Lee County Board Of County Commissioners Agenda Item Summary

Blue Sheet No. 20050780

- 1. Action Requested/Purpose: Approve and authorize the Chairman to sign Change Order No. 2 to the Professional Service Agreement with Burns and Roe Enterprises, Inc. (Lee Contract No. 2821) providing for additional tasks required for design of the WTE expansion project. Total Change Order 'not-to-exceed' amount is \$307,800.00.
- 2. What Action Accomplishes: Will allow the substitution of approx. 20 million gallons per year of reuse water in lieu of potable water saving about \$90,000 per year. Allows B&R to design the FPL interconnect at a cheaper rate rather than FPL. Will expedite the procurement of the 'balance of plant' construction services and provide more accurate bids.
- 3. Management Recommendation: Staff recommends approval of Action Requested.

4. Departmental Category: 8	C8a		5. Meeting Date:	June 14, 2005
6. Agenda:	7. Requirement/Purp	ose: (specify)	8. Request Initiated	:
X Consent	Statute		Commissioner	
Administrative	Ordinance	2	Department	Public Works
Appeals	X Admin. Co	ode 4-4	Division	Solid Waste
Public	Other		By: Lindsey	J. Sampson /
Walk-On			المستحد	morey / Sangram
9 Background:			3-1-20	7/

- 1. The Professional Service Agreement with Burns and Roe Enterprises included a task for B&R to provide an engineering study investigating the operating and economic impacts of using reuse water instead of potable water for boiler make-up. The study showed acceptable operational conditions with an economic pay-back of approx. 7 years. An additional task is now required to perform the detailed engineering work to implement the change.
- 2. It was anticipated that FPL would perform design/engineering work for the interconnection equipment at the WTE electrical switch-yard for the additional generator as it had done for the original plant. FPL has now informed the County that it will allow the County to perform this design and construction work. B&R can perform this work cheaper than FPL by a margin of approx. 1.5 to 1.
- 3. Additional work will be performed by B&R in order to put firm bid quantities on the bid drawings reflecting anticipated requirements for direct purchase vendor equipment. This will provide for better bids from the contractors.
- 4. The County has requested B&R to perform new design work related to the new cooling tower arrangement because the original plan to use the existing tower sump has been shown to be no longer feasible.

Funds are available in Account: 20092340102.506510, Solid Waste Processing Equip. - SW Mgmt - Professional Services

Attachments: Draft Change Order No. 2

10. Review for	r Scheduling:						
Department Director	Purchasing or Contracts	Human Resources	Other	County Attorney	Budget Servi	ges 12	County Manager/P.W. Director
James 63.05	Str. Tr	N,A		Dun-	Analyst Risk Gra	Mgr.	Januly 105
	ssion Action: Approved Deferred			6/2/02			
	Denied Other			ļ	ec. by CoAtty	RECEIVED COUNTY A	DMIN:
					Pate: (0:3	DMIN (X)
				ľ	Forwarder To:	. 4-2	

LEE COUNTY PROFESSIONAL SERVICE/SERVICE PROVIDER AGREEMENT CHANGE ORDER/SUPPLEMENTAL TASK AUTHORIZATION

☐ Change Order☐ Supplemental Task Authorization		DRA	NO.: 2
(A Change Order or Supplemental T Expenditures Under \$25,000 or Appr \$50,000 or Approval by the Board of Co	oval by the County	Requires Approva Manager for Ex	al by the Department Director for spenditures Between \$25,000 and
CONTRACT/PROJECT NAME: Design	, Engineering & Pro	curement Service	es for the WTE Expansion Project
CONSULTANT: Burns & Roe Enterpris	es, Inc.	PROJECT NO.:	CIP 200923
SOLICIT NO.: <u>CN 04-02</u>		CONTRACT NO	D.: <u>2821</u>
REQUESTED BY: Lee County		DATE OF REQ	JEST: May <u> 1, 2005</u>
Upon the completion and execution of the Consultant/Provider is authorized to			
EXHIBIT "CO/STA-A: SCOPE OF PRO	OFESSIONAL SERV	/ICE:	DATED: <u>5/1/05</u>
EXHIBIT "CO/STA-B: COMPENSATION	N & METHOD OF F	PAYMENT:	DATED: <u>5/1/05</u>
EXHIBIT "CO/STA-C: TIME AND SCH	EDULE OF PERFO	RMANCE:	DATED: No Change
EXHIBIT "CO/STA-D: CONSULTANT" SUB-CONSULT	S/PROVIDERS ASS ANT(S)/SUB-CONT		DATED: <u>No Change</u>
EXHIBIT "CO/STA-E: PROJECT GUIE	DELINES AND CRIT	ERIA:	DATED: <u>No Change</u>
It is understood and agreed that th constitutes an accord and satisfaction.	e acceptance of th	nis modification	by the CONSULTANT/PROVIDER
RECOMMENDED:	ACCEPTED:		COUNTY APPROVAL:
Department Director Date	By: Consultant/Provide (Print Name)		By: Department Director (Print Name) (Under \$25,000)
By: Contracts Mgmt Date	Date Accepted:		Date Approved:
APPROVED: By: *County Attorney's Office Date	Corporate Seal		By: County Manager (Between (\$25,000 and under \$50,000) Date Approved:
*County Attorney's Office Date *County Attorney signature needed for over Board level expenditures only.			By: Chairman Board of County Commissioners Date Approved:

CMO:023:09/25/01

SUPPLEME	ENTAL AGREEMENT No or	(continued)	
X CHANGE O	RDER AGREEMENT No	2 (continued)	
			EXHIBIT "S/COA-A" Date: May 1/2005
SCOPE OF SERVI Expansion Project	CES for Design, Engineering	& Procurement Se	rvices for the WTE
SECTION 1.00	SUPPLEMENT(S) TO, OR	CHANGE(S) TO	

The "Scope of Professional Services" as set forth in Exhibit "A" of the Professional Services Agreement, or Service Provider Agreement, referred to hereinbefore is hereby supplemented, or changed, so that the CONSULTANT, or SERVICE PROVIDER, shall provide and perform the following professional services, tasks, or work as a supplement to, or change to, the scope of services previously agreed to and authorized:

PROFESSIONAL SERVICES

Task CO2-1. Provide detailed engineering and design services described as option 6 in the Water Treatment System Study. Services to include preparation of a design, supply and erect specification, bid evaluation, award, vendor drawing review, all substructure detailed design and other services integrating the water treatment system with the overall plant and existing facility. (See B&R PCN No. 1, attached).

Task CO2-2. Provide detailed engineering, design, and procurement services required to add an additional 138 kV bay to the existing switchyard including all site work, civil, foundations, equipment, grounding, protection and (FPL) interface design. (See B&R PCN No. 2, attached).

Task CO2-3. Provide detailed engineering, design and procurement services to add a new circulating water pump intake/sump for the new cooling tower related to the 3rd combustion unit. Services to include specifications and detailed drawings for the pump sump, screens, pumps (2), and all related electrical and control system requirements. Re-route circulating water piping to new pump intake. (See B&R PCN No. 3, attached).

Task CO2-4. Provide all necessary engineering work, drawings, calculations, sketches, etc., to include sufficient engineering design quantities of concrete foundations/slabs, large-bore piping, ductwork, cable trays, electrical wiring and conduit, control system equipment, structural systems, and all related items such that the contractors preparing proposals for the "balance of plant" construction services will be required to assume only minimal risk related to estimating quantities and construction requirements of these stated work items.

○ CHANGE ORDER AGREEMENT No. 2	
or SUPPLEMENTAL TASK AUTHORIZATION No.	_

EXHIBIT "CO/STA-B"

Date: <u>5/1/05</u>

COMPENSATION AND METHOD OF PAYMENT

For Design, Engineering & Procurement Services for the WTE Expansion Project

SECTION 1.00 CHANGE(S) IN COMPENSATION

The compensation the CONSULTANT, or SERVICE PROVIDER, shall be entitled to receive for providing and performing the supplemented, changed or authorized services, tasks, or work as set forth and enumerated in the Scope of Services set forth in this CHANGE ORDER OR SUPPLEMENTAL TASK AUTHORIZATION AGREEMENT, Exhibit "CO/STA-A", attached hereto shall be as follows:

NOTE: A Lump Sum (L.S.) or Not-to-Exceed (N.T.E.) amount of compensation to be paid the CONSULTANT should be established and set forth below for each task or sub-task described and authorized in Exhibit "S/COA-A". In accordance with Professional Services Agreement Article 5.03(2) "Method of Payment", tasks to be paid on a Work-in-Progress payment basis should be identified (WIPP).

Task Number	Task Title	Amount of Compensation	Indicate Basis of Compensation LS or NTE	If Applicable Indicate (W.I.P.P.)
CO2-1	Add'l. water trtmt. design	\$111,900	NTE	WIPP
CO2-2	Elect. Switchyard design	\$62,400	NTE	WIPP
CO2-3	Add't cooling tower sump and pumps	\$57,000	NTE	WIPP
CO2-4	Provide engineering quantities for GC- BOP procurement	\$76,500	NTE	WIPP
TOTAL		\$307,800.00	NTE	

(Unless list is continued on next page)

☐ CHANGE ORDER AGREEMENT No. 2	
Or SUPPLEMENTAL TASK AUTHORIZATION No	

SECTION 2.00 SUMMARY OF CHANGE(S) IN COMPENSATION

Pursuant to and in consideration of the change(s) in the Scope of Professional Services set forth in the CHANGE ORDER or AGREEMENT, Exhibit "CO/STA-A", the compensation the COUNTY has previously agreed to pay to the CONSULTANT, or SERVICE PROVIDER, as set forth in Exhibit "B" of the Professional Services Agreement, or Service Provider Agreement, shall be changed to be as follows:

