



1.00 Scope of supply - Genset

Design:

The genset is built as a compact package.

Engine and generator are mounted to the base frame. To provide the best possible isolation from the transmission of vibrations the engine is mounted to the frame by means of anti-vibrational mounts. The remaining vibrations are eliminated by mounting the module on isolating pads (e.g. Sylomer). This, in principle, allows for placing of the genset to be directly on any floor capable of carrying the static load. No special foundation is required. Prevention of sound conducted through solids has to be provided locally.

1.01 Spark ignited gas engine

Four-stroke, air/gas mixture turbocharged, aftercooled, with high performance ignition system and electronically controlled air/gas mixture system.

The engine is equipped with the most advanced

LEANOX® LEAN-BURN COMBUSTION SYSTEM

Developed by GE JENBACHER.

1.01.01 Engine design

Engine block

Single-piece crankcase and cylinder block made of special casting; crank case covers for engine inspection, welded steel oil pan.

Crankshaft and main bearings

Drop-forged, precision ground, surface hardened, statically and dynamically balanced; main bearings (upper bearing shell: 3-material bearing / lower bearing shell: sputter bearing) arranged between crank pins, drilled oil passages for forced-feed lubrication of connecting rods.

Vibration damper

Maintenance free viscous damper

Flywheel

With ring gear for starter motor

Pistons

Single-piece, made of light metal alloy, with piston ring carrier and oil passages for cooling; piston rings made of high quality material, main combustion chamber specially designed for lean burn operation.

Connecting rods

Drop-forged, heat-treated, big end diagonally split and toothed. Big end bearings (upper bearing shell: sputter bearing / lower bearing shell: sputter bearing) and connecting rod bushing for piston pin.

**Cylinder liner**

Chromium alloy gray cast iron, wet, individually replaceable.

Cylinder head

Specially designed and developed for GE JENBACHER-lean burn engines with optimized fuel consumption and emissions; water cooled, made of special casting, individually replaceable; Valve seats and valve guides and spark plug sleeves individually replaceable; exhaust and inlet valve made of high quality material.

Crankcase breather

Connected to combustion air intake system.

Valve train

Camshaft, with replaceable bushings, driven by crankshaft through intermediate gears, valve lubrication by splash oil through rocker arms.

Combustion air/fuel gas system

Motorized carburetor for automatic adjustment according fuel gas characteristic. Exhaust driven turbocharger, mixture manifold with bellows, water-cooled intercooler, throttle valve and distribution manifolds to cylinders.

Ignition system

Most advanced, fully electronic high performance ignition system, external ignition control.

MORIS: Automatically, cylinder selective registration and control of the current needed ignition voltage.

Lubricating system

Gear-type lube oil pump to supply all moving parts with filtered lube oil, pressure control valve, pressure relief valve and full-flow filter cartridges. Cooling of the lube oil is arranged by a heat exchanger.

Engine cooling system

Jacket water pump complete with distribution pipework and manifolds.

Exhaust system

Turbocharger and exhaust manifold

Exhaust gas temperature measuring

Thermocouple for each cylinder

Electric actuator

For electronic speed and output control

Electronic speed monitoring for speed and output control

By magnetic inductive pick up over ring gear on flywheel

Starter motor

Engine mounted electric starter motor



1.01.02 Additional equipment for the engine (spares for commissioning)

The initial set of equipment with the essential spare parts for operation after commissioning is included in the scope of supply.

1.01.03 Engine accessories

Insulation of exhaust manifold:

Insulation of exhaust manifold is easily installed and removed

Sensors at the engine:

- Jacket water temperature sensor
- Jacket water pressure sensor
- Lube oil temperature sensor
- Lube oil pressure sensor
- Mixture temperature sensor
- Charge pressure sensor
- Minimum and maximum lube oil level switch
- Exhaust gas thermocouple for each cylinder
- Knock sensors
- Gas mixer / gas dosing valve position reporting.

Actuator at the engine:

- Actuator - throttle valve
- Bypass-valve for turbocharger
- Control of the gas mixer / gas dosing valve

1.01.04 Standard tools (per installation)

The tools required for carrying out the most important maintenance work are included in the scope of supply and delivered in a toolbox.

1.02 Generator-low voltage

The 2 bearing generator consists of the main generator (built as rotating field machine), the exciter machine (built as rotating armature machine) and the digital excitation system.

The digital regulator is powered by an auxiliary winding at the main stator or a PMG system

Main components

- Enclosure of welded steel construction
- Stator core consist of thin insulated electrical sheet metal with integrated cooling channels.



- Stator winding with 2/3 Pitch
- Rotor consists of shaft with shrunken laminated poles, Exciter rotor, PMG (depending on Type) and fan.
- Damper cage
- Excitation unit with rotating rectifier diodes and overvoltage protection
- Dynamically balanced as per ISO 1940, Balance quality G2,5
- Drive end bracket with re greaseable antifriction bearing
- Non-drive end bracket with re grease antifriction bearing
- Cooling IC01 - open ventilated, air entry at non-drive end , air outlet at the drive end side
- Main terminal box includes main terminals for power cables
- Regulator terminal box with auxiliary terminals for thermistor connection and regulator.
- Anti-condensation heater
- 3 PT100 for winding temperature monitoring+3 PT100 Spare
- 2 PT100 for bearing temperature monitoring

Option:

Current transformer for protection and measuring in the star point .
xx/5A, 10P10 15VA , xx/5A, 1FS5, 15VA

Electrical data and features

- Standards: IEC 60034, EN 60034, VDE 0530, ISO 8528-3, ISO 8528-9
- Voltage adjustment range: +/- 10 % of rated voltage (continuous)
- Frequency: -6/+4% of rated frequency
- Overload capacity: 10% for one hour within 6 hours, 50% for 30 seconds
- Asymmetric load : max. 8% I₂ continuous, in case of fault I₂ x t=20
- Altitude: < 1000m
- Max permitted generator intake air temperature: 5°C - 40°C
- Max. relative air humidity: 90%
- Voltage curve THD Ph-Ph: <3,5% at idle operation and <5% at full load operation with linear symmetrical load
- Generator suitable for parallel operating with the grid and other generators
- Sustained short circuit current at 3-pole terminal short circuit: minimum 3 times rated current for 5 seconds.
- Over speed test with 1.2 times of rated speed for 2 minutes according to IEC 60034

Digital Excitation system ABB Unitrol 1010 mounted within the AVR Terminal box with following features:

- Compact and robust Digital Excitation system for Continuous output current up to 10 A (20A Overload current 10s)
- Fast AVR response combined with high excitation voltage improves the transient stability during LVRT events.
- The system has free configurable measurement and analog or digital I/Os. The configuration is done via the local human machine interface or CMT1000
- Power Terminals
3 phase excitation power input from PMG or auxiliary windings



Auxiliary power input 24VDC

- Excitation output
- Measurement terminals: 3 phase machine voltage, 1 phase network voltage, 1 phase machine current
- Analog I/Os: 2 outputs / 3 inputs (configurable), +10 V / -10 V
- Digital I/O: 4 inputs only (configurable), 8 inputs / outputs (configurable)
- Serial fieldbus: RS485 for Modbus RTU or VDC (Reactive power load sharing for up to 31 GEJ engines in island operation), CAN-Bus for dual channel communication
- Regulator Control modes: Bump less transfer between all modes
 - Automatic Voltage Regulator (AVR) accuracy 0,1% at 25°C ambient temperature
 - Field Current Regulator (FCR)
 - Power Factor Regulator (PF)
 - Reactive Power Regulator (VAR)
- Limiters: Keeping synchronous machines in a safe and stable operation area
 - Excitation current limiter (UEL min / OEL max)
 - PQ minimum limiter
 - Machine current limiter
 - V / Hz limiter
 - Machine voltage limiter
- Voltage matching during synchronization
- Rotating diode monitoring
- Dual channel / monitoring: Enables the dual channel operation based on self-diagnostics and setpoint follow up over CAN communication.. As Option available
- Power System Stabilizer (PSS) is available as option. Compliant with the standard IEEE 421.5-2005 2A / 2B, the PSS improves the stability of the generator over the highest possible operation range.
- Computer representation for power system stability studies: ABB 3BHS354059 E01
- Certifications: CE, cUL certification according UL 508c (compliant with CSA), DNV Class B,

- **Commissioning and maintenance Tool CMT1000** (for trained commissioning/ maintenance personal)
- With this tool the technician can setup all parameters and tune the PID to guarantee stable operation. The CMT1000 software allows an extensive supervision of the system, which helps the user to identify and locate problems during commissioning on site. The CMT1000 is connected to the target over USB or Ethernet port, where Ethernet connection allows remote access over 100 m.
- Main window
 - Indication of access mode and device information.
 - Change of parameter is only possible in CONTROL access mode.
 - LED symbol indicates that all parameter are stored on none volatile memory.
- Setpoint adjust window
 - Overview of all control modes, generator status, active limiters status and alarms.
 - Adjust set point and apply steps for tuning of the PID.
- Oscilloscope
- 4 signals can be selected out of 20 recorded channels. The time resolution is 50ms. Save files to your PC for further investigation.
- Measurement
 - All measurements on one screen.



Routine Test

Following routine tests will be carried out by the generator manufacturer

- Measuring of the DC-resistance of stator and rotor windings
- Check of the function of the fitted components (e.g. RTDs, space heater etc.)
- Insulation resistance of the following components
 - Stator winding, rotor winding
 - Stator winding RTDs
 - Bearing RTDs
 - Space heater
- No Load saturation characteristic (residual voltage)
- Stator voltage unbalance
- Direction of rotation, phase sequence
- High voltage test of the stator windings ($2 \times U_{nom.} + 1000 \text{ V}$) and the rotor windings (min. 1500 V)

1.03 Module Accessories

Base frame

Common Base Frame fabricated with welded structural steel. Frame to mount the engine, jacket water heat exchangers, pumps and engine auxiliaries, as well as generator.

Coupling

Engine to Generator coupling is provided. The coupling isolates the major sub-harmonics of engine alternating torque from generator.

Coupling housing

Provided for Coupling

Anti-vibration mounts

2 sets of isolation, one is arranged between engine block assembly and base frame. The second is via insulating pads (SYLOMER) for placement between base frame and foundation, delivered loose.

Exhaust gas connection

A flanged connection is provided that collects the exhaust gas turbocharger output flows, includes flexible pipe connections (compensators) to compensate for heat expansions and vibrations.

Combustion air filter

A Dry type air filter with replaceable filter cartridges is fitted. The assembly includes flexible connections to the fuel mixer/carburetor and service indicator.

Interface panel (M1 cabinet)

Totally enclosed sheet steel cubicle with hinged doors, pre-wired to terminals, ready to operate. All Cable entry will be via bottom mounted cable gland plates.

Painting: RAL 7035



Protection: External NEMA 3 (IP 54), Internal IP 20 (protection against direct contact with live parts)

Cabinet design is according to IEC 439-1 (EN 60 439-1/1990) and DIN VDE 0660 part 500, respectively.
Ambient temperature 41 - 104 °F (5 - 40 °C), Relative humidity 70%

Dimensions:

- Height: 51 in (1300 mm)
- Width: 47 in (1200 mm)
- Depth: 16 in (400 mm)

Control Power Source: The starter batteries and the cabinet mounted battery chargers will provide the power source for this enclosure.

Interface Panel contents and control functions:

- The cabinet houses the unit Battery Charger and primary 24VDC Control Power Distribution (breakers, fuses, and terminals) from the unit Batteries
- Distributed PLC Input and Output cards; located in the cabinet, gather all Engine and Generator Control I/O. These cards transmit data via data bus interface to the central engine control of the module control panel located in the A1 cabinet. Data bus is via CAN and B&R Proprietary Data Highway (Data Cables provided by GE)
- Speed monitoring relays for protection are provided.
- Gas Train I/O Collection, including interface relays and terminals for gas train shutoff valves.
- Transducer for generator functions, such as excitation voltage.
- Door Mounted Emergency Stop Switch with associated Emergency Stop Loop interface relays.
- Miscellaneous control relays, contacts, fuses, etc. for additional control valves, and auxiliaries.
- Interface Terminal Strips

Skid Mounted 3 Phase Devices are Powered by 3 x 480/277 V, 60 Hz, 50 A

AC Power for engine mounted auxiliaries (heater, pumps, etc.) are routed through a separate J-box mounted on the side M1 cabinet (Box E1). This is done to maintain signal segregation (AC from control)

NOTE: Generator Current Transformer wiring is connected directly to the Generator and does NOT pass through the M1 cabinet.

1.03.01 Engine jacket water system

Engine jacket water system

Closed cooling circuit, consisting of:

- Expansion tank
- Filling device (check and pressure reducing valves, pressure gauge)
- Safety valve(s)
- Thermostatic valve
- Required pipework on module
- Vents and drains



- Electrical jacket water pump, including check valve
- Jacket water preheat device

1.03.02 Automatic lube oil replenishing system incl. extension tank

Automatic lube oil replenishing system:

Includes float valve in lube oil feed line, including inspection glass. Electric monitoring system will be provided for engine shut-down at lube oil levels "MINIMUM" and "MAXIMUM". Solenoid valve in oil feed line is only activated during engine operation. Manual override of the solenoid valve, for filling procedure during oil changes is included.

Oil drain

By set mounted cock

Oil sump extension tank 79.3 gal

To increase the time between oil changes

Pre-lubrication- and aftercooling oil pump:

Mounted on the module base frame; it is used for pre-lubrication and aftercooling of the turbochargers.

Period of operation: Pre-lubrication: 1 minute
 Aftercooling: 15 minutes from engine stop

Consisting of:

- 1 piece oil pump 1500 W, 24 V
- All necessary vents
- Necessary pipework

1.05.01 Gas train <500mbar (7.3 psi)

Pre-assembled, delivered loose, for installation into gas pipework to the module.

Consisting of:

- Manual shut off valve
- Gas filter, filter fineness <3 µm
- Pressure gauge with push button valve
- Gas admission pressure regulator
- Solenoid valves
- Leakage detector
- Gas pressure switch (min.)
- TEC JET (has to be implemented horizontal)
- Gas flow meter (option)
- p/t compensation (option)



The gas train complies with DIN - DVGW regulations.

Maximum distance from TEC JET outlet to gas entry on engine, including flexible connections, is 39,37in (1m)

1.07 Painting

- Quality: Oil resistant prime layer
Synthetic resin varnish finishing coat

- Color:

Engine:	RAL 6018 (green)
Base frame:	RAL 6018 (green)
Generator:	RAL 6018 (green)
Module interface panel:	RAL 7035 (light grey)
Control panel:	RAL 7035 (light grey)

1.11 Engine generator control panel per module- Dia.ne XT4 incl. Single synchronization of the generator breaker

Dimensions:

- Height: 87 in (including 8 in pedestal *)
- Width: 32 -48 in*
- Depth: 24 in *

Protection class:

- external IP42
- Internal IP 20 (protection again direct contact with live parts)

*) Control panels will be dimensioned on a project specific basis. Actual dimensions will be provided in the preliminary documentation for the project.

