

Esca Co., Ltd. | Portable UPS for Restoration-Time Incidents During Scheduled Power Outages

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Overview

At Esca Underground Shopping Center in Nagoya, scheduled whole-building outages for statutory inspection exposed a different risk: communications and business systems became unstable when utility power returned. Rather than backing up the entire facility, critical telephone, Internet, and management communications were isolated onto a portable UPS and kept running without interruption through outage and restoration.

Case Answer

Protect the communications path rather than the entire facility, and pass through outage and restoration without interruption

At Esca Underground Shopping Center, the whole-building outage required for statutory inspection was itself a planned maintenance activity. The operational problem appeared when utility power returned: telephone and Internet equipment became unstable, delaying the recovery of business operations.

An underground commercial facility still has work to perform during an outage, including staff deployment, guidance, safety checks, tenant support, and communications with security, maintenance, and facility-management companies. The requirement was therefore not to keep the entire facility energized, but to isolate the communications and control systems needed to keep those tasks functioning as critical loads.

The implemented design consolidates communications, telephone, and network equipment onto a portable UPS and keeps the path powered without interruption through both the outage and the restoration sequence. Against recent whole-building outages of roughly six hours, the communications infrastructure was configured for more than approximately ten hours of continuity.

This reduced the need for staff to remain on site before and after the outage to shut down and restart devices individually. It also separated communications equipment from restoration-time inrush current, surges, and variation caused by manual re-energization. The statutory outage became a maintenance event that communications could pass through continuously rather than a special emergency operation.

Scope

- Esca Underground Shopping Center, directly connected to the Shinkansen side of Nagoya Station
- Telephone, Internet, and management communications
- Communications and control systems that must remain available during statutory inspection

outages

Constraints

- Scheduled whole-building outages occur periodically for statutory inspection
- Avoid communications failures caused by restoration-time inrush current, surges, and manual re-energization
- Protect only the loads that must not stop rather than backing up the entire facility
- Reduce dependence on staff presence, manual shutdown, and manual restart before and after the outage

Evidence / References

Kei Communication Technology Inc. installation and deployment record for this case

Supports: Whole-building statutory inspection outages at Esca Underground Shopping Center, communications instability during restoration, and no-break operation of telephone and network equipment using a portable UPS

URL: <https://www.ieee802.co.jp/cases/case-002-esca-en.php>

Esca Co., Ltd. portable UPS case-study material

Supports: Customer-approved public material describing restoration-time risk during statutory outages and the portable UPS implementation

URL: <https://www.ieee802.co.jp/downloads/cases/case002.pdf>

Original Source

<https://www.ieee802.co.jp/cases/case-002-esca-en.php>

Citation

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