

## DOCKETED

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**On the Joint Agency Aliso Canyon Action Plan to Preserve Gas and Electric Reliability**

*Additional submitted attachment is included below.*



**PEAKRELIABILITY**  
assuring the wide area view

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April 22, 2016

The Honorable Robert B. Weisenmiller  
Chair, California Energy Commission  
1516 Ninth Street Sacramento, CA 95814-5512

Re: Docket No. 16-IEPR-02 - Aliso Canyon Action Plan and Risk Assessment Technical Report

Dear Chair Weisenmiller,

Thank you for the opportunity to comment on the Joint Agency Aliso Canyon Action Plan for the Los Angeles Basin and the Risk Assessment Technical Report (the Plans). Peak Reliability applauds the effort of the California Energy Commission, the California Public Utilities Commission, California Independent System Operator and the Los Angeles Department of Water and Power in development of the Plans.

Attached for your consideration are Peak's comments on the Plans. Feel free to contact me should you have questions about our comments.

Sincerely,

Michelle Mizumori



## **Background**

Peak Reliability (Peak) is the Reliability Coordinator (RC) for the majority of the bulk electric system (BES) in the Western Interconnection. As the RC, Peak is the highest level of authority responsible for the reliable operation of the BES, has the Wide Area view of the BES and has the operating tools, processes and procedures, including the authority to prevent or mitigate operating situations in both next-day analysis and real-time operations<sup>1</sup>. Peak provides situational awareness, analysis and coordination services to ensure reliable operation of the BES for its RC Area, which spans approximately 1.6 million square miles, from British Columbia to Northern Mexico and includes all or portions of the 14 Western states between. In concert with the Balancing Authorities (BA) and Transmission Operators (TOP), Peak works to ensure that the BES is operated within specified limits, and that system conditions are stable within its RC Area.

Peak applauds the efforts of the California Energy Commission (CEC), the California Public Utilities Commission (CPUC), California Independent System Operator (CAISO) and the Los Angeles Department of Water and Power (LADWP) in development of the Technical Report and the Action Plan, and thanks those entities for the opportunity to comment.

## **Peak’s Role**

### **Seasonal Timeframe**

As part of its normal process, Peak coordinates seasonal studies through the [Peak RC Seasonal SOL Coordination Process](#). Per this process, TOPs posted their approved seasonal operating study reports and detailed reports to Peak’s secure website on April 4, 2016. These studies include entities outside California that may be impacted by gas curtailments. These TOPs are currently developing coordinated operating plans, processes and procedures, which are due to be submitted to Peak by May 2, 2016 for the summer season which begins on June 1, 2016.

In addition to the normal coordination of seasonal studies, Peak has performed special studies focused on analyzing the impacts to electric transmission system due to reduced generation in the LA basin. The studies have shown several potential transmission constraints under heavy electric loading and reduced generation scenarios

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<sup>1</sup> NERC Glossary of Terms Used in NERC Reliability Standards

studied. Peak intends to coordinate operating plans among impacted entities to utilize maximum available transmission capacity and develop effective mitigation plans to maintain the reliability of BES.

One of Peak's responsibilities is to define and determine Interconnection Reliability Operating Limits (IROL). An IROL is defined as "A System Operating Limit that, if violated, could lead to instability, uncontrolled separation, or Cascading<sup>2</sup> outages that adversely impact the reliability of the Bulk Electric System."<sup>3</sup> Although there are no pre-defined IROLs in the Los Angeles basin, there is an IROL in the San Diego area, which could potentially be impacted as a result of gas curtailments. One generator located inside of the Aliso Canyon Delivery Area impacts the IROL, and the amount of energy that can be imported into San Diego. During the April 8, 2016 workshop hosted by the CEC, CPUC, CAISO and LADWP, a representative from San Diego Gas & Electric (SDG&E) raised concerns about the ability to import gas and electricity into the San Diego area. Peak shares that concern, especially due to the sensitive nature of that region of the electric grid.

### Peak's Actions

- Peak is reaching out to neighboring BAs to determine whether any scheduled outages of transmission facilities that may impact the import capability into Southern California could be safely delayed. It is important to maintain as much import capability as possible while Aliso Canyon is restricted.
- Peak is leading the development and coordination of operating procedures amongst the impacted BAs, TOPs and Peak. This will ensure that there are consistent directions to all operators of the system for addressing system issues and emergencies. This is a large group of entities, including many outside of California. This will include clearly documented Operating Plans so that all System Operators and Engineers have a clear understanding of what actions to take to preserve the reliability of the BES.
- Peak is also developing training on the Aliso Canyon issues and considerations, for its RC System Operators. This training will be presented as part of the regular Spring Training cycle in May and June. Peak will coordinate training with CAISO and LADWP and explore either including affected entities in Peak's training, Peak attending the tabletop exercise that CAISO is planning with SoCal Gas and LADWP in June, or both.
- Peak is developing an operational communication plan to clearly define the sharing of operating data between System Operators & Engineers from all impacted BES Reliability entities in order to effectively deal with day-ahead and

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<sup>2</sup> NERC Glossary of Terms Used in NERC Reliability Standards

<sup>3</sup> NERC Glossary of Terms Used in NERC Reliability Standards

real-time energy emergency conditions when gas curtailment to power generation plants is anticipated.