Control supply voltage from starter and control panel batteries: 24V DC

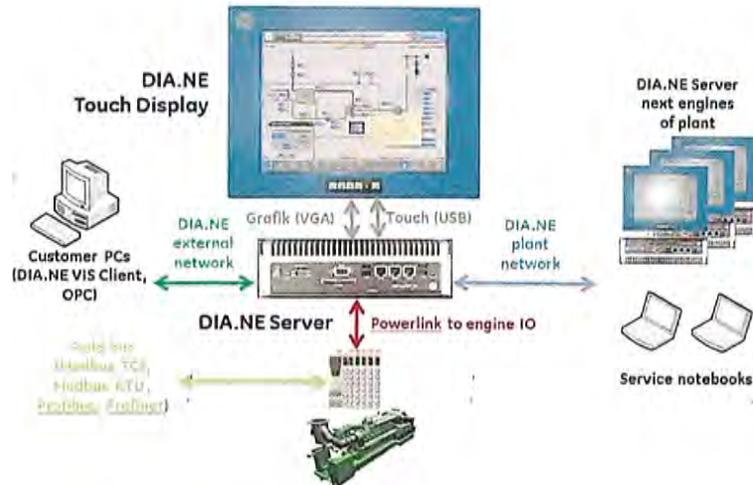
Auxiliaries power supply: (from provider of the auxiliary supply)
3 x 480/277 V, 60 Hz

Consisting of:

Motor - Management - System DIA.NE

Setup:

- a) Touch display visualization
- b) Central engine and unit control



Touch Display Screen:

15" Industrial color graphic display with resistive touch.

Interfaces:

- 24V voltage supply
- VGA display connection
- USB interface for resistive touch

Protection class of DIA.NE XT panel front: IP 65

Dimensions: W x H x D = approx. 16x12x3in

The screen shows a clear and functional summary of the measurement values and simultaneously shows a graphical summary.

Operation is via the screen buttons on the touch screen

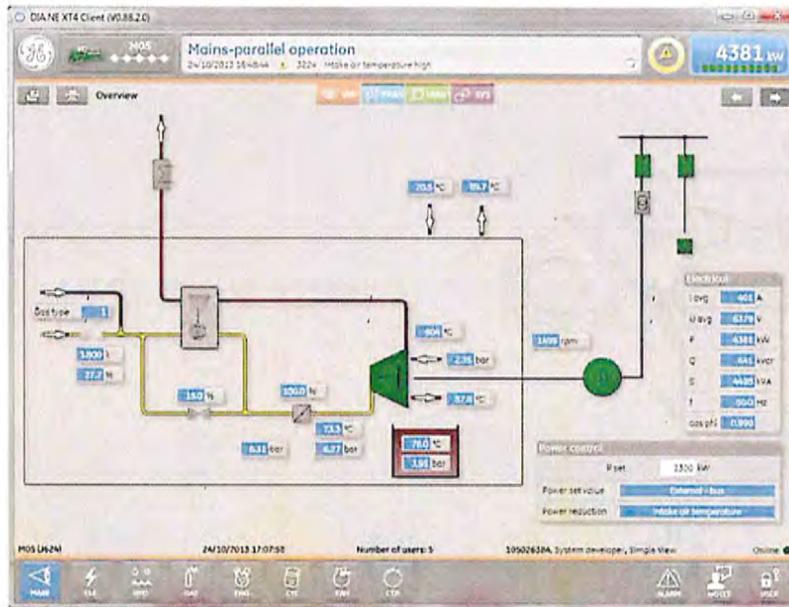
Numeric entries (set point values, parameters...) are entered on the touch numeric pad or via a scroll bar.

Determination of the operation mode and the method of synchronization via a permanently displayed button panel on the touch screen.

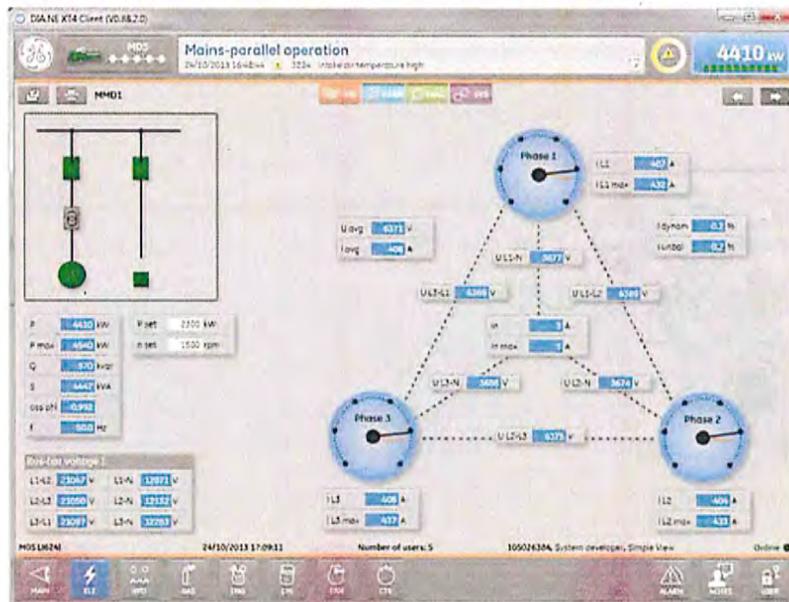


Main screens (examples):

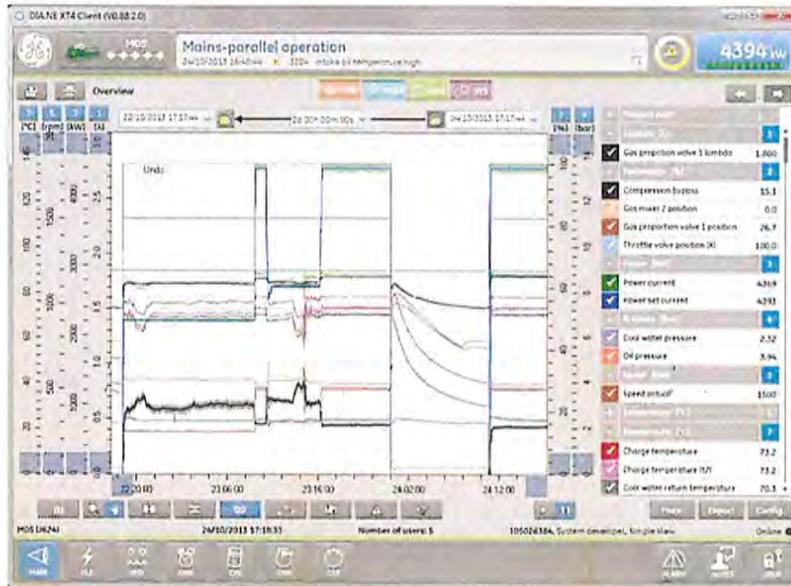
Main: Display of the overview, auxiliaries status, engine start and operating data.



ELE: Display of the generator connection with electrical measurement values and synchronization status



OPTION: Generator winding and bearing temperature
 Trending
 Trend with 100ms resolution



Measurement values:

- 510 data points are stored
- Measurement interval = 100ms
- Raw data availability with 100ms resolution: 24 hours + max. 5.000.000 changes in value at shut down (60 mins per shut down)
- Compression level 1: min, max, and average values with 1000ms resolution: 3 days
- Compression level 2: min, max, and average values with 30s resolution: 32 days
- Compression level 3: min, max, and average values with 10min resolution: 10 years

Messages:

10.000.000 message events

Actions (operator control actions):

1.000.000 Actions

System messages:

100.000 system messages



Central engine and module control:

An industrial PC- based modular industrial control system for module and engine sequencing control (start preparation, start, stop, aftercooling and control of auxiliaries) as well as all control functions.

Interfaces:

- Ethernet (twisted pair) for remote monitoring access
- Ethernet (twisted pair) for connection between engines
- Ethernet (twisted pair) for the Powerlink connection to the control input and output modules.
- USB interface for software updates

Connection to the local building management system according to the GE Jenbacher option list (OPTION)

- MODBUS-RTU Slave
- MODBUS-TCP Slave,
- PROFIBUS-DP Slave (160 words),
- PROFIBUS-DP Slave (190 words),
- ProfiNet
- OPC

Control functions:

- Speed control in idle and in island mode
- Power output control in grid parallel operation, or according to an internal or external set point value on a case by case basis
- LEANOX control system which controls boost pressure according to the power at the generator terminals, and controls the mixture temperature according to the engine driven air-gas mixer
- Knocking control: in the event of knocking detection, ignition timing adjustment, power reduction and mixture temperature reduction (if this feature is installed)
- Load sharing between engines in island mode operation (option)
- Linear power reduction in the event of excessive mixture temperature and misfiring
- Linear power reduction according to CH4 signal (if available)
- Linear power reduction according to gas pressure (option)
- Linear power reduction according to air intake temperature (option)

Multi-transducer to record the following alternator electrical values:

- Phase current (with slave pointer))
- Neutral conductor current
- Voltages Ph/Ph and Ph/N
- Active power (with slave pointer)
- Reactive power
- Apparent power
- Power factor
- Frequency
- Active and reactive energy counter



Additional 0 (4) - 20 mA interface for active power as well as a pulse signal for active energy

The following alternator monitoring functions are integrated in the multi-measuring device:

- Overload/short-circuit [51], [50]
- Over voltage [59]
- Under voltage [27]
- Asymmetric voltage [64], [59N]
- Unbalance current [46]
- Excitation failure [40]
- Over frequency [81>]
- Under frequency [81<]

Lockable operation modes selectable via touch screen:

- "OFF" operation is not possible, running units will shut down immediately;
- "MANUAL" manual operation (start, stop) possible, unit is not available for fully automatic operation.
- "AUTOMATIC" fully automatic operation according to external demand signal:

Demand modes selectable via touch screen:

- external demand off („OFF“)
- external demand on („REMOTE“)
- override external demand („ON“)

Malfunction Notice list:

Shut down functions e.g.:

- Low lube oil pressure
- Low lube oil level
- High lube oil level
- High lube oil temperature
- Low jacket water pressure
- High jacket water pressure
- High jacket water temperature
- Overspeed
- Emergency stop/safety loop
- Gas train failure
- Start failure
- Stop failure
- Engine start blocked
- Engine operation blocked
- Misfiring
- High mixture temperature
- Measuring signal failure
- Overload/output signal failure



- Generator overload/short circuit
- Generator over/undervoltage
- Generator over/underfrequency
- Generator asymmetric voltage
- Generator unbalanced load
- Generator reverse power
- High generator winding temperature
- Synchronizing failure
- Cylinder selective Knocking failure

Warning functions e.g.:

- Cooling water temperature min.
- Cooling water pressure min.
- Generator winding temperature max.

Remote signals:

(volt free contacts)

1NO = 1 normally open

1NC = 1 normally closed

1COC = 1 change over contact

- | | |
|---|-----|
| • Ready for automatic start (to Master control) | 1NO |
| • Operation (engine running) | 1NO |
| • Demand auxiliaries | 1NO |
| • Collective signal "shut down" | 1NC |
| • Collective signal "warning" | 1NC |

External (by others) provided command/status signals:

- | | |
|---------------------------------------|----|
| • Engine demand (from Master control) | 1S |
| • Auxiliaries demanded and released | 1S |

Single synchronizing Automatic

For automatic synchronizing of the module with the generator circuit breaker to the grid by PLC- technology, integrated within the module control panel.

Consisting of:

- Hardware extension of the programmable control for fully automatic synchronization selection and synchronization of the module and for monitoring of the generator circuit breaker closed signal.
- Lockable synchronization selection via touch screen with the following selection modes:
 - "MANUAL" Manual initiation of synchronization via touch screen button followed by fully automatic synchronization of the module



- "AUTOMATIC" Automatic module synchronization, after synchronizing release from the module control
- "OFF" Selection and synchronization disabled
Control of the generator circuit breaker according to the synchronization mode selected via touch screen.
- "Generator circuit breaker CLOSED/ Select" Touch-button on DIA.NE XT
- "Generator circuit breaker OPEN" Touch-button on DIA.NE XT

Status signals:

Generator circuit breaker closed
Generator circuit breaker open

Remote signals:

(volt free contacts)

Generator circuit breaker closed 1 NO

The following reference and status signals must be provided by the switchgear supplier:

- Generator circuit breaker CLOSED 1 NO
- Generator circuit breaker OPEN 1 NO
- Generator circuit breaker READY TO CLOSE 1 NO
- Mains circuit breaker CLOSED 1 NO
- Mains circuit breaker OPEN 1 NO

Mains voltage 3 x 480/277V or 3x 110V/v3 other measurement voltages available on request
Bus bar voltage 3 x 480/277 V or 3x 110V/v3 – other measurement voltages available on request
Generator voltage 3 x 480 V or 3x 110V/v3 – other measurement voltages available on request

Voltage transformer in the star point with minimum 50VA and Class 0,5

The following volt free interface-signals will be provided by GE Jenbacher to be incorporated in switchgear:

- CLOSING/OPENING command for generator circuit breaker
(permanent contact) 1 NO + 1 NC
- Signal for circuit breaker undervoltage trip 1 NO

Maximum distance between module control panel and engine/interface panel: 99ft
Maximum distance between module control panel and power panel: 164ft
Maximum distance between module control panel and master control panel: 164ft
Maximum distance between alternator and generator circuit breaker: 99ft



1.11.01 Remote messaging over MODBUS-TCP

Data transfer from the Jenbacher module control system to the customer's on-site central control system via MODBUS TCP using the ETHERNET 10 BASE-T/100BASE-TX protocol TCP/IP.

The Jenbacher module control system operates as a SLAVE unit.
The data transfer via the customer's MASTER must be carried out in cycles.

Data transmitted:

Individual error messages, operational messages, measured values for generator power, oil pressure, oil temperature, cooling water pressure, cooling water temperature

GE Jenbacher limit of supply:

RJ45 socket at the interface module in the module control cabinet

1.11.06 Remote Data-Transfer with DIA.NE XT4

General

DIA.NE XT4 offers remote connection with Ethernet.

Applications:

1.) DIA.NE XT4 HMI

DIA.NE XT4 HMI is the human-machine-interface of DIA.NE XT4 engine control and visualization system for GE Jenbacher gas engines.

The system offers extensive facilities for commissioning, monitoring, servicing and analysis of the site. By installation of the DIA.NE XT4 HMI client program it can be used to establish connection to site, if connected to a network and access rights are provided.

The system runs on Microsoft Windows Operating systems (Windows XP, Windows 7, Windows 8)

Function

Functions of the visualization system at the engine control panel can be used remotely. These are among others control and monitoring, trend indications, alarm management, parameter management, and access to long term data recording. By providing access to multiple systems, also with multiple clients in parallel, additional useful functions are available like multi-user system, remote control, print and export functions and data backup. DIA.NE XT4 is available in several languages.

Option - Remote demand/blocking

If the service selectors switch at the module control panel is in pos. "Automatic" and the demand-selector switch in pos. "Remote", it is possible to enable (demanded) or disable (demand off) the module with a control button at the DIA.NE XT4 HMI

Note:

With this option it makes no sense to have an additional clients demand (via hardware or data bus)



or a self-guided operation (via GE Jenbacher master control, grid import /export etc.).

Option - Remote - reset (see TA-No. 1100-0111 chapter 1.7 an d1.9)

Scope of supply

- Software package DIA.NE XT4 HMI Client Setup (Download)
- Number of DIA.NE XT4 HMI - Client user license (Simultaneous right to access of one user to the engine control)

Nr. of license	Access
1	1 Users can be logged in at the same time with a PC (Workplace, control room or at home).
2 - "n" (Optional)	2- "n" Users can be logged in at the same time with a PC (Workplace, control room or at home). If 2- "n" users are locally connected at Computers from office or control room, then it is not possible to log in from home.

Caution! This option includes the DIA.NE XT4 HMI client application and its license only – NO secured, encrypted connection will be provided by GE Jenbacher! A secured, encrypted connection – which is mandatory – has to be provided by the customer (via LAN connection or customer-side VPN), or can be realized by using option myPlant™.

