



CONNECT

Energy Monitors

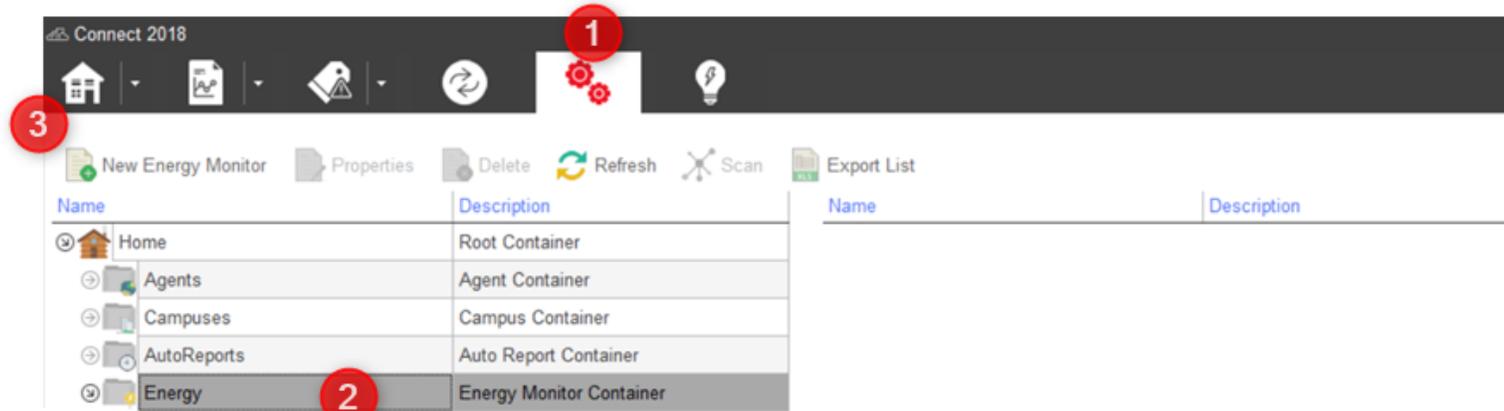


KEY2ACT

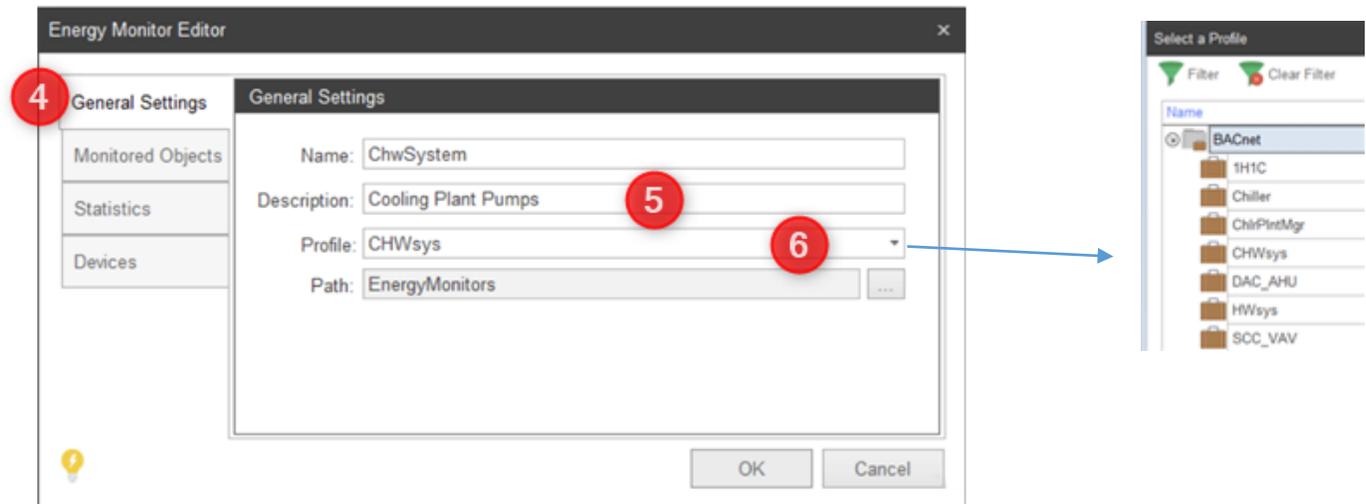
Energy Monitors

Energy Monitors allow a user to monitor the energy usage of an object where the actual energy meter does not exist.

