



## Modular Reports

Reporting modules are available on site or equipment levels, with up to 10 modules included per report (and unlimited reports per site). Modular reports are generated weekly and sent to users who have access to the account on Power Radar

SiteWatch will work with facility personnel to find value in modular reporting automatically generated through Power Radar. Reporting will focus on customer objectives, whether tracking site energy use, equipment energy use, or energy versus other variables (such as ambient conditions or production)

### Also Available:

- Daily and Monthly Single Site Energy Use by device and load type
- Daily and Monthly Single Site Energy Use including a total site consumption comparison to previous week, temperature dependence, and heat map

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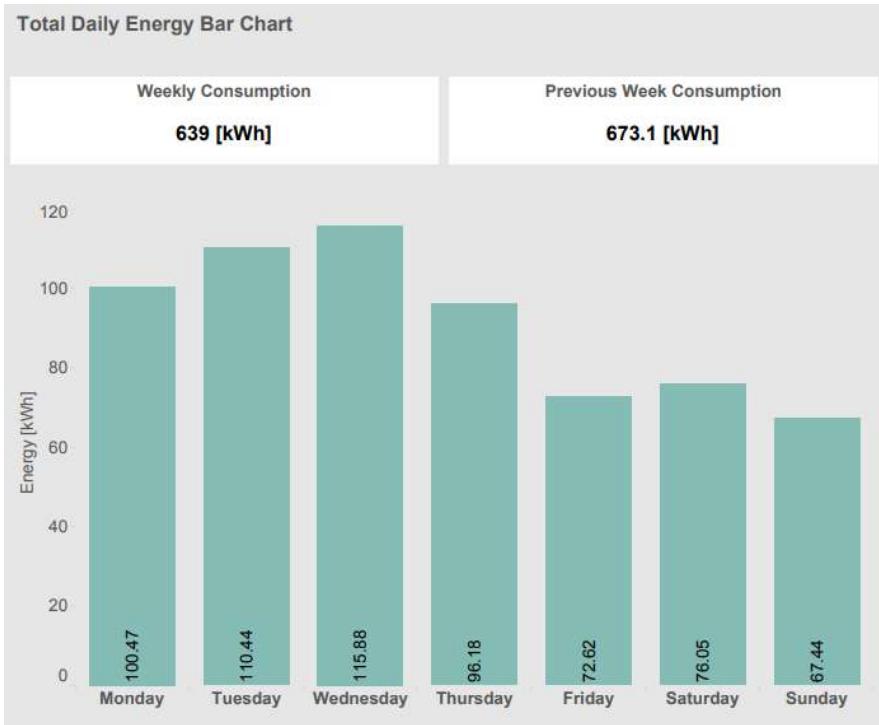
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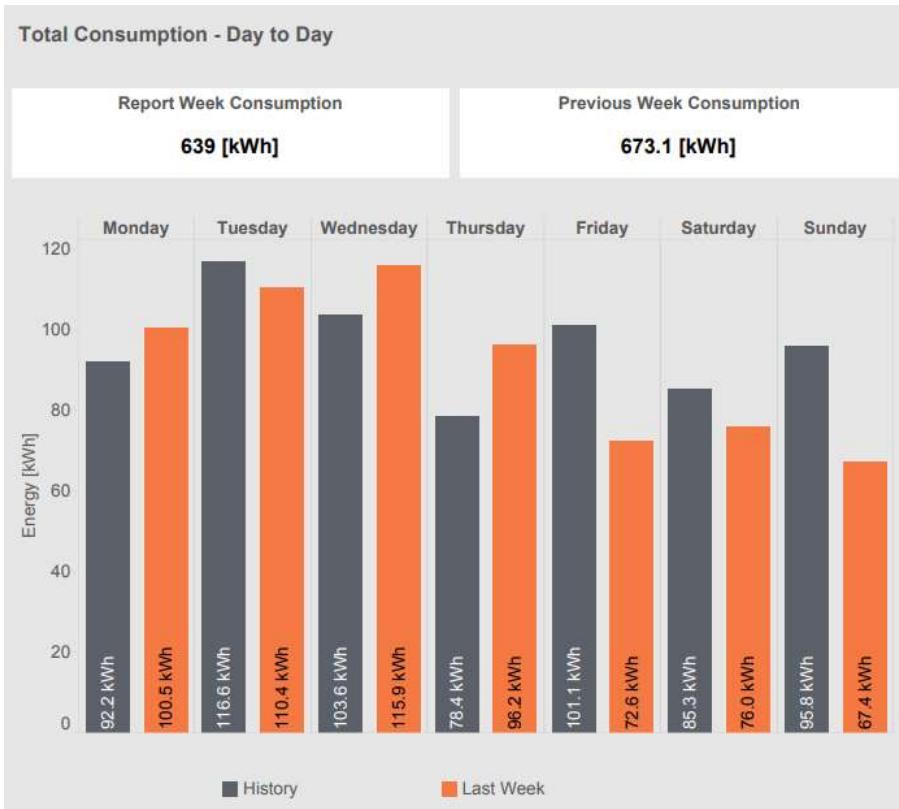
[ebrignole@sitewatchiot.com](mailto:ebrignole@sitewatchiot.com)

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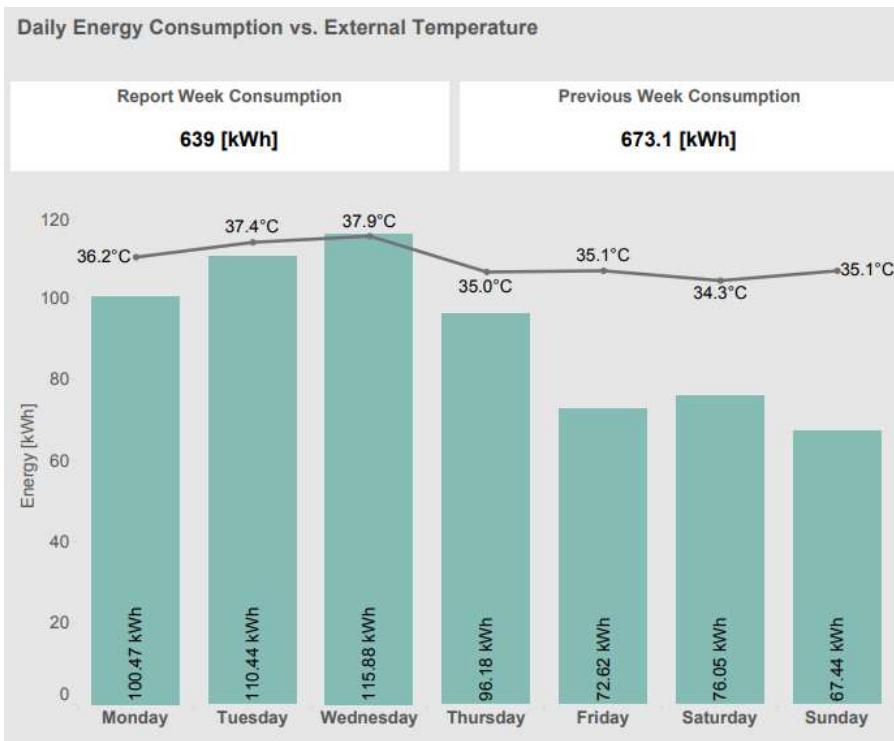
Total Daily Energy Bar Chart - This view helps monitor the energy consumption of the reported week. Variations between weekdays can be easily observed, confirming energy use follows expected production or occupancy.



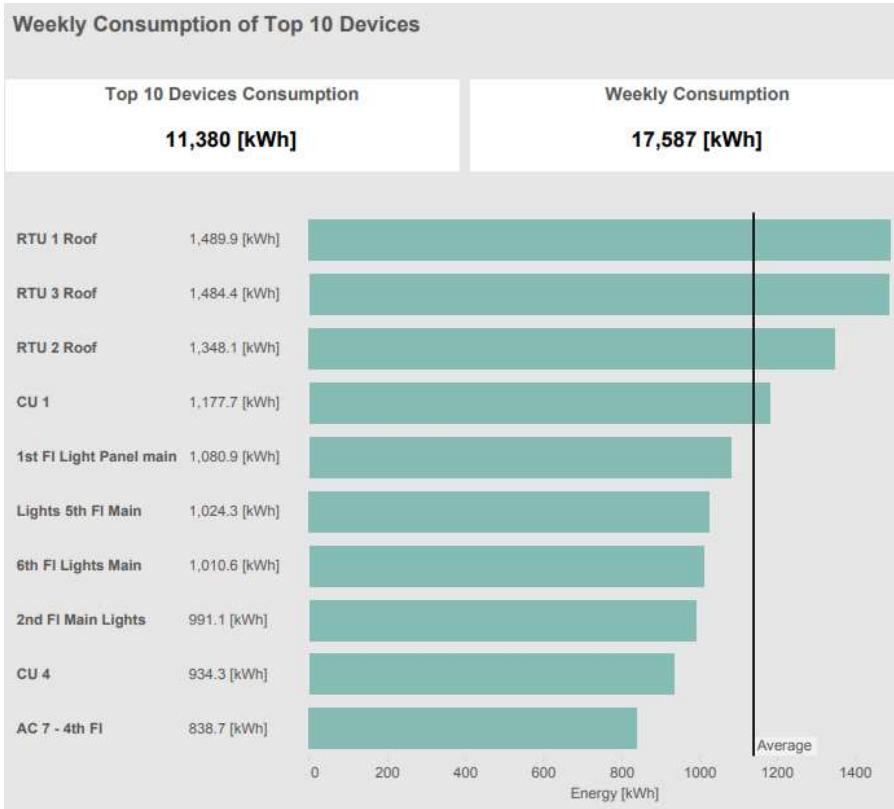
Total Consumption - Day to Day - This view helps in the analysis of energy consumption and points to trends in energy use by weekday. Divergence between weekdays and consecutive weeks can be used to identify unusual or atypical.