Customer requirements

- Broad band network connection via Ethernet(100/1000BASE-TX) at RJ45 Connector (ETH3) at DIA.NE XT4 server inside module control panel
- Standard PC with keyboard, mouse or touch and monitor (min. resolution 1024*768)
- Operating system Windows XP, Windows 7, Windows 8
- DirectX 9.0 c compatible or newer 3D display adapter with 64 MB or higher memory

2.) myPlant™

myPlant™ is the GE Jenbacher remote monitoring and diagnostic (RM&D) service

	Offering Feature	Connect	Protect
Asset Management	Online data transfer	✓	✓
	Big Data cloud storage	✓	✓
	Engine status visibility	✓	✓
	Control alarms visibility	✓	✓
	Basic data trends	✓	✓
	Remote access to DIA.NE HMI	-	✓
	Unlimited data trending	-	✓
	Advanced diagnostics	-	✓
Fleet	Fleet status on world map	-	✓



Management	Fleet summaries and reporting	-	✓
Mobility	SMS/Email notifications	-	✓
	Smartphone app	✓	✓

Web application with following features:

- Visualization of the current state of the engine (available, in operation, fault)
- View of various readings of the Gen-set
- Visualization of counts as a trend graph (if plant available online, or by manually entering of the counter readings)
- Trend graph of the performance value (low resolution; only if system available online)

myPlant™ Connect is free of charge for registered customers

myPlant™ Protect is free of charge within the warranty period (limited to 1 year) and is also included as part of any contractual service agreement (CSA).

Scope of supply

- Access to myPlant™
- Connection between plant server and myPlant™ system

Customer requirements

- Permanent Internet line (wired or mobile, (see option 4))
- See technical instruction TA 2300-0008
- Outbound data connectivity (from plant server to Internet) ONLY – INBOUND connections must NOT be allowed!

CAUTION!

It is in the responsibility of the customer to prevent direct access from the Internet to the plant server using technical equipment like firewalls.

GE Jenbacher does not provide such security devices and services as part of this option!

3.) Mobile Internet (OPTION)

Connection Plant - Customer via secured Internet - connection

See also technical instruction **TA 2300 - 0006**

Scope of delivery

- Mobile Internet router with antenna to connect to the DIA.NE Server XT4

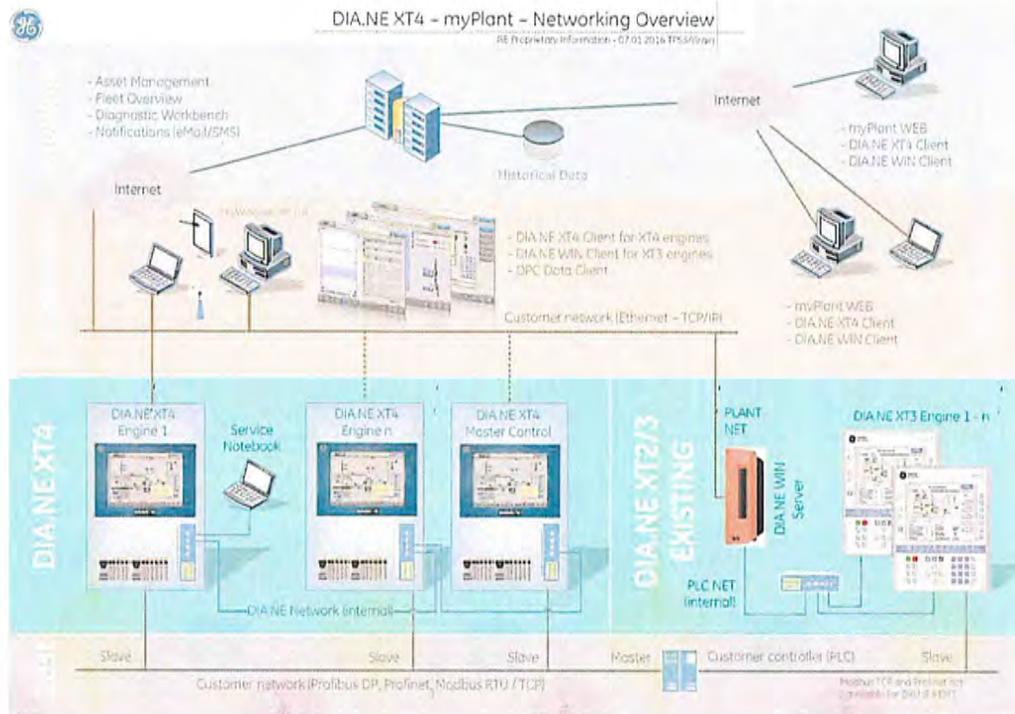
Customer requirements

- SIM card for 3G / 4G



4.) Network overview

For information only!



1.20.03 Starting system

Starter battery (is not included in GE Jenbacher scope):

2 piece 12 V Pb battery, 200 Ah (according to DIN 72311), complete with cover plate, terminals and acid tester.

Battery voltage monitoring:

Monitoring by an under voltage relay.

Battery charging equipment:

Capable for charging the starter battery with I/U characteristic and for the supply of all connected D.C. consumers.

Charging device is mounted inside of the module interface panel or module control panel.



• **General data:**

- Power supply 3 x 320 - 550 V, 47 - 63 Hz
- max. power consumption 1060 W
- Nominal D.C. voltage 24 V(+/-1%)
- Voltage setting range 24V to 28,8V (adjustable)
- Nominal current (max.) 40 A
- Dimensions ca. 10 x 5 x 5 inch (240 x 125 x 125 mm)
- Degree of protection IP20 to IEC 529
- Operating temperature 32 °F – 140 °F (0 °C - 60 °C)
- Protection class 1
- Humidity class 3K3, no condensation.
- Natural air convection
- Standards EN60950,EN50178
UL/cUL (UL508/CSA 22.2)

Signalling:

- Green Led: Output voltage > 20,5V
- Yellow Led: Overload, Output Voltage < 20,5V
- Red Led: shutdown

Control accumulator:

- Pb battery 24 VDC/18 Ah

1.20.05 Electric jacket water preheating

Installed in the jacket water cooling circuit, consisting of:

- Heating elements
- Water circulating pump

The jacket water temperature of a stopped engine is maintained between 133 °F (56°C) and 140°F (60°C), to allow for immediate loading after engine start.

1.20.08 Flexible connections

Following flexible connections per module are included in the GE Jenbacher -scope of supply:

No.Connection	Unit	Dimension	Material
2 Warm water in-/outlet	in/lbs	4"/145	Stainless steel
1 Exhaust gas outlet	in/lbs	12"/145	Stainless steel
1 Fuel gas inlet	in/lbs	5"/145	Stainless steel
2 Intercooler in-/outlet	in/lbs	2½"/	Stainless steel
2 Lube oil connection	in	1.1"	Hose

Seals and flanges for all flexible connections are included.



2.00 Electrical equipment

Totally enclosed floor mounted sheet steel cubicle with front door wired to terminals. Ready to operate, with cable entry at bottom. Naturally ventilated.

Protection: IP 42 external, NEMA 12
IP 20 internal (protection against direct contact with live parts)

Design according to EN 61439-2 / IEC 61439-2 and ISO 8528-4.
Ambient temperature 41 - 104 °F (5 - 40 °C), 70 % Relative humidity

Standard painting: Panel: RAL 7035
Pedestal: RAL 7020

2.02 Grid monitoring device

Standard without static Grid - 60Hz alternator

Function:

For immediate disconnection of the generator from the grid in case of grid failures.

Consisting of:

- High/low voltage monitoring
- High/low frequency monitoring
- Specially adjustable independent time for voltage and frequency monitoring
- Vector jump monitoring or df/dt monitoring for immediate disconnection of the generator from the grid for example at short interruptions
- Indication of all reference dimensions for normal operation and at the case of disturbance over LCD and LED
- Adjusting authority through password protection against adjusting of strangers

Scope of supply:

Digital grid protection relay with storage of defect data, indication of reference dimensions as well as monitoring by itself.

Grid protection values:

Parameter	Parameter limit	Max time delay[s]	Comments
59-61Hz			Do work normal
f<[ANSI 81U]	59Hz	0,5	Load reduction with 10%/HZ below 59Hz!



f<<[ANSI 81U]	58.5Hz	0,1	
f>[ANSI 81O]	61,5Hz	0,1	Load reduction with 30%/HZ above 61Hz!
U<[ANSI 27]	90%	1	Load reduction with 1%P /%U below 95%
U<<[ANSI 27]	80%	0,2	Load reduction with 1%P /%U below 95%
U>[ANSI 59]	110%	30	Load reduction with 1%P /%U above 105%
U>>[ANSI 59]	115%	0,2	Load reduction with 1% P/%U above 105%
Df/dt [ANSI 81R] Or Vector shift [ANSI 78]	2Hz/s, 5 Periods Or 8° -3pol		Cos phi range: 0,8ind (overexcited) - 1

3.71 Vibration Switch

A structural Vibration Switch will be installed on the package base frame to detect excessive vibrations. A signal we will be sent to the control panel to indicate an alarm condition.

3.72 Seismic Protection

The main base will be supplied with pre-drilled holes to accommodate customer furnished bolts to act as retaining elements in the event of an earthquake. These customer foundation mounted bolts cannot come into contact with the unit base frame, as these bolts are for retention only, not mounting.

Details will be provided at first drawing submittal.



3.74 Control Strategy and Options (Type 4)

Control Strategy – The following control modes will be available in the Diane Control

- **Grid Parallel with KW Control** – Real Power Load Control of the Generator set will be either via a 4-20mA input from the customer representing a unit KW load setpoint or a KW load setpoint entered on the Diane XT3 screen. Upon breaker closure, the unit will ramp to the setpoint at a maximum rate of (Rated Unit KW) / 180 seconds.
- **Grid Parallel with PF Control** – Reactive Power Load Control of the Generator set will be either via a 4-20mA input from the customer representing a unit Power Factor setpoint or a Power Factor setpoint entered on the Diane XT3 screen. Upon breaker closure, the unit will maintain the setpoint.
- **Grid Parallel with Import/Export Control** - Load Control via an Import/Export KW level entered on the Diane XT3 screen. Required will be a customer 4-20mA signal representing the Site KW (Imported and/or Exported Power) that is to be controlled. Upon breaker closure, the unit will ramp to a load that will drive the KW value represented by the 4-20mA input signal to the level entered on Customer Import/Export Setpoint entered in the Diane XT3 screen. Once at the setpoint, the unit will raise and lower load to maintain this value. If the generator load required to maintain this setpoint drops below the minimum load level of the generator set, the unit 52G circuit breaker will be opened.
- **Island Mode Operations with Blackout Starting** – Island Operations with Black start capability will allow the engine to start and run without utility being present. The engine will be able to start the engine on battery power, close the generator breaker against a dead bus, and operate independently of a utility power source. The customer must ensure that there is sufficient fuel gas and pre-chamber gas at pressure in the event of a Type 6 engine so configured. The engine will start without the normal confirmation of engine block temperature or operation of a circulating AC water pump. It will be required of the operators that once the engine is connected to the generator bus, power to the engine auxiliaries be restored. Load Management is expected to be limited by the operators to the limits of the engine, as per GE Jenbacher TI 2108-0031. This system will work in conjunction with a GE Jenbacher Master Synchronizing Control (see appropriate Spec Section) if so equipped. If this is a single unit and synchronization with the utility after assuming operations is required, a *Grid Parallel with Single Unit Island Operations* option will be required.

Per Unit Hot Water Loop Controls - Hot Water Loop Panel Controls and Software to include:

- **Hot Water Pump (Panel Control Parts and SW Only)** - The option will add specific contact output and feedback input to/from an MCC for the Hot Water Pump. This will include relays and software.
- **Hot Water Monitoring (Panel Control Parts and SW Only)** - This option will monitor 3 hot water loop switches, flow, pressure and temperature. This option includes hardwired relays added to the trip loop, and internal software



- Hot Water Return Temperature Control (Panel Parts and SW Only) - This feature will provide all necessary controls to operate a 3 Way temperature control valve. The customer will provide a PT100 as a feedback signal and the Diane will provide a 4-20mA Analog Output to a customer provided valve. Control and Display Software are also provided.
- Emergency Hot Water Temperature Control (Panel Parts and SW Only) - This feature will provide all necessary controls to operate a 3 Way temperature control valve. The customer will provide a PT100 as a feedback signal and the Diane will provide a 4-20mA Analog Output to a customer provided valve. Control and Display Software are also provided.

Per Unit Intercooler Loop Controls - Intercooler Loop Panel Controls and Software to include:

- IC Temperature Control (Panel Parts and SW Only) - This feature will provide all necessary controls to operate a 3 Way temperature control valve in the IC Loop if Not Required by Site Conditions. The Diane will provide a 4-20mA Analog Output to a customer provided valve and will utilize mixture temperature as a feedback input. Control and Display Software are also provided.
- Intercooler Pump Control (Panel Control Parts and SW Only) - The option will add specific contact output and feedback input to/from an MCC for the Intercooler Water Pump. This will include relays and software.
- Intercooler Loop Pressure (Panel Parts and SW Only) - This feature will provide an discrete input and associated software for the Intercooler Loop system pressure.

Per Unit Radiator Controls - Radiator Panel Controls and Software to include:

- Single Circuit High Temperature Loop Radiator Fan Control (Panel Parts and SW Only) - This feature will provide controls for a customer provided single circuit High Temperature Loop radiator (4 fan). The MCC control signals (DO/DI) will be provided, along with the necessary software
- Single Circuit Low Temperature Loop Radiator Fan Control (Panel Parts and SW Only) - This feature will provide controls for a customer provided single circuit Low Temperature Loop radiator (4 fan). The MCC control signals (DO/DI) will be provided, along with the necessary software

Per Unit Ventilation Related Controls - Diane XT3 System will be provided with the following additional features to operate a customer enclosure

- Ventilation Fan control Option 1 - Customer Ventilation Fan control based on container internal temperature. Signal is based on a customer provide PT100 inside the container. A 4-20mA signal is provided for use by a customer provided VFD. Discrete IO is provided for starting and feedback signals to the VFD. It is assumed that the customer MCC will provide starter motor protection.



- Ventilation System Louver Control - Electrical and Control features are provided for louver opening and closing based on engine operation and compartment temperature. 4 Louver driver contacts are provided
- Discrete Input for Air Filter Differential Pressure – Additional Discrete Input and associated software for control

Per Unit Miscellaneous Controls - Diane XT3 System will be provided with the following additional features to operate a customer enclosure

- Exhaust By-Pass Control -The exhaust by-pass consists of two flaps (one open, one closed) housed in a tee section of piping, which are controlled by a single actuator. The position of the by-pass is determined by the outlet temperature of the process heat exchanger. A PT100 sensor is used to send the outlet temperature of the process heat exchanger to the DIA.NE. The DIA.NE monitors this temperature, and if the temperature is at or above set point, moves the flaps to reduce the flow to the Exhaust Heat Exchanger while increasing the flow to the exhaust bypass. For temperatures below set point, all flow is directed through the Exhaust Heat Exchanger (analog output = 20 mADC).

[4 mADC = full bypass, 20 mADC = full Enalco. A broken wire or loss of signal will produce a full bypass output condition.] *

*There is a presumption is that a broken wire alarm already exists in the code.

- Additional Emergency Stop Signals - Additional Terminals for customer Estop switches
- Audible and Visual Alarm Indications - Hardware and software to drive a customer provided horn and strobe. Power for these devices is provided from the control system and is 24VDC
- SCR Control Signals – 2 additional discrete inputs and 1 analog will be required:
 - Discrete In 1 - Unit Operation/Engine Running (SSL20) to start the unit
 - Discrete In 2 - SCR Alarm (SS69) for display on the alarm Diane XT screen.
 - Analog Out 1 – Generator Power (0-100% = 4-20mA) for control of the SCR spray mechanism.
- Gas Flow Meter Trending - Gas Flowmeter Trending and Display (Flowmeter not included). Option includes a 4-20mA input that will accept the pressure and temperature corrected gas flow from a customer provided flow meter computer and will incorporate the signal into trending and displays in the Diane system.
- Gas Flow Meter Correction - Gas Flowmeter temperature and pressure compensation. Option includes three (3) 4-20mA inputs that will represent actual measured flow, pressure and temperature. Along with a customer provided flow meter calibration sheet, these 3 signals will be input to a calculation that will compensate the flowmeter flow signal to current gas conditions. The results will be incorporated into trending and displays in the Diane system.



