Lee County Board Of County Commissioners Agenda Item Summary Blu

Blue Sheet No. 2005 /17/6

1. ACTION REQUESTED/PURPOSE:

Approve award of formal quotation (RFP B&R 2661-SE 203B) and issuance of a purchase order to Eaton Electrical/Cutler Hammer, the low priced proposer, meeting all specification requirements for the 15 kV Swithgear and Bus Duct in the not to exceed amount of \$329,851.00. Authorize Staff to negotiate a discount to this purchase price, if in the best interest of the County, and in combination with the vendor's proposal on the 5 kV and 480V switchgear.

2. WHAT ACTION ACCOMPLISHES:

Provides the necessary 15 kV high voltage switchgear for the Waste To Energy Expansion Project.

3. MANAGEMENT RECOMMENDATION: Staff recommends approval of this request.

4. Departmental Category	y: 8	CSB		5. Meeting Date:	08-30-2005		
6. Agenda:	7. Req	uirement/Purpos	se: (specify)	8. Request Initiat	ed:		
X Consent		Statute		Commissioner			
Administrative		Ordinance		Department -	Public Works		
Appeals	X	Admin. Code	4-1	Division	Solid Waste		
Public	-	Other		By: Lindsey J. Sampson			
Walk-On			-	17/11/2/1/	1:00 8/14/01		
O. Da alcomand.				A 16	/		

9. Background:

Sealed quotes were received by the County's design engineer, Burns & Roe, on behalf of the Solid Waste Division on May 18, 2005. On that date five responses were received. After review and conformance for technical and commercial requirements recommendation was made to award to the low-priced proposer meeting all specification requirements.

Funds are available in account string: 200923 40102.506540

Attachments: Burns & Roe bid evaluation dated 7/26/05

Proposal opening form and Bid Abstract

Covanta comments and recommendation dated 8/5/05

Department Director	Purchasing or Contracts	Human Resources	Other	County Attorney	Budget Services	County Manager/P.W. Director
8.18.05	nission Acti		·		Applyst Risk Grants Mgr.	8.18.05
	Approved Deferred Denied Other	d		E C	ECEIVED BY DUNTY ADMIN: 11 E-18-5 4-3c-pm Sy CO. ATTY FORMARDED T	

ATTACHMENT 3

L		1		_				
		<u>8</u>	BID ABS I RACI	- -1	15 KV SWITCHGEAR			
Burn	Burns and Roe Enterprises, Inc.	nterp	rises, inc.					
				_	2	3	4	ď
MEP.	W/O: 2661 Lec County Expansion Project RFP 2661-SE203B, 15 KV SWITCH	ity Exp. 3, 15 k	3EAR	POWELL ELECTRICAL	EATON CUTLER-HAMMER	NATIONAL BREAKER SERVICES	ЭĒ	TAMPA ARMATURE
			BUDGET: \$					
ITEM	ΩTY	NO.	DESCRIPTION					
-	LOT	8a	BASE PRICE	\$ 311,103.00	\$ 349,651.00	\$ 568,623.00	\$ 379,169.00	\$ 405,990.00
1		\downarrow	_			NOT EVALUATED	NOT EVALUATED	
N	3	8	I ECHNICAL ADJUSTMENTS	\$ 49,858.00	-\$	FURTHER	FURTHER	\$ 4.450.00
			Sub-Totals	ક	\$ 329,851.00			410 440 00
			Freight Adjustment @ 3%	\$ 22,368,00	Included in base price			net properties
		_	Sub-Totals	\$ 383,329.00	\$ 329,851.00			440 440 00
			Commissioning/Start-up Spares	none required	Included in base price			Included in
								POLIC DESCRIPTION OF THE PROPERTY OF THE PROPE
		_	GRAND TOTAL(Excl. Tax-	\$ 371.790.00	329 851 00			
			and Perform/Pay Bonds)					\$ 410,440.00
			Drawings Submitted	6-8 wks ARO	8-10 wks ARO			C 4 25 111 0 0
			Delivery of material	12-16 wks ADA	12-14 wks ADA			16 wks AND
								COURT
			PAYMENT TERMS	NET30	NET30			OF THN
			F.O.B. Delivered DESTINATION	Houston, Texas	Factory			Sito
			TECHNICALLY ACCEPTABLE	YES	YES			VES
AWA	AWARD RECOMMENDATION:	ENDAT		EATON CUTLER-HAMMER	ER	PREPARED BY:	NOW	7/04/2005
REAS	REASON FOR RECOMMENDATION:	OMME		TECHNICAL & PRICE		REVIEWED BY:	DATE	

LEE COUNTY, FLORIDA PROPOSAL OPENING FORM	REP NUMBER SE - 2036 TITLE IS IN MALLACOLOR Sinilly gran & Pam Dint TIME 8 30 AM	Proposal Date Unevaluated Bidder Date Received Price	Jell 5-16.05 5.17.0\$		Estern (willer Howen 5:13.00 6:18.00 # 349 651		3 Nat'l Breaken Sanie 5.17.05 \$568.623.		1 GE S.17.05 S.17.05 \$ 379 169		iempa-Armahum 5.6001 5.17.05 405,990.		OPENED BY:), A	Order.	
	REP			8/1	2.8	4	× ×	₩	~ '	α¢	Ŵ				

Lindsey Sampson - Selection & Recommendation - SE-203B 15KV Switchgear & BusDuct

From: "Young,Peter" <pyoung@CovantaEnergy.com>

To: "Dennis Iavarone" <diavarone@roe.com>, <SAMPSOLJ@leegov.com>

Date: 05.08.2005 18:18

Subject: Selection & Recommendation - SE-203B 15KV Switchgear & BusDuct

CC: "D'Amico,Don" <ddamico@roe.com>, "Rubin,Ira" <irubin@roe.com>, "Sagar,Amrit"

<asagar@CovantaEnergy.com>, "Jim Kelly" <jkelly1119@verizon.net>, "Howard,Jody" <Jody_Howard@CovantaEnergy.com>, "Anacker,Dennis" <danacker@CovantaEnergy.com>

Gentlemen,

Based on B&R's 15KV Switchgear & BusDuct Bid Evaluation, dated July 26, 2005, Covanta concurs with B&R's selection and recommendation to purchase the subject package from Eaton Electrical / Cutler-Hammer. The following comments are for your consideration and guidance:

- 1. Commercial Terms & Conditions Vendor has several remaining exception/changes to the RFP Services/Goods Purchase Conditions at this point in B&R's negotiations. Warranty Article should be modified to reflect Vendor's proposed "24 months after installation or 30 months after shipment from factory, whichever occurs first". County to complete such negotiations.
- 2. Price: Covanta concurs with B&R's recommended options/adjustments and Recommended Award Price of \$329,851.
- 3. Project Estimate: \$267,459. This estimate did not include costs for 1) higher rated breakers and bus to accommodate the optional larger step-up transformer selected (transformer study estimated an additional cost of \$20,000 for the 15KV system) and 2) two additional breakers to accommodate space constraints for the new 4.16 kV and 480 V Unit Substations (as determined by the detailed design).
- 4. Bond: Excluded. This is an equipment delivery only order, therefore County does not require a bond and is not included in the recommended award.
- 5. Payment Terms: 100% upon delivery to site, net 30 days.
- 6. Schedule: A delivery date of August 15, 2006 was included in the RFP. The current Master Project Schedule does not require delivery until September 15, 2006. Vendor quoted delivery about 6 months after receipt of Order which is too early. B&R to confirm that the Price is based on a September 15, 2006 delivery rather than their quoted time.

B&R should proceed immediately with the following:

- 1) confirm that the Price is based on a September 15, 2006 delivery date,
- 2) confirm an applicable discount with vendor based on awards of additional equipment currently being evaluated by B&R,
 - 3) issue the County a purchase order term sheet that reflects

the final agreements and understandings to be incorporated into the purchase order, and

4) issue the conformed specification, with all data sheet data filled-in, for inclusion in the purchase order. Note that the fill-in sheets are currently not completed.

County should proceed immediately with finalizing commercial terms with the vendor.

