

APPLICATION NOTE

Give your buildings a new dimension

Industrial site



“Give your buildings a new dimension” in industrial sites enables monitoring of the overall installation to better manage energy and assets by leveraging digital solutions.

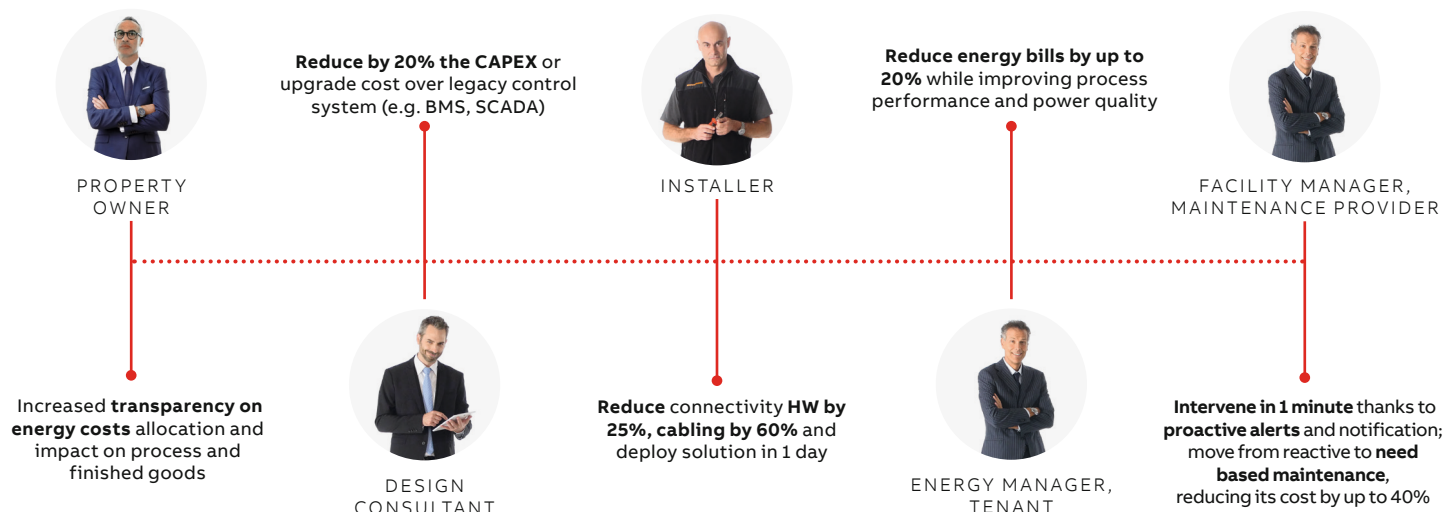
Use case description

Downtime risks and costs are often underestimated, and their root causes not easily detected. Digital and connected energy distribution system is a smart way to reduce or prevent unplanned outages, scheduling proactive alerts and maintenance, eventually reducing operational costs while increasing productivity.

The solution should be effectively deployed with a limited number of devices, ideally starting with a

proof of concept, also in case of existing and complex installations.

Then the solutions should be as scalable as possible, for its thorough extension to selected plant's areas. This is even more beneficial as parallel solution to one supervision system which is already deployed on premise, with more granularity of information such as power quality or energy cost allocation on produced goods.



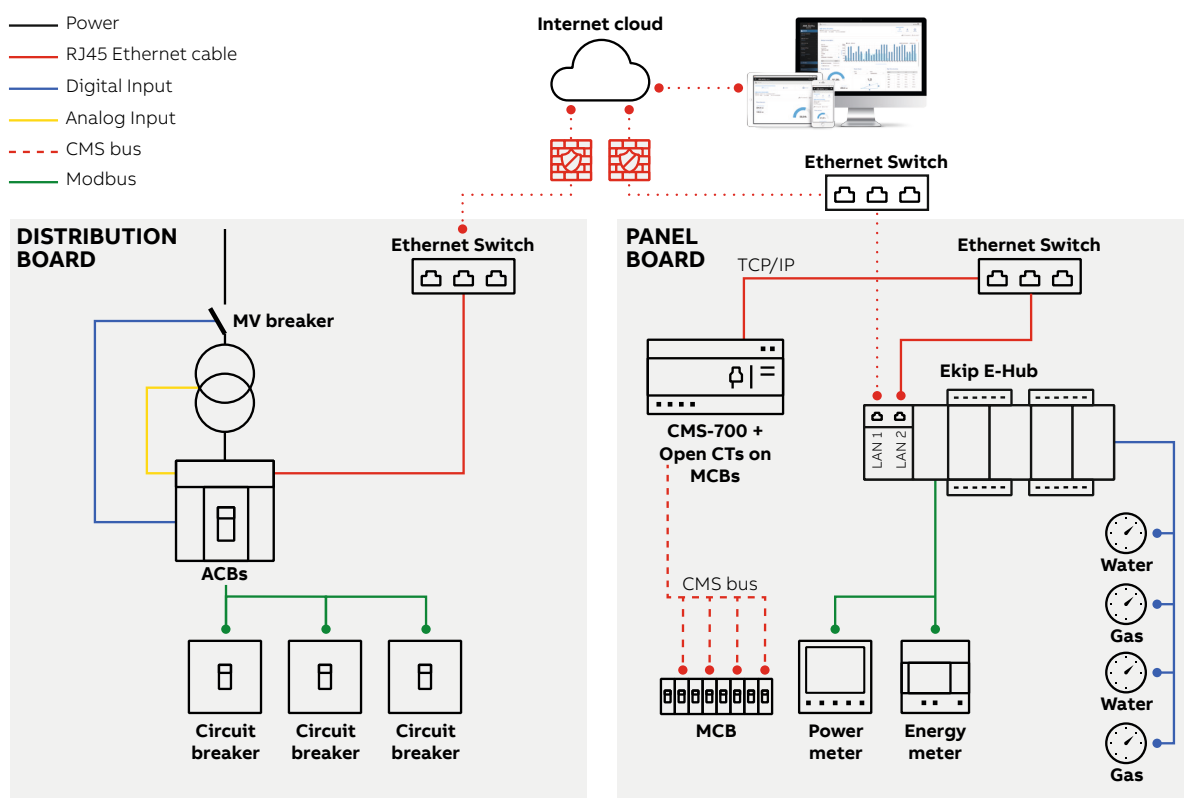
“Give your building a new dimension” ABB solution

All sections of the industrial site are connected to the same cloud. The distribution board collects electrical data from circuit breakers and the ACB.

The Ekip e-Hub gathers data from the field devices: energy consumption and electrical quantities are col-

lected from the energy and power meters via Modbus RTU, water and gas consumptions from the dedicated meters as digital signals. Data from the Ekip e-Hub installed is sent either to the cloud ABB Ability EDCS via Ethernet. Where branch monitoring is needed, the CMS700 is installed.

Suggested connection diagram



Shopping list

Components	What it does	Quantity	Additional information
Connection to the system	ACB	Main protection device collecting data from circuit breakers and access point for communication to the cloud	1 per distribution board
	EKIP E-HUB	Data collection from field devices and access point for communication to the cloud	1 per panelboard
	CMS700	Data collection from field devices and access point for communication to the cloud	according to number of lines to be monitored
Connected devices	ENERGY METER	Provides fundamental measurements to monitor and control electricity consumptions and costs	according to consumption points to be monitored/billed
	POWER METER	Analyses network providing data about power quality and main electrical parameters	according to project specifications

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