

**CCNA2018 WORK ORDER 04**

**Landfill Gas System Inspection and Independent Landfill Gas Energy Engineering Support**


This Work Order Number 04 is entered into as of this \_\_\_ day of \_\_\_\_\_, 2019, pursuant to that certain Continuing Consulting Engineering Services Agreement for Professional Services entered into as of this 17<sup>th</sup> day of April, 2018 (collectively referred to as the "Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and Tetra Tech, Inc. ("Consultant").

The COUNTY has selected the Consultant to perform the professional services set forth on Exhibit A (Scope of Work), attached to this Work Order and made part hereof by this reference. The professional services will be performed by the Consultant for the fee schedule set forth in Exhibit B (Fee Schedule), attached to this Work Order and made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit C (Time Schedule), attached to this Work Order and made a part hereof by this reference all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

**CONSULTANT:**

**BOARD OF COUNTY COMMISSIONERS  
OF INDIAN RIVER COUNTY**

By:  By: \_\_\_\_\_  
Matthew Shelton, Chairman

Print Name: \_\_\_\_\_

Title: Project Manager BCC Approved Date: \_\_\_\_\_

**Attest: Jeffrey R. Smith, Clerk of Court and Comptroller**

By: \_\_\_\_\_  
Deputy Clerk

Approved: \_\_\_\_\_  
Jason E. Brown, County Administrator

Approved as to form and legal sufficiency: \_\_\_\_\_  
Dylan T. Reingold, County Attorney



April 10, 2019

Mr. Himanshu Mehta  
Indian River County  
Solid Waste Managing Director  
1325 74<sup>th</sup> Avenue SW  
Vero Beach, FL 32968

**RE: WORK AUTHORIZATION; LFG SYSTEM INSPECTION AND INDEPENDENT  
LFG ENGINEERING SUPPORT**

Dear Himanshu:

Based on our recent discussions, please accept Tetra Tech's proposal for engineering utility services related to the Indian River County (IRC) landfill gas to energy project. This proposal consists of an inspection of your existing LFG system and technical assistance in support of IRC's pursuit of landfill gas (LFG) as energy source. Our scope of work is divided into the following phases:

- Phase 1 - LFG System Inspection
- Phase 2 - LFG to Energy Consulting Support

**Scope of Work**

TetraTech will rely on the expertise of its solid waste group, Cornerstone Environmental (Cornerstone), Dave Knapp and Mike Michels, for this support.

1. LFG System Inspection: Tetra Tech will send 1 senior expert to the IRC landfill to inspect the existing LFG gas system. This inspection will take up to two (2) days, including travel, and include an assessment of the condition and operation of the components that comprise the existing LFG Collection skid including, but not limited to the LFG blowers and motors, sample ports, flow devices, heat sensing devices, knock-out pot, flare and flare stack, header line as it daylight at the flare and electrical connections. Limited gas quality data will be collected at the flare skid (not to include siloxanes or sulfides); collection of wellfield data as well as monitoring/balancing wellfield system is not included in this scope. IRC will need to provide a current set of system as-builts including the electrical schematics.
2. LFG to Energy Support: this task includes labor and expenses for 2 round trip visits to attend a scheduled meeting with IRC and any other party IRC deems appropriate for negotiations of the agreement between IRC and the energy developer. These charges and expenses must be approved by the IRC before use.

Other engineering support, if requested after contract award, will be addressed under a separate agreement between IRC and TetraTech.

Tetra Tech, Inc.

11 Riverside Drive, Suite 204, Cocoa, FL 32922

Tel 321.636.6470 Fax 321.636.6473 [www.tetrattech.com](http://www.tetrattech.com)

### Schedule

TetraTech is aware that the contract between IRC and the end-user are being negotiated. The LFG inspection will be scheduled within two (2) weeks after approval of this proposal and the results submitted in a memorandum format two weeks after completion of the inspection. Phase 2 meetings/support will be completed at mutually agreed upon schedule and as requested by IRC.

### Cost Estimate

A breakdown of the cost for this proposal is provided below:

- Phase 1: LFG System Inspection - \$11,488
- Phase 2: LFGE Engineering/Operations Support - \$19,506

**Total Estimate – \$30,994**

### Terms and Conditions

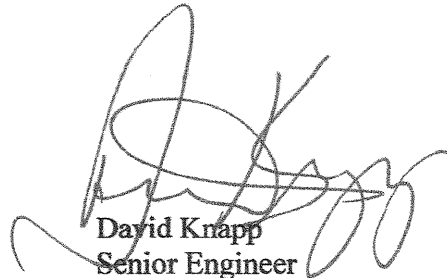
This work will be governed in accordance with the terms and conditions previously approved by the IRC under the continuing engineering services agreement, RFQ2018008 dated April 17, 2018, utility major. Any modifications to the attached language must be accepted by both parties.