B&R's original and current schedule for issuing this PO was June 8, 2005 and September 6, 2005, respectively. Covanta recommends that the County have this award approved by the BOCC by the August 30, 2005 BOCC Meeting.

Peter

----Original Message----

From: Carol Amico [mailto:camico@roe.com] Sent: Tuesday, July 26, 2005 12:39 PM

To: Ekhalikar@aaesengineering.com; patmcivil@aol.com; Sagar,Amrit; Anacker,Dennis; Gounaris,Demetrios; Holmes,Jack; Howard,Jody; Duff,Michael; Young,Peter; Harbison,Russell; Libertell,Trish;

SAMPSOLJ@leegov.com; Andrew Preisler; Dennis Iavarone; Rubin,Ira; Joseph

Craven; John Ferrari; Justin Mathew; Cole, Kevin; Patel, Manu; Sanda

Brumaru; Stuhrke, Steve; jkelly 1119@verizon.net

Subject: LEE COUNTY Transmittal T-012 - SE-203B 15KV Switchgear &

BusDuct Bid Evaluation

them under webprojects\vaults\02661-000-Lee County\BREI Released Documents\Current Revision\and then the applicable sub-vault.

Carol A. Amico
Project Secretary
Burns and Roe Enterprises, Inc.
201-986-4292
camico@roe.com



July 26, 2005

LEE COUNTY WTE EXPANSION PROJECT FORT MYERS, FLORIDA RFP 2661-SE-203B 15 KV SWITCHGEAR & BUS DUCT BID EVALUATION

On April 21, 2005, Burns and Roe Enterprises, acting on behalf of Lee County, issued Request for Proposal No. (RFP) 2661-SE-203B for the supply of 15 KV Switchgear and Bus Duct to the following pre-approved bidders: Square D; General Electric (GE); National Breaker Services (NBS); Tampa Armature Works (TAW); Powell Electrical Manufacturing (PEM); and Eaton Electrical / Cutler-Hammer (ECH). All bidders except Square D responded to the RFP and submitted a proposal.

By May 18, 2005 the bids were received, opened and recorded on the Proposal Opening Form herewith included, and found in Attachment 1.

Covanta was provided copies of the five (5) bids.

After an initial review, GE and NBS were determined non-competitive and no further technical or commercial evaluations were performed on those bidders.

The three (3) evaluated bidders, TAW, PEM, and ECH were all found to be technically acceptable.

RECOMMENDATION:

The recommended award of the contract is to Eaton Electrical / Cutler-Hammer. Recommended award price is \$329,851 FOB Jobsite, Freight Prepaid and Allowed and excludes cost of Bonds and Sales or Use Tax.

Base Price, as bid \$349,651

Adjust to comply with Specifications \$(19,800)

φ(10,000

Recommended Award Price: \$329,851.

BID EVALUATION 2661-SE-203B "15 KV SWITCHGEAR & BUS DUCT" (cont'd...)

COMMERCIAL EVALUATION:

Upon initial evaluation it appeared the three (3) remaining Bidders, namely ECH, TAW, and PEM met the basic intent of the specifications and were competitive. Based on the preliminary evaluation a set of bid conditioning comments/ questions was prepared and sent to each of the Bidders during the week of May 23, 2005 to further clarify technical issues taken by each of the Bidders.

The questions and Bidders responses are covered in the Technical Bid Evaluation, "Attachment 2" hereto. Based on the Bidders responses, to the questions, engineering determined that ECH, TAW, and PEM were all technically acceptable. The cost impact as a result of the bid conditioning are as tabulated and shown in the Bid Abstract, "Attachment 3".:

ECH took exception to the commercial terms and conditions included in the inquiry. Burns and Roe has attempted to negotiate these exceptions with ECH. Please refer to Attachment 4 to view the latest status of these negotiations. Burns and Roe recommends that the Lee County lawyers complete the negotiations with ECH.

Based on the foregoing, and the technical comments that follow, **BRE! Recommends** Contract Award to Eaton Cutler-Hammer.

ATTACHMENT 2

COVANTA LEE COUNTY LEE COUNTY RESOURCE RECOVERY FACILITY WASTE TO ENERGY EXPANSION PROJECT June 14, 2005 Prepared by: I. Rubin

TECHNICAL BID EVALUATION REQUEST FOR PROPOSAL 2661-SE-203B 15 KV METAL-CLAD SWITCHGEAR AND BUS DUCT

SUMMARY

Request for Proposal 2661-SE-203B was issued on April 21, 2005, to six (6) bidders: Eaton Cutler Hammer, Powell Electrical Manufacturing Co., Tampa Armature Works, National Breaker Services, Square D Schneider Electric, and General Electric.

Square D declined to bid.

Proposals were received from five (5) bidders: Eaton Cutler Hammer (CH), Powell, Tampa Armature Works (TAW), National Breaker Services (NBS), and General Electric (GE). The RFP requested pricing for a new switchgear lineup (13.8 kV Switchgear 21), one cubicle (with circuit breaker) to be added to existing 13.8 kV Switchgear 1, and three (3) 13.8 kV bus duct runs. In addition to the base prices with the supplier's own circuit breakers for the new switchgear and the add-on cubicle, the RFP requested option pricing for the new switchgear and the add-on cubicle to contain circuit breakers that are interchangeable with the existing Westinghouse (now Cutler Hammer) circuit breakers.

Initial review of the pricing indicated that the GE price was higher than several other bidders. GE also did not quote the optional interchangeable breakers. NBS quoted both the base and the option, and for both cases the NBS price was significantly higher than all other quotations. CH and TAW both quoted only the interchangeable Cutler Hammer circuit breakers. Powell quoted both the base quotation (offering Powell breakers) and the optional interchangeable Cutler Hammer circuit breakers. Since CH, TAW and Powell were responsive and competitive, their bids were evaluated in detail. GE and NBS were not considered.

The result of the detailed bid evaluation (described herein) is that CH, TAW, and Powell (both base bid using Powell breakers and option bid with interchangeable breakers) are all considered technically acceptable. At the conclusion of the evaluation process, several minor technical issues (protective relay style numbers, relay test switch contact configurations, missing or inconsistent technical data, etc.) were addressed, in the form of final technical questions to CH, Powell and TAW. These technical issues are listed in Attachment 1 (including Attachments 1A and 1B), and the three bidders were requested to confirm compliance.

DETAILED TECHNICAL EVALUATION

Technical Data Comparison

Specification SE-203B required technical data to be submitted using Pages A2-1 to A2-5 of the specification. The data submitted by CH, Powell, and TAW has been tabulated to enable ease of comparison. This tabulation is included as Attachment 8. As indicated in Attachment 1, questions were issued to each bidder to resolve missing or inconsistent technical data. These questions are included in Attachment 8.

Follow-up Questions and Responses

During the course of the detailed technical evaluation, several rounds of technical questions/clarifications were issued to CH, Powell, and TAW. All questions and responses are attached to this evaluation; tabulations of correspondence with each bidder are listed in Attachments 2, 3, and 4.

Switchgear

CH, Powell, and TAW each quoted the new switchgear lineup containing the specified six (6) cubicles, six (6) circuit breakers, equipped space for a future circuit breaker, and the instrument transformers, relays, and metering equipment necessary to comply with the specification and drawings. In addition, CH, Powell and TAW each quoted the addon cubicle (with circuit breaker) to be added to the existing 13.8 kV switchgear. For this addition, Powell included a transition section to assure that buswork can be connected. This transition section will be deleted if during detail design Powell determines that it is not required. CH and TAW confirmed that their offerings did not require transition sections.

