

CASE STUDY

ERIS analysis for Apex' Helios Green Hydrogen

EPE undertook an Energy Resource Interconnection System (ERIS) analysis for the proposed Helios Green Hydrogen projects situated in New Mexico. This analysis was conducted in alignment with the DISIS 2022 filing. EPE's comprehensive approach involved modeling all Cluster 5 queued projects (prior and current) following the Southwest Power Pool's (SPP) fuel base dispatch methodology.

CHALLENGE

The challenges of the project included ensuring the seamless integration of diverse energy resources—wind, solar, and battery—within the ambitious 4,450 MW project. Addressing convergence issues and determining the grid upgrades required meticulous analysis, especially considering the clustering of projects and adhering to SPP's generation interconnection process.



SOLUTION

EPE's solution involved a thorough ERIS analysis, intricately modeling all Cluster 5 queued projects while adhering to SPP's fuel base dispatch methodology. Proactive measures were taken through the modeling of proposed transmission upgrades and reactive power support devices to mitigate convergence issues.

The team employed advanced simulation techniques to determine the likely grid upgrades associated with the Helios Green Hydrogen project, ensuring a robust and optimized energy resource interconnection system.

RESULTS

The project yielded valuable insights into the feasibility and interconnection challenges of the Helios Green Hydrogen initiative. By conducting a comprehensive ERIS analysis, EPE provided critical information for the DISIS 2022 filing. The proposed transmission upgrades and reactive power support devices addressed potential convergence issues, contributing to the seamless integration of 4,450 MW of wind, solar, and battery technologies. The results of the study facilitated informed decision-making for the Helios Green Hydrogen project in New Mexico, enhancing its overall efficiency and grid compatibility.