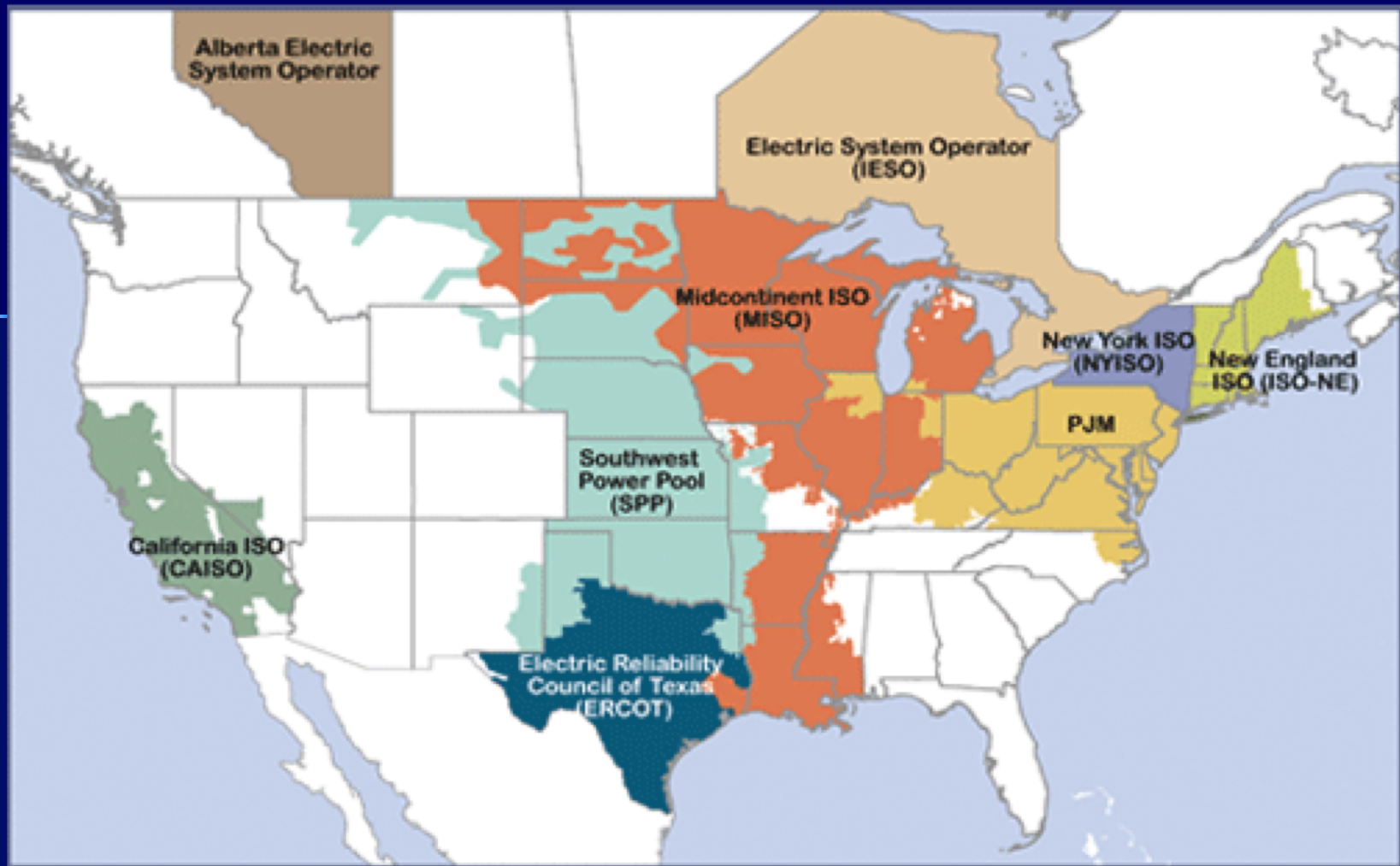


# FERC Order No. 2000 Revisited



Pat Wood, III  
Harvard Electricity Policy Group  
April 20, 2021



# Today's RTO/ISO Markets

# Key FERC Power Market Formation Orders

- 888: Open Access
- 889: Real Time Open Access Same-Time Info Systems
- **2000: Regional Transmission Organizations**
- 2003/2006: Large/Small Generation Interconnection
- 890: Open Access Tariff Reform, Planning
- 745: Demand Response (2011)
- 1000: Transmission Planning, Cost Allocation
- 841: Storage
- 2222: Distributed Energy Resources

