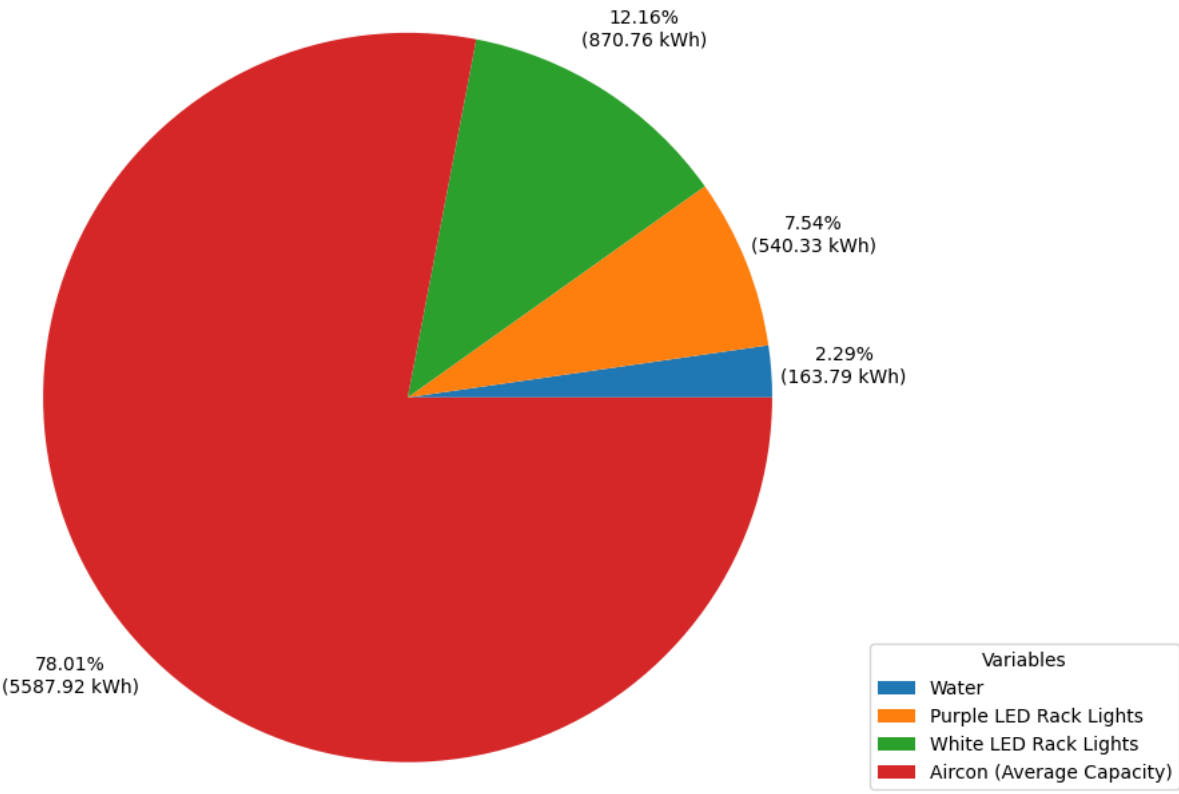
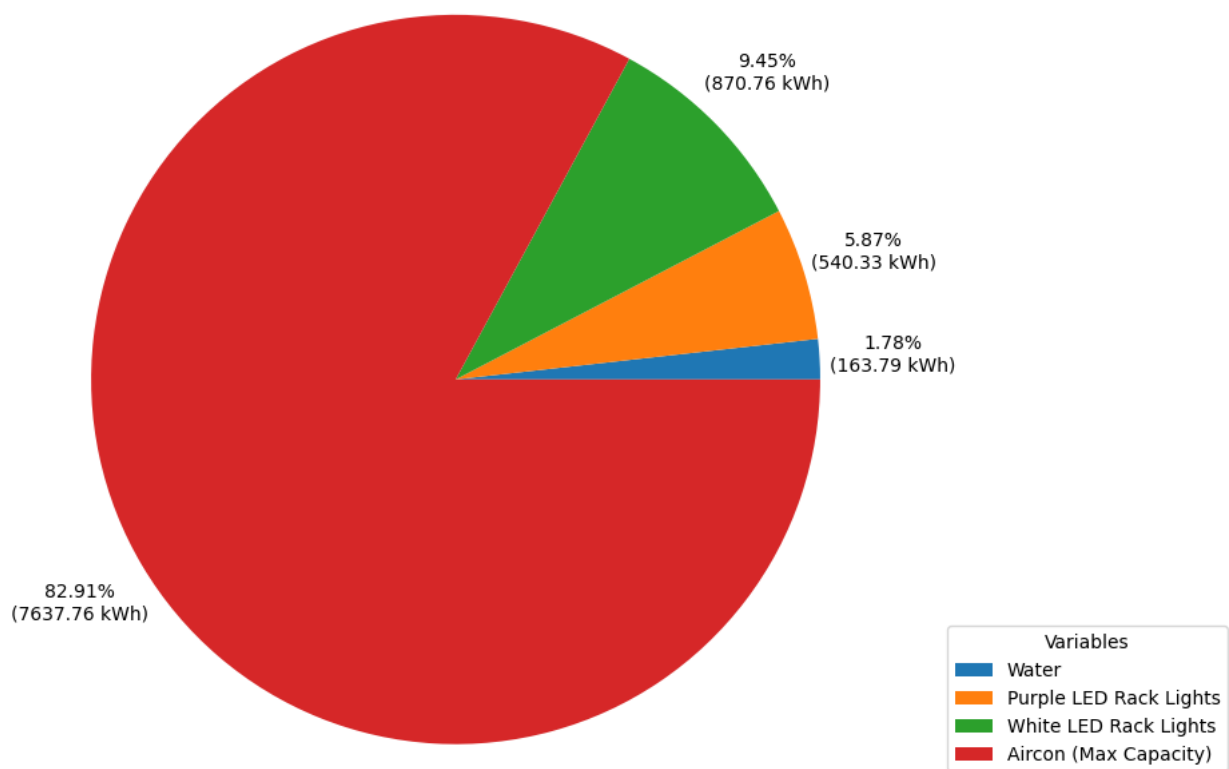


