



Cold Harbor Data Center Power Upgrades

Commonwealth Office of Technology
Frankfort, Kentucky

Owner

Commonwealth of Kentucky
Frankfort, Kentucky

Contact

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Cost

\$1,500,000



This facility is the primary data center for the Commonwealth of Kentucky governmental operations. It houses processing and storage equipment required for such functions as tax reporting, licensing, county clerk record keeping, state police mobile computing, lottery record keeping and miscellaneous administrative functions. The facility also hosts co-located services for outside entities.

In 2006, CMTA was asked to perform a power system reliability analysis after an equipment failure caused an unplanned shutdown. This analysis involved the entire power distribution system including the dual utility feed, campus central utility plant, building distribution, floor distribution and its effects on cooling system reliability. Hands-on inspection and documentation revealed several areas for reliability improvement in this 1970's facility. Many of these recommendations are being implemented over the next few years as budget allows.

The first phase of reliability upgrades installed two parallel 625KVA static UPS systems, a new 13.2KV-480V substation, and modified the distribution system. These changes will supplement the existing 500KVA rotary UPS system to provide totally redundant 'A' and 'B' power feeds for each ITS equipment floor. All work was planned, phased and coordinated to be accomplished with one power outage for changeover.

The second phase of upgrades will systematically replace all power circuits to ITS equipment on each floor. New modular power distribution units will be placed at aisle ends and provide easy overhead access to 'A' and 'B' power sources for all racks. The existing underfloor feeds from central distribution panels will be removed after changeover to the new system. A third static-transfer source-select distribution riser will also be installed to supply single-corded equipment. This project is presently under design.