



LOW AND MEDIUM VOLTAGE

# ABB Ability™

## Energy and Asset Manager

Understanding power and assets

**ABB Ltd.**  
Affolternstrasse 41  
CH-8050 Zurich  
Switzerland

[solutions.abb/abb-ability-electrification](https://solutions.abb/abb-ability-electrification)





—

**ABB Ability™ Energy and Asset Manager is the state-of-the-art cloud solution for monitoring and analyzing site equipment, as well as the ability to control a site's electrical distribution system and other utilities, resulting in improved performance, efficiency and safety.**

**Through its scalable and flexible design, ABB Ability™ Energy and Asset Manager ensures comprehensive plug and play accessibility of low- and medium-voltage electrical distribution as well as of water, gas or heating equipment.**

—

**Table of contents**

<b>003–004</b>	<b>Overview</b>
<b>005–006</b>	<b>Architecture</b>
<b>007–008</b>	<b>Ease of use</b>
<b>009–010</b>	<b>Value propositions</b>
<b>011</b>	<b>Applications</b>



# Overview

## A new approach to energy and asset management

With an intuitive web app interface accessible via smartphone, tablet or PC, ABB Ability™ Energy and Asset Manager makes it simple to:

### Monitor

Oversee site performance, supervise the electrical system and allocate costs.

### Explore

Visualize the system structure, verify asset health and get actionable insights following predictions and prescriptions.

### Analyze

Schedule and analyze automatic data exports, improve the use of assets and make the right business decision.

### Act

Set up alerts to notify key personnel while remotely implementing an effective efficiency strategy, managing maintenance activities and scheduling next actions.

ABB Ability™ Energy and Asset Manager also provides access on a multi-site level, allowing you to monitor and compare the performance of different facilities at the same time.

It allows profiling of users according to the level of access they require.

In addition, upgrades and changes can be organized at any time via the ABB Ability Marketplace™. With just a click, the customer can customize their solution according to their needs anytime, anywhere.





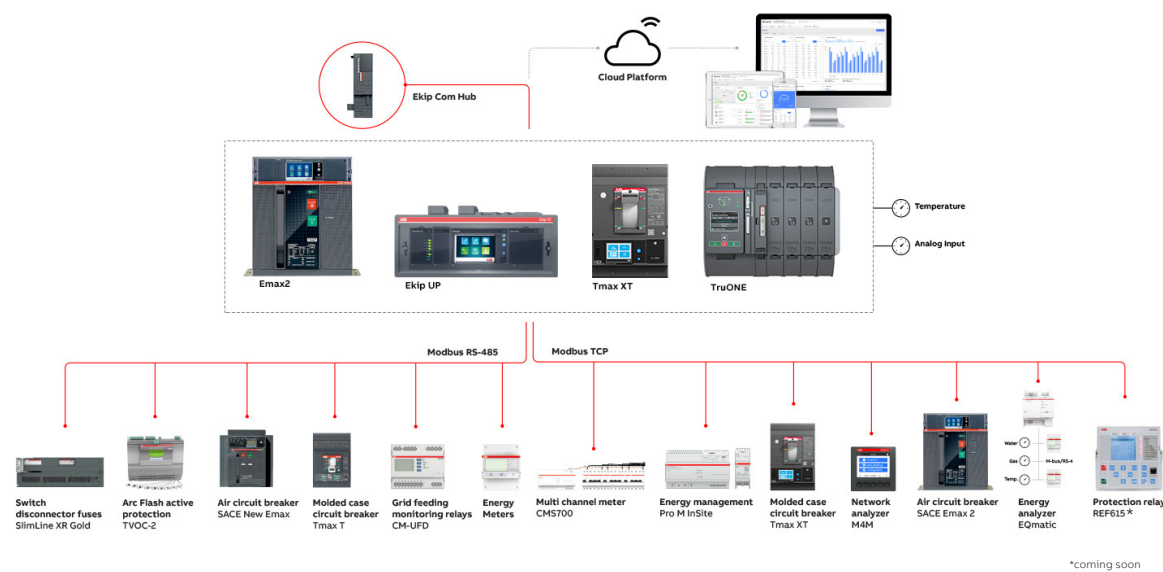
## Architecture

Truly plug & play

### Embedded solution with Ekip Com Hub

Emax 2, Ekip UP and TruONE equipped with the new Ekip Com Hub establishes the cloud connection for the whole switchboard.

This dedicated cartridge-type communication module just needs to be inserted into the terminal box and connected to the internet.