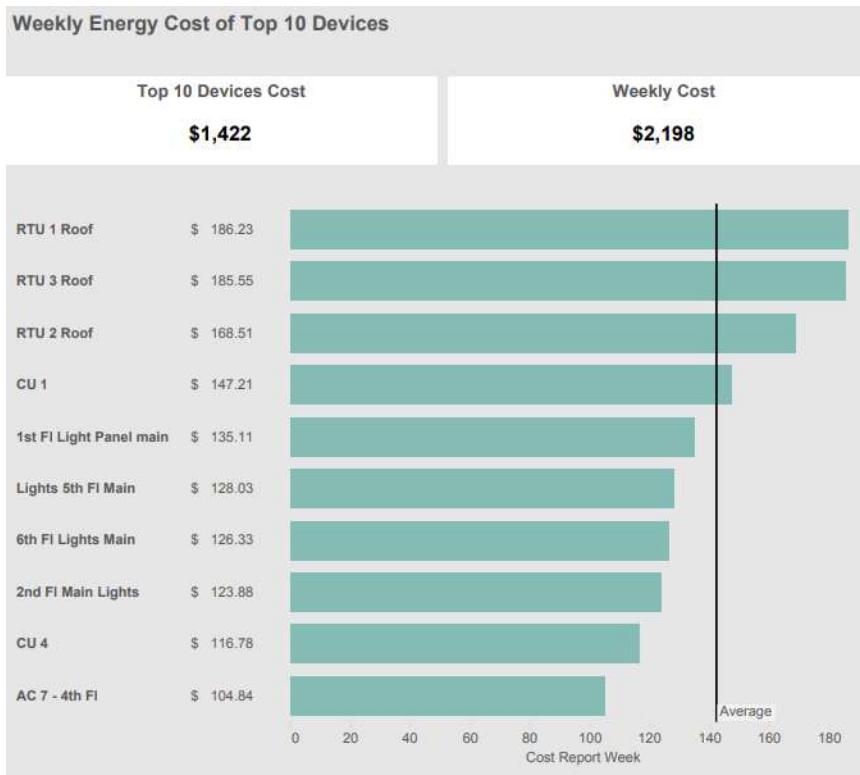
Weekly Consumption vs. Temperature - Heating and cooling systems consume a significant amount of electricity. Typically, there is a correlation between outside air temperature and a site's energy consumption. This view allows for a quick comparison between outside air and site energy consumption.



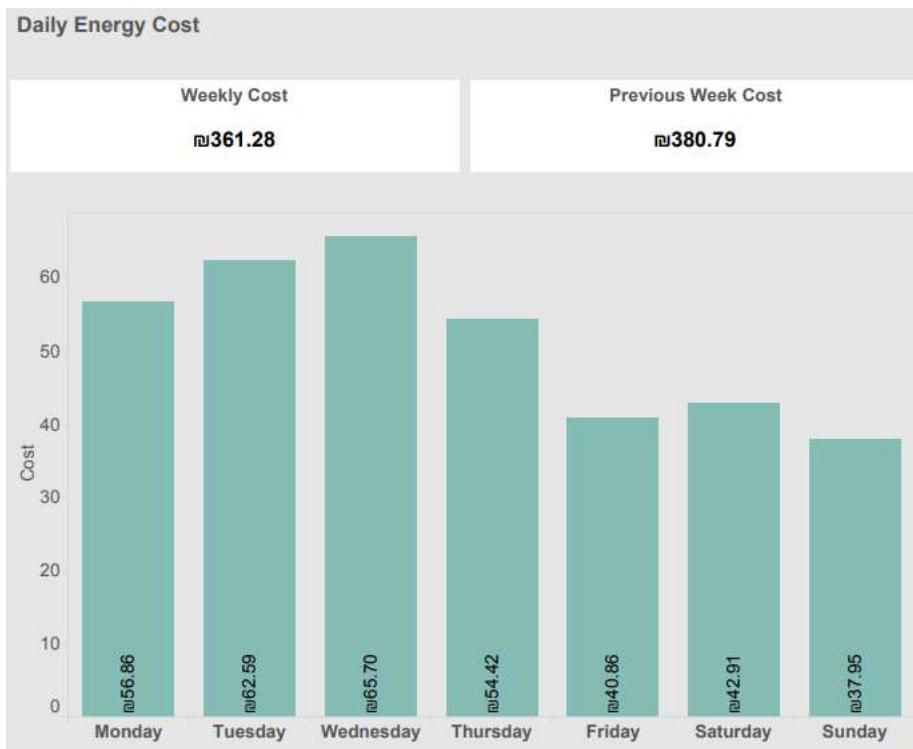
Weekly Consumption of Top 10 Devices - This graph shows the top 10 energy consuming devices during the report week. This allows users to focus efforts on the main energy users and confirm that top devices match expected usage.



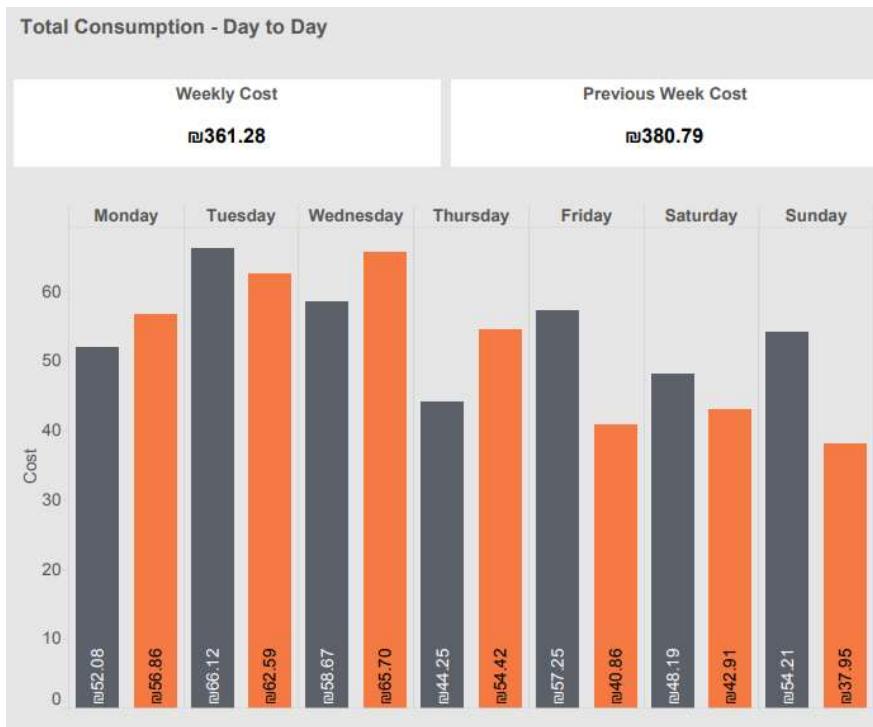
Weekly Energy Cost of Top 10 Devices - This graph shows the top 10 costliest devices during the report week. The allows users to focus efforts on the main energy users and confirm that top devices match expected usage.



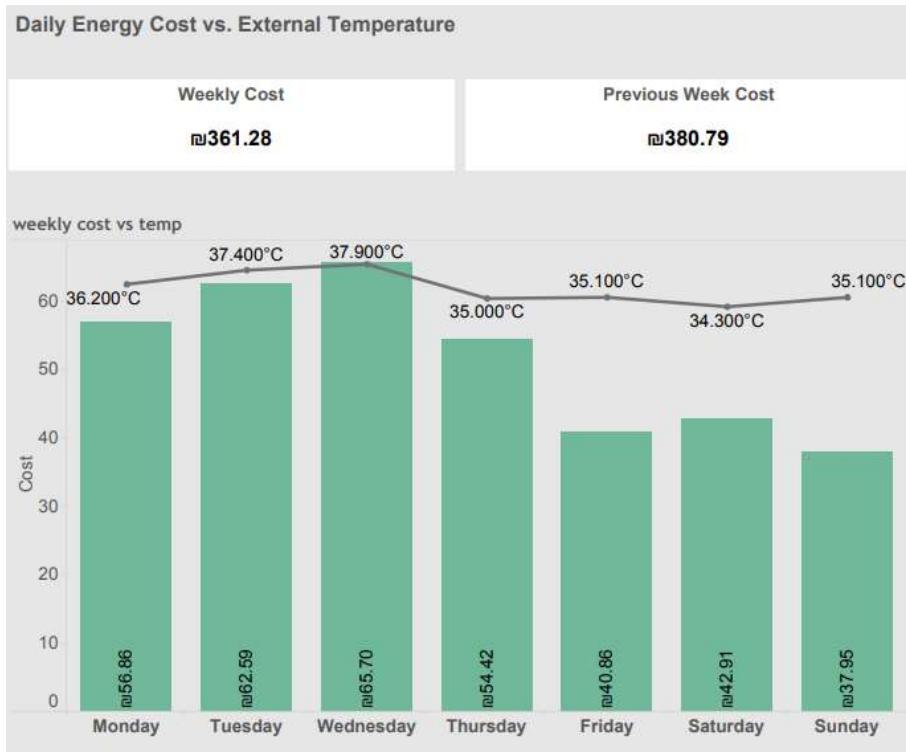
Daily Energy Cost - This view helps users monitor spending on energy and to indicate trends in weekly usage using cost as the reporting metric rather than units of energy. Accounts for tariff schedules with varying costs based on time-of-day or day-of-week.