4.00 Delivery, installation and commissioning

4.01 Carriage

According to contract.

4.02 Unloading

Unloading, moving of equipment to point of installation, mounting and adjustment of delivered equipment on intended foundations is not included in GE Jenbacher scope of supply.

4.03 Assembly and installation

Assembly and installation of all GE Jenbacher -components is not included in GE Jenbacher scope of supply.

4.04 Storage

The customer is responsible for secure and appropriate storage of all delivered equipment.

4.05 Emission measurement (exhaust gas analyser)

Emission measurement by GE Jenbacher personnel, to verify that the guaranteed toxic agent emissions have been achieved (costs for measurement by an independent agency will be an extra charge).

5.01 Limits of delivery - Genset

Electrical:

- Genset:
 - At terminals of genset interface panel
 - At terminals of generator terminal box
(screwed glands to be provided locally)
- Genset control panel:
 - At terminal strips
- Auxiliaries:
 - At terminals of equipment which is supplied separately

Cooling water

At inlet and outlet flanges on genset

Exhaust gas

At outlet flange of the genset

Combustion air

The air filters are set mounted

Fuel gas

At inlet and outlet flange of gas train

At inlet flange of gas pipework on genset



Lube oil

At lube oil connections on genset

Draining connections and pressure relief

At genset

Insulation

Insulation of heat exchangers and pipework is not included in our scope of supply and must be provided locally.

First filling

The first filling of genset, (lube oil, engine jacket water, anti-freeze, anti-corrosive agent, battery acid) is not included in our scope of supply.

The composition and quality of the used consumables are to be strictly monitored in accordance with the "Technical Instructions" of GE JENBACHER.

Suitable bellows and flexible connections **must be provided locally** for all connections.

Cables from the genset must be flexible.

5.02 Factory tests and inspections

The individual module components shall undergo the following tests and inspections:

5.02.01 Engine tests

Carried out as combined Engine- and Module test according to DIN ISO 3046 at GE Jenbacher test bench. The following tests are made at 100%, 75% and 50% load, and the results are reported in a test certificate:

- Engine output
- Fuel consumption
- Jacket water temperatures
- Lube oil pressure
- Lube oil temperatures
- Boost pressure
- Exhaust gas temperatures, for each cylinder

5.02.02 Generator tests

Carried out on the premises of the generator supplier.

5.02.03 Module tests

The engine will be tested with natural gas (methane number 94). The performance data achieved at the test bench may therefore vary from the data as defined in the technical specification due to differences in fuel gas quality.

Carried out as combined Engine- and Module test commonly with module control panel at GE Jenbacher test bench, according to ISO 8528, DIN 6280. The following tests are made and the results are reported in a test certificate:



Visual inspection of scope of supply per specifications.

- Functional tests per technical specification of control system.
 - Starting in manual and automatic mode of operation
 - Power control in manual and automatic mode of operation
 - Function of all safety systems on module
- Measurements at 100%, 75% and 50% load:
 - Frequency
 - Voltage
 - Current
 - Generator output
 - Power factor
 - Fuel consumption
 - Lube oil pressure
 - Jacket water temperature
 - Boost pressure
 - Mixture temperature
 - Exhaust emission (NOx)

The module test will be carried out with the original generator, except it is not possible because of the delivery date. Then a test generator will be used for the module test.

To prove characteristics of the above components, which are not tested on the test bench by GE JENBACHER, the manufacturers' certificate will be provided.

5.03 Documentation

Preliminary documentation 60 days after receipt of a technically and commercially clarified order:

- Module drawing 1)
- Technical diagram 1)
- Drawing of control panel 3)
- List of electrical interfaces 2)
- Technical specification of control system 2)
- Technical drawing auxiliaries (if included in GE Jenbacher-limit of delivery) 1)

At delivery:

- Wiring diagrams 3)
- Cable list 3)

At start-up and commissioning (or on clients request):

- Operating and maintenance manual 4)
- Spare parts manual 4)
- Operation report log 4)

TERMS AND CONDITIONS FOR SALE OF EQUIPMENT

1. Scope of Application

These Negotiated Terms and Conditions for Sale of Equipment (the "Terms") shall govern all sales and deliveries of equipment and services by Western Energy Systems, a division of Penn Detroit Diesel Allison, LLC, even if in the Purchase Order of Buyer entered into in connection with these Terms (the "Contract"), these Terms are not expressly incorporated by reference. Buyer acknowledges and agrees to these Terms when Buyer places the order. Any amendment or deviation from these Terms shall be effective only if stated in the Contract and approved by Seller in writing, and shall apply only for such limited purpose or undertaking that is the basis for such deviation. **EXCEPT AS PROVIDED IN THE FOREGOING SENTENCE, ANY AND ALL TERMS AND CONDITIONS SET FORTH IN ANY PURCHASE ORDER OR OTHERWISE BY BUYER ARE EXPRESSLY EXCLUDED AND SHALL BE DEEMED AUTOMATICALLY REJECTED DESPITE ANY ACT OR INACTION BY SELLER AND/OR ITS AGENTS.** Should any term or condition of the Contract (including, but not limited to, these Terms) be or become invalid, such invalidity shall not affect the validity of the remaining terms and the conditions concluded on the basis thereof. If any term or condition is or becomes invalid as contemplated in the preceding sentence, the parties will replace such invalid term by a valid term that closest reflects the meaning and purpose of the invalid term. Unless otherwise defined herein, all capitalized terms used in the Contract shall have the meanings assigned to them in the Contract.

2. Purchase Orders and Specifications

- a) Seller's offers are subject to revocation by Seller prior to Buyer's written acceptance. Purchase orders placed by Buyer are binding upon Buyer and will be accepted by Seller only if Seller executes a Contract or issues a written confirmation of order and there is a valid Contract, executed by Buyer and Seller, in place.
- b) Specifications (e.g., dimensions, weights) are binding upon Seller only if they are expressly mentioned in the Contractor or a Purchase Order confirmed by Seller in writing. Seller reserves the right to modify specifications of the Equipment to comply with legal requirements and to the extent such modifications will not result in a deterioration of quality and usability of the Equipment. In any event, all specifications of the Equipment are subject to availability, changes and similar design and model revisions made by the applicable Equipment manufacturer.

3. Prices

- a) All prices are binding only if set forth in the Contract and Seller's written confirmation of order.
- b) All prices do not include sales, use, gross receipts, excise, valued-added, services, or any similar transaction or consumption taxes ("Taxes") unless otherwise specified by Seller. Buyer acknowledges and agrees it shall be responsible for payment of any such Taxes to Seller unless it otherwise timely provides Seller with a valid exemption certificate or direct pay permit. If Seller is assessed any Taxes, interest and/or penalty by any taxing authority as a result of Buyer's failure to pay Taxes, Buyer agrees to reimburse Seller for any such Taxes, including any interest or penalty assessed thereon. Each party is responsible for any personal property or real estate taxes on property that the party owns or leases, for franchise and privilege taxes on its business, and for taxes based on its net income or gross receipts.

- c) All prices include the costs and expense of Seller for the importation and delivery of the Equipment to the Site, unless expressly otherwise agreed. Shipment will be made Delivered Duty Paid to the Site (Incoterms 2010).

4. Payment Terms

- a) Contract price shall be paid in accordance with the following sequences in U.S funds:

Sequence	Payment Event	Percent of Total Contract Price	Total Contract Price
1	We prefer the first payment with the fully signed Contract or a payment within ten (10) days of a fully signed Contract. Payment by either of a) Wire Transfer or ACH Payment or b) Company Check. Equipment will not be ordered until these payments are received. NO CREDIT CARD PAYMENTS will be accepted.	25 %	\$ _____
2	Due following Delivery of Equipment Submittals and Engineering Data. Payment by wire transfer or ACH. Preferred terms are upon receipt of invoice however we will accept 10 days, 15 days or up to 30 days following receipt of invoice SUBJECT TO CREDIT APPROVAL.	15 %	\$ _____
3	Due Thirty (30) Days Prior to Shipment Ex-Works GE Jenbach Austria. Payment by wire transfer or ACH upon receipt of invoice. No extended terms are allowed as we need to pay GE prior to shipment ex works. IF A CUSTOMER insists on payment at delivery to project site then we need to either a) receive at least 50% of the ex works payment prior to shipment ex works or b) increase Payment Sequences 1 through 4 on the total project such that we maintain positive net cash flow with ex works payment to GE, or c) work out a special progress payment schedule for all project elements. This needs special approval from Phil Field and Al Clark.	50 %	\$ _____
4	Retainage on Generator Set Equipment until completion of pre-commissioning and idling of engine-generator sets or a maximum of 90 days from date of shipment ex works. Payment by wire transfer or ACH. Preferred terms are upon receipt of invoice however we will accept 10 days, 15 days or up to 30 days following receipt of invoice SUBJECT TO CREDIT APPROVAL.	5 %	\$ _____
5	Retainage on Generator Set Equipment until Commercial Operation and Turnover = < 120 days. Payment by wire transfer or ACH. Preferred terms are upon receipt of invoice however we will accept 10 days, 15 days or 30 days from receipt of invoice SUBJECT TO CREDIT APPROVAL.	5 %	\$ _____
	Total		\$ _____

- b) Payments are to be made via Wire or ACH money transfer to Seller's bank as designated herein

Western Energy Systems
 Citizens Bank of PA
 1 Citizens Drive
 Riverside, Rhode Island 02915
 Accounting # 6699010291
 Routing Code # 036076150
 SWIFT # CTZIUS33

- c) If Buyer fails to make a payment of the Contract Price or otherwise arising under the Contract within five (5) business days of the due date set forth in the Contract, (i) the outstanding amounts due Seller shall be subject to a default interest at a rate equal to the lesser of (aa) five (5%) percent per annum in excess of the rate of interest announced from time to time in The Wall Street Journal as the "prime rate" or "base rate" charged by institutional commercial lenders, from time to time or (bb) the maximum rate of interest then permitted according to the laws of the Commonwealth of Pennsylvania or according to federal law, to the extent applicable; (ii) Seller may demand immediate payment of the entire remaining Contract Price; and (iii) notwithstanding the exercise of any other right hereunder, Seller shall have all remedies available to it at law or in equity including, but not limited to, the right to terminate the Contract. If Seller retains a collection agency, an attorney or other third party to collect outstanding claims for amounts due under the Contract, all collection charges (including legal fees) shall be paid by Buyer.
- d) All payments shall be made by methods approved by Seller's credit department.
- e) When placing the order, Buyer shall take the measures agreed with Seller to secure payment (e.g., a bank guarantee, letter of credit, etc.).
- f) If either Party is in default with payment or any other services, the other Party shall be entitled, notwithstanding any other claims, to withhold Seller's delivery of the Equipment or Buyers payment of the Equipment until Buyer or Seller, as applicable, becomes current on its contractual obligations or to rescind and terminate the contract for non-performance, after granting a reasonable grace period, and to assert damages (in particular for non-performance). Any cost reasonably incurred by the other Party, in accordance with such suspension (including storage costs and reasonable attorneys' fees) shall be payable by the other Party.

5. Termination and Suspension

- a) Buyer may terminate the Contract without cause at any time upon written notice to Seller, provided Buyer concurrently delivers to Seller payment of a termination charge (the "Termination Charge"). The Termination Charge shall be calculated as follows: (i) the Contract Price, less the amount already paid to Seller, multiplied by (ii) the applicable percentage set forth below:

# of Days after Contract Date	Percentage
< 30 days	10%
31-60	30%
61-90	50%
91-120	70%
121 +	100%

- b) Title to the Equipment and any work in progress shall remain with Seller, or shall revert to Seller if previously transferred, in the event Buyer elects to terminate the Contract pursuant to this Section 5.
- c) If Buyer becomes insolvent, makes an assignment for the benefit of its creditors, has a receiver or trustee appointed for the benefit of its creditors, or files for protection from creditors, under any bankruptcy or insolvency laws, Seller shall be entitled to terminate the Contract for cause and enforce and pursue its remedies hereunder.

- d) If Buyer fails to fulfill any of the payment conditions set forth in the Contract, Seller may suspend performance and delivery after providing written notice to Buyer and a ten (10) day period from the date of such written notice for Buyer to fulfill any such payment condition; *provided* such cure right of Buyer shall only apply once in any six (6) month period. Any cost incurred by Seller in accordance with such suspension (including storage costs) shall be payable by Buyer upon submission of Seller's invoices. Performance of Seller's obligations shall be extended for a period equaling the period of Buyer's nonfulfillment of any portion of the payment terms, whether or not Seller suspends performance, and such additional time as may be reasonably necessary in the circumstances. If Buyer does not correct such failure in the manner and time satisfactory to Seller, then Seller may, at its option, terminate the Contract in respect to the portion of Equipment not delivered and work not yet performed. If Seller terminates the Contract, Buyer shall return to Seller all Equipment Seller has already delivered and for which payment has not been made in full at Buyer's cost and expense and at Buyer's risk. If Buyer fails to do so, Seller may disassemble and remove the Equipment from Buyer at Buyer's cost and expense and at Buyer's risk.

6. Delivery; Storage; Passage of Title and Risk of Loss

- a) Shipment will be made Delivered Duty Paid to the Site (Incoterms 2010) with rigging and removal by others. The "Scheduled Delivery Date" for each major component of Equipment is defined as the date(s) the Equipment arrives on Site, estimated to be as follows:

Component	Date
All equipment will be delivered to project site, or Buyer's designated storage area no later than Date provided subject to a firm purchase order from Buyer by _____	_____

- b) Unless Seller agrees otherwise in its sole discretion, the delivery period for the Equipment will commence only after all technical and commercial details have been agreed upon by the Parties and all installments of the Contract Price then due have been delivered to Seller. Partial and/or early deliveries are permitted, provided Seller notifies Buyer prior to such delivery in writing. Buyer shall inspect the delivered Equipment immediately after receipt as to completeness, accuracy and other absence of defects that may be reasonably observed, and Buyer shall give written notice of such defects, if any, without delay or no later than five (5) business days after receipt of the Equipment.
- c) If any part of the Equipment cannot be shipped to Buyer when ready due to any cause not attributable to Seller, Seller may ship such equipment to storage. If such Equipment is placed in storage, including storage at the facility where manufactured, the following conditions shall apply: (a) all risk of loss or damage shall thereupon shall be the responsibility of Buyer; (b) any amount otherwise payable to Seller upon delivery or shipment of such Equipment shall be payable upon presentation of invoice(s) by Seller; (c) all expenses incurred by Seller, such as for preparation for and placement into storage, handling, inspection, preservation, insurance, storage, removal charges and any taxes shall be payable by Buyer upon submission of invoice(s) by Seller; and (d) when conditions permit and upon payment of all amounts due hereunder, Seller shall resume delivery of the Equipment to the originally agreed point of delivery.
- d) Unless otherwise expressly set forth in the Contract, title to the Equipment shall pass to Buyer only after the entire Contract Amount and any other amount due and owing hereunder

(collectively, the "Amount Due") has been paid to Seller in full. Unless otherwise expressly set forth in the Contract, all risk of loss shall pass to Buyer upon delivery of the Equipment to the Site. At all times from and after delivery of the Equipment to the Site and for so long as any Amount Due remains unpaid, Buyer shall purchase and maintain insurance respective of the Equipment in an amount of not less than the value of the Equipment (the "Insurance"). Buyer shall cause Seller to be named as an additional insured on such policy(ies). Upon any loss of or to the Equipment or other claim covered by the Insurance, Buyer shall immediately take all steps, including as directed by Seller, to collect payment under the Insurance and instruct the insurance company to remit to Seller an amount equal to the Amount Due. All premiums and deductibles under the Insurance shall be the sole responsibility of Buyer.

