Five Major Protection Upgrade Mistakes to Avoid

1. Waiting until the existing relays are unsupported and failing

You never want to have to select your new relay or vendor under the pressure of an unplanned outage. If your existing substation protection is more than 15 years old, replacement parts, factory-trained assistance, and factory service could be hard to get. If older relays are showing increased maintenance needs or decreased accuracy, start planning a protection upgrade program now.

2. Using different relay vendors in different substations

This is sure to increase your maintenance costs and decrease the performance of your field staff. Using a single relay supplier saves time by letting you use one set of communication commands, one format of system data, and a single type of substation user interface.

3. Using different relay models to perform similar functions in different locations

Related to the second mistake, when you select a relay for feeder protection, make sure that it can serve the needs of all your feeder types. This applies to transformer and other protection as well. Avoiding the pressures noted in the first mistake pays benefits for the long term by improving the consistency of operation from feeder to feeder, substation to substation.

4. Failing to specify a consistent I/O assignment

By specifying the same contact output or input for tripping, closing, breaker auxiliary contact monitoring, etc. in every installation, you save on protection electrical design, relay setting development, installation and commissioning, event data interpretation, and routine maintenance. Allowing a unique electrical design, not required to solve a particular application problem, wastes technical resources over the life of the installation.

5. Failing to take advantage of monitoring, reporting, and communication features

New microprocessor-based relays offer useful capabilities in substation monitoring, event reporting, and equipment condition analysis. Some have the logic and communication flexibility along with the accuracy and reliability in measurement and control to act as the eyes and hands of substation integration systems. With these capabilities comes the technical burden of the setting development necessary to correctly use the functions. Since you are spending the time and money to upgrade protection, make sure you get the most value by taking advantage of the excellent non-protection features of these new devices.

EasiLinc Protection Modules by POWER Engineers can help you avoid these five major mistakes, and offer benefits in a number of other areas. For more information on protection upgrades using EasiLinc, contact POWER Engineers or visit www.easilinc.com.