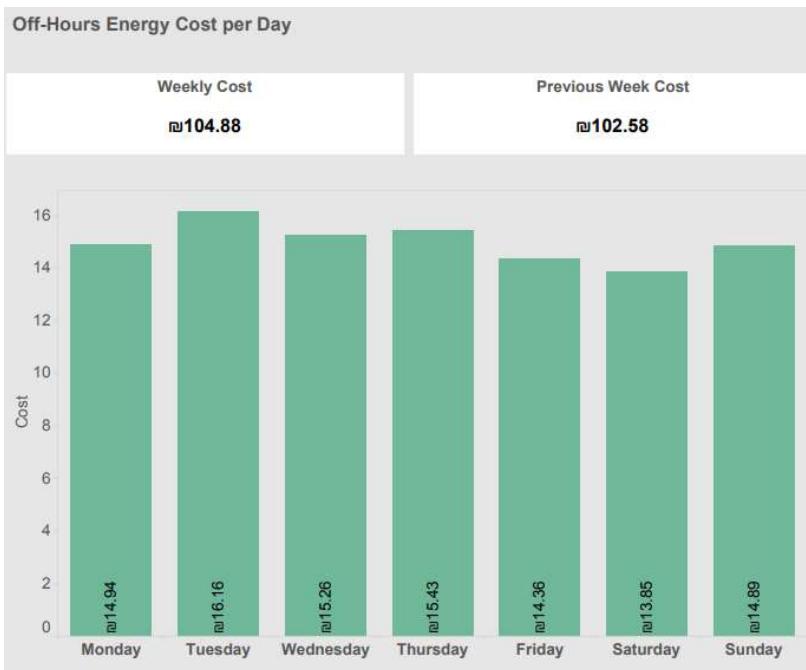
Weekly Energy Cost - Day to Day - This view helps users monitor spending on energy while comparing the reporting period daily cost to daily cost from the previous week. Accounts for tariff schedules with varying costs based on time-of-day or day-of-week.



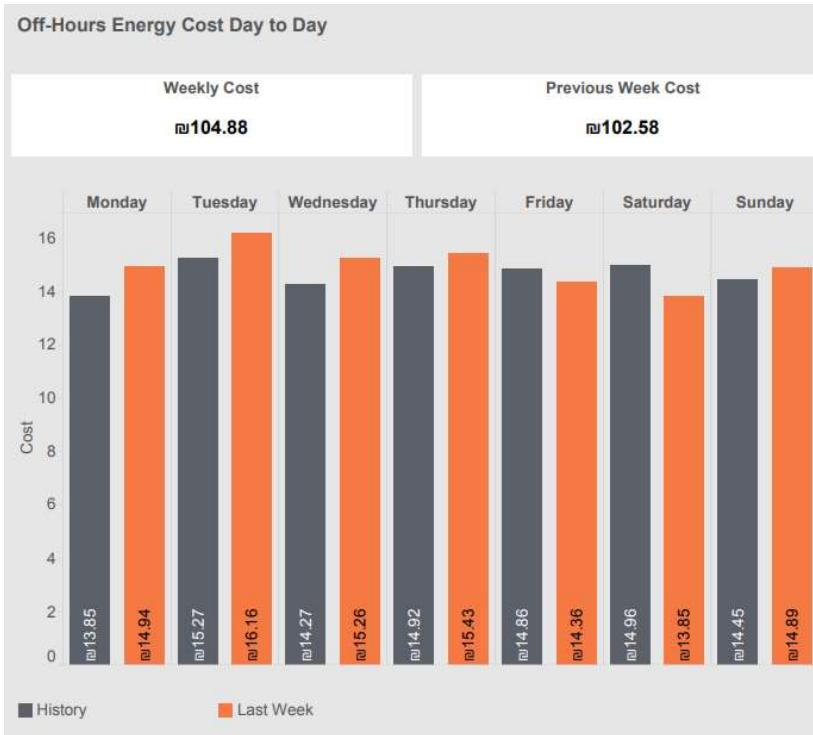
Daily Energy Cost vs. External Temperature - Heating and cooling systems consume a significant amount of electricity. Typically, there is a correlation between outside air temperature and a site's energy cost. This view allows for a quick comparison between outside air and site energy consumption while accounting for site-specific tariff schedules.



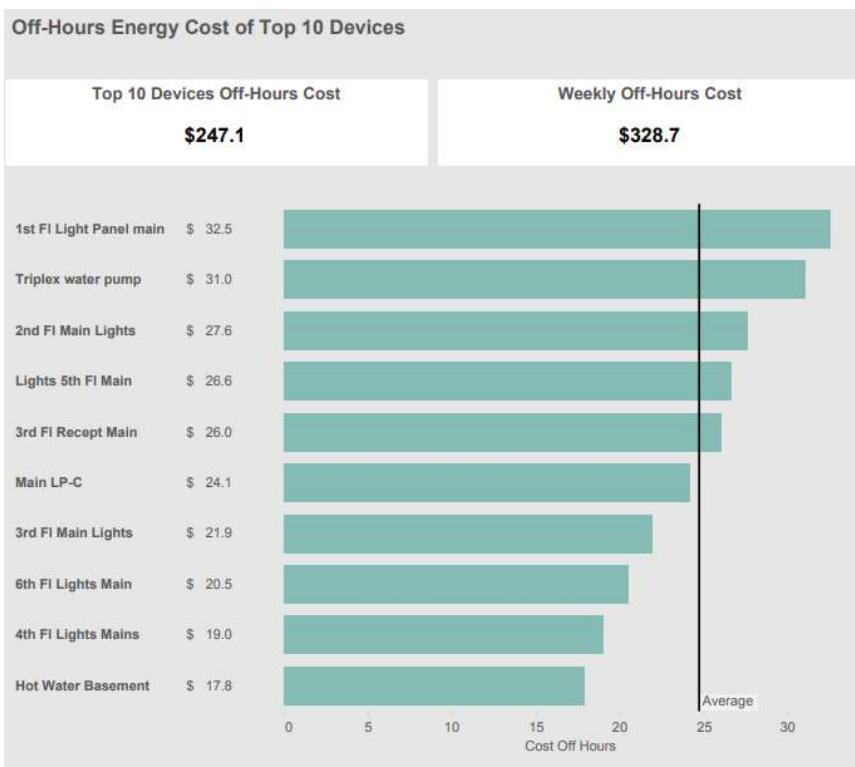
Off-Hours Energy Cost per Day - This view helps monitor the energy cost of the reported week during OFF hours only, requiring a site-specific tariff schedule and ON/OFF schedule. Easily quantifies OFF hour usage for site personnel to understand the level of energy spending during non-operating or non-occupied periods.



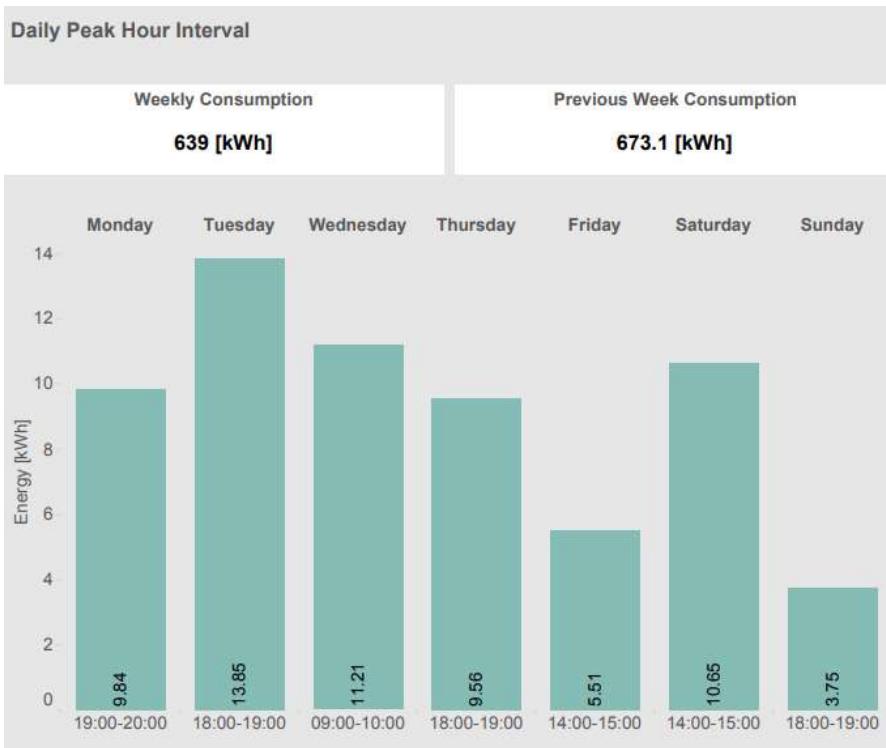
Off-Hours Energy Cost Day to Day - This view helps users monitor spending on energy while comparing the reporting period daily cost to daily cost from the previous week. Accounts for tariff schedules with varying costs based on time-of-day or day-of-week and requires an ON/OFF schedule. Easily quantifies OFF hour usage for site personnel to understand the level of energy spending during non-operating or non-occupied periods.



