

Replacement of GIS equipment by Duresca® Busbar

145 kV and 1250 A

Ecological and Maintenance Free!



The PEPCO (Potomac Electric Power Co.), an utility company in USA, reviewed its old substation located at downtown Washington's Chinatown last year. This substation was 40 years in operation and this period is the common life time of a normal substation equipment. The main equipment, a regulating transformer, a special kind of transformer, is responsible to regulates the flow of electricity in the District of Columbia and parts of Montgomery County, Md. The replacement transformer needed two years to be delivered at the site. This new equipment makes the same job as the old one, but the new one has several devices to make the supervision in the transformer operation.



To follow these technological improvements and to keep this substation full time in operation without fails, PEPCO installed DURESCA® bus bars in this substation.

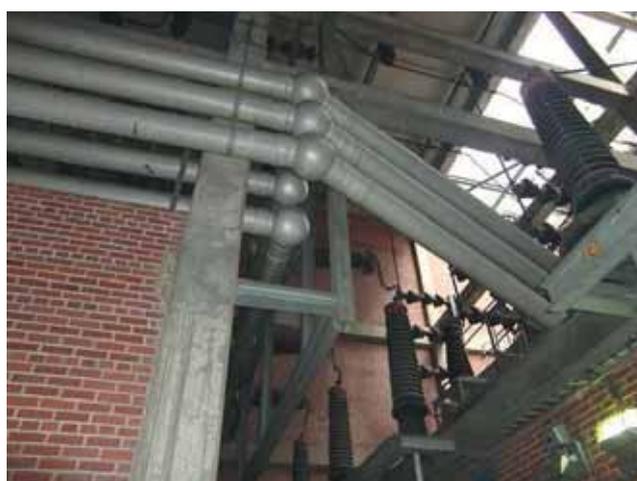
DURESCA® is the perfect solution for saving space, connecting GIS equipment, keeping the complete system in operation with free maintenance and getting a long life time. DURESCA® may be installed in outdoor or indoor areas without additional protection, because itself is already protected by a polyamide tube which prevents the action of UV rays, humidity and pollution.

This specific installation is for 145 kV fully insulated and touch safe. The insulation for this high voltage level is guaranteed by the RIP (Resin Impregnated Paper) technology applied at DURESCA® bus bars. The DURESCA® bus bar system is a compact design and guarantees a safe area for the employees of the substation.

DURESCA® bus bars are factory tested individually to ensure the perfect operation of the complete system. There are many details in DURESCA® bus bars to guarantee just one thing: keep your system in operation.



Substation with existing old GIS equipment:



This old solution presented a lot of problems in the PEPCO substation, including leakage of the insulating gas. A quick view at the pictures above may show potential leakage points in the installation.

To ensure the reliability of the reviewed substation, now with the new regulating transformer, PEPCO decided to install the DURESCA® bus bars instead of gas insulated system. This system is composed of "eco" dielectric materials, such as compressed papers and naturally occurring resins, which are viewed as more environmentally friendly. The combination of increase reliability, resources maximization and reduced environmental impact is good news for long-term goals of constantly improving reliability. In this way, DURESCA® solution is beyond as alternative bus bar system in the market because it may keep the advantages of GIS solution as compact dimensions and correct regular problems of GIS bus bars as leakage and high cost for maintenance.

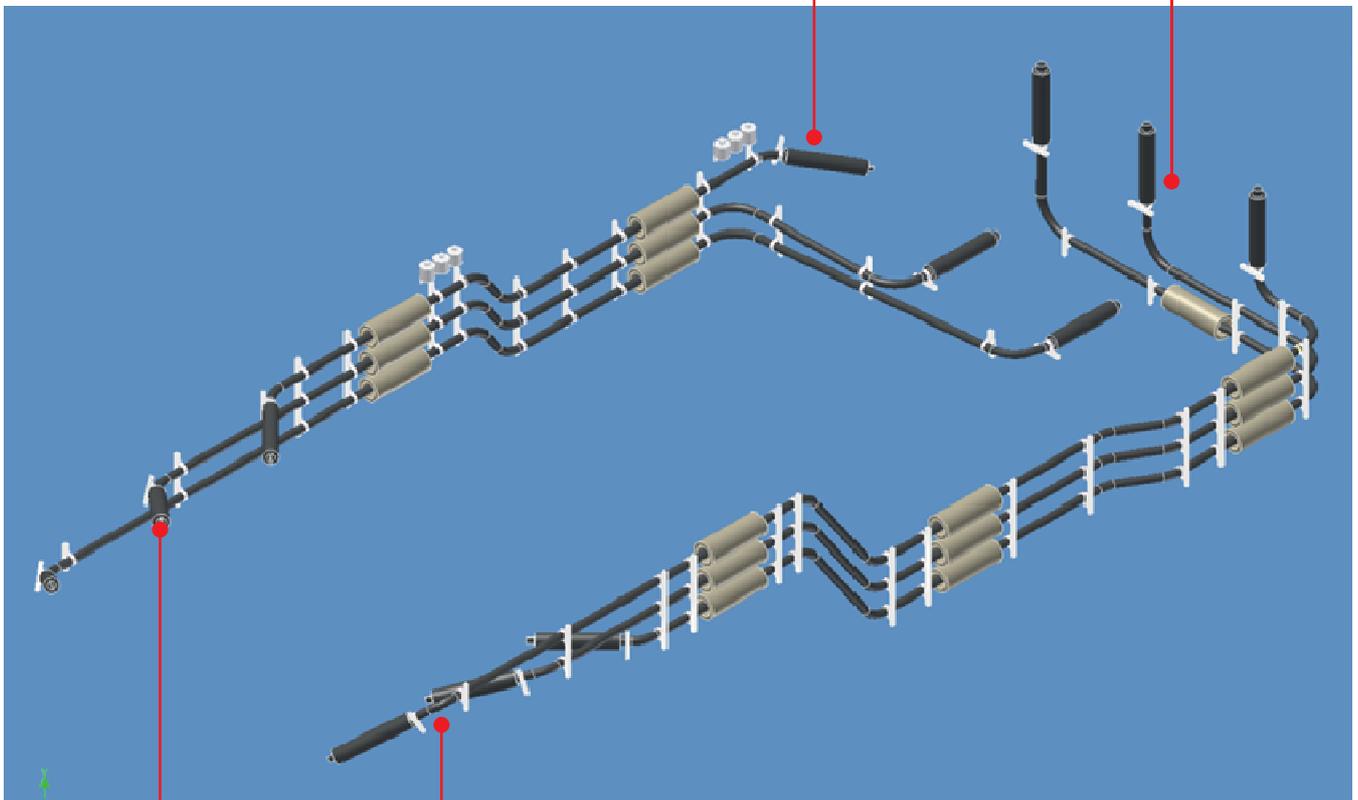
Scope of MGC Moser-Glaser equipments (1st step of Project):

- 168 meters of bus bars
- 16 pieces of sleeves
- 12 pieces of flexible connectors
- Support material
- Earthing material of the system
- Complete set of accessories to assembly the system
- Installation works
- All documents and drawings for assembly



Outgoing line disconnecter termination

Incoming line cable termination



Connection to the regulating transformer