

# Mobile Substation Solutions

*Mobile Substation Solutions for Any Application*

## APPLICATIONS

For over 20 years Powell's Mobile Substation Solutions have offered a versatile way to quickly deploy and distribute power wherever it is needed. Applications can vary and range across a wide variety of industries. Mobile substations can be used in the utility market to distribute emergency temporary power or they can be used in conjunction mobile turbine generation units to distribute power when and where needed.

Unlike permanently installed buildings, where trenches and conduit for underground cables is required, Powell's solution provides a method to quickly deploy and distribute power in any location for any use. Mobile substations do not require a dedication foundation and the trailer can be set and leveled on any prepared surface with jack stands.

## DESIGN CONCEPT

Powell's Mobile Substations incorporate electrical distribution equipment, enclosed within a weatherproof housing, mounted on a semi-trailer suitable for transport to any location where temporary power distribution is needed. Enclosure is designed to exact customer specifications. The weatherproof enclosure is constructed of interlocking panels to provide environmental protection for the electrical distribution equipment and any auxiliary equipment. Wall/Ceiling insulation can be provided along with a wall-mounted HVAC unit to maintain environmental control within the substation. The entire mobile assembly meets applicable Department of Transportation requirements for overall shipping size and weight limitations as required.



Typical Powell Mobile Substation ready for transport



View with exterior weather-proof doors open for breaker/instrument access

- Temporary Emergency Power Distribution
- Temporary Turnaround Power Distribution
- Portable Power Generation
- Mobile Traction Power Substations

## DESIGN CONFIGURATIONS

Trailers are generally available in a 2-axle or 3-axle configuration and are equipped with appropriate lights and reflectors as required by DOT regulations. Temporary cabling can be connected to the electrical distribution equipment from the bottom via cable penetration plates within the switchgear cable compartment and cable openings incorporated into the trailer design. Aluminum stairs and landings can be provided as an option for ease of access and maintenance purposes after installation. Powell's Mobile Substation can incorporate walk-in space to provide a sheltered environment for the operator and to house auxiliary equipment such as battery systems, relays panels, junction boxes, or remote breaker control panels. The sheltered space can be provided with a wall-mount HVAC unit or mechanical ventilation.



Typical Mobile Substation Assembly

### Benefits

- Ready for quick installation and connection to provide emergency power distribution
- Highway Compatible design
- Trailer title directly transfers to the customer
- Weatherproof equipment front and rear access doors built-in to the trailer design
- May be exempt Building or Energy code requirements based on the installation location
- Portable and reliable method for providing emergency or temporary power distribution



Typical Mobile Substation Assembly