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Keeping up with Growth by Recommitting to a Long-Term Waste-to-Energy Future

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ABSTRACT

The Solid Waste Authority of Palm Beach County (Authority) has owned the North County Resources Recovery Facility (NCRRF) since 1989, producing clean, economical and renewable energy from refuse derived fuel while preserving precious landfill space. As with any facility as it approaches the end of its first 20-year operating term, the Authority found it necessary to initiate a comprehensive refurbishment to ensure its continued effective operations. The operating agreement between the Authority and the Palm Beach Resource Recovery Corporation (PBRRC), a subsidiary of Babcock & Wilcox (B&W), is set to expire concurrently with the end of the this 20-year term. The Authority acknowledged that PBRRC has unparalleled institutional knowledge of the NCRRF and, as such, took the opportunity to renegotiate its operating agreement with PBRRC for an additional 20-year term.

The Authority was also able to build into the new operating agreement conditions for PBRRC to provide assistance to a third party design-builder performing the refurbishment. Additionally, understanding that B&W produced many of the key combustion unit components of the original NCRRF construction, the Authority worked into the new agreement terms for B&W to provide several essential components for the refurbishment that will be installed by the design-builder.

When the refurbishment is completed in 2011, the Authority will still only have disposal capacity through 2021 with its existing landfill. To be able to keep up with rapid growth in Palm Beach County, the Authority has initiated the due diligence phase for the development of a new mass burn waste-to-energy facility and landfill that will expand the disposal capacity of the Authority's system for more than 100 years.

INTRODUCTION

Created in 1978, the Solid Waste Authority of Palm Beach County (Authority) has developed an "award winning" solid waste management system that includes franchised solid waste collections and the following facilities to service the residents and businesses in Palm Beach County, Florida:

- North County Resource Recovery Facility (NCRRF);
- Ferrous Processing Facility;

- Residential Materials Recycling Facility;
- Commercial Materials Recycling Facility;
- Transfer Stations;
- Class I Landfill;
- Class III Landfill;
- Woody Waste Recycling Facility;
- Composting Facility; and
- Household Hazardous Waste Facility.

THE END OF AN ERA AND PROACTIVE PLANNING

The Authority has proactively planned and implemented its current integrated solid waste management program to ensure disposal capacity through 2021 (Fig. 1). However, like many communities, the Authority anticipates continued population growth and associated new development patterns that will significantly increase demands on its solid waste system, requiring it to reevaluate and update its planning to accommodate future growth.

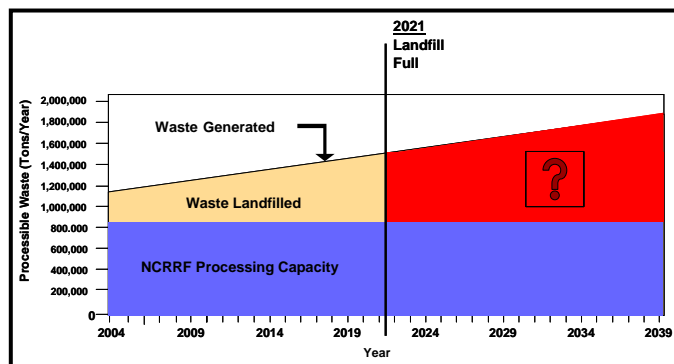


Fig. 1 Current Waste Processing Capacity

The NCRRF, the Authority's refuse derived fuel waste-to-energy facility, has performed very well since its start up late in 1989 processing over 13 million tons of municipal solid waste saving valuable landfill space and efficiently producing clean renewable energy. The NCRRF has been properly maintained and represents a valuable asset to the Authority. As the NCRRF approaches the end of its first 20-year operating term, it will be necessary to complete a comprehensive refurbishment and upgrade in order to ensure its

continued reliable service for a second 20-year operating term and beyond, thereby ensuring continued disposal capacity for the Authority's customers.

