



ASCO Power Technologies™

Case Study:
Powering the Future
at Genesee Community College

ascopower.com

Life Is On

Schneider
Electric

SUMMARY

- Replace two aging transfer switches together with their service entrance equipment to improve electrical safety and maintainability.
- Provide a compact solution within the existing equipment footprint.
- Ensure that replacement equipment aligned to existing power feeds.
- Deliver a solution on schedule without impacting continuing site operations and classes.



PROBLEM

Since 1966, Genesee Community College (GCC) has provided essential secondary educational opportunities to the Genesee County Region in New York State, USA. More than fifty years later, the campus remained dependent on its now-aging switchgear even as the school expanded both its student body and the scope of its programs. The state of the equipment often required coordination with the local utility to service and maintain the electrical gear. Replacement became necessary when one transfer switch could no longer be operated.

This school's power distribution system is served by switchgear fed by two separate utility transformers. Two transfer switches provided service through a main-tie-main arrangement that utilized the facility's original tie breaker.

To provide for future reliability, GCC first elected to replace the problematic main switch with an Automatic Transfer Switch. To avoid structural changes to the facility, GCC required that any new solution connect to the existing feeds and be completed within the existing equipment footprint. GCC also required that the solution be installed without disrupting class schedules.

SOLUTION

The college's consulting engineer worked with ASCO Power Technologies to develop a better solution. By procuring a custom-engineered ASCO 7000 SERIES Automatic Transfer Switch, GCC could integrate the service entrance circuit breaker and use a current transformer compartment designed to meet the utility provider's exact specification. Replacing certain existing power source bus work with lug connections would enable a compact, space-saving arrangement. This was replaced in a single scheduled event during the first phase of the job. The second ATS was replaced to create switching redundancy during the second phase, when the aging tie breaker was also replaced using a customized Square D ILine retrofit cabinet face. This arrangement provides modern capabilities and increases the reliability of backup power operations.

Case Study:

Powering the Future at Genesee Community College

ASCO Power
Technologies™

The staff at GCC are a self-reliant group and completed much of the preparatory electrical work in advance of the planned switch installations and cutover. They also worked with ASCO and their other vendors to perfect a thorough Method of Procedure to ensure that the equipment installation and commissioning would proceed according to an orderly plan. Following the end of the Spring semester, the GCC staff and their partners and vendors, including experts from Schneider Electric and ASCO service teams, worked through a single 19-hour shift to install the ATS, tie breaker, multiple sections of I-line retrofit distribution breakers, and remaining bus work. The project proceeded successfully as planned within the scheduled time allotted for the operation.

Just as in the first phase, GCC elected to replace the remaining aging ATS with another custom-engineered ASCO transfer switch. GCC again prepared and configured the existing facility, then, with its partners, replaced the ATS in a single schedule event. By the time GCC finished all of its power upgrades, it had also installed three 500 kW gensets, bringing its backup power capacity to 1.5 MW.

OUTCOME

With the new upgrades, GCC has improved the reliability and redundancy of the college's power infrastructure, and can run backup power using a combination of redundant power source and power pathway combinations. The replacements also improve safety for the GCC staff, faculty, and students. With the improvements, GCC can now perform maintenance and testing whenever they choose, without coordinating the services of the local power utility.

"The project succeeded through the diligent preparation and communication of the team members," says Levi Olsen, GCC's Director of Buildings and Grounds. "From the original design to GCC's work plans and preparations to the support and services of our vendors, it all worked out really well." And when we asked Levi for his advice to other schools? *"Seize every opportunity for your team to work with these specialized professionals. Working as a larger team provides everyone involved a source of pride and accomplishment for a job well done."*

After the power upgrades were completed, GCC's returning students were likely unaware of the resources deployed to protect their school from power outages. And that's the point. The GCC campus is now well-equipped to power its most important operations during outages, and to provide continued service to the students who will be tomorrow's leaders.





ASCO Power Technologies - Global Headquarters
160 Park Avenue
Florham Park, NJ 07932
Tel: 800 800 ASCO

www.ascopower.com
customer care@ascopower.com