Section/Task Number	Section/Task Name	Compensation In the Basic Agreement	Adjustment(s) by Previous CO or STA Nos. <u>1</u>	Adjustment(s) Due to this CO or STA	Summary of Changed Compensation	
6	Insurance Pass- through Cost	\$100,000.00	CO1	\$200,756.00	\$200,756	
Add'l Water Trtmt. Design, Electrical Switchyard Expansion, New Cooling Tower Sump and Pumps, Provision of Engineering quantities for GC- BOP Procurmt.		0	\$200,756.00	\$307,800.00	\$508,556.00	
·						
				·		
 						
					<u> </u>	
TOTAL		\$100,000.00	\$200,756	\$508,556.00	\$508,556.00	

			Project	Change Notice Page 1	e		PM-00 Exhibit	
	Project	Lee Cty WTE Exp Proj	PCN No	1	_ Rev	. <u>A</u>	Date 4/29/0	05
	W.O. No.	02611-001	Originator	Steve Stuhrke/D	. lavaro	ne		
	☐ In-Scope Explanation		cope					
TOR		included the preparation itable for the expanded 1						
⋖	_study_recom	mendations would then b	e prepared fo	or client approval		Distribut		
ORIGIN	Provide deta	of Change: Ref: BREI liled engineering and desi		·		⊠Proj. I	Mgr. ∏Yes [∐No
OR		ferenced study. Services rect specification, bid eva	to include pr	eparation of a desi		⊠Arch. ⊠Mech		No No
	review, all su	bstructure detailed desigent system with the overa	n and other s		the	⊠c/s ⊠Elec.	□Yes [□Yes [∐No ∐No
		Change: (Check approp	<u> </u>			⊠I&C □Nuc.	☐Yes [☐Yes [□No □No
		equest	☐ Cons	struction Cost		□Proce □Proj. (ss 🔲 Yes [∏No ∏No
İ	☐ Contracte	or I Construction Schedule		ılatory Requiremer r (Explain)	nts	Chief	Eng 🔲 Yes [No
	Explanation,		•	. ()		☐Const	rement 🗵Yes [
		Preliminary Impact As			Info W	⊠nf here need	ded):	INO
F	&D & P Hours	: 1298	Appr E&D Co	oximate Values est \$137∕899	00			
	, 10410		ocurement Co					
		Co	nstruction Co	st				l
		C	perating Cos	ts				
		To	al Cost impa	ot: \$137,899	0.00			
Sc	hedule							
De	liverables	See attached discipling	e tasks and a	associated man-ho	urs she	et and sc	ope clarifications	
Otl	ner							
	Dispo	sition (Work on this chang	e will not proce	eed until authorized)				
	Proceed With	n Change 🛛 Do not	Proceed with	Change		Distributio	on:	
X	Present Out	of Scope Change to Clier	ot ,	Marane	_	Same as ibove and		
	··· - 			Dennis lavarone Project Manager				
			4	Project Managei	Г			
				11/2011				

		Projec	t Chang		e		Exhibit II
			Page 2				
W.O. No. <u>02611-001</u>		PCN	No. <u>1</u>		Rev. <u>A</u>	Date: 4/2	
Project Lee Cty W	TE EXP Project rovide summary desc	rintion here - Use	attachment if	necessary).	Preparer:	S. Stuhrke/D. la	varone
Impact/Risk of not Proceeding	ovide summary desc	Highest Hele - 036	audo in com	11000332133.			
Signed By:							
<u> </u>	Proj	ect Manager/D	Designee			Date	-
しょう	y Authorized to F d with the Chang Signed B	je. 🗌 Howe	-				
			Clie	nt		Dat	e
SUM	MARY MAN-HO	UR and COST	ESTIMATE	: (Provide d	letails on sepa	arate page(s)	
	Engineering	Design		ervices	Total Hrs		\$
Man-hours	785	393	120		1298		
Labor Cost	82,808	31,731	11,896				
Other Costs (eg Out of	5,143		6,322			\$137,899	
Pockets, CADD etc)				ated Labo	r Related Co	st	
Effects Construction Cos Explanation:	t Estimate: (Attac	ch Estimate)	∏Yes	⊠No	Amour	nt: \$	
Effects Procurement Cos Explanation:	st Estimate: (Atta	ch Estimate)	∐Yes	⊠No	Amoun	t: \$	
Effects Operating Cost E Explanation:	stimate: (Attach I	Estimate)	□Yes	⊠No	Amoun	t: \$	
				Cost of Pi	eparing PC	N \$NA	
			BRE		Cost Impac		
Effect on Schedule: Explanation:		∐Yes				dule showing imp	act of change.
PCN pricing is valid und							
Co	onstruction Mana	ger	Proj	ect Control	S	Estim	ating
Approval: (To Preser	nt to Client)		is M. lavaro		Waller .	4/28/0	5_
Alt - 1	Action offers		ct Manager/		Docorintia	Date n of Impact	
Client Proceed with the Change	date, i	eview of Det t Proceed with f previously au	the Change	except for	r cost incurre	n of Impact d to prepare PCI	N and costs to
	Signed by:		Client		 -	Date	

Lee County WTE Expansion Project Attachment to PCN # 1, Water Treatment

The following notes are a clarification for the work products associated with this Water Treatment PCN.