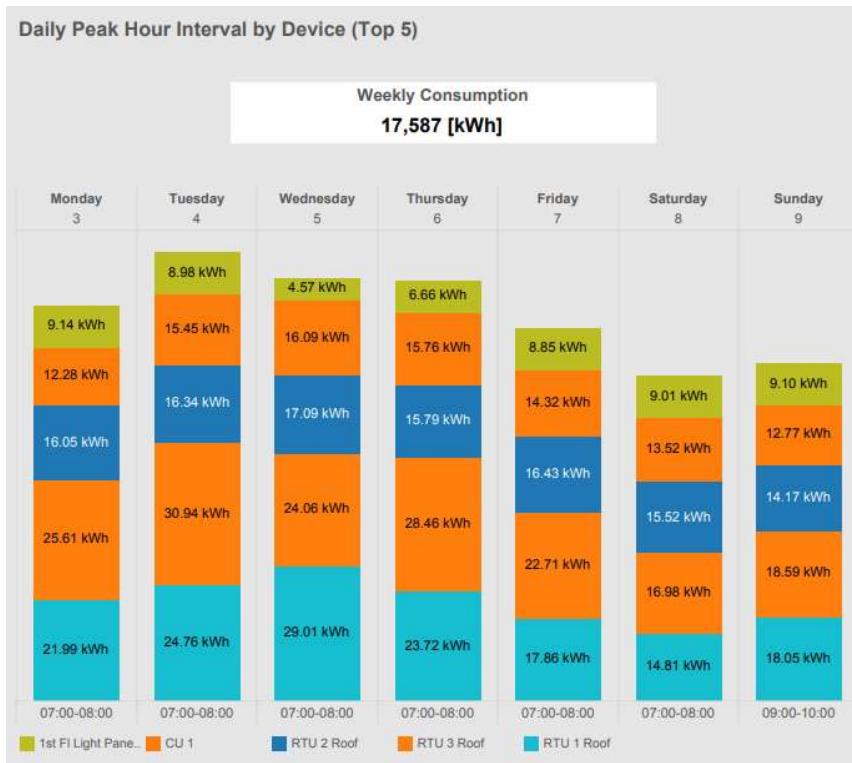
Off-Hours Energy Cost of Top 10 Devices - This graph shows the top 10 costliest devices during the report week for OFF hours only. Accounts for tariff schedules with varying costs based on time-of-day or day-of-week and requires an ON/OFF schedule.



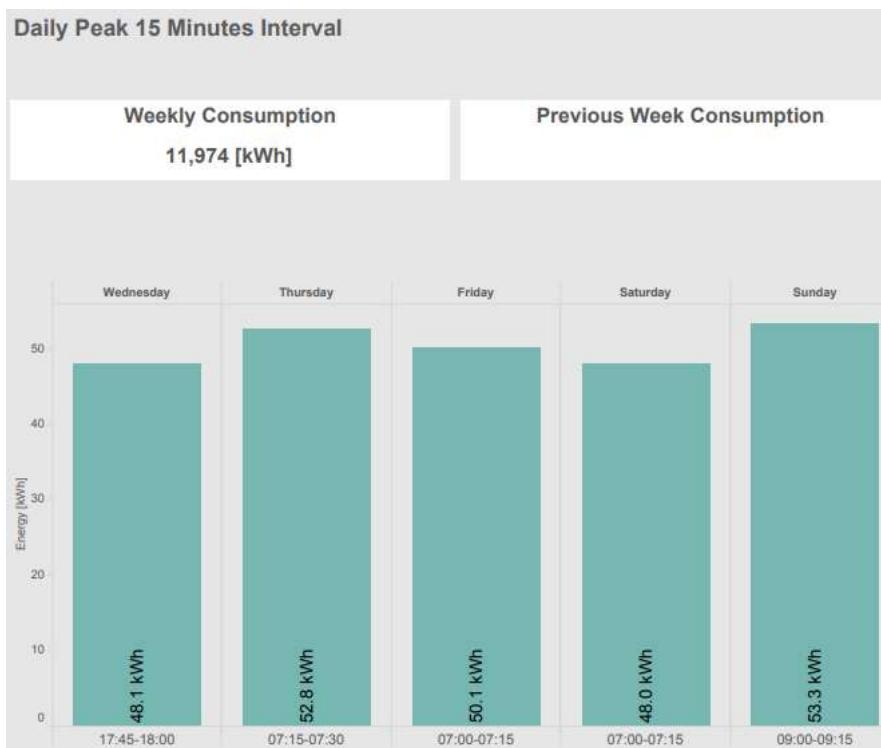
Daily Peak - 1 Hour Intervals - This view establishes the hour for each day in the reporting period when the peak demand occurred (i.e. the maximum daily demand kW). The view can be used to focus further investigation using Power Radar and allow site personnel to validate utility charges.



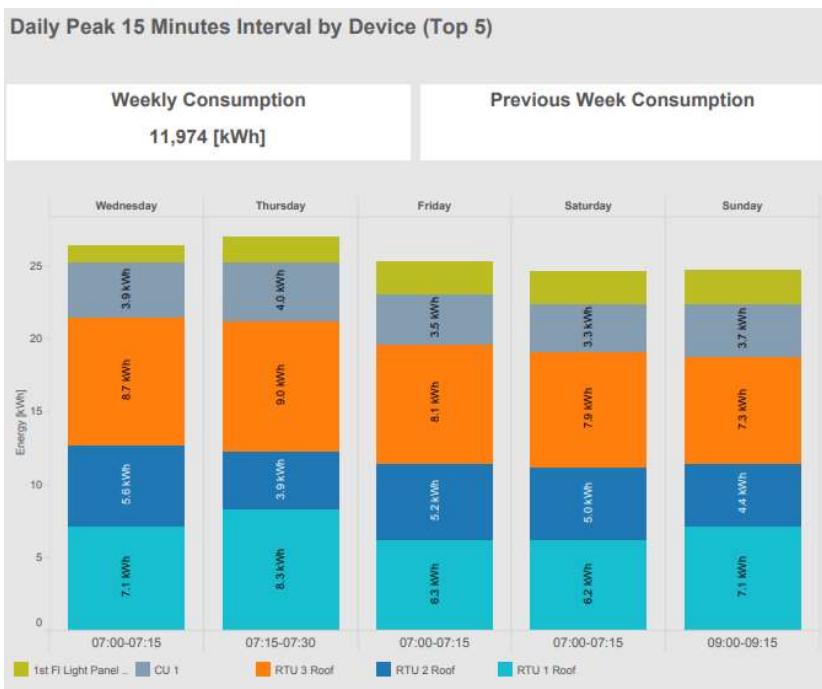
Daily Peak - 1 Hour Intervals by Category - This view establishes the hour for each day in the reporting period when the peak demand occurred (i.e. the maximum daily demand kW) and the breakdown by usage group for contributing equipment. The view can be used to focus further investigation using Power Radar and allow site personnel validate utility charges.



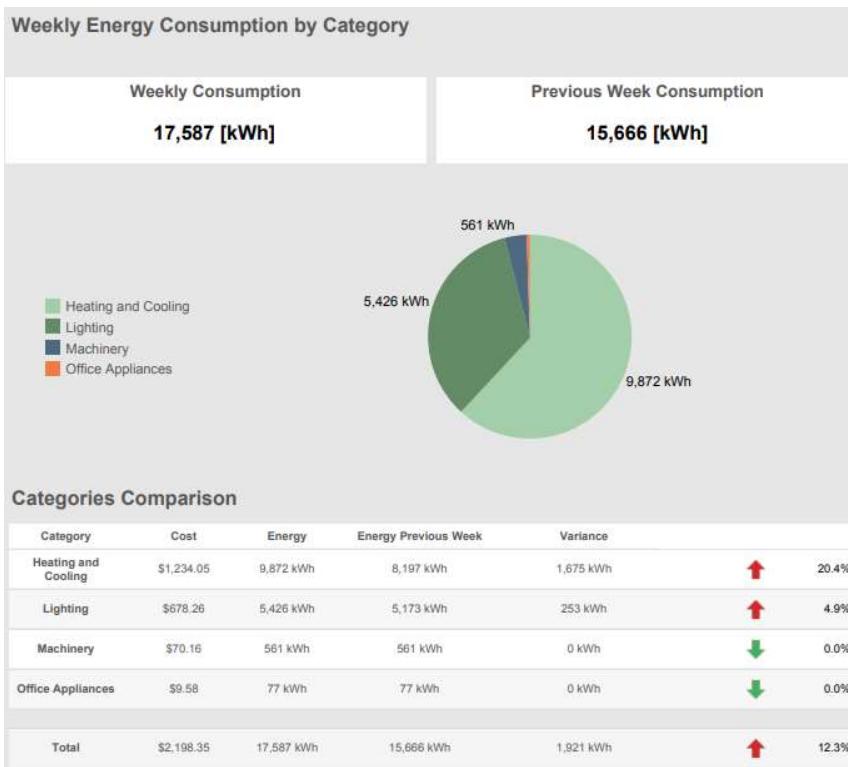
Daily Peak - 15 Minutes Intervals - This view establishes the 15-minute period each day when the peak demand occurred (i.e. the maximum daily demand kW). The view can be used to focus further investigation using Power Radar and allow site personnel to validate utility charges.



