Microsoft Sustainable Partner Solutions
Good for your business, good for the planet

ABB Ability™ Energy & Asset Manager

Optimize your energy efficiency and operational resilience—
and start your journey to sustainability

ABB + Microsoft

Contents

Help the planet– and your bottom line

The facts are clear. Demand for electrical energy is soaring, with an expected increase of 33% by 2040 due to a rise in urbanization and industrialization.[1] At the same time, CO2 emissions have risen by almost 50% since 1990, leading to increasingly warmer temperatures every decade since the 1960s.[2] The impacts of this climate change include extreme weather events, food supply disruptions, and increased wildfires that are damaging lives and livelihoods across the globe.

Becoming part of the solution

To stay competitive, compliant, and socially responsible, organizations are recognizing the need to reduce their carbon footprint. Over 40 countries and more than 20 cities, states and provinces are already taxing companies on the amount of carbon pollution that they generate.[3] And 81% of global consumers feel strongly that companies should help improve the environment.[4]

Sustainable development means progress towards a healthier and more prosperous world today and for future generations. This means balancing the needs of society, the environment, and the economy. To achieve this, organizations need to embed this approach to business across their value chain, creating superior value for all stakeholders.

The good news is that sustainable solutions not only help the planet, they can also boost your business.

1. Reuters, Global energy demand seen growing 33pct to 2040 – OPEC; 2. Climate change and the hospitality industry, Sustainable Hospitality Alliance; 3. Worldband.org, Pricing Carbon; 4. Forbes, Why Corporate Strategies Should be Focused on Sustainability, 2021, 5. McKinsey, How the E in ESG creates business value, 2020, 6. The Environmental Impact of Hotels: The Future is Green, Verdemode, Linda McCormick, June 13, 2012

1.1M

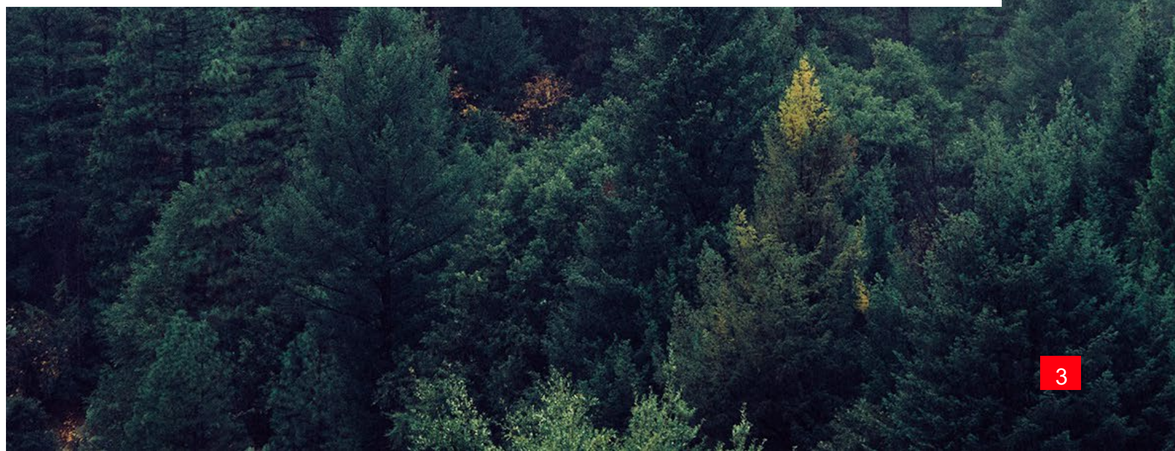
acres of pine trees planted have the same environmental impact as reducing CO2 emissions by just 10%[5]

Up to 60%

increase in operating profits with a sustainability strategy that reduces resource costs[6]

$2.2B USD

saved by one multi-national company since the launch of a sustainability initiative[6]



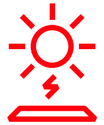
Achieving sustainability can be challenging

By now, you hopefully understand the need to reduce your carbon footprint. But how do you get there?
Achieving your sustainability goals is a complex journey. Some of the hurdles you may face along the way include:

Understanding where and how your business is consuming energy

Continuously monitoring energy consumption and power quality across multiple sites, power sources, and users

Optimizing the health and performance of assets to reduce operational costs and waste, while increasing efficiency



Integrating unpredictable renewable energy sources—such as wind and solar—while lowering the use of carbon generating sources as much as possible, with the goal of becoming carbon neutral

Finding a sustainability solution that is cost effective and easy to implement

The answer: ABB Ability™ Energy and Asset Manager

ABB is committed to helping customers reduce their annual CO2 emissions by more than 100 megatonnes by 2030 through leading technologies that reduce energy use in industry, buildings, and transport – sectors that together account for nearly three-quarters of global energy consumption.