Interchangeable Circuit Breakers - Add-on Cubicle

For the new cubicle to be added to existing switchgear, a 3000 A circuit breaker that is interchangeable with the existing breakers is recommended, as follows:

The existing 13.8 kV circuit breakers were manufactured by Westinghouse, which has since been acquired by CH. Procurement of new breakers made by CH will allow interchangeability of new and existing breakers. The existing 13.8 kV switchgear contains two (2) 3000 A breakers and two (2) 1200 A breakers; there are no spare breakers. The add-on cubicle to the existing switchgear will contain a new 3000 A breaker for the normally-open tie circuit to the new switchgear. Thus, having a new 3000 A tie breaker that is interchangeable with the existing 3000 A breakers will enable the facility to maintain normal operation if either one of the existing 3000 A breakers (for the generator or step-up transformer) is unavailable, by replacing the failed breaker with the add-on tie breaker which is not in use during normal operation. Thus, procurement of the add-on cubicle with the interchangeable 3000 A breaker option is recommended. CH and TAW included this interchangeable 3000 A circuit breaker as their base offering. Powell included this interchangeable 3000 A breaker as an option. Economic comparison of the Powell option with the CH and TAW prices for the add-on cubicle is included on the pricing comparison herein.

Since the existing 1200 A feeder breakers supply double ended substations, normal plant operation is possible with one 1200 A breaker out of service (by closing the 4160 V and 480 V tie breakers). Thus, interchangeability of these breakers, though preferred, is not that critical.

Interchangeable Circuit Breakers - New Switchgear

For the new switchgear lineup (Switchgear 21), breakers that are interchangeable with the existing switchgear would be preferable, but this option is not a necessity to mitigate a possible breaker failure, as follows:

The new Switchgear 21 will contain two (2) 3000 A circuit breakers, one for the step-up transformer and the second for the normally-open tie to the existing Switchgear 1. Thus, the 3000 A tie breaker (that is not required for normal operation) could substitute for the step-up transformer breaker. Switchgear 21 will contain four (4) 1200 A circuit breakers, one for the generator and three for the unit substation transformers. Since only one of the 480 V transformers in the expansion project will be used (with the other in a standby mode), the 1200 A circuit breaker for that standby transformer could be substituted for any one of the other three active 1200 A breakers. In this regard, procurement of Switchgear 21 containing the optional interchangeable circuit breakers is not a technical requirement, but should be exercised only if economically advantageous. As shown on the pricing summary, the Powell base quotation for Switchgear 21 (containing Powell breakers which are not interchangeable with the existing Westinghouse breakers) should be compared to the offerings from CH and TAW (which are based on CH breakers that are interchangeable).

Bus Duct

CH, Powell, and TAW each quoted the three (3) runs of non-segregated phase bus ducts. As illustrated in some of the questions and responses to the bidders, the three (3) bids were normalized to contain equal lengths of bus duct and quantities of elbows. (These updated lengths reflect the best available estimated lengths for bus runs to the generator terminal enclosure and the step-up transformer.) There are no outstanding technical issues with the bus duct portions of the three proposals that have been evaluated.

Technical Conformance

As shown by the detailed correspondence with each of the three bidders, many specific technical issues were reviewed and resolved with CH, Powell, and TAW. Each bidder provided a bill of material in their proposal. These bills of material were reviewed and questions were issued to the bidders as needed. Each bidder was advised that their bill of material would be considered "information only", and the scope of supply would be per the specification and drawings unless specific exceptions or clarifications were provided and accepted. All bidders accepted this comment and acknowledged that their bill of material is "information only." All bidders were questioned concerning their proposed interchangeable circuit breakers, since there are several different types of Cutler Hammer breakers available. All bidders confirmed that their proposed Cutler Hammer breakers would indeed be interchangeable with the existing Westinghouse breakers. Each bidder's

proposed layout for the new switchgear was reviewed and questions were issued. All bidders revised their layouts to be acceptable.

As a result of the responses from the bidders, CH, Powell, and TAW are each considered to be technically acceptable.

Technical Exceptions and Clarifications

CH, Powell and TAW each provided some technical clarifications and exceptions which are listed in Attachments 5, 6 and 7.

Summary of resolution is as follows:

Cutler Hammer

As a result of the follow-up questions and responses, all technical exceptions and clarifications from CH have been withdrawn.

Powell

Several clarifications have been reviewed and Burns and Roe recommends that they be accepted. The balance of Powell's clarifications have been withdrawn as a result of the follow-up questions and responses.

Tampa Armature Works

As a result of the follow-up questions and responses, all technical exceptions and clarifications from TAW have been withdrawn.

Technical Bid Evaluation 2661-SE-203B 15 kV Metal-clad Switchgear and Bus Duct

List of Attachments

- 1. Attachment 1: Technical Issues to be Confirmed by Bidders 6/10/05
- 2. Attachment 1A: Relays and Meters
- 3. Attachment 1B: Test Switches
- 4. Attachment 2: Correspondence List Cutler Hammer
- 5. Attachment 3: Correspondence List Powell
- 6. Attachment 4: Correspondence List Tampa Armature Works
- 7. Attachment 5: Technical Exceptions and Clarifications Cutler Hammer
- 8. Attachment 6: Technical Exceptions and Clarifications Powell
- 9. Attachment 7: Technical Exceptions and Clarifications Tampa Armature Works
- 10. Attachment 8: Technical Bid Data
- 11. Attachment 9: Unit Prices

Appendices

- 1. Appendix 1: Cutler Hammer follow-up correspondence
- 2. Appendix 2: Powell follow-up correspondence
- 3. Appendix 3: Tampa Armature Works follow-up correspondence

Technical Bid Evaluation 2661-SE-203B 15 kV Metal-clad Switchgear and Bus Duct

ATTACHMENT 1: Technical Issues to be Confirmed by Bidders 6/10/05

Note: All bidders are requested to reply using this document electronically, with responses in *BOLD ITALIC*. (TECHNICAL DATA PAGES A2-1 TO A2-5 SHOULD BE RE-SUBMITTED WITH REVISED DATA WHERE APPROPRIATE.) Hard copies sent via mail or FedEx should also be subsequently submitted with appropriate cover letter.

- 1. Examination of Technical Data (Specification Pages A2-1 to A2-5) has shown missing or inconsistent data. Refer to your specific list of problems, attached, and please submit requested information.
- 2. Burns and Roe has prepared a list (identified as Attachment 1A) for protective relays and meters with complete style numbers. Each bidder is requested to confirm compliance.
- 3. Three-line diagrams (Drawings E0022, E0023, E0024) were previously issued to show the contact configuration of test switches in CT and PT circuits. The three-line diagrams (Rev. A) do not correctly represent CT points; Burns and Roe will revise these drawings. Burns and Roe has prepared a list (identified as Attachment 1B) for test switches. (Note that the test switches are shown on the One Line Diagram (E0006) and the associated breaker control schematic diagrams; test switch contacts in DC circuits are shown on breaker schematic diagrams.) Each bidder is requested to confirm compliance with Attachment 1B for test switch quantity and contact configuration. Manufacturer and model numbers of test switches may be substituted per Bidder's preference.
- 4. Kirk Key interlock is shown on one line diagram for Breaker 52-T21. All bidders are requested to confirm that provisions are included for this Kirk Key interlock.
- 5. The zero-sequence current transformers for ground fault detection at both ends of the 3000 A tie bus duct, from Breaker 52-3 to Breaker 52-23, are to be deleted from scope. During the various follow-up questions, Burns and Roe indicated that only one zero-sequence sensor was deleted. Further technical review has now deleted the zero-sequence sensors at both ends.
- 6. The zero-sequence current transformers for ground fault detection on Breakers 52-22, 52-24, 52-25 (1200 A feeder breakers connected to outgoing cables) should be changed to ABB Type GS sensors and ABB Type GKT ground fault relays should be added to scope. Refer to Attachment 1A.
- 7. The grounding transformers are correctly shown as 3 transformers rated 25 kVA each on one line diagram E0006. Three line diagram E0024 Rev. A incorrectly showed these transformers as 37.5 kVA. Bidders are to confirm that 25 kVA grounding transformers are included.