1. Choose the *Configuration Explorer* icon.
2. Then choose the *Energy* folder.
3. Choose *New Energy Monitor*.



4. In the Energy Monitor Editor, in the *General Settings* tab.
5. Enter the **Name** and **Description**.
6. Choose the device **Profile** that contains the objects to be monitored.



Energy Monitors

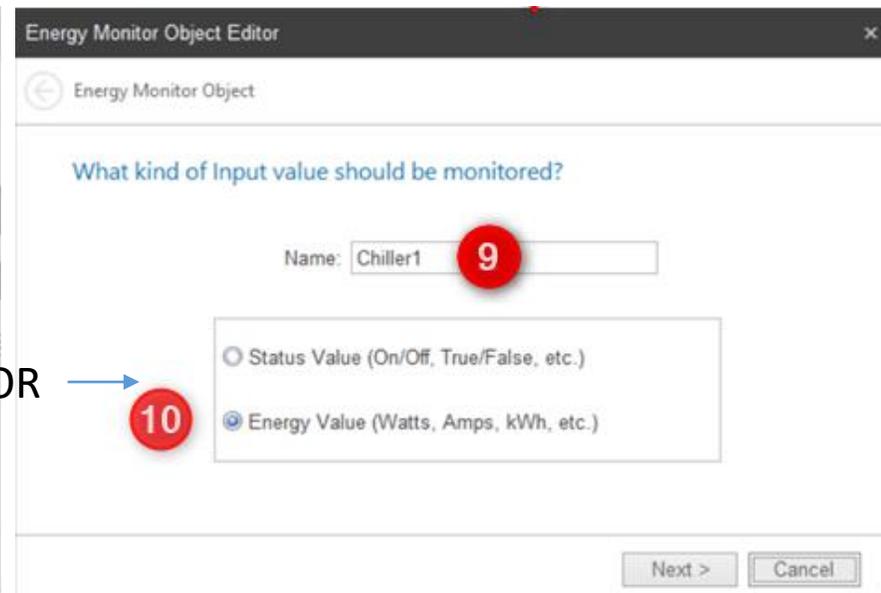
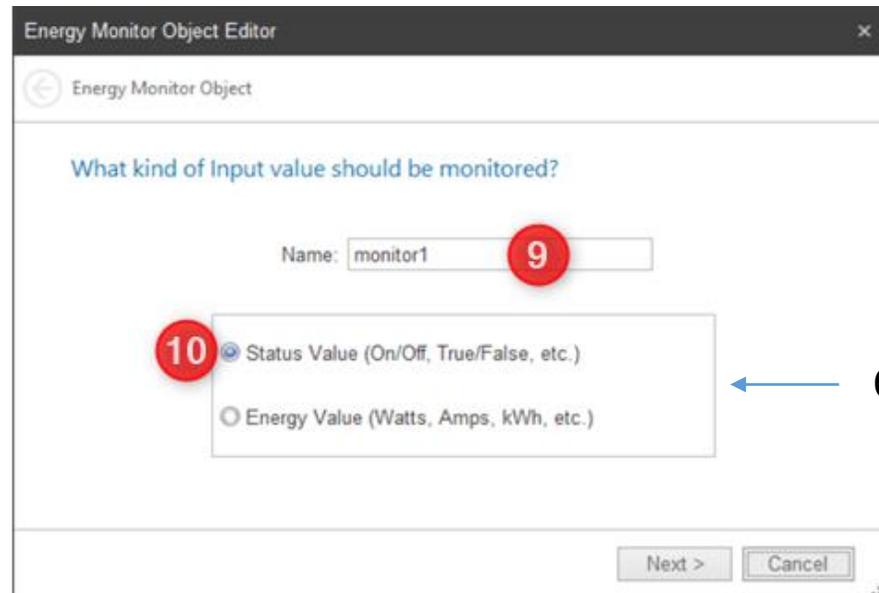
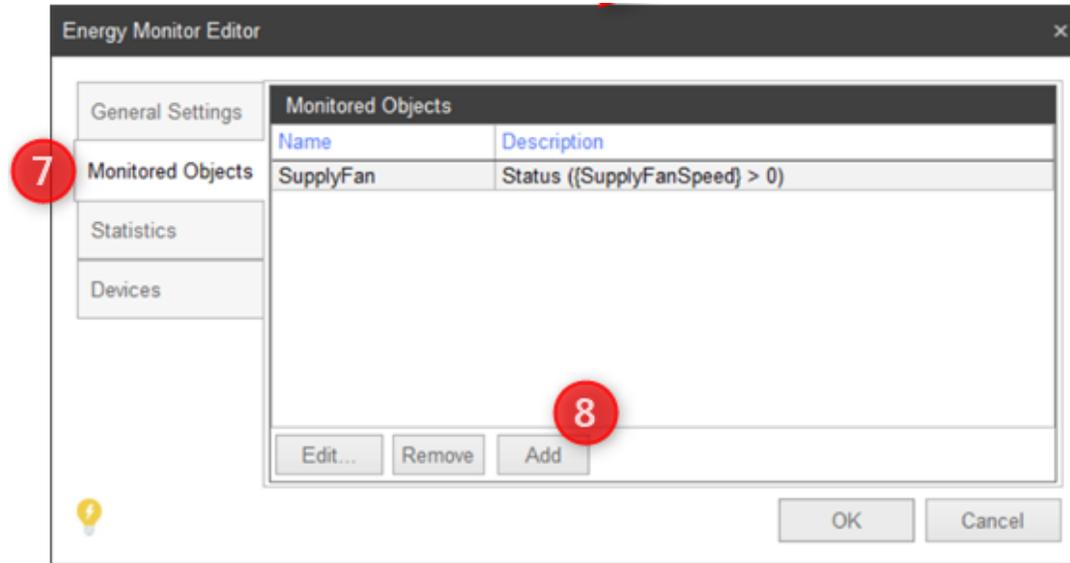
Energy Monitors allow a user to monitor the energy usage of an object where the actual energy meter does not exist.

