



Power Quality Assessment

SBM has extensive expertise in studying and analyzing electrical services and distribution systems. We can create a process to determine system capacities and identify power quality issues. These projects can involve multiple steps.

Assessing the Current Situation

The system analysis typically starts with review and verification of electrical one line diagrams for the existing building. These diagrams show the building's service and distribution system from the public utility to the branch circuit panelboard level. If you do not have a complete diagram of your power system, we can work with you and your staff to generate one. One line diagrams are invaluable tools for regular maintenance activities, and for future system modifications and assessments. As the field work to verify the power system is performed, we check for compliance with current codes.

Metering

As part of our offerings, SBM performs electrical power quality studies. This involves the installation of temporary meters throughout the power distribution system to determine loads and power quality. These meters are installed at critical locations to capture normal fluctuation of the loads. The meter readings are analyzed for power quality parameters including voltage and current surges and sags, harmonics, phase imbalance, transients, and power factor.

Implementation

Based on the study results, an implementation phase can follow where equipment is modernized, and safety issues are resolved. In addition to reducing risk, these steps upgrade the performance and life expectancy of your facility's power consuming equipment. These measures can even reduce your energy bills when efficiencies and power factors are improved.

Outcomes Assembled

Conclusions and results are assembled into a report. The field surveys, metering data, and implementation procedures are organized into a comprehensive system manual for future reference by facility and engineering personnel.

Next Steps

If you have any questions or need additional information, please contact us for a free initial consultation. Together, we can form a partnership to ensure power quality for your facility.