# **RTO Characteristics**

- Independence
- Scope, Regional Configuration
- Operational Authority
- Short-term Reliability

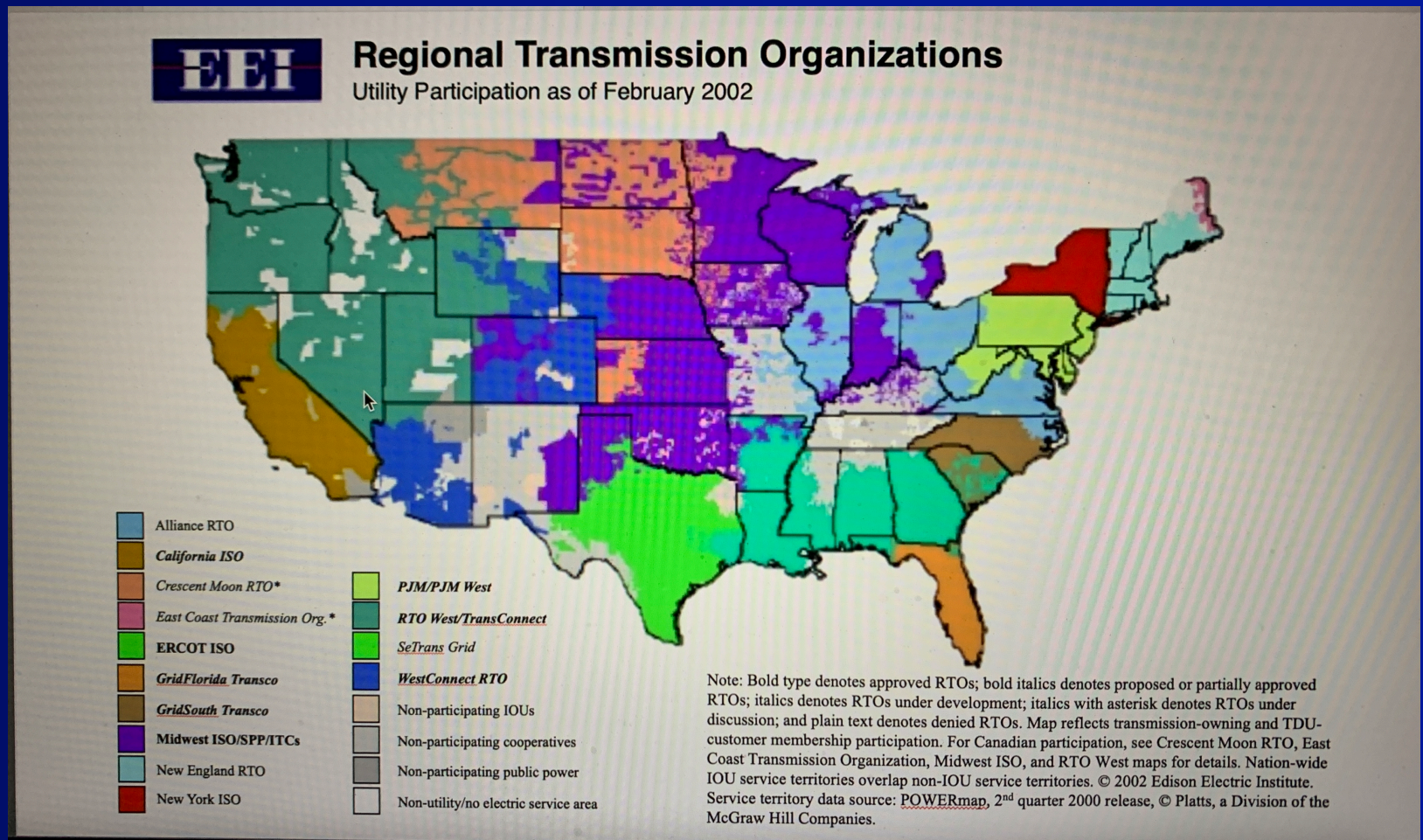


# RTO Functions

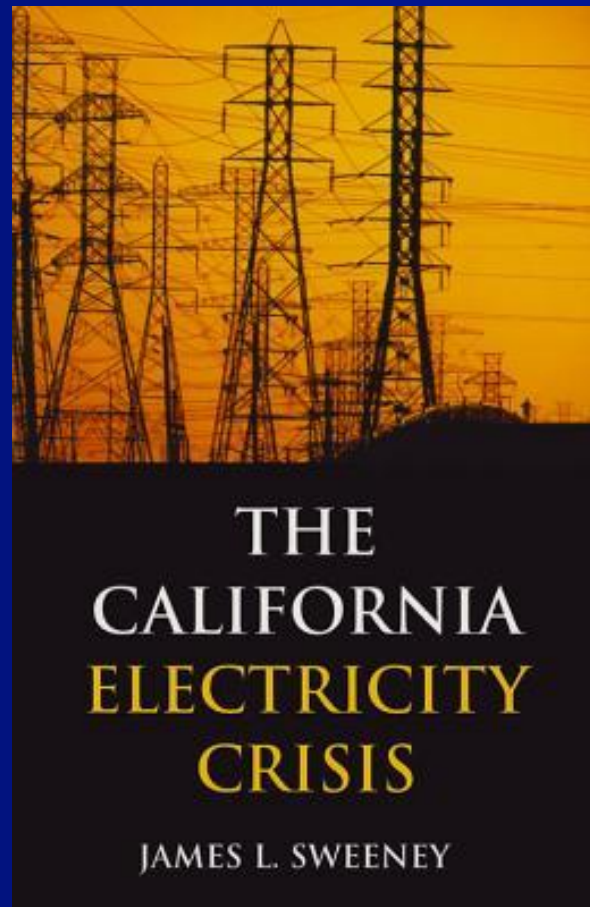
- Tariff Administration and Design
- Congestion Management
- Parallel Path Flow
- Ancillary Services
- OASIS and Total/Available Transmission Capacity
- Market Monitoring
- Planning and Expansion
- Interregional Coordination

# Order No. 2000

## RTO Filings



# California 2000-2001



# Standard Wholesale Market Design

- Regional independent grid operator
- Regional transmission planning
- Single network transmission service (no rate pancaking)
- Market power mitigation/monitoring
- Congestion revenue rights
- Security constrained locational-marginally-priced day-ahead and real-time energy markets
- Ancillary service markets
- Resource adequacy requirement
- Demand response



