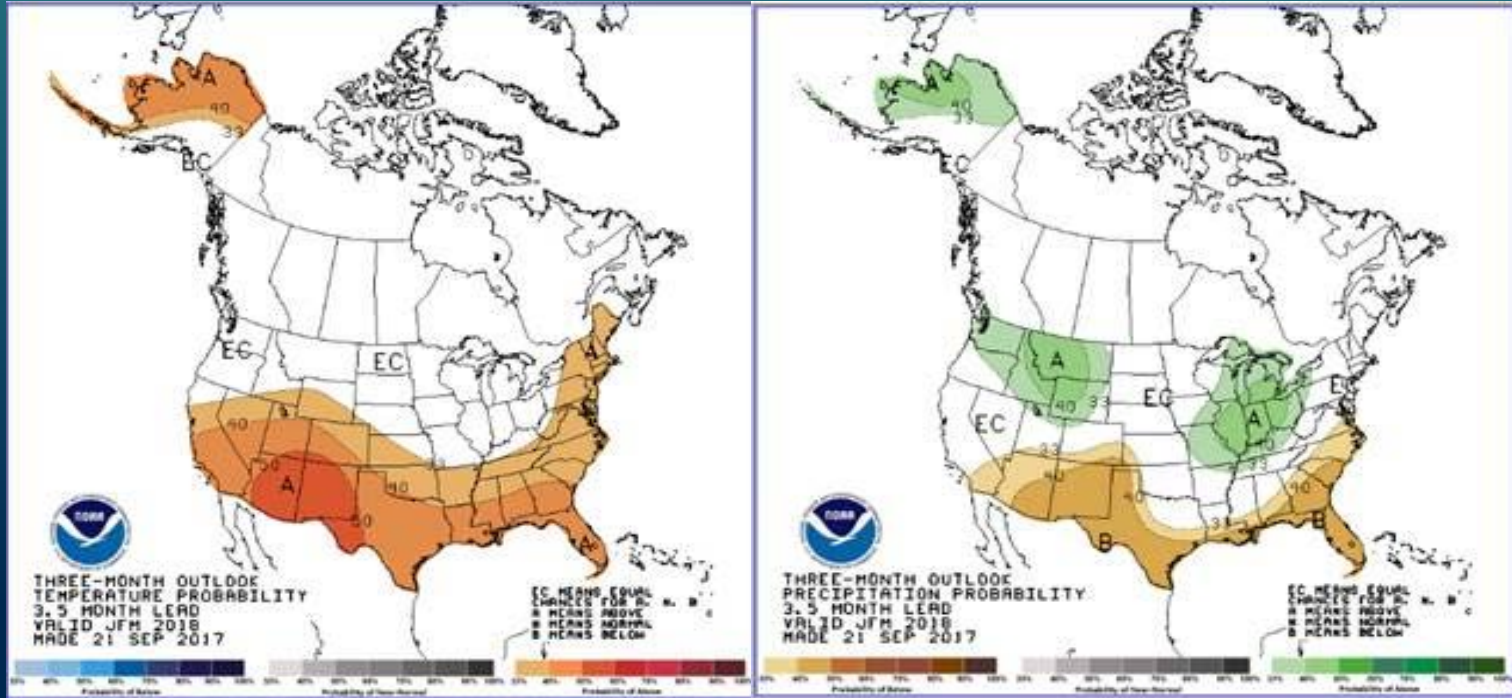


# **ISO/RTO Panel Discussion on Winter Operations and Market Performance**

**Federal Energy Regulatory Commission  
AD16-24-000**

**Nancy Traweek**  
**Executive Director – System Operations**  
**California Independent System Operator**  
**October 19, 2017**