7. Choose the *Monitored Objects* tab.

8. Choose *Add*.

9. Enter the **Name**.

10. Choose **Status Value (On/Off, True/False, etc.)** if the monitored object is Boolean **or Energy Value (Watts, Amps, kWh, etc.)** Choose *Next*.



OR

Energy Monitors

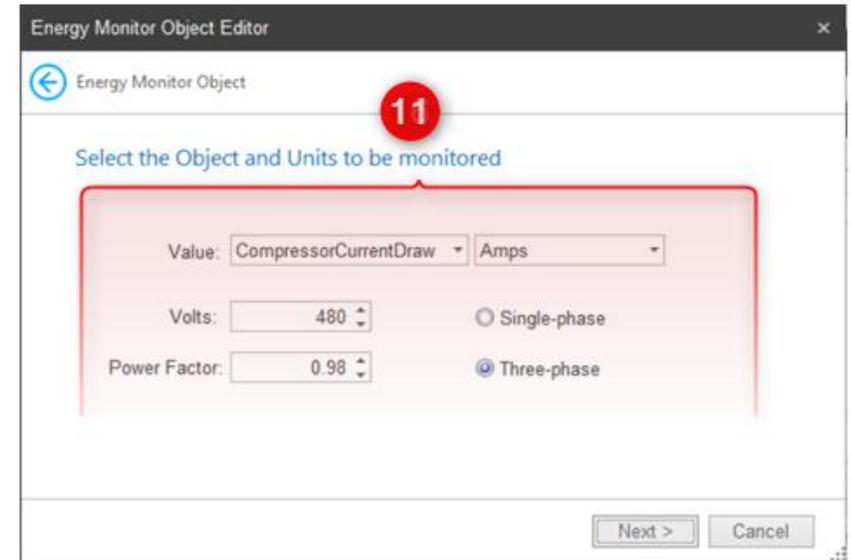
Energy Monitors allow a user to monitor the energy usage of an object where the actual energy meter does not exist.

11. Enter the criteria that defines when the object is consuming power.



The screenshot shows the 'Energy Monitor Object Editor' window. The title bar reads 'Energy Monitor Object Editor'. Below the title bar is a navigation arrow and the text 'Energy Monitor Object'. The main content area contains the instruction 'Enter the criteria that indicates the Status is Active' above a large empty text box. To the right of the text box is an 'Edit...' button. A red circle with the number '11' is positioned over the 'Next >' button at the bottom of the window. The 'Next >' and 'Cancel' buttons are located at the bottom right of the window.

