

APPLICATION NOTE

Give your buildings a new dimension

Saving costs by revamping public buildings



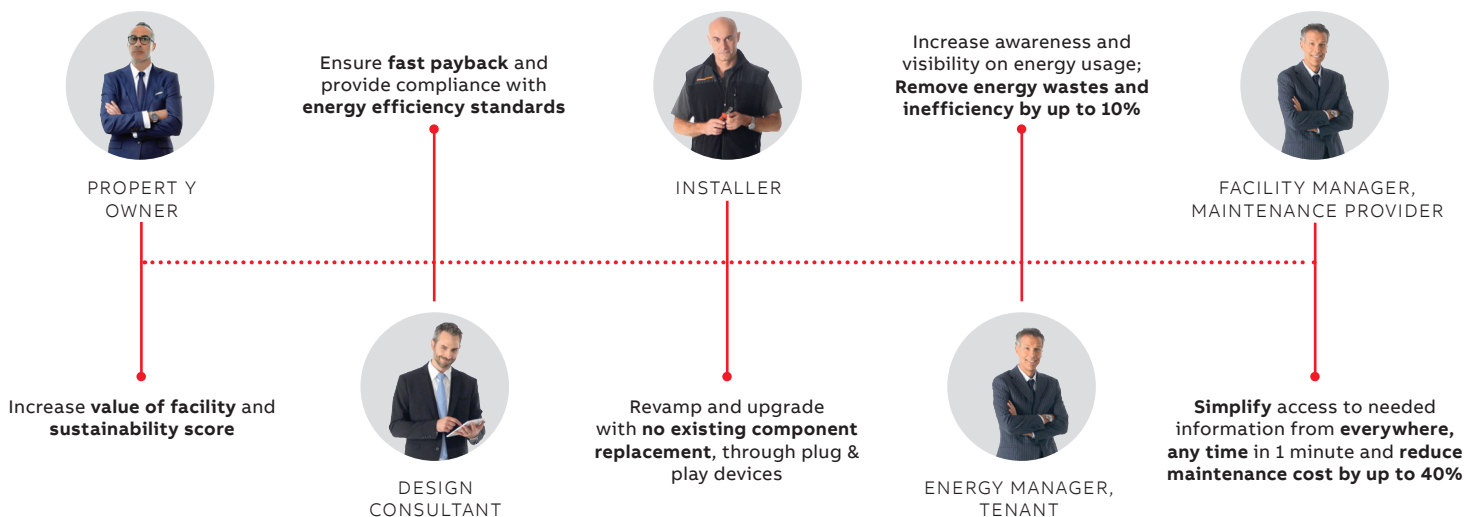
“Give your buildings a new dimension” allows retrofitting existing installations in public buildings and brings tangible advantages by leveraging digital services.

Use case description

One fifth of all carbon dioxide emissions are caused by public buildings.

The great majority of them is deemed energy inefficient and not compliant to consistently arising energy efficiency standards and regulations. Revamping old buildings can bring considerable advantages in terms of savings and sustainability.

Moreover, more and more cities are working to become smart: their digitalization starts turning buildings and infrastructures smart. Existing facilities should be connected easily, minimizing downtime to none, while improving service continuity, and operational costs optimization. No major changes or impacts on the apparatus installed in existing power distribution system is expected.



“Give your building a new dimension” ABB solution

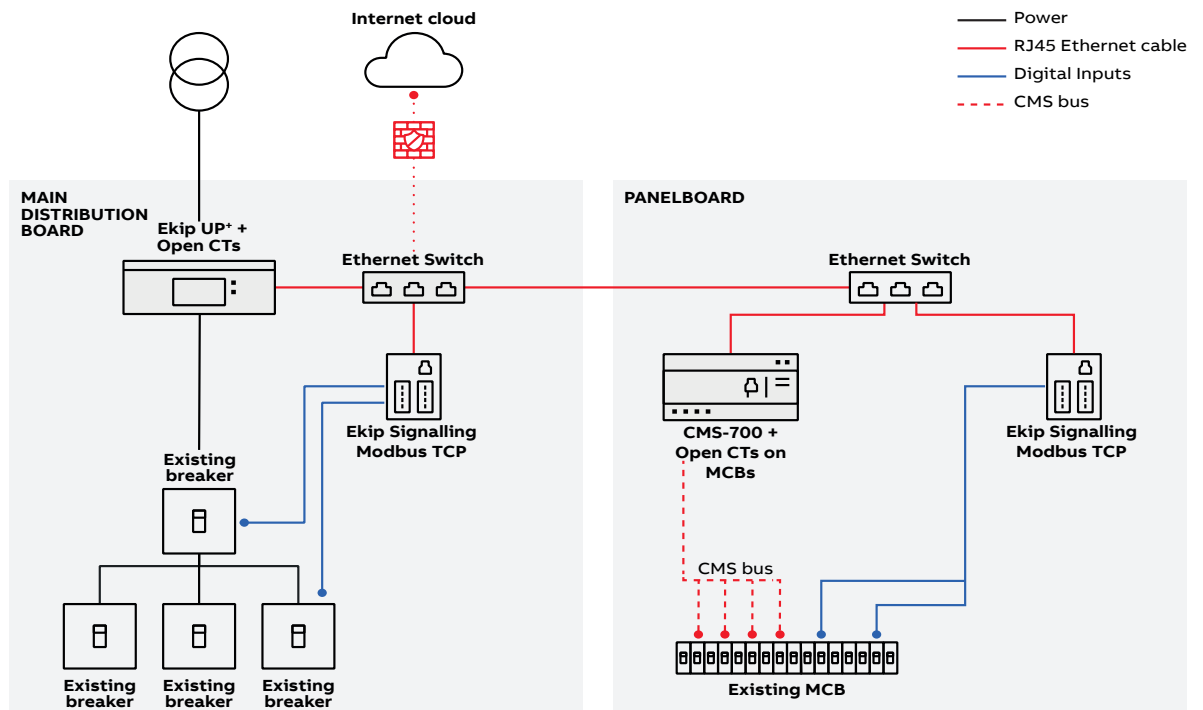
In this scenario, the Ekip UP* collects data from field devices. The Ekip UP* is connected to the breakers and, via an Ethernet switch, to the Ekip Signalling.

The breakers measure energy and power quality, while Ekip Signalling modules send information about status, alarms and the number of operations.

The CMS-700 in the panel is responsible for branch monitoring and is connected to the Ekip* UP via Modbus TCP/IP collects. It is also possible to control and check status of MCBs through Ekip signalling, connected to the same switch of the CMS-700.

This data, together with information collected by the Ekip UP*, then goes to the cloud and is made available on ABB Ability EAM for further analysis.

Suggested connection diagram



Shopping list

Components	What it does	Quantity	Additional information	
Connection to the system	EKIP UP*	Data collection from field devices and access point for communication to the cloud	According to number of lines to be monitored	Click here for more information
	CSM700	Control unit and sensors for branch circuit monitoring	According to number of lines to be monitored	Click here for more information
Connected devices	EKIP SIGNALLING	Collects states, alarms and number of operations from protection devices, performs control through digital outputs	According to number of protection devices to be monitored and controlled	Click here for more 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. Copyright© 2022 ABB. All rights reserved