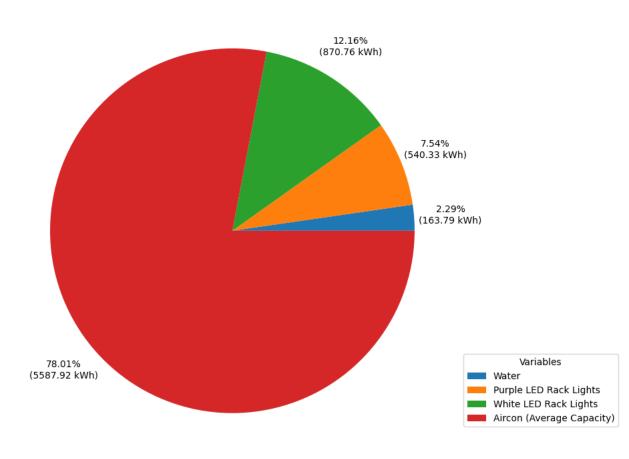
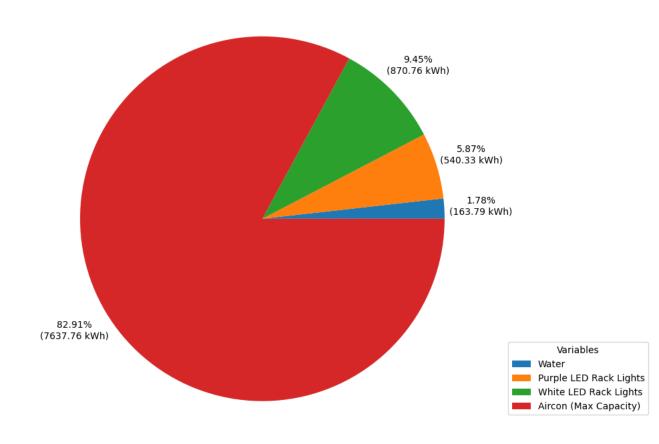
Historical Analysis

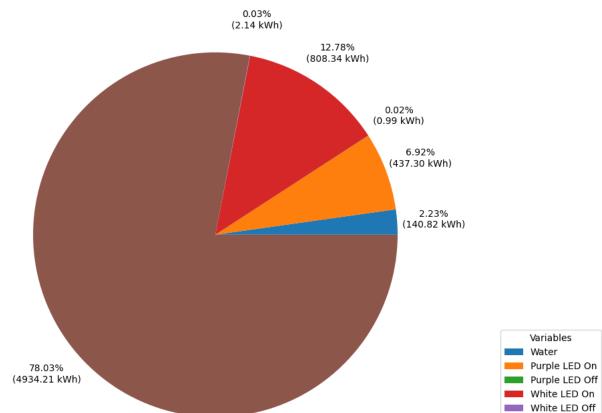
Variables that Affect Monthly Power Consumption - Average Capacity



Variables that Affect Monthly Power Consumption - Max Capacity



Variables that Affect Monthly Power Consumption



Aircon

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.

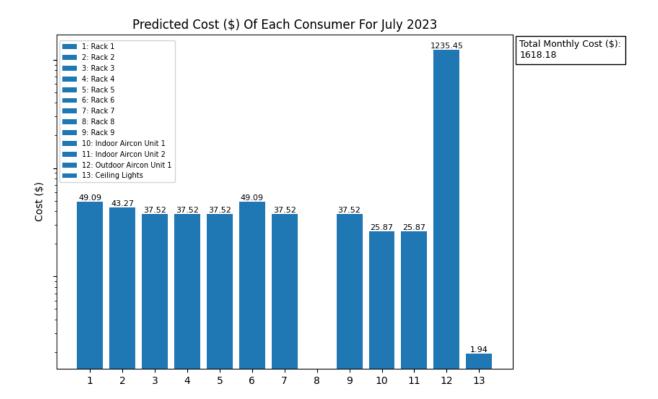
Average power per hour consumed > 31 degree celsius: 905.40 W/h

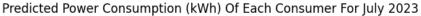
Average power per hour consumed > 27 and > 31 celsius: 482.31 W/h

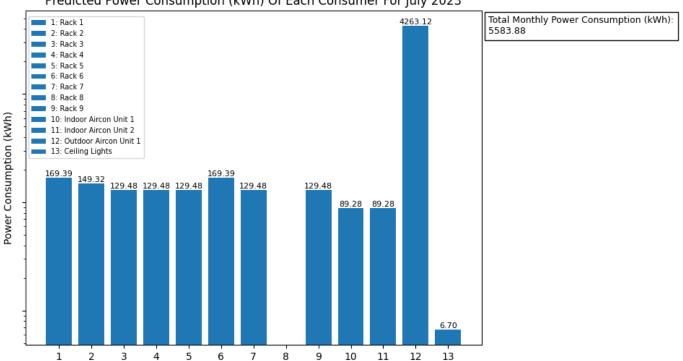
Average power per hour consumed < 27 degree celsius: 807.06 W/h

