

9.0 ELECTRICAL TRANSMISSION LINES

The Port Everglades Plant already has the transmission infrastructure necessary to transfer the power from the electric generators associated with PEEC to the transmission system. The existing system switchyard has equipment to support both 230 kV and 138 kV voltage levels. Two of the PEEC CTs will be connected to the existing Port Everglades 138 kV system switchyard. The third CT and the steam turbine generator will be connected to the existing Port Everglades 230 kV system switchyard. The facilities required in order to fully integrate the PEEC Project into the FPL transmission system include upgrading 4 existing 138 kV line sections to accommodate the proposed PEEC unit. No new transmission lines are required.

Improvements will be made to the Port Everglades existing transmission system switchyard adjacent to the certified Site to due to increased fault currents based on PEEC's slightly larger generation and FPL standard system reliability requirements. The vast majority of the improvements will be replacement in-kind components such as line terminals, bus structures, and breakers requiring no additional earthwork or foundations. Additional relays and a battery bank to improve system reliability are needed to meet current FPL transmission system standards and will require a small expansion to the existing relay vault in the existing system switchyard. Additionally, a new breaker installation to independently isolate the existing cable tap from the existing switchyard to the Port Substation is required to meet current FPL transmission system standards, requiring a small new foundation and slight fence line expansion. The vault expansion and additional breaker are reliability improvements required to meet current FPL transmission system standards and would have occurred in the future regardless of the PEEC Project. These minor improvements to the existing transmission system switchyard may require storm water permits which will be sought outside the SCA process. FPL will also make enhancements to the existing transmission system switchyard stormwater collection. The transmission system switchyard stormwater management enhancements will occur during the construction of PEEC