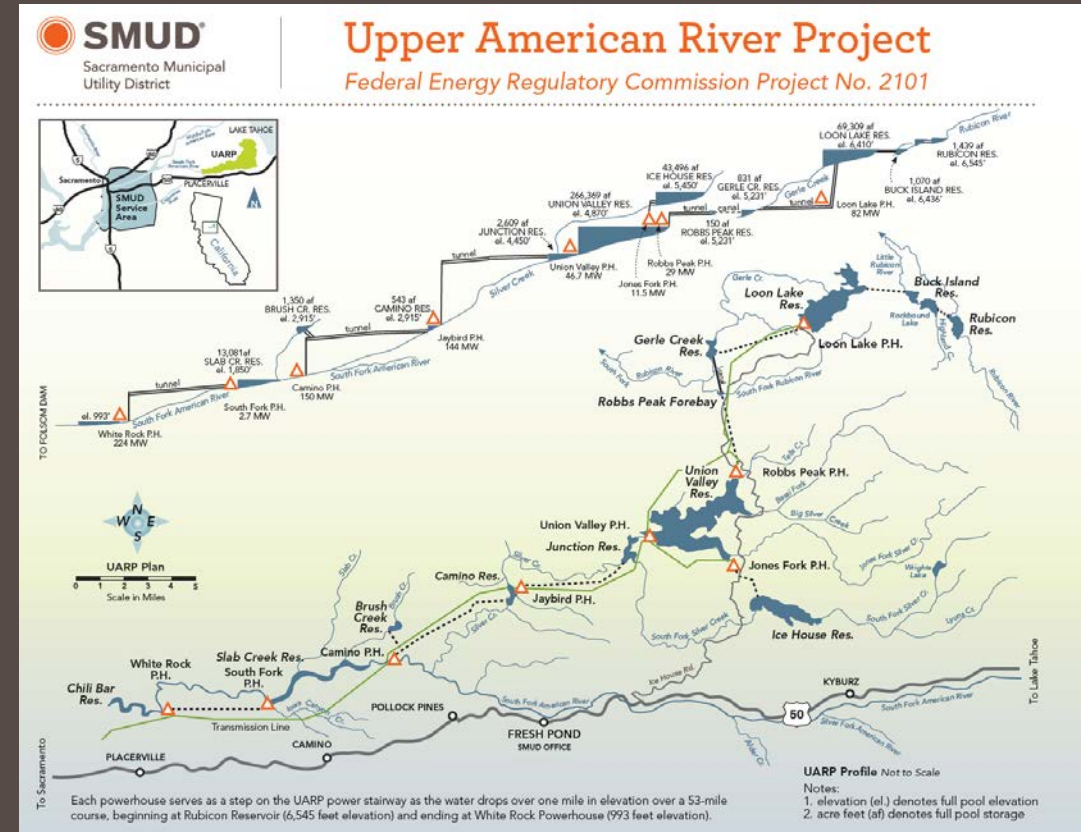
# Hydro Dam Regulation

- FERC's original regulatory responsibility.
- Oversees licensing and safety of hydro projects.
- SMUD's 688 MW Upper American River Project (UARP).
- Stairway of Power: 11 reservoirs and 9 powerhouses.



# Upper American River Project (UARP) License

- 50-year FERC license granted in 2014.
- Increased minimum release flows to support recreation, fish and other wildlife.
- Minimum water levels in the reservoirs to provide adequate wildlife habitat and recreational opportunities.
- Upgrades for recreation facilities like campgrounds, day-use facilities, boat launches, and trails.



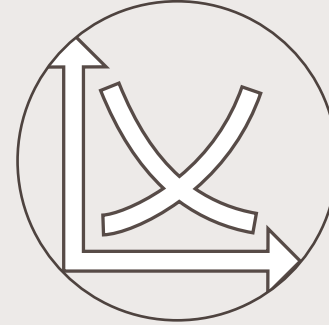
# Electric Regulation



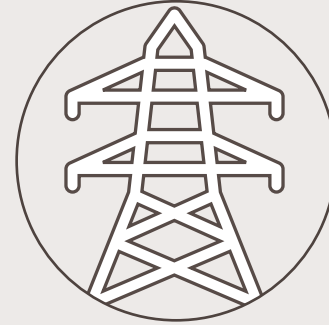
**Rates &  
Services**



**Reliability**



**Market  
Manipulation**



**Public Utility  
Regulatory  
Policies Act  
(PURPA)**



# Rates and Services

- Regulates rates, terms and conditions of interstate transmission and sales for resale of electricity by “public utilities.”
- Undue discrimination in transmission and wholesale services.
- Regional Transmission Organizations/Independent System Operators (RTO/ISO).
- Limited regulation of SMUD (not a “public utility”).
  - FERC does not approve SMUD’s transmission rates or Open Access Transmission Tariff (OATT).
  - FERC does not require market-based rate authority or approval of power purchase agreements (PPAs).
  - FERC can issue orders for municipal utilities like SMUD to provide interconnections and transmission to others.





# Reliability

- Regulates the reliability of the Bulk Electric System (100kV and over).
- North American Electric Reliability Corporation (NERC) and its regional reliability affiliates.
- Mandatory reliability standards for Operations and Planning (O&P) and Critical Infrastructure Protection (CIP).
- Recent focus on cybersecurity and winter weatherization.
- SMUD audited by the Western Electricity Coordinating Council (WECC).