- e) If the Contract expressly provides for title to the Equipment to pass to Buyer before payment of the full Amount Due, Buyer grants Seller a purchase money security interest in all items of the Equipment until full payment of the full amount of the Amount Due is received by Seller. Buyer agrees to perform all acts and execute all documents as may be necessary to perfect Seller's security interest. Buyer agrees that Seller may file any and all financing statements, including pre-filing security statements, as Buyer determines in its sole discretion to be appropriate.

7. Changes

Buyer may, by written change order, make mutually agreed to changes in the Equipment or services to be provided by Seller. If any such change results in an increase or decrease in the cost or time required for the performance under the Contract, there shall be an equitable adjustment in the Contract Price and the Scheduled Delivery Date. Seller shall not be obligated to proceed with any changed or extra work until the price of such change and its effect on the Scheduled Delivery Date have been agreed upon in a written change order.

8. Excusable Delays

- a) Other than Buyer's obligation to make payment under the Contract, neither Buyer nor Seller shall have any liability or be considered to be in breach or default of their obligations under the Contract to the extent that performance of such obligations is delayed or prevented, directly or indirectly, due to:
 - i) causes beyond its reasonable control; or
 - ii) acts of God, acts or failures to act of governmental authorities, fires, severe weather conditions, earthquakes, strikes or other labor disturbances, floods, war (declared or undeclared), terrorism, epidemics, civil unrest, riots, delays or accidents in transportation;
 - iii) acts or omissions of Buyer including failure to promptly: (a) provide Seller with information and approvals necessary to permit Seller to proceed with work immediately and without interruption, or (b) comply with the terms of payment; or
 - iv) shipment to storage in accordance with Section 6(b) above.
- b) Each Party shall notify the other Party of any such above delay and strive to mitigate the delay to the extent practicable. The Scheduled Delivery Date or other date of performance shall be extended for a period of time necessary to overcome the effect of such excusable delay, if such delay can reasonably be overcome. If Seller is delayed by acts or omissions of Buyer, or by the prerequisite work of Buyer's other contractors or suppliers, Seller shall also be entitled to an equitable price adjustment.

9. Warranty

- a) Provided that Buyer contacts Seller, Buyer gives timely notice of defects and Buyer makes the Equipment available promptly for correction, the Warranty of the manufacturer(s) of the Equipment attached to this Appendix D shall be available to Buyer.
- b) So long as Buyer complies with its obligations under Section 9(a), Seller agrees to use commercially reasonable efforts to assist Buyer in making any warranty claims with regard to the Equipment to the applicable manufacturer(s).
- c) Buyer shall make all failed Equipment or components available to Seller for return. Seller assumes obligation and costs to return failed Equipment or components to manufacturers for inspection and/or failure analysis. Seller shall complete all warranty forms and claims necessary for warranty review and determination.
- d) With the exception of any additional warranty coverages set forth in the Purchase Order confirmed by the Seller, the preceding paragraphs of this Article set forth the sole and exclusive remedies for all claims based on failure of or defect in the Equipment and services provided under this Contract, whether the failure or defect arises before, during or after the Warranty Period and whether a claim, however instituted, is based on contract, indemnity, warranty, tort (including negligence), strict liability or otherwise. The foregoing warranties are exclusive and are in lieu of all other warranties and guarantees whether written, oral, implied or statutory. NO IMPLIED STATUTORY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY.
- e) Buyer shall make all failed Equipment or components available to Seller for return. Seller assumes obligation and costs to return failed Equipment or components to manufacturers for inspection and/or failure analysis. Seller shall complete all warranty forms and claims necessary for warranty review and determination.
- f) The preceding paragraphs of this Section set forth the sole and exclusive remedies for all claims based on failure of or defect in the Equipment and services provided under the Contract, whether the failure or defect arises before, during or after the applicable Warranty period and whether a claim, however instituted, is based on contract, indemnity, warranty, tort (including negligence), strict liability or otherwise. The foregoing warranties are exclusive and are in lieu of all other warranties and guarantees whether written, oral, implied or statutory.

10. Limitation of Liability

- a) *Limitation.* Buyer agrees that it shall not claim damages of any kind for any legal basis whatsoever, whether in contract, indemnity, tortious damage (including negligence), strict or product liability, impossibility of service, positive breach of an obligation, or otherwise, arising out of the performance or breach of the Contract or use of any Equipment or part thereof, unless the foregoing is due to Seller's material breach of the Contract, intentional misconduct or gross negligence. SELLER'S (AND ITS REPRESENTATIVES') LIABILITY UNDER THIS AGREEMENT, REGARDLESS OF THE FORM OF ACTION, SHALL NOT EXCEED AN AMOUNT EQUAL TO ONE HUNDRED (100%) PERCENT OF THE CONTRACT PRICE. NEITHER BUYER NOR SELLER (NOR THEIR RESPECTIVE REPRESENTATIVES) SHALL BE LIABLE TO THE OTHER PARTY UNDER THIS AGREEMENT (OR OTHERWISE IN CONNECTION WITH THE PRODUCTS AND SERVICES) FOR ANY INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR LOSS OF PROFITS, REVENUE, TIME, OPPORTUNITY OR DATA, WHETHER IN AN ACTION IN CONTRACT, TORT, PRODUCT LIABILITY, STATUTE, EQUITY OR OTHERWISE.

The limitation of liability and exclusion of damages shall apply even if the limited remedies fail of their essential purpose. All liability under the Contract shall terminate eighteen (18) months after the Equipment is placed in service or part thereof giving rise to the claim.

- b) To the fullest extent permitted by Law, each party shall indemnify, defend and hold harmless the other party and its affiliates and their respective agents, representatives, officers, directors, managers, members and employees from and against all damages, losses, liabilities, obligations, costs, fines, judgments, penalties and expenses (including, but not limited to reasonable fees and charges of attorneys) ("**Losses**") relating to or arising out of or resulting from any claim, demand, suit or action of a third party (collectively, "**Claims**") to the extent such Claims arise out of or result from the indemnifying party's (or any of its Affiliate's or any of their respective agent's, representative's, officer's, director's, manager's, member's or employee's) (i) breach of this Agreement or (ii) gross negligence or willful misconduct. To the extent any such Losses or Claims arise from any breach of this Agreement or the gross negligence or willful misconduct of a party to this Agreement, the obligation to indemnify under this Section 10(b) shall be comparative and the indemnifying party shall not be obligated to indemnify the indemnified party to the extent that such Losses or Claims were caused by any breach of this Agreement by the indemnified party or the gross negligence or willful misconduct of the indemnified party.
- c) In addition to Buyer's indemnification obligations under Section 10(b), Buyer shall indemnify, defend and hold harmless Seller and its affiliates and their respective agents, representatives, officers, directors, managers, members and employees from and against all Losses relating to or arising out of or resulting from any Claims to the extent such Claims arise out of or result from the presence, discharge or release of petroleum, oil, or hazardous or toxic wastes, substances or materials, as those terms are defined in applicable federal, state and local environmental statutes, regulations and guidance documents arising out of, resulting from or relating to the equipment sold, or service provided, under the Contract except to the extent such loss is attributable to the negligence or willful misconduct of Seller or anyone for whose acts Seller may be liable.
- d) If any of the foregoing indemnities is determined to be void or otherwise impaired by any law controlling the construction thereof, such indemnity shall be deemed to conform to the fullest indemnity permitted by such law. Except as otherwise expressly provided herein, the indemnities provided herein by Seller shall be the exclusive remedy of Buyer.
- e) *Exclusion of Consequential Damages.* In no event, whether as a result of breach of contract, warranty, indemnity, tortious damage (including negligence), strict or product liability, impossibility of service, positive breach of an obligation, or otherwise, shall either Party or that Party's subcontractors or suppliers be liable for loss of profit or revenues, loss of use of the Equipment or any associated equipment, cost of capital, cost of substitute equipment, facilities, services or replacement power, downtime costs, fines or penalties charged to either Party for failure to meet permits, or for any special, consequential, incidental, indirect or exemplary damages. This subsection (e) shall not limit the Parties' obligations under Section 10(b) and Section 10(c).
- f) *Gratuitous Advice.* If Seller furnishes Buyer with advice or assistance concerning any products, systems or work which is not required pursuant to the Contract, the furnishing of such advice or assistance will not subject Seller to any liability, whether in contract, warranty, indemnity, tort (including negligence), strict liability or otherwise.
- g) *"Seller" Defined.* For the purposes of these Terms, the term "Seller" shall mean Seller, Seller's affiliates, subcontractors and suppliers of any tier, and their respective agents and employees, whether individually or collectively.

- h) *Limitations to Prevail.* The provisions of this Section 10 shall prevail over any conflicting or inconsistent provisions contained in any of the documents comprising the Contract, except to the extent that such provisions further restrict the Seller's liability.
- i) Buyer shall comply with the instructions Seller has issued for the use of the delivered Equipment. Seller shall not be liable in case of non-compliance with Seller's instructions or governmental conditions.

11. Intellectual Property Rights

If Seller provides for the manufacture of Equipment on the basis of Buyer's design information, drawings, models or other information, Buyer shall hold harmless and indemnify Seller for any infringement upon third party intellectual property rights.

12. Confidential Information

- a) Seller may store, transmit, process and cancel Buyer's personally related information in the ordinary course of business.
- b) At the time of furnishing confidential or proprietary information, the Parties shall expressly designate by label, stamp, or other written communication that the information or documentation furnished is confidential. The receiving Party agrees (i) to treat such information as confidential, (ii) to restrict the use of such information to matters relating to performance of the Contract, and (iii) to restrict access to such information to its employees whose access is necessary in the implementation of the Contract. The receiving Party may release confidential Information to its agents, consultants and affiliates ("Representatives"), provided that these Representatives (i) are informed of the confidential and proprietary nature of the confidential information and agree to be bound by the same standard of care as the receiving Party, (ii) have a need to know the confidential information, (iii) limit their use of the confidential information solely to purposes related to the Project and (iv) are not competitors of Seller. Confidential information will not be reproduced without the other Party's prior written consent, and all copies of written information will be returned upon request except to the extent that such information is to be retained by the receiving Party pursuant to the Contract.
- c) The foregoing restrictions do not apply to information that: (i) is contained in a printed publication which was released to the public by the disclosing Party prior to the Contract Date; (ii) is, or becomes, publicly known otherwise than through a wrongful act of the receiving Party, its employees, or agents; (iii) is in possession of the receiving Party, its employees, or agents prior to receipt from the disclosing Party, provided that the person or persons providing the same have not had access to the information; (iv) is furnished to others by the disclosing Party without restrictions similar to those herein on the right of the receiving party to use or disclose; (v) is approved in writing by the disclosing Party for disclosure by the receiving Party, its agents or employees to a third party or (vi) is provided to Buyer's financing party under notice and requirement of confidentiality. Upon receipt of a demand or request for the disclosure of confidential information, the receiving Party shall promptly notify the other Party and afford the Party an opportunity to seek a protective order or other appropriate form of security or remedy. In the event that the Parties fail to obtain a protective order or similar protection, the Party receiving the demand or request for disclosure of confidential information shall furnish only that portion of the confidential information that is legally required to be furnished and will exercise reasonable efforts to obtain reliable assurance that confidential treatment will be afforded the confidential information.

13. Software License

- a) All software included in the Equipment shall be governed by any license agreement that may be granted to Buyer by such manufacturer.
- b) All documentation (“documentation” means manufacturer-provided user manuals, on-line help functions and user instructions regarding the operation, installation or maintenance of the software) provided with the Software included in the Equipment shall be governed by any license agreement that may be granted to Buyer by such manufacturer.
- c) Buyer may not distribute copies of the Software to others or electronically transfer the Software from one computer to another over a network. The Software contains trade secrets. In order to protect them Buyer may not decompile, reverse engineer, disassemble, or otherwise reduce the Software to a human-perceivable form. BUYER MAY NOT MODIFY, ADAPT, TRANSLATE, RENT, LEASE, LOAN, RESELL FOR PROFIT, DISTRIBUTE, NETWORK, OR CREATE DERIVATIVE WORKS BASED UPON THE SOFTWARE OR ANY PART THEREOF.
- d) All Software is protected by the copyright laws of the laws of Austria and by applicable international treaties, or such other applicable law of another jurisdiction. No rights under copyrights are transferred to Buyer, except as specifically provided above.
- e) All Software provided by a manufacturer shall remain such manufacturer’s property. If Buyer receives Software that renders Software that Buyer then has redundant, Buyer must return the redundant Software to the applicable manufacturer or certify in writing that Buyer has erased all copies of it.
- f) “Software” means a computer program or compilation of data that is fixed in any tangible medium of expression, or any storage medium from which the program may be perceived, reproduced or otherwise communicated, either directly or with the aid of a machine or device, and shall include without limitation any of Seller’s proprietary operating Software, provided for the ordinary operation of the Equipment, any optional Software to enhance the operation of the Equipment, as well as any upgrades or revisions of this material the Seller provides in fulfillment of a specific written commitment or otherwise. Nothing herein shall be deemed to create an obligation on the part of Seller to provide any upgrade or revision to any Software other than pursuant to a written obligation to do so.

14. Installation. Seller’s installation services provided or identified in the Contract will be performed in accordance with applicable Seller installation guides and project plans and otherwise subject to the following additional provisions. Buyer agrees to review the applicable installation guides and project plans and perform its obligations set forth in those materials.

15. General Clauses

- a) The delegation or assignment by Buyer of any or all of its duties or rights under the Contract without Seller’s prior written consent shall be void. Seller shall have the right to assign the Contract in whole or in part to an affiliate or parent of Seller upon prior, written notice to Buyer; provided, however, that such assignment shall not relieve Seller of its obligations to perform under the Contract and Seller shall remain liable for all of its obligations hereunder notwithstanding such assignment.
- b) Seller may hire subcontractors to perform work under the Contract; provided, however, that Seller will at all times remain responsible for the performance of its obligations and duties under the Contract.

- c) The Contract (together with all appendices, attachments and exhibits thereto) represents the entire agreement between the Parties and no modification, amendment, rescission, waiver or other change shall be binding on either Party unless assented to in writing by the Parties' authorized representatives. Any oral or written representation, warranty, course of dealing or trade usage not contained or reference herein shall not be binding on either Party. Each Party agrees that it has not relied on, or been induced by, any representations of the other Party not contained in the Contract. Except as provided in the Article entitled "Limitation of Liability", these provisions are for the benefit of the Parties hereto and not for any other third party.
- d) The provisions of the Contract are severable from each other. If any provision of the Contract is held to be invalid or unenforceable, it shall be revised to reflect as closely as possible its originally intended meaning, and the validity or enforceability of any other provisions in the Contract will not be affected.
- e) Any failure to enforce any provision of the Contract is not a waiver of that provision or of either Party's right to later enforce each and every provision. The terms of the Contract that by their nature are intended to survive its expiration (such as the confidentiality, indemnification and payment provisions included herein) will continue in full force and effect after its expiration.
- f) The law of the state where the product is installed or the service is provided will govern any dispute between the parties. EACH PARTY EXPRESSLY WAIVES ALL RIGHTS TO A JURY TRIAL IN CONNECTION WITH ANY DISPUTE ARISING UNDER THE CONTRACT. Other than collection matters and actions seeking injunctive relief in a court of competent jurisdiction to prevent or cease a violation of intellectual property rights related to the products or services, disputes arising under or relating to the Contract will be submitted to the American Arbitration Association ("AAA") office located closest to the largest metropolitan area of the state where the product is installed or the service is provided for binding arbitration in accordance with the AAA's then-current Commercial Arbitration Rules. The cost of the arbitration, including the fees and expenses of the arbitrator, will be shared equally, with each party paying its own attorneys' fees. The arbitrator will have the authority to award damages only to the extent otherwise available under the Contract.
- g) **Independent Contractor.** Seller and Buyer are independent contractors and nothing contained in the Contract is intended nor shall it be construed as creating a fiduciary relationship, partnership, joint venture or agency relationship between Seller and Buyer, nor is anything contained in this agreement intended to be construed as creating or requiring any ongoing or continuing relationship or commitment between Seller and Buyer, except as otherwise agreed in writing by the parties.