13.8 KV SWITCHGEAR LEE COUNTY

RELAYS & METERS

Device	Quantity	Manufacturer	MOG61 #	
BB1-50 RELAY	7	Document	# #O2011	Breaker Compartment
)	הואידים [ה	BEISU-GSFAIPGINSF	52-22, 52-24, 52-25
SET. FR. DETAY		OFTOOTP		
THEY TOURS	ა	Schweitzer	0551003X532X	52-3 52-22 53-22
		Engineering		122 CH
		Laboratories		_
SHARK 100 METER	9	Electro	SHARK100-60-10-V3-485-X	50-23 E0-00 E0 00
		Industries	3333	_
Thurston magan				BUS pr's
ONDERVOLTAGE KELAY	m	General	HGA14A52	10 E 22
(27)		Electric		771-76
7500 RESISTOR	3			
(FOR 27 DEVICE)				52-T21
OVERVOLTAGE RELAY				
(80)	4	כבוובומו	IAV51D2A	52-T21
(50)		Electric		
DC UNDERVOLTAGE	1	General	12NGV17C1	CL
RELAY		Electric	; ; ;	771-70
DIGITAL AMMETER		Electro	3DAA5-3E-A-D2	C
		Industries		75-76
GKT GROUND RELAY *	3	ARR	2001.064.01TF	
GS SENSOR **	,	***************************************	ZOZEZOOU	52-72, 52-24, 52-25
	°	ABB	302G0800UL	52-22, 52-24, 52-25

NEW RELAY TYPE NEW INSTRUMENT TRANSFORMER TYPE; DELETE ALL 50/5 DONUT TYPE CT'S SHOWN ON DWG E0006, REV E (FROM BKR COMPT'S 52-3, 52-22, 52-23, 52-24, 52-25)

NOTES:

- ALL SHORTING TERMINAL BLOCKS SHALL BE 8-POINT 2. ABOVE QUANTITIES DO NOT INCLUDE LOCKOUT RELAYS, CONTROL RELAYS AND TIMING RELAYS SHOWN ON BREAKER SCHEMATICS

LEE COUNTY 13.8 KV SWITCHGEAR

TEST SWITCHES

Switch Type	Qty	# of	Model #	Arrangement	Breaker	rag
States Type MTS*	13	200			Compartment	Numbers
347	7	7	C4-ZIC-H-B		52-3	TS-3A
		•		1/1/1/1/10/10/10		TS-3B
					52-T21	TS-21B
					52-22	TS-22A
						TS-22B
	•••				52-23	TS-23A
						TS-23B
		-			BUS PT	TS-23C
					52-24	TS-24A
						TS-24B
					52-25	TS-25A
						TS-25B
					52-G2	TS-26C

ALL TEST SWITCHES ARE BACK-CONNECTED WITH SOLID, CLEAR COVER

Attachment 2 Technical Bid Evaluation 2661-SE-203B 15 kV Metal-clad Switchgear and Bus Duct

Correspondence List

BIDDER: Cutler Hammer

- 1. Proposal from Eaton Cutler Hammer dated May 19, 2005.
- 2. Email dated 5/24/05 from Burns and Roe to Cutler Hammer, containing Questions 1-16.
- 3. Email dated 5/26/05 from Burns and Roe to Cutler Hammer, containing Addendum 1 to Specification SE-203B, containing three-line diagrams.
- 4. Email dated 6/1/05 from Cutler Hammer to Burns and Roe, containing CH responses to Questions 1 16 with partial revised CH proposal.
- 5. Email dated 6/2/05 from Burns and Roe to CH, containing Questions 17 27.
- 6. Email dated 6/3/05 from CH to Burns and Roe containing CH responses to Questions 17 27 and technical data sheets and unit price sheets (Attachments A2 and A3 fill-in pages).
- 7. Email dated 6/6/05 from Burns and Roe to CH containing Question 28.
- 8. Email dated 6/9/05 (6:45 PM) from CH to Burns and Roe.
- 9. Email dated 6/9/05 (6:51 PM) from Burns and Roe to CH.
- 10. Email dated 6/9/05 (7:15 PM) from CH to Burns and Roe containing response to Question 28.
- 11. Email dated 6/10/05 from Burns and Roe to CH, containing Attachments 1, 1A and 1B, and Technical Data questions.
- 12. Email dated 6/13/05 from CH to Burns and Roe, containing responses to Attachments 1, 1A and 1B, and Technical Data questions.
- 13. Email dated 6/13/05 from Burns and Roe to CH concerning electrical interlocking.
- 14. Email dated 6/14/05 (11:02 AM) from CH to Burns and Roe concerning electrical interlocking.
- 15. Email dated 6/14/05 from Burns and Roe to CH containing revised Attachment 1A (test switches).
- 16. Email dated 6/14/05 (11:14 AM) from CH to Burns and Roe concerning revised Attachment 1A (test switches).
- 17. Email dated 6/14/05 (11:39 AM) from CH to Burns and Roe concerning bus duct.
- 18. Email dated 6/21/05 (1:43 PM) from CH to Burns and Roe concerning test switches price adjustment.
- 19. Email dated 6/22/05 (12:24 PM) from CH to Burns and Roe concerning final price.

Attachment 3 Technical Bid Evaluation 2661-SE-203B 15 kV Metal-clad Switchgear and Bus Duct

Correspondence List

BIDDER: Powell

- 1. Proposal from Powell dated May 16, 2005.
- 2. Email dated 5/20/05 from Powell with attached layout drawing.
- 3. Email dated 5/26/05 from Burns and Roe to Powell, containing Addendum 1 to Specification SE-203B, containing three-line diagrams.
- 4. Email dated 5/26/05 (4:56 PM) from Burns and Roe to Powell containing Questions 1 13.
- 5. Email dated 5/26/05 (6:01 PM) from Burns and Roe to Powell containing Questions 1 14.
- 6. Email dated 6/2/05 from Burns and Roe to Powell containing Questions 15-21.
- 7. Email dated 6/3/05 from Powell to Burns and Roe containing revised proposal.
- 8. Email dated 6/6/05 (3:05 PM) from Burns and Roe to Powell containing Question 22.
- 9. Email dated 6/6/05 from Powell to Burns and Roe containing response to Question 22 and pricing sheets.
- 10. Email dated 6/6/05 (6:27 PM) from Burns and Roe to Powell requesting technical data sheets.
- 11. Email dated 6/7/05 (11:48 AM) from Powell to Burns and Roe containing revised price sheets.
- 12. Email dated 6/7/05 (6:41 PM) from Powell to Burns and Roe containing technical data sheets.
- 13. Email dated 6/8/05 from Burns and Roe to Powell requesting responses to technical questions.
- 14. Email dated 6/8/05 from Powell to Burns and Roe providing responses to technical questions.
- 15. Email dated 6/10/05 from Burns and Roe to Powell containing technical data follow-up questions and Attachments 1, 1A and 1B with technical issues for confirmation.
- 16. Email dated 6/13/05 from Burns and Roe to Powell containing follow-up information for Attachment 1A.
- 17. Email dated 6/14/05 from Burns and Roe to Powell containing revised Attachment 1B (test switches).
- 18. Email dated 6/14/05 from Powell to Burns and Roe containing response to Attachment 1 and technical data follow-up questions.

Attachment 4
Technical Bid Evaluation 2661-SE-203B
15 kV Metal-clad Switchgear and Bus Duct

Correspondence List

BIDDER: Tampa Armature Works

- 1. Proposal from Tampa Armature Works dated 5/16/05.
- 2. Email dated 5/23/05 from Burns and Roe to TAW containing Questions 1-3.
- 3. Email dated 5/24/05 from TAW to Burns and Roe containing responses to Questions 1-3.
- 4. Email dated 5/24/05 from Burns and Roe to TAW containing Questions 4-11.
- 5. Email dated 5/26/05 from Burns and Roe to TAW containing Addendum 1 to Specification SE-203B, containing three-line diagrams.
- 6. Email dated 5/26/05 from TAW to Burns and Roe containing responses to Questions 4 11 and revised bill of material.
- 7. Email dated 6/2/05 from Burns and Roe to TAW containing Questions 12 18.
- 8. Email dated 6/3/05 from Burns and Roe to TAW containing Covanta comments.
- 9. Email dated 6/3/05 from TAW to Burns and Roe containing responses to Questions 12 18 and response to Question 19 (added by TAW) and revised layout and bill of material.
- 10. Email dated 6/6/05 from Burns and Roe to TAW containing Question 20.
- 11. Email dated 6/7/05 from TAW to Burns and Roe containing circuit breaker information.
- 12. Email dated 6/8/05 from TAW to Burns and Roe containing response to Question 20.
- 13. Email dated 6/9/05 from TAW to Burns and Roe containing circuit breaker information.
- 14. Email dated 6/10/05 from Burns and Roe to TAW containing Attachments 1, 1A and 1B and technical data questions.
- 15. Email dated 6/13/05 from Burns and Roe to TAW containing pricing question concerning interchangeable circuit breakers.
- 16. Email dated 6/14/05 from Burns and Roe to TAW containing revised Attachment 1B (test switches).

