**Test Plan for Zero Generation Alerts**

**Product Description:**

Also Energy generates all kinds of alerts for the monitored systems. Zero generation alerts are triggered when a monitored system sends data which indicates that no energy was produced and the generation number is zero.

**Objective:**

This testing will verify that the zero generation alerts are generated appropriately and that notifications are sent as expected for each alert status.

**Testing Scope and Strategy:**

Functional testing will verify that alerts are generated at appropriate times and that notifications were sent as expected. Testing will also include integration testing with the system which sends the data which tells how much data was produced. Load and stress testing will not be in the scope of this test effort.

Automated Testing will be done using Python and can be run as code is delivered. Test cases with be stored in Github.

https://github.com/TaraKibler/TestWeb.git

**Assumptions:**

Environment already has all required software installed.

"Clearing the alert" is the same as "acknowledging".

**Schedule:**

Development and Testing will happen in parallel beginning 5/3/21

Code Freeze 5/10/21

Release 5/17/21

**Testing Resources:**

Testing will be done in existing Env XYZ

**Test Cases:**

|  |  |  |
| --- | --- | --- |
|  | Steps | Expected Results |
| Energy\_Produced | Receive data showing energy was produced. | No alert generated |
| No\_Energy\_Produced | Receive data showing no energy was produced. | Zero generation alert triggered. User receives email. |
| No\_Energy\_2x\_a\_Day | After an alert generated and on the same day, receive data showing the system continues to produce no energy. | No alert is generated since an alert was already generated previously. |
| No\_Energy\_Next\_Day | After an alert generated and on the next day, receive data showing the system continues to produce no energy. | Zero generation alert triggered. User receives email. |
| Acknowledged\_Alert | After receiving a zero generation alert, user acknowledges the alert. | User receives email that alert was acknowledged. |
| Energy\_Produced\_After\_Alert | After receiving a zero generation alert, energy is produced and new data is received. | User receives email that energy was produced. |
| Multiple\_Alerts | After an alert is generated, then energy is produced which clears the alert, and then another period of time passes where no energy is produced on the same day. | Zero generation alert triggered. User receives email. Then user receives email that energy was produced. Then user receives a 2nd zero generation alert and email. |
| Sunrise\_Sunset | Zero generation alert triggered between sunrise and sunset | Zero generation alert triggered. User receives email. |
| Exactly\_Sunrise | Zero generation alert triggered exactly at sunrise | Zero generation alert triggered. User receives email. |
| Exactly\_Sunset | Zero generation alert triggered exactly at sunset | Zero generation alert triggered. User receives email. |
| Config\_Same\_Time | Attempt to configure sunrise and sunset for the same time | Error when attempting to set config through GUI |
| Config\_Sunset\_Sunrise\_Alert | System is in Denver but config is GMT Configure sunrise (11am GMT) after sunset (2am GMT) Trigger an alert before midnight on the same day. | Zero generation alert triggered. User receives email. |
| Config\_Sunset\_Sunrise\_Alert2 | System is in Denver but config is GMT Configure sunrise (11am GMT) after sunset (2am GMT) Trigger an alert before midnight on the same day. | Zero generation alert triggered. User receives email. |
| Daylight\_Savings | Consider Daylight savings time. Is it possible to test for this? |  |