Trynzic

Trynzic for Utilities

Use Case: Reverse Power Detection

Overview

Utility leaders must recognize the mounting pressures on their business. Electrification, energy transition, distributed energy resources (DER), legislation, supply chain constraints, data silos, changing workforce, and an inflationary economy are putting the spotlight on operational speed and flexibility.

Regardless of size, utilities need a pathway to react to grid conditions with real-time data without high costs, long software cycles, or the technical debt that comes with custom development.

Trynzic's software platform solution, Trynzic for Utilities, can be used to monitor and react to many conditions on your power grid in real time including reverse power events.

This use case document reviews two scenarios where you have reverse power present at a meter. These situations can be indicative of other problems present in your grid, so it's important to have a complete view of all the customers on your grid generating power.

Thanks to Trynzic for Utilities you can actively manage or react to reverse power– both expected and unexpected – to prevent further issues.

Scenario #1: Monitoring Known Generation Customers

In this scenario, Trynzic for Utilities enables you to monitor known generation customers to ensure their equipment is installed correctly and working properly. For the purposes of this guide, we will assume these customers have two meters in place to account for their generation and usage.

Here's how easy it is to monitor and manage known customers that generate power back onto the grid.

Step 1 – Configure the Event

We'll begin by configuring the reverse power rotation event in the Trynzic for Utilities platform.

To start, leverage your list of known generation customers and configure detection of the reverse power condition that's only targeted to those customers. Along with that list of accounts, use the CIM2 event code for reverse rotation power along with the meter program to support that configuration.

## Step 2 – Prioritize Detected Events

Once you have configured the conditions you want to monitor – Trynzic for Utilities then organizes those proactively detected events into views. Those views the update dynamically based on the latest data.

Step 3 – Tailor Business Processes to Deal with these Accounts

Since we know these are known generation accounts, you can tailor your business process to consistently respond to the detected conditions.

In the example below, our first step is to confirm there isn't any active work being done by checking on any active service orders. Confirming that is not the situation, something needs to be reviewed on-site and the next step is to create a Service Order for Investigating Generation Accounts. In this example, we have 2 paths of action - either fixing a wiring issue or discovering some local damage that results in the meter being replaced.
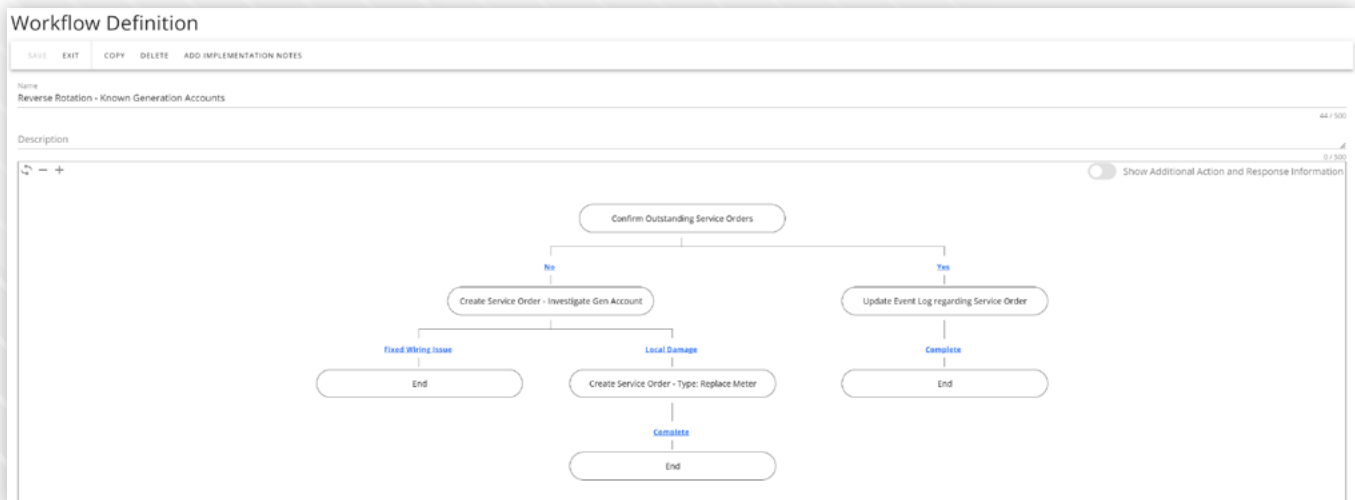
Scenario #2: Identifying Unexpected Reverse Power

The first scenario dealt with known power generating accounts, but maybe more important is how to deal with unexpected reverse power from unknown power generation accounts.

