

Factors affecting renovation

Product/Service/Solution	 Cost/funding Availability and amount Public/private funding; for instance, grants, loans, and so forth Changes in policy and programs; for instance, government for military or healthcare. Running costs post-installation	 Land/space availability Cost of purchase/lease Availability and accessibility to an existing or new site Space available for extensions of building or new equipment	 Type of existing structure Character and aesthetics Architectural imagery requirements, existing "build listing" constraints, efficiency/layout flexibility	 Time Time allocated before updated facilities are required Downtime to make changes?	 Accessibility to facility/information Access to site and support information Availability of up-to-date and accurate plans/drawings. Code compliance
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Panelboards and switchboards					
Retrofit panelboard	Y	Y	Y	Y	Y
Satellite panelboard shipments		Y	Y	Y	Y
Integrated Facilities System™ (IFS)	Y	Y		Y	Y
Field sales and satellite subject-matter experts	Y	Y	Y	Y	Y
Breaker replacement of fuses	Y	Y		Y	
Motor control centers					
Panelboard installation in existing MCCs	Y	Y		Y	
Power distribution section add-on to existing MCCs	Y	Y		Y	
Lighting control solutions for existing panelboards in MCCs	Y	Y		Y	Y
Two-week solution for above products				Y	
Dry-type distribution transformers					
Easy install		Y		Y	Y
HMT (Harmonic Mitigating Transformers)	Y				
CSL3 (highest efficiency transformer available)	Y				
Switching devices					
Flex Center products	Y	Y	Y	Y	Y
Elevator control switches				Y	Y
Quick-connect double-throw (QCDT) switches				Y	
Pringle® pressure switches	Y	Y			Y
Auxiliary power switch					Y
Solution center					
Energy audit	Y		Y	Y	Y
Lighting control	Y			Y	Y
HVAC control	Y			Y	Y
Tenant metering	Y			Y	Y
Site commissioning	Y			Y	Y
Enterprise-wide remote monitoring service	Y			Y	Y
Sustainability design service	Y			Y	Y
Energy metering	Y			Y	Y
Facility dashboard	Y			Y	Y
Busway					
Busway panelboard	Y	Y	Y	Y	
Busway measurement service	Y		Y	Y	Y
Bid Manager™ pricing and drawing tool				Y	Y
Busway Value Calculator	Y	Y	Y	Y	
Quick-Ship™ program				Y	
In-line meter main		Y		Y	

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PowerChain Management solutions help enterprises achieve sustainable and competitive advantages through proactive management of the power system as a strategic, integrated asset throughout its life cycle. With Eaton's distribution, generation and power quality equipment; full-scale engineering services; and information management systems, the power system is positioned to deliver powerful results; greater reliability; operating cost efficiencies; effective use of capital, enhanced safety, and risk mitigation.

Renovation capabilities and solutions



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 Printed in USA
 Publication No. BR08703003E / Z8128
 February 2009



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Four drivers to infrastructure change

DRIVER

Technology

Advancements, changes/upgrades

Audio/video, telecommunications, wireless communications, advancements in electrical distribution/control equipment

Factors affecting technology



DRIVER

Organization

Complete site(s) or local infrastructures

Including regions, company or departmental. Reasons include strategy/funding changes, company structural changes, office layouts, new tenant occupancies, changes in demand, and so forth

Factors affecting organization



DRIVER

Environment, health and safety

Security, environmental and electrical safety code changes

Air quality and HVAC control, electrical system safety (operations and maintenance), security service/facilities, energy monitoring/control (building efficiency)

Factors affecting environment, health and safety



DRIVER

Energy efficiency

Use of renewable energy sources and/or improvement in energy efficiency

Changing infrastructures for use with different energy sources and integrating equipment that will ultimately support reduction in energy consumption and improve the overall efficiency for the location

Factors affecting energy efficiency



Customer benefits

- Flexibility/scalability
- Technology upgrades
- Installed cost reduction
 - Labor saving—direct/indirect
 - Material reduction
- Incremental value to end users

1 Retrofit panelboard

Provides the only UL®-listed solution for replacing existing panelboard interiors in another manufacturer's listed back box that will enable reduced installed cost versus replacing the entire panelboard (interior, box and trim).

2 Integrated Facilities System (IFS)

Single, factory prewired system that combines distribution switchboards, dry-type distribution transformers, panelboards and automatic transfer switches. This flexible system enables a customized solution to be created that will simplify your ability to meet the potential space or other common constraints of an existing facility during a renovation project. It creates a clean, compact layout while reducing the amount of wall and floor space required. This system also reduces labor and installation costs, which will reduce the amount of time required to be on site.

