

Energy Information System Checklist



In support of Jamestown’s commitment to energy efficiency, the corporate team has generated the following checklist to help building-level engineers become accustomed to our energy management and monitoring protocols.

Please note that comments have also been provided to supplement the instructions given for most of the topics listed below. Your cooperation on this is greatly appreciated.

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✓	Building Profile Topic	Step-by-Step Setup Instructions
	Building Basics	<ul style="list-style-type: none"> Make sure each building has gross floor area entered in Property Settings to allow the “per sq. ft” metric to calculate. Collect 12 months of utility bill data for weather normalization purposes (Energy Insights/Weather Normalization).
	Alerts	<ul style="list-style-type: none"> Predicted band for load shape – the algorithm needs enough data to make the prediction. You can set up alerts (in property settings) based on when building goes outside of the predicted band.
	Budgets	<ul style="list-style-type: none"> Adding in a utility budget allows for you to view budget vs. actual.
	Utilities	<ul style="list-style-type: none"> You may want to set up utility bill ingestion. You can enter the username/password under the property settings and utilities for each account number and each building. There is no extra Aquicore fee to bring in utility bills. Consider adding a full year of electric utility bill data for buildings that don’t have a year of data collected yet.
✓	Setting Site-Specific Targets	Step-by-Step Setup Instructions
	Set Targets by Building for Peak Demand	<ul style="list-style-type: none"> Depending on what the peak demand looks like and what might be done in the building to reduce peak, peak target can be set to be 90% of current peak.
	Set Targets for Consumption	<ul style="list-style-type: none"> For consumption insights, set up target consumption for each month (custom or automatically generated).
	Set Targets by Building for Baseload (How Much Energy is Used During Weekday Unoccupied Hours)	<ul style="list-style-type: none"> Weekday unoccupied consumption targets can be determined based on historical average minimum baseload consumption (for weekdays). If the building includes 24-hour occupancy or large data centers, the target should be increased accordingly.
	Using Aquicore to Modify and Set Monthly Targets	<p>Aquicore can automatically generate the peak demand by month, then monthly targets be set and modified.</p> <ul style="list-style-type: none"> Aquicore Baseload Recommended Target: The system recommends a target looking at the average baseload kWh used for the month over the past 3 years. To determine the baseload kWh amount, the system identifies the total kWh used during non-working hours M-F.

Commented [TB1]: This will allow you to re-calculate a weather normalized baseline in the property settings. Interval data does not work for this – you need utility bills entered.

Commented [TB2]: This will allow the weather normalization app to work.

Commented [TB3]: Peak demand vs. target is displayed under Energy Insights/Peak Demand.

Commented [TB4]: Example: Bancroft building 2018 Electricity Peak Demand and 2018 Electricity Baseload set at 5% reduction from monthly targets recommended by Aquicore.

Commented [TB5]: Note, there is not an analogous baseload calculation set up for weekend unoccupied hours.

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		<ul style="list-style-type: none"> Aquicore Peak Demand Recommended Target: The system will pick a peak demand target by looking at the peak demand for the same month of the previous year. If that doesn't exist, then the previous month's peak demand will be used (if it exists). This only looks at real-time data.
✓	Building Level Dashboard	Step-by-Step Setup Instructions (Daily/Weekly Review)
	Today's Load	<ul style="list-style-type: none"> Review the nighttime baseload and whether load stays within the predicted band.
	Electricity Spending	<ul style="list-style-type: none"> Review money spent relative to monthly budget.
	kWh—This Week vs. Last Week	<ul style="list-style-type: none"> Note spikes in daily energy use. Review that weekend usage as % of weekday usage is appropriate.
	Peak Demand	<ul style="list-style-type: none"> Compare current peak to target. If consistently under target, reset target lower. Related metric: Portion of energy cost related to demand charges.
	Consumption (Normalized)	<ul style="list-style-type: none"> This is raw consumption, not normalized for weather. Review current monthly consumption relative to target. The date tick mark indicates where you are in the month. Each day, you will see it get closer and closer to the end of the circle.
	Baseload (for Weekday Unoccupied Hours)	<ul style="list-style-type: none"> Review monthly baseload relative to target.
	kWh, kW Trailing Week	<ul style="list-style-type: none"> Review trends in consumption for this past trailing week vs. the week prior. Note spikes and investigate potential causes.
	kW; This Week vs. Last Week	<ul style="list-style-type: none"> Review load shapes. Note ramp up/down times and make sure they match the intended schedule.
	Graph Normalized Consumption to Previous Year Normalized Consumption	<ul style="list-style-type: none"> Go to Energy Insights/Weather Normalization. Can set baseline year in Property settings.
✓	Energy Benchmarking Dashboard	Step-by-Step Setup Instructions (Overall Portfolio Analysis)
	Table Comparisons	<ul style="list-style-type: none"> First two tables are this week (trailing week) compared to last week (previous trailing week). Second two tables are the same metrics but are this month (trailing month) compared to last month (previous trailing month). Look at trailing week for increased energy or demand, then see if the issues have been present for longer than the week by reviewing trailing month tables.
	Review Rank in Benchmark List	<ul style="list-style-type: none"> Determine which buildings rank highest and whether it makes sense with their use type. For high users, make sure schedule is appropriate, review baseload during unoccupied weekday and over the weekend.
	Investigate Increases	<ul style="list-style-type: none"> Review any buildings with a monthly increase greater than 5-10% or weekly increase greater than 10-15%.
	Load Shapes	<ul style="list-style-type: none"> To see the load shapes (kW over time), go to Optimization app, and select all buildings in the portfolio. Review kW/sq. ft for trailing week and trailing month. Overlay schedule by applying "SCHEDULING" in the menu and note building operations that don't seem to follow the intended schedule. Calculate the energy used during specific times by highlighting those particular sections.

Commented [TB6]: Non-Working hours are those defined through the Building Calendar in Property Settings.

Commented [TB7]: Can be found in the Utility spending screen under Energy Insights.

Commented [TB8]: This will show difference in energy use taking out the influence of weather.

Commented [TB9]: This is a good way to compare the load shapes across buildings (normalized for square footage so it's comparable). Note the building with the highest baseloads.