Panel on Preparations for Los Angeles Basin Gas-Electric Reliability and Market Impacts SoCalGas (AD16-21-000)

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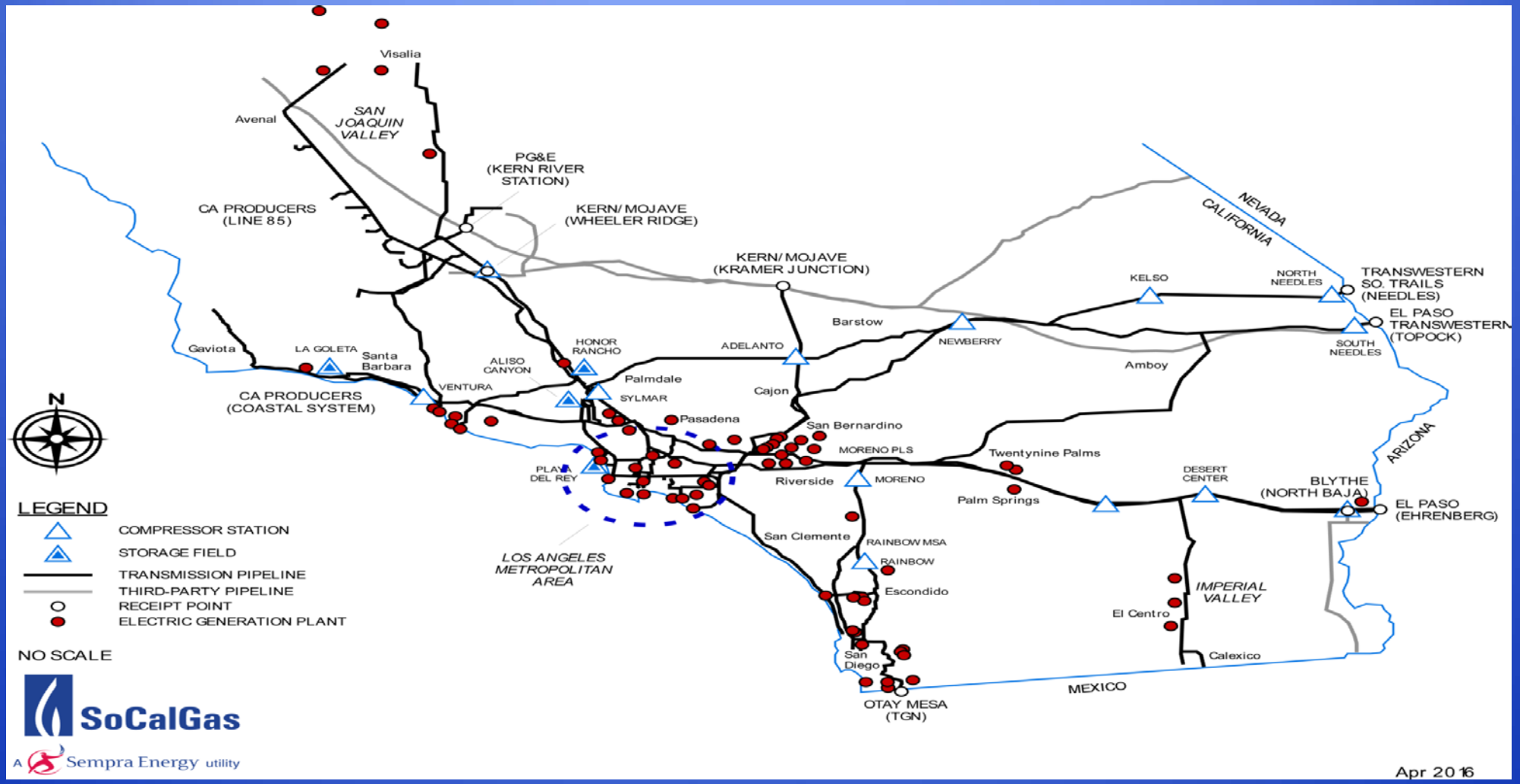
