

Eaton PowerXpert Meter 4000/6000/8000

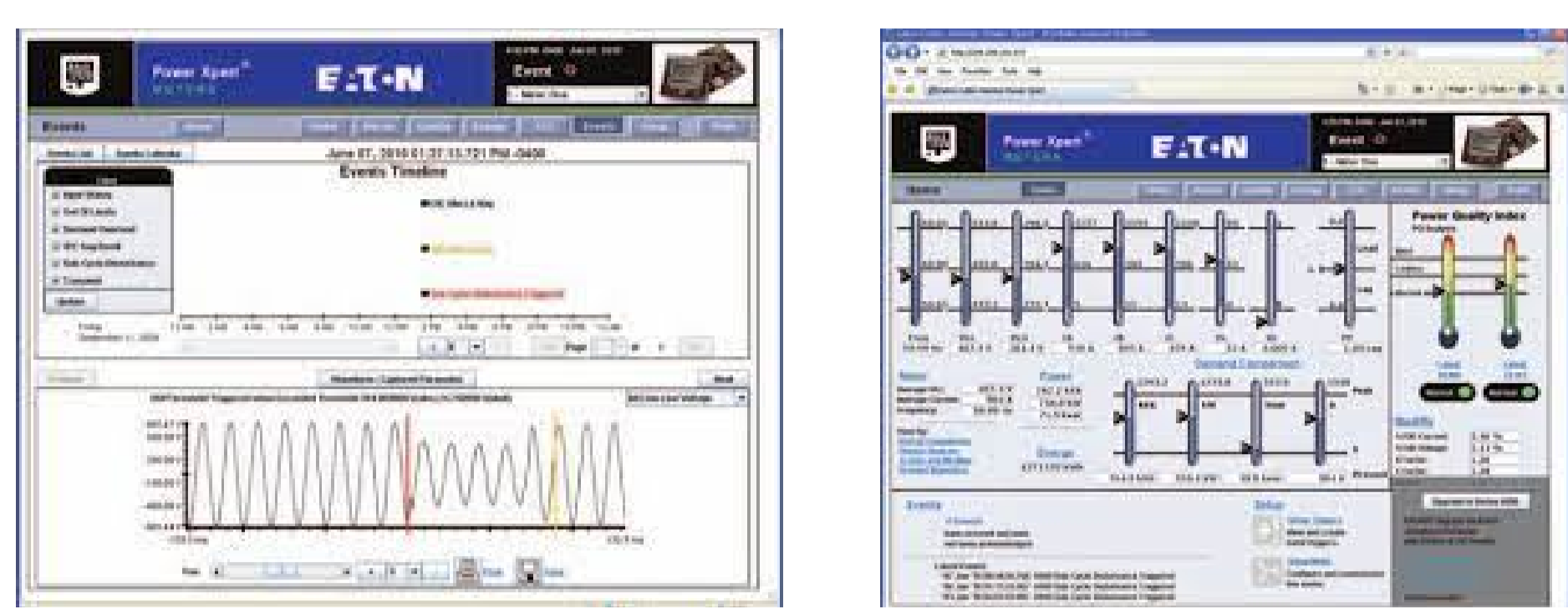


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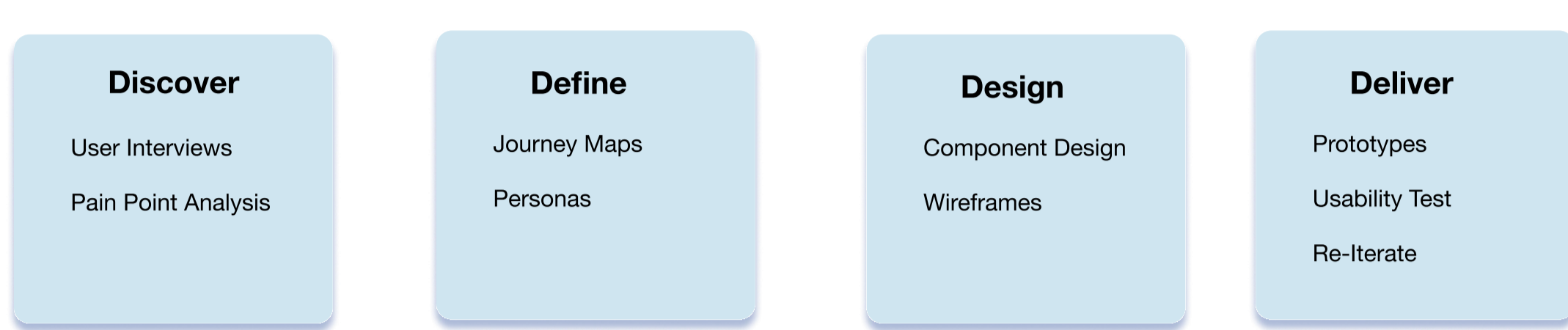
Power Xpert 4000/6000/8000 Meters (PXM4000, PXM6000 and PXM8000) provide core and enhanced functions for monitoring power usage effectiveness including consumption and power quality. Meters can be used in various applications, including energy management, monitoring circuit loading, and identifying power quality problems.

Objective

Create a new & modern UI dashboard to replace the older Java Applet based Dashboard for PowerXpert Meter series



Process



Research

1. User Feedback on Existing System:

- The original system was built using Java Applet technology, which had major performance, compatibility, and accessibility issues.
- Users reported that the interface was slow, non-responsive, and difficult to navigate, particularly on modern browsers and devices due to limited Java Applet support.
- Accessibility standards were not met, making it hard for users with disabilities to interact with the interface.
- Users needed a more intuitive and streamlined way to access power data and meter configurations quickly.

2. Technological Limitations:

- Java Applets were becoming obsolete and posed security risks. Modern browsers began to phase out support for Java Applets.
- The application lacked scalability and flexibility, as it was tied to outdated technology, making future enhancements and maintenance difficult.

Pain Points

1. Performance and Compatibility Issues:

- The Java-based system was sluggish and often froze, leading to delays in accessing key data and meter functionalities.
- The app was not compatible with modern browsers and mobile devices, restricting the user's ability to access data on the go.

2. Poor Accessibility:

- The older interface didn't comply with accessibility standards, which excluded users with disabilities and made the interface hard to use for all.

