

Murrayville Library – Generator Transfer Switch Feasibility Assessment

To: Kivey@hallcounty.org

Subject: Murrayville Library – Generator Transfer Switch Feasibility Assessment

Kivey,

I am putting together a feasibility assessment for a proposed 400-amp manual generator transfer switch at the Murrayville Branch Library in Hall County, Georgia.

FACILITY INFORMATION

- Murrayville Branch Library, 4796 Thompson Bridge Road, Gainesville, Georgia.
- Existing electrical service: 400 amps, 208 volts, three-phase.
- The facility is heated by natural gas rather than electric strip heat.
- The lower electrical heating demand makes the facility particularly suitable for emergency generator operation during winter weather events.

POLLING/ELECTION FUNCTION

The Murrayville Library is used as a polling/election location. Maintaining electrical power during an outage is important to support voting operations, including lighting, voting equipment, receptacle power, communications, and other necessary electrical systems.

A severe-weather event resulting in a prolonged electrical outage could otherwise interfere with the facility's ability to function as a polling location.

EMERGENCY WARMING STATION

The Murrayville Library can also serve as a community warming station during severe winter weather and extended power outages.

There is no other warming station within approximately five miles of this County facility. This makes the ability to provide a reliable, heated location for residents particularly important during a winter emergency.

Because the building uses natural-gas heat, emergency generator power can be used primarily to maintain the electrical systems necessary to operate the facility while the existing gas heating system provides the required heat.

EXISTING EMERGENCY GENERATOR

Hall County has a 200 kW portable emergency generator available for deployment to this facility during an emergency.

The proposed transfer switch would provide a permanent and safe connection point for the County's portable generator rather than requiring temporary electrical connections to be established during an emergency.

PROPOSED PROJECT

The proposed project is the installation of a 400-amp manual generator transfer switch.

The transfer switch would be installed outdoors near the existing electrical transformer, approximately 50 feet from the building.

This arrangement would provide a readily accessible connection point for the Hall County portable generator and allow emergency power to be transferred to the building when commercial utility power is unavailable.

FEASIBILITY

Based on the existing 400-amp, 208-volt, three-phase electrical service, the availability of a Hall County 200 kW portable generator, the proposed location approximately 50 feet from the building, and the facility's natural-gas heating system, the proposed transfer-switch installation appears to be a practical and feasible method of providing emergency power to the facility.

The project would utilize an existing County-owned generator rather than requiring the purchase of a dedicated permanent generator.

The proposed system would improve the County's ability to maintain the Murrayville Library as: (1) a functioning public facility; (2) a polling/election location; and (3) a community warming station during severe winter weather and extended power outages.

The final installation would require verification of the existing service configuration, transfer-switch specifications, conductor and conduit requirements, grounding and bonding, generator connection requirements, and coordination with the electrical utility as applicable.

CONCLUSION

The proposed 400-amp manual transfer switch would provide a practical and cost-effective means of utilizing Hall County's existing 200 kW portable generator to provide emergency electrical power to the Murrayville Library.

The project would enhance the County's emergency preparedness by allowing this facility to continue supporting election operations and providing a warming location for residents during severe weather and power outages.

I believe this provides a strong preliminary foundation for the feasibility documentation required for the grant.

Thank you,

Kevin