- 1. The plant interface P&ID will show all flow interfaces with the water treatment equipment. The water treatment equipment will be represented by boxes only, properly identified, with a reference to the applicable vendor P&ID.
- 2. The water treatment specification will be prepared as a supply and erect ie turnkey specification, including electrical work such as supply of a MCC, cable and conduit etc. BREI will design a supply power feed as appropriate to the system.
- 3. All equipment is located in the existing building or immediately adjacent to the existing building on a concrete slab designed by BREI. No new or building extension is required or included in our work. DUT LEAN-TO AL STAND MIONE ROOF STEUCTURE 15

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Prepare graphic display				1	75	 	 	1	 	-	 	
Prepare data link point list			ļ	 	-	 	 -	8			+	
Incorporate client comments, issue final dwgs					↓	└ ~─	<u> </u>	4	1	 	1	 -
Prepare I&C logics for comment				<u> </u>	 	 	 	1 4	 	 	 	
Grounding Plan Revisions					ļ	 2	10	٠.	 	 	1	
Incorporate client comments, issue final dwgs				ļ		4	14	₩		 	-	
Prepare electrical raceway drawings 70%					<u> </u>	81	2018	₩		ļ	 	
Incorporate client comments		=			 		4	; _	-		 	
Prepare electrical raceway drawings 30%		==			+	1	10	 	 	 	 -	
Prepare electrical one-line diagrams					<u> </u>	40	10		<u> </u>	 	 	
Revise Site Plan				20	1020	ļ	<u> </u>	 	 		 -	
Shop Drawing Review (Rein)				20			ļ	ļ	 	 	 	
Incorporate client comments, issue final dwgs				10 30		 	 	├—	 	 -	 	
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Prepare Pad Demolition drawings for 70% comment				102	102		ļ	<u> </u>	ļ <u> </u>		 	ļ
Incorporate client comments					2	<u> </u>	<u> </u>	<u> </u>			<u> </u>	ļ
Propare Pad Demolition drawings for 30% comment				10				<u> </u>			!	
Incorporate client comments, Issue final dwgs		8	30 10				ļ	<u> </u>			!	ļ.
Prepare Interface piping drawings for 70% comm	14	ß	4020				L				ļ	
Incorporate client comments		8	19					<u> </u>	ļ			
Propare Interface piping drawings for 30% comm-		B	40	-							<u> </u>	ļ
Vendor drawing review/expediting		40	8	. 8		40		20		20	20	
Prepare Conform spec, Term sheet, Admin		16				4			8 20		L	
Incorporate client comments into bid evaluation		24									L	
Bid evaluation	20	80		2		4		4	40 V	Ĺ		
Bid issue									16			
ncorporate client comments		16		1		16 20						
Prepare supply and erect spec for comment		ŝó		8		40		4				
Prepare equipment arrangement dwgs for spec		24	16		1	<u> </u>	1					
Prepare detailed equip P&ID for specification		32			1	<u> </u>		4				
Incorporate client comments	- - 77	숡	20 X									
Incorporate client comments Prepare Plant Interface P&ID for 70% comment	8		90 3		 -			2				
Prepare Plant Interface P&ID for 30% comment		8	40		 -			·		· .		
		16	40			1		4				
Task Description								į				
water freatment System	MOOIT E	,,g	141001110	OH III ZANG	5117.2							
Water Treatment System	Mech F	<u></u>	Mech D	Civil Eng	Civil D	Elect Eng	Elect D	1&C	Procure	Vend Doc	Exped	
Project Change Notice (PCN) No. 1											1 1	

HIS MES

h:common/lee county/pcn/pcn#1task.mnhrs.xls

Lee County WTE Expansion Project Project Change Notice (PCN) # 1 Water Treatment System/Pricing

Discipline	Rate \$/hr	Man-hours	Cost	
Mech Engr.	103.65	368 532	\$ 38,143	34411.80
Mech Design	80.2	230/66	\$18,446	13313.20
Civil Engr.	106.15	192 BB	\$20,381	12950.30
Civil Design	81.5	124 <i>74</i>	\$10,106	2031.00
Elect. Engr.	111.1	167 159	\$18,554	17664.90
Elect. Design	81.5	• • •	\$3,179	2852.50
I&C	98.8	58 <i>58</i>	\$5,730	
Procurement	118.45	80 <i>40</i>	\$9,476	7107.00
Vendor Docs	49.4	20 20	\$988	988.00
Expediter	71.6	20 20	\$1,432	1432.00
Totals		1298 /046	\$126,435	102481.10
CAAD @2.25/E&D hr.	2.25	1178 984	\$2,651	2218.50
Reproductions @ 1.05/mnhr	1.05	1298/044	\$1,363	1098.30
Communications @ 0.87/mnhr	0.87	1298 1046	\$1,129	910.02
Contingency @ 5%			\$6,322	5124
Total Mnhrs/Cost		1298	\$137,899	111831.92

Note: Rates are per contract rate sheet Attachment 1 to Exhibit B.