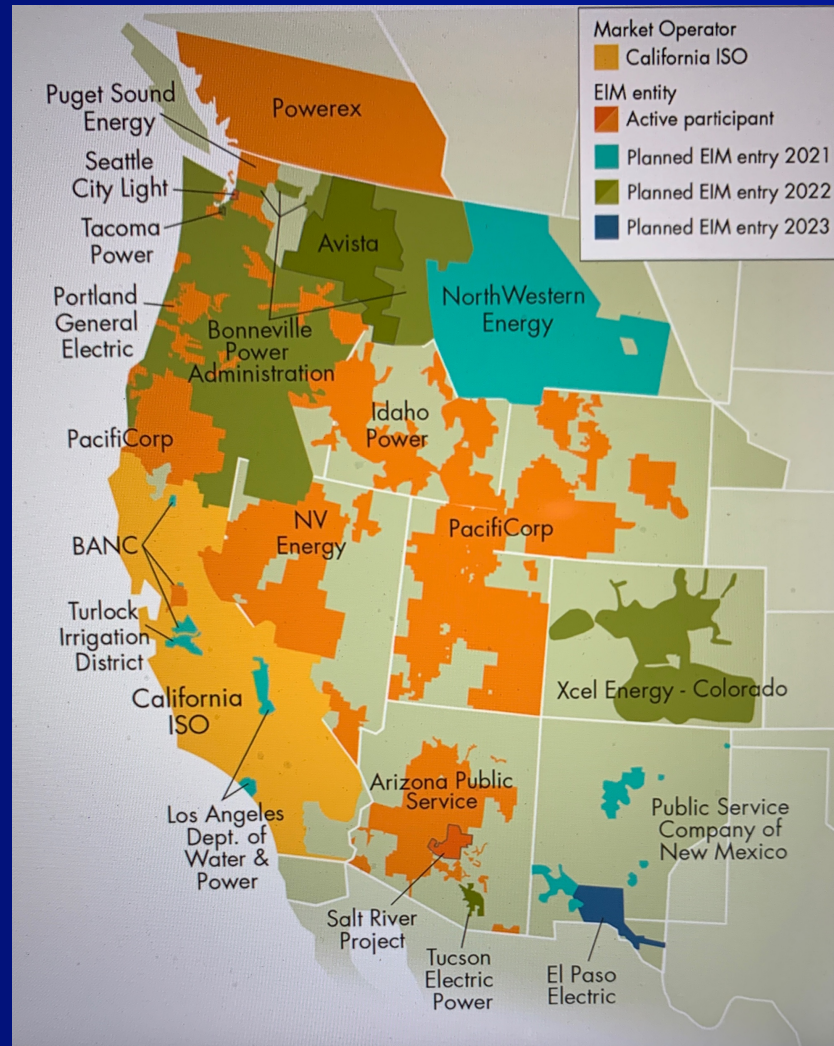
# 2003 Northeast Blackout



