

CITY CLERK ORIGINAL

C-8044
05/22/2012

CONTROL SYSTEM REPLACEMENT AGREEMENT

This Control System Replacement Agreement ("Agreement") is entered into between Advanced MRF Acquisitions Company ("AMRF"), a California corporation, and City of Glendale, an Arizona municipal corporation ("City"), as of May 22nd, 2012 ("Effective Date").

RECITALS

- A. City is an Arizona municipal corporation that operates a municipal landfill facility for the benefit of residents and businesses within and outside its corporate boundaries.
- B. City wishes to replace its existing control system at its municipal landfill facility with equipment and technology described in Exhibit A of this Agreement.
- C. AMRF is willing to provide control system replacement at the price set forth in Exhibit A of this Agreement.

AGREEMENT

- 1. **Scope of Work.** AMRF will install equipment, features, components, and software described in Exhibit A of this Agreement.
- 2. **Payment Term.** Within 30 days after installing the equipment, features, components and software described in Exhibit A to the satisfaction of the City, City will pay AMRF the amount due under section 3 of this Agreement.
- 3. **Not-to-Exceed Amount.** City expenditure under this Agreement cannot exceed \$115,537.16.
- 4. **Warranty.**
 - 4.1 AMRF will provide warranty for all the parts and services purchased and installed by AMRF under this Agreement for one year.
 - 4.2 In addition to the warranty set forth in 4.1, at any time within two years after completion of the installation pursuant to this Agreement, AMRF must, at AMRF's sole expense and within 20 days of written notice from the City, uncover, correct, and remedy all damages and defects caused by works performed by AMRF. Any work to repair or replace damages or defects not caused by AMRF will be charged to the City.
- 5. **Insurance.** AMRF and each subcontractor hired by AMRF must obtain and maintain the following insurance ("Required Insurance"):
 - 5.1 **General Liability.**
 - 5.1.1 AMRF must at all times relevant hereto carry a commercial general liability policy with a combined single limit of at least \$1,000,000 per occurrence and \$2,000,000 annual aggregate.

- 5.1.2 Subcontractors must at all times relevant hereto carry a general commercial liability policy with a combined single limit of at least \$1,000,000 per occurrence.
- 5.1.3 The commercial general liability insurance must include independent contractors' liability, contractual liability, broad form property coverage, products and completed operations, XCU hazards if requested by the City, and a separation of insurance provision.
- 5.1.4 These limits may be met through a combination of primary and excess liability coverage.
- 5.2 Auto. A business auto policy providing a liability limit of at least \$1,000,000 per accident for AMRF and \$1,000,000 per accident for subcontractors and covering owned, non-owned and hired automobiles.
- 5.3 Workers' Compensation and Employer's Liability. A workers' compensation and employer's liability policy providing at least the minimum benefits required by Arizona law.
- 5.4 Equipment Insurance. AMRF must secure, pay for, and maintain all-risk insurance as necessary to protect the City against loss of owned, non-owned, rented or leased capital equipment and tools, equipment and scaffolding, staging, towers and forms owned or rented by AMRF or its subcontractors.
- 5.5 Notice of Changes. AMRF's policies must provide for not less than 30-day advance written notice to City representative of:
 - 5.5.1 Cancellation or termination of AMRF or its subcontractor's policies;
 - 5.5.2 Reduction of the coverage limits of any of AMRF or its subcontractor's policies; and
 - 5.5.3 Any other material modification of AMRF or subcontractor's policies related to this Agreement.
- 5.6 Certificates of Insurance.
 - 5.6.1 Within 10 business days after the execution of this Agreement, AMRF must deliver to City representative certificates of insurance for AMRF and its subcontractor's policies, which will confirm the existence or issuance of AMRF and its subcontractor's policies in accordance with the provisions of this section, and copies of the endorsements of AMRF and its subcontractor's policies in accordance with the provisions of this section.
 - 5.6.2 City is and will be under no obligation either to ascertain or confirm the existence or issuance of AMRF and its subcontractor's policies, or to examine AMRF and its subcontractor's policies, or to inform AMRF or its subcontractor in the event that any coverage does not comply with the requirements of this section.
 - 5.6.3 AMRF's failure to comply with Required Insurance requirements constitutes a material default under this Agreement.

5.7 Additional Insured.

5.7.1 Except with respect to workers' compensation and employer's liability coverages, the City must be named and properly endorsed as an additional insured on all liability policies required by this section.

5.7.2 The coverage extended to additional insureds must be primary and must not contribute with any insurance or self-insurance policies or programs maintained by the additional insureds.