### **Recommended Actions**

- Peak has the ability to accept ambient temperature based dynamic facility ratings as system operating limits. CAISO and LADWP should explore the capability to supply dynamic ratings to maximize the electric import capability into the LA Basin. If dynamic ratings are not available, then 30 minute ratings should be determined and submitted.
- Peak recommends that, as identified in the Action Plan, CAISO, LADWP and SoCal Gas coordinate a process for gas curtailments, and that such a plan allows for those curtailments to be optimized. Peak understands that historically curtailments have been pro rata, but in order to maximize electric output for the available gas, Peak recommends that the identification of curtailments considers the heat rates of the generating units, so that the gas curtailments are made on the least efficient units first. Peak would welcome the opportunity to provide input in the development of this process as well. At a minimum, the gas curtailment methodology should also be communicated to Peak, so that Peak can appropriately incorporate curtailment scenarios in the studies and analyses that Peak conducts.
- Peak recommends that as CAISO and LADWP consider market changes and gas-electric coordination efforts, that they explore developing or enhancing emergency assistance agreements with neighboring BAs with consideration of potential gas curtailments. Such agreements should consider compensation and transmission considerations necessary to support receiving emergency energy from neighbors.
- Peak supports the Mitigation Measures identified in the Action Plan, with special emphasis on the efforts to increase gas-electric coordination, provision of market information prior to the first gas nomination period, changes to the market schedule, and development of a program similar to the flex alert for the gas industry.

### **Near Term**

The Technical Report and Action Plan both reference an estimated 14 days where there may be gas curtailments that affect electric generation in the LA Basin. However, at this point it is impossible to know when those days will occur or what the system configuration will be on those days. However, as the operating day approaches, there will be much more certainty around actual system topology and conditions, so more specific operating plans can be developed.

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## Peak Actions

- Peak is reaching out to SoCal Gas to enter into non-disclosure agreements similar to those in place between LADWP and CAISO, so that Peak can be directly involved in the coordination discussions as well.
- Peak runs Operations Planning Analyses (OPA) for every day beginning three business days prior to the operating day. In that shorter term timeframe, actual outages and system topology is known so that more specific analysis can be performed. This will include the days of concern, and will be coordinated with CAISO, LADWP and any other impacted entities. This process is a normal course of business for Peak.
- Peak leads and coordinates development of mitigation plans and Operating Memos to address any issues identified in the OPAs.
- Peak is performing additional analyses to assess any other BES reliability issues not identified in the current studies. Once potential curtailments are identified the evening before the operating day, Peak will study the impact of such curtailments. Peak intends to share results of its analysis with CAISO, LADWP and other impacted entities. Peak will also perform additional outage studies for upcoming outages expected to occur over the coming summer months.

## Real-Time

Even with the analysis and actions taken in the seasonal and near-term time frames, there may still be issues that arise in real-time.

## Peak Actions

- Peak has real-time operators and engineers on-shift 24x7, monitoring and coordinating response to real-time issues, including pre- and post-contingency<sup>4</sup> exceedances of transmission system operating limits and other system concerns. For any identified exceedances, Peak coordinates with the affected BAs and TOPs to identify and implement mitigation measures to alleviate the exceedance.
- As curtailments are identified or outages are upcoming, Peak runs studies to identify any pre- and post-contingency SOL exceedances with those de-rates or outages. The results of these studies and any necessary mitigation are coordinated with all affected entities, including CAISO and LADWP.
- Peak has the responsibility and authority to direct action, up to and including shedding firm load, to preserve the integrity of the BES. It should be noted that load shedding is the last resort to protect the integrity of BES, and Peak will coordinate and, as necessary, direct other feasible and timely mitigation prior to considering load shed, consistent with the [Load Shed Philosophy](#). All mitigation

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<sup>4</sup> Peak monitors approximately 8,000 contingencies every 5 minutes. Each contingency represents a separate “what-if” scenario for the loss of a transmission facility.

will be coordinated with all impacted entities. The operating plans developed in the seasonal and near-term time frames will provide clear guidance on potential mitigation and important considerations for that mitigation.

- If there are major unforeseen outages or load shedding, Peak will coordinate timely restoration and provide assistance to impacted TOPs and BAs as needed.

## **Tools**

In support of the actions described above, Peak is also making several enhancements to its tools and processes.

## **Peak Actions**

- Identify any overload relay settings below 125 percent of highest emergency limit so that Peak can better coordinate on potential cascading outage risks in the LA Basin.
- Implement reactive margin evaluation processes to improve monitoring of reactive support available in the LA Basin.
- Modifying tools to identify instances where conditions are approaching SOLs (currently we monitor exceedances). This would allow for greater time and ability to collaboratively and proactively address systems issues.

## **Conclusion**

Peak is taking several actions to help mitigate potential issues in the LA Basin, and across Peak's RC Area due to the Aliso Canyon restrictions and recommends several actions, as described above, for the Aliso Canyon Mitigation Entities and supports the Mitigation Measures identified in the Action Plan. Peak continues to coordinate with all affected entities to analyze system impacts and develop operating plans to maintain the reliability of the Bulk Electric System.