# Western forecast: warmer than average temperatures and normal precipitation predicted this winter

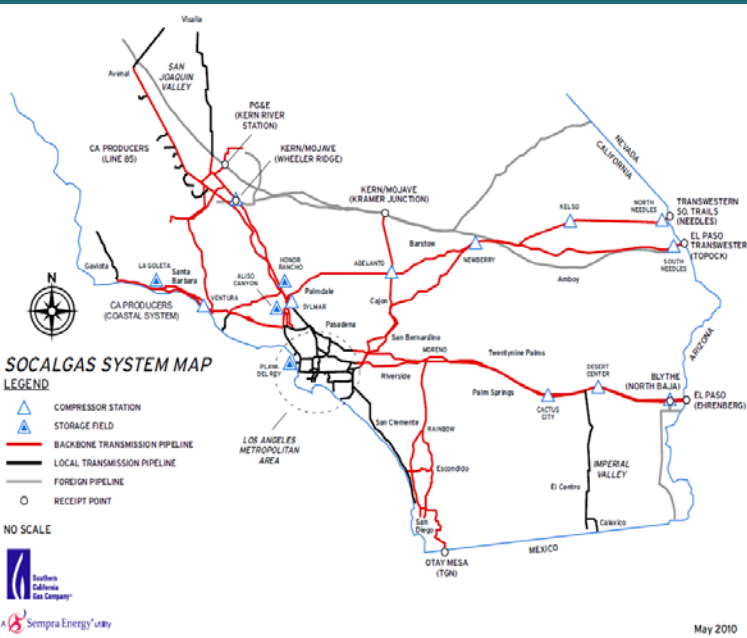


# CAISO has completed its annual assessment in preparation for the 2017-2018 winter season

- Two winter peaking load pockets:
  - Humboldt and Sierra
- High voltage issues - generation requirements may cause oversupply
- Transmission work will impact transfer capability, mitigation measures are in place
- Local congestion not anticipated due to lower winter loads
- Installation of synchronous condensers
- Active monitoring of planned transmission maintenance and gas constraints

# Aliso Canyon – increase storage approved for emergency use

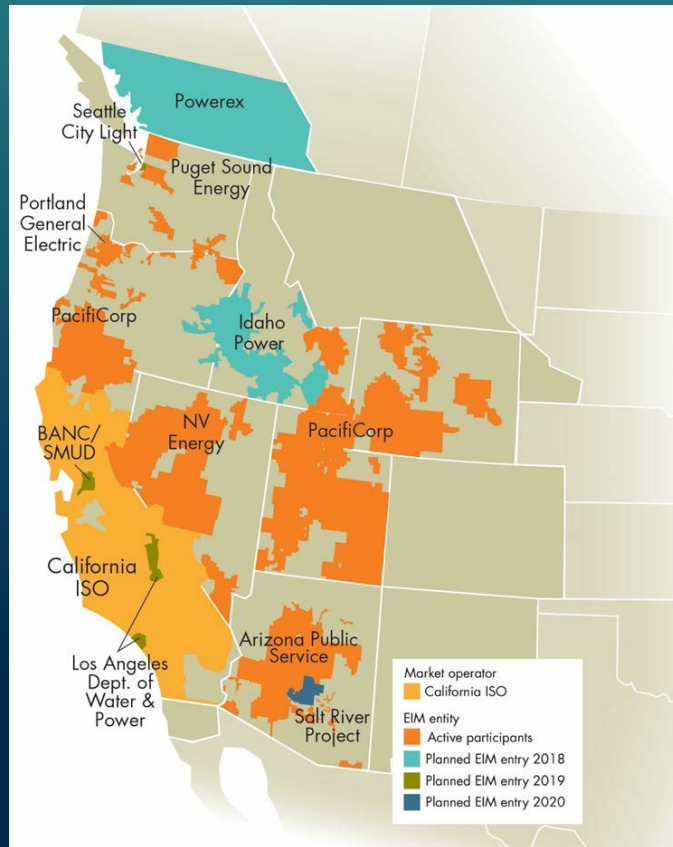
- Electric generators are not the primary driver of Winter risks
- Demand flips from non-core generators to core customers
- Core uses 60% of gas supply
- Non-core generators first curtailed to meet core demand
- Lower electricity demand offers more flexibility outside the SoCalGas area
- Good coordination - advanced electric planning and bidding flexibility help mitigate risks