# Historical Analysis

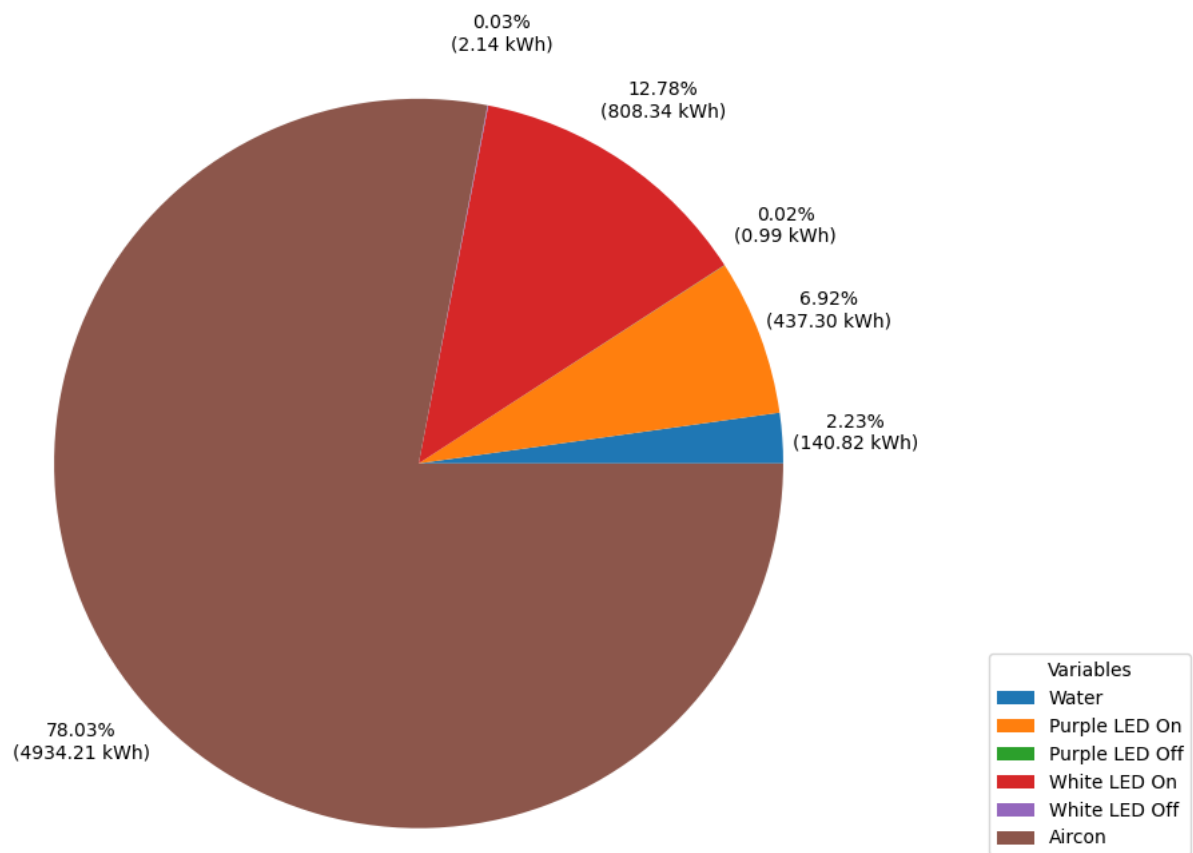
Variables that Affect Monthly Power Consumption - Average Capacity



