

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2011	2012	2013	2014	2015
Capital Expenditures	<u>\$3,315,721.00</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
External Revenues	<u>(\$ 974,310.00)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Program Income (County)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
In-Kind Match County	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
NET FISCAL IMPACT	<u>\$2,341,411.00</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
# ADDITIONAL FTE POSITIONS (Cumulative)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Budget Account No:	Fund <u>4011</u>	Dept <u>721</u>	Unit <u>W010</u>	Object <u>6545</u>	\$2,341,411.00
	Fund <u>3903</u>	Dept <u>721</u>	Unit <u>W033</u>	Object <u>6545</u>	\$ 974,310.00

Is Item Included in Current Budget? Yes X No

Reporting Category N/A

B. Recommended Sources of Funds/Summary of Fiscal Impact:

One (1) time capital expenditure from user fees and balance brought forward and a \$1,200,000 Energy Efficiency and Conservation Block Grant (EECBG) from the United States Department of Energy. Total of \$225,690 of the EECBG funds have already been committed for the Investment Grade Audit and CDM Constructors, Inc. design services.

C. Department Fiscal Review: Julia M. West

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Development and Control Comments:

[Signature]
OFMB
6/1/11

[Signature]
Contract Development and Control
EJ Jones 6/3/11

This item complies with current County policies.

B. Legal Sufficiency:

[Signature]
Assistant County Attorney
6/7/11

C. Other Department Review:

Department Director

LOCATI MAP

SRWRF Digester Biogas Renewable Energy Project - Design/Build Services



Palm Beach County
Water Utilities
Department
Service Area (SA) and
Major Facilities

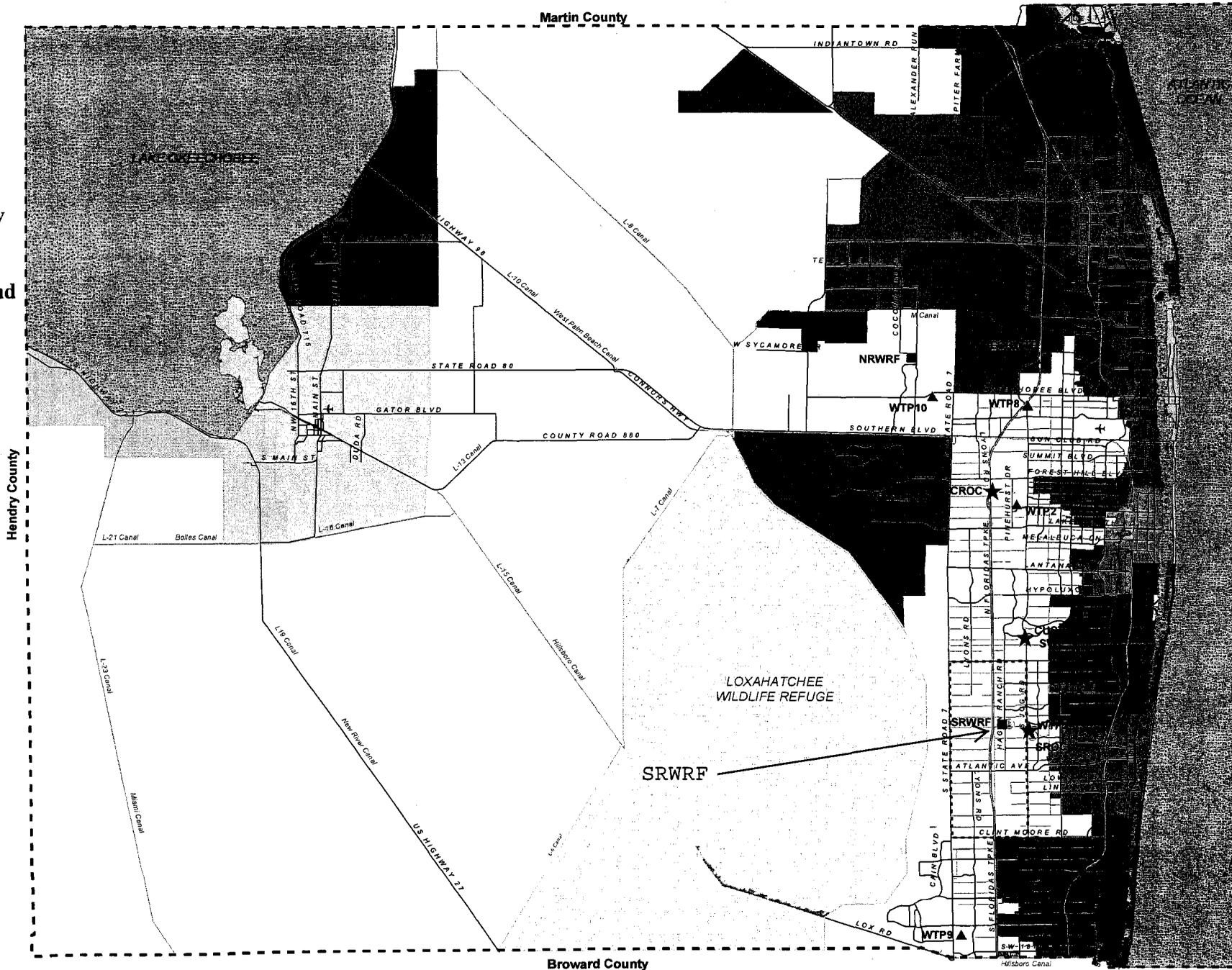
Attachment 1

Legend

- P.B.C.W.U.D. SA
- Mandatory Reclaimed SA
- - - Palm Beach County Limits
- ★ Administration
- Water Reclamation Facility
- ▲ Water Treatment Facility
- ⊙ Wetlands



NOT TO SCALE



WORK AUTHORIZATION NO. 6

Project No. WUD 09-030

SRWRF Digester Biogas Renewable Energy Project – Design/Build Services

Budget Line Item No. 4011-721-W010-6545 \$2,341,411.00 3903-721-W033-6545 \$974,310.00

Project Title: SRWRF Digester Biogas Renewable Energy Project – Design/Build Services

District No.: 5

THIS WORK AUTHORIZATION #6 to the Contract for Design/Build Services dated 6/8/2010 (R2010-0909). (Disaster Recovery Services Design/Build Contract), by and between Palm Beach County and the Design/Build entity identified herein, is for the Construction Services described in Item 3 of this Authorization. Palm Beach County's annual goal for SBE participation for this Contract is 15%. The Design/Build entity has agreed to exceed the goal with a 31% SBE participation overall. This Authorization includes 26.94% overall participation. The cumulative SBE participation, including this authorization is 32.31% overall, to date. Additional authorization will be utilized to meet or exceed the stated overall participation goal.

