

**Lee County Board Of County Commissioners  
Agenda Item Summary**

Blue Sheet No. 20050896

**1. ACTION REQUESTED/PURPOSE:**

Approve and authorize the Chairman to sign a contract between Lee County and Alstom Power, Inc., for the supply and erection of the air pollution control equipment at the WTE, for an amount not to exceed \$12,257,399.00, all in accordance with RFP B&R 2661-SM105.

**2. WHAT ACTION ACCOMPLISHES:**

Provides the necessary scrubber, baghouse, I.D. fan, etc., for the Waste To Energy Expansion Project.

**3. MANAGEMENT RECOMMENDATION:** Staff recommends approval of Action Requested.

**4. Departmental Category:** 8

*C8F*

**5. Meeting Date:** *06-28-2005*

**6. Agenda:**

- Consent
- Administrative
- Appeals
- Public
- Walk-On

**7. Requirement/Purpose: (specify)**

- Statute
- Ordinance
- Admin. Code *4-4*
- Other

**8. Request Initiated:**

- Commissioner \_\_\_\_\_
- Department Public Works
- Division Solid Waste
- By: Lindsey J. Sampson

*Lindsey J. Sampson*

**9. Background:**

Sealed quotes were received by the County's design engineer, Burns & Roe, on behalf of the Solid Waste Division on March 21, 2005. On that date one (1) response was received from pre-qualified vendor, Alstom Power, Inc. After review, recommendation was made to award to Alstom Power, Inc. for a contract price not to exceed \$12,257,399.00, including the cost for a full payment and performance bond or LOC. Note: price includes several options, some of which may not be selected by the County in which case the price will be reduced.

Alstom is an acceptable vendor for this work and is the supplier of the air pollution control equipment for the initial WTE facility. Although only one proposal was received, the pricing of this proposal is comparable to the project estimate after considering performance bond, emission guarantees, and anticipated options to be selected.

Funds will be made available during this two-year project duration in account string: 200923 40102.506540  
Portion of funds will be supplied through revenue bonds.

Attachments: Burns & Roe Bid Evaluation dated 5/16/05  
Contract Document to Follow

**10. Review for Scheduling:**

Department Director	Purchasing or Contracts	Human Resources	Other	County Attorney	Budget Services				County Manager/P.W. Director
					Analyst	Risk	Grants	Mer.	
<i>J. J. ... 6-15-05</i>	<i>...</i>	<i>NA</i>			<i>...</i>	<i>...</i>	<i>...</i>	<i>...</i>	<i>J. J. ... 6-15-05</i>

**11. Commission Action:**

- Approved
- Deferred
- Denied
- Other

RECEIVED BY COUNTY ADMIN: *[Signature]*  
Date: *6-15-05*  
Time: *2:30*  
COUNTY ADMIN FORWARDED TO: *[Signature]*  
Date: *6/15/05*

Date: *6/15/05*  
Time: *1:45*  
Forwarded To: *Admin. Affairs*

COVANTA LEE COUNTY  
LEE COUNTY RESOURCE RECOVERY FACILITY  
WASTE TO ENERGY EXPANSION PROJECT

Date: May 16, 2005  
By: Jorge Ferrero  
Steve Stuhrke

**TECHNICAL BID EVALUATION**  
**REQUEST FOR PROPOSAL No. 2661-SM-105**  
**AIR POLLUTION CONTROL SYSTEM**

**SUMMARY**

A proposal was received from Alstom Power Environmental Control System Division, dated March 21, 2005. An initial review of the proposal indicated that the equipment proposed in general met the intent of Specification SM-105. Through the course of the formal and detailed review approximately 100 questions/comments were prepared by BREI and submitted to Alstom for responses. These questions/comments addressed all exceptions listed by Alstom, other non-conformances found, items requiring clarification, input from Covanta, etc developed during the bid review. All these questions/comments, with their corresponding responses and resolutions are summarized and tabulated in a spreadsheet. This spreadsheet tabulation is included as Attachment 1 in this evaluation.

A bid review meeting was held on May 3, 2005 between Covanta, Alstom and BREI, to resolve existing open issues, provide clarifications, discuss standing non-acceptable exceptions, and establish time table to resolve any remaining open issues. As of today, approximately seventeen (17) items remain open or unresolved. Ten (10) items require Alstom's input and eight (8) items that require Covanta's input. One (1) item requires input from both Covanta and Alstom. Refer to Attachment 1 for more details.