Variables that Affect Monthly Power Consumption - Max Capacity



Variables that Affect Monthly Power Consumption



#### Cost Efficiency Output:

Amount spent during the day: \$61.79

Amount spent during the night: \$105.77

Most cost efficient period is from 0700-1900.

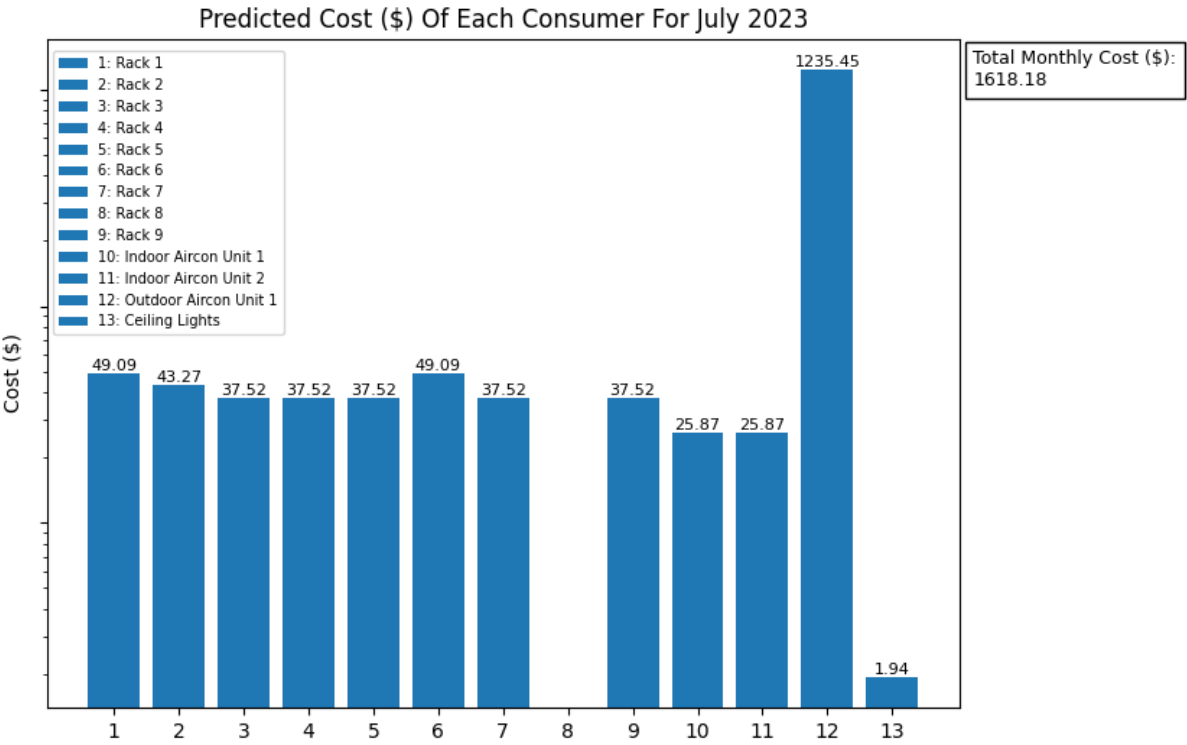
Average power per hour consumed > 31 degree celsius: 905.40 W/h