Daily Peak - 15 Minutes Intervals by Category - This view establishes the 15-minute period each day when the peak demand occurred (i.e. the maximum daily demand kW) and the breakdown by usage group for contributing equipment. The view can be used to focus further investigation using Power Radar and allow site personnel validate utility charges



Weekly Energy Consumption by Category - This graph shows weekly energy consumption split by device categories. The pie chart shows the amount of energy used per category, while the table allows quick comparison between weeks, including a percent variance increase or decrease.

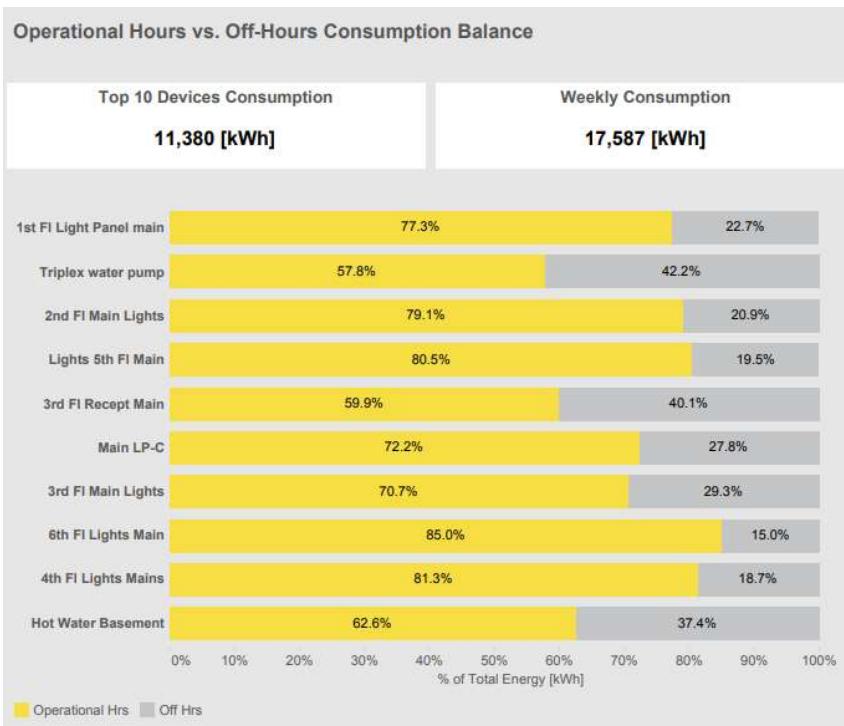


Weekly Energy by Category vs. Previous Week - This module shows weekly energy consumption by device for the top 20 energy using devices at each site, including a percent variance increase or decrease. The table includes cost (with an energy tariff) and usage (weekly kWh).

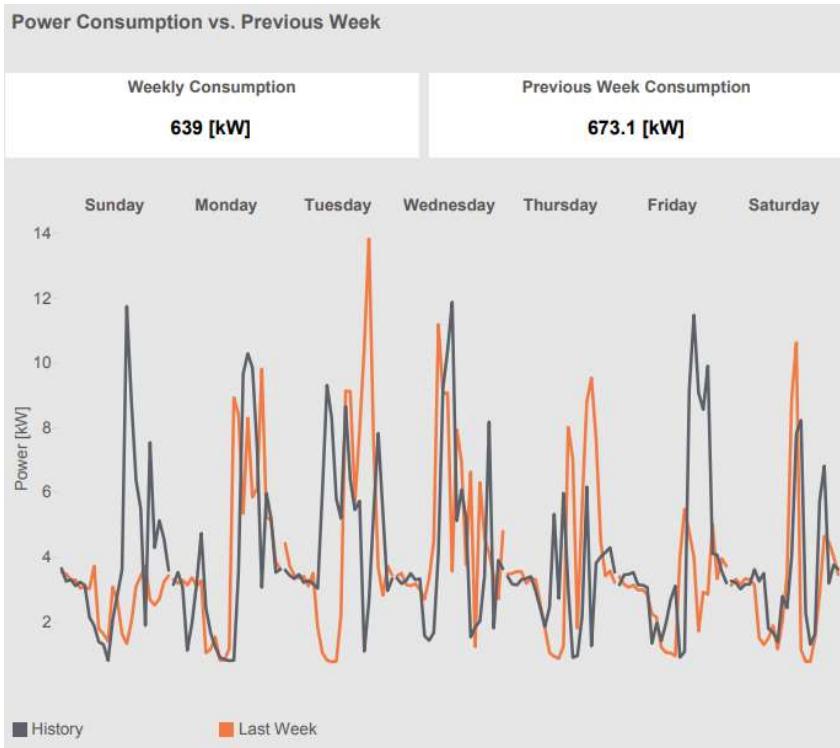
Weekly Energy Consumption by Device						
#	Device	Cost	Energy	Energy Previous Week	Variance	
1	RTU 1 Roof	\$186.23	1,490 kWh	1,145 kWh	345 kWh	↑ 30.1%
2	RTU 3 Roof	\$185.55	1,484 kWh	1,007 kWh	477 kWh	↑ 47.4%
3	RTU 2 Roof	\$168.51	1,348 kWh	1,206 kWh	142 kWh	↑ 11.8%
4	CU 1	\$147.21	1,178 kWh	823 kWh	355 kWh	↑ 43.1%
5	1st Fl Light Panel main	\$135.11	1,081 kWh	1,037 kWh	44 kWh	↑ 4.2%
6	Lights 5th Fl Main	\$128.03	1,024 kWh	970 kWh	54 kWh	↑ 5.6%
7	6th Fl Lights Main	\$126.33	1,011 kWh	947 kWh	64 kWh	↑ 6.8%
8	2nd Fl Main Lights	\$123.88	991 kWh	962 kWh	29 kWh	↑ 3.0%
9	CU 4	\$116.78	934 kWh	751 kWh	183 kWh	↑ 24.4%
10	AC 7 - 4th Fl	\$104.84	839 kWh	692 kWh	147 kWh	↑ 21.2%
11	4th Fl Lights Mains	\$94.75	758 kWh	716 kWh	42 kWh	↑ 5.9%
12	Main LP-C	\$82.78	662 kWh	597 kWh	65 kWh	↑ 10.9%
13	3rd Fl Main Lights	\$70.15	561 kWh	541 kWh	20 kWh	↑ 3.7%
14	Triplex water pump	\$70.01	560 kWh	560 kWh	0 kWh	0.0%
15	CU 3	\$64.63	517 kWh	401 kWh	116 kWh	↑ 28.9%
16	3rd Fl Recept Main	\$61.85	495 kWh	511 kWh	-16 kWh	↓ -3.1%
17	Hot Water Basement	\$45.55	364 kWh	365 kWh	-1 kWh	↓ -0.3%
18	AC 8 - 4th Fl	\$39.96	320 kWh	490 kWh	-170 kWh	↓ -34.7%
19	AC 3 - basement	\$32.08	257 kWh	243 kWh	14 kWh	↑ 5.8%
20	Mains RP-C1	\$31.45	252 kWh	308 kWh	-56 kWh	↓ -18.2%

Top 20

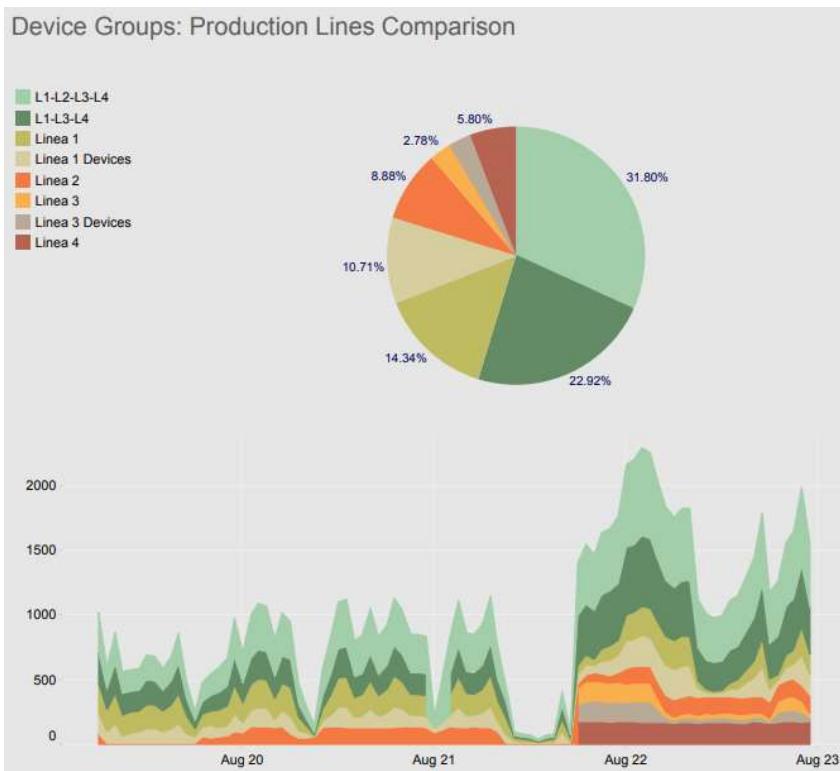
Operational Hours vs. Off-Hours Balance - The graph compares the top 10 devices' OFF hour consumption versus ON hour consumption, showing the percentage of each devices' total weekly energy used consumed during each period. Controlled equipment should have a high ratio of ON hour to OFF hour usage.