3. Inefficient Navigation and Data Access:

- Navigating through the app was unintuitive, requiring multiple steps to access important information.
- Users had difficulty locating key functions, like viewing energy consumption metrics or configuring settings, due to the outdated design.

4. Outdated Visual Design:

- The old UI was visually cluttered and unappealing, with poorly designed components that didn't support clear data visualization.
- Users found it difficult to focus on critical metrics because of the lack of hierarchy in information presentation.

Solution

1. Transition to HTML5-Based Interface:

- The entire UI was redesigned to use HTML5, CSS3 making the platform faster, more responsive, and accessible across all devices.
- The switch eliminated the need for outdated technologies, ensuring compatibility with all modern browsers without the need for external plugins.

2. Atomic Design Principles:

- Implemented a modular design approach (Atomic Design), starting from atomic UI components (buttons, icons, dropdowns, tabs) to build up more complex components (widgets, charts), and finally entire pages.
- This modularity improved both the scalability and consistency of the interface, enabling future enhancements with minimal rework.

3. Improved Performance and Accessibility:

- The new interface was built with responsive design, making it accessible on mobile devices and ensuring faster load times.
- Accessibility was enhanced by complying with WCAG (Web Content Accessibility Guidelines), making the interface more inclusive.

4. Simplified and Streamlined Navigation:

- Navigation was made more intuitive, with key information such as power usage, meter configuration, and alerts easily accessible within a few clicks.
- Introduced dashboard widgets and customizable views, allowing users to prioritize the information that mattered most to them.