# Market Manipulation

- Since 2005, authority to penalize for market manipulation.
- “In connection with” the use of FERC-regulated wholesale and transmission service.
- Extends to municipal utilities that utilize FERC-regulated services.
- Anti-market manipulation employee training.



# Public Utilities Regulatory Policies Act (PURPA)

- Interconnect to, and purchase from, qualifying facilities (QFs).
- QFs: co-generation and renewable energy facilities less than 80 MW.
- Utilities pay generator the “avoided cost.”
- SMUD has no PURPA interconnection contracts.



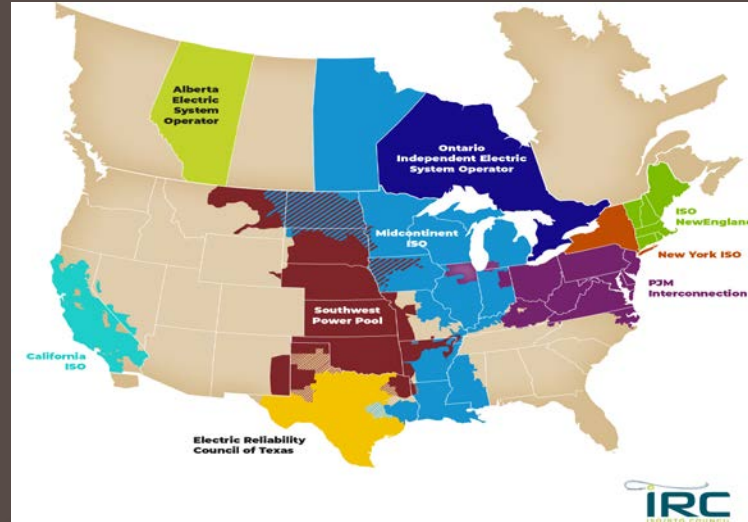
# Current Issues in FERC Regulation of Note

Regional Markets

Resource Adequacy (RA)

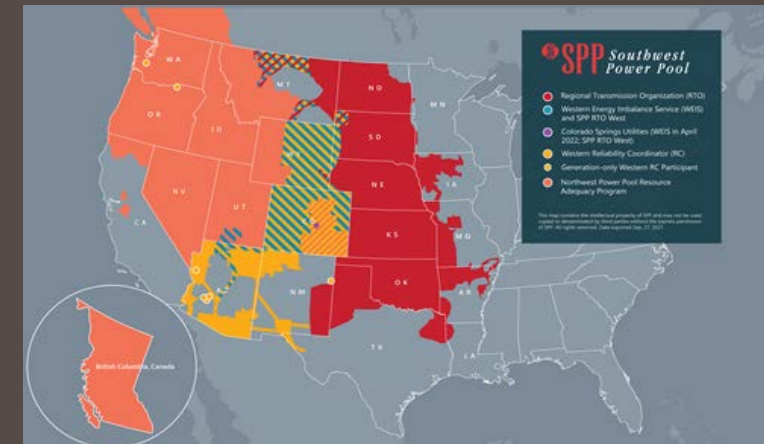
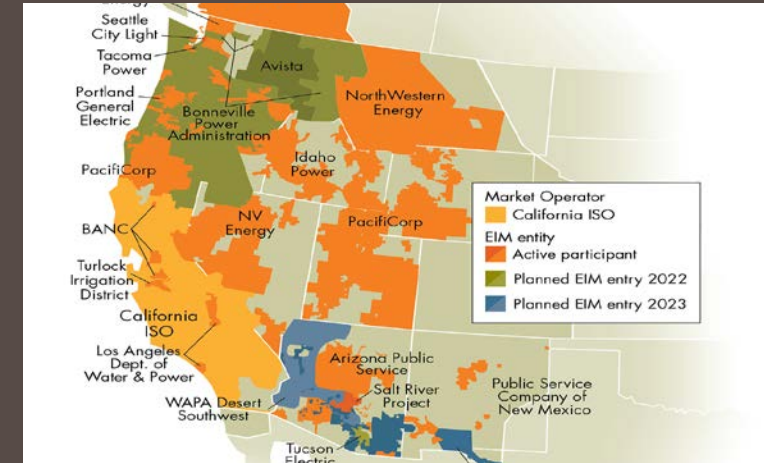
Distributed Energy Resources (DERs)

Transmission and Interconnection Reform



# Regional Markets

- **California Independent System Operator Corporation (CAISO)**
  - Western Energy Imbalance Market (EIM)
  - Extended Day-Ahead Market (EDAM)
- **Southwest Power Pool (SPP)**
  - Western Power Pool (WPP) Western Resource Adequacy Program (WRAP)
  - Markets Plus (Markets +)
  - Western Energy Imbalance Services (WEIS)



# Resource Adequacy (RA)

- Changing resource mix.
- Western RA Technical Conference Summer 2021.
- FERC deferring to regional efforts (e.g., WRAP, EDAM, Markets+).
- FERC authority limited around RA.





# Distributed Energy Resources (DERs)

- Electrification and the Grid of the Future Technical Conference Spring 2021.
- Order 2222 requires RTOs/ISOs provide wholesale market access for DERs.
- CAISO DER program pending FERC approval.
- SMUD developing Virtual Power Plant (VPP) program for customer DERs.



# Transmission and Interconnection Reform

- Advanced Notice of Proposed Rulemaking (ANOPR).
- 200+ questions about transmission planning and cost allocation, generator interconnections, and independent monitor.
- SMUD working with Large Public Power Council (LPPC).
- Joint Federal/State Commissioner Task Force.



# Q&A