This scenario covers how you can configure Trynzic for Utilities to sense unexpected reverse power, and initiate the communication and workflows needed to register and regulate their power generation.

Step #1 – Configure the Parameters for Detection

Just like in the first scenario, we start by configuring the even detection parameters. The parameters to continually monitor your grid for reverse power conditions based on a wide variety of details. In this case, again using the meter's CIM2 event code for reverse rotation detected and we are going to exclude all the K form meters.

Step 2 – Proactively Assign Unexpected Reverse Power Rotation Cases

Once you have configured the conditions you want to monitor – it's easy to organize those proactively detected events into views that are dynamically updated based on a frequency you control. This allows everyone on your team to understand which work is being done by whom.


Step 3 – Configure Business Processes to Handle Unexpected Reverse Power

After the right work is assigned to the right staff, you can configure specific processes in handling an unexpected reverse power situation. This ensures you don't skip any steps and all the right people in your organization are involved.

To do this, first confirm existing work isn't happening by confirming any active Service Orders. If there are, take some notes and the process is done.

If that's not the case, then trigger a Service Order to investigate what's going on at that location. In this scenario, we will assume two courses of action - either a wiring issue is discovered and gets repaired, or the cause of reverse power is the result of a new, unknown solar panel installation and the appropriate processes are triggered.
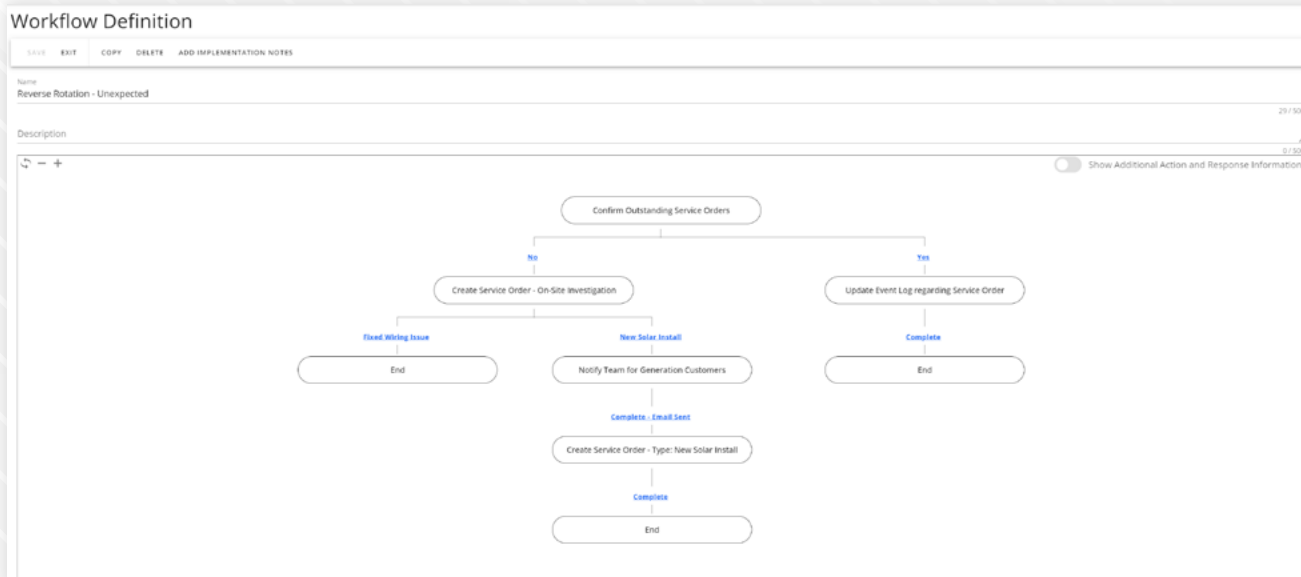
Conclusion

Configuring the detection and response to reverse power events on your power grid is easy with the Trynzic for Utilities platform. As more customers elect to install generators and solar panels, it's critical that your utility not only have a way to manage these customers but also detect when new reverse power is present in your grid.

If you're interested in learning more about what Trynzic for Utilities can do, please get in touch. We'd be happy to set up a demo and help your utility transition to become a Smart Utility.

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