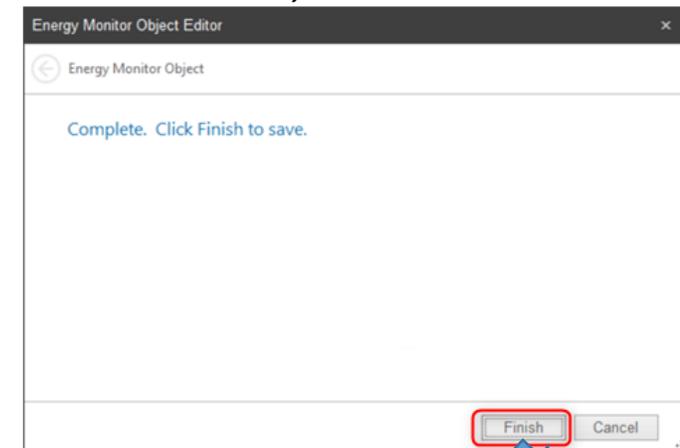
OR



The screenshot shows the 'Energy Monitor Object Editor' window. The title bar reads 'Energy Monitor Object Editor'. Below the title bar is a navigation arrow and the text 'Energy Monitor Object'. The main content area contains the instruction 'Select the Object and Units to be monitored' above a form. The form has three rows: 'Value: CompressorCurrentDraw' with a dropdown menu set to 'Amps'; 'Volts: 480' with a dropdown menu; and 'Power Factor: 0.98' with a dropdown menu. To the right of the 'Volts' and 'Power Factor' fields are radio buttons for 'Single-phase' and 'Three-phase', with 'Three-phase' selected. A red circle with the number '11' is positioned over the 'Next >' button at the bottom of the window. The 'Next >' and 'Cancel' buttons are located at the bottom right of the window.

When using an Energy object.
Choose *Next*, then *Finish*.

When using a Status
object. Choose *Next*.



The screenshot shows the 'Energy Monitor Object Editor' window. The title bar reads 'Energy Monitor Object Editor'. Below the title bar is a navigation arrow and the text 'Energy Monitor Object'. The main content area contains the instruction 'Complete. Click Finish to save.' The 'Finish' button at the bottom right of the window is highlighted with a red box. The 'Finish' and 'Cancel' buttons are located at the bottom right of the window.

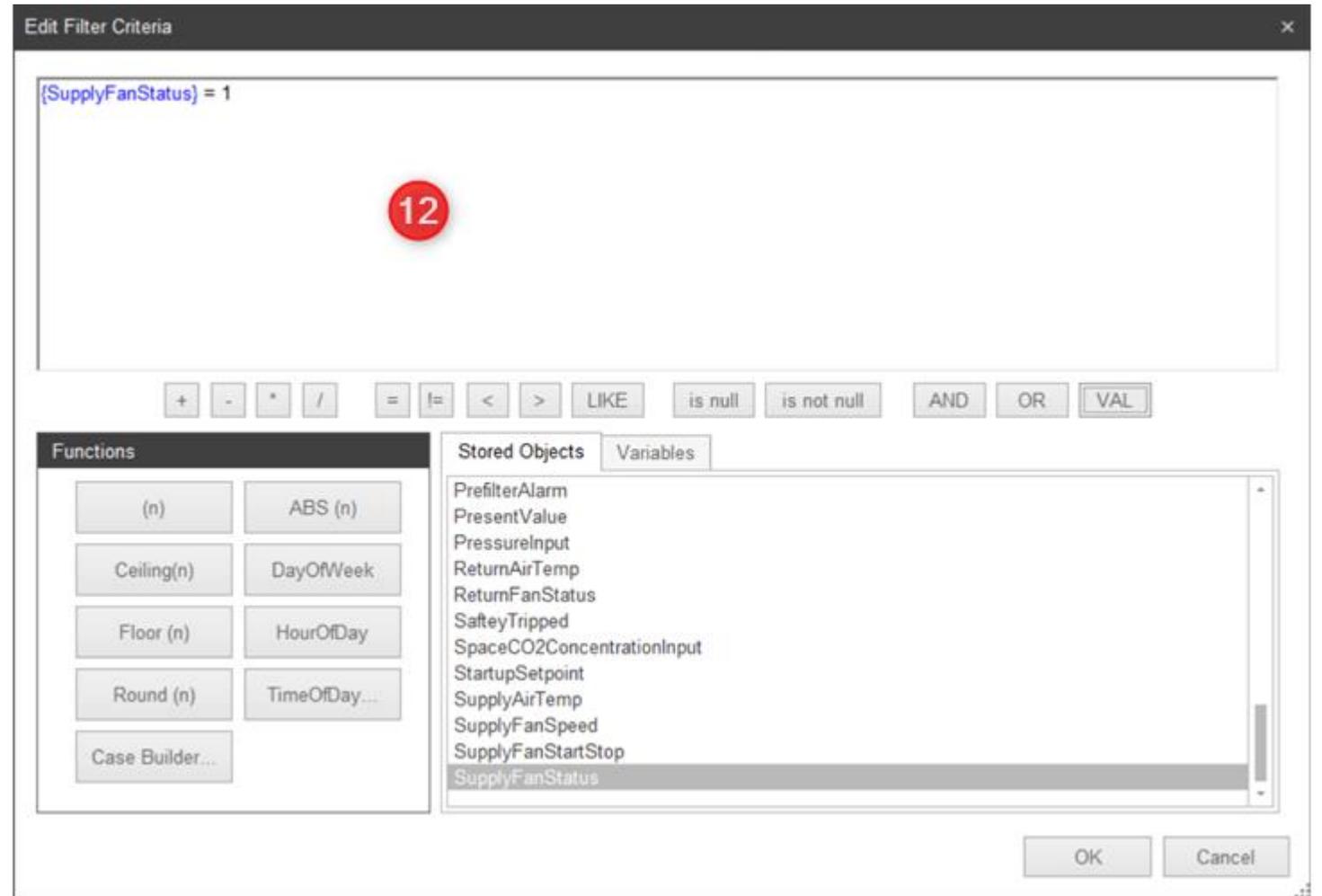
Continued at slide 7.

