

**CITY OF MARIANNA
COMMISSION AGENDA MEMO
SPECIAL MEETING
December 18, 2018**

ADMINISTRATIVE STAFF REPORT

- Subject:** Florida Department of Environmental Protection (FDEP)
State Revolving Fund (SRF)
Solar Farm Project – Change Order #1
- Subject Background:** The construction of a solar farm at the City’s treatment plant and spray field are underway. One part of the project is a monitoring system for both sites. After awarding the project and based on research by the engineer it is proposed to deviate from the original monitoring system to an alternative being used by other municipalities in the State, which would reduce the cost by nearly \$43,000.
- Additionally there is additional equipment required as part of the connection to the Florida Public Utilities system, costing approximately \$2,200.
- Recommendation:** The Change Order has been reviewed by staff and determined the change to the project is beneficial and acceptable, staff recommends approval of Change Order #1.
- Potential Motion:** I move to approve the proposed Change Order #1.

Approved for agenda by:



December 14, 2018

Jim Dean, City Manager
City of Marianna
2898 Green Street
Marianna, FL 32446

RE: City of Marianna WWTP & Sprayfield Solar Plants Project – Change Order #1 for Approval

Dear Mr. Dean:

Please find attached Change Order #1 for the City of Marianna WWTP & Sprayfield Solar Plants project. This change order is to grant a 28-day time extension in the construction schedule to account for adverse conditions resulting from Hurricane Michael; to change the supplier for the solar plant monitoring system at cost savings of \$42,857.29; to add an optional feature to the two electronic reclosers to provide automatic isolation following loss of electric power at a cost of \$2,240.00; and to construct an additional gate and connecting fence at the entrance to the WWTP Solar Plant site, as requested by the City, at a cost of \$3,046.00. These changes are in compliance with the engineer's technical specifications and increase the total construct contract contingency from \$100,000.00 to \$137,571.29.

Please sign and return all five copies of the change order so we may submit them to the funding agency for approval.

If you have any questions or require additional information, please do not hesitate to call our office.

Sincerely,

William Nobles
Project Engineer

cc:
Joe Richey



December 11, 2018

Mr. Charles Gildon
Performance Contracting, Inc.
1301 S. Capital of Texas Hwy, B-315
Austin, TX 78746

RE: City of Marianna WWTP & Sprayfield Solar Plants
Change Order #1

Dear Charles:

Please find attached five copies of Change Order #1. Please sign and return all five copies to me and I will forward to the City of Marianna for approval. As discussed, we understand the City is tentatively planning a special City Commission meeting next week and we would like to include this change order on the agenda.

Sincerely,

William Nobles
Project Engineer

Enclosures

cc: Jim Dean, City of Marianna
Joe Richey, City of Marianna

Change Order

No. 1

Date of Issuance: 12/11/2018

Effective Date: _____

Project: WWTP & Sprayfield Solar Plants	Owner: City of Marianna	Owner's Contract No.:
Contract: City of Marianna WWTP & Sprayfield Solar Plants		Date of Contract: 8/16/2018
Contractor: Performance Contracting, Inc.		Engineer's Project No.: MAR17SOL

The Contract Documents are modified as follows upon execution of this Change Order:

Description: (1) Schedule delay due to adverse conditions resulting from Hurricane Michael; (2) Replace the originally specified Emerson performance monitoring system (bid proposal line items A5 and B4) with an Also Energy monitoring system supplied and installed in accordance with attached specification 263100, section 2.9, PV System Monitoring, at a cost savings of \$42,857.29; (3) Add dead line kit for the two electronic reclosers at a cost of \$2,240.00. This optional equipment feature is required to provide automatic isolation following loss of electric power and reclosing following restoration of power to the site, and (4) Additional 20 ft. wide gate (2 – 10 ft. swing gates) at entrance to WWTP site at end of asphalt pavement from Davey Street, and 15 ft. of 6 ft. high chain link fence with 3-strands barbed wire per FDOT Index 802, to connect to original fence, at a cost of \$3,046.00.

The total Construction Contingency (bid proposal line items A18 and B17), is increased from \$100,000.00 to \$137,571.29 as a result of these changes.