Average power per hour consumed > 27 and > 31 celsius: 482.31 W/h

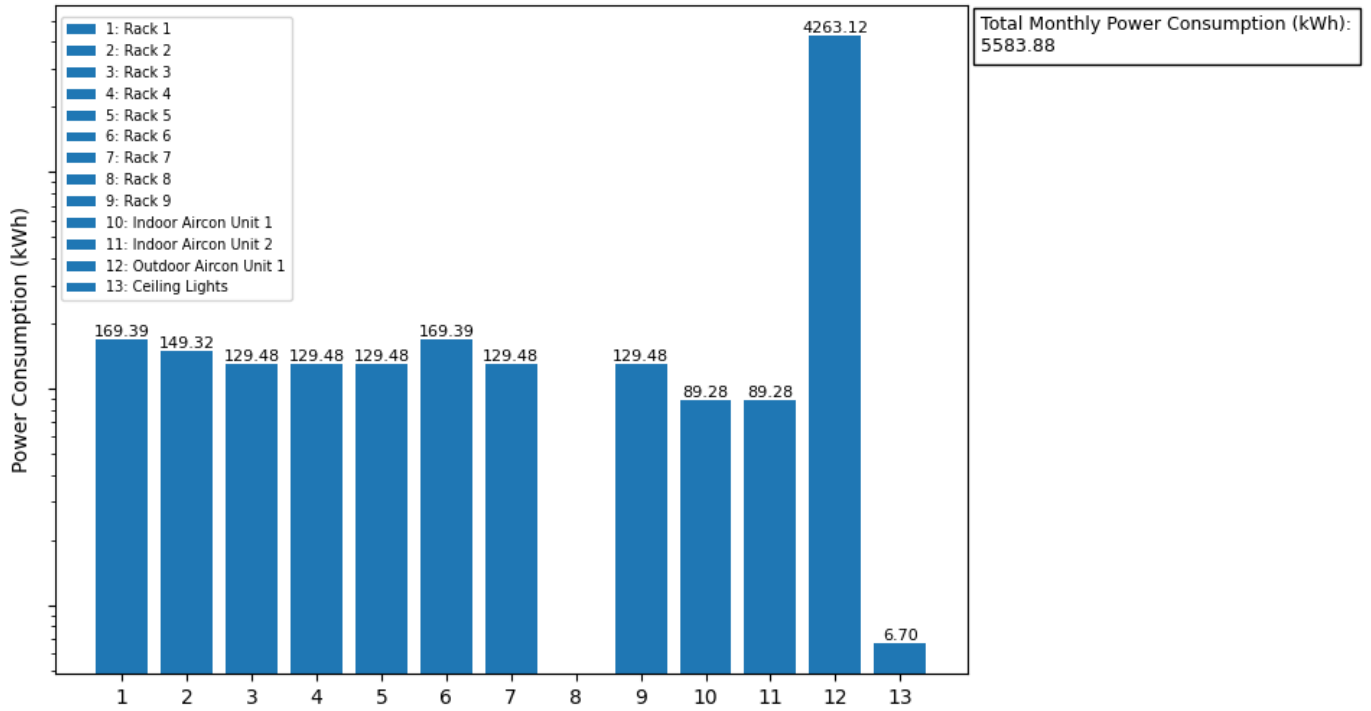
Average power per hour consumed < 27 degree celsius: 807.06 W/h

Most cost efficient season is when temperature is between 27 and 31 degree celsius.

