



Energy Information Systems - Frequently Asked Questions

1. Who owns data that results from the EIS?
 - a. Customer is the owner of all data.
2. Are there data storage limits?
 - a. The EIS does not have storage limitations on data.
3. What happens to data if your company goes out of business or merges?
 - a. Customer owns all data.
4. If Customer would like to be able to access historical data should our company go out of business or merge, there are a number of cloud services that we can continuously transfer data to.
 - a. Customer may choose to have a server that they purchase and own installed on our site that we can put historical data on.
5. Does the energy information system (EIS) accept the following metered data?
Electricity, Water, Irrigation, Natural Gas, Wind Electric, Solar Electric, Solar Thermal, Geothermal
 - a. Yes, we can accept all of the above provided Modbus or Pulse meters are used.
6. What is the minimum resolution of interval data?
 - a. The typical pull time is approximately 2 minutes. However, we are able to extract data at faster intervals with additional hard drive space.
7. What transmission protocols or standards does the EIS use/operate with? (ie., Lonmark = propr., bacnet = open, mv 90 = meter, etc)
 - a. The International standard of Modbus is used. Gateways are used for regional protocols. We are also able to integrate with all Pulse based meters.
8. What export formats are supported for archived data?
 - a. We support most common export formats, such as, CSV, Tab Delimited, Common Delimited, HTML Table, and XML.
9. Does the EIS include a package of standard reports? Can reports be customized?
 - a. We do have a package of standard reports. These reports are flexible and can be used and customized in many different ways.
10. Does the EIS offer different levels of permissions for multiple individuals or groups?
 - a. Yes, we are able to offer different permissions for multiple levels of users. The permission tree structure is defined by the customer.
11. Does the EIS offer a News/Information module to communicate with various stakeholders?
 - a. Yes, we are capable of presenting a news information module via most media such as, mass messaging, Facebook, Twitter, etc.
12. Is it possible to display an entire month of consumption profiles (time series)?
 - a. Consumption profile charts can be modified to display any duration of time desired.
13. Is it possible to display daily time series in hour-long intervals or less?
 - a. Yes, the time cycles of the charts are adjustable from minutes to days.

14. Is it possible to display aggregate usage?
 - a. Yes, the number of variables to be displayed is adjustable, and can be displayed with flexible time intervals.
15. Is it possible to overlay multiple days' trends on a single plot?
 - a. Yes, multiple days' can be trended on a single plot.
16. Can the EIS provide customized branding capabilities such as colors, logos and other style elements?
 - a. Yes, the EIS can be customized with logos, colors and style elements assuming they are provided in JPEG format.
17. Does the EIS calculate hourly, daily, weekly, or monthly average consumption?
 - a. Yes, average consumption can be calculated using any time variable.
18. Does the EIS calculate the highest/lowest hourly, daily, or weekly consumption?
 - a. Yes, our output charts will show the highest and lowest consumption based on a specified time interval.
19. Does the EIS calculate system (ie. School) or component (ie. Chiller) efficiencies?
 - a. Yes, the EIS system does calculate efficiencies. It requires input from multiple sources to ensure accuracy.
20. Does the EIS calculate load duration – number of hours at a set of demand levels, usually annual?
 - a. Yes, the analytics portion of our EIS will calculate load duration.
21. Does the EIS normalize consumption by the following?
Cooling degree days, Heating degree days, Outside air temperature, Square Foot
 - a. Yes, analytics will allow collected data to be normalized by any control variable.
22. Is it possible to comparatively analyze one building's energy use with respect to another to drive operational performance?
 - a. Yes, our solution allows this to be done within the EIS or leverage an outside solution like EnergyStar. We have the capability to do heating and cooling degree days.
23. Is it possible to analyze a building's use with respect to a historical benchmark?
 - a. Yes, analytics allows the EIS to compare the building's usage to historical data.
24. Does the EIS benchmarking analysis rely upon standards such as Energy Star?
 - a. The EIS benchmarking can use EnergyStar standards, but it does not rely upon them. Benchmarks can be based off other standards as desired by Customer.
25. Does the EIS have an automated data upload function to Energy Star?
 - a. Yes, data can be pushed to EnergyStar.
26. Does the EIS forecast near-future load profiles?
 - a. Yes, a combination of historical building behavior coupled with the local weather forecast can be used to forecast future demand.
27. Does the EIS perform fault detection and diagnostics or anomaly detection?
 - a. Yes, the EIS has an analytics function that will perform fault detection, diagnostics and anomalies. Analytics is designed specifically for this functionality.
28. Does the EIS identify corrupt data or gaps in trends?
 - a. Corrupted data can cause a threshold alert. Analytics can identify gaps in trends.

