

CASE STUDY

LMP Forecasting Analysis for Acciona Energy's Wind Project

This project involved the Palmas Wind facility with a capacity of 144.9 MW in Texas, USA. The scope of the project included an analysis conducted by EPE on LMP at various key substations, namely Palmas, Rio Hondo, East Rio Hondo, and Marconi, along with the ERCOT South Hub. EPE completed an LMP forecasting analysis and estimated basis differences between the new Palmas substation and the South Hub. The analysis also considered potential curtailment at the Palmas project.

CHALLENGE

The challenges encompassed various scenarios evaluated by EPE, including revised bid pricing reflecting tax law effects, the incorporation of planned but unapproved upgrades (such as line upgrades and rebuilds), and different assumptions regarding generation build-up.



SOLUTION

To address these challenges, EPE undertook a comprehensive LMP forecasting analysis, considering nodal prices at key substations and the South Hub. The analysis factored in potential upgrades, unapproved at the study's time, such as line upgrades and new installations.

Different scenarios were assessed, incorporating revised bid pricing to align with tax law effects and exploring various assumptions regarding generation build-up.

RESULTS

The results of this analysis provided valuable insights into the nodal prices at crucial substations, basis differences, and potential curtailment at the Palmas Wind project. The evaluation of different scenarios equipped stakeholders with a nuanced understanding of how factors like tax law, planned upgrades, and generation assumptions impact the project's economic outlook. These results formed a basis for informed decision-making in optimizing bid pricing and strategic planning for the Palmas Wind facility within the ERCOT grid.