Attachment 5 Technical Bid Evaluation 2661-SE-203B 15 kV Metal-clad Switchgear and Bus Duct

Technical Exceptions and Clarifications

BIDDER: Cutler Hammer

1. "SEE BOM":

Resolution: CH was advised in follow-up Question No. 2 that their proposed Bill of Material is to be considered "information only" and the scope of equipment and material to be supplied is to be in accordance with the specification and associated drawings, unless specific exceptions or clarifications have been provided and accepted. CH responded affirmatively. The clarification is withdrawn.

- Factory engineer included all devices that are shown mounted on panel ECP-2.
 If not required, please inform we will give deduct price.
 Resolution: CH was advised in follow-up Question No. 10 to delete all relays and meters that are located in the Electrical Control Panel (ECP-2) and the Protective Relay Panel (PRP-2). CH replied affirmatively. The clarification is withdrawn.
- 3. We assumed extra length of bus duct for vertical height as listed in BOM. If not required, we can offer deduct.
 Resolution: In follow-up Questions 25, 26 and 27, CH was advised that the specified bus duct lengths included horizontal and vertical lengths. Modified bus duct lengths were provided to normalize all bidders. (These updated lengths reflect the best available estimated lengths for bus runs to the generator terminal enclosure and the step-up transformer.) CH responded that it will comply with this information. The clarification is withdrawn.

Attachment 6
Technical Bid Evaluation 2661-SE-203B
15 kV Metal-clad Switchgear and Bus Duct

Technical Exceptions and Clarifications

BIDDER: Powell

1. Spec. 203B, Section 2.3, Par. 4: "Specification requires, "Strucutural or formed steel lifting beams for lifting any shipping section of the switchgear shall be supplied by the vendor". Switchgear will be furnished with lifting eyes; therefore, no lifting beams are required.

<u>Resolution</u>: Use of lifting eyes is considered appropriate. Burns and Roe recommends this clarification be accepted.

- 2. Spec. 203B, Section 2.3.8, Par. 2: Specification requires, "Control or instrument wiring located in the bus compartment shall be located in metallic conduit or wireways." Although not impossible to accomplish, the addition of material and labor is necessary. The standard method of routing low voltage (control) wiring inside metal clad switchgear is in secured bundles with plastic wire ties (tie wraps).
 - <u>Resolution</u>: Follow-up Question No. 13 described that this requirement applies to low voltage wiring that is in the same compartment with 15 kV buses. This clarification has been withdrawn as shown in Powell's revised proposal.
- 3. Spec. 203B, Section 2.4.2, Par. 5 & 6: Specification requires, "Bus duct support for indoor and outdoor bus duct." Powell has not included any bus duct supports at this time. Once a detailed site elevation drawing will be available, Powell can furnish these supports for cost adder.
 - Resolution: Specification described indoor bus duct supports to be supplier by Seller, suitable for hanging using threaded rods provided by others. Powell's revised proposal includes "1 Lot Unistrut Bus Supports" for Bus Runs Nos. 1 and 2. This is considered to be in compliance with the specification. Bus Run No. 3 is a short tie bus that may be entirely supported from both switchgear lineups. Similarly, the outdoor portion of Bus Run 2 is a short horizontal length from the wall plate to the transformer flange; the need for a post support will be determined during detailed design of the bus duct. Burns and Roe recommends that the clarification be accepted for outdoor bus supports, and that Powell's revised quotation does not deviate from the specification for indoor bus ducts.
- 4. Spec. 203B, Section 4.1: Painting: Powell proposes our standard painting process. A copy of our painting procedures is available upon request.

 Resolution: Burns and Roe recommends that this clarification be accepted.
- 5. One Line Diagram E0006, Rev. E: Incoming line for the Main (3000 A) Breaker shows 3-25 KVA CPT's. Secondary of these CPT's connected to a 1.39 Ohms, 33

KW resistor and 3-27 relays and 1-59N relay. We believe 3-PT's with a 85 Ohms/510 Watts resistor will be sufficient. Additionally; we are proposing One (1) Basler BE1-27/59 relay. If this is not acceptable, please consult factory for more technical discussion. If 25 KVA CPT's are required, it will add an additional vertical section in the switchgear lineup.

Resolution: Follow-up Question No. 2 was provided to Powell, with subsequent technical discussions via telephone. The clarification has been withdrawn as shown in Powell's revised proposal. Grounding transformers, resistor and relays will be supplied as shown on drawing. The need for an additional vertical section is not required because Powell's revised proposal is for "two high" layout.

6. One Line Diagram E0006, Rev. E: Powell has indicated a Zero Sequence CT as indicated on BKR 52-3. We anticipate problems with placing this zero sequence CT on account of the outgoing Hard Bus Duct Termination. We have not found a Ground CT which meets the space requirements. If this is possible, Powell will provide. Our engineers are still waiting to find out if this can be achieved. To be advised.

Resolution: Technical discussions were held between Burns and Roe and Covanta, and the zero-sequence sensors at both ends of this tie bus duct have been deleted. Refer to the follow-up technical issues to be confirmed prior to award, listed in Attachment 1. The clarification is no longer applicable since the subject item has been deleted.

Attachment 7
Technical Bid Evaluation 2661-SE-203B
15 kV Metal-clad Switchgear and Bus Duct

Technical Exceptions and Clarifications

BIDDER: Tampa Armature Works

1. Switchgear elevation is altered per attached sketch. 3000 A breakers cannot have auxiliary rollouts above them and limited rollouts below them are restricted to one only and must be on the floor. Bus ducts modified as required to match new arrangement.

Resolution: Follow-up Question No. 2 was provided to TAW to obtain further explanation of their proposed layout. Covanta provided a mark-up of the proposed TAW layout with suggested revisions. Updated bus duct lengths were provided in follow-up Questions Nos. 15 and 16. TAW revised their proposed layout to be consistent with the Covanta comments (identified as follow-up Question No. 19). TAW incorporated the updated bus duct lengths into their proposal. Clarification is resolved.

TECHNICAL DATA BY BIDDER	Cutler Hamme	r Powell	Tampa Amature	Units
BUS				<u> </u>
rated continuous rms current at 60 Hz				A
BREAKERS	3000 A &	3000 A &	3000 A &	
	1200A	1200 A	1200A	ļ
Close & latch rating	130	135	77	kA
Max sym int current at rated voltage	37		48	kA rms
Max sym int current	48	50	48	kA rms
3-sec short time current carrying capability	48	50	48	kA rms
Max spring charging time	6	7	6	sec
Max closing time	45-60	80	60	msec
Closing coil current at rated voltage	7	3.2	7	Α
Tripping coil current at rated voltage	7	3.2	7	A
Charging motor current amp (max)	9	3.5	4	A
# of bkr operations w/o recharge	3	open-close- open	per ANSI	
CUBICLES				
Heat release per section	2800	1250/500	later	W
Space heater watts per section	750	1230/300	250	W
opwo water water per decitors	750		2.70	
CONTROL SWITCHES				
Manufacturer	ElectroSwitch	ElectroSwitch	ElectroSwitch	
Туре			W2	
Ampere rating, continuous	20	20	10	<u> </u>
Ampere rating, interruping, inductive	5	3	N/A	A
Ampere rating, interruping, noninductive	20	3	10	A
CURRENT TRANSFORMERS				
3000/5 - relaying				
Manufacturer				
Accuracy				
Rating Factor				
2000/5 - relaying				
Manufacturer type	Cutler- Hammer	780		
Accuracy	C200	C200	C200	
Rating Factor		2x @30degC	1.5	
200/5 - relaying				
Manufacturer type	Cutler- Hammer	780	ITI	
Accuracy	C200	C200	C200	
Cating Factor	3200	2x @30degC	2.0	- <u></u>
00/5 - relaying			2,0	
Manufacturer type	Cutler-		ITI	
	Hammer		***	ĺ
couracy	C100		C100	
Sating Factor			2.0	