				PM-003 Exhibit II			
	Project _	Lee Cty WTE Exp Proj	PCN No	2 2	Rev. A	Date <u>5/12/05</u>	
	W.O. No.	02661-001	Originator	Ira Rubin			
۳.	☐ In-Scope Explanation Per contract	: requirements the switch	yard expansio				
INATOR	At the Interconnerated by Description	connection meeting on Ap Lee County of Change:	oril 20, 2005 F	P&L advised that the	e expansion wo Distributi		
ORIGI	Electrical sys to the existin	stem design revision requiges switchyard including all Conference Notes No. 1	grounding, pr		ay	/lgr.	
		Change: (Check approp	•	struction Cost	□Nuc.	∐Yes ∐No ∐Yes ∏No	
	Cilient Re Contracto Improved Explanation,	or Construction Schedule	☐ Proces ☐ Proj. C ☐ Chief E ☐ Const. ☐ Procur	ctis □Yes □No Eng □Yes □No Mgr. □Yes □No			
		Preliminary Impact As					
Approximate Values E&D Hours: 658 E&D Cost \$70,276							
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	EGD Flours		200 00				
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Dei	nedule liverables ner	_	Fotal E&D Co	st \$70,276			
Dei	nedule liverables ner	See attached task/ma	Fotal E&D Co	st \$70,276 ate	Distributio	n:	
Del Oth	nedule liverables ner Dispos Proceed With	See attached task/ma	Fotal E&D Cos n-hour estimate will not proce Proceed with	st \$70,276 ate	Distributio Same as above and	n:	

	Project Change Notice PM-003								
			Page					Exhil	DIT II
W.O. No. 02661-0	01	PCN	l No. 2		Rev.	Α	Date:	5/12/05	
	WTE Expansion Pr			'	_	arer:			 -
	(Provide summary descr		e attachment if	necessary):					
Impact/Risk of not									
Proceeding									
								·	
Signed By:					_			Dete	
<u> </u>	 	ect Manager/E				·		Date	
	eby Authorized to P	roceed with th	ne Change a	and Furnish	a Det	ailed Es	timate of the	he Costs Inv	olved.
CCLIENT ACTION OU DO NOT Proce	eed with the Chang	e. 🔲 Howe	ver, furnish	a Detailed I	Estima	ite of the	e Costs Inv	olved.	-
<u> </u>									
	Signed B	y:	Clia	nt				Date	
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SUI	MMARY MAN-HOL			:: (Provide d Services		on separa al Hrs		otal \$	
Man haura	Engineering	Design		OI VIUES		ui i ii ð	ı	σιαι ψ	
Man-hours	378	240	40 \$2.570		658	,	→ ••••••••••••••••••••••••••••••••••••		
Labor Cost	\$41,263	\$19,560	\$3,579				\$64,402		
Other Costs (eg Out of			\$5,874	عادد المملم	. D-'-'	~4 O==1	\$5,874	/	
Pockets, CADD etc)				ated <u>Labor</u>					
Effects Construction Co	ost Estimate: (Attac	h Estimate)	☐Yes	□No	F	Amount:	\$		
Explanation:									
			·						
Effects Procurement Co	ost Estimate: (Attac	h Estimate)	□Yes	□No	A	vmount:	\$		
Explanation:									
Effects Operating Cost	Estimate: (Attach E	istimate)	☐Yes	∏No	A	mount;	\$		
Explanation:									
				Cost of Pr	eparir	g PCN	\$ NA		
			BRE	Total	Cost	Impact	\$70,276		
Effect on Schedule:		□Yes	⊠No Incl	ude a mark	ed un	schedul	le showing	impact of c	hange
Explanation:			ENITO INCI	udo a mark	ou up	JU 10441	c.loming	paot or o	
•									
PCN pricing is valid u	ntil June 30. 2005	after which t	ime reprici	na of the P	CN m	av be re	equired		
Concurrence:							J		
	Construction Manag	ier -	- Proi	ect Control:			F	stimating	
`	20.704 604011 1464100	منطيع المراث		awn	Ž		<i>.</i>	19	
Approval: (To Prese	ent to Client)	<u></u> E	. lavarone				5/13/0.	5	į
			Project Man	ager			Dal	te	
	t Action after Re	view of Det	ailed Estir	nate and					
Proceed with the		Proceed with			cost ir	ncurred	to prepare	PCN and co	osts to
Change	date, if	previously au	inorized to	proceed.					
	Signed by:								Į
			Client				Dat	le	

