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.
- FERC deferring to regional efforts (e.g., WRAP, EDAM, Markets+).
- FERC authority limited around RA.
Distributed Energy Resources (DERs)


- 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.