Energy Monitors

Energy Monitors allow a user to monitor the energy usage of an object where the actual energy meter does not exist.

Note that this window applies to a *Status object* Energy Monitor.

12. Enter the criteria that defines when the object is consuming power. Choose *OK*



Energy Monitors

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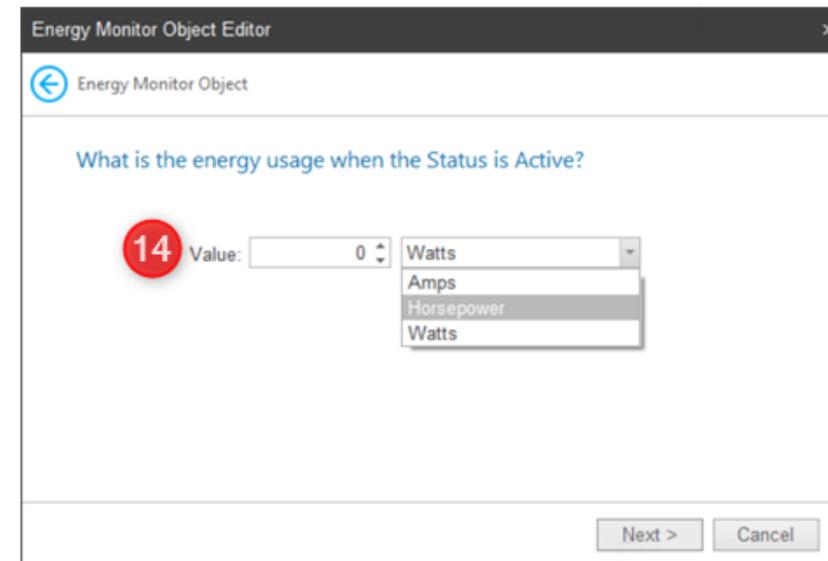
Note that this window applies to a *Status object* Energy Monitor.

13. Review the expression entered in the previous step. Choose *Next*.

14. Enter the **Value** and choose the **Energy Consumption Type** that occurs when the energy monitor object is active. Choose *Next*.



The screenshot shows the 'Energy Monitor Object Editor' window. The title bar reads 'Energy Monitor Object Editor'. Below the title bar is a back arrow icon and the text 'Energy Monitor Object'. The main content area has a blue heading: 'Enter the criteria that indicates the Status is Active'. Below this heading is a text input field containing the expression '[SupplyFanStatus] = 1'. A red circle with the number '13' is overlaid on the input field. At the bottom right of the input field is an 'Edit...' button. At the bottom of the window are 'Next >' and 'Cancel' buttons.