Lee County Waste to Energy Expansion Project	Τ	,			Mn-hrs						
Project Change Notice (PCN) No. 2			Γ								
Switchyard Expansion	Mech Eng	Mech D	Civil Eng	Civil D	Elect Eng	Elect D	I&C	Procure	Vend Dod	Exped	
						<u> </u>					
Task Description			ļ	<u> </u>					L		ļ
Update E0005 Key One Line Diagram	<u> </u>				4	2			L		<u> </u>
Update E0006 Main One Line Diagram					12	2					
Update E0100 Site Grounding Plan	L				2			<u> </u>	<u> </u>		
Create E0027 138kV Three Line Diagram	1				20						
Create E0109 138kV Switchyard Grounding Plan					4	13 28		l		-	<u> </u>
Create E1300 SH.1 138kV Bkr Schematic Diagram					16	4					
Create E1300 SH.2 138kV Bkr EWD					4	16					
Create Switchyard Conduit Plan	· · · · · · · ·				4 8	20 32					
Update ECP-2 Front View/BOM Drawing	 		<u> </u>		2				1		
Update PRP-2 Front View/BOM Drawing	 				4	16	_		1 1		
Specification SE-201: Swyd Egpt	ends bil	Pumb.	ייי מעצע		64			20 10	r 5	- 5	<u> </u>
Specification SE-213: Elec Installation	200	CVAICE	1000	 	10 12	+			11		i — —
Specification SE-216: Protective Relay Panel	 				16			 -	 		
Chariffortian SE-216. Protective Relay Parter	4.70- 4	J 7		[——·-	60	 		20 10	} 5	5	
Specification SE-215: HV Circuit Breaker ///C	endes be	J. EV17 161.	7204.	├	00	20		20 20			
Cable & Conduit Schedules		·	0.6	2 40 40		20			 - 		 -
Site Work	 		20 24 70 190	300				 	 - 		ļ
Foundation Design (Norse)	 				<u> </u>			 -	 		 -
Vendor/Shop Drawing Review			160 24	<u> </u>					 		ļ <u>.</u>
FPAL INTERFACE COMMUNICATION	<u> </u>				32-	ļ			<u> </u>		
Totals			106 148	60 98	230	116 150		4020	10	10	5 98 658
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NOTE 1: INCLUDES MULTIPLE BU BREAKER FIND & two Surres finds.	Super	DEPTS,	<u> </u>					 			
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h:common/lee_county/pcn/pcn#2task.mnhrs.xls	L	·	L	L	·	<u> </u>			т——		 -

Lee County WTE Expansion Project Project Change Notice (PCN) # 2 Switchyard Expansion/Pricing

Discipline	Rate \$/hr Man	-hours	Cost	
Mech Engr. Mech Design Civil Engr. Civil Design Elect. Engr. Elect. Design I&C Procurement Vendor Docs	81.5 /16 98.8 118.45 46	90 24 230 146 150 1961	\$0 \$15,710 \$7,335 \$25,553 \$25,553 \$25,553 \$24,41.60 \$12,225 \$4,54.00 \$2,369 \$494.00	
Expediter	49.4 /0 71.6 /0		\$716	
Totals	598	658	\$64,402 <i>59985</i> .50	/ .
CAAD @2.25/E&D hr. Reproductions @ 1.05/mnhr Communications @ 0.87/mnhr	2.25 55 6 1.05 598 0.87 598	658 658	\$1,391 \ Re CALCULATE 627. \$691 \ \$572 \ \ 2999.	
Contingency @ 5%	- 	> oK	\$3,220 Re CMC. 6238	0 . 7
Total Mnhrs/Cost		658	\$70,276 -> Ke CAC. 6238	7.16

Note: Rates are per contract rate sheet Attachment 1 to Exhibit B.

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CONFERENCE NOTES NO. 11

Lee County W-T-E Expansion Project

Monthly Progress Meeting

Date:

April 20, 2005

Location:

Florida Power and Light, Juno Beach, FL

Purpose:

Review of Interconnection Details

Attendees:

Lee County	Covanta Energy	BREI	Florida Power and Light
Lindsey Sampson	Peter Wasiowich	Ira Rubin	Tom Sanders
	Amrit Sagar		Daniel Mayers
	Jody Howard		Ed Clark
			Kenneth Veronee

Discussion:

- 1. Florida Power and Light (FPL) requires the Interconnection Feasibility Study Agreement to be executed by Lee County, with payment, at which time FPL will proceed with the initial feasibility study for this expansion project. Lindsey Sampson discussed some comments from the Lee County attorney concerning this agreement, and it is expected that the agreement will be executed before the end of April, 2005. FPL expects the duration of the initial feasibility study to be 45 days. Following that, FPL will perform a system impact study (duration of approximately 90 days), followed by a facility study (duration of approximately 120 days). FPL performs these studies in series. Cost estimates for the interconnection will be prepared during the last study. Each study requires a signed agreement with Lee County before the study is performed.
- 2. The expansion of the Lee County facility will require a second bay to be added to the plant substation, identified as the FPL 138 kV Lazy Acres Substation. This new bay will be immediately south of the existing bay, connected to the existing 138 kV transmission line (approximately 0.5 miles in length) that originates in the FPL Buckingham Substation. The new bay will contain a new 138 kV circuit breaker and associated disconnect switches and metering equipment. There will be no permanent fence between the existing bay and the new bay. A temporary fence will be installed during construction of the new bay for personnel safety.

