FutureFLEX™
AIR-BLOWN FIBER

SUMITOMO ELECTRIC LIGHTWAVE

FutureFLEX Air-blown Fiber

Energy Application

For the ZERO Downtime Network

FutureFLEX Benefits

- Provides unprecedented safety for fiber installations, upgrades, and expansions
- Requires NO construction work and eliminates all disruption for network projects contributing to substation and power facility safety
- Splice-free fiber runs eliminate potential points of failure for increased reliability of process control systems and critical assets
- Resolves congested conduit
- Creates a real-time, responsive, network with fast and easy fiber installations, upgrades, and reconfigurations even in secure and dangerous areas
- Saves 70 to 90 % of the time and costs of traditional cabling for fiber installations, restorations, upgrades, and expansions
- Accomplishes network projects in minutes or hours VS days, weeks, or months
- Environmentally green & sustainable….plus more

Contact Us Today:

Phone: 877-356-3539

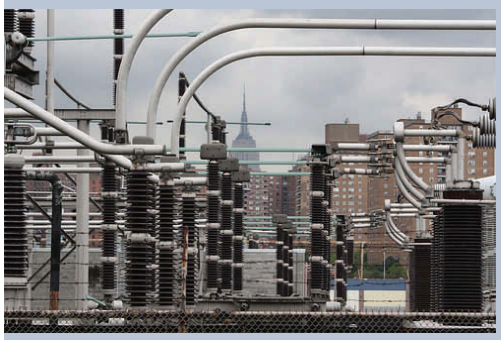
Email:
info@futureflex.com

Visit us at…
www.futureflex.com

Con Edison Chooses FutureFLEX for Process Control System Reliability, Fast Restoration, Quick Upgrades, and Safety

Con Edison, one of the nation's largest investor-owned energy companies, providing electric, gas and steam service to more than 3 million customers in New York City and Westchester County, New York, is a longstanding and valued customer of Sumitomo's FutureFLEX Air-blown Fiber System. Troubled by congested conduit in its historic 4 Irving Place headquarters, Con Edison first deployed FutureFLEX in 2003 by installing a FutureFLEX tube cable pathway in the development of its new redundant IT backbone. With FutureFLEX, Con Edison acquired virtually unlimited fiber, bandwidth and pathway capacity. Ultimately, FutureFLEX provided Con Edison with a safe, real-time, immediately scalable, environmentally sustainable, and non-disruptive fiber optic network. Hearing about the success and the many benefits of the FutureFLEX system , Con Edison's Power Distribution team visited headquarters and immediately realized the overwhelming positive impact FutureFLEX would make on Con Edison's substations and power generation facilities.

In 2005, FutureFLEX tube cable (consisting of 19 smaller empty tubes) was installed beneath the busy road to form the fiber pathway interconnecting Con Edison's Farragut substation control house to the substation yards. Unlike conventional cabling systems, that FutureFLEX pathway and road would never again be disrupted or re-entered. Through the FutureFLEX pathway system, the EXACT counts and fiber types required were quickly and easily blown from the substation control houses to the substation yards to support the new breakers, switches, transformers and other critical assets to SCADA and other automated control systems in a continuous, splice-free fiber run. FutureFLEX's splice-free fiber run eliminated potential points of failure, significantly increasing the reliability of all critical assets and process control systems, which, if compromised, could impact the integrity of the electric grid. Moreover, the FutureFLEX fiber installation was done quickly and safely behind the scenes in a control room. Had a conventional cabling system been adopted, conventional cabling construction crews would have to re-enter the road, ceilings and all conduit pathways multiple times, first to pull innerduct and then to pull the fiber optic cable — risking potential fiber damage, outages, and causing needless disruption to the substation facility. A conventional cabling system also would have required the installation of dark fiber that typically has a 5 to 6 year life cycle, making upgrades an expensive and labor intensive endeavor. With FutureFLEX, the substations can now blow the exact fiber requirements in and out of the network quickly and easily (even in highly dangerous and secure areas) at a moment's notice, upgrading in minutes or hours to the latest technologies for physical security, automation control systems, and new NERC (North American Electric Reliability Council) standards. A similar FutureFLEX project was done later at Con Edison's Gowanus substation.



More recent and ongoing FutureFLEX installations include Con Edison's East River generation facility. The facility was transitioning their automation control systems from copper to fiber due to electrostatic interference, while dealing with an existing pathway that was convoluted and hazardous, high over live equipment, and very congested. A FutureFLEX redundant backbone pathway was installed. Fiber was blown requiring NO construction crews for even the most hard to reach and secure areas, allowing Con Edison to upgrade new monitoring equipment and transformers whenever they wish without the safety concerns, hazards, delays, and downtime associated with conventional cabling systems.

FutureFLEX…Delivering Change, Security, and Fast Restoration

The utility industry is undergoing a historic transformation with new and uncertain federal regulatory and policy changes, and emerging smart grid mandates. Since FutureFLEX facilitates fiber installations, reconfigurations, upgrades, and expansions, in minutes or hours versus the days, weeks, or months associated with conventional cabling systems, Con Edison has created an immediately responsive network to meet whatever changes arise. FutureFLEX also eliminates security concerns of screening installation crews per NERC vulnerability and threat provisions, since FutureFLEX requires neither construction work nor construction crews for upgrades and other network projects as is necessary with traditional cabling systems. FutureFLEX also provides faster restorations, ensuring that Con Edison is up and running in a fraction of the time. With FutureFLEX, Con Edison is literally ready for anything !