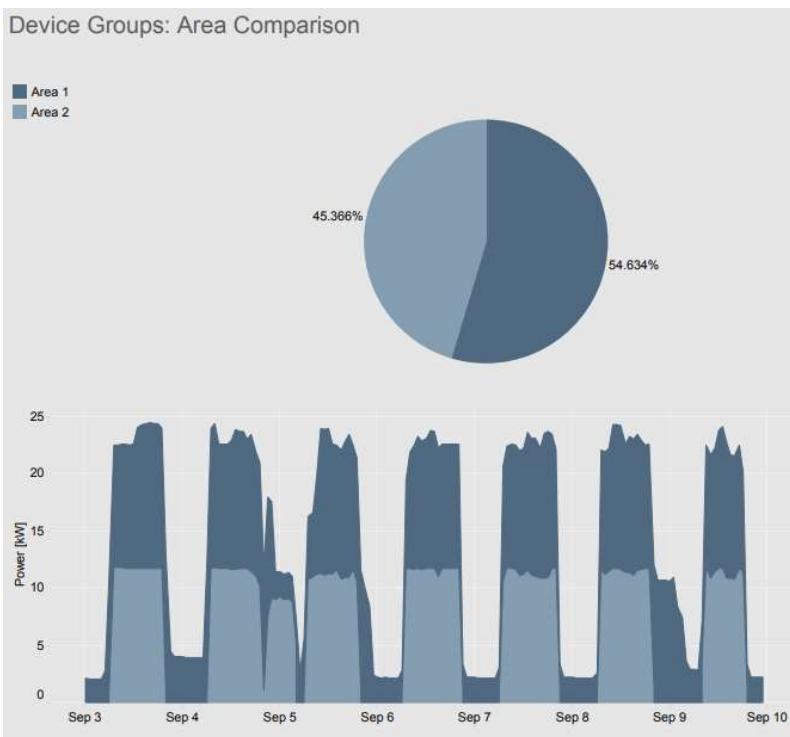
Power Consumption vs. Previous Week - This module displays the weekly power consumption vs. previous week. It helps identify changes in consumption behavior.



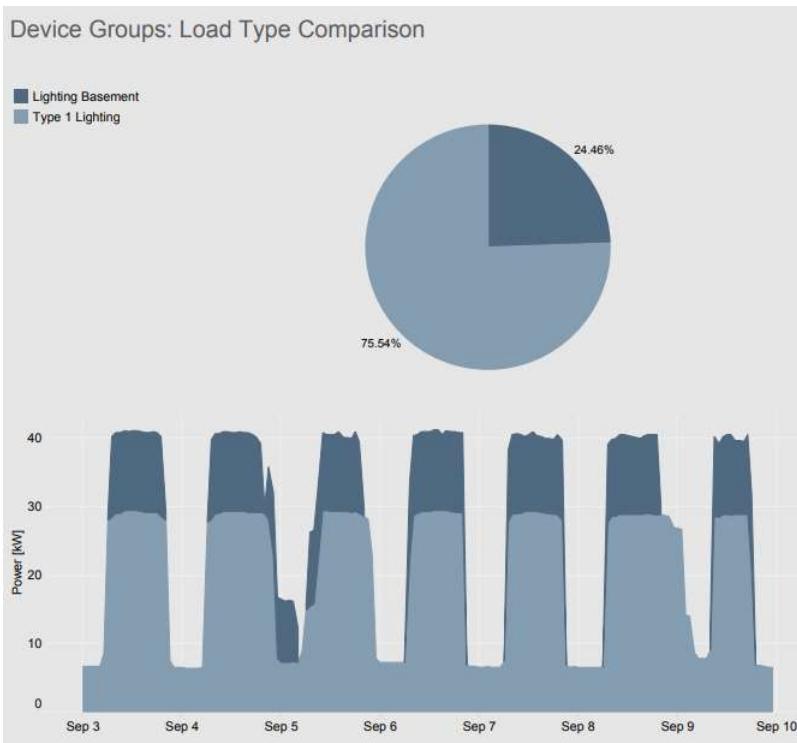
Device Groups - Production Lines Comparison - This module displays the total consumption of different production lines over the week as well as the split between the production lines' consumption. The report is useful for providing a simple benchmarking function to understand how energy is used across lines and requires user input to assign equipment to a specific production line.



Device Groups - Area Comparison - This module displays the total consumption of different areas over the week as well as the split between area's consumption. The report is useful for providing a simple benchmarking function to understand how energy is used across monitored areas and requires user input to assign equipment to a specific area.



Device Groups - Load Type Comparison - This module displays the total consumption and split of the different load types by device groups over the reporting week. This module helps with understanding energy usage by user-defined load types.



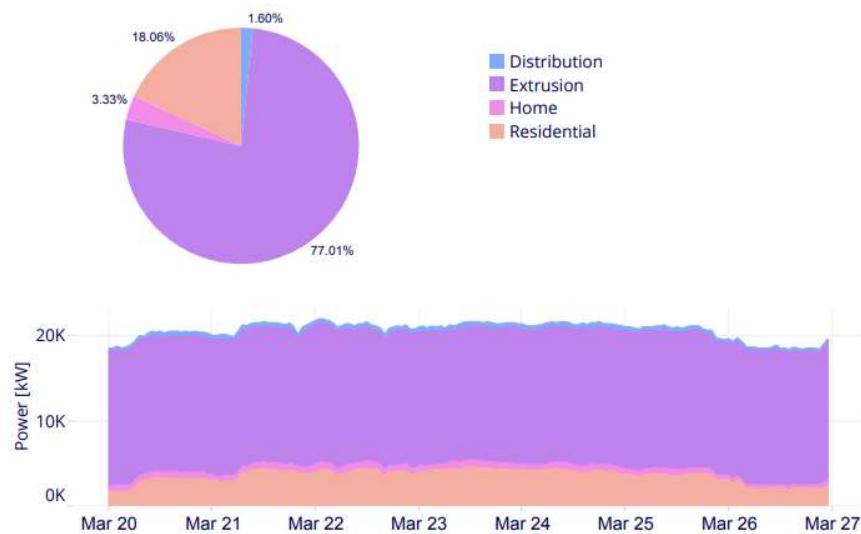
Device Groups - Other Comparison - This module displays the total consumption of the different custom device groups (defined as type “Other” in Power Radar) during the week as well as the split between them. This module helps with understanding energy usage by “other” user-defined load types.

#### Device Groups: Other Comparison

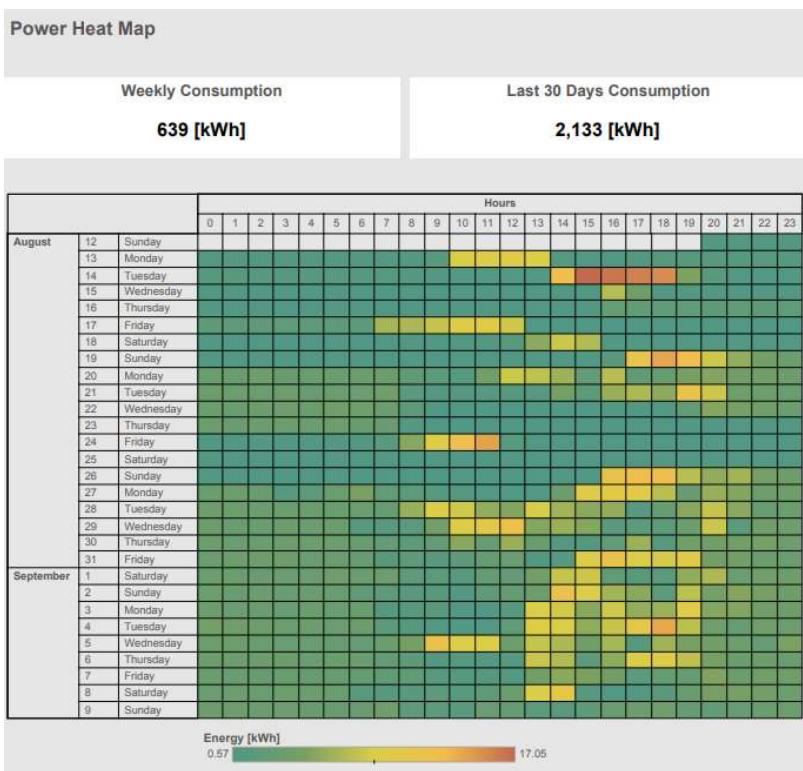


Device Groups - Business Unit Comparison - This module displays the total consumption of different business units over the week as well as the split between BU consumption. The report is useful for providing a simple benchmarking function to understand how energy is used across monitored units and requires user input to assign equipment to a business unit.