CONFERENCE NOTES NO. 11

- 3. The equipment in the new bay will be owned and maintained by Lee County, except the FPL metering equipment may be owned by FPL (FPL to review and advise). The Change of Ownership location for the new 138 kV bay will be at the overhead line drop to the new bay. The ownership and maintenance of the existing bay equipment will remain with FPL. Operational control of the circuit breakers in the new and existing bays will remain with FPL. The substation gate will have double locking to provide access into the substation to both FPL and facility personnel.
- 4. FPL will design and install a new transmission pole at the west end of the new bay, and FPL will design and install the overhead conductors from this pole to the west end of the rigid bus of the new bay, at the first station post insulator. Design details will be coordinated at a later time.
- 5. Protective relaying for the new bay will be similar to the existing bay, except that the 138 kV bus differential relay (87B) for the new bay will belong to the facility. The present one line diagram was reviewed and discussed, with the conclusion that Burns and Roe will need to revise the configuration of the protection and control for the new 138 kV new interconnection.
- 6. FPL metering of the new interconnection was discussed. The Point of Interconnection for metering is at Buckingham Substation, but the actual metering is done at Lazy Acres, with line losses compensated in the metering. Lee County asked if the metering can be done at Buckingham Substation, which would allow a single combined net metering point for revenue metering. FPL indicated that they will still need individual unit metering for their system dispatcher. FPL will review the metering and respond.
- 7. The new bay will have lightning arresters near the line drop connection. Shield wires for lightning protection over the new bay can be provided, but FPL needs to know the tension and elevation for their pole design. Burns and Roe will review the switchyard shielding and provide recommendations.
- 8. FPL will provide the requested technical data by May 13, 2005 (short circuit current values, X/R ratio, voltage and frequency ranges) to enable Burns and Roe to proceed with the facility power system design.
- 9. FPL will provide the detailed design for the existing substation ground grid, including the calculation, fault clearing time and soil resistivity data. Burns and Roe will design the expanded ground grid that will tie into the existing.

Prepared by:

Ira Rubin

04-28-05

			Projec	t Change Notic	Ce PAPI	PM-003
				Page 1	1)1-	Exhibit II
		_				
	Project	Lee Cty WTE Exp	Proj PCN No	3	RevA Date	e <u>5-19-2005</u>
	W.O. No.	02661-001	1 Originator		Steve Stuhrke	•
İ	In-Scop		Out-of-Scope		Olovo otdinico	
	[000p	Project BOD	states that the third 50	0% circ water pump for	r the existing unit will be u	used for the Unit #
ORIGINATOR	Explanatio	n: 3 expansion (Existing sump transmitted or	p inadequate for three	mps), and that the AVE (3) -pump operations.	is to confirm the sump is Ref: Three Pump Circ V	Vater Test Report
Į¥	- · · · · · · · · · · · · · · · · · · ·	Design a new	circulating water pum	p intake for the Unit #3		Affected
9		(2) new 50% c		pport procurement of t ding all required electr		□Yes ⊠No □Yes □No
OR	Description of Change		support. Reroute circu	lating water piping to r independent cooling to	^{new} ⊠Mech.	⊠Yes □No
		and circ water		and opondone oooming to	^{ower} ⊠C/S ⊠Elec.	⊠Yes □No ⊠Yes □No
	Reason for	Change: (Check	k appropriate box)		— ⊠I&C	⊠Yes ∐No
		In Scope		Out of Scope	∏Nuc. ∏Process	□Yes □No □Yes □No
	1 Client	Request	1⊠ Not li	ncluded in Contract.	⊠Proj. CtIs	∐Yes ⊠No
		ctor Request (FC	·	-	☐Chief Eng ☐Const. Mgr.	☐Yes ☐No ☐Yes ☐No
		Engineering		latory Requirement		t ⊠Yes ∐No ⊹
		(Explain) , if required:	4∭ Othe	r (Explain)	⊠pf 6.2	□Yes □No □Yes □No
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			Approximate V		Detailed Estimate	-0:
		E&D MHR:				TBD
		E&D Cost			\$69.587	
		-			•	- ,
		-				-
		:				
Sc	hedule			No impact at this o	date	
De	liverables		See attached task	/man-hour sheet for	new/revised deliverable	es
Otl	ner					
Di	sposition (V	Vork on this chang	ge will not proceed u	ntil authorized.) (Che	ck only one box.)	
	In Scope - F	Proceed With Cha	inge 🛛 Do not F	roceed with Change		
\boxtimes	Out of Scope	- Present Change	e to Client	Maran	ahove and —	
Ço	mments/Instr	ructions:		Dennis lavarone	<u> </u>	
				Project Manage 5/25/05	-	
				Date		
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		Project Change Notice PM-003										
				Exhibit II								
W.	.O. No.	2661-001	Date:	5-19-05								
		t Lee County WTE Exp Project Preparer: S										
1-mno	(Provide summary description here – Use attachment if necessary):											
	Impact/Risk of not Proceeding with use of existing intake could cause operational or performance problems for the plant as well as shorten the life of the pumps. Relocating and use of "spare" pump in new intake instead of two 50% pumps will limit ability of unit to respond to a pump trip and a hard shutdown.											
	Signed By:											
l	r 		ject Manager/De						Date			
	You are I	lereby Authorized to I	Proceed with the	e Change ar	nd Furnish	a Deta	iled E	stimate of	the Costs Involved.			
	☐ Do Not P	roceed with the Chan	ge. 🔲 Howeve	er, furnish a	Detailed E	Estimat	e of the	ne Costs In	volved.			
CLIENT		Signed E	₹v:									
		0.9.104 .	-,-	Clien	t	-			Date			
		SUMMARY MAN-H	OUR and COST	F ESTIMAT	E: (Provide	details	on sep					
		Engineering	Design	Other Se	ervices	Tota	al Hrs		Total \$			
Man-	hours	364	248	48	3	6	60	_				
Labo	r Cost	38,008	20,061	5,686					,755			
	r Costs (eg Ou			5,832					,832			
Pock	ets, CADD etc)		Total Estima		Relate	d Cos	st \$69	,587			
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		oumps and intake com a system design to rec						/				
efficie	ency of the nev	v pumps matches that	t of the existing	pumps this	could mea							
opera	ating cost savir	igs, but it is not clear i	if this will be the									
 					Cost of Pro				NA			
					Total	Cost I	mpac	t \$69	, 5 87			
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Expla	anation: No Imp	pact on schedule is de	terminate on tin	nely procure	ement							
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		pricing is valid until <u>(</u>	not applicable),	aner willen	time repric	ang or	lile r	N may be i	equir e a.			
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				ct Manager					Date			
ПР	roceed with the	Client Action afte	r Review of De	tailed Estii the Change	mate and	Descr r cost in	iption	i of Impaci ed to prepai	: re PCN and costs to			
_	Toceeu wiiit in Change		if previously au			(0311	,our c	o to propar	or on and dode to			
	-	Signed by:	-									
		Signor bj.		Client			-		Date			