STEULER

- Specification Sheet -
SCR/Oxidation Catalyst System - For NOx/CO/VOC Reduction

Customer: <u>WES</u>	Notes: _____
Attention: <u>Steve Hall</u>	Ref. No: <u>B70216-1B</u>
Job Ref: <u>Tajiguas Landfill</u>	Date: <u>10/19/17</u>

Engine Mfg: <u>Jenbacher</u>	Model No: <u>JGS412C82</u>	
EKW: <u>853</u>	Cycle: <u>4</u>	RPM: <u>1800</u>
Fuel Type: <u>Clean Bio-Gas</u>	Load: <u>100%</u>	Hours/Year: <u>8,300</u>

SCR Model: <u>DeNOx-J412C82/1180</u>	Nbr Units: <u>1</u>	SCR Controls: <u>Open Loop</u>
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Item Description	English	Units	Metric	Units
Engine Output	1,180	BHP	880	BKW
Exhaust Gas Mass Flow	10,842	Lbs/Hour	4,918	Kg/Hour
Exhaust Gas Temperature	851.0	°F	455.0	°C
Exhaust Flow - Standard Units	140,684	SCFH	3,984	SCMH
Pre-Catalyst NOx Emissions	0.60	G/BHP/Hr	0.80	G/BKW/Hr
Pre-Catalyst NOx Emissions	45	PPMV@15% O2	45	PPMV@15% O2
Pre-Catalyst NOx Emissions	1.8	Lbs/MWe/Hr	0.8	Kg/MWe/Hr
Post-Catalyst NOx Emissions	0.120	G/BHP/Hr	0.161	G/BKW/Hr
Post-Catalyst NOx Emissions	9	PPMV@15% O2	9	PPMV@15% O2
Post-Catalyst NOx Emissions	0.37	Lbs/MWe/Hr	0.17	Kg/MWe/Hr
Percentage NOx Reduction	80.0	%	80.0	%
Pre-Catalyst CO Emissions	2.50	G/BHP/Hr	3.35	G/BKW/Hr
Pre-Catalyst CO Emissions	313	PPMV@15% O2	313	PPMV@15% O2
Pre-Catalyst CO Emissions	7.6	Lbs/MWe/Hr	3.5	Kg/MWe/Hr
Post-Catalyst CO Emissions	0.200	G/BHP/Hr	0.268	G/BKW/Hr
Post-Catalyst CO Emissions	25	PPMV@15% O2	27	PPMV@15% O2
Post-Catalyst CO Emissions	0.61	Lbs/MWe/Hr	0.28	Kg/MWe/Hr
Percentage CO Reduction	92.0	%	92.0	%
Pre-Catalyst VOC Emissions	0.40	G/BHP/Hr	0.54	G/BKW/Hr
Pre-Catalyst VOC Emissions	88	PPMV@15% O2	88	PPMV@15% O2
Pre-Catalyst VOC Emissions	1.2	Lbs/MWe/Hr	0.6	Kg/MWe/Hr
Post-Catalyst VOC Emissions	0.115	G/BHP/Hr	0.154	G/BKW/Hr
Post-Catalyst VOC Emissions	25	PPMV@15% O2	25	PPMV@15% O2
Post-Catalyst VOC Emissions	0.35	Lbs/MWe/Hr	0.16	Kg/MWe/Hr
Percentage VOC Reduction	71.3	%	71.3	%
Pressure Drop Across Catalyst/Mixer	6.0	In. H2O	15.0	mbar
Maximum SCR System Ammonia Slip	10	PPMV	10	PPMV
40%/60% Urea/H2O Consumption Rate	0.3	Gal/Hour	1.1	Liter/Hr
SCR Catalyst Volume	22.50	Cu. Ft	0.637	Cu/Meter
SCR Catalyst Configuration	6x5x3x12		6x5x3x300	
SCR Catalyst Space Velocity	6,253	SCFH/FT ³	6,253	SCMH/M ³
Oxidation Catalyst Volume	5.00	Cu. Ft	0.142	Cu/Meter
Oxidation Catalyst Configuration	6x5x2x4		6x5x2x100	
Oxidation Catalyst Space Velocity	28,137	SCFH/FT ³	28,137	SCMH/M ³

STEULER

- Specification Sheet -

SCR/Oxidation Catalyst System - For NOx/CO/VOC Reduction

Customer: WES
 Attention: Steve Hall
 Job Ref: Mustang Renewables

Notes: _____
 Ref. No: B31107-1A
 Date: 10/19/17

Engine Mfg: Jenbacher Model No: JMS416B82
 BHP (KW): 1573 BHP / 1137 EKW Cycle: 4 RPM: 1800
 Fuel Type: Filtered Biogas Load: 100% Hours/Year: 8,300

SCR Model DeNOx-J416B82/1573 Nbr Units: 2 SCR Controls: Open Loop

Item Description	English	Units	Metric	Units
Engine Output	1,573	BHP	1,173	BKW
Exhaust Gas Mass Flow	15,007	Lbs/Hour	6,807	Kg/Hour
Exhaust Gas Temperature	869.0	°F	465.0	°C
Exhaust Flow - Standard Units	205,810	SCFH	5,514	SCMH
Pre-Catalyst NOx Emissions	0.60	G/BHP-Hr	0.80	G/BKW-Hr
Pre-Catalyst NOx Emissions	2.08	Lbs/Hr/Eng	0.94	Kg/Hr/Eng
Pre-Catalyst NOx Emissions	8.63	TPY/Engine	7.83	Met-Tons/Year
Post-Catalyst NOx Emissions	0.120	G/BHP-Hr	0.161	G/BKW-Hr
Post-Catalyst NOx Emissions	0.416	Lbs/Hr/Eng	0.189	Kg/Hr/Eng
Post-Catalyst NOx Emissions	1.727	TPY/Engine	1.567	Met-Tons/Year
Percentage NOx Reduction	80.0	%	80.0	%
Pre-Catalyst CO Emissions	3.00	G/BHP-Hr	4.02	G/BKW-Hr
Pre-Catalyst CO Emissions	10.40	Lbs/Hr/Eng	4.72	Kg/Hr/Eng
Pre-Catalyst CO Emissions	43.17	TPY/Engine	39.17	Met-Tons/Year
Post-Catalyst CO Emissions	0.300	G/BHP-Hr	0.402	G/BKW-Hr
Post-Catalyst CO Emissions	1.040	Lbs/Hr/Eng	0.472	Kg/Hr/Eng
Post-Catalyst CO Emissions	4.317	TPY/Engine	3.917	Met-Tons/Year
Percentage CO Reduction	90.0	%	90.0	%
Pre-Catalyst NMEHC Emissions	0.43	G/BHP-Hr	0.58	G/BKW-Hr
Pre-Catalyst NMEHC Emissions	1.49	Lbs/Hr/Eng	0.68	Kg/Hr/Eng
Pre-Catalyst NMEHC Emissions	6.19	TPY/Engine	5.61	Met-Tons/Year
Post-Catalyst NMEHC Emissions	0.120	G/BHP-Hr	0.161	G/BKW-Hr
Post-Catalyst NMEHC Emissions	0.416	Lbs/Hr/Eng	0.189	Kg/Hr/Eng
Post-Catalyst NMEHC Emissions	1.727	TPY/Engine	1.567	Met-Tons/Year
Percentage NMEHC Reduction	72.1	%	72.1	%
Pre-Catalyst HCHO Emissions	0.40	G/BHP-Hr	0.54	G/BKW-Hr
Pre-Catalyst HCHO Emissions	1.39	Lbs/Hr/Eng	0.63	Kg/Hr/Eng
Pre-Catalyst HCHO Emissions	5.76	TPY/Engine	5.22	Met-Tons/Year
Post-Catalyst HCHO Emissions	0.0600	G/BHP-Hr	0.0805	G/BKW-Hr
Post-Catalyst HCHO Emissions	0.2081	Lbs/Hr/Eng	0.0944	Kg/Hr/Eng
Post-Catalyst HCHO Emissions	0.8635	TPY/Engine	0.7833	Met-Tons/Year
Percentage HCHO Reduction	85.0	%	85.0	%
Pressure Drop Across Catalyst/Mixer	5.5	In. WC	13.8	mbar
Maximum SCR System Ammonia Slip	10	PPM	10	PPM
40%/60% Urea/H2O Consumption Rate	0.4	Gal/Hr	1.5	Liter/Hr
SCR Catalyst Volume	27.00	Cu.Ft	0.765	Cu.Meter
SCR Catalyst Configuration	6x6x3x12		6x6x3x300	
SCR Catalyst Space Velocity	7,623	SCFH/FT ³	7,212	SCMH/M ³
Oxidation Catalyst Volume	3.00	Cu.Ft	0.085	Cu.Meter
Oxidation Catalyst Configuration	6x6x1x4		6x6x1x100	
Oxidation Catalyst Space Velocity	68,603	SCFH/FT ³	64,909	SCMH/M ³



Leaders in Biogas Technology

**BUDGET PROPOSAL
GAS CONDITIONING SYSTEM**

Date: 10/12/2017
Expires: 11/12/2017

John Dewey
Dewey Group

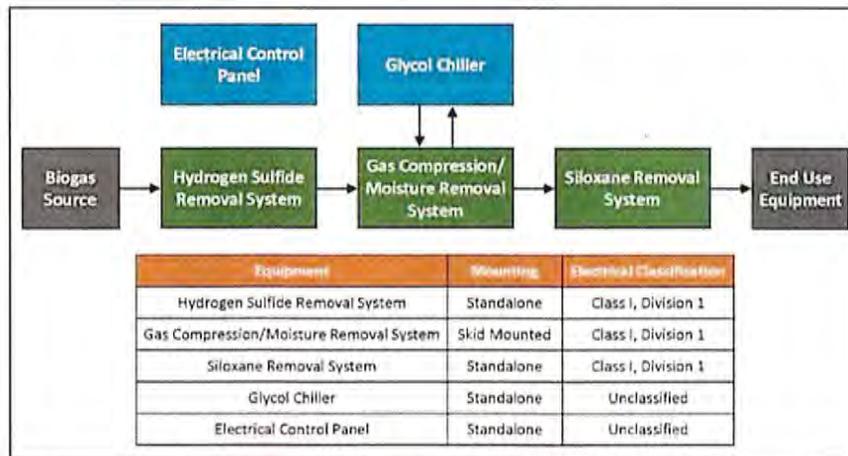
Proposal Number: PX-417-2661.1
Project Name: Santa Barbara LF

Unison Solutions, Inc. is pleased to provide this **BUDGET** proposal for a Gas Conditioning System for the Santa Barbara LF Project. This **BUDGET** proposal includes all of the CAD design services, technician labor, fabrication and materials to construct a Gas Conditioning System.

Thank you for giving Unison Solutions the opportunity to provide you with the enclosed proposal. If you have questions or require additional information, please contact me at your convenience.

Sincerely,

Adam Klaas
Unison Solutions, Inc.
Phone: 563-585-0967
Cell: 563-542-3081



UNISON SOLUTIONS, INC. CERTIFICATIONS

- ASME Certification Number (U-Stamp) - 37,381
- ASME Certification Number (R-Stamp) - R7415
- UL Certification Number - 20110405-E255550

EQUIPMENT/SUB-SYSTEMS

GAS COMPRESSION/MOISTURE REMOVAL SYSTEM

- Gas Blower Inlet Moisture/Particulate Filter
- Gas Blower
- Forced Air to Gas Heat Exchanger
- Dual Core Heat Exchanger
- Gas Recirculation
- Skid Base

GLYCOL CHILLER

- Glycol Chiller
- Initial fill of Propylene Glycol/Water Mixture

SILOXANE REMOVAL SYSTEM

- Siloxane Removal Media Vessels
- Work Platform and Ladder
- Initial charge of Siloxane Removal Media
- Siloxane Removal Final Particulate Filter

CONTROL SYSTEM

- Gas Conditioning System Control Panel
- Transformer

DESIGN CONDITIONS**SITE INFORMATION**

- Minimum Ambient Temperature	32°F
- Maximum Ambient Temperature	100°F
- Site Elevation	25 AMSL

SYSTEM REQUIREMENTS

- Maximum Gas Flow	800 scfm
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INLET GAS CONDITIONS

- Minimum Inlet Gas Pressure	2"WC
- Maximum Inlet Gas Pressure	15"WC
- Minimum Inlet Gas Temperature	50°F
- Maximum Inlet Gas Temperature	100°F
- Relative Humidity	50-100%
- Methane (CH ₄)	45-60%
- Carbon Dioxide (CO ₂)	30-45%
- Nitrogen (N ₂)	<2%
- Oxygen (O ₂)	<5%
- Hydrogen Sulfide (H ₂ S)	≤20 ppmv
- Siloxanes (L2, L3, L4, L5, D3, D4, D5, D6)	Need gas testing

DISCHARGE GAS CONDITIONS

- Discharge Gas Pressure	5 psig
- Discharge Gas Temperature	80°F
- Dew Point Temperature	40°F
- Maximum Hydrogen Sulfide	<10 ppmv
- Maximum Siloxane	<100 ppbv
- Particulate Removal	99% removal of >3 micron

SITE REQUIREMENTS

ELECTRICAL CLASSIFICATION

- NEC Class I, Division 1 Group D Areas
 - Gas Compression/Moisture Removal System
 - Siloxane Removal System
- Unclassified Electrical Areas
 - Glycol Chiller
 - Gas Conditioning System Control Panel
 - Transformer

EQUIPMENT MOUNTING

- Skid Mounted
 - Gas Compression/Moisture Removal System
- Standalone
 - Glycol Chiller
 - Siloxane Removal System
 - Gas Conditioning System Control Panel
 - Transformer

EQUIPMENT/SUB-SYSTEM DETAILS

GAS COMPRESSION/MOISTURE REMOVAL SYSTEM

- Gas Blower Inlet Moisture/Particulate Filter
 - Mounted upstream of the Gas Blower
 - 99% removal of 3micron and larger particulates and liquid droplets
 - Materials of construction shall be 304L stainless steel
 - 150# ANSI B16.5 side inlet and outlet connections
 - Cleanable polypropylene structured mesh element
 - Differential pressure gauge across the filter element
 - Float operated gauge for liquid level indication
 - Level switches above the condensate drains to warn of failure
 - Bottom drain with strainer, condensate pump, check valve, manual bypass and piping

- Gas Blower
 - One Rotary Lobe Positive Displacement Blower
 - Belt driven 30Hp, 480V/3Ph/60Hz EXP electric motor
 - Motor speed will be controlled by a VFD
 - Cast iron casing
 - Inlet and discharge flex connectors
 - Discharge silencer
 - Discharge check valve
 - Discharge pressure safety valve
 - Belt guard

- Forced Air to Gas After-Cooler
 - Air to Gas plate/fin core
 - Materials of construction shall be aluminum plate and fins
 - Galvanized steel fan shroud
 - 480V/3Ph/60Hz EXP electric motor
 - Motor speed will be controlled by a VFD to prevent excessive cooling during winter months.

