

## The Lee County WTE Expansion Project Building a New WTE Unit in the 21<sup>st</sup> Century

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The Lee County Expansion Project is a 636 ton per day Municipal Waste Combustor (MWC) in late stages of construction/startup, located in Ft. Myers, FL. The new unit complements the existing 1200 ton per day two-unit facility owned by the County and operated by Covanta Lee, Inc., which has been in service since 1994. The new unit is the first MWC permitted and constructed under the EPA's New Source Performance Standards (NSPS) since they were promulgated in the 1990's. This paper will describe the basic contractual arrangements, permitting, design and construction features, and overall costs for the expansion project.

### Background

Lee County, FL, located in the fast growing Southwest Florida sun coast area, has been experiencing compound growth in the high single digit range for over 5 years. Despite aggressive recycling programs, the unprecedented growth in population and resultant increase in waste quantities led the County to seek new waste disposal capacity in the early 2000's. The heart of the County's integrated waste recycling and disposal operations are co-located at the site of the existing 1200 ton per day waste to energy facility. The site complex also includes a Material Recovery Facility, yard waste processing facility, and a MSW transfer station. Bypass waste quantities are disposed at the County's landfill (the Lee/Hendry Landfill), along with residue from the existing MWC units. Following due diligence investigations of the options available for providing additional

capacity, the County chose to expand the existing WTE facility by adding a third combustion train and a second turbine-generator. It should be noted that the original facility was built with future expansion capability in mind, and several key elements were already in place. These included a concrete stack with space available for a third flue, and tipping floor, waste pit and crane capacity originally sized to be capable of supporting a third unit.

The decision to proceed with the expansion was made by the Board of County Commissioners in early 2004 after the Florida DEP issued the PSD Permit, which locked in certain design choices. Amongst these was the decision to add a third Martin Stoker, with technology licensed by Covanta Energy, Inc. from Martin GMBH of Munich, Germany. The decision to utilize the Martin mass burn grate system was made following investigation of modern