If you have any questions or need additional information, please contact David Knapp by phone or email at (770) 331-4086 or david.knapp@cornerstoneeg.com.

Sincerely,



Matthew Shelton  
Project Manager



David Knapp  
Senior Engineer

cc: Brian Watson, P.E.  
Mike Michels, P.E.

Attachment: Cost Spreadsheet



## Exhibit B

Personnel Classification	Hourly Rate			Task 1. System Inspection		Task 2. LFGE Support		Subtotal Hours	Total
		Hours	Cost	Hours	Cost	Hours	Cost		
Project Manager	\$159			8	\$1,273	4	\$636	12	\$1,909
Senior Engineer	\$210			16	\$3,360	16	\$3,360	32	\$6,720
Principal Engineer	\$255			1	\$255	50	\$12,750	51	\$13,005
Scientist V	\$117			4	\$468	0	\$0	4	\$468
Project Administrator	\$84			3	\$252	5	\$420	8	\$672
Contract Administrator	\$100			0	\$0	0	\$0	0	\$0
<b>Labor Total</b>		<b>0</b>	<b>\$0</b>	<b>32</b>	<b>\$5,608</b>	<b>75</b>	<b>\$17,166</b>	<b>107</b>	<b>\$22,774</b>
Travel and ODCs	Unit Cost	Units	Cost	Units	Cost	Units	Cost	Subtotal Units	
Air Travel					\$800		\$1,200	0	\$2,000
Rental Car and rental gas					\$200		\$400	0	\$600
Vehicle/Lodging/Per Diem					\$200		\$400	0	\$600
Per Diem - Meals					\$150		\$240	0	\$390
Parking					\$75		\$100	0	\$175
<b>Travel and ODCs Total</b>			<b>\$0</b>		<b>\$1,425</b>		<b>\$2,340</b>		<b>\$3,765</b>
Subcontractor (cost +10%)	Unit Cost	Units	Cost	Units	Cost	Units	Cost	Subtotal Units	
GEM 500	\$400			1	\$440		\$0	1	\$440
elec/mech	\$3,500			1	\$3,850		\$0		\$3,850
CI Gas	\$150			1	\$165		\$0	1	\$165
<b>Subcontractor Total</b>					<b>\$4,455</b>		<b>\$0</b>		<b>\$4,455</b>
<b>PROJECT TOTAL</b>			<b>\$0</b>		<b>\$11,488</b>		<b>\$19,506</b>		<b>\$30,994</b>

**Exhibit B**  
**Tetra Tech, Inc.**  
**Indian River County**  
**Professional Services Hourly Rate Fee Schedule**  
**Effective October 1, 2017, through September 30, 2020<sup>(1)</sup>**