- Dual Core Heat Exchanger
 - Stage 1 - Gas to gas plate/fin core
 - Materials of constructions shall be aluminum plate and fins
 - Stage 2 - Gas to glycol fin/tube core
 - Materials of construction shall be aluminum fins on 304L stainless steel tubes
 - Mounted in single 304 stainless steel housing
 - 150# ANSI B16.5 inlet and outlet connections
 - All condensation generated during cooling will be removed inside the heat exchanger housing

- Level switch mounted on the housing to warn of drain failure
- RTD mounted on the housing to verify the coldest temperature that the gas reaches
- Bottom drain with strainer, float drain, manual bypass and piping
- Gas Recirculation
 - Modulating Valve shall be provided to allow excess gas to flow from the discharge of the system back to the inlet. This valve shall be controlled by monitoring the delivery pressure of the system.
 - Butterfly valves shall be lug style, iron body with stainless steel disc and stem and FKM seat.
 - Type 7 explosion proof actuator
 - 120V weatherproof
- Skid Base
 - Welded carbon steel construction with satin black powder coat finish
 - All components mounted, piped and wired on skid base
 - 24V and 120V electrical components wired to one of two junction boxes on edge of skid
 - INSTALLATION CONTRACTOR to provide conduit and wiring to 480V components
 - Conduit shall be rigid aluminum
 - Condensate drains piped to edge of the skid base. Drains to be routed to floor drain by INSTALLATION CONTRACTOR.

GLYCOL CHILLER

- Glycol Chiller
 - Sized for the process heat load
 - Suitable for outdoor installation
 - Refrigeration System
 - Two independent refrigeration circuits sized for 50% capacity each
 - Two compressors sized for 50% capacity each
 - Chiller capacity: 25% to 100% of rated capacity
 - EC motor driven condenser fans
 - Aluminum micro-channel air cooled condensers
 - 316L stainless steel evaporators
 - R410a refrigerant. R-410a is an HFC refrigerant with 0 ODP
 - Refrigeration circuit has sealed core filter drier, liquid line solenoid valve, liquid line shut-off valve, and sight glass/moisture indicator
 - Electronic expansion valve, one per refrigeration circuit
 - Glycol Chiller shall be factory tested and shipped with complete refrigerant charge
 - Glycol Circulation
 - Dual glycol circulation pumps sized for 100% capacity

- Stainless steel end suction centrifugal pumps
- TEFC Pump Motors
- Pump isolation valves on inlet and outlet
- Pump discharge check valves
- Glycol reservoir is a 304 stainless steel closed tank
- Glycol piping is copper with anti-corrosion coating
- Armaflex insulation
- Glycol Chiller to utilize propylene glycol/water mix
- Initial fill of Propylene glycol will be provided
- Support Structure
 - G90 galvanized steel member frame
 - Powder-coated aluminum cover panels
 - All components mounted, piped and wired on skid
- Glycol Chiller Control Panel
 - UL Type 4
 - UL 508A Listed Industrial Control Panel
 - Painted carbon steel
 - 480V/3Ph/60Hz feed will be required
 - 480V disconnect
 - Microprocessor based controller with full text LCD display
 - 480VAC to 24VAC transformer

SILOXANE REMOVAL SYSTEM

- (2) Siloxane Removal Media Vessels
 - 7'6"Ø x 12' straight side
 - Materials of construction shall be 304L stainless steel
 - 150# ANSI B16.5 inlet and outlet connections
 - Flanged and dished top and bottom heads
 - Vessels shall be free-standing on four 304L stainless steel legs
 - Elliptical access nozzle on top of each vessel
 - Internal septas for even gas distribution through media
 - Pressure relief valves included
 - Bottom manual condensate drain with stainless steel ball valves
 - Test/purge ports with ball valves on the inlet and outlet of each Siloxane Removal Media Vessel
 - Lead/Lag piping and valves between Siloxane Removal Media Vessels will be provided
- Work Platform and Ladder
 - Work Platform shall be welded carbon steel construction with satin black powder coat finish
 - Ladder shall be galvanized steel construction
- Initial charge of Siloxane Removal Media

- The initial charge of siloxane removal media for each Siloxane Removal Media Vessel will be provided.
- The media shall be specifically engineered for removal of siloxanes and similar contaminants from landfill and digester gas sources.
- Siloxane media to be loaded into the Siloxane Removal Media Vessels by the INSTALLATION CONTRACTOR.

- Siloxane Removal Final Particulate Filter

- Mounted downstream of the Siloxane Removal Vessels
- 99% removal of 3micron and larger particulates and liquid droplets
- Materials of construction shall be 304L stainless steel
- 150# ANSI B16.5 side inlet and outlet connections
- Cleanable polypropylene structured mesh element
- Differential pressure gauge across the filter element
- Float operated gauge for liquid level indication
- Level switch above the condensate drain to warn of failure
- Bottom drain on vessel with manual ball valve

CONTROL SYSTEM

- Gas Conditioning System Control Panel

- Enclosure
 - UL Type 4
 - UL 508A Listed Industrial Control Panel
 - Painted carbon steel
 - Indoor location
- Thermal Management (*as necessary*)
 - Rated for installation in ambient temperatures from 40°F to 104°F
- Power Distribution
 - Fused Disconnect
 - 480V/3Ph/60Hz feed required
 - 35kA Short Circuit Current Rating
 - Over current and branch circuit protection via fuses
 - 480VAC field wiring to terminate at the component or terminal strips inside control panel
- Surge Suppression
 - 480VAC Transient Voltage Surge Suppressor
 - 120VAC Surge Filter
- Motor Control
 - (1) 30Hp rated 6 Pulse VFD for Gas Blower Motor
 - (1) 2Hp rated 6 Pulse VFD for Forced Air to Gas Heat Exchanger Motor
 - (1) ½ Hp rated Motor Starter Overload for Condensate Pump
- Programmable Logic Controller
 - Allen Bradley
 - Compact Logix PLC and I/O
 - Native Allen Bradley Ethernet IP data network

- Human Machine Interface
 - Proface PFXGP4601TAD
 - TFT Color LCD Display
 - 12" diagonal
 - 800 x 600 pixels
- Instrument wiring to terminate at terminal strips inside Control Panel
- Transformer
 - 3 kVA
 - 480VAC to 120VAC
 - NEMA 3R; Painted carbon steel

INSTRUMENTATION

- All instrumentation provided will be designed for gas service and rated for use in a NEC Class I, Division 1 Group D area.
- Gas Compression/Moisture Removal System Instrumentation
 - Inlet Pressure Transmitter
 - Level Switches at each Condensate Drain
 - Level Indicators at each Condensate Drain
 - RTD's (3 Wire-100 Ω) at each Temperature Change Point
 - RTD (3 Wire-100 Ω) to Monitor Glycol Temperature
 - Bi-metal Thermometers at each Temperature Change Point
 - Gas Blower Discharge Pressure Transmitter
- Siloxane Removal System Instrumentation
 - Delivery Pressure Transmitter

PIPING

- Pipe will be SA-312 TP304/304L Weld Pipe, minimum Schedule 10S. Threaded pipe shall be minimum Schedule 40S.
- Flange connections will be ANSI B16.5, SA-182 F304/304L Class 150.
- Pipe welding will follow ASME B31.3 Process Piping. Welded pipe will be visually inspected and pressure tested.
- Gaskets will be 1/16" nitrile bound non-asbestos ring gaskets.

VALVES

- Ball Valves
 - Stainless steel with PTFE or RTFE seat.
 - Valves will be full port.
- Butterfly Valves
 - Lug style iron body with stainless steel disc and stem and FKM seat.
- Check Valves
 - Will be one of 2 styles; ball or dual-door.
 - Ball check valves shall be stainless steel with RTFE ball.
 - Dual-door check valves shall be wafer style body, material shall be aluminum and/or stainless steel with an FKM seat.
- Globe Valves
 - Stainless steel with PTFE packing

FASTENERS

- Fasteners shall be ASTM F593 304 Stainless Steel

SUBMITTALS

- Quantity: (3) copies of 3 ring binders and (1) electronic CD copy
- Shop Drawings and Product Data will be provided in sufficient detail to confirm compliance with the requirements for the project. Shop Drawings and Product Data will be provided in a complete submittal package.
- Shop Drawings
 - Installation drawings and specifically prepared technical data, including design capacities will be provided.
 - Specifically prepared wiring diagrams unless standard wiring diagrams are submitted with product data will be provided.
 - Written description of operation will be provided.
- Product Data
 - Catalog cuts and product specifications for each product specified will be provided.
 - Standard wiring diagrams unless wiring diagrams are specifically prepared and submitted with Shop Drawings will be provided.

FACTORY TESTING

- The System will be tested on ambient air at Unison's facility prior to shipment.
- The CUSTOMER is allowed to witness the testing and Unison will inform the customer (2) weeks prior to anticipated testing date so customer can make travel arrangements.

OPERATION & MAINTENANCE MANUALS

- Quantity: (6) copies of 3 ring binders and (1) electronic CD copy
- After shipment the Gas Conditioning System will be provided with a specifically prepared Operation & Maintenance Manual. The information provided includes a system overview, operator interface, start-up/shut down procedures, communications, alarms procedures, maintenance overview, mechanical component spec sheets and electrical component spec sheets.

MAINTENANCE

- Gas Compression/Moisture Removal System
 - Clean Gas Compressor Inlet Moisture/Particulate Filter
 - Change Blower Oil
 - Clean Glycol Chiller Condenser
 - Test Glycol for Freeze Point
 - Estimated Cost = \$3,500.00*/Year
 - *Technician Labor and travel expenses not included*

- Siloxane Removal System
 - Replace Siloxane Removal Media (10' of media bed depth)
 - Estimated Media Cost = \$72,600.00*
 - *Labor for change out, disposal and shipping of media not included*

ELECTRICAL PARASITIC

- Electrical Parasitic
 - Gas Conditioning Skid
 - Condensate Pump = 1 kW
 - Gas Blower Motor = 33 kW
 - Forced Air to Gas Heat Exchanger = 3 kW
 - Glycol Chiller = 44 kW
 - Controls & Auxiliary Equipment = 4 kW
 - Total = 85 kW (Full Load)
 - Total = 68 kW (Average Run Load)

DELIVERY SCHEDULE

- Submittals delivered 3 to 4 weeks after order acceptance
- Equipment delivery 20 to 24 weeks after submittal approval
- Delivery is subject to confirmation at the time of order placement and/or submittal approval

PRICING SUMMARY

- Price includes all labor and expenses associated with the fabrication of the system.
- Prices do not reflect any taxes that may be applicable and are valid for 30 days.
- Price is FCA; Factory, Dubuque, IA 52002, per Incoterms 2010. Shipping costs not included, see estimate below
- Price does not include Start-up and Commissioning. Costs are shown below

BUDGET Gas Compression/Moisture Removal System..... \$390,000.00

BUDGET Siloxane Removal System..... \$275,000.00

Shipping ESTIMATE to Santa Barbara; CA..... \$24,000.00

Cost is an estimate and is subject to change without notice. It does not include any special packaging or permitting that may be required and is dependent on the final equipment dimensions and weights.

Start-up and Commissioning Services ESTIMATE..... \$12,500.00

Price includes Four (4) consecutive, 8 hour days, for one Unison Technician onsite with travel and expenses included. Additional days may be necessary to complete start-up and commissioning, they will be billed to the Buyer/Owner/End User at the cost of \$1,200 per day, per technician, plus travel & expenses.

OPTIONS

BUDGET Cellular VPN..... \$4,100.00

**Recommended if an internet VPN connection is not provided by the CUSTOMER*

Unison can assist the Contractor/Operator/Owner during startup, substantial completion, and throughout the warranty period. Costs for remote monitoring by a Unison Technician are not included in the base package but are available upon request. Please contact Unison for the latest pricing and options.

The cellular VPN hardware would be installed within the Unison Control Panel and be utilized for remote viewing capabilities of the PLC and HMI. The Antenna needs to be installed on-site. If mounting the Antenna on the Control Panel, the installer shall ensure that the environmental rating of the Control Panel is maintained. Proper bulkhead and gland fittings shall be utilized.

Includes:

- Cellular Service for 1 Year
- SIM Card

- VPN Module
- Antenna
- *Cellular service must be present

Does Not Include:

- Any maintenance work after start-up
- The cable required to connect the VPN Module to the VPN Antenna (cable utilizes SMA connectors)
- Any spare parts
- Any historical data trending or reporting
- Performance guarantee or service/maintenance contract
- Permitting for the installation of the equipment
- Analog Phone Line
- Internet Connection

PAYMENT SCHEDULE

- 30% upon order acceptance
- 30% at midpoint of construction
- 30% upon equipment delivery
- 10% upon site acceptance not to exceed 180 days from shipment
- Net 30 days on all payments
- Payment by Credit Card is NOT accepted (for equipment)

PROVIDED BY OTHERS

- VPN connection for remote access to Unison supplied equipment for troubleshooting and remote assistance.

PRICE DOES NOT INCLUDE

- Shipping of equipment to jobsite, in equipment pricing
- Start-up and commissioning services, in equipment pricing
- Wind or seismic calculations for all equipment
- Any maintenance work after start-up
- Siloxane removal media after initial fill
- Performance guarantee or service/maintenance contract
- Any gas testing or analyses
- Permitting for the installation of the equipment or air permits
- Freeze protection; including insulation and/or heat trace and heat trace power
- Pipe stands for field piping

ASSUMPTIONS**VESSELS & MEDIA**

- H2S and VOC's present in the gas will foul Siloxane media, additional gas testing will be necessary to finalize all vessel and media requirements, budget pricing is dependent on gas data given at the time of the proposal.
- Any assumption of media life that has been given is an estimate; additional gas testing will be required at the Buyer/Owner/End Users expense.
- Vessel sizes are estimates only, gas testing will be necessary to finalize all vessel sizing.

MECHANICAL

- Flare is supplied by OTHERS
- If an existing flare is being used, it is assumed this flare is in good working order, with all safety and control equipment.
- Foundations and/or maintenance pads are designed by OTHERS to properly support the equipment.

ELECTRICAL

- 480V/3Ph/60Hz is available
- No historical data acquisition is included in this proposal

INSTALLATION CONTRACTOR RESPONSIBILITIES

- Installation responsibilities are broken out below into three categories to outline the work; these responsibilities by no means fall on any single contractor or individual. It is the responsibility of the Buyer/Owner/End User to ensure all these conditions are adhered to, as necessary. It is responsibility of the Buyer/Owner/End User to install all equipment in compliance with local and national codes applicable to the installation site.

BUYER/OWNER/END USER RESPONSIBILITIES

- All foundations and/or maintenance pads as necessary for equipment
- Provide and seal all roof and building penetrations as necessary
- Provide all anchor bolts, temporary lift equipment, power, labor, and all other incidentals required for proper installation of the equipment shown on the drawings that will be provided by Unison Solutions, Inc.
- All rigging and setting of equipment at job site
- Proper storage of the equipment and media prior to installation
- Provide installation of Equipment/Sub-systems per the Unison Solutions Installation Guide
- Load initial charge of Siloxane Media into the vessels

MECHANICAL CONTRACTOR RESPONSIBILITIES

- Provide all field piping between the Equipment/Sub-systems, including but not limited to:
 - Gas Compression/Moisture Removal System
 - Glycol Chiller
 - Siloxane Removal System
- Provide pipe supports as necessary. Piping shall be self-supporting, and not supported off of the Unison supplied equipment.
- Install all field located or shipped loose devices
- Provide all Heat Trace and/or Insulation as necessary to provide proper freeze protection as defined by Unison Solutions.