5.7.3 All insurance policies obtained pursuant to this section must be with companies legally authorized to do business in the State of Arizona and acceptable to all parties.

5.8 Upon the written request of AMRF, City's Risk Manager may waive or reduce any of the Required Insurance.

6. **Indemnification.** To the fullest extent permitted by law, AMRF must defend, indemnify, and hold harmless City and its elected officials, officers, employees and agents (each, an "Indemnified Party," collectively, the "Indemnified Parties") for, from, and against any and all claims, demands, actions, damages, judgments, settlements, personal injury (including sickness, disease, death, and bodily harm), property damage (including loss of use), infringement, governmental action and all other losses and expenses, including attorneys' fees and litigation expenses (each, a "Demand or Expense," collectively, "Demands or Expenses") asserted by a third party (i.e. a person or entity other than City or AMRF) and that arises out of or results from the breach of this Agreement by AMRF or AMRF's negligent actions, errors or omissions (including any subcontractor or other person or firm employed by AMRF).

7. **Notice.**

7.1 Unless otherwise specifically provided herein, all notices, demands or other communications given must be in writing and is deemed delivered upon personal delivery, as of the second business day after mailing by United States mail, postage prepaid, return receipt requested, or upon the next business day if delivered by Federal Express or similar overnight delivery system, addressed as follows:

If to Glendale:

Stuart Kent
Executive Director, Public Works
City of Glendale
6210 West Myrtle Avenue
Glendale, Arizona 85301

With a copy to:

City Attorney
City of Glendale
5850 West Glendale Avenue, Suite 450
Glendale, Arizona 85301

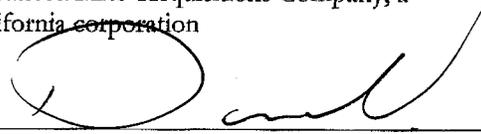
If to AMRF:

Daniel Urrea
Operations Manager
Advanced MRF
1533 Wilson Avenue, Suite A
National City, California 91950

- 7.2 The address to which any notice, demand or other writing may be given, made or sent to any party may be changed by sending a written notice to addresses provided in section 7.1.
8. **Choice of Forum; Choice of Law.** Any legal actions instituted pursuant to this Agreement must be filed in the County of Maricopa, State of Arizona. The laws of the State of Arizona will govern the interpretation and enforcement of this Agreement.
9. **Conflict of Interest.** No member, official or employee of City may have any direct or indirect interest in this Agreement, nor participate in any decision relating to this Agreement that is prohibited by law. This Agreement is subject to cancellation pursuant to the provisions of A.R.S. § 38-511.
10. **No Waiver.** Except as otherwise expressly provided in this Agreement, any failure or delay by any party in asserting any of its rights or remedies as to any default, will not operate as a waiver of any default, or of any such rights or remedies, or deprive any such party of its right to institute and maintain any actions or proceedings which it may deem necessary to protect, assert or enforce any such rights or remedies.
11. **Severability.** If a court of competent jurisdiction found any provision of this Agreement invalid or unenforceable, the remaining provisions of this Agreement will not be affected and remain valid and enforceable to the fullest extent permitted by law, provided that the fundamental purposes of this Agreement are not defeated by such severability.
12. **Modification.** No modification, waiver, amendment, discharge or change of this Agreement shall be valid unless the same is in writing and signed by the party against which the enforcement of such modification, waiver, amendment, discharge or change is or may be sought.
13. **Immigration Law Compliance.** AMRF, and on behalf of any subcontractor, warrants, to the extent applicable under A.R.S. § 41-4401, compliance with all federal immigration laws and regulations that relate to their employees as well as compliance with A.R.S. § 23-214(A) which requires registration and participation with the E-Verify Program. Any breach of this section is considered a material breach of this Agreement and is subject to penalties up to and including termination of this Agreement.
14. **Prohibitions.** AMRF certifies under A.R.S. §§ 35-391 et seq., and 35-393 et seq., that it does not have, and during the term of this Agreement will not have, "scrutinized" business operations, as defined in the preceding statutory sections, in the countries of Sudan or Iran.

IN WITNESS WHEREOF, AMRF and the City have caused this Agreement to be executed as of the day first above written.