One of these leading technologies is the ABB Ability™ Energy and Asset Manager, built on Microsoft Azure. This modular, cloud solution, provides real-time visibility into the energy use, electrical power quality, and health of low- and medium-voltage electrical distribution system equipment. These insights empower organizations with multiple small or medium sites—such as factories, commercial buildings, and data centers—to optimize power consumption, minimize downtime, and reduce carbon emissions. Both aspects of the solution – energy and asset management — work synergistically to help you reduce energy use and promote a greener future, while reducing operational costs by up to 30%.

"At ABB, we embed sustainability in everything we do in order to create long-term value. This starts with helping our customers reduce their emissions and preserve resources, which is where we make the biggest impact, and extends to our own operations, to our suppliers and the communities we serve."

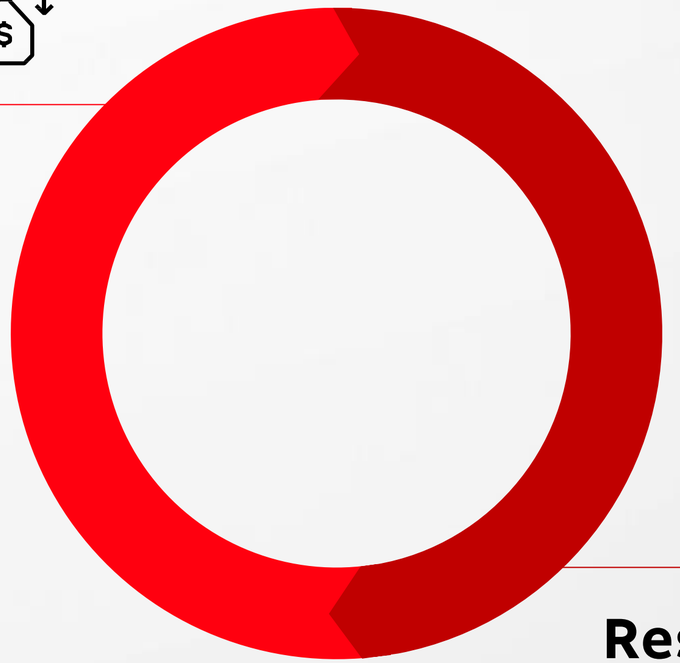
– ABB CEO, Björn Rosengren

Sustainability

ABB Ability™ Energy Manager

Reduce energy costs by up to

20%



Resilience

ABB Ability™ Asset Manager

Reduce maintenance costs by up to

40%

Sustainability

Use the ABB Ability™ Energy Manager to monitor and optimize energy consumption and production throughout your organization.

Install low consumption smart devices and power factor correction to gather data on energy use and power quality by source (e.g., water, gas, solar) and sub-system (e.g., production line, HVAC equipment)

Keep informed about your energy consumption with alerts and reporting

Stay compliant with ISO 50001, the international standard for energy management systems

Earn credits toward LEED certification, the world's most widely used green building rating system

Scale from a single site to a multi-facility system with hundreds of users

Resilience

Use the ABB Ability™ Asset Manager to keep your low- and medium-voltage electrical distribution system equipment running as smoothly and efficiently as possible.

Identify issues quickly: use predictive maintenance to detect and proactively address issues before they escalate

Optimize power consumption: reduce energy waste by increasing the performance and efficiency of electrical system assets

Reduce unplanned downtime: keep assets running smoothly to significantly reduce the risk of downtime, or even catastrophic failure