1. DESIGN/BUILD ENTITY: CDM CONSTRUCTORS INC.
2. ADDRESS: 1601 Belvedere Road, Suite 400 East, West Palm Beach, FL 33406
3. Description of Services to be provided by the Consultant:
Design Services under Design/Build Contract between Palm Beach County and CDM Constructors Inc.
SEE EXHIBIT "A".
4. Services completed by the Design/Build entity to date:
SEE EXHIBIT "B" and "C".
5. Design/Build entity shall begin work promptly on the requested services.
6. The compensation to be paid to the design/build entity for providing the requested Services shall be:
Compensation of a Lump Sum Price in the amount of **\$3,290,721** and a not-to-exceed PBCWUD allowance of **\$25,000** for a total not-to-exceed value of **\$3,315,721**
7. This Consultant Services Authorization may be terminated by the County without cause or prior notice. In the event of termination not the fault of the Design/Build entity, the Design/Build entity shall be compensated for all services performed through the date of termination, together with reimbursable expenses (if applicable) then due.
8. EXCEPT AS HEREBY AMENDED, CHANGED OR MODIFIED, all other terms, conditions and obligations of the Contract dated 6/8/10 (R2010-0909) will remain in force and effect.

PROJECT NO. WUD 09-030:
SRWRF Digester Biogas Renewable Energy Project – Design/Build Services

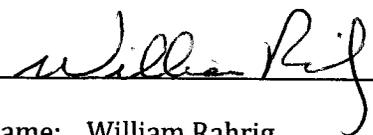
Budget Line Item No. 4011-721-W010-6545 \$2,341,411.00

3903-721-W033-6545 \$974,310.00

IN WITNESS WHEREOF, this Authorization is accepted, subject to the terms, conditions and obligations of the aforementioned Contract.

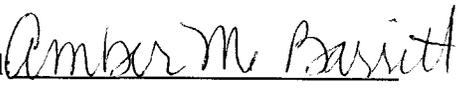
CONSULTANT:
FIRM: CDM Constructors Inc.

PALM BEACH COUNTY
A POLITICAL SUBDIVISION OF THE
STATE OF FLORIDA
BOARD OF COUNTY COMMISSIONERS
OF PALM BEACH COUNTY, FLORIDA

Signed: 
Typed Name: William Rahrig
Title: Project Manager
Date: 5/20/11

Signed: _____
Typed Name: Karen T. Marcus, CHAIR 

ATTEST:

Signed: 

ATTEST:
Sharon R. Bock, Clerk & Comptroller

(Deputy Clerk)

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

(County Attorney)

EXHIBIT A

WORK AUTHORIZATION NO. 6

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

SCOPE OF WORK
FOR
SOUTHERN REGION WATER RECLAMATION FACILITY
DIGESTER BIOGAS RENEWABLE ENERGY PROJECT
DESIGN/BUILD SERVICES

INTRODUCTION

Palm Beach County (COUNTY) entered into an agreement entitled Disaster Recovery Services Design/Build Contract, Project No. WUD 10-027 (CONTRACT) with CDM Constructors Inc. (Design/Build Entity) to provide services for various general activities (Disaster Recovery Services – Design/Build Contract). This Work Authorization will be performed under that CONTRACT. This Work Authorization encompasses providing services related to the backup emergency generation capacity of the Southern Region Water Reclamation Facility as identified in this Exhibit.

BACKGROUND

Design/Build Entity has contracted with COUNTY to provide Design/Build services during and after storms. This Work Authorization will provide staff and materials to complete the SRWRF Digester Biogas Renewable Energy Project, which includes new generators at SRWRF to provide additional capacity in the event of an emergency or during a disaster. In addition, these generators will be fueled by a renewable energy source—digester biogas. By utilizing these renewable generators, SRWRF will be able to conserve fuel for the existing diesel generators in the event of a prolonged disaster. The following scope of services includes Final Design, Permitting, and Construction Services for the SRWRF Digester Biogas Renewable Energy Project.

SCOPE OF SERVICES

The County has previously contracted with Design/Build Entity to perform design development for two 375-kilowatt (kW) internal combustion engines complete with a gas treatment system and the necessary equipment to parallel with the existing onsite utility. This effort included limited civil/site, mechanical, structural, electrical, and instrumentation design. The design documents produced during this previous effort have been included as **Attachment A** to this Exhibit. For this Scope of Services, the Design/Build Entity will complete the design, permitting, and construction of the SRWRF Digester Biogas Renewable Energy Project using the design documents in Attachment A as a basis of design.

Description of Services

Design/Build Entity will provide the following services associated with the project:

- | | |
|--------|---------------------------------------|
| TASK 1 | Engineering Services for Final Design |
| TASK 2 | Engineering Services for Permitting |

TASK 3	Engineering Services during Construction
TASK 4	Construction Services

The following paragraphs describe the services to be provided under each task:

TASK 1.0 - ENGINEERING SERVICES FOR FINAL DESIGN

Design/Build Entity will perform final design services for the SRWRF Digester Biogas Renewable Energy Project. The following subtasks detail the final design effort to be completed under this Scope of Services.

Subtask 1.1 Kickoff Meeting – Design/Build Entity will prepare for and attend a project kickoff meeting with the County. At this meeting, the Design/Build entity will develop an agenda, facilitate the meeting, and develop and distribute minutes of the meeting. The agenda will include a discussion of project scope, specific design elements, schedule, and ARRA finding requirements.

Subtask 1.2 Preparation of Drawings and Specifications – Design/Build Entity will utilize the Design Development Documents, included as Attachment A to this exhibit, as the basis of design to prepare final drawings and specifications for the permitting and construction of the SRWRF Digester Biogas Renewable Energy Project. The documents provided in Attachment A are meant to demonstrate the design intent at the current stage of project development. As the design advances to final completion, there may be changes to the drawings and specifications to accommodate the design advancements. Design/Build Entity will develop drawings and specifications in accordance with the County Design Manual and County CADD standards to approximately a 90-percent completion level. At that time, Design/Build Entity will conduct an internal technical review of the design submittal in accordance with the corporate-mandated Quality Management System, as detailed in Subtask 1.3. Following incorporation of internal review comments, Design/Build Entity will submit the documents to the County for review. A list of probable drawings and specifications for the 90-percent submittal has been included as **Attachment B**. Design/Build Entity will meet with County staff as part of Subtask 1.4 to discuss review comments. Design/Build Entity will then incorporate any final review comments into a pre-final submittal, suitable for permitting. Design/Build Entity will submit the pre-final documents to County and permitting agencies (permitting is detailed in Task 2.0). Following receipt of any review comments from permitting agencies or the County, Design/Build Entity will develop final drawings and specifications issued for construction.