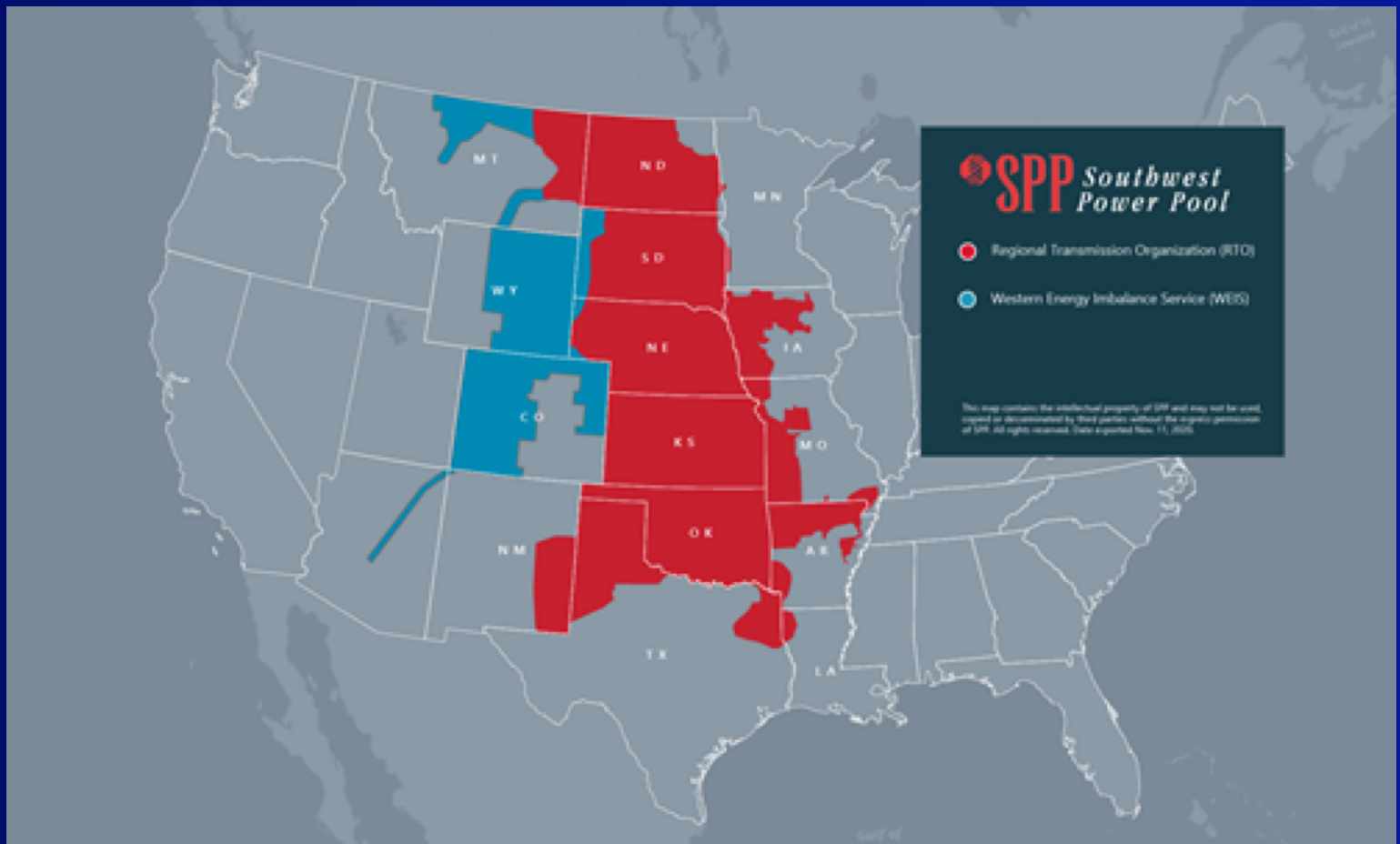
# Key FERC Power Market Formation Orders