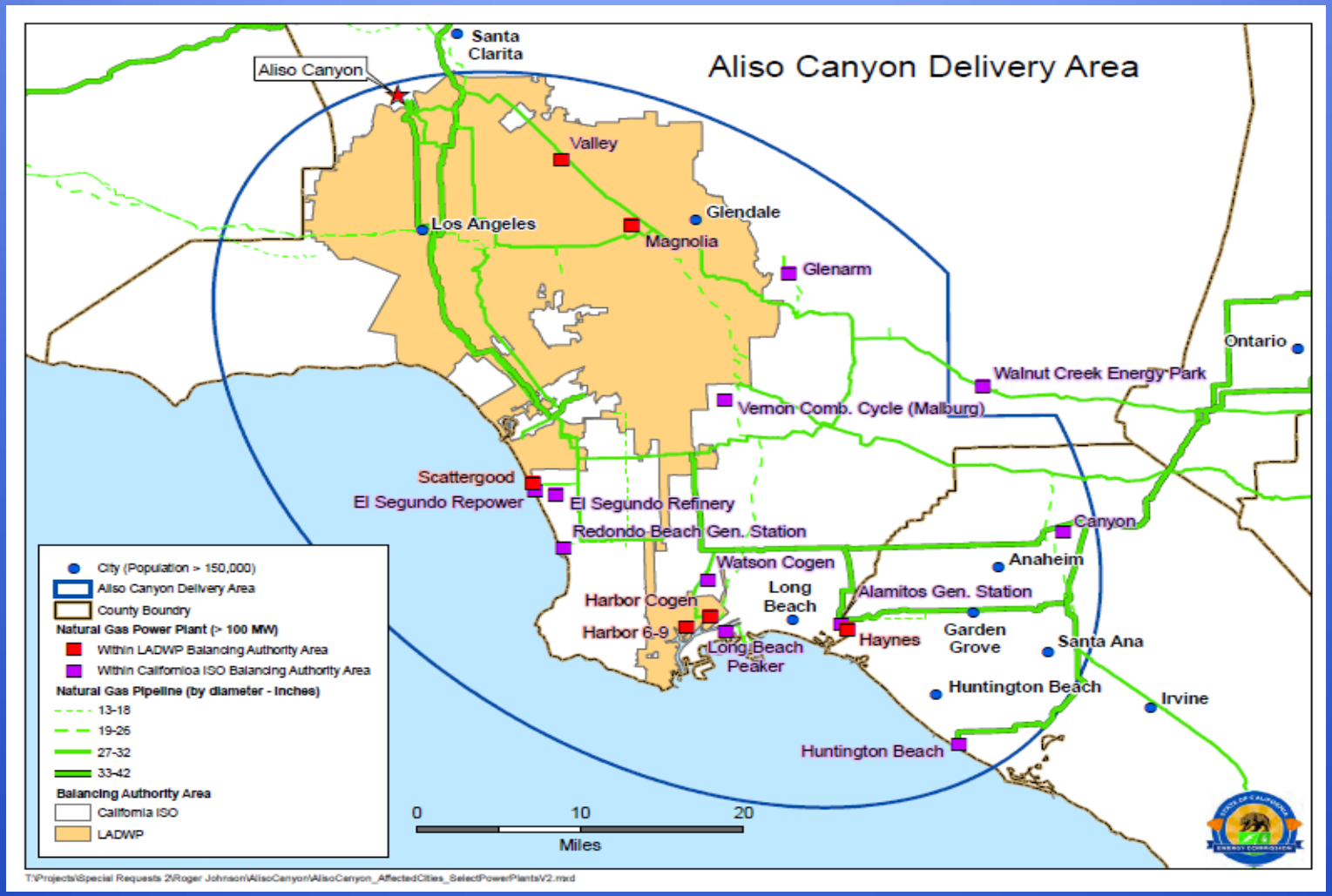
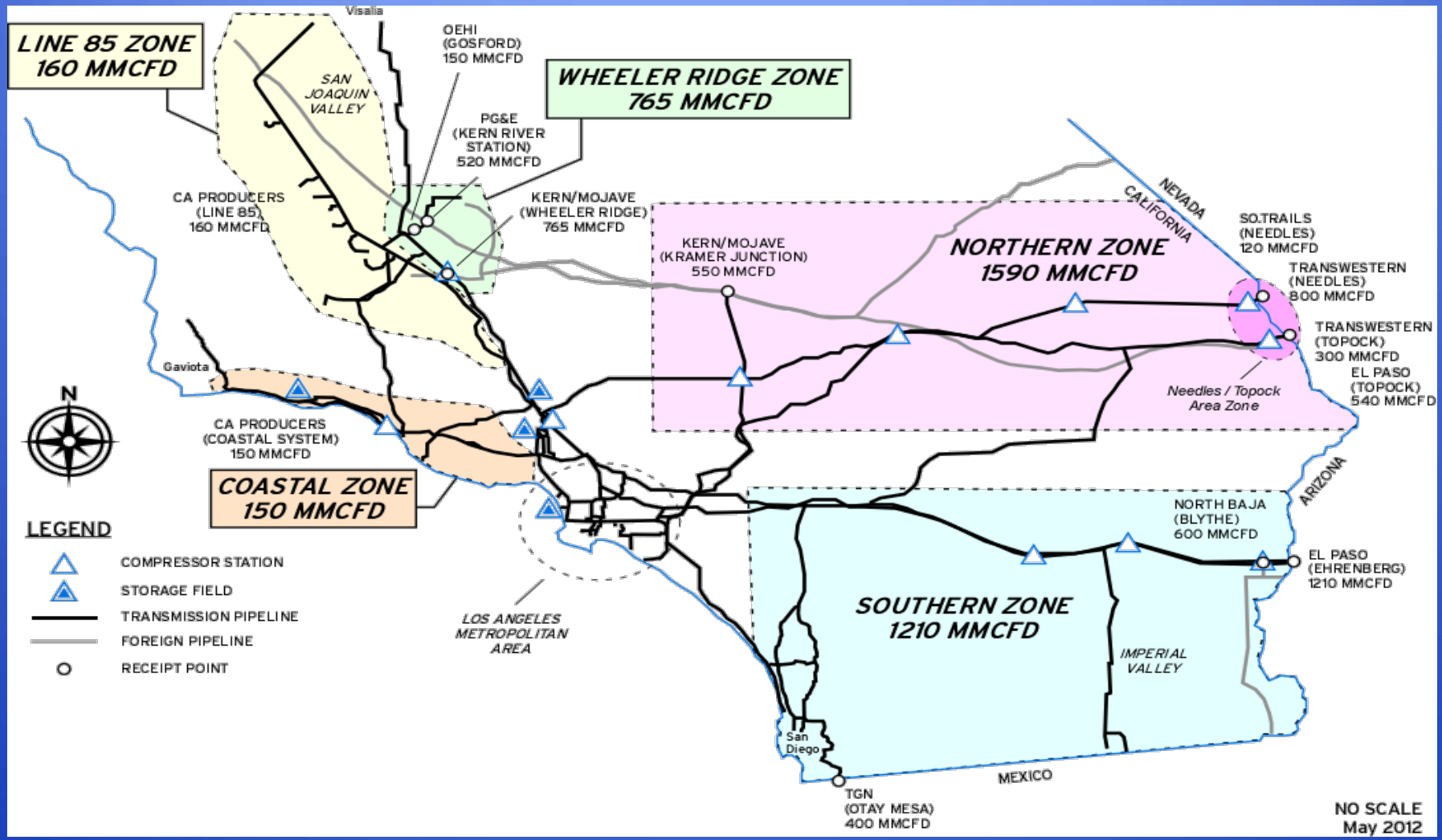
SOCALGAS SYSTEM MAP WITH SDG&E