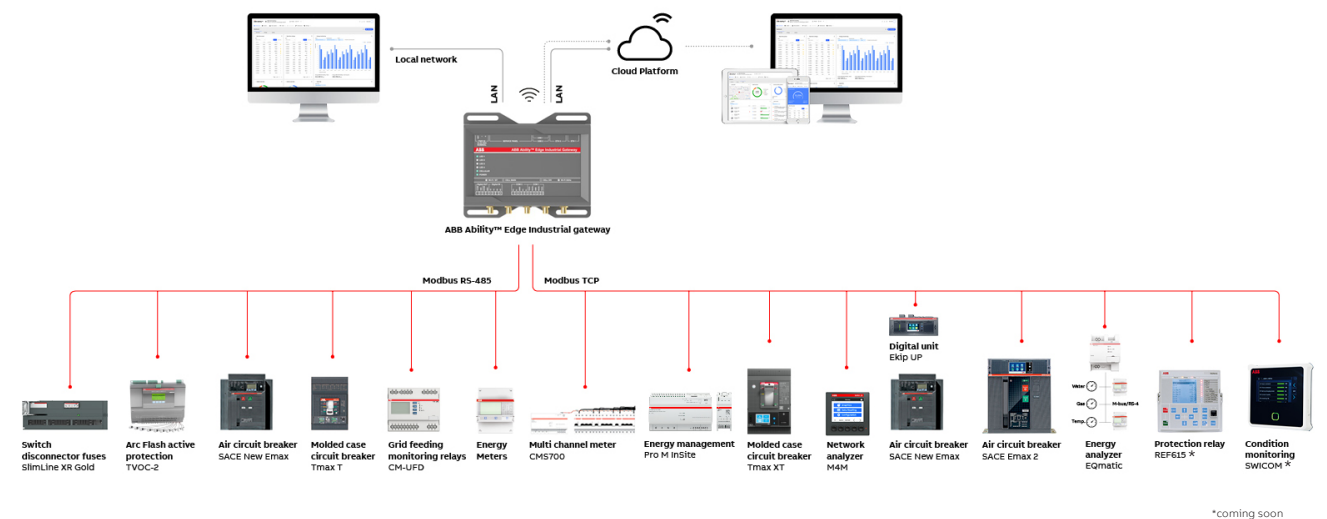
\*coming soon

### External solution with

## ABB Ability™ Edge Industrial gateway

The ABB Ability™ Edge Industrial gateway module can be mounted on DIN rail to collect data throughout the system. You can also connect sensors to measure environmental parameters (temperature, water, gas) via both

analog and digital I/O. ABB Ability™ Edge Industrial gateway has enhanced connectivity functionalities, providing Wi-Fi or 3G/4G connectivity.



ming soon

ABB showcases a further evolution in the low-voltage distribution business, establishing a new benchmark in terms of simplicity and performance.

ABB Ability™ Energy and Asset Manager enables the collection of relevant information from the ABB devices installed in the low-voltage power distribution system.

These devices can be connected to the cloud-computing platform to share data with Emax 2 (equipped with Ekip Com Hub) or with ABB Ability™ Edge Industrial gateway via Modbus RS-485, Modbus TCP and Ekip Link.

ABB Ability Edge													COMMUNICATION
INFORMATION													
Family	Device		State	Current	Voltages	Power	Energy	Power factor	Power quality	Maintenance & Diagnostics	Load management	Analog or pulse/digital inputs	Protocol
Low voltage MCCB	Tmax XT		•	•	•	•	•	•	•	•	•	•	Modbus RS485, Modbus TCP, Ekip Com Hub
	Tmax T		•	•	•	•	•	•		•			Modbus RS485
Low voltage ACB	New Emax		•	•	•	•	•	•	•	•			Modbus RS485
	Emax 2		•	•	•	•	•	•	•	•	•	•	Modbus RS485, Modbus TCP, Ekip Com Hub
Digital units	Ekip UP		•	•	•	•	•	•	•		•	•	Modbus RS485, Modbus TCP, Ekip Com Hub
Low voltage switches and fusegear	TruONE ATS		•	•	•	•	•	•	•	•		•	Modbus RS485, Modbus TCP, Ekip Com Hub
	Slimline XR ITS 2.1		•	•	•	•	•	•		•			Modbus RS485
Digital inputs interface	Ekip signalling MODBUS TCP		•									•	Modbus TCP
Sub-Metering	EQ meters			•	•	•	•	•					Modbus RS485
Power meters	M4M			•	•	•	•	•	•				Modbus RS485, Modbus TCP
Energy management	System pro M compact® InSite		•	•	•	•	•	•	•		•	•	Modbus RS485, Modbus TCP
MV relays	615 Series		•	•	•	•	•	•	•	•	•	•	Modbus TCP
MV condition monitoring	SWICOM									•			Modbus TCP
And many others to come...		*Provided with dedicated accessories for communication and metering functions ** Only with ABB Ability Edge Industrial gateway											

\*Provided with dedicated accessories for communication and metering functions \*\* Only with ABB Ability Edge Industrial gateway



# Ease of use

## The power of understanding at your fingertips

ABB Ability™ Energy and Asset Manager's ease of use sets a benchmark thanks to its integrated and plug-and-play architecture.

