



# **INTRODUCING: MANAGED HIGH VOLTAGE**

When we install a *Wind for Industry* project, we are investing in your plant's future. In this same spirit, we have opened our expertise in modern high-voltage distribution systems to our *Wind for Industry* customers.

Protect your plant, benefit from our capabilities, and take true control of your plant's energy with our on-site high voltage, as a service. We call this Managed High Voltage.

### **Your High Voltage Situation**

Industrial facilities depend on their power distribution backbone. The problem is, most of those backbones were built 40 years ago or longer, and are ripe for a major failure. Many still operate on fuses and passive protection systems invented in the early 1900s.

These systems are dangerous, hard to operate, hard to service, and should be a relic of the past. It is amazing how many state-of-the-art, billion-dollar plants we see that still are hoping a fuse will protect them.

With these old systems, industrial facilities are forced to rely on utility providers to properly meter their service and bill correctly. However, trusting the accuracy of these numbers is difficult, as most meters haven't been calibrated since they were installed, and the supplier is also the same company that provides these measurements. Is your billion dollar plant hoping a fuse is going to protect it?

#### **Our High Voltage Solution**

Managed High Voltage provides a state-of-the-art plant high-voltage distribution system that enables One Energy customers to efficiently move power, monitor usage, and protect plants from grid issues. More importantly, it provides an expandable and adaptable platform, enabling customers to add more distributed energy resources (DERs) to their system when desired.

Our Managed High Voltage Systems are able to detect and if necessary protect your plant from voltage issues, current issues, and frequency issues. In addition our systems provided redundant metering to track your energy usage (and keep your utility honest). All of our systems can be operated with zero arc flash exposure and can be integrated for remote viewing and operation.

Like our Renewable Energy Agreements, our customers pay a small fee per kilowatthour (kWh) that flows through the system and have no CAPEX or OPEX. This "high voltage as a service" approach is unique because customers can accomplish this without the hassle of having to own or operate a complicated high-voltage system.

One Energy also stocks replacements for all minor and major components of our systems so that if (and when) something does happen, we have the correct replacement in stock.

### WHAT'S ON THIS PAGE?

- Your High Voltage Situation
- Our Managed High Voltage
  Solution
- Levels of Managed High Voltage Service



Is your billion-dollar plant hoping a fuse is going to protect it?



## Our High Voltage Solution (cont.)

One Energy has experience installing these systems and has developed necessary standardization across facilities. We have the economies of scale necessary to invest in the best technology, the best R&D, and the best control algorithm development. Our capabilities allow customers to benefit from standardized parts and bulk purchasing. We also maintain an inventory of redundant parts that can be immediately deployed in the event of a failure.

Currently, One Energy is only offering our Managed High Voltage service to our existing *Wind for Industry* customers.



Managed High Voltage One-Line Diagram

Are you ready to take back control and modernize your system? There are five ways we can help:

### Level 1: Meter Management

One Energy will install a revenue-grade meter that operates in series with the utility's primary meter. The customer will have remote access to this meter via our portal or your existing metering system, capable of accepting a Modbus meter. We will produce a monthly report that compares our metered values to the utility reported values. The report will also analyze your power profile for the month, including high resolution reporting on demand, consumption, power factor, harmonics, and other factors. The reports will give you an accurate plant view of your energy usage and will ensure you are being properly billed by the utility.

One Energy will install and operate the system for the life of the contract, covering all installation, maintenance, and reporting costs. We'll reconcile your power bill every month and provide recommendations for lowering your cost or optimizing your tariff profile, as appropriate. With meter management, you will know when your utility bill is wrong.

Managed High Voltage: the installation and longterm operation of a stateof-the-art high voltage distribution system at a large commercial or industrial facility.

Are you ready to take back control and modernize your system? There are five ways we can help.





## Our High Voltage Solution (cont.)

## Level 2: Plant Distribution System Management

All features of Level 1 (Meter Management) included. Additionally, One Energy will install and operate a high-voltage distribution system (12.47kV or 34.5kV) and take over all distribution equipment from the point of interconnection with the utility to the customer-supplied transformer pads.

We will install a utility-grade switchgear (CRUISER) with metering and a distribution class relay for each plant feed. Additionally, we will be responsible for all maintenance and ongoing care and upgrades of the facility. We can detect the locations of faults instantly and give customers access to a platform to see immediate usage by feed and to see where faults have been detected. Our high-voltage system comes with the ability to pretest each feed before closing it. Our switches can be thrown remotely using the web interface provided and maintained by One Energy to lower your plant engineer's arc flash exposure. We will also stock repair parts for your system so, in the event of any failures, the replacement parts are immediately available. This includes our 24/7 response team and call center.

## Level 3: Plant Distribution System Management with Transformers

All features of Level 2 (Plant Distribution System Management) included. Additionally, One Energy will furnish and install pad-mount transformers and be responsible for their maintenance and operation. We will also maintain a stock of spare transformers for immediate replacement.

## Level 4: Redundant Loop-Fed Plant Distribution System Management

All features of Level 2 (Plant Distribution System Management) included. Additionally, One Energy will install the plant distribution system as a redundant loop fed system and will provide dual feeds for each individual plant feed. This system utilizes our state-of-the-art redundant switchgears (BATTLESHIP) designed to work together to detect and isolate faults automatically so that there is no one feed that can be cut and can take down the plant. This allows for the most redundant plant power system currently available with existing distribution technology.

## Level 5: Redundant Loop-Fed Plant Distribution System Management with Transformers

All features of Level 4 (Redundant Loop Fed Plant Distribution System Management) included. Additionally, One Energy will furnish and install padmount transformers and be responsible for their maintenance and operation as well. We will also maintain a stock of spare transformers for immediate replacement.

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#### LEVEL 2

Drawing of the high-voltage distribution system installed as part of Level 2 of One Energy's Managed High Voltage service.





#### **LEVEL 4** Drawing of the state-of-the-art redundant loopfed distribution system installed as part of Level 4 of One Energy's Managed High Voltage service.