

CASE STUDY

Los Angeles Basin System Impact Studies

EPE took on a significant role commissioned by the City of Los Angeles Department of Water and Power (LADWP) to evaluate the existing remediation plan for the Owens Valley (OV) region. The objective was to create effective Remedial Action Schemes (RASs) considering recent network updates and anticipated energy developments under various scenarios. EPE conducted a thorough review, assessment, and update of RAS logic for each scenario to mitigate thermal overload and voltage instability risks.

CHALLENGE

The challenges revolved around updating the RAS logic to align with current network conditions and anticipate future energy developments. Avoiding thermal overload and voltage instability required a meticulous approach, considering multiple scenarios. The complexity of the study demanded the creation of effective automation techniques to analyze a wide range of mitigation options through steady-state and dynamic simulations.



SOLUTION

EPE's solution included a comprehensive review and update of RAS logic, ensuring alignment with recent network changes and future energy scenarios.

Automation techniques were developed to streamline the analysis of diverse mitigation options, employing both steady-state and dynamic simulations.

The team devised strategies to address thermal overload and voltage instability concerns under various scenarios, optimizing the effectiveness of the remediation plan.

RESULTS

The project delivered updated and refined Remedial Action Schemes that aligned with current network conditions and anticipated future energy developments. The automation techniques developed by EPE enabled efficient analysis of a diverse set of mitigation options, ensuring the effectiveness of the remediation plan in preventing thermal overload and voltage instability. The results provided LADWP with actionable insights to enhance the resilience and reliability of the Los Angeles Basin system.