Concurrently, the operating agreement with the Palm Beach Resource Recovery Corporation (PBRRRC), a subsidiary of the Babcock & Wilcox Company (B&W), was coming to a close. The Authority recognized that PBRRRC has unique, extensive and valuable knowledge of, and interest in, the details of the design, construction, maintenance history, operation history, status, and improvement needs of the NCRRF. The Authority took a proactive approach to take advantage of this opportunity and entered into negotiations with PBRRRC, not only to extend their operating agreement for another twenty year term, but to initiate the comprehensive refurbishment of the NCRRF. The result was a new twenty-year operating agreement that includes a comprehensive refurbishment following the procurement of a qualified refurbishment contractor.

The Authority is currently in the process of procuring a qualified design-builder to refurbish the NCRRF. They are using an approach that includes open communication between the Authority, PBRRRC and B&W, and the vendor community. The Authority initially issued a Request for Expressions of Interest (RFEI) to gauge industry interest in a project of this magnitude and scope. Once responses were gathered and the scope of the project was refined, the Authority issued a Request for Qualifications (RFQ) to solicit qualified vendors capable of handling the refurbishment. Once Statements of Qualifications (SOQ) are received in January 2008 and evaluated, the Authority will shortlist vendors deemed qualified to handle the work and issue a draft Request for Proposals (RFP). Vendors will then be given the opportunity to review and comment on the RFP, including presentations and meetings with the Authority and PBRRRC and B&W, who will both be integrally involved in the refurbishment from the operational and design side.

Following comments and further refinement of the refurbishment, the Authority will issue a final RFP soliciting official proposals from the shortlisted vendors, including a guaranteed maximum price for the work. Using this open method for a procurement process ensures adequate communication with the vendors to mold the scope of the project into a single RFP with limited addenda and significantly levels the playing field. This also allows for interaction with the vendor community and obtaining insight from the qualified industry at large.

RECOMMITTING TO WASTE-TO-ENERGY

Simultaneously, the Authority recognizes that the NCRRF and landfill alone can only sustain disposal capacity for Palm Beach County until 2021, not entirely a long-term solution for a growing county in terms of solid waste management. This growth has necessitated the Authority to look into several options for long-term solid waste processing

and disposal capacity, resulting in a decision to expand its waste-to-energy capacity with a new mass burn facility (Fig.2).

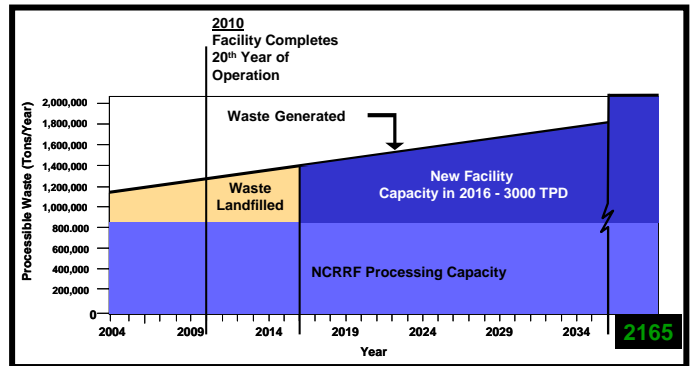


Fig. 2 Potential Waste Processing Capacity and Expanded Landfill Life with New Mass Burn Facility

A new mass burn facility will provide the Authority with additional waste processing capacity, extend the life of its current and future landfills, and produce additional clean and renewable energy. The Authority has initiated the first phase of due diligence for this project by performing a fatal flaw analysis of a proposed site for the new facility.

PRESENTATION GOALS

This presentation will demonstrate the key steps involved in negotiating an operating contract with the end in mind, maintaining a quality operator while allowing a qualified refurbishment contractor to design and construct a comprehensive refurbishment, as well as provide an update of the currently ongoing procurement process, which will be significantly underway at the time of the presentation. It will also detail the extensive due diligence and planning necessary to initiate the first steps toward permitting and constructing a new mass burn waste to energy facility in Florida.

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