5. Enhanced Data Visualization:

- Redesigned charts and data displays for better readability and to support complex data analysis.
- Provided real-time data updates and alerts, improving user decision-making and system monitoring.

Outcome

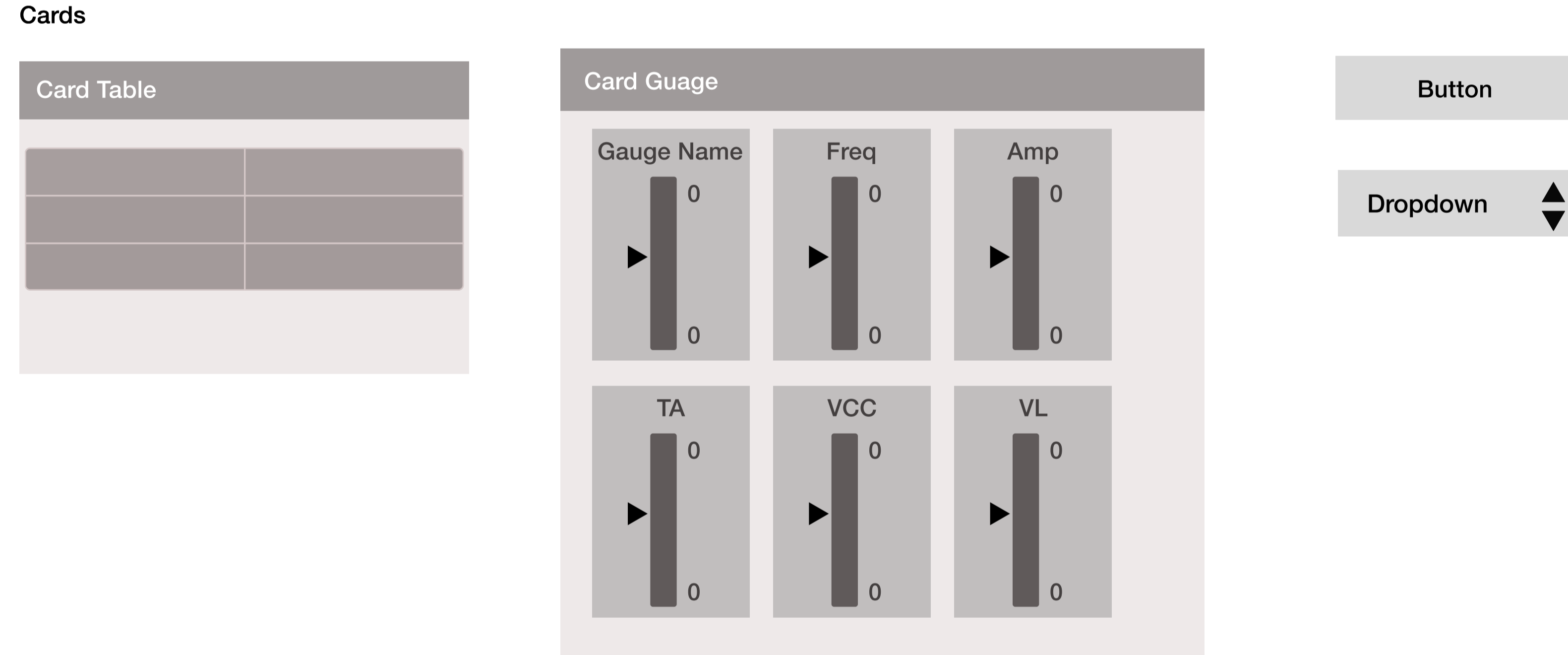
- The redesign resulted in a faster, more user-friendly, and accessible platform that met user expectations and modern web standards.
- User satisfaction improved significantly due to increased speed, better usability, and enhanced data accessibility across devices.

