

**North Carolina Department of Transportation  
Division of Highways  
Traffic Engineering and Safety Systems Branch**

**STANDARD PRACTICE  
on  
Provisions for Generator-powered Traffic Signals**

**Practice Statement:**

It is the standard practice of the Department to install traffic signals with no provisions for alternative electrical energy resources. Where an agency has deemed it prudent to provide a portable generator as an alternate electrical source for powering traffic signals on the State Highway System, electrical services shall be in substantial compliance with the drawings titled, "Typical Electrical Service for Traffic Signals with Emergency Generator Provisions." Modified electrical services shall be installed in accordance with the latest edition of the National Electrical Code and all local codes.

**Request Procedures for Emergency Generator Provisions:**

The requesting agency or authority submits all requests for adding provisions for generator-powered traffic signals to the Division Engineer. The Division Engineer will consider potential safety improvements, the benefits of maintaining operational efficiency during an extended power outage, and other factors in evaluating the request and will respond to the requesting agency or authority, with a copy to the State ITS and Signals Engineer.

**Interagency Agreement Requirements:**

The requesting agency or authority must enter into a binding Agreement with the Department. Each agreement shall stipulate Department construction compliance criteria and funding responsibilities for the installation and maintenance of the modified electrical service. The requesting agency will be responsible for all costs associated with installing and maintaining the modified electrical services.

**Contractor Requirements:**

A contractor performing this work must be a Licensed electrical contractor in North Carolina and must be listed as a prequalified bidder or subcontractor with the Department.

**Material Requirements:**

All materials and equipment must be on the Traffic Signal Equipment Qualified Products List or be approved prior to installation by the Traffic Engineering and Safety Systems Branch to insure suitability for the application.

**Deployment of Generators:**

Requesting agencies will be solely responsible for determining the need to deploy generators to power signalized intersections based on engineering judgement and/or a priority list. All costs associated with the deployment, operation, and maintenance of the generators will be the responsibility of the agency that deploys the generators. In the event there is any traffic signal equipment damage resulting from the use of a generator, the deploying agency shall be responsible for all repair costs, including Departmental labor costs.