- 888: Open Access
- 889: Real Time Open Access Same-Time Info Systems
- 2000: Regional Transmission Organizations
- 2003/2006: Large/Small Generation Interconnection
- 890: Open Access Tariff Reform, Planning
- 745: Demand Response (2011)
- 1000: Transmission Planning, Cost Allocation
- 841: Storage
- 2222: Distributed Energy Resources

# Western Energy Imbalance Market



# SPP Western Energy Imbalance Service

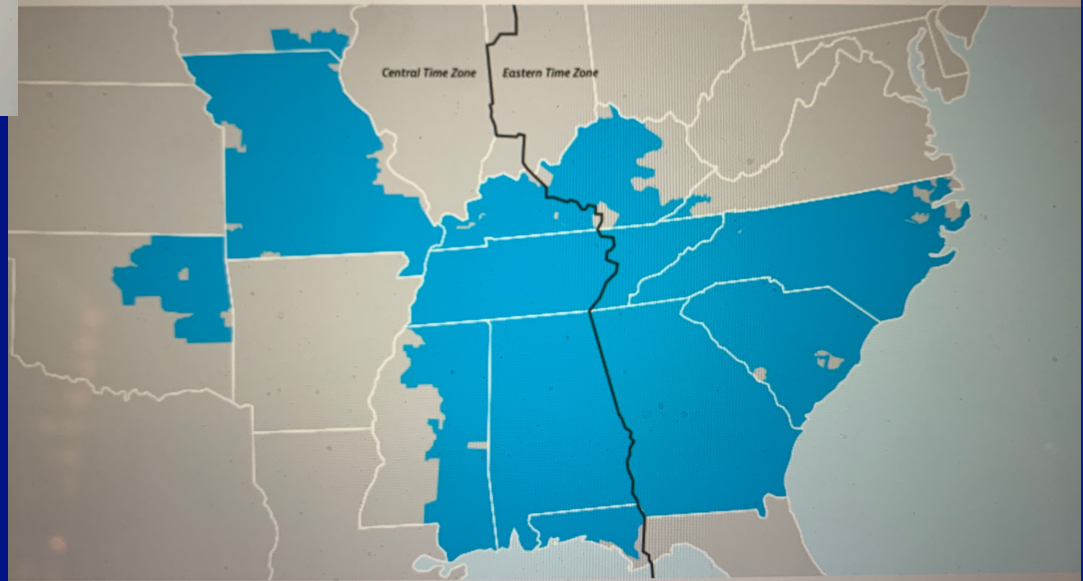




# Southeast Energy Exchange Market



## SEEM Footprint



# Will We Find The Bone?