Components

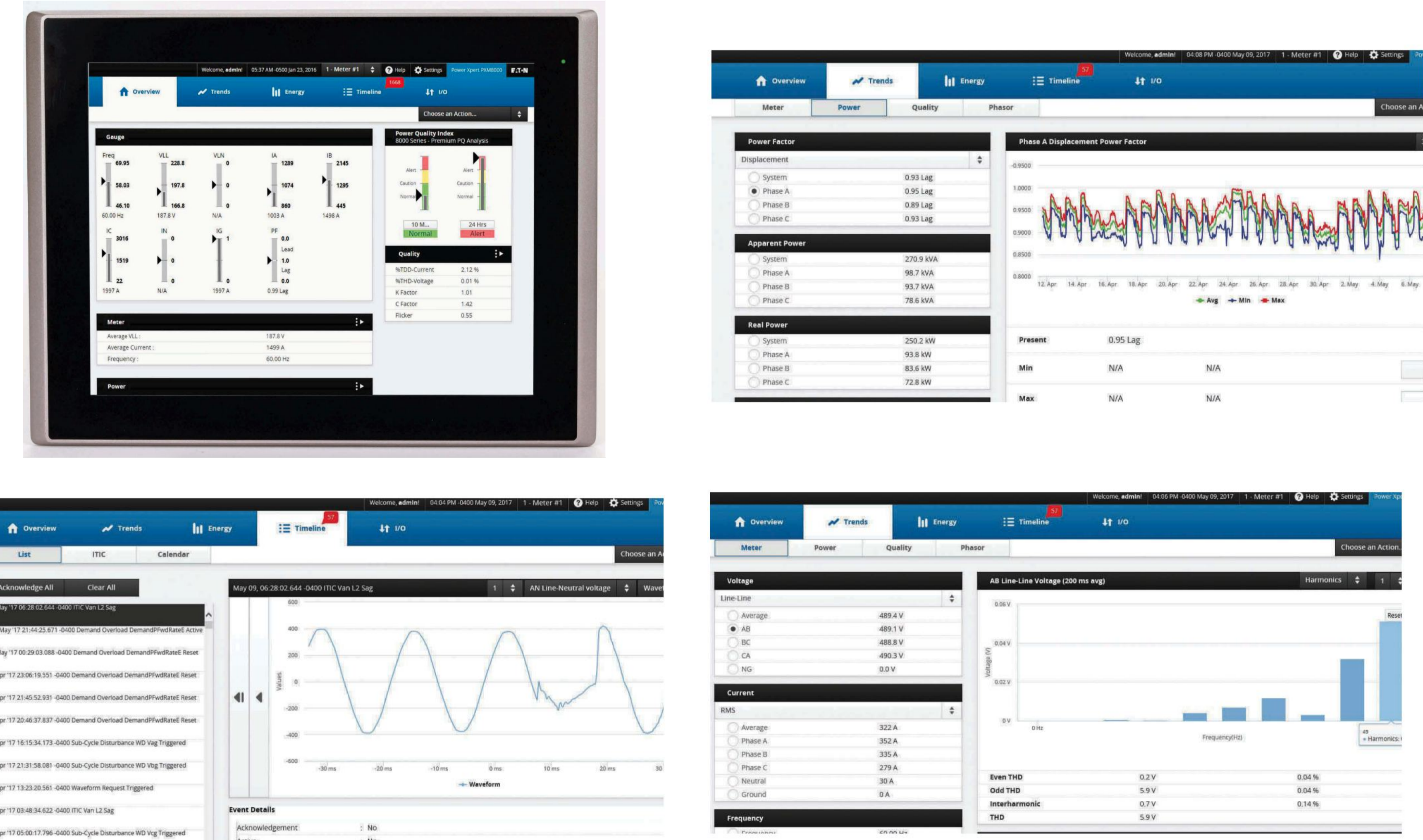
Main Navbar



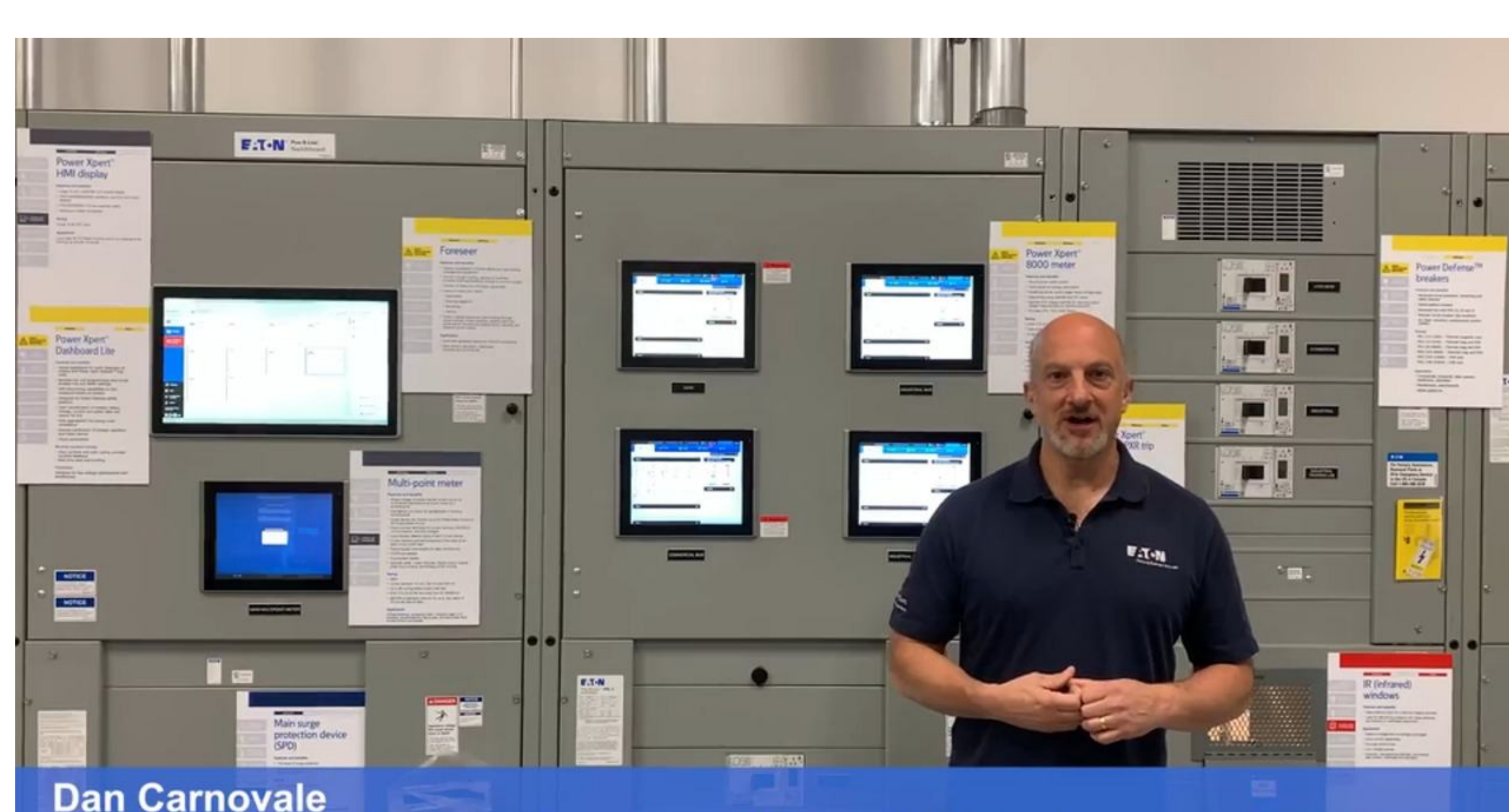
Cards



User Interface



At the facility in EATON USA



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