Attachments (list documents supporting change):

1. Letter from Performance Contracting, Inc., dated 11/29/18, requesting time extension
2. Specification 263100, section 2.9, PV System Monitoring

CHANGE IN CONTRACT PRICE:

CHANGE IN CONTRACT TIMES:

Original Contract Price:

\$ 4,329,456.00

[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:

\$ -

Contract Price prior to this Change Order:

\$ 4,329,456.00

[Increase] [Decrease] of this Change Order:

\$ 0

Original Contract Times: Working days Calendar days

Substantial completion (days or date): 250

Ready for final payment (days or date): 280

[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:

Substantial completion (days): -

Ready for final payment (days): -

Contract Times prior to this Change Order:

Substantial completion (date): 5/20/2019

Ready for final payment (date): 6/19/2019

Increase of this Change Order:

Substantial completion (days): 28

Ready for final payment (days): 28

Contract Price incorporating this Change Order: Contract Times with all approved Change Orders:

\$ 4,329,456.00

Substantial completion (date): 6/17/2019

Ready for final payment (date): 7/17/2019

RECOMMENDED:

By: 
Engineer (Authorized Signature)

Date: 12/11/18

Approved by Funding Agency (if applicable):

ACCEPTED:

By: _____
Owner (Authorized Signature)

Date: _____

ACCEPTED:

By: _____
Contractor (Authorized Signature)

Date: _____

Date: _____



November 29, 2018

City of Marianna WWTP & Sprayfield Solar Plants

PCI Solar requested time extension due to impacts of Hurricane Michael during the period from 10/8/18 to 11/2/18 returning to work 11-5-2018 (28 Calendar days). In preparation of the hurricane the Contractors in and around City of Marianna closed business. After the hurricane cleanup from the storm debris, and wet site conditions, limited site access for Contractors to perform work (Clearing & Grubbing, Grading, Fencing, Boring, Pull Testing etc...) and stay on schedule. Local Contractors also did not have electricity and communication services for over two weeks delaying submittals and procurement of material (G&W Recloser, Transformers, Panel boards, etc...). The requested time extension is an estimate at this time comprised of the information we have at hand today. There is a potential of additional delays tied to this original occurrence due to the unknown parameters of the manufacture and utility company schedules, we will immediately notify you if these were to arise.

A handwritten signature in black ink, appearing to read 'C. Gildon'.

Charles Gildon | Project Manager

Performance Contracting, Inc. Solar Energy
1301 S. Capital of Texas Hwy. Ste. B-315
Austin, TX 78746

SECTION 263100

SOLAR PHOTOVOLTAIC (PV) COMPONENTS

Specification 263100, section 2.9, is revised to read as follows:

2.9 PV SYSTEM MONITORING - ALSO ENERGY

- a. The WWTP Solar Plant and Sprayfield Solar Plant sites shall both be equipped with PV system performance monitoring systems as described in this section.
- b. Provide a data acquisition system (DAS) with NEMA 4 enclosure as supplied by Also Energy and mounted as indicated in the plans. The DAS shall include a data logger capable of accepting data from RS-485, RS-232 or Ethernet connected services. Data logger shall include 6 months internal storage capacity with sample interval of 15 minutes, and a touch screen LCD display. Provide a 3-phase revenue grade, +/-0.5% accuracy meter for each solar plant site. Provide a wireless 4G LTE Industrial Cellular Gateway and antenna for each solar plant site.
- c. The following parameters shall be monitored for each solar plant site at the string inverter, transformer and total site power production levels, and shall be viewable remotely via Also Energy's internet web-based interface.
 - (1) DC Input Voltage from PV array
 - (2) DC Input Power from PV system
 - (3) DC Input Current from PV system
 - (4) AC Phase Current from PV system (average)
 - (5) AC Voltage from PV system (average)
 - (6) AC Real Power from PV system
 - (7) Daily, Weekly, Monthly, Yearly, and Cumulative Energy Production
 - (8) Fault Status Report
 - (9) DC Ground Current Report
 - (10) AC Neutral Current from PV system
 - (11) AC Reactive Power from PV system
 - (12) AC Apparent Power from system
 - (13) AC Power Factor

(14) Recloser Status

- d. Provide a weather station as supplied by Also Energy with data acquisition sensors to measure irradiance (<+/-5% accuracy), wind speed, ambient temperature and PV module temperature (+/- 1 degree C accuracy). Data acquisition sensors require a conduit separate from the current conductor conduit.
- e. Provide Also Energy's 5-year, renewable, Power Track software and technical support internet web-based services. These services shall include power analytics, diagnostics and reporting modules. Performance-based alerts shall be provided and will ensure that electric power production remains within the expected range at each solar plant site.