Although solicitations for the Air Pollution Control System were requested from multiple bidders and the RFP documents were sent, all but Alstom declined to bid. Most stating that they were simply too busy at the present time to adequately address the solicitation and provide a bid. However, the Alstom bid appears to be competitive and is in line with recent pricing seen on similar scope projects where multiple bids were received.

**TECHNICAL DISCUSSION**

**GENERAL**

In general the equipment proposed, with all clarifications and subsequent options proposed by Alstom, plus the agreements arrived during the meeting of May 3, 2005, appears to be technically acceptable.

The open non-conformances or non-acceptable exceptions are:

ID Fan: This is the most important open non-conformance issue. Alstom originally proposed a Clarage fan with performance characteristics not acceptable. Also, Clarage is not in the Covanta's approved sub-suppliers list. Subsequently, Alstom proposed a fan from Howden. Although this fan had better performance characteristics, the Test Block static pressure (TB SP) was too high. Alstom agreed to resize the fan and

propose a new fan with a TB SP of approximately 19 in. w.c. As indicated in their latest correspondence of May 13<sup>th</sup>, Alstom has selected a new Howden fan, but the selection is being reviewed and pricing has not been provided. Howden is an acceptable fan manufacturer and on Covanta's sub-suppliers list.

Temperature/Velocity Distribution and Model Testing: Alstom has indicated that temperature distribution guarantees in the baghouse inlet will not be provided. They maintain that the design and performance guarantee are based on their existing installed base. Covanta provided drawings at the bid review meeting showing changes made on existing units based on model testing. Alstom is working up pricing to implement these changes with blank plates to isolate modifications from Alstom's original proposed design. In addition, Alstom will not guarantee performance with these modifications not isolated or bypassed.

Noise: Alstom still needs to furnish noise data for some of their equipment and the revised ID fan from Howden.

Initial Fill of Lubricants and Chemicals: Alstom agreed to provide lubricants and chemicals for initial fill and operation. They are reviewing the list of what is currently used at the facility and will purchase them from the facility if available. Pricing to provide and install all lubricants and chemicals needs to be provided by Alstom.

Lime Feed System: Alstom agreed to provide the same head pipe design as exist at the facility. Alstom still needs to provide pricing impacts, if any.

Bag Options: Alstom is providing additional bag material options based on providing bags the same length as installed at the existing baghouses at the Plant. This design alternate would provide interchangeability and therefore will be a recommended option. Covanta has been requested to furnish cage and venturi information based on what is being used at the facility. Final pricing from Alstom is still required and should be available after receipt of cage and venture information.

Lime Conveying System: Alstom agreed to provide a long radius elbow design in lieu of a target box. Alstom has revised their P&IDs, but is awaiting their supplier's response on the change to advise if there are any pricing impacts.

Stainless Steel Lining of Hoppers: Alstom has advised that after reviewing this design with their fabricator that it would be more expensive than simply offering stainless steel hoppers. The difficulties with fabrication, the need for structural strength, the sealing of the cladding, etc are all factors contributing to the expected higher costs.

The following are open items requiring Covanta's review:

Performance Test Procedures – Particulates: Covanta needs to advise Alstom if Method 202 should be included.

Scrubber Design: The criteria as provided by Covanta on April 27<sup>th</sup> clarifying the Specification requirements that includes the hopper being completely filled with material has not been allowed for in Alstom design. This is not in their adder to meet the Specification requirements of paragraph 2.2 on page 13 of the Specification.

Ductwork Deflection: Alstom has proposed duct stiffeners be designed to limit deflection to L/240 and plate deflections held to one (1) times plate thickness for long term loads. Alstom feels that the Specification requirements are conservative and would require L/400 and L/500 resulting in stiffener depth and weight increases that are considered unnecessary.

Option Pricing for Lining Hoppers versus Stainless Steel Hoppers: Review/decision based on information from Alstom indicating lining costs would be more expensive than simply furnishing all stainless hoppers.

Cage and Venturi Information: Covanta needs to provide Alstom with information and details on cages used at the existing facilities.

Hopper Heater Design: Covanta needs to advise on acceptability of Alstom's design for each hopper heater circuit utilizing a phase unbalance monitor.