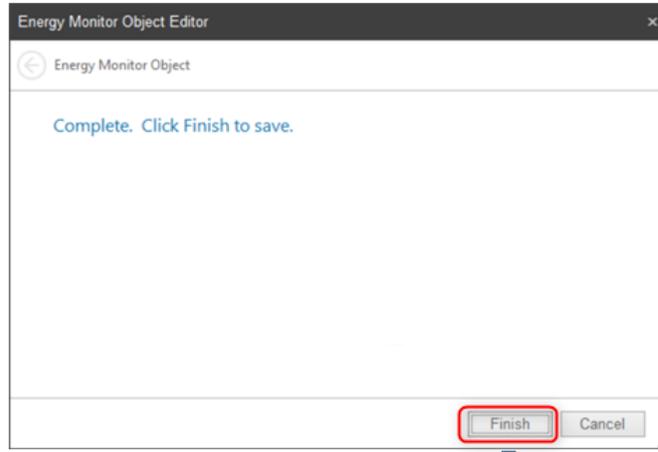
The screenshot shows the 'Energy Monitor Object Editor' window. The title bar reads 'Energy Monitor Object Editor'. Below the title bar is a back arrow icon and the text 'Energy Monitor Object'. The main content area has a blue heading: 'What is the energy usage when the Status is Active?'. Below this heading is a 'Value:' label followed by a text input field containing '0'. To the right of the input field is a dropdown menu with a list of options: 'Watts', 'Amps', 'Horsepower', and 'Watts'. A red circle with the number '14' is overlaid on the 'Value:' label. At the bottom of the window are 'Next >' and 'Cancel' buttons.

Energy Monitors

Energy Monitors allow a user to monitor the energy usage of an object where the actual energy meter does not exist.

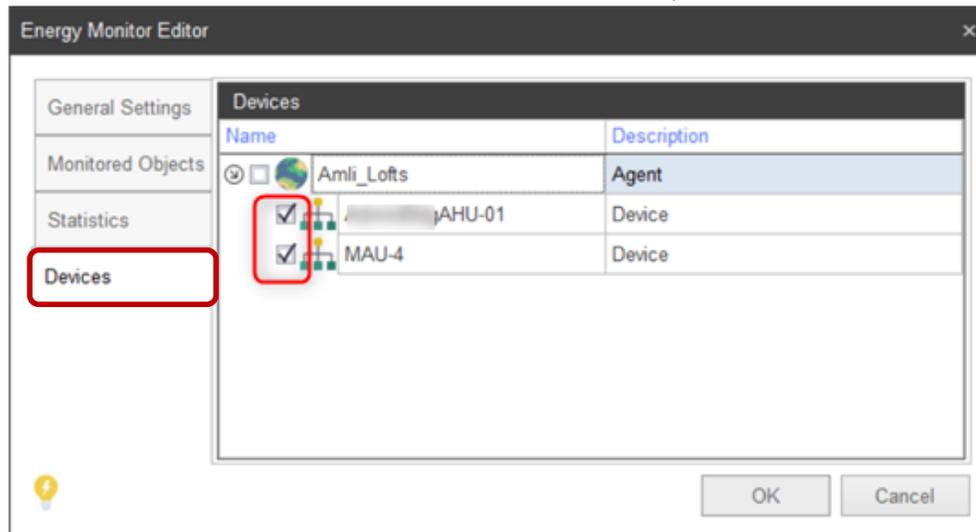
Note that this window applies to a *Status object* Energy Monitor.

Choose *Finish*.

