

# Gas-insulated Substation Projects



## Fisk

Client: Commonwealth Edison  
Location: Chicago, IL  
Voltage: 345-kV  
GIS Equipment: Siemens  
Configuration: 345-kV 4 breaker (10 breaker ultimate) ring bus

Scope of Work: Permitting, engineering, design, support for procurement, construction management, materials management and quality control/surveillance.

Completed: 2011



## Tucson Station

Client: Unisource/Tucson Electric  
Location: Tucson, AZ  
Voltage: 138-kV  
GIS Equipment: Siemens  
Configuration: 138-kV ring bus

Scope of Work: Engineering, design, support for procurement and technical support during construction.

Completed: 2010



## RB-3

Client: BP Whiting Refinery  
Location: Whiting, IN  
Voltage: 138-kV  
GIS Equipment: ABB  
Configuration: 138-kV ring bus

Scope of Work: Engineering, design, support for procurement, electrical testing and commissioning.

Completed: 2009  
(RB-1, RB-2 & RB-4 completed in 1980s, same scope of work)

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## Waterside West

Client: Louisville Gas & Electric  
Location: Louisville, KY  
Voltage: 138/13.8-kV  
GIS Equipment: ABB  
Configuration: 138-kV 8 breaker ring bus

Scope of Work: Overall program management, engineering and design, procurement support, construction management and commissioning.

Completed: 2008



## West Loop

Client: Commonwealth Edison  
Location: Chicago, IL  
Voltage: 345/132-kV  
GIS Equipment: Siemens  
Configuration: 345-kV 6 breaker ring bus

Scope of Work: Engineering and design, procurement support, technical support during construction.

Completed: 2008



## Collman

Client: NV Energy  
Location: Las Vegas, NV  
Voltage: 138/12-kV  
GIS Equipment: ABB  
Configuration: 138-kV 6 breaker ring bus

Scope of Work: Permitting and public outreach support, surveying, geotechnical investigation, engineering, design and support for procurement.

Completed: Engineering completed 2008, construction currently on-hold.

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## Anaheim

Client: City of Anaheim  
Location: Anaheim, CA  
Voltage: 69/13.8-kV  
GIS Equipment: Areva, Siemens  
Configuration: 8 breaker main & transfer

Scope of Work: Owner's engineer.

Completed: 2008



## Waverly

Client: PECO  
Location: Philadelphia, PA  
Voltage: 69-kV  
GIS Equipment: ABB  
Configuration: T-configuration

Scope of Work: Engineering and design, procurement support, technical support during construction.

Completed: 2007



## Vermont

Client: City of Anaheim  
Location: Anaheim, CA  
Voltage: 230/69-kV  
GIS Equipment: ABB  
Configuration: 6 breaker-and-a-half

Scope of Work: Owner's Engineer.

Completed: 2007

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## Park

Client: City of Anaheim  
Location: Anaheim, CA  
Voltage: 69/23.8-kV  
GIS Equipment: Siemens  
Configuration: 23.8-kV double-bus,  
double-breaker

Scope of Work: Owner's Engineer.

Completed: 2006



## Grenshaw

Client: Commonwealth Edison  
Location: Chicago, IL  
Voltage: 138/13.2-kV  
GIS Equipment: Mitsubishi  
Configuration: 138-kV 4 breaker  
ring bus

Scope of Work: Engineering and  
design, procurement support, technical  
support during construction.

Completed: 2006



## Grand/Ohio

Client: Commonwealth Edison  
Location: Chicago, IL  
Voltage: 138/13.2-kV  
GIS Equipment: ABB  
Configuration: 138-kV 9 breaker  
ring bus

Scope of Work: Engineering and  
design, procurement support,  
construction management, electrical  
testing and commissioning.

Completed: 2004

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## Madison

Client: Commonwealth Edison  
Location: Chicago, CA  
Voltage: 138/13.2-kV  
GIS Equipment: Mitsubishi  
Configuration: 138-kV 8 breaker ring bus

Scope of Work: Engineering and design, procurement support, construction management, electrical testing and commissioning.

Completed: 2004



## State Street

Client: Commonwealth Edison  
Location: Chicago, IL  
Voltage: 138/13.2-kV  
GIS Equipment: ABB  
Configuration: 138-kV 8 breaker ring bus

Scope of Work: Engineering and design, procurement support, construction management, electrical testing and commissioning.

Completed: 2002



## Kingsbury

Client: Commonwealth Edison  
Location: Chicago, IL  
Voltage: 138/13.2-kV  
GIS Equipment: Enclosed substation, no GIS equipment.  
Configuration: 4 138/13.2-kV transformers, 2-13.2-kV ring buses

Scope of Work: Engineering and design, procurement support, construction management, electrical testing and commissioning.

Completed: 2001