



California Public Utilities Commission

Modeled Gas Shortfall if Aliso Canyon Closed September 15, 2021

FTI Consulting, Inc. has completed their analysis of the shortfall in gas deliveries that would result if the Aliso Canyon natural gas storage facility were unavailable and no further activities were undertaken to replace it. This shortfall represents the forecasted gap between gas supply and demand on the coldest day in 10 years, should that day occur in 2027 or 2035, expressed in million cubic feet per day (MMcfd). This constraint is also expressed in megawatts (MW) of electricity during the most constrained hour resulting from this analysis. This MW value represents the electricity that would have been dispatched that hour if Aliso were available, but instead would be unavailable if all of the gas shortfall resulted in gas power plants not being dispatched. Thus, the gas and electric values are alternatives ways of viewing the shortfall and are not additive.

| Shortfall Results | | |
|-------------------|-----------|-------------|
| | Gas | Electricity |
| 2027 | 395 MMcfd | 3,176 MW |
| 2035 | 323 MMcfd | 2,747 MW |

These results reflect model updates since the March 30, 2021, workshop. Among other changes, the 11.5 MW of electricity generation and storage the CPUC ordered in Decision (D.) 21-06-035 has been added to the model, and the gas assumed to be available from the non-Aliso fields has been updated to reflect forecasts for March 31, which accounts for a draw-down in non-Aliso storage throughout the winter. The shortfall is lower in 2027 than the previous forecast of 434 MMcfd, and slightly higher in 2035 than the previous forecast of 318 MMcfd.

The following inputs were used in this model:

| Key Modeling Data for a Peak 1-in-10 Winter Day | | | |
|---|--------------------------|-------------|---|
| | 2027 | 2035 | Source |
| Total gas demand | 4,516 MMcfd ¹ | 4,443 MMcfd | 2020 California Gas Report (includes 1% annual decline), except for gas demand for electric generation, shown below |
| Gas demand for electric generation | 745 MMcfd | 803 MMcfd | FTI electricity modeling output |
| Gas pipeline receipts | 3,115 MMcfd | 3,115 MMcfd | Consistent with CPUC Phase 2 modeling: 85% capacity for Northern & Southern Zones, 100% capacity for Wheeler Ridge Zone |
| Gas storage withdrawal capacity | 1,033 MMcfd | 1,262 MMcfd | Based on modeled gas storage fields' percent full on March 31: 57% in 2027, 81% in 2035 |

The shortfall results are the main output of Workstream 1 of FTI Consulting, Inc.'s analysis. In Workstream 2, FTI Consulting is modeling five portfolios of activities to fill this shortfall, calculating the net present value of each portfolio to utility ratepayers over a 20-year forecasting period and qualitatively assessing any regulatory constraints. The components of these portfolios include gas infrastructure, electric generation, electric storage, energy efficiency, building electrification, gas demand response, and electric transmission.

¹ For comparison, note CPUC modeled a peak winter day's gas demand as 4,821 MMcfd, including 1,123 MMcfd for electric generation, for the year 2030 (Simulation 05).