Advanced MRF Acquisitions Company, a
California corporation



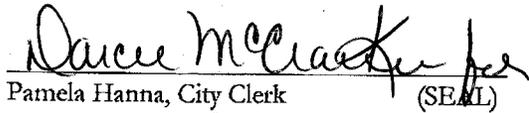
Daniel Urrea, Operations Manager

CITY OF GLENDALE, an Arizona
municipal corporation



Ed Beasley, City Manager

ATTEST:



Pamela Hanna, City Clerk (SEAL)

APPROVED AS TO FORM:



Craig Tindall, City Attorney



Quotation of Services

8-pages

AQ-465

March 20th, 2012

For

City of Glendale

Bill Keen & Jacob Romero

Project

City of Glendale, AZ

Product / Service

CP/AMRF 2012 Control System Upgrade



"We offer sound solutions to the Recycling Industry, in the form of hybrid automation innovations"

ADVANCED MRF Co. LLC
1533 Wilson Ave. Suite A
National City, CA 91950
USA
1-619-477-3175



AMRF Scope of Work:

Advanced MRF is to provide the following services for The City of Glendale, at location, Glendale, Arizona.

CP/AMRF 2012 Control System Upgrade

Description of Scope of Work:

CP/AMRF 2012 Control System Upgrade

**This control system upgrade will bring the Glendale CP MRF to the same standard and functionality of a new 2012 CP MRF.*

The CP/2012 Control System upgrade provides for the replacement of existing motor control components, as well as obsolete VFD's located in MCC 1, 2, 3, & 4. They will be replaced with new, intelligent, digitally controlled state of the art hardware. All 3 existing obsolete Touch Panels (HMI) will also be replaced with latest high feature models with Industrial Ethernet capability. The CPU of the PLC will be replaced with latest model complete with flash card memory back. The New PLC will run the latest CP/AMRF PLC code implementing AMRF Custom function Blocks.

The Touch Panel programs will run the latest CP/AMRF Graphics and Information that utilize the CPU and PLC function block upgrade.

The above upgrades provide the data acquisition capabilities to feed the FLX Office Interface System which is integrated into this new control system.

This is a turn Key installation to include Hardware, Software, Wire/Comm. cable, Installation Training, and extensive online support and communication capabilities as described within.

This upgrade includes integration of 2 existing compactor E-Stop Push buttons into the main E-Stop Safety System. This will include Identification at the Touch panels as well as logging in the Office Interface System.

The existing compactor shuttle conveyor forward and reversing motor will be integrated into the main system control but still maintain local control.

Features:

PROFINET Communication	
Maximum flexibility, more freedom for tailored machine and plant concepts.	<ul style="list-style-type: none"> o High-Speed Communication network via PROFINET o Wireless capabilities with future upgrades o Easier to install various devices (e.g. Ethernet Cameras, New MCCs, VFD, HMI) o Integrated Safety capabilities with future upgrades o Diagnostics o Communication from the company field level to the management level
SIEMENS ET200S, Intelligent Motor Controllers	
SIMATIC ET 200S Multifunctional I/O system	<ul style="list-style-type: none"> o Early warnings to operator, substantially reducing downtime o Motor overloads can be reset from control screen without entering control panel o Instant replacement of failed components; no wiring or programming required o PLC flash-card backup, which allows immediate recovery from a PLC failure
The ET 200S motor starters	<ul style="list-style-type: none"> o Intelligent capabilities, such as reading the actual current value o Rapid installation due to simple plug-in technology o Significantly fewer components, therefore less parts to replace in addition to minimal spare parts
SIEMENS G120 VFD	
Modules or parameters can be easily replaced, which makes the system extremely service friendly	<ul style="list-style-type: none"> o The Control Unit is installed with simple plug-in technology o Lost parameters can be replaced using the portable MMC card o Remote Programming Capability o Free Software to read/write parameters on your PC
Basic Operational Panel	<ul style="list-style-type: none"> o Ability to custom change parameters
Online Support	
Total integrity, high-speed support and diagnostics capabilities	
Flash-Card Back Up	
For faster commissioning, the ability to quickly replace units can be done using data backup via MMC card for the following components	<ul style="list-style-type: none"> o PLC o VFD o HMI



FLX Office Interface System:

• Total Runtime

Starts counting runtime once "Auto Start" has been activated and select motors are running (if select motors are not running, then no time will be added). Runtime will stop counting when the "Auto Start" is deactivated with "Stop All". **Plant must be run in "Auto" for this function to work**

• Total Downtime

Starts counting downtime once "Auto Start" has been activated and select motors are NOT running. Downtime will stop counting when the "Auto Start" is deactivated with "Stop All." **Plant must be run in "Auto" for this function to work**

• User/Password Security System:

Three users will be set-up with different levels of access.