TECHNICAL DATA BY BIDDER	Cutler Hammer	Powell	Tampa Armature	Units
400/5 - relaying			•	
Manufacturer type	Cutler- Hammer		ITI	
Accuracy	C50		C20	
Rating Factor	050		2.0	
300/5 - relaying		<u> </u>	2.0	· · · · · · · · · · · · · · · · · · ·
Manufacturer type	Cutler-	780	ITI	
Wantuacturer type	Hammer	700		
Accuracy	C100	C100	C20	
Rating Factor		2x @30degC	2.0	
50/5 - donut				
Manufacturer type	Cutler- Hammer	143	ITI	
Accuracy	C10	C10	C10	
Rating Factor		2x @30degC	2.0	
POTENTIAL TRANSFORMERS				
Insulation class	15	15	15	kV
ratio	1 10	14400/120	35/1	
manufacturer	ABB	GE-ITI	ITI	
accuracy	0.3/1.2	0.3/1.2	222	
thermal rating	700	1500		VA
monata rating	7.40			
RELAYS				
Basler BE1-50 [BE150-G5FA1PG1N5F]	*	*	*	
Schweitzer SEL-551 [0551003X532X]	*	*	*	
General Electric 27 relay [HGA14A52]	*	*	*	
General Electric 59 relay [IAV51D2A]	*	*	*	
General Electric 80 relay [12NGV17C1]	*	*	*	
ABB GKT relay [202L2618UL]	*	*	*	
ABB GS sensor [302G0800UL]	*	*	*	
ELECTRO INDUSTRIES METERS				
Multimeter [SHARK100-60-10-V3-485-X]	*	*	*	
Ammeter [3DAA5-3E-A-D2]	*	*	*	
*ALL BIDDERS TO CONFIRM EXACT MODEL I METERS AS PER ATTACHMENT I	NUMBERS AND	QUANTITIES	OF RELAYS A	ND
BREAKER AUXILIARY CONTACTS				
Ampere rating @125Vdc, continuous	20	10	20	A
Ampere rating @125Vdc, interruping, inductive	10	3	10	A
Ampere rating @125Vdc, interruping, noninductive	10	3	10	A
INDICATING LAMPS				
Manufacturer	СН	Control Concepts	GE	

TECHNICAL DATA BY BIDDER	Cutler Hammer	Powell	Tampa Armature	Units
Туре	LED	LED	ET-16 LED	
BUS DUCT DESIGN DATA				
3000A nonsegregated-phase bus duct	16	17.0	15	kV
Nominal voltage rating	15	13.8		K.V
non-ventilated or totally enclosed	1200/2002	2000	NV & NV/TE	
Bus rating, continuous	1200/3000	3000	0.275	A
conductor size	0.5 x 8 in.	0.375×6	0.375×6	
conductors per phase	1 (5.0	2	2	
temp rise over 40degC at full rating	65 C	65 C	65 C	1_ 4
Momentary rating	77	80	50	kA_
Positive sequence reactance 60Hz ac resistance	later	later	later	ohms/ft ohms/ft
	later	later	later	Olulis/It
60Hz ac reactance to neutral Phase A	1.4	1 4	1-4	-1/A
	later	later	later	ohms/ft
Phase B	later	later	later	ohms/ft
Phase C	later	later	later	ohms/ft
60Hz withstand, dry	36	36	35	kV rms
Impulse withstand	95	95	95	kV rms
Enclosure - material type	aluminum	aluminum	aluminum	
Enclosure - material designation		0.105	5052 H32	
Enclosure - sheet metal thickness	0.125	0.125	0.125	inches
Enclosure - dimensions, cross section	20 x 17.38	later	36 x 24	inches
Enclosure - weight of complete assembly	68	later	later	lbs/ft
Enclosure - space heater quantity	l per 8 ft.	1 per 10 ft.	1 in outdoor sect.	
Enclosure - space heater watts	250	500	250	W
1200A nonsegregated-phase bus duct				
Nominal voltage rating		13.8	15	kV
non-ventilated or totally enclosed			NV	
conductor size		0.25 x 4	0.25 x 4	
conductors per phase		1	1	
temp rise over 40degC at full rating		65 C	65 C	
Momentary rating		80	50	kA
Positive sequence reactance		later	later	ohms/ft
60Hz ac resistance		later	later	ohms/ft
60Hz ac reactance to neutral				
Phase A		later	later	ohms/ft
Phase B		later	later	ohms/ft
Phase C		later	later	ohms/ft
60Hz withstand, dry		36	35	kV rms
Impulse withstand		95	95	kV ms
Enclosure - material type		aluminum	aluminum	
Enclosure - material designation			5052 H32	
Enclosure - sheet metal thickness		0.125	0.125	inches
Enclosure - dimensions, cross section		later	36 x 24	inches
	1	tatoi i		
Enclosure - weight of complete assembly		later	later	lbs/ft

TECHNICAL DATA BY BIDDER	Cutler Hammer	Powell	Tampa	Units
			Armature	
Enclosure - space heater watts		500	N/A	W

Item No.	UNIT PRICES	Cutler Hammer	Powell	Tampa Armature
	15 KV SWITCHGEAR			
1	Indoor Vertical Section Housing Only 3000A			
	Add		\$2,620	\$16,200
	Delete		\$2,620	\$16,200
	Indoor Vertical Section Housing Only 1200A			
	Add		\$2,620	\$9,200
······	Delete		\$2,620	\$9,200
2	Removable Circuit Breaker Element Only 3000A			
	Add		\$14,583	\$15,500
	Delete			\$15,500
	Removable Circuit Breaker Element Only 1200A			
	Add		\$13,333	\$10,000
· · · · · · · · · · · · · · · · · · ·	Delete			\$10,000
3	Auxiliary Switch Each		······································	
	Add	\$1,000	\$225	\$375
	Delete	\$1,000	\$225	\$375
4	Current Transformer	Ψ1,000	V-2-7	
-T	Current Transformer Add	\$500	\$170	\$300
	Delete	\$500	\$170	\$300
5	Potential Transformer	\$500	DI/O	\$300
<u> </u>	Add	\$1,800	\$1,262	\$900
	Delete	\$1,800	\$1,262	\$900
		\$1,800	\$1,202	\$900
6	Ammeter Switch	····	S215	\$210
	Add			\$210
	Delete		S215	3210
7	Volumeter Switch		0015	6010
	Add		\$215	\$210
	Delete		\$215	\$210
8	Indicating Ammeter			
	Add		\$150	\$200
	Delete		\$150	\$200
9	Indicating Voltmeter			
	Add		S150	\$200
	Delete		\$150	\$200
10	Current Transducer, 1 Phase			
	Add		\$100	\$375
	Delete		\$100	NA
11	Voltage Transducer, 1 Phase			
	Add		\$100	\$375
	Delete		\$100	NA
12	Wattrneter			
	Add		\$350	\$700
	Delete		\$350	NA
13	Watt Transducer			
	Add		\$375	\$ 750
	Delete		\$375	NA
14	Multifunction Relays SEL551			
	Add	\$1,400	\$1,318	\$1,500