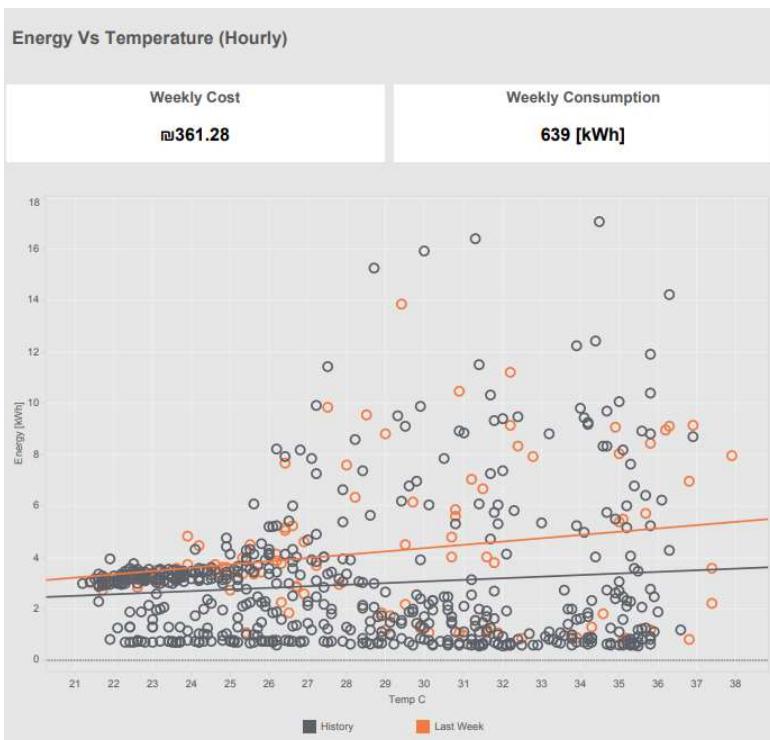
#### Device Groups: Business Units Comparison



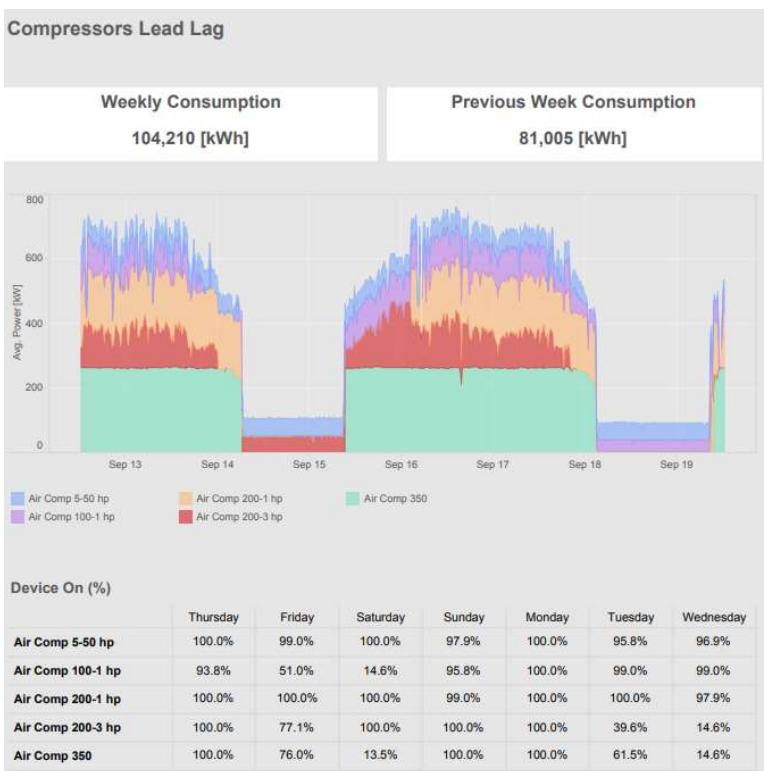
Monthly Heat Map – This report module shows the previous 30 days heatmap based on hourly energy consumption. Colors vary from green (lowest consumption) to red (highest consumption) for quick identification of atypical patterns.



Energy vs Temperature – This reporting module automatically graphs energy and hourly outside temperature, allowing a site to understand whether a correlation exists, and if it should. The previous reporting week and all historical data are represented, allowing the report recipient to verify if the reporting week's operation was as expected.



Weekly Compressor Work - This module shows the level of compressor operation, and how compressors interact with each other, validating existing controls or lack of proper sequencing. Additionally, OFF hours can be used to determine the base leakage rate (no actual demand on the system).

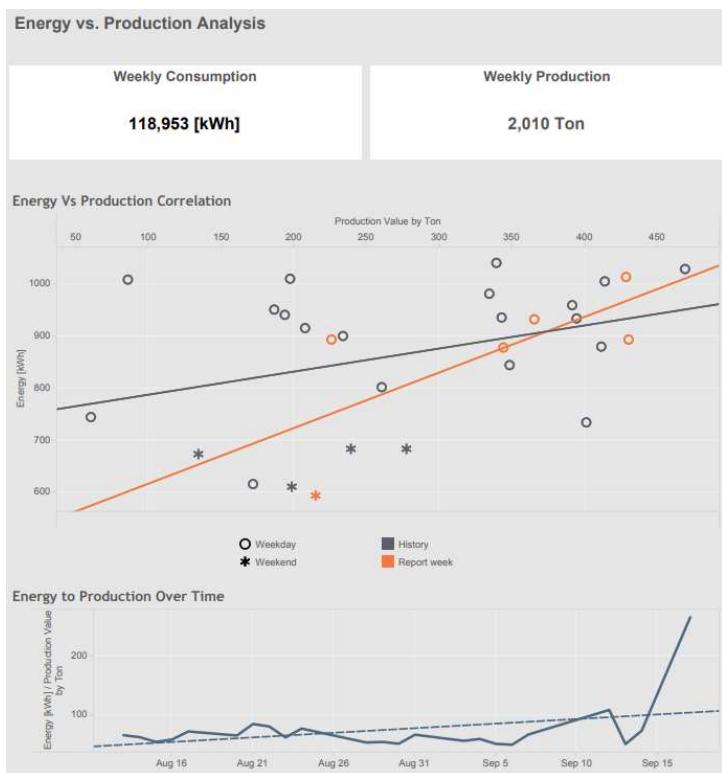


Phase Balance Report – This reporting module shows the percentage of the time phases of a monitored device were unbalanced (over 20% - marked in red). All 3 phases of a device require monitoring, and findings are only applicable to 3 phase equipment, not panel loads, which may see single and two-pole equipment are part of their service.