Subtask 1.3 Internal Technical Review – Design/Build Entity will conduct an internal technical review of the documents and specifications at the 90-percent design level, including appropriate discipline cross-checking and red/yellow/green checking for quality control purposes. This internal technical review will be in accordance with the corporate-mandated Quality Management System.

Subtask 1.4 Design Review Meeting(s) with County Staff – Design/Build Entity will attend one design review meeting with County staff following the submittal of the 90-percent design drawings and specifications. Design/Build Entity will prepare and distribute minutes of the meeting. Review comments discussed at this review meeting will be incorporated into the pre-final submittal as detailed in Subtask 1.2. If the County desires, a second review meeting will be held following the pre-final submittal. Design/Build Entity will prepare and distribute minutes of the meeting. Review comments discussed at this review meeting will be incorporated into the final issued for construction submittal as detailed in Subtask 1.2.

TASK 2.0 - ENGINEERING SERVICES FOR PERMITTING

Design/Build Entity will complete the permitting summarized in the subtasks below for the SRWRF Digester Biogas Combined Heat and Power Project.

Subtask 2.1 FDEP Air Construction Permit – Design/Build Entity will coordinate and attend a pre-application meeting with the applicable division(s) of FDEP to discuss the Air Construction Permit for the project. Design/Build Entity will prepare and distribute minutes of the meeting. Design/Build Entity will prepare and submit the necessary permit application and supporting documents to FDEP. The County is responsible for all permit application fees associated with this permitting effort. Design/Build Entity will respond to up to two (2) requests for additional information on this permitting effort.

Subtask 2.2 FDEP Air Operating Permit – During the pre-application meeting with FDEP for the Air Construction Permit, Design/Build Entity will discuss the requirements for the Air Operating Permit application. Design/Build Entity will prepare and submit the necessary permit application and supporting documents to FDEP. The County is responsible for all permit application fees associated with this permitting effort. The County is also responsible for conducting any sampling or testing required as a condition of the air operating permit, if required. Design/Build Entity will respond to up to two (2) requests for additional information on this permitting effort.

Subtask 2.3 FDEP Domestic Wastewater Permit - Letter Notification Only – Design/Build Entity will contact FDEP to discuss the proposed project and to determine the required submittal documents for this project. At this time, it is not anticipated that a pre-application meeting will be needed as there are no proposed modifications to the wastewater treatment process at SRWRF for this project. Design/Build Entity will submit the necessary documents to FDEP notifying them of the project. The County is responsible for any permit fees associated with this permitting effort, although none are anticipated at this time.

Subtask 2.4 Palm Beach County Permitting Support – It is anticipated that a site plan modification will be required for this project. In addition, since the project is in Zone 2 as delineated in the County's wellfield protection ordinance, the County's Environmental Resource Management department must review the project. The County Water Utilities Department (WUD) staff will be responsible for coordinating with both the necessary departments for site plan approval and ERM for the wellfield protection aspect of the project. CDM will support the WUD staff in these efforts by providing the necessary supporting documents and information for these permitting efforts. WUD staff will provide a list of information needed by each County department for local approval on this project.

Subtask 2.5 SFWMD Environmental Resource Permit (ERP) Modification – Design/Build Entity has already contacted SFWMD and determined that a letter modification is required for this project. Design/Build Entity will prepare and submit the letter request as well as all supporting documents. Design/Build Entity will respond to up to one (1) request for additional information. The County is responsible for any permit fees associated with this permitting effort.

Subtask 2.6 Palm Beach County Building Department Approval – Design/Build Entity will be obtaining a building permit from the County for this project as part of Task 5.0, Construction Services. The Engineering Team will support the Building Department permitting effort by responding to requests for information as needed to obtain the Building Permit for the project. Design/Build Entity shall be responsible for permit fees associated with the Building Permit. The

Design/Build Entity will coordinate shop drawings submittals with the Building Department as needed to demonstrate satisfaction of wind loading requirements and product approval as applicable.

Subtask 2.7 FPL Interconnection Agreement - The Design/Build Entity will assist PBCWUD with the FPL interconnection agreement for this project. Preliminary discussions with FPL indicate that PBCWUD will be required to submit an application for the interconnection agreement, followed by an inspection by FPL of the construction system to confirm compliance with the interconnection agreement requirements. The Design/Build Entity will assist PBCWUD in developing and submitting the application for the interconnection agreement and all supporting documentation. PBCWUD will be responsible for any fees associated with the application for the interconnection agreement. The Design/Build Entity will perform the required studies on the NEW equipment only to meet the FPL interconnection agreement requirements and will coordinate with FPL for final inspection of the installed equipment.

TASK 3.0 - ENGINEERING SERVICES DURING CONSTRUCTION

The following subtasks will be completed by the engineering team during the construction phase of the project.

Subtask 3.1 Engineer's Site Visits - Discipline engineers shall make visits to the site at intervals appropriate to the various stages of construction to observe, as an experienced and qualified design professional, the progress and quality of the various aspects of construction. These site visits will also be completed when unforeseen conflicts arise during the course of construction. Based on information obtained during such visits and such observations, the discipline engineers shall endeavor to determine in general if such work is proceeding in accordance with the design documents so that final certifications can be made both to the County and the permitting agencies that the work was completed according to the design documents. The County will also provide onsite project representatives to observe construction. As such, Design/Build Entity will not be providing any resident project representatives for this project.

Subtask 3.2 Submittal Review - Discipline engineers will review and approve (or take other appropriate action in respect of) Shop Drawings, Test Results, Samples, O&M manuals and other data which Contractor is required to submit. Discipline engineers will review all shop drawings submittals to verify compliance with the Florida Building Code wind ratings and product approval.

Subtask 3.3 Interpretations or Clarifications - Discipline engineers shall issue necessary clarifications and interpretations of the design documents as appropriate to the orderly completion of the work. Such clarifications and interpretations, including all field orders, will be consistent with the intent of and reasonably inferable from the design documents.

Subtask 3.4 Substantial/Final Completion Inspection - Discipline engineers shall attend all substantial and final completion inspections. During the substantial completion inspection, the Discipline engineers will work with County staff to assemble a punch list of items to be completed prior to final completion. Discipline Engineers will then determine if punch list items have been completed in accordance with the requirements of the design documents.

Subtask 3.5 Record Drawings - The discipline engineers will prepare and submit record drawings for the County. The documents will be provided both in electronic and hard copy format.

Original AutoCAD files will also be submitted per the terms of the Agreement between Design/Build Entity and the County.

Subtask 3.6 Final Certifications for Permits – The discipline engineers shall submit all required certifications of completion to the permitting agencies delineated in Subtask 2.0. If supporting documents (such as record drawings) are required, the discipline engineers will be responsible for submitting those supporting documents on behalf of the County.

Subtask 3.7 Monthly Construction Progress Meetings – The discipline engineers will attend up to six monthly construction progress meetings as needed throughout the duration of construction. This will include the preconstruction meeting. The discipline engineers will be responsible for developing an agenda and developing and distributing minutes of the meeting.