tem No.	UNIT PRICES	Cutler Hammer	Powell	Tampa Armature
	Delete	\$1,400	\$1,318	\$1,500
	Multifunction Relays SEL551A	\$1,400	\$1,010	01,000
	Add	\$3,400		\$2,500
	Delete	Assessment of the second of th		\$2,500
15	Multifunction Meters SHARK	\$5,400		\$2,500
	Add	\$1,200	\$1,245	\$1,000
<u> </u>	Delete		\$1,245	\$1,000
	Multifunction Meters NEXUS	Ψ1,200	Ψ1,2+J	42,000
	Add			\$3,375
	Delete			\$3,375
16	Single Function Relays BE1-50			Ψ3,3.73
	Add	\$1,600	\$4,200	\$1,000
	Delete	\$1,600	\$4,200	\$1,000
	Single Function Relays BE1-59	\$2,000	<u> </u>	7-7-5-
	Add	\$1,600		\$1,200
	Delete	\$1,600		\$1,200
	Single Function Relays BE1-27	<u> </u>		4-,
·	Add	\$1,600		\$1,000
	Delete	\$1,600		\$1,000
17		9 1,550		
	Add			
· · · · · · · · · · · · · · · · · · ·	Delete			
18	Lockout Relay Device 86			
	Add		\$350	\$1,000
	Delete		\$350	NA
19	Inverse Time UV Relay, 1 Phase, Device 27 Single			
	Unit			[
	Add			\$1,000
	Delete		***	\$1,000
	Inverse Time UV Relay, 1 Phase, Device 27 Double Unit			
	Add			\$1,500
	Delete			NA
20	Auxiliary Relay Multipole 27X			
	Add		\$225	\$250
	Delete		\$225	NA.
	Auxiliary Relay Multipole 62G			
	Add		\$325	\$250
	Delete		\$325	NA
21	Control Switch Each			
	Add		\$175	\$300
	Delete		\$ 175	\$300
22	Indicating Lamp Each			· · · · · · · · · · · · · · · · · · ·
	Add		\$100	\$85
	Delete		\$100	\$ 85
23	Non-seg. Phase Bus Duct as per Spec. complete			
	with bus bars and enclosure per linear ft. 1200A			
-	Add		\$450	\$345

Item No.	UNIT PRICES	Cutler Hammer	Powell	Tampa
				Armature
	Delete		\$450	\$345
	Non-seg. Phase Bus Duct as per Spec. complete			
	with bus bars and enclosure per linear ft. 3000A			
	Add		\$600	\$570
	Delete		\$600	\$570
24	90deg Flanged Bend Complete with hardware			
	1200A			
	Add		\$450	\$465
	Delete		\$450	\$465
	90deg Flanged Bend Complete with hardware			
	3000A			
	Add		\$484	\$885
	Delete		\$484	\$465

ATTACHMENT 4

18 8 6 1 5 May

Lee County Solid Waste Resource Recovery Facility Expansion Project

LEE COUNTY, FLORIDA SERVICES/GOODS PURCHASE CONDITIONS

1. Definitions. Order means this Purchase Order which shall include documentation referenced in or attached to the Order. Purchaser is Lee County, Florida. Seller is the named Supplier or Contractor as appropriate. Facility means the Waste to Energy Facility owned by the Purchaser and operated by Covanta Lee, Inc. ("Covanta") for the Purchaser. Goods means articles, items, parts, chemicals, materials, machinery, equipment, supplies, consumables and other tangibles. Services means the activity described in the Order and includes Goods, technology, design, engineering, consultation, manufacturing, transport, supervision, labor, installation, testing, repairs, maintenance or other activity.

- 2. Agreement/Conformance/Changes. Soller sells and Purchaser buys the Goods and/or Services for the price, and upon the terms, described in the Order effective when executed by Purchaser and Seller. The Order constitutes the entire agreement superseding all prior communications, oral or written. Unless expressly modified in the Order, a contract of sale or engagement will result solely upon these Purchaser Conditions. Goods and Services shall conform strictly to the description, scope, plans, specifications or other instructions of Purchaser. Purchaser and Covanta shall have the right to inspect the Services while performed and the Goods at any stage. Goods shall be new, of the best quality, free from fault and defect and in conformance with Purchaser's requirements. No deviations or substitutes will be permitted without the express written agreement of Purchaser. Purchaser shall have the right to reject non-conforming or defective Goods and Services. Rejected Goods shall be removed promptly upon notification, at Seller's expense including transportation. Seller shall bear risk of loss of rejected Goods. Purchaser shall also have the right to change the requirements of the Order. If any such change increases the price, or affects delivery or schedule, Seller shall notify Purchaser of any adjustment within ten (10) days of receipt of Purchaser's notice of a proposed change or any adjustment shall be waived. A change shall become effective upon delivery to Seller of a Change Order executed by Purchaser.
- Belivery/Title. Timely delivery of Goods and performance of Services is critical to avoid substantial loss. Therefore, time is of the essence. In the event of potential delay in delivery of Goods or performance of Services, Seller shall immediately notify Purchaser and Covanta in writing and undertake to reduce or overcome the delay by all reasonable means. Goods delivered late may be rejected or returned at Seller's risk and expense unless Purchaser has authorized late delivery in writing. Unexcused delays in delivery or performance shall entitle the Purchaser to remedies under this Order available under applicable law (not accepted) (PARTIES SHOULD MAINTAIN THEIR RIGHTS UNDER THE CONTRACT) and to obtain replacement Goods and Services and to recover by offset or otherwise the difference between the cost of such replacement Goods and Services and price agreed, plus any other damages permitted by applicable law (not accepted) (SEE NOTE ABOVE Seller shall ship F.O.B. Purchaser's stated destination. Delivery shall be made at Purchaser's receiving area. All containers shall bear gross, tare and net weights. Packing slips with Order numbers, part number and quantity shall be enclosed with each shipment of Goods. Preparation, packaging, transportation, insurance or taxes are included in the price unless otherwise stated in the Order. Title shall pass to Purchaser (or third party stipulated by Purchaser) on the earlier of payment or receipt of Goods; provided that prior to the receipt of Goods at point of destination, risk of loss shall be borne by Seller. Nothing herein shall limit Purchaser's interest in the Goods.
- 4. Payment. All payments will be subject to progress. Seller shall invoice in accordance with the terms of the Order unless stated otherwise. Approved invoices will be paid thirty (30) days upon receipted inspection of the Goods or completion of Services or thirty (30) days after receipt of invoice which ever is later-(INSPECTION SHOULD OCCUR IN A LIMITED TIME PERIOD. HOW LONG TO INSPECT?) No charges of any kind related to Seller's performance shall be paid or reimbursed unless specified in the Order or Change Order. Pricing is not subject to escalation so long as delivery is not delayed. Invoices for Services on a time and material basis shall be accompanied by time sheets or other cost supporting documentation. Purchaser shall not be obligated to make final payment unless all deliverables intended to accompany the Order, including spare parts lists, catalogues, operating instruction manuals, drawings, reports, certifications, etc. are received. Payment shall not be construed as acceptance of Goods or Services, but shall constitute a release of Purchaser from any claims by or through Seller. Except as otherwise stated, the price includes all taxes or other governmental levies on the performance, manufacture, sales, supply, storage, transportation or delivery of the Goods or Services. Seller shall bear foreign exchange risks
- Warranty. For a minimum period of 24 months from receipt of Goods and/or completion of Services, Seller warrants that Goods and/or Services are in accordance with industry standards and the instructions, specifications, drawings and other description, are new, of good quality, design and workmanship, free of defects in material and workmanship, fit and sufficient for the purpose intended if purpose is specifically identified in applicable specifications. (no) SEE CHANGE. Without cost or expense to Purchaser or Covanta, Seller shall promptly re-perform, repair or replace any deficient Goods or Services. Warranties shall not be "pass through", provided, however, that any warranties provided by any subcontractors or suppliers in connection with the Goods or Services shall be assignable to the benefit of Purchaser or Covanta either of whom shall be entitled to enforce them directly. Seller's warranty is assignable to Covanta who shall be entitled to enforce them directly. If Seller has performed any engineering or design work with respect to Goods, or has participated in the selection of Goods, Seller warrants that such work was properly accomplished in accordance with industry standards, and that the results are suitable for the purpose intended(no) SEB NOTE ABOVE. Seller shall not be liable for damage or deterioration due to normal wear and tear, abuse or failure of Purchaser or Covanta to follow operating, maintenance or other instructions of Seller. This warranty does not cover expenses for removing adjacent apparatus, walls, piping, structures, temporary service. Purchaser agrees to provide, at its expense, reasonable access in order that warranty work can be performed. THE FOREGOING WARRANTIES ARE EXCLUSIVE EXCEPT FOR WARRANTIES OF TITLE. SELLER DISCLAIMS ALL OTHER WARRANTIES INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. CORRECTION OF NON-CONFORMITIES IN THE MANNER AND FOR THE PERIOD OF TIME PROVIDED ABOVE SHALL CONSTITUTE SELLER'S SOLE LIABILITY AND PURCHASER'S EXCLUSIVE REMEDY FOR FAILURE OF SELLER TO MEET ITS WARRANTY OBLIGATIONS, WHETHER CLAIMS OF THE PURCHASER ARE BASED IN CONTRACT, IN TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY), OR OTHERWISE(10 advise).
- 6. Cancellation. Purchaser may cancel or terminate the Order at any time for convenience or cause. If for convenience, Seller shall be paid for Goods delivered, and accepted or Services satisfactorily performed to the date of termination. If for cause, any balance due Seller for Goods delivered and accepted, or Services performed before the date of termination shall be adjusted by the total price of the Goods and/or Services less (a) amounts previously paid to Seller, (b) the cost incurred by Purchaser in effecting cover by acquiring substitute Goods or completing the Services and (c) any other direct(ok) damages caused by Seller's failure to perform hereunder. If the adjustment results in a net amount owing to Purchaser, Seller shall promptly remit such amount. With respect to Goods in inventory or in process of manufacture, Purchaser