ABB Ability™ Energy and Asset Manager does not require engineering or special support for commissioning, helping users avoid the cost and time-consuming setup of an energy and asset management system involving many components.

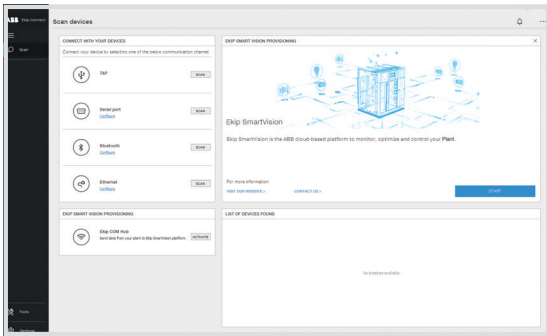
For the embedded method, a cartridge-type module - the innovative Ekip Com Hub - just has to be added to the Emax 2 circuit breaker, Ekip UP and TruONE™. The external method simply involves mounting an Ability™ Edge Industrial gateway module on a DIN rail. The commissioning tool will then set up the system and enable ABB Ability™ Energy and Asset Manager with a few steps.

Once the connection is set up, you can extend access to the platform to other users such as partners and staff with just a few clicks. Each of them can be entrusted with tasks and authorizations according to their appointed role in the specific site.

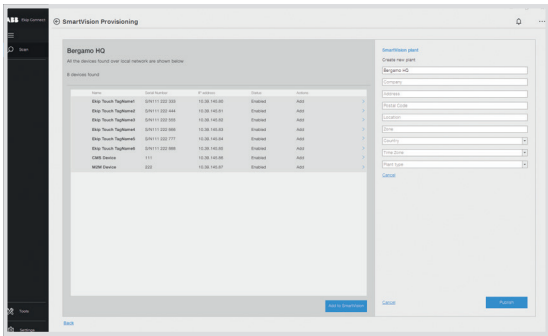
ABB Ability™ Energy and Asset Manager features an intuitive and compelling graphic interface that guides the user through their job, presenting all the relevant information they seek, derived from thousands of parameters collected from the field.

All the operations that are run on the ABB Ability™ Energy and Asset Manager platform are simple, expediting the task of delivering the maximum result.

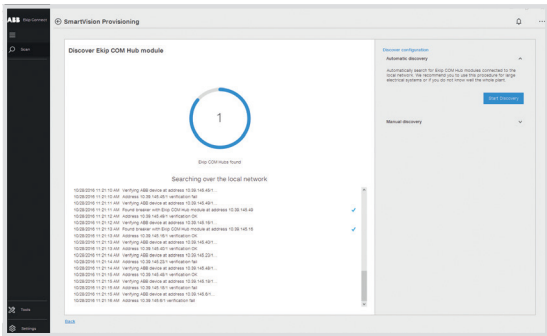
Start Ekip Connect 3.0 wizard or cloud commissioning tool



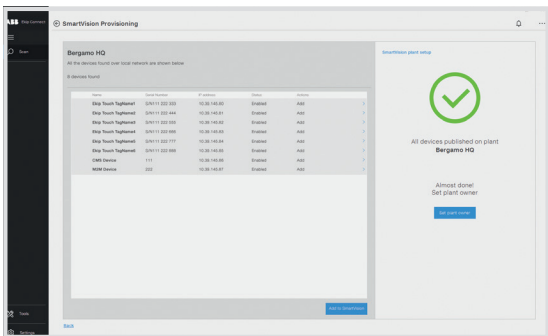
Configure devices and plant



Scan the network



Publish to cloud





# Value propositions

Your added value from design to operations

ABB Ability™ Energy and Asset Manager brings advantages to customers from the design to the operations stage.

The digital solution adds value to facilities and sites, meeting customer demands while enabling them to comply with higher efficiency standards.

Real time analysis of valuable data from field devices enables customers to closely monitor the performance of multiple installations with a single supervision system.