TASK 4.0 - CONSTRUCTION SERVICES

Design/Build Entity will construct the SRWRF Digester Biogas Renewable Energy Project in accordance with the design documents developed in Task 1.0, the permit conditions established in Task 2.0, and the requirements of the ARRA funding associated with the project—including the Buy American clause and the Davis Bacon wage rates requirements as applicable. The County will be responsible for all documentation associated with the ARRA funding. Design/Build Entity will provide necessary payroll documentation as needed to support the County's grant paperwork requirements.

The SRWRF Digester Biogas Renewable Energy Project includes the following project elements, which have been specified in Attachment A and will be refined during the final design of Task 1.0:

- Provide site/civil work including excavation, backfill, and grading for new concrete slabs; asphalt demolition and restoration for new digester gas pipeline from the gas treatment system to the new generators; and the new asphalt driveway for the generators.
- Form, place, and finish concrete foundations and sidewalks for the new generators, gas conditioning skid, transformers, and electrical equipment upgrades.
- Furnish and install two (2) new 375-kW biogas generators with marine grade aluminum enclosure and epoxy-coated steel skids; one (1) gas treatment system inclusive of the stainless steel skid, two (2) blowers, two (2) coalescing particulate filters, one (1) heat exchanger, and one (1) separate propylene glycol chiller system with condensate drip traps to discharge to the existing manhole that discharges into the onsite plant sanitary system; and the new electrical system components, modifications to the existing system, and transformers as specified in Division 16 to support paralleling the existing onsite power system inclusive of control panels for each of the three systems as specified in Division 11, 13, and 16.
- Furnish and install necessary mechanical piping, valving, and appurtenances and electrical work associated with the installation of the equipment furnished under this project.
- Furnish and install necessary instrumentation (2 new gas flowmeters and electrical wiring for future motor control of valve in each group of digesters); and PLC programming and HMI coordination. The County will assist with integration of the new equipment devices into the existing plant SCADA system.
- Provide startup, testing and commissioning of the generators, gas treatment system, and electrical modifications as specified in the Attachment A.
- Furnish bonds and insurance and pay taxes on equipment and goods.
- Provide a one-year warranty on all equipment.

- Provide spare parts as specified and listed in the vendor cost proposals.
- Meet general conditions to support the execution of the project including project mobilization, ongoing field supervision, construction management for the duration of the project, project safety requirements, construction surveying, activities to meet ARRA requirements, and other miscellaneous project expenses (dumpsters, storage, etc.)

Subcontractors and equipment vendors have provided proposals based upon the drawings and specifications in Attachment A. Those quotes have been included in **Attachment C** and are the basis of this cost proposal.

EXCLUSIONS

- Electrical, pipe, and mechanical conflicts which are not visible or not indicated from underground locates or not shown on record drawings are not the responsibility of the Design/Build Entity.
- Design/Build Entity shall not complete electrical or other third party testing of existing electrical or mechanical equipment.
- County shall complete all site restoration including any resodding, relocation of sprinkler systems, or landscaping.
- No rock excavation or dewatering is included.
- Any electrical connections to the existing FP&L grid are by others.
- Removal or transportation of contaminated soils or hazardous materials.
- No site office trailer will be provided.
- Builders Risk insurance will not be provided.
- Site plan amendments and ERM permitting associated with the wellfield protection ordinance are to be performed by the County.
- Permit fees are to be paid by the County, with the exception of the building permit which will be paid for by Design/Build Entity.
- Documentation for ARRA Funding must be completed by the County.
- The generators will not have a two-year warranty. The units will be provided with the standard one-year warranty from the vendors.

QUALIFICATIONS

- All new condensate and equipment drain piping will be tied into the existing facility sanitary drain system.
- Palm Beach County will allow the use of their existing load bank at the site generator testing.
- Refer to Disaster Recovery Services Design/Build contact, dated June 8, 2010 for any claims and disputes.

COMPENSATION

Compensation for Construction Services for Work Authorization No.6 (WA #6) will not exceed the lump sum amount of **\$3,290,721**, plus the allowance of \$25,000 as detailed below for a total not to exceed amount of **\$3,315,721**. **Attachment D** provides the cost break down and the fee. This pricing is based on receipt of executed work authorization no later than **June 30, 2011**.

SCHEDULE

The scheduled Completion Date for the scope of work associated with WA #6 will be based on the receipt of an executed work authorization no later than June 30, 2011 and will be Substantially Complete within 400-days from NTP, and Final Completion within 460-days from NTP. See **Attachment E**.

Liquidated Damages: Should the work not be completed within the milestones specified herein, liquidated damages will be assessed at \$2,000.00 per calendar day after the substantial completion date and \$1,000.00 per calendar day after the final completion date. Liquidated Damages will be capped at the funding amount of \$1,200,000.00.

CONTINGENCY

The lump sum price includes a Design/Builder controlled allowance in the amount of Zero Dollars (\$0) which is available for the Design/Builder's exclusive use for costs that are incurred in performing work that were unforeseen and not included in the lump sum price. Such cost may include, but not be limited to overtime, costs in correcting defective, damage or nonconforming work, design errors and omissions by sub-consultant and Subcontractor defaults. Any part of this contingency not used by the Design/Builder will be credited to the COUNTY at final project close-out. The lump sum price also includes a COUNTY controlled allowance in the amount of Twenty Five Thousand Dollars (\$25,000) which is available for the County's exclusive use. Any part of the allowance not used by the COUNTY will be credited to the COUNTY at final project close-out.

COUNTY'S OBLIGATIONS

The County shall designate individuals who will be responsible to coordinate and schedule necessary facilities to facilitate construction and participate in testing for acceptance of the Work.

- The County shall promptly review and approve all submittals and select colors within one calendar week and notify design consultant of approval.
- The County shall assist in arranging for access to and make provisions for Design/Build Entity to enter upon public and private property as required by Design/Build Entity or one of its sub-consultants or subcontractors to perform its services.

SBE PARTICIPATION

As prescribed under 1-3 (General Provisions) of the CONTRACT, Small Business Enterprise (SBE) participation is included in **Attachment F** under this Authorization. The attached Schedule 1 defines the SBE participation. All SBEs have completed the required Schedule 2 forms to support this project.

A location map for this project has been provided as **Attachment G**.