ELECTRICAL CONTRACTOR RESPONSIBILITIES

- Provide 480V/3Ph/60Hz feed to the Gas Conditioning System Control Panel and Glycol Chiller.
- Provide all field wiring and conduits between the Equipment/Sub-systems to the Gas Conditioning Control Panel and associated equipment. This includes but not limited to:
 - Gas Compression/Moisture Removal System
 - Glycol Chiller
 - Siloxane Removal System
 - Gas Conditioning System Control Panel
 - Transformer
- Provide local disconnects as necessary
- Provide all Hazardous location conduits & wiring systems per Article 500 of the NEC
- Provide conduit seals entering and/or leaving the Class I, Division 1 Electrical Area. Conduit seals will need to be filled during Start-up and Commissioning after verification of field wiring by Unison's Start-up Technician. Conduit seals are to be filled prior to the introduction of gas to the equipment.
- Provide heat trace power from local lighting panel, as necessary.

WARRANTY

- Unison Solutions, Inc. will warrant all workmanship and materials in conformance with the attached Warranty Statement. Warranty is valid for **18** months from the time the equipment is ready to ship from Unison's factory or **12** months from the date of startup, whichever occurs first.
- This proposal is for product design and equipment manufacturing only and does not include any site or consultative engineering services expressed or implied.
- Unison Solutions, Inc. will not release the PLC program for this system. This is considered proprietary and the intellectual property of Unison Solutions, Inc.



WARRANTY STATEMENT

Unison Solutions, Inc. (Unison) is committed to providing quality products and services to its customers. As a demonstration of this commitment, Unison offers the following warranty on its products.

Grant of Warranty: Unison provides this warranty for its equipment under the terms and conditions which are detailed herein. This warranty is granted to the person, corporation, organization, or legal entity (Owner), which owns the equipment on date of start-up. This warranty applies to the owner during the warranty period, and is not transferable.

Warranty Coverage: Equipment that is determined by Unison to have malfunctioned during the warranty period under normal use solely as a result of defects in manufacturing workmanship or materials shall be repaired or replaced at Unison's option. Unison's liability under this warranty to the Owner shall be limited to Unison's decision to repair or replace, at its factory or in the field, items deemed defective after inspection at the factory or in the field.

Warranty Exclusions: All equipment, parts and work not manufactured or performed by Unison carry their own manufacturer's warranty and are not covered by this warranty. Unison's warranty does not override, extend, displace or limit those warranties. Unison's only obligation regarding equipment, parts and work manufactured or performed by others shall be to assign to the Owner whatever warranty Unison receives from the original manufacturer. Unison does not warrant its products from malfunction or failure due to shipping or storage damage, deterioration due to exposure to the elements, vandalism, accidents, power disturbances, or acts of nature or God. This warranty does not cover damage due to misapplication, abuse, neglect, misuse, improper installation, or lack of proper service and/or maintenance, nor does it cover normal wear and tear. This warranty does not apply to modifications not specifically authorized in writing by Unison or to parts and labor for repairs not made by Unison or an authorized warranty service provider. This warranty does not cover incidental or consequential damages or expenses incurred by the Owner or any other party resulting from the order, and/or use of its equipment, whether arising from breach of warranty, non-conformity to order specifications, delay in delivery, or any loss sustained by the Owner. No agent or employee of Unison has any authority to make verbal representations or warranties of any goods manufactured and sold by Unison without the written authorization signed by an authorized officer of Unison. Unison warrants the equipment designed and fabricated to perform in accordance with the specifications as stated in the proposal for the equipment and while the equipment is properly operated within the site specific design limits for that equipment. Any alterations or repair of Unison's equipment by personnel other than those directly employed by, or authorized by Unison shall void the warranty unless otherwise stated under specific written guidelines issued by Unison to the Owner. This warranty does not cover corrosion or premature wear or failure of components resulting from the effects caused by siloxanes, hydrogen sulfide or volatile organic compounds in excess of the design limits. All media must be purchased through Unison Solutions or approved in writing by Unison Solutions during warranty period. Media purchased through alternate sources and not approved in writing by Unison shall void the warranty. The design limit is based on site specific gas data provided by the Owner prior to the proposal for the equipment. Owner shall be responsible for all maintenance service, including, but not limited to, lubricating and cleaning the equipment, replacing expendable parts, media, making minor adjustments and performing operating checks, all in accordance with the procedures outlined in Unison's maintenance literature. Unison does not warrant the future availability of expendable maintenance items.

Warranty Period: This Unison warranty is valid for 18 months from the time the equipment is shipped from Unison's factory or 12 months from the date of startup, whichever occurs first.

Repairs During Warranty Period: All warranty claim requests must be initiated with a Return Material Authorization (RMA) number for processing and tracking purposes. The RMA number shall be issued to the Owner upon claim approval and/or field inspection. When field service is deemed necessary in order to determine a warranty claim, the costs associated with travel, lodging, etc. shall be the responsibility of the Owner except under prior agreement for a field inspection. This warranty does not include reimbursement of any costs for shipping the equipment or parts to Unison or an authorized service establishment, or for labor and/or materials required for removal or reinstallation of equipment or parts in connection with a warranty repair. This warranty covers only those repairs that have been conducted by Unison or by a Unison authorized warranty service provider, or by someone specifically authorized by Unison to perform a particular repair or service activity. All component parts replaced under the terms of this warranty shall become the property of Unison.

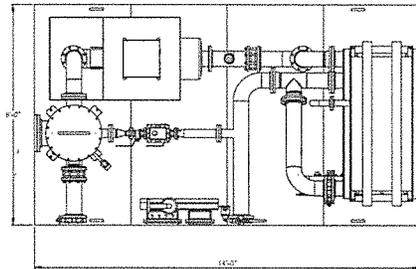
UNISON ASSUMES NO OTHER WARRANTY FOR ITS EQUIPMENT, EITHER EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NONINFRINGEMENT, OR LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE.

5451 Chavenelle Road, Dubuque, Iowa 52002 ■ [O] 563.585.0967 [F] 563.585.0970 ■ www.unisonsolutions.com

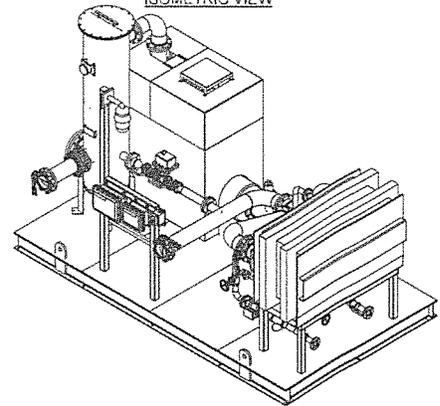
1	REVISION	DATE

REVISIONS				
REV. SYMBOL	REV. BY	APP. BY	DATE	DESCRIPTION OF CHANGE

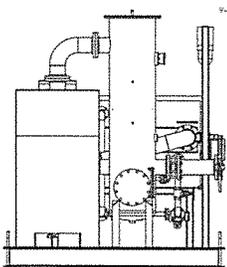
PLAN VIEW



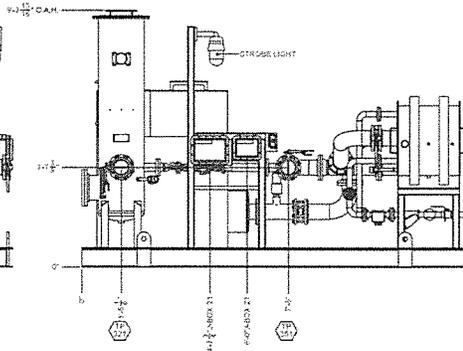
ISOMETRIC VIEW



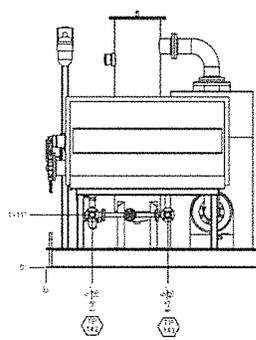
LEFT VIEW



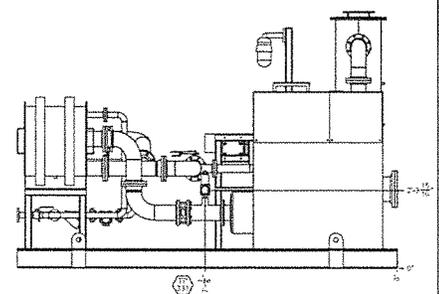
FRONT VIEW



RIGHT VIEW



REAR VIEW

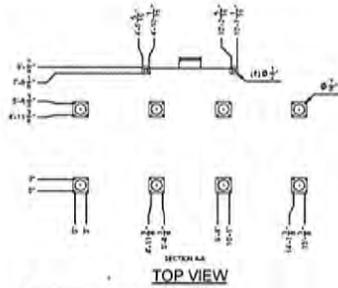


- NOTES:
- DIMENSIONS FOR REFERENCE ONLY
 - PRELIMINARY LAYOUT-NOT FOR CONSTRUCTION
 - APPROXIMATE WEIGHT 9,000 LBS
 - NOT SHOWN: CONDUIT, CONDENSATE & INSULATION

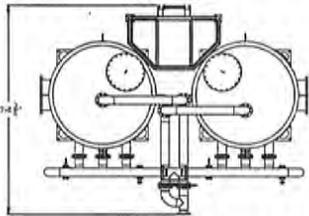
	Unison Solutions Inc. 5451 Chavenele Road Dubuque, IA 52002 PHONE: 563-584-0871 FAX: 563-584-0870		
	PROPRIETARY AND CONFIDENTIAL DESIGN AND INVENTION OF THE DRAWING REMAINS THE PROPERTY OF UNISON SOLUTIONS INC. THIS DRAWING MAY NOT BE REPRODUCED TO A THIRD PARTY WITHOUT THE CONSENT OF UNISON SOLUTIONS INC.		
PROJECT	TIG - PRT/TRANS/CLASH/GENERATOR		
DESCRIPTION	Preliminary Layout		
DRAWN BY	TAB	DATE	10/11/2012
REVISION	-	DATE	06/16/13

1	12/20/11	1	1	1	1
2	11/22/13	1	1	1	1

REVISIONS					
REV. SYMBOL	REV. BY	APPR. BY	DATE	DESCRIPTION OF CHANGE	
#	TAB	SS	11/22/2013	ADD AN INCH LOCATION UPDATE LOCATIONS	

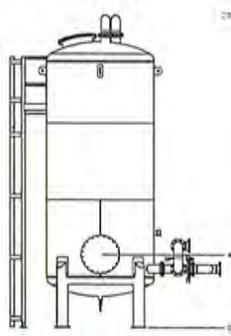


SECTION AA
TOP VIEW

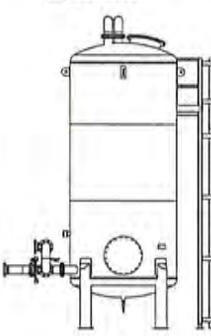


FRONT VIEW

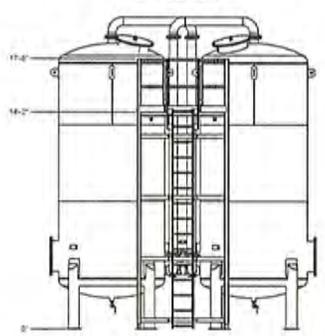
LEFT VIEW



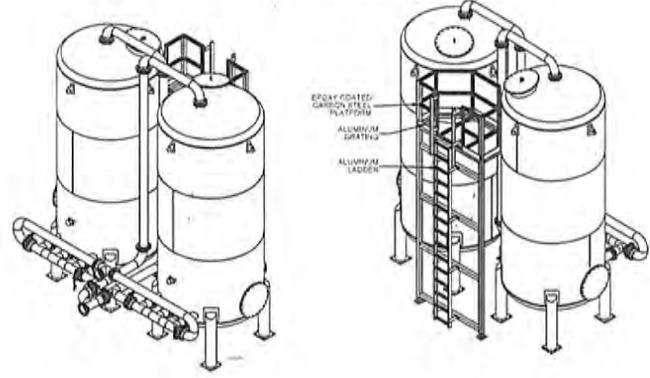
RIGHT VIEW



REAR VIEW



ISOMETRIC VIEW



PRELIMINARY LAYOUT
UNISON SOLUTIONS INC.
DATE: KJD - 11/22/2013

NOTES:	
1	APPROX. WEIGHT 12,000 LBS (5,443 KG) (INCLUDES 4500 LBS)
2	PIPING SUPPORT PROVIDED BY OTHERS
3	DESIGN PRESSURE: 15 psig (1.03 bar) @ 60°F (15.6°C)
4	SEE 11/22/13 FOR THE LATEST REVISIONS OF THIS DRAWING

UNISON SOLUTIONS
 DESIGN AND CONSTRUCTION PROVIDED BY UNISON SOLUTIONS INC. THE COMPANY MAY NOT BE OBLIGATED TO A THIRD PARTY WITHOUT THE CONSENT OF UNISON SOLUTIONS INC.

PROJECT	181 - BROWARD COUNTY
DATE	11/22/2013
DESIGNER	UNISON SOLUTIONS
DRAWN BY	TAB
REVISION	-
DATE	11/22/2013
CHKD. BY	UNISON SOLUTIONS

UNISON SOLUTIONS
 ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS ARE APPROXIMATE AND SUBJECT TO CHANGE



Traditional Biogas Conditioning System Process Flow Diagram





Gas Blower Systems Major Components

Gas Blower Inlet
Moisture/
Particulate Filter

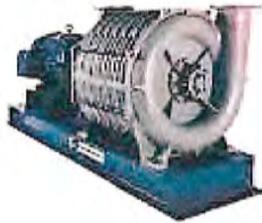


Rotary Lobe Positive
Displacement Blower



OR

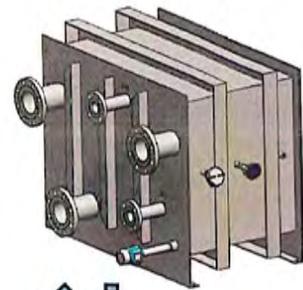
Multistage
Centrifugal Blower



Forced Air To Gas
Heat Exchanger
(Optional)



Dual Core
Heat Exchanger



Glycol Chiller



Leaders in Biogas Technology

Amended Exhibit H - Amend. Contractor's Final Proforma

TAJIGUAS RESOURCE RECOVERY PROJECT
Table 1 - MRF Operating P&L

Revenue	Footnote	Revised	Increase	Previous	Jan. 1	Feb. 2	March 3	April 4	May 5	June 6	July 7	Aug. 8	Sep. 9	Oct. 10	Nov. 11	Dec. 12
		16,230	(0.00)	16,230	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
10000 Processing Fee Revenue	\$16,230/Ton	185,607/ta		3,015,593	251,299	251,299	251,299	251,299	251,299	251,299	251,299	251,299	251,299	251,299	251,299	251,299
10010 Material Sales - OCC	100%	\$145/Ton	9,153/ta	1,325,196	110,433	110,433	110,433	110,433	110,433	110,433	110,433	110,433	110,433	110,433	110,433	110,433
10020 Material Sales - ONP (SS)	100%	\$89/Ton	4,475/ta	400,470	33,372	33,372	33,372	33,372	33,372	33,372	33,372	33,372	33,372	33,372	33,372	33,372
10030 Material Sales - Mixed Paper (SS)	50%	\$89/Ton	12,446/ta	1,113,820	92,818	92,818	92,818	92,818	92,818	92,818	92,818	92,818	92,818	92,818	92,818	92,818
10040 Material Sales - Mixed Paper	50%	\$54/Ton	8,270/ta	527,661	43,972	43,972	43,972	43,972	43,972	43,972	43,972	43,972	43,972	43,972	43,972	43,972
10050 Material Sales - