Reduce costs and maximize efficiency across your operations

ABB Ability™ Energy and Asset Manager is a software-as-a-service solution with real-time insights to help you optimize energy consumption and reduce operational costs by up to 40 percent. **Start here. ›**

ABB + Microsoft

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Understanding power and assets is critical—and challenging

Energy plays a vital role in keeping any business running. Managing the cost, safety, and efficiency of that energy—including electricity and other power sources—is paramount to controlling operating expenses and reducing the risk of downtime or even catastrophic failure.

However, it can be extremely challenging to optimize energy consumption and quality when dealing with complex electrical systems, as well as multiple sites, power sources, and users. With increasing energy demand, aging infrastructure, and government restrictions on carbon emissions, businesses across the world are turning to digital solutions that will help them reduce energy consumption, get the most out of their assets, and stay compliant.

Global demand for electricity is predicted to grow

33%

by 2040[1]

The average cost of unplanned equipment downtime is

$260,000

per hour[2]

The average building wastes an estimated

30%

of the energy it consumes due to inefficiencies[3]

1. https://www.reuters.com/article/oil-opec-barkindo/global-energy-demand-seen-growing-33-pct-to-2040-opec-idUSE8N1UD02G, 2018
2. https://www.iofficecorp.com/blog/equipment-downtime, 2019
3. US Environmental Protection Agency Energy Star Program

Introducing ABB Ability™ Energy and Asset Manager

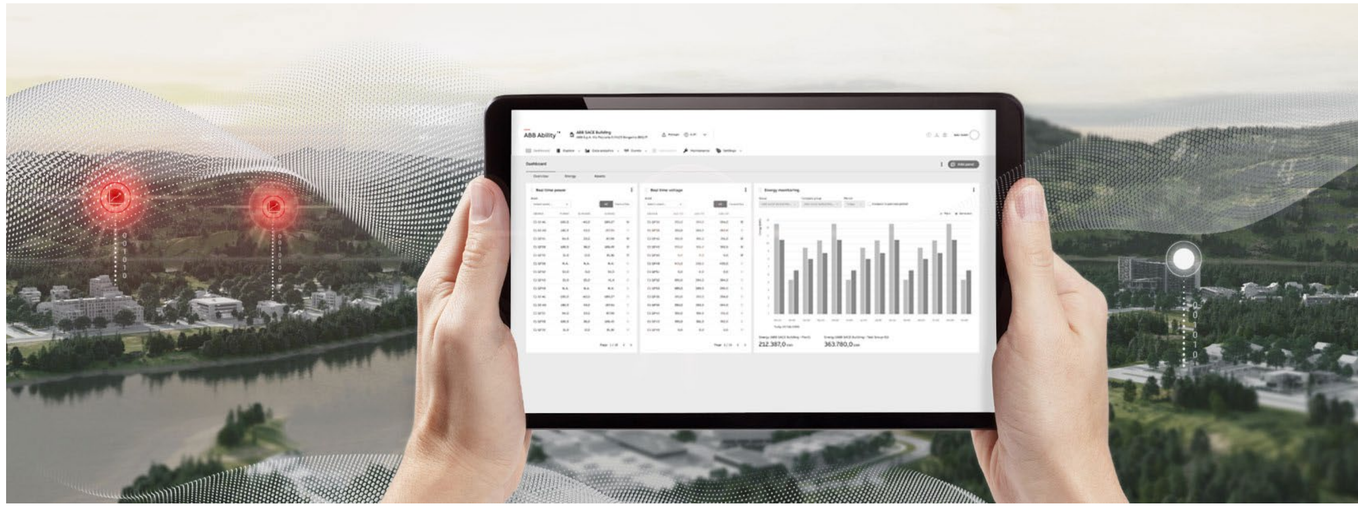


ABB Ability™ Energy and Asset Manager is a modular, state-of-the-art cloud solution that integrates energy and asset management in a single intuitive dashboard. With real-time visibility into energy use, electrical power quality, and the health of low- and medium-voltage electrical distribution system equipment, the solution helps organizations with multiple small or medium sites—such as factories, commercial buildings, and datacenters—optimize power consumption and minimize downtime.

The energy and asset management modules can be purchased separately or together, depending on your needs. Monitoring can also be segmented down to individual pieces of equipment and/or sub-systems—such as an elevator, a single HVAC system, or a production line—enabling you to:

- **Optimize:** make informed decisions to reduce energy consumption and unplanned downtime
- **Analyze:** use predictive maintenance to detect and proactively address issues before they escalate
- **Act:** get alerts and make changes anytime, from a smartphone, tablet, or PC
- **Protect:** keep workers out of hazardous areas with remote diagnostics
- **Comply:** adhere to government standards on carbon emissions

Built from the ground up to run on Microsoft Azure, ABB Ability™ Energy and Asset Manager offers the highest levels of scalability and security. It can be used standalone or integrated with existing building management, enterprise resource planning, and other systems. With ABB Ability™ Energy and Asset Manager, you can maximize performance and safety, while minimizing risk and costs. In fact, the solution has helped some customers reduce energy and maintenance costs by up to 40 percent.

Writing the digital future takes ability. ABB Ability™.

ABB Ability™ is a unified, cross-industry digital offering—extending from device to edge to cloud—with a platform, devices, systems, solutions, and services that enable our customers to know more, do more, do better, together.

Energy and asset management made easy

Plug and play: get up and running and start seeing value right away with a software-as-a-service model together with plug and play architecture and devices.

Use what you have: easily retrofit existing installations to make them 'smart' using third-party devices, with no need to replace components.*

Support sustainability: achieve your sustainability goals with a solution aligned with ISO 50001 and LEED standards.

Modular design: pay only for what you need with a flexible, subscription-based model and optional add-on features that can be added or removed at any time through the ABB Ability Marketplace™.

Customizable interface: easily customize the intuitive dashboard, so users in different roles only see the information that is relevant to them.

Anytime, anywhere access: gain full remote, real-time visibility and control from anywhere on your tablet, smartphone, or desktop.

*Note: ABB devices are required for full asset management and predictive maintenance capabilities.

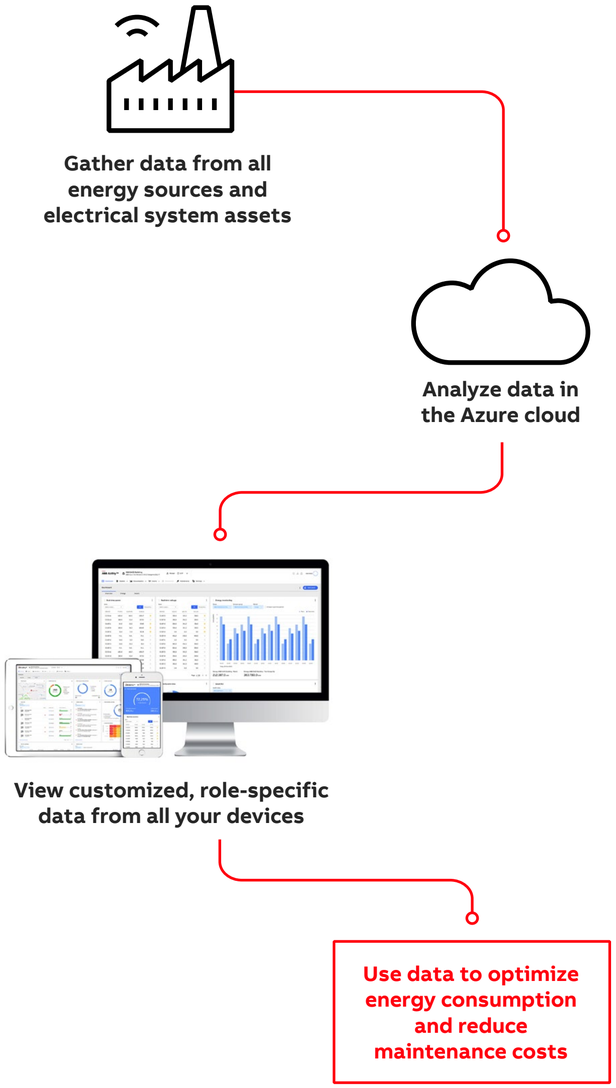


ABB Ability™ Energy and Asset Manager is built on the Microsoft Azure cloud for real-time data collection, processing, and insights with enterprise-grade reliability and security.

- **Azure Event Hub** ingests energy hour values
- **Azure IoT Hub** transfers cloud data from the gateway to analytics and storage engines
- **Stream Analytics** enables actionable insights from real-time energy data
- **Cosmos DB** configures a digital twin of buildings and devices
- **Blob Storage** stores all reports in an immediately available format
- **Azure App Service** supports the user interface

CUSTOMER SUCCESS STORY

Burj Khalifa

Powering the world’s tallest building

Situation: At 163 stories, the Burj Khalifa in Dubai is the world’s tallest building and home to the world-class Armani Hotel and Residences. Efficiently and consistently powering each of the 400 electrical loads at the site, including the 57 elevators and a 24MW air conditioning system, required an innovative approach to power management.

Solution: Emaar, the pioneering real estate development company that manages the Burj Khalifa, worked with ABB to install the ABB Ability™ Energy and Asset Manager (formerly known as EDCS), an intelligent, predictive maintenance solution powered by Microsoft Azure. By retrofitting ABB smart devices onto existing air circuit breakers, Emaar’s managers and service teams can now access real-time data that enables them to achieve exceptional reliability and truly intelligent energy management.

Results:

- **Real-time data on energy, power, temperature, current, voltage, and more**
- **Cloud-based algorithms provide early warnings of any potential failure**
- **The ability to reduce operational costs by up to 30 percent**

