

Los Alamos County (LAC) Energy Storage and Renewables Study

Lee Rashkin and Ray Byrne

Motivation

This study will explore the requirements and limitations of creating a fully 100% renewable system.

Grid Requirements

Feeder 16 on the LAC system

- 1.4 MW total PV
- 1.8 MW total battery storage
- Grid tie represented as infinite bus with hourly defined energy pricing
- Load profile from 3/7/2014 to 5/10/2015
- 100 % renewable goal

MATLAB Optimization results were used to find minimum required additions to the grid to achieve the goals, and the related costs were found with PLEXOS