LIST OF ATTACHMENTS

ATTACHMENT A - Design Development Plans and Specifications

ATTACHMENT B - Anticipated List of Final Plans and Specifications

ATTACHMENT C - Subcontractor and Vendor Quotes on Design Development Plans and Specifications as provided in Attachment A

ATTACHMENT D - Budget Summary

ATTACHMENT E - Project Schedule

ATTACHMENT F - SBE Schedules 1 & 2

ATTACHMENT G - Location Map

ATTACHMENT D

PBCWUD - SRWRF Digester Biogas Renewable Energy Project - Final Design/Build Services											
WA #6											
ENGINEERING SERVICES											
	Officer \$215	Principal/ Associate \$190	Senior Professional \$140	Professional II \$125	Senior Support Services \$105	Staff Support Services \$90	Project Admin \$90	Total Labor	Outside Professional (Hillers)	Outside Professional (AGA)	Other Direct Costs
Task 1: Final Design											
1.1 Kickoff Meeting	4	4	16	0	0	0	4				
1.2 Preparation of Drawings and Specifications	0	0	80	40	12	76	14				
1.3 Internal TRC Review	8	28	12	0	0	0	0				
1.4 Design Review Meeting	4	4	28	0	0	0	4				
Project Management During Final Design (2 months)	2	0	10	4	0	0	2				
SUBTOTAL TASK 1: FINAL DESIGN	18	36	146	44	12	76	24	\$ 46,910	\$ 12,500	\$ 10,000	\$ 2,500
Task 2: Permitting											
2.1 FDEP Air Construction Permit	4	8	32	20	0	0	7				
2.2 FDEP Air Operating Permit	4	8	32	20	0	0	7				
2.3 FDEP Domestic Wastewater Permit	0	0	4	0	0	2	2				
2.4 PBC Permitting Support	0	0	8	0	0	0	2				
2.5 SFWMD ERP Permit	2	4	8	8	0	2	2				
2.6 PBC Building Permit Support	0	4	7	4	2	8	2				
Project Management During Permitting (2 months)	2	0	10	4	0	0	2				
SUBTOTAL TASK 2: PERMITTING	12	24	101	56	2	12	24	\$ 31,730	\$ 2,500	\$ -	\$ 1,500
Task 3: Services During Construction											
3.1 Engineer's Site Visits	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
3.2 Shop Drawing Review	4	20	60	26	0	0	16				
3.3 Interpretations and Clarifications	5	5	25	0	4	8	0				
3.4 Substantial/Final Completion Inspection	4	16	16	0	0	0	2				
3.5 Record Drawings	0	8	16	32	12	40	4				
3.6 Final Certifications for Permits	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
3.7 Monthly Construction Progress Meetings	0	0	36	0	0	0	12				
Project Management During Construction (8 months)	8	0	40	0	0	0	8				
SUBTOTAL TASK 3: SERVICES DURING CONSTRUCTION	21	49	193	58	16	48	42	\$ 57,875	\$ 25,000	\$ -	\$ 2,500
TOTAL TASKS 1-3: ENGINEERING SERVICES	51	109	440	158	30	136	90	\$136,515	\$ 40,000	\$ 10,000	\$ 6,500

ENGINEERING SERVICES COST SUMMARY	
Total Labor Dollars	\$ 136,515
Subconsultant (Hillers)	\$ 40,000
Subconsultant (Alan Gerwig & Associates, Inc.)	\$ 10,000
Subconsultant Markup (10%)	\$ 5,000
Other Direct Costs	\$ 6,500
TOTAL ENGINEERING SERVICES FEE (ROUNDED)	\$ 198,000

ATTACHMENT D

PBCWUD - SRWRF Digester Biogas Renewable Energy Project Final Design/Build Services

Work Authorization #6

DESIGN/BUILD COST SUMMARY		
General Conditions		\$ 210,831
Site and Civil Work		\$ 53,000
Miscellaneous Concrete Work (sidewalks, transformer slabs)		\$ 6,911
Install Major Equipment		\$ 47,748
Mechanical Work		\$ 102,122
Startup, Testing, and Commissioning		\$ 50,000
Bonds, Insurance, and taxes		\$ 117,129
PURCHASES:		
Unison Solutions - Gas Treatment Equipment		\$ 380,292
Reagan Equipment - Waukesha Generators		\$ 965,016
SUBCONTRACTS:		
Hardie Industries - Concrete Subcontractor (SBE)		\$ 84,269
Hillers - I&C Programming (SBE)		\$ 30,000
Electron - Electrical Subcontractor (SBE)		\$ 729,100
Sub-Total Direct Costs		\$ 2,776,418
Markup on construction services (12%)		\$ 231,966
Markup on subcontracts (10%)		\$ 84,337
Sub-Total of Direct Costs including Markup		\$ 3,092,721
Total Engineering Services		\$ 198,000
Sub Total of Construction and Engineering		\$ 3,290,721
PBCWUD Allowance		\$ 25,000
TOTAL DESIGN/BUILD COST FOR WA#6		\$ 3,315,721

ATTACHMENT E

PROJECT SCHEDULE

WORK AUTHORIZATION NO. 6

WUD 09-030

DESIGN:

- Issue Subcontracts 7 days from Notice to Proceed (NTP)
- Kickoff Meeting 14 days from NTP
- 90% Submittal 45 days from NTP
- Design Review Meeting 60 days from NTP
- Pre-final Submittal for Building Permit 75 days from NTP
- Final Submittal Issued for Construction 105 days from NTP (estimated, pending receipt of building permit)

PERMITTING

- Environmental Permit Submittals 45 days from NTP
- Building Permit Submittal 75 days from NTP

CONSTRUCTION

- Issue Purchase Orders for Major Equipment 30 days from NTP
- Issue Subcontracts 105 days from NTP
- Substantial Completion 400 days from NTP
- Final Completion 460 days from NTP

SCHEDULE 1

LIST OF PROPOSED SBE-M/WBE SUBCONSULTANTS

PROJECT NAME: SRWRF Digester Biogas Renewable Energy Generator Project – Design/Build (WA #6) PROJECT NO. 09-030

NAME OF PRIME CONSULTANT: CDM Constructors Inc.

DESCRIPTION OF WORK: Design/Build Engineering and Construction Services for additional generator capacity in the event of a disaster at SRWRF fueled by renewable energy source – digester gas.

PLEASE IDENTIFY ALL APPLICABLE CATEGORIES OF SUBCONSULTANTS

Name, Address and Phone Number	(Check one or both Categories)		Subcontract Amount				
	Minority Business	Small Business	Black	Hispanic	Women	Caucasian	Other (Please Specify)
1. Hillers Electrical Engineering, Inc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$	\$ <u>70,000.00</u>	\$	\$	\$
2. Hardie Industries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	\$ <u>84,269.00</u>	\$	\$	\$	\$
3. Electron Corp of South Fla.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$	\$	\$	\$ <u>729,100.30</u>	\$
4. Alan Gerwig & Associates Inc	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$	\$	\$	\$ <u>10,000</u>	\$
5.	<input type="checkbox"/>	<input type="checkbox"/>	\$	\$	\$	\$	\$
(Please use additional sheets if necessary)			Total	\$	\$	\$	\$

Total Price \$ \$3,315,721 Total SBE Participation \$ \$893,369.30 SBE % 26.94

- Note:
1. The amounts listed on this form must be supported by the Subconsultant prices included on Schedule 2 in order to be counted toward goal attainment.
 2. Firms may be certified by Palm Beach County as an SBE and/or M/WBE. If firms are certified as both an SBE and M/WBE, please indicate the dollar amount under the appropriate category.
 3. M/WBE information is being collected for tracking purposes only.