CUSTOMER SUCCESS STORY

Pacaro Logistica

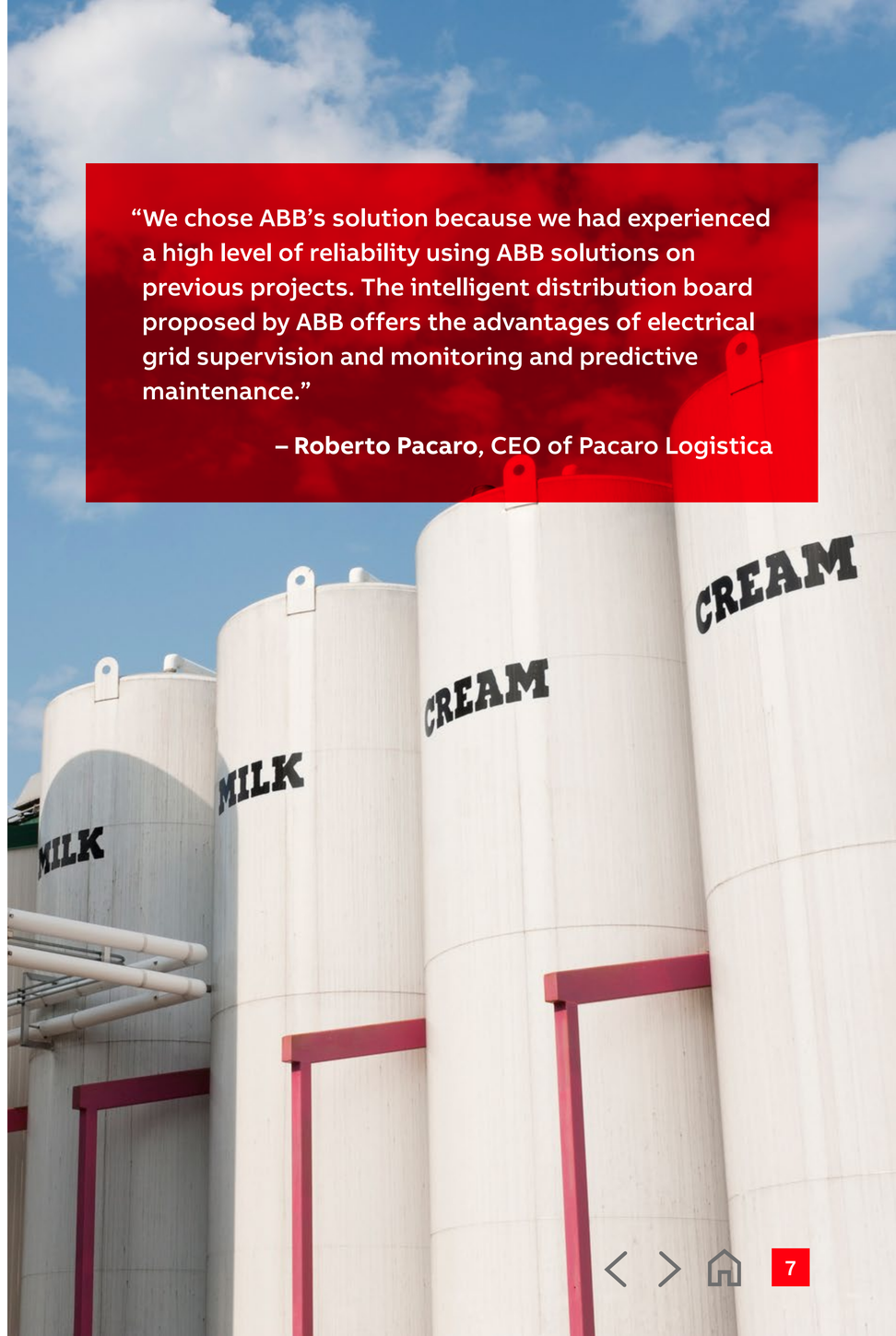
Guaranteeing ice cream availability

Situation: Pacaro Logistica is the largest logistics center for cold storage in central-southern Italy, specializing in ice cream preservation. Loss of power for even a short time could lead to the costly damage and waste of perishable product, so they needed an electrical system solution that could guarantee continuous operation and provide emergency power, as well as energy efficiency.

Solution: Pacaro partnered with ABB to install an ‘intelligent’ distribution board equipped with Emax 2 air circuit breakers integrated with the ABB Ability™ Energy and Asset Manager (formerly known as EDCS) cloud-computing platform, powered by Microsoft Azure. The solution provides advanced protection functions, programmable logic, and complete connectivity and integration with supervision systems.

Results:

- **Reduction in downtime due to real-time monitoring and predictive maintenance**
- **Greater flexibility in managing energy loads**
- **Lower costs and risk of failure with a supplemental, sustainable, high-quality solar energy supply**



“We chose ABB’s solution because we had experienced a high level of reliability using ABB solutions on previous projects. The intelligent distribution board proposed by ABB offers the advantages of electrical grid supervision and monitoring and predictive maintenance.”

– Roberto Pacaro, CEO of Pacaro Logistica

CUSTOMER SUCCESS STORY

Semiconductor Manufacturing International Corporation

Ensuring power availability

Situation: Semiconductor Manufacturing International Corporation (SMIC), one of China's leading integrated circuit (IC) chip manufacturers, needed to ensure reliable power for a new 12-inch IC production line built to support the manufacture of 45nm chips. They also wanted to use the latest digital technologies to reduce downtime and improve operational efficiency.

Solution: Working with ABB, SMIC implemented a digitalized electrification solution, including the ABB Ability™ Asset Manager (formerly known as MyRemoteCare). The solution provides real-time monitoring of substation operating data—including key metrics such as equipment operating temperature—both locally and via a mobile app. Staff can also use alerts and advanced analytics to remotely monitor and troubleshoot issues, resulting in reduced downtime and maintenance costs.

Results:

- **Increased operational efficiency**
- **Maintenance costs lowered by up to 30%**
- **Reduction in unexpected power outages**

Partnering for success

Together with Microsoft, ABB helps businesses become connected and sustainable

ABB and Microsoft empower digital transformation for customers in a wide variety of segments. Using Microsoft Azure intelligent cloud services as the underlying technology in their Industrial Internet of Things (IIoT) and collaboration platform enables ABB to offer highly scalable, reliable, secure, and flexible industrial solutions.

ABB

By standardizing its platform on Azure, ABB has expanded its leadership in energy and the fourth industrial revolution. As a Microsoft Gold Partner, ABB leverages Azure services to capitalize on insights gathered at every level—from device, to system, to enterprise, to cloud.

Microsoft

Together with ABB, Microsoft provides industrial customers with the digital technology and cloud platform to empower every person, team, and business system within an organization to glean new insights, drive faster decision making, and seize new growth and opportunities.

Get started today!

Interested in how ABB Ability™ Energy and Asset Manager can transform your business?

Learn more ›

Reach out to ABB using the “Contact me” button on this page: ABB Ability™ Energy and Asset Manager on Microsoft AppSource

ABB + Microsoft