Position/Titles	Raw Labor Rates		Direct Labor Rate Multiplier	Raw Labor Rates x Multiplier	
	Minimum	Maximum		Minimum	Maximum
<b>Project Management</b>					
Sr Project Manager	\$ 52.00	\$ 80.00	3.0	\$ 156.00	\$ 240.00
Project Manager	\$ 41.00	\$ 65.00	3.0	\$ 123.00	\$ 204.00
<b>Engineers</b>					
Principal Engineer	\$ 70.00	\$ 99.00	3.0	\$ 210.00	\$ 297.00
Sr. Engineer	\$ 50.00	\$ 79.00	3.0	\$ 150.00	\$ 237.00
Engineer V	\$ 39.00	\$ 61.00	3.0	\$ 117.00	\$ 183.00
Engineer IV	\$ 32.00	\$ 49.00	3.0	\$ 96.00	\$ 147.00
Engineer III	\$ 26.00	\$ 40.00	3.0	\$ 78.00	\$ 120.00
Engineer II	\$ 24.00	\$ 34.00	3.0	\$ 72.00	\$ 102.00
Engineer I	\$ 22.00	\$ 29.00	3.0	\$ 66.00	\$ 87.00
Engineering Technician	\$ 12.00	\$ 22.00	3.0	\$ 36.00	\$ 66.00
<b>Scientists</b>					
Scientist VI	\$ 45.00	\$ 71.00	3.0	\$ 135.00	\$ 213.00
Scientist V	\$ 31.00	\$ 57.00	3.0	\$ 93.00	\$ 171.00
Scientist IV	\$ 27.00	\$ 38.00	3.0	\$ 81.00	\$ 114.00
Scientist III	\$ 24.00	\$ 30.00	3.0	\$ 72.00	\$ 90.00
Scientist II	\$ 20.00	\$ 26.00	3.0	\$ 60.00	\$ 78.00
Scientist I	\$ 19.00	\$ 23.00	3.0	\$ 57.00	\$ 69.00
<b>Design Professionals</b>					
Sr CAD/Eng Designer II	\$ 39.00	\$ 52.00	3.0	\$ 117.00	\$ 156.00
Sr CAD/Eng Designer I	\$ 26.00	\$ 40.00	3.0	\$ 78.00	\$ 120.00
CAD/Engineering Designer III	\$ 24.00	\$ 33.00	3.0	\$ 72.00	\$ 99.00
CAD/Engineering Designer II	\$ 18.00	\$ 24.00	3.0	\$ 54.00	\$ 72.00
CAD/Engineering Designer I	\$ 15.00	\$ 21.00	3.0	\$ 48.00	\$ 63.00
<b>Surveyors</b>					
Sr Land Surveyor	\$ 41.00	\$ 50.00	3.0	\$ 123.00	\$ 150.00
Land Surveyor	\$ 28.00	\$ 40.00	3.0	\$ 84.00	\$ 120.00
Survey Crew Chief	\$ 24.00	\$ 38.00	3.0	\$ 72.00	\$ 114.00
Survey Tech	\$ 17.00	\$ 30.00	3.0	\$ 51.00	\$ 90.00
<b>Architects</b>					
Architectural Program Mgr	\$ 65.00	\$ 85.00	3.0	\$ 195.00	\$ 255.00
Sr Architect	\$ 55.00	\$ 75.00	3.0	\$ 165.00	\$ 225.00
Architect	\$ 35.00	\$ 55.00	3.0	\$ 105.00	\$ 165.00
Architectural Designer	\$ 17.00	\$ 35.00	3.0	\$ 51.00	\$ 105.00
<b>Construction Professionals</b>					
Construction Project Rep	\$ 22.00	\$ 42.00	3.0	\$ 66.00	\$ 126.00
Construction Manager II	\$ 50.00	\$ 70.00	3.0	\$ 150.00	\$ 210.00
Construction Manager I	\$ 38.00	\$ 54.00	3.0	\$ 114.00	\$ 162.00
Construction Administrator	\$ 23.00	\$ 39.00	3.0	\$ 69.00	\$ 117.00
<b>GIS Analysts</b>					
Sr Analyst	\$ 30.00	\$ 65.00	3.0	\$ 90.00	\$ 195.00
Project Analyst II	\$ 24.00	\$ 40.00	3.0	\$ 72.00	\$ 120.00
Project Analyst I	\$ 18.00	\$ 28.00	3.0	\$ 54.00	\$ 84.00
<b>Project Administration</b>					
Sr Project Administrator	\$ 27.00	\$ 35.00	3.0	\$ 81.00	\$ 105.00
Project Administrator	\$ 15.00	\$ 32.00	3.0	\$ 45.00	\$ 96.00
Project Assistant	\$ 12.00	\$ 22.00	3.0	\$ 36.00	\$ 66.00
Contract Administrator	\$ 25.00	\$ 36.00	3.0	\$ 75.00	\$ 108.00
<b>Subconsultant</b>					
	Cost + 10%				
<b>Reimbursable Expenses</b>					
Engineer's Reimbursable Travel/Mileage	At Cost				
Other Direct Costs	At Cost				

<sup>(1)</sup>These hourly billing rates will remain effective for the initial duration of this Agreement, and may be renegotiated should an additional renewal period be exercised.

## **Exhibit C**

### **Landfill Gas System Inspection and Independent Landfill Gas Energy Engineering Support**

#### **PROJECT SCHEDULE**

Tetra Tech is aware that the contract between IRC and the end-user are being negotiated. The LFG inspection will be scheduled within two (2) weeks after approval of this proposal and the results submitted in a memorandum format two weeks after completion of the inspection. Phase 2 meetings/support will be completed at mutually agreed upon schedule and as requested by IRC.