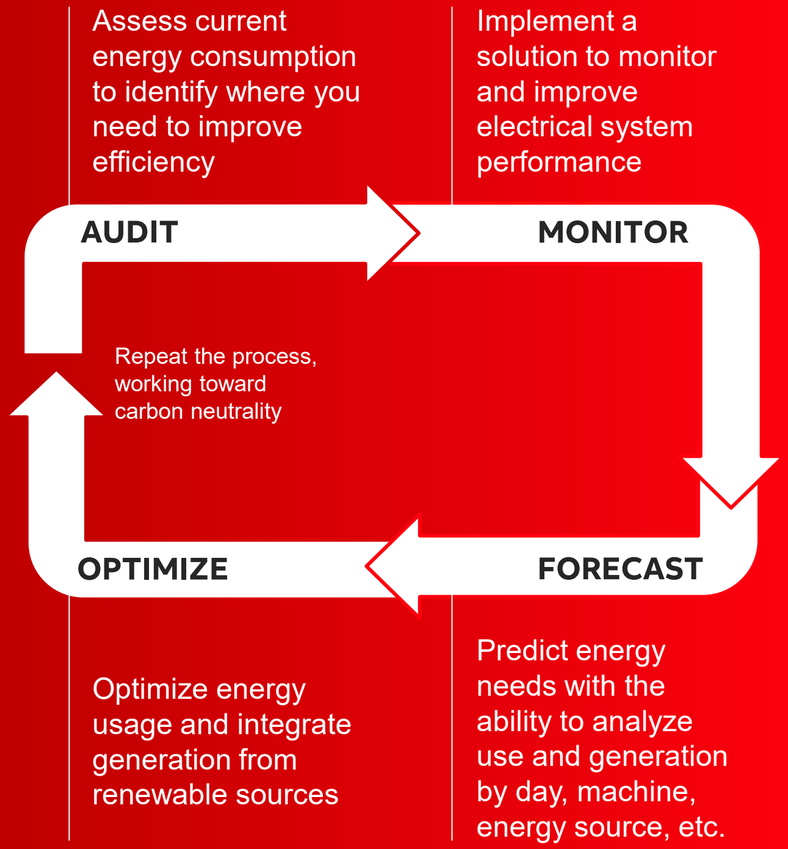
70%

lower carbon footprint from virtual machines deployed in Azure vs. on-premises[1]

1. The Carbon Benefits of Cloud Computing: a study of the Microsoft Cloud, 2020

The journey to sustainability

Powered by ABB Ability™ Energy and Asset Manager + Microsoft Azure



CUSTOMER SUCCESS STORY

Oppo

Efficiently powering the future of 5G

Situation

Oppo, one of the world's largest manufacturers of mobile devices and a growing global 5G player, needed to ensure reliable, energy efficient power supplies for its new, state-of-the-art technology park in Chongqing, China. The campus was developed to support OPPO’s ambition to build a range of smart products and services around smartphones and lead industrial development in the 5G+ era. Production at the site is expected to exceed more than 30 billion RMB (USD 4.5bn) annually in value and create tens of thousands of jobs.

Solution

Oppo chose to install the ABB Ability™ Energy and Asset Manager to monitor, operate, and maintain its power distribution system. Site managers have access to continuous, real-time insights on the operating condition of power equipment. Operations and maintenance teams receive automatic alerts so they can proactively address issues, helping to optimize performance and maximize uptime.

Results

- **Reduction in energy costs of up to 20%**
- **Safer and more reliable power distribution system**
- **Optimized maintenance workflows and reduced power outages**
- **Up to 30% reduction in operational costs**

CUSTOMER SUCCESS STORY

Frosinone

Unlocking cost and carbon savings

Situation

Frosinone is a global production hub for ABB's low-voltage circuit breaker technologies. The factory, along with sister plants in Dalmine and Santa Palomba, are Lighthouse Plants, selected by the Italian government as a model for other companies working on digital transformation and Industry 4.0 strategies. With annual power consumption of 9000 MWh and an energy bill in the region of €1.2 million, the facility team wanted to explore opportunities for reducing costs and carbon emissions using digital energy management and renewables.

Solution

As a first step in their sustainability strategy, ABB Frosinone implemented a retrofit switchgear upgrade that was connected to the cloud-based ABB Ability™ Energy Manager solution (formerly known as EDCS). The new system was able to monitor more than 120 electrical distribution points at the facility, helping staff continuously improve the site's energy efficiency and power asset management. Advanced algorithms and machine learning helped Frosinone identify hidden drains on the site's energy, as well as calculate the payback period for any investment in new equipment.

Results

- **30% improvement in energy efficiency**
- **Ability to identify and fix energy leaks**
- **Reduced energy and maintenance costs**

"We make technologies that help customers save energy – so we want the manufacturing to be as sustainable as possible."

