

Chicopee Woods Agricultural Center – Generator Transfer Switch Feasibility Assessment

To: Kivey@hallcounty.org

Subject: Chicopee Agricultural Center - Generator Transfer Switch Feasibility Assessment

Kivey,

I am putting together a feasibility assessment for a proposed 400-amp manual generator transfer switch at the Chicopee Agricultural Center, located at 1855 Calvary Church Road in Gainesville, Georgia.

Based on the information gathered to date, the following summarizes the facility and the need for the proposed project.

Facility Information

- Facility: Chicopee Agricultural Center
- Address: 1855 Calvary Church Road, Gainesville, Georgia
- Approximately 9,000 square feet
- Existing electrical service: 400 amps, 208 volts, three-phase
- The building is entirely electric, including its heating system
- Heating is provided by electric strip heat

Polling/Election Function

The Chicopee Agricultural Center is used as a polling/voting location. Because elections may take place during the colder months, including November, the facility needs to be capable of remaining operational if commercial electrical service is interrupted by an ice storm, snowstorm, tornado, hurricane, or other severe-weather event.

A prolonged power outage could result in the loss of building heat, lighting, receptacle power, voting equipment, communications, and other electrical systems necessary to operate the polling location.

Maintaining electrical service during an emergency is therefore important to maintaining the facility's ability to serve voters and support election operations.

Emergency Agricultural/Animal Shelter Function

In addition to its use as a polling location, the Chicopee Agricultural Center is also utilized as a State of Georgia emergency equine/large-animal facility.

During a major emergency or natural disaster, such as a hurricane or tornado, the facility can be used as an emergency location for people who need to evacuate horses, cattle, and other large animals.

This additional emergency function increases the importance of maintaining electrical power at the facility during a disaster. Electrical power would be necessary to maintain lighting, heating, receptacles, communications, and other building systems needed to safely operate the facility.

Existing Emergency Generator

Hall County currently owns a portable 250 kW emergency generator that can be transported to the Chicopee Agricultural Center when commercial power is unavailable.

The generator has sufficient capacity to support the building's electrical requirements, including the electric heating system and the electrical loads necessary to maintain operation of the facility.

Proposed Project

The proposed project is the installation of a 400-amp manual transfer switch to provide a permanent and safe connection point for Hall County's portable 250 kW generator.

The proposed transfer switch would be installed outdoors near the existing Georgia Power transformer, approximately 75 feet from the building.

The transfer switch would allow the entire building to be supplied by the portable generator during an emergency power outage. This would eliminate the need to establish temporary individual electrical connections throughout the facility during an emergency and would allow the County to more efficiently deploy its existing emergency generator.

Feasibility

Based on the existing 400-amp, 208-volt, three-phase electrical service, the availability of the County's 250 kW portable generator, and the proposed location of the transfer switch, the project appears to be technically feasible and provides a practical method of utilizing existing County equipment to provide emergency power to the facility.

The project would not require the purchase of a dedicated permanent generator for the

building. Instead, the proposed transfer switch would provide the necessary infrastructure to connect the County's existing portable generator when needed.

The project would improve the facility's ability to maintain heating, lighting, voting equipment, receptacle power, communications, and other necessary electrical functions during a utility outage.

It would also improve the County's ability to maintain the Chicopee Agricultural Center as an emergency large-animal facility during a natural disaster or other statewide emergency.

Final installation details, including equipment specifications, conductor and conduit requirements, grounding and bonding, generator connection requirements, and coordination with Georgia Power, would be verified as part of the final design and installation process.

Conclusion

The proposed 400-amp manual transfer switch represents a practical and cost-effective improvement to an existing County facility that serves two important public functions: an election polling location and an emergency large-animal sheltering facility.

By providing a permanent connection point for Hall County's existing 250 kW portable generator, the project would improve the County's ability to maintain critical operations at the Chicopee Agricultural Center when commercial power is lost because of severe weather or another emergency.

I believe this information provides a solid foundation for the feasibility documentation required for the grant, and I will continue to add any additional information that may be needed.

Thank you,

Kevin