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

Prediction Analysis







Correlation between Internal and External Farm Conditions

1-	1.0	-0.37	0.13	-0.5	0.57	-0.22	-0.66	-0.41	-0.57	0.2	-0.14	1.00
2 -	-0.37	1.0	-0.03	0.62	-0.65	0.05	0.7	0.66	0.68	-0.14	0.5	- 0.75
3 -	0.13	-0.03	1.0	0.08	-0.01	0.07	-0.07	0.23	0.05	0.1	0.5	
4 -	-0.5	0.62	0.08	1.0	-0.76	-0.1	0.84	0.93	0.98	-0.49	0.54	- 0.50
5 -	0.57	-0.65	-0.01	-0.76	1.0	0.03	-0.75	-0.84	-0.85	0.16	-0.62	- 0.25
6 -	-0.22	0.05	0.07	-0.1	0.03	1.0	0.17	-0.13	-0.05	0.19	0.12	0.00
7 -	-0.66	0.7	-0.07	0.84	-0.75	0.17	1.0	0.73	0.89	-0.25	0.47	- 0.00
8 -	-0.41	0.66	0.23	0.93	-0.84	-0.13	0.73	1.0	0.94	-0.42	0.68	0.25
9 -	-0.57	0.68	0.05	0.98	-0.85	-0.05	0.89	0.94	1.0	-0.42	0.58	0.50
10 -	0.2	-0.14	0.1	-0.49	0.16	0.19	-0.25	-0.42	-0.42	1.0	0.05	
11 -	-0.14	0.5	0.5	0.54	-0.62	0.12	0.47	0.68	0.58	0.05	1.0	0.75
	1	2	3	4	5	6	7	8	9	10	11	

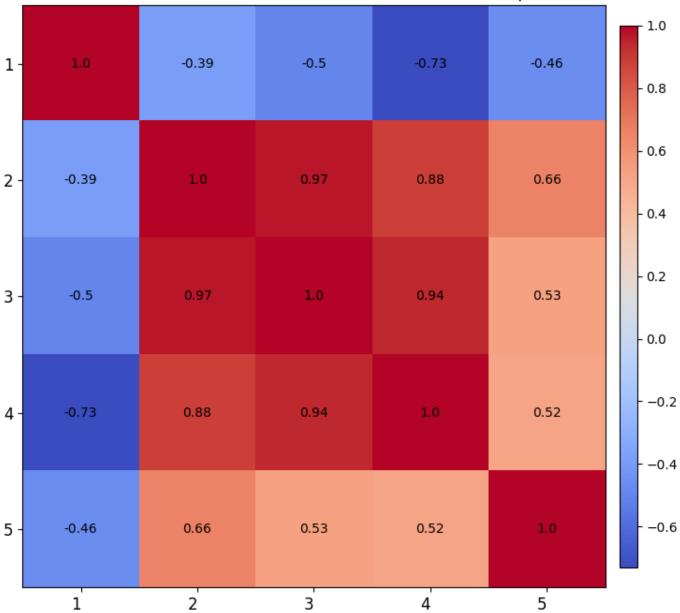
ID	Variable							
1	Daily Average Farm Humidity							
2	Daily Average Farm Temperature							
3	cloudiness							
4	feels_like							
5	humidity							
6	pressure							
7	temp_max							
8	temp_min							
9	temperature							
10	wind_deg							
11	wind_speed							

Correlation between farm environmental conditions to estimated power consumption

1-	1.0	-0.36	0.27	0.21	-0.48	0.57	-0.26	-0.64	-0.4	-0.56	0.17	-0.1	1.00
2 -	-0.36	1.0	0.21	-0.18	0.64	-0.62	-0.02	0.71	0.67	0.68	-0.16	0.49	- 0.75
3 -	0.27	0.21	1.0	0.2	0.17	-0.27	-0.09	0.23	0.28	0.21	0.12	0.56	
4 -	0.21	-0.18	0.2	1.0	-0.03	0.12	0.09	-0.19	0.09	-0.09	0.1	0.35	- 0.50
5 -	-0.48	0.64	0.17	-0.03	1.0	-0.76	-0.1	0.84	0.94	0.98	-0.47	0.54	- 0.25
6 -	0.57	-0.62	-0.27	0.12	-0.76	1.0	0.05	-0.76	-0.83	-0.85	0.14	-0.6	
7 -	-0.26	-0.02	-0.09	0.09	-0.1	0.05	1.0	0.09	-0.14	-0.06	0.16	0.08	- 0.00
8 -	-0.64	0.71	0.23	-0.19	0.84	-0.76	0.09	1.0	0.74	0.89	-0.24	0.51	0.25
9 -	-0.4	0.67	0.28	0.09	0.94	-0.83	-0.14	0.74	1.0	0.94	-0.41	0.66	0.23
10 -	-0.56	0.68	0.21	-0.09	0.98	-0.85	-0.06	0.89	0.94	1.0	-0.41	0.57	0.50
11 -	0.17	-0.16	0.12	0.1	-0.47	0.14	0.16	-0.24	-0.41	-0.41	1.0	0.07	0.75
12 -	-0.1	0.49	0.56	0.35	0.54	-0.6	0.08	0.51	0.66	0.57	0.07	1.0	0.75
	1	2	3	4	5	6	7	8	9	10	11	12	

ID	Variable							
1	1 Daily Average Farm Humidity							
2	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	1 wind_deg							
12	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						

