

## **GE Supports Tampa Electric Company's Coal-To-Gas Transition at Big Bend Power Plant in Florida, reducing CO2 emissions by ~ 67%**

- *Tampa Electric Company (TECO) has completed the first phase of its coal-to-gas modernization strategy at the existing 50-year-old coal-fired Big Bend Power station in Florida*
- *Plant powered by two new GE 7HA.02 gas turbines and associated generators started commercial operation in December 2021*
- *Project helped significantly change TECO's fuel mix with natural gas-fired combined-cycle plant nearly halving CO2 emissions compared to older facility it replaced*

**GIBSONTON, FL - April 7, 2022** – With approximately 40% of global carbon dioxide (CO<sub>2</sub>) emissions from fuel combustion attributable to the electricity and heat production sector, decarbonizing power is a key area of focus in solving for climate challenge. GE (NYSE: GE) and Tampa Electric Company (TECO) announced the recent start of commercial operation for TECO's Big Bend Units 5 & 6, at Apollo Beach, Florida, powered by two GE 7HA.02 gas turbines and two GE H65 generators.

The 1,090-megawatt (MW) power plant will replace existing 50-year-old coal-fired units at the site, and switching to natural gas will help reduce Big Bend Power Station's CO<sub>2</sub> emissions per MWh of electricity generated, by 67% and lower emissions levels for other pollutants such as mercury, NO<sub>x</sub>, SO<sub>x</sub> and particulate matter.

Big Bend is one of three electric generating power plants in TECO's portfolio, which provides electricity to more than 800,000 customers across 2,000 square miles in West Central Florida.

Initially, Big Bend's new units will operate in simple cycle mode, with more efficient combined-cycle operation targeted in late 2022.



GE's 7HA.02 will improve TECO's power plant efficiencies ranging from the mid-30% with previous steam plant operations to greater than 60% while operating in a more advanced combined-cycle configuration, which drives fuel savings. The plant will also increase its operational flexibility. In addition, GE's integrated Mark\* VIe control system will provide gas turbine generator control and performance visibility, and data collected from sensors throughout the facility will be monitored and analyzed 24/7 at [GE's Monitoring & Diagnostics \(M&D\) Center](#) in Atlanta, GA, United States.

Finally, TECO's plant will increase both its reliability and availability by replacing 50-year-old units with more advanced technology, leading to key savings in maintenance costs due to less unplanned maintenance for the combustion turbines and upgrades to TECO's existing power generation assets at Big Bend.

"Coal-to-gas switching by retiring existing coal-fired capacity and replacing it with new, high efficiency combined cycle capacity offers good potential to combat climate change, and we are honored to support our customers like TECO in this transition," said Eric Gray, President of GE Gas Power in the Americas region. "We look forward to the refurbishment of the existing coal-fired steam turbine to complete the modernization of the site next year. The project will increase operational efficiency and help TECO by using less water, producing less wastewater and reducing carbon emissions."

Tampa Electric's journey to a cleaner, greener future began in 1999. Since then, Tampa Electric has reduced coal usage by more than 90 percent and has cut carbon dioxide emissions in half. The Big Bend modernization project plays a key role in that journey.

The plant is powered by two GE 7HA.02 gas turbines, which can burn between 15-20% hydrogen by volume in the gas stream initially and is expected to have the capability to transition to 100% hydrogen over the next decade. GE's HA gas turbines are the world's largest and the most efficient gas turbines with more than 130 units ordered by more than 50 customers across 20 countries. Natural gas-fired generators have the lowest CO2 emissions of all fossil power generation



fuels—a natural gas-fired combined cycle plant has roughly 67% of the CO2 emissions of a similarly-sized coal plant, and lower emissions levels for other pollutants such as mercury, NOx, SOx and particulate matter

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