

# Gas Insulated Bus

Reliable, cost-effective  
long-distance  
power transmission

 **AVAIL**™  
Bus Systems



# Flexible. Powerful. Efficient.

In today's environment, grid designers increasingly encounter situations where overhead lines or buried cables are not suitable for high voltage transmission. Avail Gas Insulated Bus (GIB) solutions help meet modern electrical system demands with leading options that can transport bulk power with maximum reliability and minimal losses.

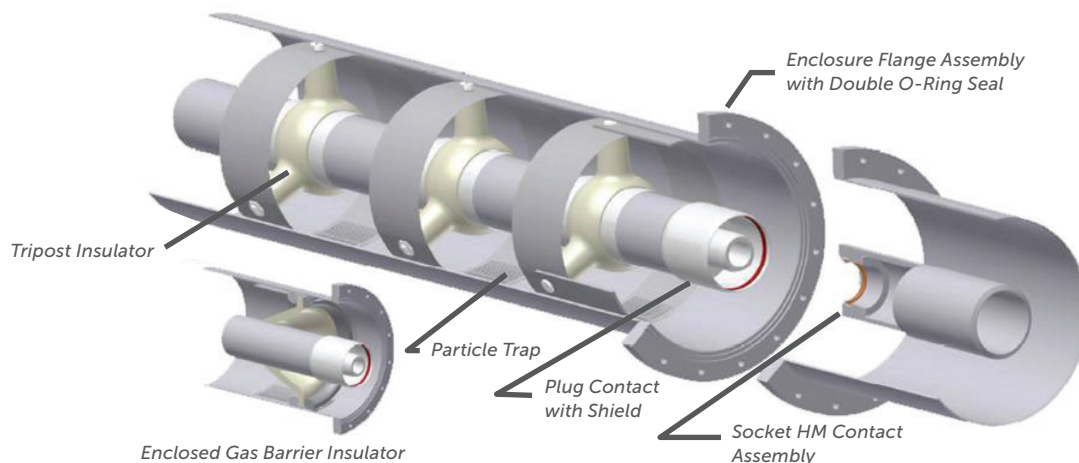
## Designed to accommodate any installation constraint

Gas Insulated Bus (GIB) installations have been utilized in every feasible layout while carrying high power ratings without requiring multiple circuits. GIB systems offer high transmission capacity, superior electromagnetic compatibility, low losses, high safety, reduced maintenance and flexible installation options.

## Avail delivers a powerful solution

Avail GIB systems provide a compact, reliable and economical alternative to conventional cable systems and overhead lines for power transmission. With a design that minimizes right-of-way requirements, these installations provide safer operating conditions than air insulated equipment or conventional cable systems. Standard Avail systems are suitable for transmission voltages from 115 kV to 1200 kV, with continuous current ratings as high as 8000 amperes.

Simple and inexpensive interfaces are available for almost all types of high voltage equipment, including gas insulated switchgear (GIS), transformers, oil cables and XLPE cables. Avail designs and supplies the interface to any substation equipment, regardless of whether the substation interface equipment is supplied by Avail or by others. Connections to air insulated substations and transmission lines are easily accomplished through the use of SF6 to air bushings.





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- 1 Transmission Line Crossings
- 2 Hydro Power Plants
- 3 Power Plant Optimization
- 4 Below Grade Transmission
- 5 Buried Underground Installation
- 6 Elevated Installations
- 7 Substation Extensions and Retrofits
- 8 Low Profile Substations

## Applications

- Transmission/Utility line crossings
- Hydro power plants
- Power plant optimization
- Below grade transmission for underground installation
- Elevated installations
- Substation extensions and retrofits
- Low profile substations

## Avail GIB System Advantages

- Low profile design
- Section lengths of up to 60 ft., minimize installation costs
- Tri-Trap® design reduces in-service failures from contaminants
- Compatible with any gas insulated switchgear (GIS) manufacturer

## Advantages over Cable Systems

- Higher current-carrying capacity than fluid-filled or XLPE cable systems
- Versatile routing options
- Fabricated elbow design enables 90° turns and changes in direction at any angle
- Specifically designed for long distance power transmission
- 50-year operating life with high reliability

## Avail High Voltage Bus Experience

- Over 200 systems installed since 1972
- Projects on 6 continents
- Total supplied length exceeds 120 miles
- Interfaces with multiple GIS, transformer and bushing OEMs
- 130 bus systems with GIS projects
- Installation supervision or full turnkey installation



[availinfra.com/bus-systems](http://availinfra.com/bus-systems)

51 Alder Street  
Medway, MA 02053  
Phone: (774) 854-0686