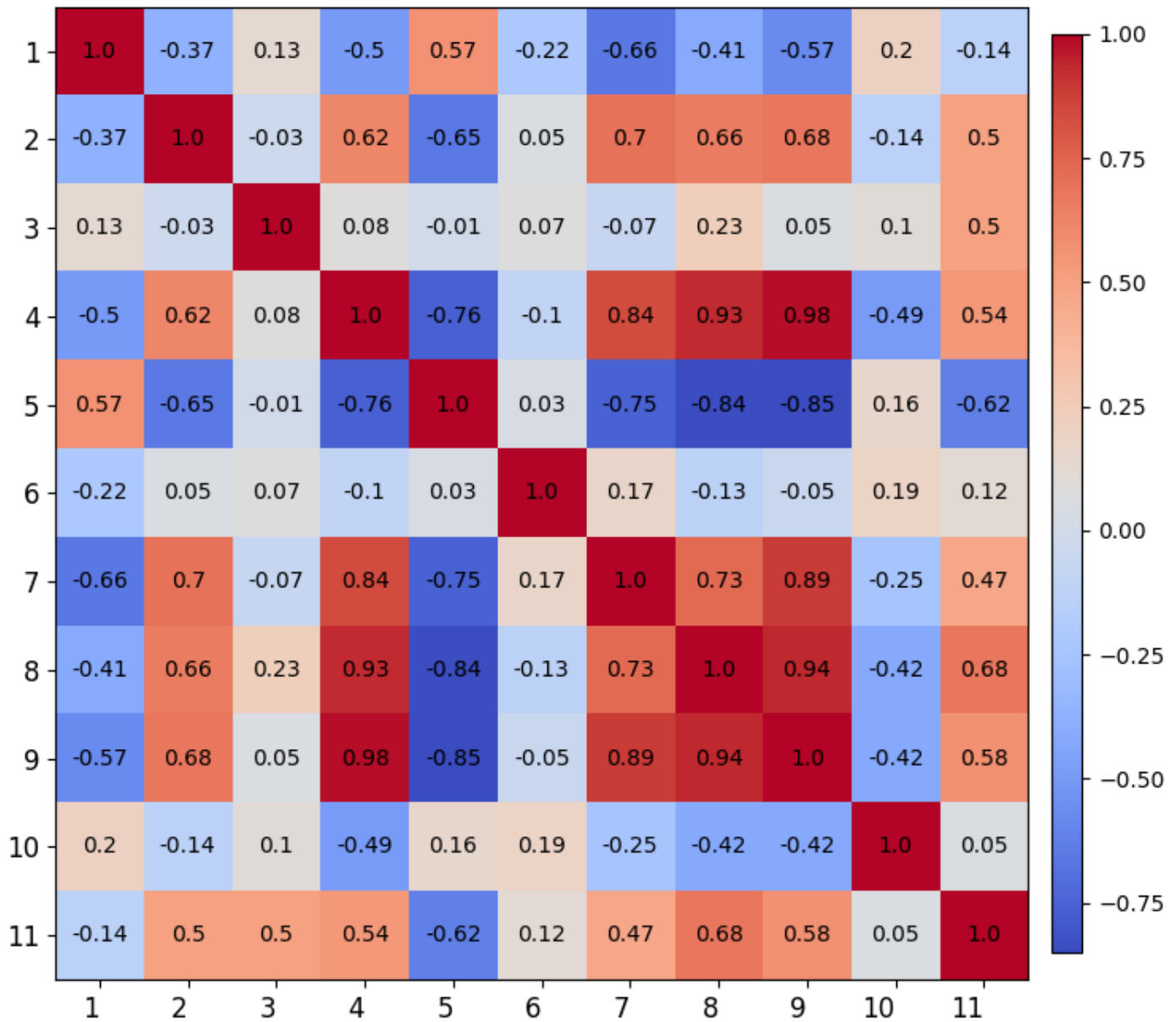
# Prediction Analysis



Predicted Power Consumption (kWh) Of Each Consumer For July 2023

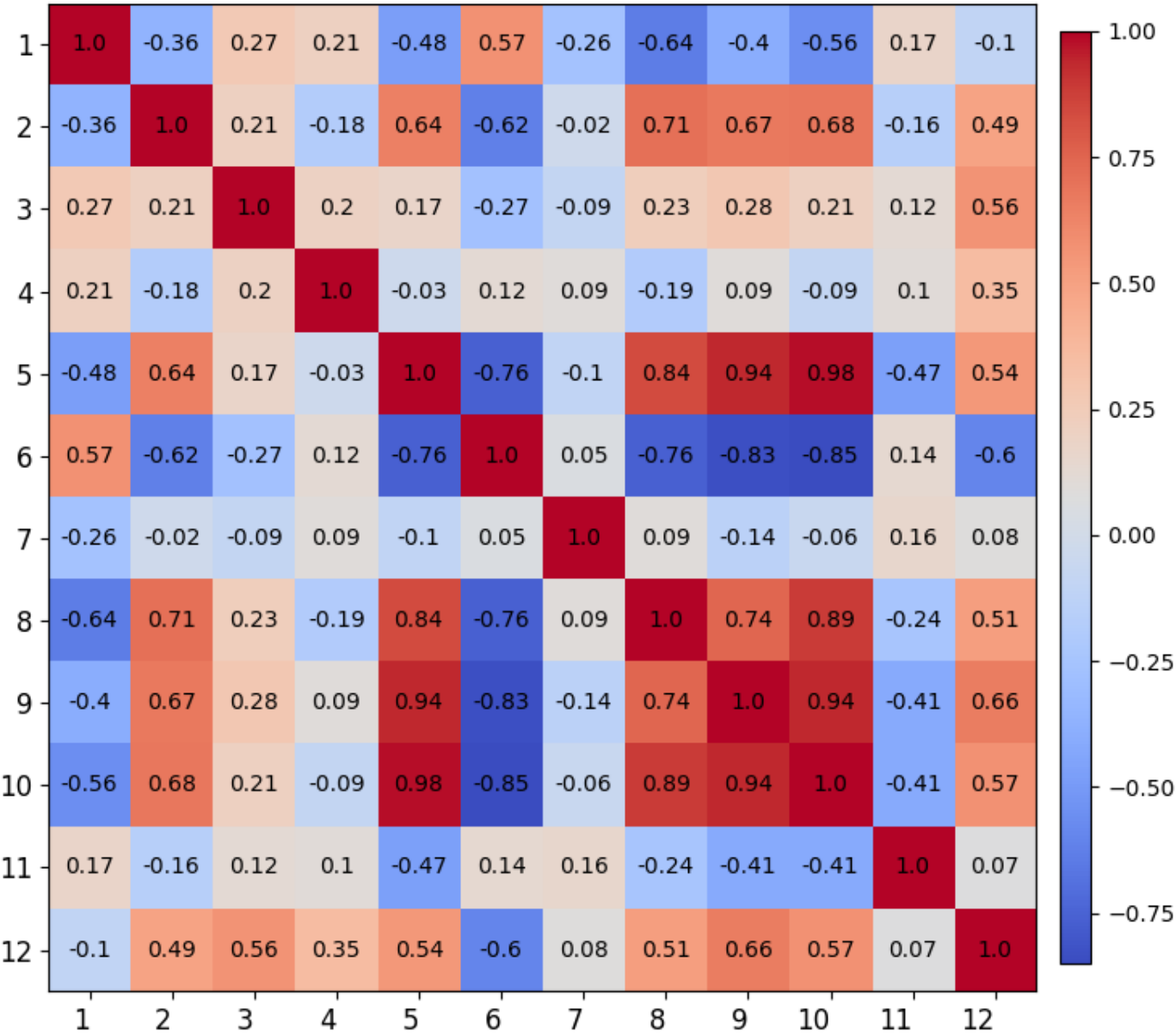


Correlation between Internal and External Farm Conditions



ID	Variable
1	Daily Average Farm Humidity
2	Daily Average Farm Temperature
3	cloudiness
4	feels_like
5	humidity
6	pressure
7	temp_max
8	temp_min
9	temperature
10	wind_deg
11	wind_speed

