COLLIER COUNTY, FLORIDA – Consideration of Gasification as a Long-Term Waste Management Solution

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ABSTRACT
Collier County, Florida ("County") is in the midst of developing an integrated waste management program. Unlike many counties, Collier County owns a landfill with sufficient long-term landfill capacity to last another 15 years. However, due to the Board of County Commissioner's ("Board") desire to have a 50-year solution for solid waste, the County has set upon a course to divert waste from the landfill to the maximum extent possible. In doing so, the County solicited long-term waste management solutions from private companies capable of processing the majority of the municipal solid waste generated in the County. Over the past two years, the County has considered several of these alternatives ranging from MSW composting to mass-burn waste-to-energy; however, based on an evaluation of a wide range of impacts, gasification was selected as the preferred alternative. With this focus, the County issued a Request for Proposal ("RFP") in November 2001 for a design, build, own, operate, and finance gasification project. The County received three proposals in April 2002 in response to the RFP. To date, the County has completed the proposal evaluation process and has ranked the top two responsive firms: Interstate Waste Technologies ("IWT") and Brightstar Environmental (Florida), LLC ("Brightstar") based on experience, technical approach, business arrangement, and cost. If implemented, this project will be the only commercial gasification project operating in the United States. This paper will provide insight into various stages of the project, from development through to the current status of the project, as well as the strategic policy, financial, and technical considerations that make this opportunity a good fit for the County. An emphasis will also be placed on comparing and contrasting the benefits and drawbacks of each technology, such as processing methodology, cost, redundancy, and scalability.

BACKGROUND
Collier County is located in southwest Florida, as shown in Figure 1. Collier County, the largest County in Florida, has a land area of 2,025 square miles and is bordered by the Gulf of Mexico, and by Lee, Hendry, Broward, Monroe, and Dade counties.

The population of the County fluctuates from the permanent resident level to a peak during heavy tourism months (November to April), but overall has shown steady growth during the last several years. According to County data, the average resident population is approximately 264,000, but with projected future growth the average resident population is projected to increase to more than 325,000 by Fiscal Year ("FY") 2005.

With the increase in population, solid waste generation in the County has also grown steadily in recent years. FY02 data showed that the County generated 580,000 tons of municipal solid waste (MSW). Recent projections indicate that the County will generate over 730,000 tons of MSW annually by 2010.