

Electrical Service and Onsite Power Generation



Johns Creek Environmental Campus

Power is supplied to the JCEC by Georgia Power through a high voltage underground line. At the facility, the voltage is reduced and fed around the site through underground electrical cables protected by concrete ductbanks. Power is fed to seven different motor control centers (MCCs) located around the plant in a redundant looped system. The MCCs provide power to all equipment and facilities at JCEC. Major process equipment at JCEC utilizes variable frequency drives (VFDs) that allow motors to operate at different speeds, allowing reduced power usage and optimized process performance.

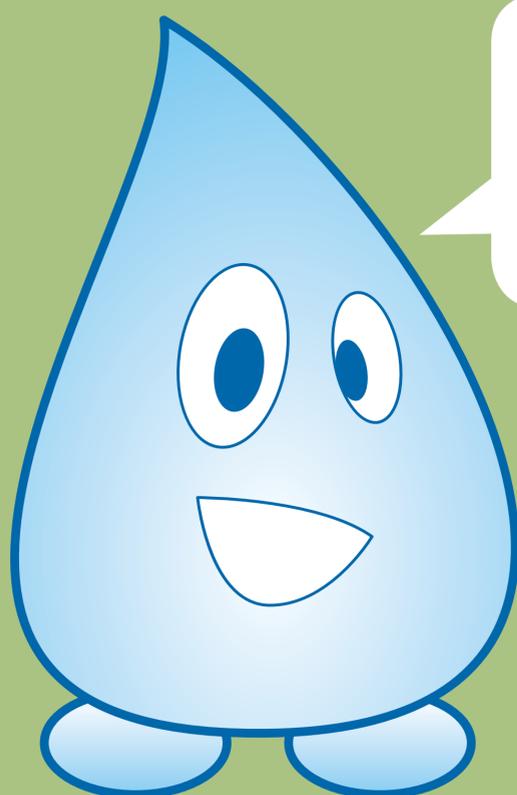
If the power feed from Georgia Power is ever lost, the facility has three diesel-powered standby generators that can provide sufficient power to operate the entire facility. The JCEC has diesel fuel storage to supply the generators, which can allow operators to run the facility up to 2 days at full capacity. During an extended power outage additional fuel would be delivered.



Seven different MCCs distribute power throughout the facility.



JCEC has three standby diesel engine generators that can power the entire facility.



ALTHOUGH THE JCEC GETS ITS ELECTRICITY FROM GEORGIA POWER LIKE EVERYONE ELSE, IT CAN ALSO GENERATE ITS OWN IN AN EMERGENCY.

Electrical Service Design Parameters

Power to the Site	25 kV
Power Distribution on site	4160 V (looped feed)
Approximate Process Power Usage (Per Million Gallons Treated)	6,500 kWh
Number of Standby Generators	3 (2 duty / 1 standby)
Generator Type	Diesel Engine Driven
Capacity of Generators	2,250 kW