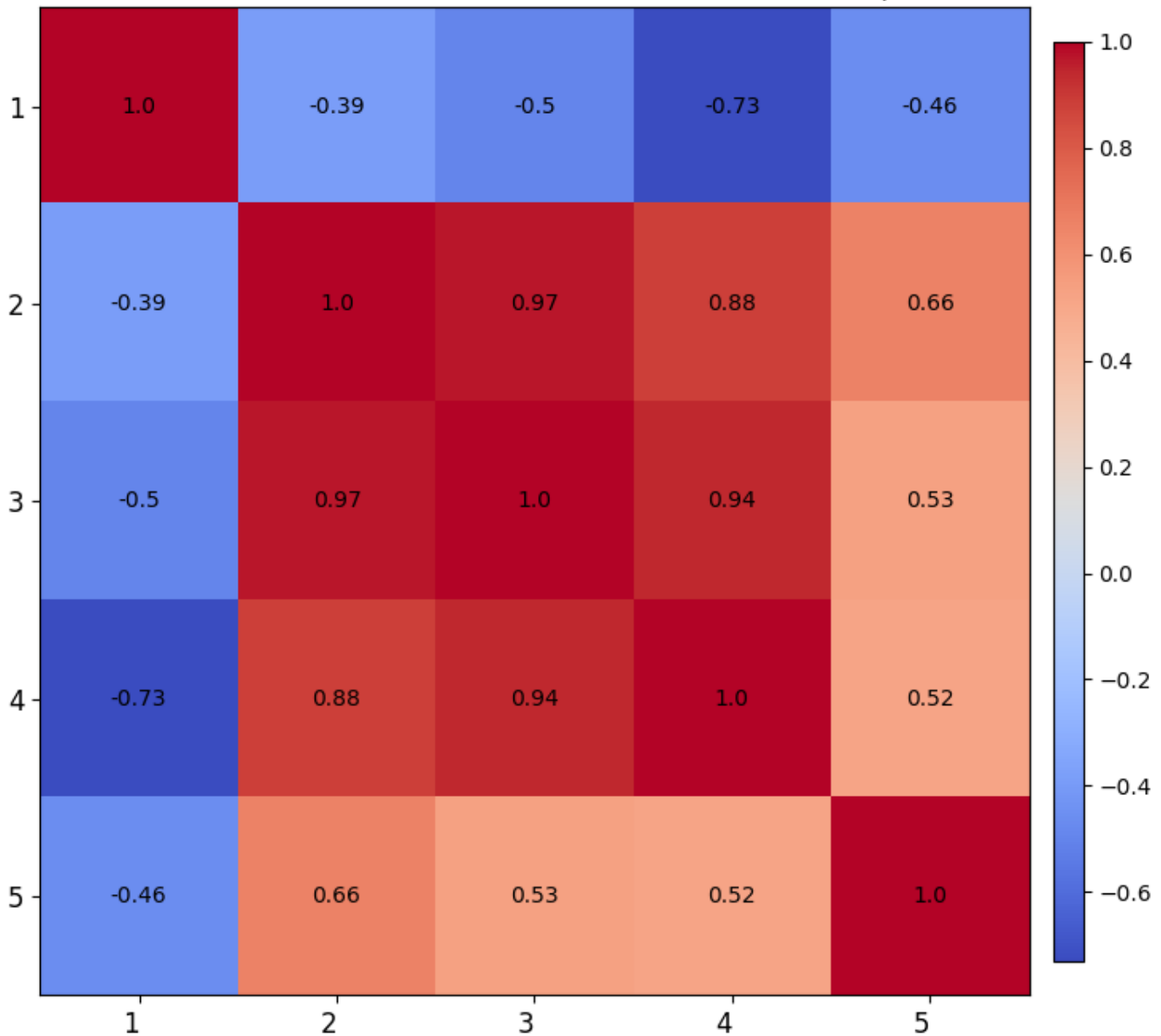
Correlation between farm environmental conditions to estimated power consumption



ID	Variable
1	Daily Average Farm Humidity
2	Daily Average Farm Temperature
3	Daily Farm Power Consumption
4	cloudiness
5	feels_like
6	humidity
7	pressure
8	temp_max
9	temp_min
10	temperature
11	wind_deg
12	wind_speed



Historical Weather data vs Historical Farm Power Consumption



ID	Variable
1	daily_rainfall_total
2	maximum_temperature
3	mean_temperature
4	minimum_temperature
5	total_power_consumption