SCHEDULE # 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONSULTANT

PROJECT NO. WUD 09-030

PROJECT NAME: SRWRF Digester Biogas Renewable Energy Project - D/B

TO: CDM Constructors Inc.
(Name of Prime Consultant)

The undersigned is certified by Palm Beach County as a(n) - *(check one or more, as applicable):*

Small Business Enterprise Minority Business Enterprise

Black Hispanic Women Caucasian Other (Please Specify)

Date of Palm Beach County Certification: 9/28/09

The undersigned is prepared to perform the following described work in connection with the above project
(Specify in detail particular work items or parts thereof to be performed):

Final electrical and instrumentation design, assistance with permitting, services during construction, and
PLC programming during construction

at the following price (\$) \$70,000.00
(Sub-consultant's fee)

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE sub-consultant, the amount of any such subcontract must be stated: (\$) \$0.00

The undersigned sub-consultant understands that the provision of this form to prime consultant does not prevent sub-consultant from providing services to other consultants.

Hillers Electrical Engineering, Inc.
(Print name of SBE/M/WBE Sub-consultant)

By: *[Signature]*
(Signature)

Paul Hillers/President
(Print name/title of person executing on behalf of SBE-M/WBE Sub-consultant)

Date: 5/17/2011

SCHEDULE # 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONSULTANT

PROJECT NO. 09-030 PROJECT NAME: SRWRF Digester Biogas Renewable Energy Project

TO: CDM Constructors Inc.
(Name of Prime Consultant)

The undersigned is certified by Palm Beach County as a(n) - (check one or more, as applicable):

Small Business Enterprise X Minority Business Enterprise X
Black X Hispanic _____ Women X Caucasian _____ Other (Please Specify) _____

Date of Palm Beach County Certification: Dec 2, 2009 - Dec 1, 2012

The undersigned is prepared to perform the following described work in connection with the above project (Specify in detail particular work items or parts thereof to be performed):

Provide excavation, backfill, form, pour, place, finish and cure concrete equipment slabs.

Final contract amount will be dependent on the progression of the final design.

at the following price \$ 84,269.00
(Subconsultant's fee)

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subconsultant, the amount of any such subcontract must be stated: \$ _____.

The undersigned subconsultant understands that the provision of this form to prime consultant does not prevent subconsultant from providing services to other consultants.

Hardie Industries
(Print name of SBE-M/WBE Subconsultant)
By: Ronald A. Davis
(Signature)
Ronald A. Davis
(Print name/title of person executing on behalf of SBE-M/WBE Subconsultant)

Date: May 17, 2011

SCHEDULE # 2

LETTER OF INTENT TO PERFORM AS AN SBE OR M/WBE SUBCONSULTANT

PROJECT NO. 09-030

PROJECT NAME: SRWRF Digester Biogas Renewable Energy Project

TO: CDM Constructors Inc.
(Name of Prime Consultant)

The undersigned is certified by Palm Beach County as a(n) - (check one or more, as applicable):

Small Business Enterprise Minority Business Enterprise _____

Black _____ Hispanic _____ Women _____ Caucasian Other (Please Specify) _____

Date of Palm Beach County Certification: _____

The undersigned is prepared to perform the following described work in connection with the above project (Specify in detail particular work items or parts thereof to be performed):

Furnish and install electrical work including providing Russelectric equipment and transformers.

Final contract amount will be dependent on options selected as the design progresses.

at the following price \$ 729,100.30
(Subconsultant's fee)

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE subconsultant, the amount of any such subcontract must be stated: \$ _____

The undersigned subconsultant understands that the provision of this form to prime consultant does not prevent subconsultant from providing services to other consultants.

Electron Corp of South Fla.
(Print name of SBE-M/WBE Subconsultant)

By: ce
(Signature)

ALBERT LAESSIG President
(Print name/title of person executing on behalf of SBE-M/WBE Subconsultant)

Date: 5/12/11



SCHEDULE # 2

LETTER OF INTENT TO PERFORM AS AN SBE OR MWBE SUBCONSULTANT

PROJECT NO. WUD 09-030

PROJECT NAME: SRWRF Digester Biogas Renewable Energy Project - D/B

TO: CDM Constructors Inc.

(Name of Prime Consultant)

The undersigned is certified by Palm Beach County as a(n) - (check one or more, as applicable):

Small Business Enterprise

Minority Business Enterprise

Black

Hispanic

Women

Caucasian

Other (Please Specify)

Date of Palm Beach County Certification: 12/28/09

The undersigned is prepared to perform the following described work in connection with the above project (Specify in detail particular work items or parts thereof to be performed):

structural design and review of shop drawings

at the following price (\$) \$10,000.00

(Sub-consultant's fee)

and will enter into a formal agreement for work with you conditioned upon your execution of a contract with Palm Beach County.

If undersigned intends to sub-subcontract any portion of this subcontract to a non-certified SBE sub-consultant, the amount of any such subcontract must be stated: (\$) \$0.00

The undersigned sub-consultant understands that the provision of this form to prime consultant does not prevent sub-consultant from providing services to other consultants.

Alan Gerwig & Associates, Inc.

(Print name of SBE-M/WBE Sub-consultant)

By:

(Signature)

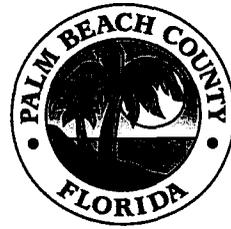
Alan Gerwig, President

(Print name/title of person executing on behalf of SBE-M/WBE Sub-consultant)

Date: 5/17/11

ATTACHMENT G - LOCATI MAP

SRWRF Digester Biogas Renewable Energy Project - Design/Build Services



Palm Beach County
Water Utilities
Department
Service Area (SA) and
Major Facilities

Legend

- P.B.C.W.U.D. SA
- Mandatory Reclaimed SA
- - - Palm Beach County Limits
- ★ Administration
- Water Reclamation Facility
- ▲ Water Treatment Facility
- ⊙ Wetlands