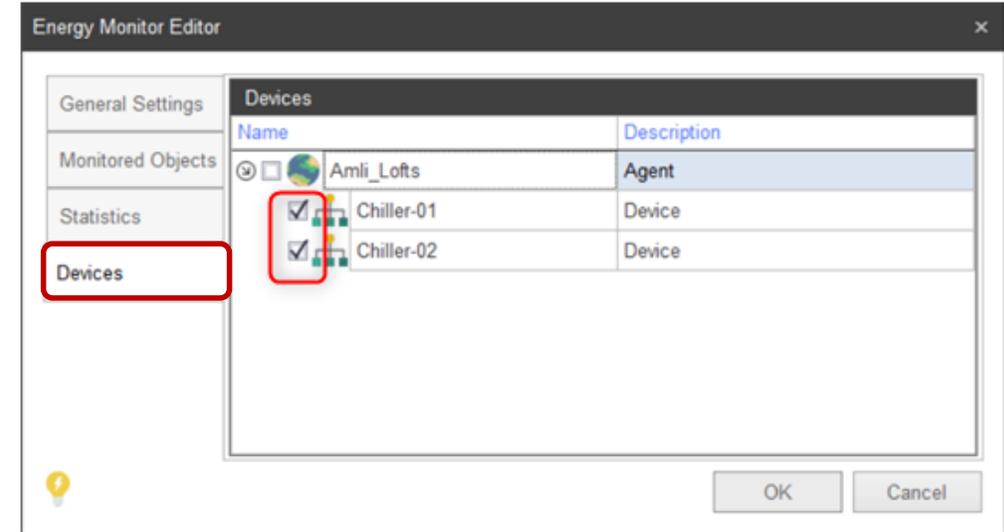


Continued from slide 4.

Choose the *Devices* tab and mark the check boxes next to the devices to apply this energy monitor. Choose *OK*.



Status object Energy Monitor.



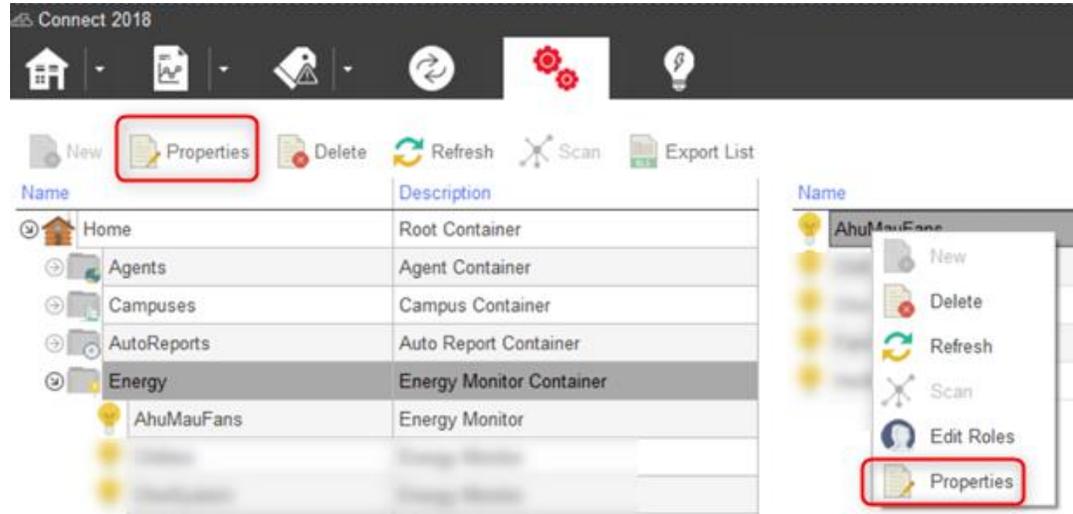
Energy object Energy Monitor.

Energy Monitors

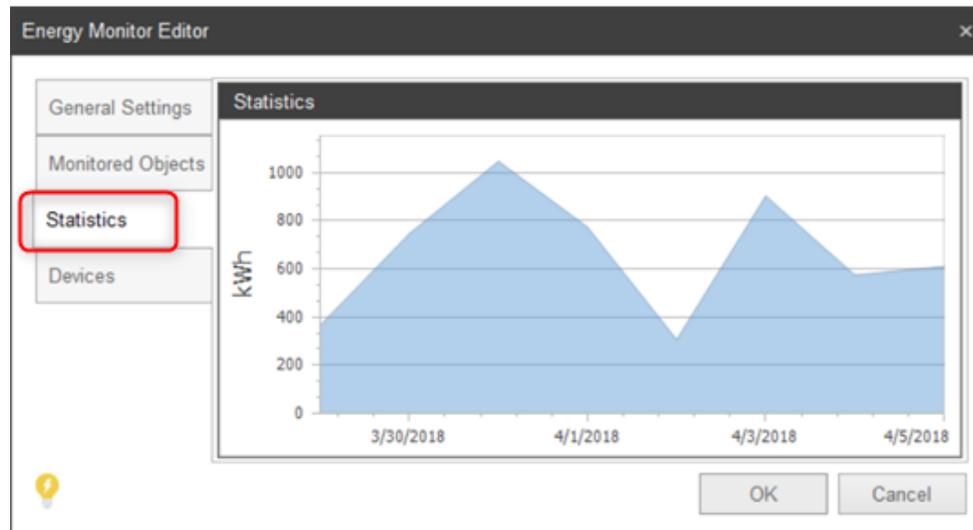
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Viewing energy monitor statistics

