ABB Power Quality Assessment service

Reduce power factor penalties for your plant.

Inefficient electrical systems can create multiple issues in your food and beverage plant. From impaired equipment performance, to electrical system damage, to financial penalties from your utility provider, you need to improve and optimize power quality to maximize the efficiency and reliability of your production facilities.

We understand the challenges you face. To help you solve them, we offer the ABB Power Quality Assessment service. This assessment provides solutions to mitigate harmonics, increase power factor (PF) and eliminate voltage disturbances.

If you want to improve the power quality of your plant, talk to us.

Why do you need this service?

Power quality problems result from low PF and harmonic distortions propagating within AC electrical distribution power systems. Poor power quality may not be readily visible, yet it can have a significant impact on your bottom line.

Optimizing the power quality of your food and beverage plant provides a key opportunity to reduce operating costs, increase plant sustainability and maximize reliability. Improving your power quality can conserve energy and reduce waste, leading to:

- Increased energy efficiency
- Lower energy and operating costs
- Reduced risk of production downtime caused by impaired equipment performance
- Extended asset life of critical production equipment

By employing our engineering resources, technical experts and extensive portfolio of products, we can evaluate your facility and offer practical, customized solutions to increase the energy efficiency of your electrical supply networks. Based on your needs, the Power Quality Assessment includes the low voltage (LV) and medium voltage (MV) applications in the plant areas you choose to prioritize.

Improving your power quality and mitigating harmonics offers potential cost savings. By acting on the findings of the assessment, you can:

- Comply with the strictest power quality regulations on reactive power and harmonics
- Reduce or eliminate utility penalties for low power factor and/or harmonics
- Reduce CO2 emissions
- Off-load and reduce power losses in cables and transformers
- Reduce production downtime
- Eliminate the need to buy additional or larger transformers
- Increase production capacity
- Potentially add new loads without the need to change the existing electrical system infrastructure

What happens during an assessment?
We understand that each plant's needs are different. We take the time to get to know your business and unique challenges before providing our recommendations.

Our assessors will schedule a plant visit to take place during a period of heavy production, in order to take measurements when your system is most active. The assessors will need to be onsite approximately one to three days, depending on the number of measurement points. This service does require that a certified electrician accompany the assessors while they are onsite.

Based on the measurements taken, the single line diagram and information collected from plant personnel, the assessors will prepare a detailed final report and deliver it in approximately four to five weeks.

What happens next?
How you choose to follow up on the assessment findings is up to you. While the final report will recommend products and services to improve your power quality and reduce harmonics, you are under no obligation to purchase or implement any of the recommendations.

Your customized, comprehensive written report will provide detailed technical analysis and recommendations, composed of four components:

- Executive summary
- Detailed technical analysis of data
- Recommended technical solution with costs and expected ROI/time to payback
- Quote for suggested solution

One customer who undertook a Power Quality Assessment learned that they were operating at significantly low PF at three key areas of their plant. By implementing the suggested solution, they saved 317 kVA, releasing 421 A of capacity. Not only did this allow their existing power network to meet the demands of increased site production, it has also resulted in decreased electricity bills by reducing reactive power charges. The anticipated payback for the implemented solution is less than four years.

If you're concerned about the performance of your electrical systems, and you're ready to optimize power quality across your food and beverage plants, talk to us about a Power Quality Assessment of your facilities.

ABB Inc.
305 Gregson Drive
Cary, NC 27511

www.abb.com/foodandbeverage