Lee County Waste to Energy Expansion Project				Mn-hrs							
Project Change Notice (PCN) No. 3										l	
Circ Water Pump System	Mech Eng	Mech D	Civil Eng	Civil D	Elect Eng	Elect D	I&C	Procure	Vend Doc	Exped	Overall Tota
Task Description										-	
Revise System Calc for 50% pumps at new intake	30 30										
Revise Circulating Water piping	4	32	16								
Revise Circulating Water Pump Specification	14 20	,						8			
Revise P&ID's	10	20	10				4				
Bid evaluation/Term Sheet	20 A	1				Ī		.40	20		
Expand CT chemical injection system	10				1						
Develop blowdown and make-up system		40									
Revise E0010: 4160V One Line Diagram	 	-	 		2					<u> </u>	
Add Elementary/EWD's	1		1		10	10					
Impact to Elec Calcs					2	!		1		1	1
Impact to Cable & Conduit Schedules						4		<u> </u>		<u> </u>	J
New Duct Bank Drawings					Ţ ^{**} 2		1.		<u> </u>		<u> </u>
New Conduit Plan Drawings	1	}	}		2	8	14	1			<u> </u>
Revise Grounding Plan Drawings			ļ		1	4	Ľ			ļ	ļ
Revise Circ Water Pump Logic							5				
CT level and blowdown logics		2	<u> </u>		<u> </u>		10				ļ
Spec out additional instrument and Control Valves		<u></u>				<u> </u>	20			1	<u> </u>
Revise Instrument/IO lists	1	<u> </u>	 	 			12		 	 	<u> </u>
Revise Site Work	_	 	6,19	1/2	4				<u> </u>		
Design new intake structure	8 34	3 4	I 80		30	1			J	<u> </u>	
Trash screen design						1				1	<u> </u>
Trash screen removal monorall design			16 24	1 15	12		1	<u> </u>	1		<u> </u>
Shop drawing review (Rebar/Steel)			30)					<u> </u>		ļ
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Lee County WTE Expansion Project Project Change Notice (PCN) # 3 Circ Water Pump System/Pricing

Date: 25 May 2005

Discipline	Rate \$/hr	Man-hours	Cost
Mech Engr.	103.65	140	\$14,511
Mech Design	80.2	116	\$9,303
Civil Engr.	106.15	154	\$16,347
Civil Design	81.5	86	\$7,009
Elect. Engr.	111.1	19	\$2,111
Elect. Design	81.5	46	\$3,749
I&C	98.8	51	\$5,039
Procurement	118.45	48	\$5,686
Vendor Docs	49.4		\$0
Expediter	71.6		\$0
Totals		660	\$63,755
CAAD @2.25/E&D hr.	2.25	612	\$1,377
Reproductions @ 1.05/mnhr	1.05	660	\$693
Communications @ 0.87/mnhr	0.87	660	\$574
Contingency @ 5%			\$3,188
Total Mnhrs/Cost		660	\$69,587

Note: Rates are per contract rate sheet Attachment 1 to Exhibit B.