# Market rule changes to enable market to effectively respond to stressed natural gas conditions

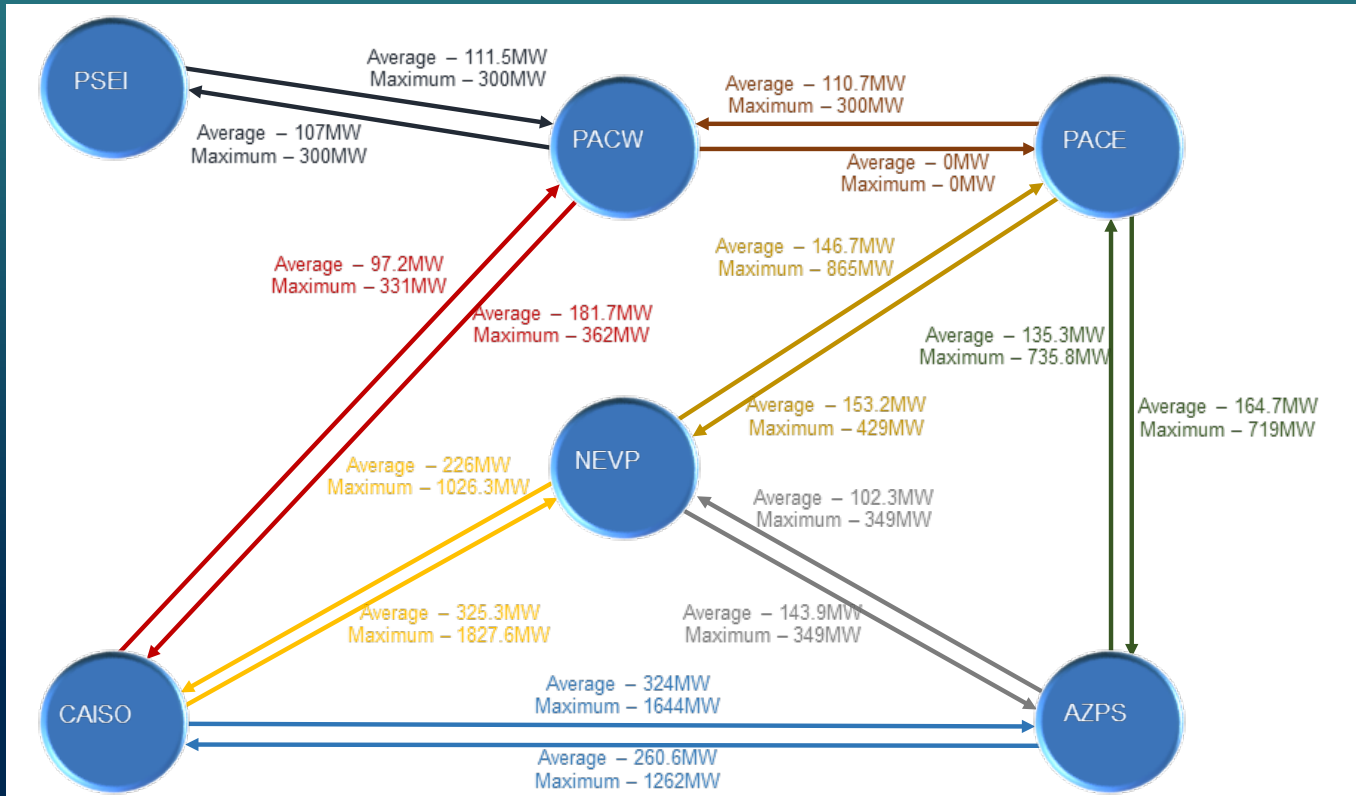
- CAISO has requested authority to extend temporary market measures that enable suppliers to reflect more volatile costs as a result of limited access to the Aliso Canyon gas storage facility
- CAISO is developing a comprehensive set of commitment cost and default energy bid design enhancements to provide increased flexibility for suppliers to provide accurate cost estimates in market bids

# Western Energy Imbalance Market continues to expand



- Portland General Electric successfully began full participation on October 1, 2017

# Economic transfers are supporting imbalances across the combined CAISO and EIM footprint



# Ongoing coordination enhances preparedness

- CAISO has enhanced its coordination activities with gas pipeline operators and gas-fired generators
- Planning activities now involve assessment of gas pipeline capabilities
- Continued coordination with adjacent balancing authorities and EIM Entities has increased situational awareness and market flexibility