Bag Pulsing: Alstom's proposed design has nineteen (19) bags per pulse. A staggered tube sheet design as suggested would affect velocity and performance and is not being offered. However, Alstom can double up on the headers and reduce the bags per blow to half with the headers placed opposite existing headers. If this is acceptable to Covanta, Alstom will review and provide pricing impacts.

### **OPTION REVIEW**

- Option 3.1 Stainless Steel Scrubber Hopper: Alstom has provided a price adder of \$219,790 for a stainless steel scrubber hopper. This option is per paragraph 2.2.1 on page 12 of the Specification and has been requested based on wear and operating experiences at Covanta's facilities. This option should be addressed by Lee County in conjunction with Covanta.
- Option 3.2 Stainless Steel Lower Baghouse Casing (Module Walls): Alstom has provided a price adder of \$149,445 for stainless steel module walls. This option is per paragraph 2.3.1 on page 27 of the Specification and also has been requested based on wear and operating experiences. This option should be addressed by Lee County in conjunction with Covanta.
- Option 3.3 Alternate Bags: Alstom has provided price adders for the substituting 20 oz bags for 16 oz for \$30,284 and Ryton bags in lieu of fiberglass for \$48,279. At the bid review meeting the additional options to provide interchangeability with bags of the same length as at the existing units (14'-7") was requested. The price adder for Ryton bags matching the existing units length and #10 wire cages without venturi is \$25,398. Additional pricing from Alstom based on cages and venturi used at the facilities is outstanding. BREI recommends that the interchangeability option with cages and bags matching what is currently being utilized be considered.
- Option 3.4 Stainless Steel Knife-Gate Valves: Alstom provided a price adder of \$10,475 for heavy duty stainless steel knife gates at the hopper outlets. This option is per paragraph 2.5 on page 42 of the Specification has been requested based on wear and operational concerns at Covanta's facilities. This option should be addressed by Lee County in conjunction with Covanta.

- Option 3.5 Stainless Steel Baghouse Hoppers: Alstom has provided a price adder of \$158,810 for stainless steel baghouse hoppers. This option is also per paragraph 2.5 on page 42 of the Specification has been requested also based on wear and operational concerns. This option should be addressed by Lee County in conjunction with Covanta.
- Option 3.6 Magna Drive for ID Fan: Alstom has only provided an indicative price of \$385,198 for a Magna Drive for the ID Fan. As was requested for the other boiler fans (with the boiler RFP), a Magna Drive for the ID Fan was requested. Magna Drive is a type of variable speed device that would be furnished in lieu of variable inlet vane damper controls. Magna Drives and their application on boiler fans are relatively new and undemonstrated as a "better" approach than variable inlet vane control and the true cost benefit of this option needs further review. Based on these uncertainties BREI did not recommend this option on the other boiler fans and does not recommend it here for the ID Fan. The Project has opted not to pursue Magna Drives and this option at this time.
- Option 3.7 Chrome Carbide on the SDA: Alstom has provided a price adder of \$50,109 for chrome carbide on the SDA dispersers only and does not include construction. This option should be addressed by Lee County in conjunction with Covanta.
- Option 3.8 Current Limiting Reactors: Alstom has provided a deduct price for not including current limiting reactors in the MCC supplied with the APC System. The price deduct is \$14,041. This option should be addressed by Lee County in conjunction with Covanta.

## **RECOMMENDATION**

BREI recommends that the remaining technical items be discussed and resolved during the final contract negotiations. None of the outstanding technical items are considered reasons for not considering Alstom as the supplier of the APC System and equipment.

COVANTA LEE COUNTY  
LEE COUNTY RESOURCE RECOVERY FACILITY  
WASTE TO ENERGY EXPANSION PROJECT

Date: May 16, 2005  
By: Jorge Ferrero  
Steve Stuhrke

**TECHNICAL BID EVALUATION**  
**REQUEST FOR PROPOSAL No. 2661-SM-105 AIR POLLUTION CONTROL SYSTEM**  
**ATTACHMENT 1 – APPLICABLE DOCUMENTS**

Lee County RFP No. 2661-SM 105

Burns and Roe Documents:

Attachment 1 APC Bid Evaluation Spreadsheet (Sheets 1-20 dated 5/13/05)

Attachment 2 Bid Evaluation Correspondence Listing

Correspondence as listed in Attachment 2.

Covanta Documents:

Correspondence as listed in Attachment 2.

Alstom Documents:

Correspondence as listed in Attachment 2.