- o Administrator – Unlimited Access
- o Operator – Limited Access with abilities to run the machine, but not change important values
- o Monitor – Only able to view screens

• Data Archiving/Trending

Main plant functions will be archived and time stamped

- o Auto-Start
- o Stop All
- o Motor Fault
- o E-Stop Zone# Activated
- o E-Stop Reset

Ability to read statistical data, e.g. current for the last overload trip

- o Frequency(Hz)
- o Amperage(A)
- o Speed Set-Point

Continuous Trending capabilities of Hz, Amps and speed Set-Point for each motor, but only 10 motors can be logging at one time

User Logged In

PLC must always be powered on and RT running on PC in order to log values

• Plant Overview

Display status of each motor utilizing a Line Diagram of the Plant (Schematic) using color value to represent

- o Ready
- o Running
- o E-Stopped
- o Faulted

Display the status of the plant

- o Ready to Run
- o Auto Start Running
- o E-Stopped
- o Motor Fault
- o Motor Warning



• **PLC Diagnostics**

Web Interface to view PLC diagnostics and Status (i.e. RUN, STOP, SF, BF), PROFINET CPU's only

• **Remote Communication**

Internet access must be provided by End User

E-mails and text messages will be sent to an end user if a Motor Fault/E-stop occurs

Remote users can log in to view HMI via web browser, if on the same network configured and connected to LAN

• **Preset Speed Recipes**

VFD speeds can be saved under 5 different presets: Recipes#1 - #5; saved by the user

Components:

• **SIEMENS, PLC**

- o S7200 CPU 317 PN, ET200S Slave
- o I/O Modules
- o MMC for CPU
- o NEMA 12 Enclosure

• **SIEMENS, SINAMICS G120 Variable Frequency Drives**

- o (5) Power Module 2 HP
- o (2) Power Module 3 HP
- o (6) Power Module 5 HP
- o (3) Power Module 10 HP
- o (1) Power Module 15 HP
- o (17) Control Unit, MMC Card, BOP
- o Protection Devices: Fuses, Fuse Holders

• **SIEMENS, Motor Starters**

- o (33) Direct Starters – Up to 10 HP
- o (7) Reversing Starters
- o (7) Soft Starters
- o (4) Power Modules for Starters and shoe
- o (47) Motor Starter Shoes
- o (12) Short Circuit & Overload Protection

• **SIEMENS, SITOP Power Supply**

- o (4) 24VDC – 10 Amps
- o (2) 24VDC – 5 Amps

• **SIEMENS, Human Machine Interface(HMI)**

- o (2) 10" Touch Panel

****In order to interface with the CPU, this is a REQUIRED component****

- o (1) 6" Touch Panel

• Office FLX Computer system with 42" LCD screen included. Software will be installed by AMRF onsite by an engineer on a computer workstation provided by AMRF. Workstation includes computer, required software tools for FLX program and a 42" LCD display monitor.



Compactor Integration:

Emergency Stops	
Integration of compactor E-Stops	<ul style="list-style-type: none">o Compactor E-stops will be wired and networked into the CP/AMRF Control Platformo E-Stops will identified on touch panel E-stop Screen
Shuttle Conveyor Panel	
Upgrade	<ul style="list-style-type: none">o Installation of One ET200S Reverse startero External Forward/Reversing selector switch
Programming	
FLX Interface Software	<ul style="list-style-type: none">o Ability to control Compactors from local location or from touch panels located on MCCso Data Archiving/Trending



Terms and Conditions:

Notes:

- All MCC electrical work to be performed by AMRF onsite.
- No wireless network included.
- No field electrical work outside this scope.
- No Safety PLC is included, but available as an upgrade.
- LAN network to be supplied and configured by customers IT department.
- Trending and archiving can be set as far back as 3 months.
- AMRF will reuse existing Power Distribution, Alarm/Bell system, Transformers and Branch Circuit Protection.
- 4 day weekend required for complete installation.

Delivery:

- TBD.

Service:

- 1 Year Warranty on all components provided by Advanced MRF
- Onsite Commissioning and training. One engineer will be on site for three days. This is to set up new computer, monitor, FLX software and to train personnel on the use of FLX system.

Taxes:

- N/A

Freight:

- Included

Payment:

- Paid in full within 30 days of services completed

Quote expiration:

- 60 days



Price:

		<u>Price</u>
Parts	\$	75,248.16
Electrical Engineering	\$	4,360.00
Programming	\$	8,000.00
Field Installation	\$	15,300.00
Commissioning/Training	\$	800.00
Travel/Accommodations	\$	11,829.00
Total:	\$	115,537.16