– Massimiliano Cifalitti, ABB Hub Europe Manager

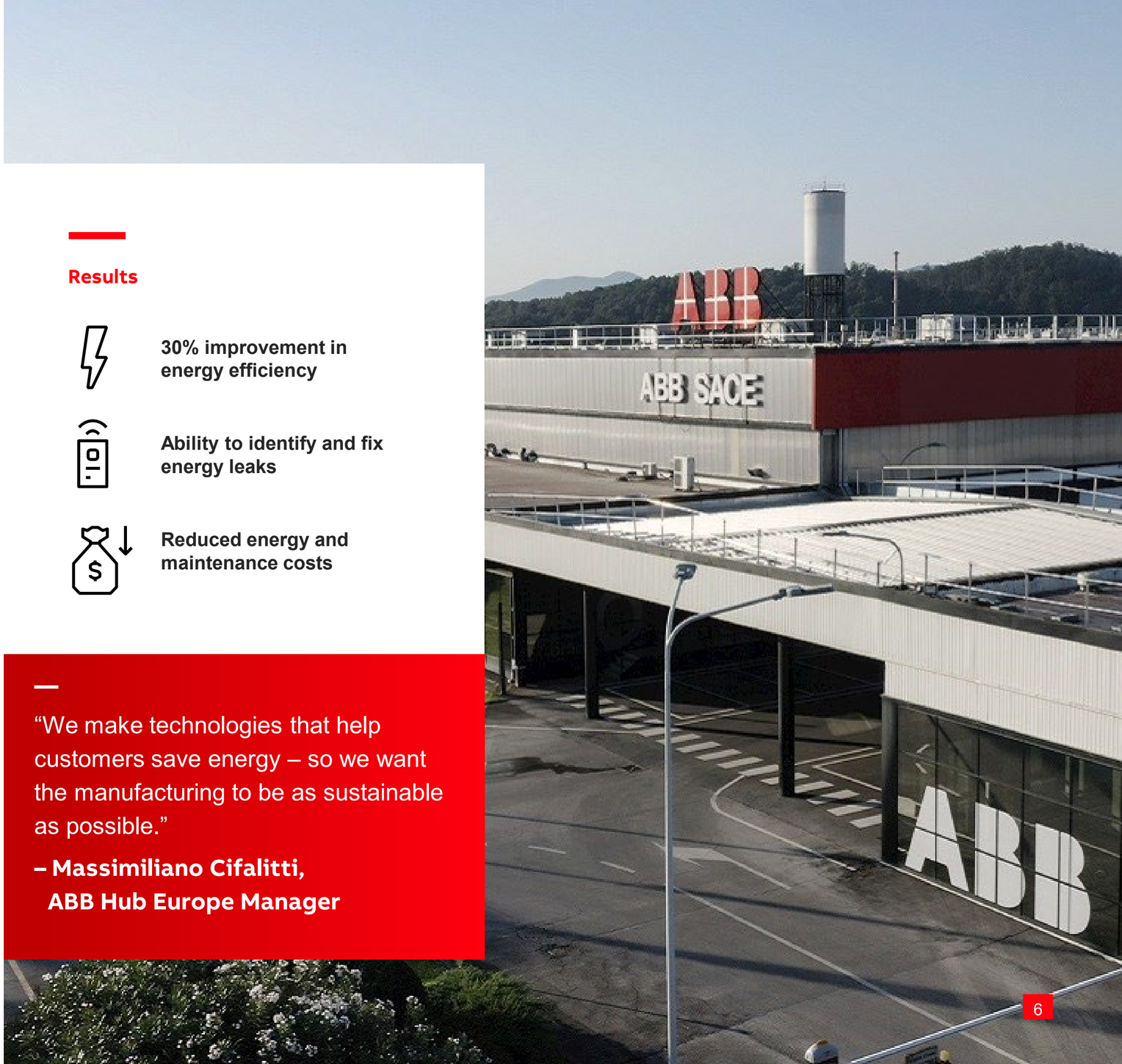


ABB + Microsoft: better together

With a long history of successful collaboration, ABB and Microsoft are working together to develop industry-leading solutions that support a more productive, sustainable future. Microsoft Azure is an integral part of ABB's electrification solutions that help reduce carbon emissions, preserve resources, and promote social progress.

The Microsoft Azure cloud platform can be up to

93% more energy efficient and up to

98% more carbon efficient than on-premises solutions.[1]

1. The Carbon Benefits of Cloud Computing: a study of the Microsoft Cloud, 2020

ABB

ABB sustainability goals

By 2030, at least 80 percent of ABB products and solutions will be covered by our circularity approach. We will also make sure that zero waste from our own operations is disposed of in landfills, wherever this is compatible with local conditions and regulations. Today, close to 40 percent of our sites have already stopped sending waste to landfills. Learn more.

Microsoft

Azure sustainability goals

Azure, as a part of Microsoft, has been 100 percent carbon neutral since 2012. This means we are removing as much carbon each year as we emit, either by carbon removal (carbon offsetting) or reducing carbon emissions. By 2030, we want to remove more carbon each year than we emit and have a 100% supply of renewable energy for all our datacenters, buildings, and campuses by 2025. Learn more.

Ready to start your journey to sustainability?

Learn how you can unify energy and operational data to help meet your sustainability goals.

- Learn more about the ABB Ability™ Energy and Asset Manager solution
- See how ABB and Microsoft are collaborating to develop sustainable solutions
- Find out more about Microsoft Azure's sustainability goals
- Reach out to ABB using the "Contact me" button on this page: ABB Ability™ Energy and Asset Manager on Microsoft AppSource

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