Los Angeles Basin & Electric Generation Plants



Receipt Point & Transmission Zone firm Capacities



Curtailment Settlement Summary

- On April 28, 2016, SoCalGas, SDG&E, the CAISO, and four other parties submitted a proposed settlement to the CPUC to effectuate curtailments in a more localized manner.
- The new rules would curtail noncore customers in one or more of 10 defined local service zones in the following order:
  1. Dispatchable EG not forecasted to be on when a curtailment order is effective
  2. Up to 60% of currently dispatched operating EG in the winter (Nov – Mar) and 40% in summer (Apr – Oct)
  3. Up to 100%, pro-rata cogen and non-EG noncore (refineries will have a pre-established minimum usage requirement)
  4. Up to 100% of the remaining refinery load not curtailed in the previous steps and the remaining dispatchable EG load, on a pro rata basis

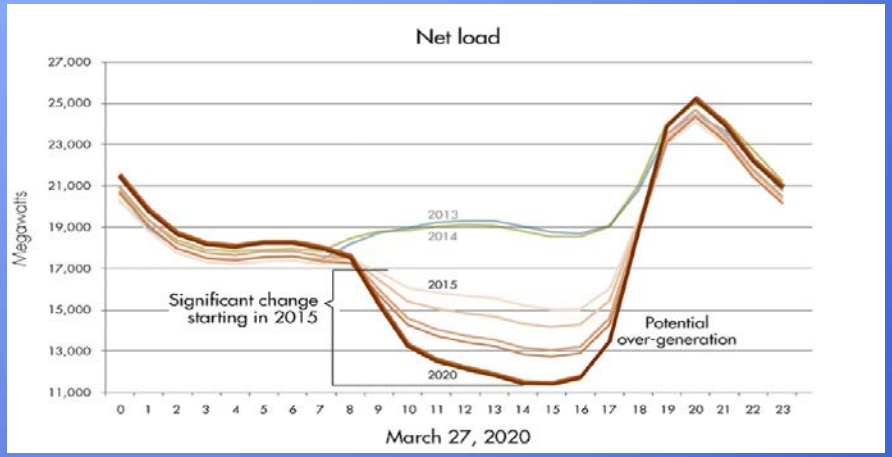
Short-Term Reliability Procedures

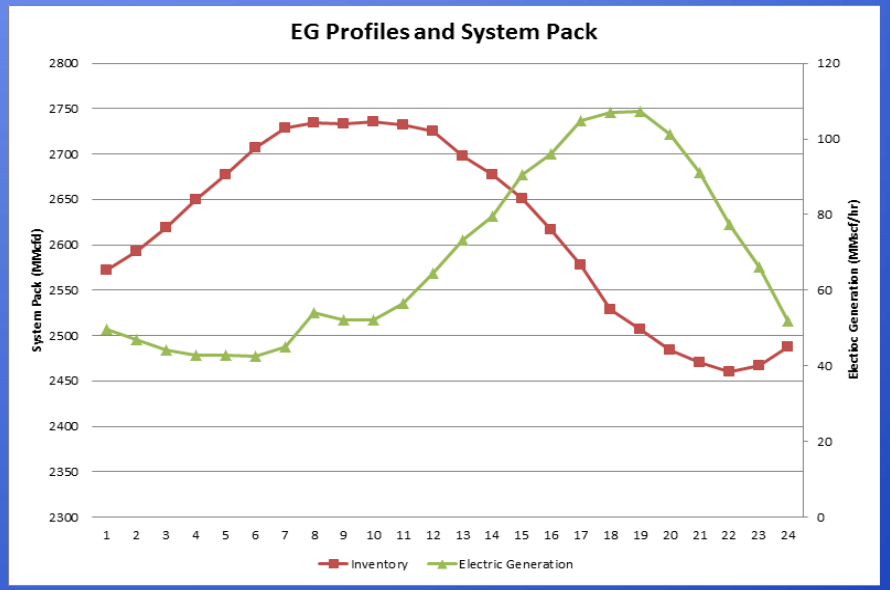
- On April 29, 2016, SoCalGas, SDG&E, CAISO and other parties filed a settlement agreement with the CPUC regarding procedures to help deal with service reliability issues this upcoming summer
- During the settlement term, which would end no later than November 30, 2016, SoCalGas and SDG&E will deal with supply shortages and surpluses using Operational Flow Order (OFO) tariff procedures rather than daily balancing procedures
- These provisions are a positive step forward, but may not prevent gas curtailments or power outages
- OFO's are likely to be called more frequently
- Low OFOs and High OFOs may be called on the same day

Gas Forecast & Daily Gas Demand Profile

- Long Term Forecast of Annual Gas Demand: flat to declining
- **CAISO** analysis of the impact of the **increased use of renewables** suggests a lower base load in the "belly" of the "duck curve" however, **peak capacity requirements remain the same for electric generation and for peak gas demand**

Typical Average EG Day





The Role of Storage in Reliability

Actions Underway to Safely Restore Aliso

WELL INSPECTION PROCESS

PRIORITIZE → **ASSESS** → **RETURN TO SERVICE**

PRIORITIZE:

- Configured for injection and withdrawal through tubing only
- Locations with highest capacity
- Condition of surface hardware

ASSESS:

- Temperature & Noise Tests
- Additional DOGGR required tests:
  - Casing Wall Inspection
  - Cement Bond Log
  - Multi-Arm Caliper Inspection
  - Pressure Test

RETURN TO SERVICE:

- Diagnostics complete; well certified by DOGGR to return to service
- Diagnostics complete; well to be temporarily plugged
- Aliso Canyon field receives overall certification from DOGGR to return to service