NOT TO SCALE

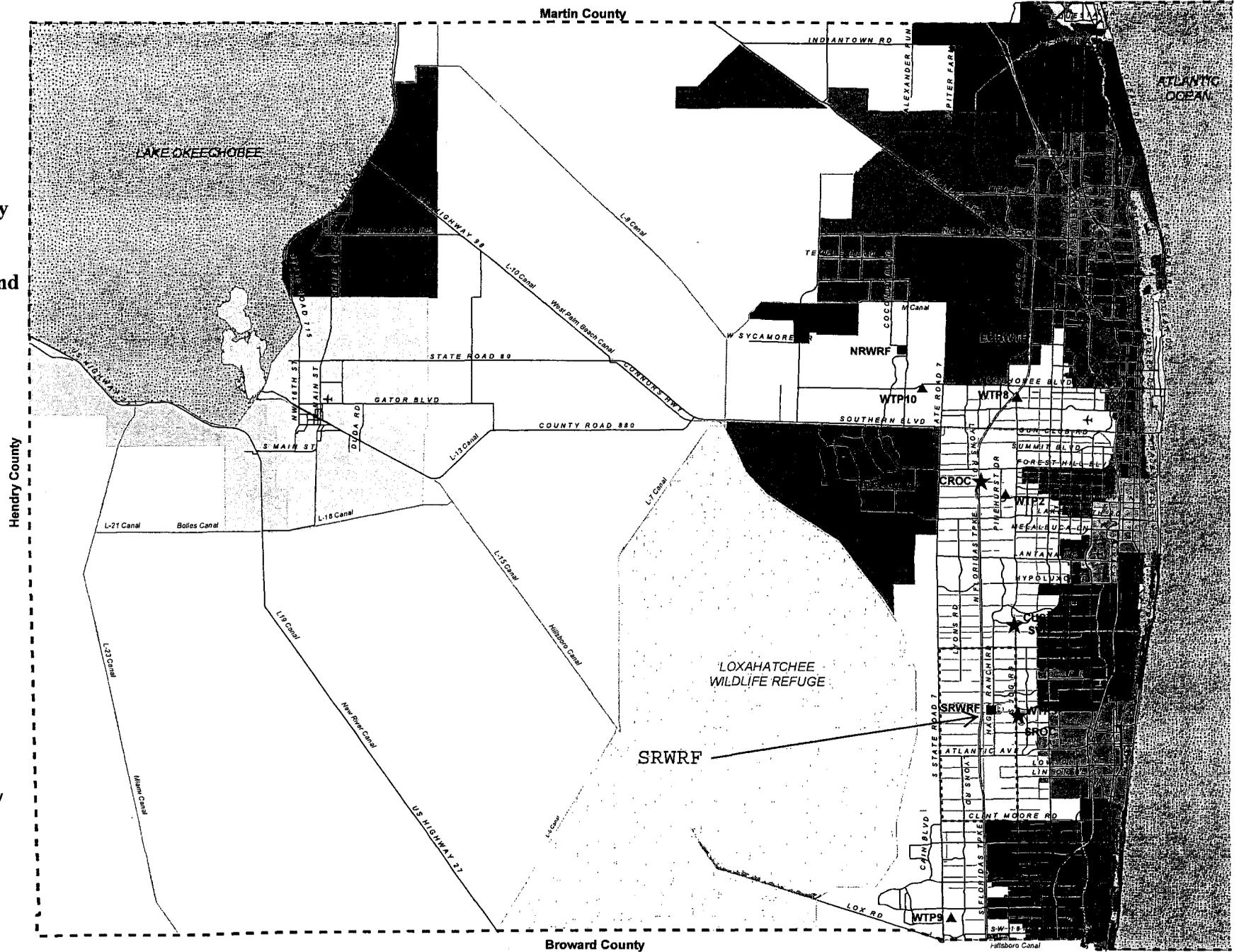


EXHIBIT B

AUTHORIZATION STATUS REPORT

WORK AUTHORIZATION NO. 6

SUMMARY AND STATUS OF REQUESTS FOR AUTHORIZATIONS

AUTH NO.	DESCRIPTION	STATUS	PROJECT TOTAL AMOUNT	DATE APPROVED	WUD NO. ASSIGNED
WORK AUTHORIZATIONS					
1	Customer Service Building Hurricane Hardening	Approved	\$ 160,757.00	7/28/2010	10-055
2	Water Treatment Plant #9 Hurricane Hardening	Approved	\$ 199,941.00	9/22/2010	10-057
3	Water Treatment Plant #2 Hurricane Hardening	Approved	\$ 198,442.00	9/29/2010	10-056
4	Hurricane Hardening of WTP 2, WTP 9 and CROC	Approved	\$ 169,754.00	11/16/2010	10-058
5	Customer Service Building Security Glass	Approved	\$ 62,215.00	1/4/2011	11-046
6	SRWRF Digester Biogas Renewable Energy Project	Pending	\$ 3,315,721.00		09-030
CONSULTANT SERVICES AUTHORIZATIONS					
1	Alternate Emergency Operations Center to Central Control Room - Alternate EOC	Approved	\$ 39,930.00	10/14/2010	11-008
2	SRWRF Digester Biogas Renewable Energy Generator Project - Design Development	Approved	\$ 99,850.00	2/16/2011	09-030
3	Central Monitoring Facility - Final Design	Pending	\$ 120,646.00		
	TOTALS		\$ 4,367,256.00		

EXHIBIT C

AUTHORIZATION STATUS REPORT

WORK AUTHORIZATION NO. 6

SUMMARY OF SBE TRACKING SYSTEM

	TOTAL	SBE
<u>Current Proposal</u>		
Value of Consultant Services Authorization	\$ -	
Value of Work Authorization	\$ 3,315,721	
Value of Consultant Services & Work Authorizations	\$ 3,315,721	
Value of SBE Letters of Intent	\$ 893,368	\$ 893,368
Actual Percentage	26.94%	26.94%
<u>Signed/ Approved Authorizations</u>		
Work Authorization No. 1	\$ 160,757	\$ 91,903
Work Authorization No. 2	\$ 199,941	\$ 96,105
Work Authorization No. 3	\$ 198,442	\$ 87,151
Work Authorization No. 4	\$ 169,754	\$ 102,210
Work Authorization No. 5	\$ 62,215	\$ 41,728
Total Value of Signed Work Authorizations	\$ 791,109	\$ 419,097
Consultant Services Authorization No. 1	\$ 39,930	\$ -
Consultant Services Authorization No. 2	\$ 99,850	\$ 60,000
Total Value of Signed Consultant Services Authorizations	\$ 139,780	60,000
Value of Consultant Service & Work Authorizations	\$ 930,889	
Total Value of SBE Letters of Intent	\$ 479,097	\$ 479,097
Actual Percentage	51.46%	51.46%
<u>Signed Authorizations Plus Current Proposal</u>		
Total Value of Work Authorizations	\$ 4,106,830	
Total Value of Consultant Services Authorizations	\$ 139,780	
Total Value of Consultant Services & Work Authorizations	\$ 4,246,610	
Total Value of Subcontracts & Letters of Intent	\$ 1,372,465	\$ 1,372,465
Actual Percentage	32.31%	32.31%
CDM SBE PARTICIPATION GOAL	31.00%	
GOAL	15.00%	