3 Customized integration within existing structures

Through regional manufacturing facilities, Eaton offers customized panelboards, switchboards, motor control centers, enclosed control, enclosed breakers, safety switches and loadcenters. We can also add distribution loads within available spaces of motor control centers, which avoids using wall space and reduces installation time.

4 Harmonic Mitigating Transformers (HMTs)

Installation HMTs will clean harmful harmonics from the load, which is a vital part of upgrading existing electrical infrastructures within existing facilities. Key areas include institutions such as schools and hospitals, where, due to increased demands for technology improvements, there are greater harmonics through increased computer loads.

5 CSL3 (highest efficiency transformer available)

Meets U.S. Department of Energy Candidate Standard Level 3 (CSL3) for energy efficiency, which has significantly less losses than NEMA® TP-1 (CSL1) compliant transformers. The CSL3 is an option that can be easily integrated into an existing infrastructure when upgrading the electrical system, and it will reduce energy consumption and ultimately assist in earning LEED credits for the site.

6 Easy install mounting base dry-type transformers

This innovative new concept for the packaging and installation of high-volume transformers (75 kVA and below three-phase; 50 kVA and below single-phase) results in "palletless shipping." It, therefore, provides the installer with labor/time savings, increased workplace safety, reduced risk of equipment damage on site and an opportunity to be more environmentally friendly. Benefits are from the

elimination of having to remove/rock the transformer off of the shipping pallet, as is common practice, and ease of access to anchor points, allowing a single person to install the unit. The lack of a pallet means reduced material and no need for disposal.

7 Custom safety switches and loadcenters through Eaton's Flex Centers

Eaton's Flex Centers have the capability of designing and modifying safety switches, enclosed circuit breakers, rotary disconnects and loadcenters for unique customer needs. These needs are not met by standard products and are common occurrences when renovating an existing facility. A key characteristic of the Flex Centers is that they are able to offer and deliver anything from a single customized unit up to multiple or large manufacturing batches.

8 Quick-connect double-throw switches

QCDD switches provide a safe and quick means of connecting portable generators to facilities, and transferring the building to backup power. With growing concerns and the need to reduce downtime through power outages, the QCDD is a perfect product to integrate into any renovation project that has a requirement for backup power and the need to quickly and safely hook up a generator when an outage occurs. The QCDD is a complete UL-listed product offering and complements/aligns with the National Electrical Code® considerations.

9 Energy audit

During initial planning of a project, discover the opportunities for energy savings and greenhouse gas reduction by utilizing Eaton's expertise of site audits from our fully qualified engineers. Not only could there be opportunity to reduce future energy costs and obtain LEED

credits, but also through the use of other Eaton renovation solutions other opportunities for cost savings may be identified—for instance, space, installation and commissioning time.

10 Lighting control

The complete Pow-R-Command™ Lighting Control product offering and supporting commissioning provides an opportunity to integrate the latest technologies during any renovation or changes to existing infrastructures. In addition, with the introduction of a complete wireless lighting control package, installation time and interruption of the day-to-day running of the facility can be greatly reduced while still offering energy management and environmental control benefits to the tenants/users.

11 Busway panelboards

This line of panelboards plug directly onto the busway, which provides an excellent opportunity for space saving, lower installed cost and flexibility in existing or future layouts as the boards can be moved, changed or added with limited disruption. The savings are material- and labor-related, due to the reduction in cable and conduit that is replaced by the plug-in design.

12 Busway measurement service

With factory-trained personnel, we are able to offer on-site layout measurement services, where we will take full responsibility of measurements and ensure exact fit of the busway within an existing structure. This not only reduces risk of costly mistakes through mismeasurement, but it is also an opportunity for the highly experienced team to offer suggestions of ways that could help make installation and commissioning of the busway easier and quicker.

13 Regional manufacturing Satellite and Service Centers

Eaton's 34 regional facilities in the U.S. and Canada offer products and services customized just for your renovation project. Renovation solutions that these locations deliver and support every day within your community include:

- Customized transition to existing equipment—advice, design development and manufacturing
- Special enclosure and paint finishes
- Customized control schemes—ability and expertise to design and deliver an MCC with a control scheme that meets your exact requirements, whatever the existing infrastructure or site
- Customized service—however, wherever and whenever you need the equipment shipped, the local facilities can work hand-in-hand with you to make sure your expectations and requirements are met, 24 hours a day, 7 days a week