29. Does the EIS perform regression analysis?
 - a. Yes, regression analysis is used to determine equipment inefficiencies or wear and alert when it is not operating within certain parameters.
30. Can the EIS integrate with weather forecasts to predict demand and consumption?
 - a. Historical weather and energy data can be used to reasonably predict future demand and consumption under similar conditions.
31. Does the EIS identify base load, peak demand, and other (ie. Weather-based) energy consumption patterns?
 - a. Yes, the EIS can identify all of the above within the charting mechanisms.
32. Does the EIS track and report carbon footprint performance?
 - a. Analytics is capable of performing the math to calculate the carbon footprint. Other data points are required such as the carbon footprint and energy units at the source.
33. Please describe how the EIS notifies users of anomalous energy consumption/facility performance patterns.
 - a. The EIS uses e-mail to notify users of anomalies. Current alerts for anomalies can also be presented on the Dashboard. These alerts automatically size for mobile devices.
34. Can the EIS produce alerts in real-time or in near real-time? Are alerts customizable? What is the format of an alert and to whom is it sent?
 - a. Typically analytics looks for anomalies every three minutes. Alerts can be customized to meet the needs of Customer. Alerts are sent via e-mail and come with an attached CSV file and/or a web link back to the alerts section of the Dashboard.
35. Can the EIS manually or automatically record, audit and report utility billing data?
 - a. CW Industries has partnerships with contractors that perform this task. However, CW Industries does not personally perform these services.
36. Does the EIS perform simple energy cost estimates?
 - a. Yes, the current consumption or demand can be multiplied by the utility rate variables and provide a current estimate.
37. Does the EIS include specific rate tariffs such as demand ratchets in energy cost and analysis?
 - a. Tariffs can be integrated.
38. Can the EIS be used as a Demand Response tool?
 - a. Yes, the system has the capability to respond to needs and control various buildings' systems for a demand response. All lighting and mechanical systems can be controlled by the EIS. If desired, we can provide a contact closure to the automation system to tell it to go into Demand.
39. How does the system respond to D.R. signals? (Manual initiation of load-shed, or automated based on utility signal)
 - a. Initiation of load-shed can be automated based on utility signal or done manually. The response is dictated by the functionality of the connected load. For example, lights dim, fans slow, chillers are unloaded, compressors duty cycle. The entire connected load has a purpose. Causing the connected load to consume less energy must be weighed against its use and need.

40. How is the operator notified of D.R. events?
- a. The local utility has its own mechanisms. The district buildings can also be initiated based on load limiting algorithms.
41. Does the EIS quantify in real-time the amount of load shed?
- a. Yes, the real-time meter data chart indicates current load conditions.
42. Does the EIS calculate energy and/or \$ savings due to D.R. responses?
- a. Yes, assuming regulatory data is properly maintained. Depending on Customer's desire, we are happy to take on this task.
43. Can the operator choose to ignore a D.R. event signal?
- a. Yes, override capabilities can be given if desired.
44. Can the operator pre-specify dates to ignore D.R. signals?
- a. Yes, the system is programmable and can be set up based on Customer preferences
45. Can the operator test D.R. events (ie. Simulate D.R. signals)?
- a. Yes, the operator can manually test the D.R. events.
46. Is meter data collected via Ethernet or Cellular connection?
- a. Standard Ethernet or Cellular Ethernet can be used and are preferred. Old style cellular is not desirable. Either method can be used
47. Describe training programs you offer after installation.
- a. We provide onsite training, virtual training and training materials per Customer requirement.
48. What trouble-shooting services do you offer for issues that will inevitably arise after installation?
- a. We have technicians on call 24x7 to help walk Customer through various checks over the phone. If the problem cannot be resolved over the phone a technician will be sent to the facility in question within 24 hours to check and verify equipment functionality.
 - b. Prior to calling for potential connectivity issues, we ask Customer to do the following:
 - i. Verify the green LED power indicator on the bottom of the Sentinel is on.
 - ii. Verify the green link light on the Sentinel Ethernet cable jack is lit.
 - iii. Verify after a couple of minutes that the yellow activity light on the Sentinel Ethernet cable hack is blinking randomly/
 - iv. If power, link or activity lights do not come on, contact CW Industries for assistance in troubleshooting.
49. Can the EIS connect seamlessly with other social networking websites and feeds, including Facebook and Twitter?
- a. Yes, we are able to connect our EIS to social media sites.
50. Does the EIS interface with mobile device applications for real-time energy display and reporting?
- a. All screens/pages are in HTML 5 and can be accessed using a PC, tablet or mobile phone.