Inter-Office Memorandum

Palm Beach County



Water Utilities Department

DATE: May 17, 2011

TO: Maurice Tobon, P.E.
Director of Engineering

THRU: Steve McGrew, P.E. *SMG*
Manger of Plant Design

FROM: Diana Rivera, P.E. *DR*
Engineering Division

SUBJECT: Southern Region Water Reclamation Facility (SRWRF)
Energy Performance Contracting (ESCO) Vs. Design / Build
Project WUD 09-030

=====

FPL Services, LLC submitted Energy Audit No. 1 for the Southern Region Water Reclamation Facility (SRWRF) Digester Biogas Project on December 15, 2010. The Audit included a cost estimate to advance the design from 30% to 100%, permitting, construction, construction oversight and a Performance Guarantee totaling: \$4,263,322. This cost included \$373,000 for a Performance Guarantee that is basically an insurance policy for FPL in the event the estimated energy savings are not achieved.

The total cost exceeded the project budget by over \$1.0 million dollars. A copy of the FPL Services cost estimate is attached as Exhibit A. An independent review of the FP&L Services cost proposal recommended, among other suggestions, that the \$373,000 Performance Guarantee fee be eliminated. A copy of the CH2MHill memorandum is attached as Exhibit B. Contract negotiations with FPL Services were not successful.

This memo outlines two factors in the decision to proceed with this project under the existing Disaster Recovery Services Design/Build Contract with CDM Constructors, Inc.

1. The cost provided by FPL Services, LLC is over budget; the cost for the ESCO Guarantee is excessive and not necessary; FPL Services would not re-negotiate their price.
2. CDM Constructors, Inc. is the design/build partner working with FPL Services, LLC. The project fits the intention of the Disaster Recovery Design/Build contract.

The two proposed 335-kW internal combustion generators at SRWRF will provide additional capacity in the event of an emergency or during a disaster. In addition, these generators will be fueled by a renewable energy source – digester biogas. By utilizing these renewable generators, SRWRF will be able to conserve fuel for the existing diesel generators in the event of a prolonged disaster.

CDM Constructors was the design partner working with FPL Services. CDM Constructors developed the 30% design for the Energy Audit. Continuity of design has been preserved by allowing CDM Constructors to proceed with the design to 100%. The CDM Constructors cost estimate to go from 60% to 100% design, permitting and design/build is \$3,290,000 which is approximately \$950,000 below the FPL Services estimate. The CDM Constructors cost estimate is attached as Exhibit C.

Work Authorization No. 6 is tentatively scheduled for the 6/21/11 BCC meeting.

C: Steve McGrew, P.E.

Total Price Breakdown

Material	\$2,060,541
Labor	\$100,146
Construction & Project Management	\$275,000
IGA Development & Engineering	\$458,410
Commissioning	\$10,000
Construction Permits	\$5,000
Bonding	\$27,125
 Subtotal	 \$2,936,222
Contingency	\$275,500
 Subtotal	 \$3,211,722
FPLS Guarantee	\$373,000
CDM Overhead/Profit	\$361,600
FPLS Overhead/Profit	\$315,000
FPL Interconnect Fee	\$2,000
 Total Price	 \$4,263,322

CDM



FPL Services.

Where proven meets possible™

MEMORANDUM

CH2MHILL

SRWRF Digester Biogas Combined Heat and Power Renewable Energy Project

TO: Palm Beach County Water Utilities Dept.
Attn: Maurice Tobon

FROM: Donald Klose & Mark Alpert

DATE: January 11, 2011

Per your request we have reviewed the FP&L cost proposal and related documents for the above project and offer the following findings and suggestions:

- The material and labor pricing elements (\$2,060,541 and \$100,146 respectively) should be competitively bid in order to take advantage of the current market competitive conditions. We believe a savings of as much as 10% could be realized.
- Both the Construction & Project Management and IGA Development & Engineering elements (\$275,000 and \$458,410 respectively) should be provided with detailed back-up showing man-hours, rates, and labor multipliers to identify the level of O&P that is built into these amounts.
- The Contingency should be managed by PBCWUD and all unused funds should be for the account of PBCWUD.
- Any FPLS guarantee penalties should be waived or minimized to an insignificant level and the associated FPLS Guarantee Fee of \$373,000 should be eliminated.
- The combined Overhead/Profit of FPLS and CDM in the amount of \$676,000 is too high based on the following rationale: FPLS financing is not being provided; additional CDM Overhead and Profit is likely embedded in the CM and Engineering activities as discussed in the second bullet.

If negotiations on the above points do not bear the desired result, PBCWUD should consider an alternate approach by initiating negotiations to reach an acceptable stipulated lump sum amount with FPLS based on the funding that PBCWUD has available for the project. If this alternate approach proves unsuccessful, PBCWUD could always consider not moving forward to construction under the ESCO contract and developing a new procurement for the Design/Build or Conventional Delivery of this project.

We believe this memo captures the points discussed during our phone call today. We hope we have provided you with the necessary information to move forward with your important project. If you have any further questions or wish to discuss the project further please feel free to contact either of us at your convenience.

END

ATTACHMENT D**PBCWUD - SRWRF Digester Biogas Renewable Energy Project
Final Design/Build Services****Work Authorization #6**

DESIGN/BUILD COST SUMMARY		
General Conditions		\$ 210,831
Site and Civil Work		\$ 53,000
Miscellaneous Concrete Work (sidewalks, transformer slabs)		\$ 6,911
Install Major Equipment		\$ 47,748
Mechanical Work		\$ 102,122
Startup, Testing, and Commissioning		\$ 50,000
Bonds, Insurance, and taxes		\$ 117,129
PURCHASES:		
Unison Solutions - Gas Treatment Equipment		\$ 380,292
Reagan Equipment - Waukesha Generators		\$ 965,016
SUBCONTRACTS:		
Hardie Industries - Concrete Subcontractor (SBE)		\$ 84,269
Hillers - I&C Programming (SBE)		\$ 30,000
Electron - Electrical Subcontractor (SBE)		\$ 729,100
Sub-Total Direct Costs		\$ 2,776,418
Markup on construction services (12%)		\$ 231,966
Markup on subcontracts (10%)		\$ 84,337
Sub-Total of Direct Costs including Markup		\$ 3,092,721
Total Engineering Services		\$ 198,000
Sub Total of Construction and Engineering		\$ 3,290,721
PBCWUD Allowance		\$ 25,000
TOTAL DESIGN/BUILD COST FOR WA#6		\$ 3,315,721