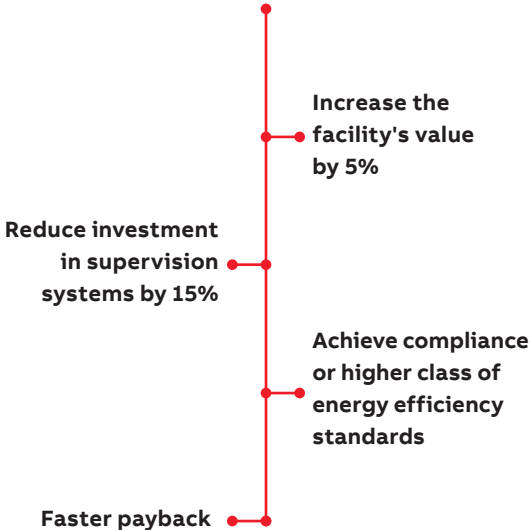
Clear information about consumption and improvement opportunities makes cutting waste and improving energy efficiency simple. Customers also benefit from lower energy bills and reductions in unplanned downtime.

ABB's "plug and play" devices make installation quick and easy. Customers can make existing installations smart with no need to replace components. New and retrofitted solutions are up and running in no time, allowing you to immediately start collecting data.

## Design and Specification



### Speed up your project

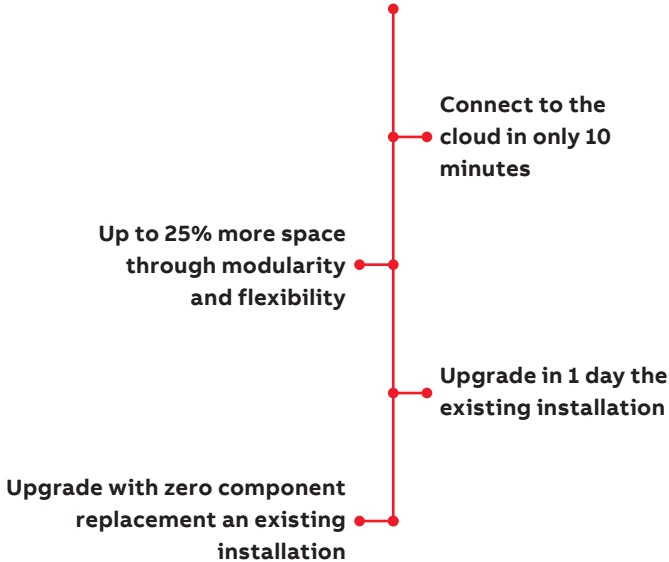


OWNER  
DESIGN CONSULTANT  
ENGINEERING COMPANY

## Installation

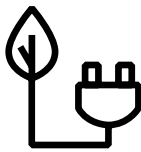


### Easy to install

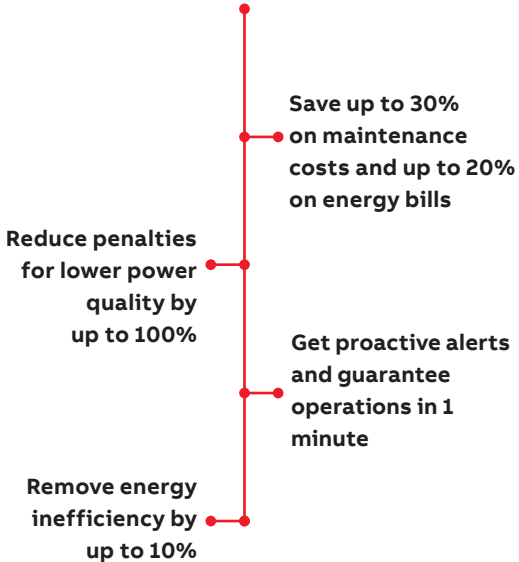


INSTALLER  
PANEL BUILDER  
SYSTEM INTEGRATOR

## Operations



### Energy efficiency



OWNER  
ENERGY MANAGER  
MAINTENANCE PROVIDER  
FACILITY MANAGER



# Applications

## High flexibility



ABB Ability™ Energy and Asset Manager is based on a simple and integrated architecture, with self-configuring connection and guided commissioning that guarantees high flexibility of application.

### Buildings

- Commercial buildings
- Offices
- Shopping malls
- Data centers
- Hotels
- Retail or chain stores

### Public facilities

- Schools
- Sport centers
- Healthcare facilities

### Industrial sector

- Small to mid-sized production plants
- Infrastructure
- Process plants
- Utilities and power generation

### Data centers

- Micro and Small
- Colocation
- Enterprise and Hyperscale



### Additional information

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB AG.