shall have the right to remove all or a portion thereof from the premises of Seller upon payment or promise to pay as herein provided. Under no circumstances shall Seller be entitled to anticipated profit or revenue for Goods or Services not actually furnished or performed.

7. Indemnity. Seller shall insure, defend, protect, indemnify, and hold Covanta and Covanta's affiliates of any tier, and their employees and agents, harmless from any and all claims and liability including expenses and attorney's fees arising from the other party's performance or non-performance, for injuries to, and/or death of, any and all persons, and for loss of and/or damage to property arising in whole or in part out of the performance of the, Order, including negligence, willful acts, or breach or for any claim of infringement of any patent or other third party proprietary rights. Seller assumes responsibility for any injury or loss incurred by its employees or agents while on Purchaser's premises, other than those caused by Purchaser's gross negligence, and for compliance with Purchaser's and Covants's rules and regulations, particularly those relating to health and safety.

Nothing in this paragraph shall be agreed, altered or construed to waive the Purchaser's liability beyond the limits established in Section 768.28, Florida Statutes, as it may be revised or amended from time to time. The Purchaser will be liable for money damages in tort for any injuries to or losses of property, personal injury, or death caused by the negligent or wrongful act(s) or omission(s) of any official or employee of the Purchaser white acting within the scope of the official's or employee's office or employment under circumstances in which a private person would be held to be liable in accordance with the general laws of the State of Florida.

This indemnification is incorporated by reference into all other contract documents applicable to the Order.

- 8. Insurance. Seller shall be insured on an occurrence basis for: (a) Commercial General Liability, including the products and completed operations in the minimum amount of \$1,000,000 per occurrence; (b) Worker's Compensation and Employer's Liability, as required by law in the state where work is performed; (c) Comprehensive Automobile Liability applicable to all vehicles (owned or hired) brought on-site with a minimum combined single limit of \$1,000,000 per occurrence; (d) Excess, umbrella form, liability with a minimum of \$2,000,000 per occurrence, excess of (a), (b), (Employer's liability) and (c). If applicable, additional professional indemnity and/or pollution legal liability coverage shall provide a minimum of \$5,000,000 per occurrence and, if claims made form, be maintained for a period of three (3) years following completion of services. Subrogation rights are hereby waived against Purchaser and Covanta and their insurers. Where the Order involves the performance of services at the Facility, Seller shall also designate Purchaser, Covanta, and Covanta's affiliates as Additional Insureds on coverages (a), (c), and (d). Seller shall furnish certificates evidencing the required coverage at the time of execution of the Order and provide that thirty (30) days prior written notice be given to Purchaser in the event of any material change.
- 9. Liens and Claims. Seller shall pay timely all costs of performance. Seller waives, and shall not permit any party directly or acting through Seller, to place a lien, charge, form of trust, or other encumbrance on the interests of Purchaser or Covanta. If a lien or other encumbrance attaches to any such interests, Seller promptly shall procure its release at its expense. Purchaser may withhold payment pending receipt of evidence in form and substance satisfactory to Purchaser that such liens, claims and encumbrances have been discharged. Florida's Public Construction Statute, Section 255.05, Florida Statutes, is applicable to this Project. Seller acknowledges that no lien rights are available against the public property and that no Notices to Owner shall be furnished to the Purchaser nor shall any liens be recorded against the Purchaser's interest in the real property.
- 10. Health/Safety/Work Area Cleanliness. For Services performed at the Facility, Seller, its employees, subcontractors, vendors and agents shall abide strictly by all Facility, OSHA, state and local laws, rules and regulations and shall maintain at all times a safe and clean work area and environment. Unsafe conditions and accidents shall be reported promptly to Purchaser and Covanta.
- Confidentiality/Publicity. Data, drawings, specifications, financial, technical and business information, trade secrets, know-how, techniques and any other information whatsoever furnished directly or indirectly, in writing or otherwise, to Seller pursuant to the Order is strictly confidential, shall be used solely in fulfilling the Order or performing Services and not duplicated or disclosed to others, used in whole or in part for any other purpose or become in any way the property of Seller. Seller shall not release any information concerning the Order to the public, press, official body or any third party or permit audio or visual recordings to taping, photographs or allow visitors to Purchaser's or Covanta's premises or advertised without the written consent of Purchaser and Covanta.
- Law/Severability/Waiver. The Order shall be governed by the laws of the state in which the Goods or Services are delivered or performed and, with respect to the sale of Goods, by the Uniform Commercial Code to the extent adopted in that state, except to the extent the remedies of the parties are set forth herein, in which case those shall be sole and exclusive. Seller shall comply with all applicable laws, rules, regulations, ordinances, permits, industry codes, of any governmental entity having jurisdiction, including safety, health, non-discrimination laws and standards. If any provision hereof is determined invalid, illegal or unenforceable, the parties shall make good faith efforts to modify this Order to implement the intent. The remaining provisions shall be valid and enforceable to the fullest extent permitted by law. No provision hereof shall be deemed waived without Purchaser's express written agreement. Failure of Purchaser to demand strict performance in one instance shall not be deemed to waive Purchaser's right to insist on strict performance in any other instance.
- 13. Relationship/Assignment. Nothing herein creates a fiduciary, employment, partnership, joint venture or agency relationship between the parties or Covanta. This Order is not entered into for the benefit of, nor any rights granted to, any other party not mentioned herein. The Order may be assigned by Purchaser to any party without the consent of Seller provided that assignee accepts and agrees in writing to discharge all of Purchaser's obligations hereunder. The Order and any monics due hereunder may not be assigned by Seller without prior written consent of Purchaser.
- Dispute Resolution. Purchaser and Seller consent to the jurisdiction of the courts of the state of Florida and the laws of Florida (without giving effect to its conflict of laws principles) shall govern the validity, interpretation, construction and performance of the Order. In any dispute arising out of or relating to the Order, the prevailing party shall be entitled to an award of its costs and reasonable attorneys' fees, including all such costs and fees incurred on appeal.
- 15. Vendor Documents. Seller shall provide Purchaser or Covanta if so designated, with electronic file copies of all drawings, operating, instruction and maintenance manuals associated with the equipment Seller is providing in accordance with the Purchaser's specification. The electronic format for this information must be compatible with Purchaser's existing software systems.

16. Limitation of Liability. NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED IN THIS ORDER, IN NO EVENT SHALL SELLER BE LIABLE IN CONTRACT, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY) OR OTHERWISE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, NOR SHALL THE TOTAL CUMULATIVE LIABILITY OF SELLER ARISING FROM OR RELATED TO THIS ORDER EXCEED THE PURCHASE ORDER PRICE.