**TABLE 1**  
**BASE PRICING**

<b><u>Description</u></b>	<b>Alstom Power</b>
1.0 Total Lump Sum Base Price, \$	11,132,700.
2.0 Lump Sum Price Breakdown:	
A. Engineering, \$	2,862,564.
B. Materials and Shop Fabrication, \$	3,915,096
C. Site Mobilization, \$	(Included with B Above)
D. Site Erection, \$	3,353,766.
E. Performance and Payment Bond, \$	727,686.
F. Sales Tax, \$	N/A
G. Exhibit L	(Included with D Above)
3.0 Sum of Breakdown Prices, \$ (Less Bonding)	10,405,014

Notes to Table 1: None

**TABLE 2**  
**OPTION PRICING**

<u>Description</u>	<b>Alstom Power</b>
3.1 Stainless Steel Scrubber Hopper, \$	219,790
3.2 Stainless Steel Lower Baghouse Casing, \$	149,445
3.3 Alternate Bags, \$ a. 20 oz. b. Ryton Note: Additional Options Requested (See Question #76)	30,284. 48,279.
3.4 Stainless Steel Knife Gates, \$	10,475.
3.5 Stainless Steel Baghouse Hopper, \$	158,810.
3.6 Magna Drive for ID Fan, \$	358,198
3.7 Chrome Carbide on Dispersers for SDA, \$	50,109
3.8 Current Limiting Reactors in MCC, \$	(14,041.)
4.0 Sum of Options Offered (includes 3.3b), \$	1,036,147
4.1 Sum of Options Recommended, \$ (Includes Options 3.1, 3.2, 3.4, 3.5, 3.7 and 3.8)	602,670 (Note 3)
<b>Base Price w/Recommended Options, \$</b>	<b>11,735,370 (Note 3)</b>

Notes to Table 2:

1. The price provided for the "Magna Drive" option for the ID Fan is an indicative price.
2. The price for the "Current Limiting Reactors in MCC" is a deduct price.
3. This total does not include Option 3.3e.



**TABLE 3**  
**EVALUATED PRICING**

<b>Description</b>	<b>Alstom Power</b>	<b>Comments</b>
Question #5: Item a, removal of monorail structure and support from roof w/connection by others.	(\$7,175) Deduct	Recommended Option (Deduct Price)
Question #19: Grouting of columns and machine bases.	\$11,467	Adder to Meet Spec (Not Required will be by GC Contractor)
Question #23: Prime coat for insulated surfaces, external side.	\$77,583	Adder to Meet Spec
Question #23: Prime coat for insulated surfaces, internal side.	\$58,809	Adder to Meet Spec
Question #32: Electric vibrators.	\$12,922	Adder to Meet Spec
Question #33 and 39: Temperature distribution modification per Covanta model test w/blanking plates.	OPEN	Option
Questions #36, #42, and #79: Revised ID Fan.	OPEN	Adder to Meet Spec
Question #37: Method 202 for particulate testing.	OPEN	Adder to Meet Spec
Question #49: Scrubber design and supports.	\$46,698 OPEN	Adder to Meet Spec
Question #50: Ductwork deflection.	\$26,250	Adder to Meet Spec
Question #53: Initial fill of lubricants and chemicals.	OPEN	Adder to Meet Spec
Question #55: Anti-sweat insulation.	\$23,190	Adder to Meet Spec (Not Required)
Question #58: Training.	\$24,100	Adder to Meet Spec
Question #61: Option to line baghouse hoppers w/stainless steel	Not Provided	Option
Question #74: Lime slurry feed system/head pipe design option.	OPEN	Option
Question #75: Safety shower/eyewash station per latest ANSI Z358.1	\$3,320 OPEN	Adder to Meet Spec
Question #76: Interchangeable bags a. Ryton b. Ryton w/venturi cages	a. \$25,398 b. TBD	Recommended Option (Ryton w/venturi cages)
Question #94: Lime conveying system change to long radius elbow (in lieu of target box)	OPEN	Recommended Option
Question #98: Lining of SDA hopper	Not Provided	Option
Question #99: Bag pulsing option (doubling of headers)	OPEN	Option

Notes to Table 3:

1. Question #75 pricing is not finalized. Price indicated is not based on a single source of (cold) water.
2. Question #49 pricing may not be finalized. Alstom is still reviewing.

**Alstom Evaluated Adders: \$246,362 (Status 5/13/05 w/ Open Issues)**