Power Quality Facility Assessments

- Solving tough customer PQ issues for your key customer accounts
- Improving customer facility uptime and production output
- Trusted unbiased PQ services provider with proven track record of success
- More than 387 successful projects

EPRI's PQ Services team specializes in on-site Power Quality Facility Assessments—having conducted over 387 such projects. Our group specializes in reducing process downtime due to power quality events and maximizing client production output. Facility assessments may involve a few targeted processes or the entire plant. Our team member experience in solving power quality issues is deep—going back several decades, and broad in scope—food to pharmaceuticals, potato chip to computer chip fabrication, metal casting to machining, automotive to automation.

While processes may differ, all share similar electronic controls affected by power quality events. While others practice power quality as "general practitioners," EPRI's team has been referred to as the "neurosurgeons" in the field—with power quality (PQ) expertise with the control systems within an industrial plant and utility systems outside the facility. EPRI's experience provides unparalleled expertise in identifying the sources of process sensitivity and recommending solutions. With our expertise in equipment and component assemblies, we provide our clients with a myriad of actionable option levels—from the utility, plant, panel, and machine to the individual control components.

Benefits

EPRI's PQ Services team provides a third-party unbiased analysis and specific recommendations to your C&I clients to help them improve the power quality robustness of their processes and equipment. The engagement often leads to both improved performance of the customer's process and facility to power quality issues and fosters closer relationships between the utility and the customer. Common outcomes include significant savings in downtime costs with project investments leading to at least a 20% internal rate of return over a three-year period.

Approach

EPRI has established a proven a step-by-step approach when conducting PQ Assessments. The typical project begins with a scoping call with the utility and the customer to discuss the power quality issues at the site. From that conversation, a project proposal is provided for approval. EPRI and the customer may also enter into a mutual non-disclosure agreement (MNDA) at this point in order to receive detailed site information. Upon contract execution, projects typical include the following steps:

Step 1: Pre-work. In this initial step, EPRI will receive any power quality data from PQ monitors installed at either the Customer's Switchgear and/or from the Utility at their substation for importing into the PQ Investigator Software. EPRI will review any drawings or information about the equipment provided by the site to plan the walkthrough. EPRI will coordinate with the site to plan logistics for the PQ Assessment.

Step 2: On-Site Work. EPRI has conducted many PQ Assessments at many sites. The Site work includes:

1. Meeting with site personnel to discuss the specific shutdown issues that occur.
2. Systematically reviewing drawings and equipment to document the equipment electrical design and control system components.
3. Reviewing equipment electrical and control drawings and operational requirements.
4. Securing digital photography of internals of control cabinets.

During the on-site visit, EPRI will work closely with the plant's personnel to understand the power quality environment and the susceptibility of the process to voltage sags.

Step 3: Reporting and Recommendations.

In our analysis and reporting EPRI will look for the most economical and feasible ways to implement PQ improvements at the Site. All options have associated tradeoffs and the best solutions may include a mixture of solutions at the control-level, machine-level, panel-level, or plant-level. The detailed report will include detailed and specific technical recommendations. If the associated downtime costs are provided, the report will include an economic analysis with the simple payback, the net present value (NPV), and the internal rate of return (IRR) of implementing the recommendations.

Deliverables

- On-Site Power Quality Assessment
- Detailed Analysis and Recommendations Report
- Presentation of Report and Recommendations to Customer

Price

Typical PQ Assessments may range from $45k to $75k depending on the customer processes and equipment included in the scope of work. These projects are executed under a Business Services Agreement (BSA) between EPRI and the utility or EPRI and the customer.

Schedule

Most PQ Assessments have a schedule from 8 to 12 weeks start-to-finish depending on the complexity and scope of the project.

Who Should Join?

Utilities who want to play a role in helping their customers improve their robustness to common power quality issues. Customers who want to reduce their power quality-related downtime and increase their bottom line.

Contact Information

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