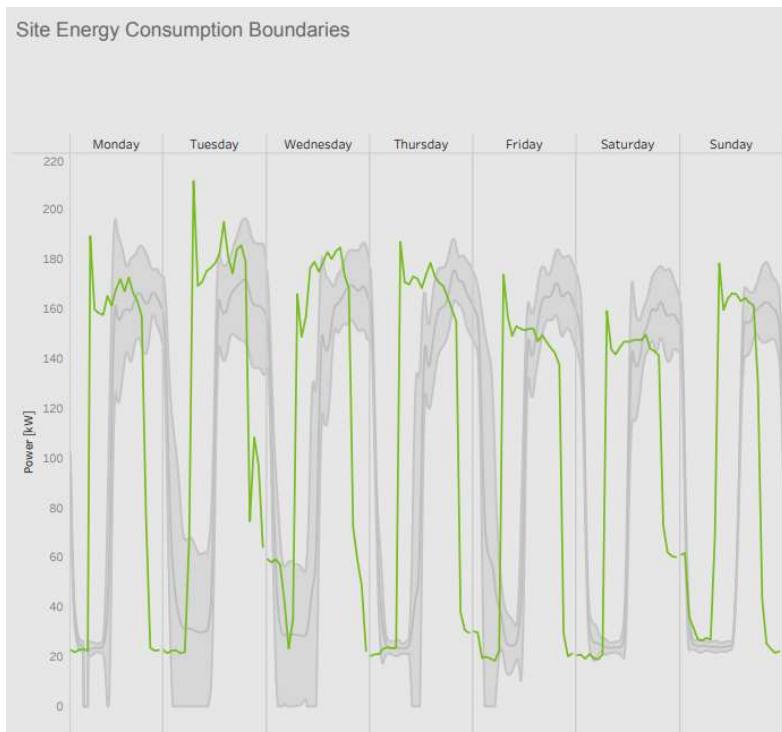
Unbalanced 3-Phases Devices

Device	Wednesday	Thursday	Friday	Saturday	Sunday
1st Fl Light Panel main	100.0%	100.0%	100.0%	100.0%	100.0%
2nd Fl Main Lights	100.0%	100.0%	100.0%	100.0%	100.0%
3rd Fl Main Lights	0.4%	0.2%	0.1%	0.1%	0.1%
4th Fl Lights Mains	96.7%	98.5%	98.8%	99.1%	99.2%
6th Fl Lights Main	42.3%	45.3%	45.5%	42.2%	43.8%
AC 1 - basement	3.8%	3.0%	3.8%	5.8%	6.3%
AC 3 - basement	0.0%	0.0%	0.0%	0.0%	0.0%
AC 4 - basement	8.7%	5.2%	7.0%	5.9%	5.6%
AC 7 - 4th Fl	0.6%	0.3%	0.2%	0.1%	0.1%
AC 8 - 4th Fl	0.0%	0.0%	0.0%	0.0%	0.0%
CU 1	35.4%	38.1%	39.0%	40.7%	43.9%
CU 3	30.9%	26.6%	28.2%	26.3%	28.0%
CU 4	0.0%	0.0%	0.0%	0.0%	0.1%
CU 6	1.9%	3.0%	2.2%	2.1%	1.6%
ECH 1,3,5	0.0%	0.0%	0.0%	0.0%	0.0%
Hot Water Basement	4.2%	3.9%	5.2%	6.0%	6.0%
Lights 5th Fl Main	100.0%	100.0%	100.0%	100.0%	100.0%
RTU 1 Roof	80.1%	81.5%	79.2%	76.8%	78.3%
RTU 2 Roof	45.1%	42.3%	42.0%	42.8%	45.2%
RTU 3 Roof	36.2%	41.6%	43.6%	46.2%	48.4%
Sewer Pump	0.0%	0.0%	0.0%	0.0%	0.0%
Triplex water pump	0.0%	0.0%	0.0%	0.0%	0.0%

Energy vs Production - This module tracks energy consumption per unit manufactured. The module requires Power Radar to have access through an automated API to obtain production information to generate findings. Contact SiteWatch for additional information.



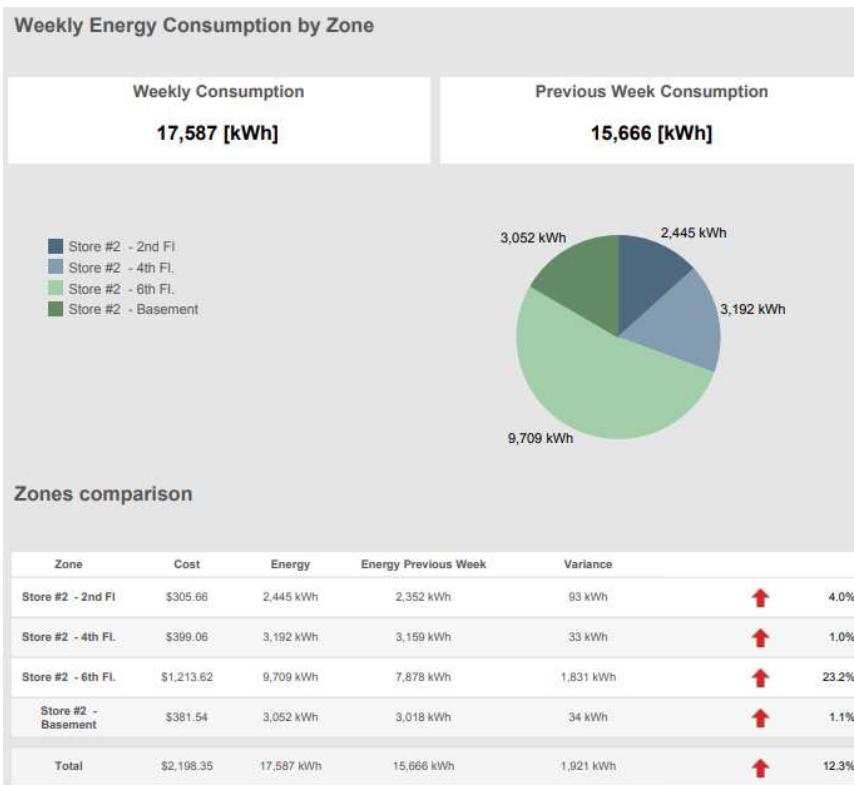
Site Energy Consumption Boundaries - The graph shows the moving average and the lower/upper boundaries of a site's energy consumption (gray area), based on the same weekday during the past six weeks. The green line shows the actual power consumption for the reporting period.



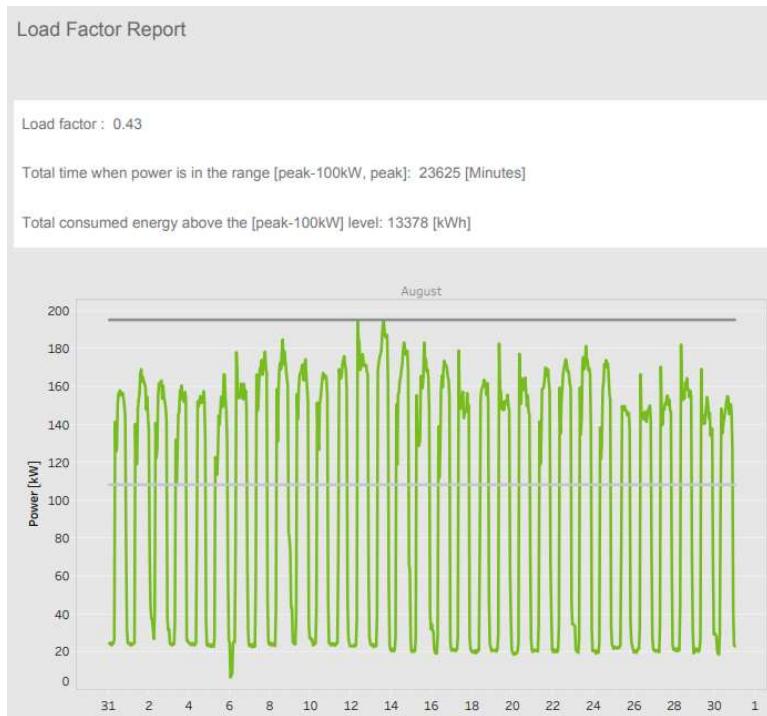
Weekly Cost Heat Map - This week heatmap showing hourly energy cost. Colors vary from green (lowest cost) to red (highest cost).



Weekly Consumption by Zone - This graph shows weekly energy consumption split by zone. The pie chart shows the amount of energy used per zone, while the table allows quick comparison between weeks, including a percent variance increase or decrease.



Load Factor Report - Load Factor is defined as the average load divided by the peak load during the given month in 15-minute resolution. LF is measure of variability of consumption ranging between 0 and 1. A low load factor indicates that load is highly variable, and a potential candidate for peak shaving programs, whereas rather steady consumption will have a higher load factor.



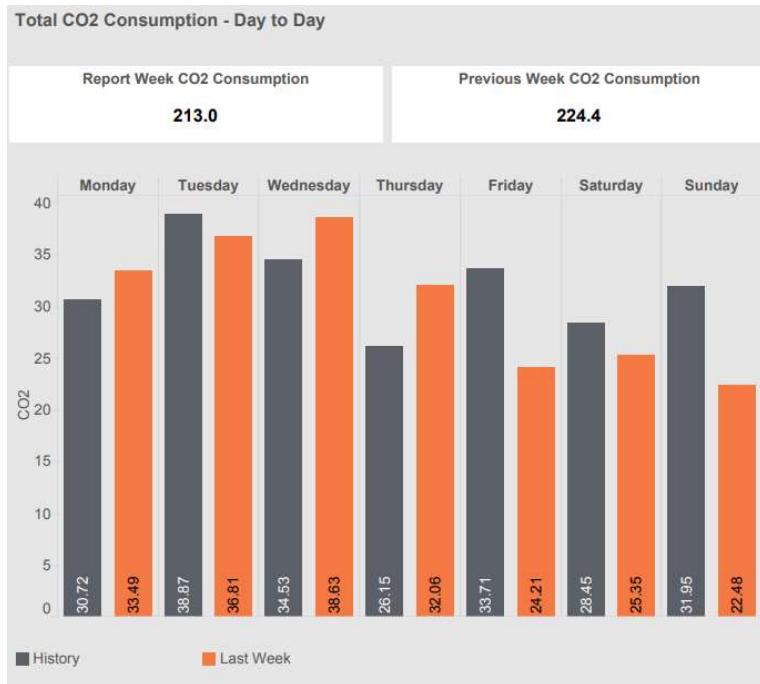
Weekly Off-Hours Cost Ratio - This reporting module calculates the ratio between off hours energy cost and total energy cost of the site, for a specific week. Exceptions are marked with a red dot and a green dot represents normal behavior.



Energy vs. Production – Site Level - This module tracks energy consumption per unit manufactured. The module requires Power Radar to have access through an automated API to obtain production information to generate findings. Contact SiteWatch for additional information.



Carbon Emissions – Day to Day - Weekly view of daily CO2 consumption compared to the previous week. This view helps in the analysis of CO2 consumption and points to negative or positive trends that can be learned for future savings



Energy vs. Temperature – Specific Categories – This reporting module shows hourly energy versus outside air temperature for HVAC related devices. These devices tend to be outside air temperature dependent, focusing attention on those devices specifically and allowing trends and differences between the reporting week and historical data to be quickly identified.

