Joshua Carbajal Modeling Project Part 4 Computer Model Documentation

This program simulates a PV array at Crownpoint, New Mexico over the course of an entire year, and determines the actual energy produced, capacity factor and produces timeseries plots of the power output. In order to display the correct output components, the program prompts the user to enter values in the command line chronologically as follows:

Location latitude, (positive: Norther hemisphere):

Input as degree value by user

Location longitude, (positive: East of Prime Meridian):

Input as degree value by user

#### PV array tilt:

Input as degree value by user, if PV is horizontal, input as 0

Time zone in reference to UTC:

Input as integer value referenced to Coordinated Universal Time

### Module NOCT:

Input value per specification sheet MLU PV-MLU255HC

# Module power rating:

Input value per specification sheet MLU PV-MLU255HC

# Module power coefficient:

Input value per specification sheet MLU PV-MLU255HC

#### Number of PV modules per string:

Input integer value by user

## Number of strings:

Input integer value by user