In the Configuration Explorer window, expand the Energy Folder.
Select the Energy Monitor previously created.
Either select *Properties* from the Tool Bar or R-click on the Energy Monitor and choose *Properties* from the drop down window.



Select the *Statistics* side tab.
If the monitored object contained past data sample collections, then Historic energy usage from the past should appear on the chart window. If past samples do exist and no historic energy usage appears then revisit the expression shown in slide 5. Verify data type.



Energy Monitor Dashboard

Connect 2018

Refresh Export Dashboard Date/Time Range Previous Period Show Agents

28 day default 7 day default

Energy (3/9/2018 6:31:37 AM To 4/6/2018 6:31:37 AM)

CampusName	Cost (USD)	Energy (kWh)	Previous (kWh)	Change (kWh)	Trend
(None)	\$666	6.18K	6.01K	171	
NorthCampus	\$2.49K	30.6K	41.4K	-10.8K	

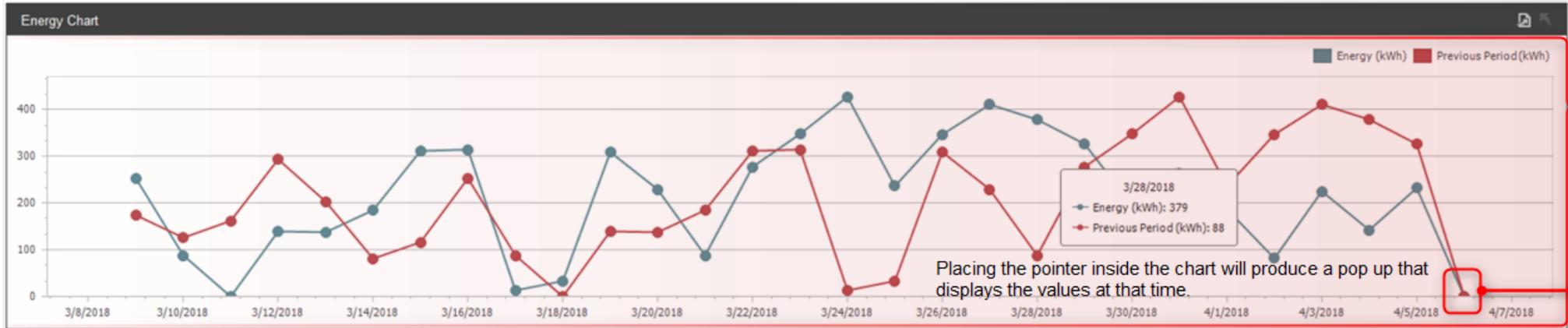
This value is the sum of the last 28 days.

This value is also for 28 days but started 35 days past. 28 + 7

Determined by the cost per kWh value in the Location and Energy tab of the Agent Configuration.

Green when less, Red when more.

Timestamp (Day-Month-Year)	Cost (USD)	Energy (kWh)	Previous (kWh)	Change (kWh)
3/9/2018	\$32	253	174	79.2
3/10/2018	\$11	88.1	126	-37.9
3/11/2018	\$0	0	162	-162
3/12/2018	\$15	140	294	-154
3/13/2018	\$18	138	203	-65.8
3/14/2018	\$18	185	81.2	74.8



This example is set to a 28 day Date/Time Range and a 7 day Previous Period.

This value is from 3/9
This value is from 7 days prior 3/2

A comparison table of the Date/Time period usage to the Previous Period usage. Clicking on a row provides a focus down to hourly usage.

A comparison chart of the Date/Time period usage to the Previous Period usage. Date/Time Range "Width of chart" = 28 days. Previous Period "Red Values" = 7 days

The far right points are using current time of day compared to usage at the same time of day last period.

A chart illustrating the usage over the Date/Time Range.

Note the handles on the left and right edges to adjust the time period focus of the chart above.



THANK YOU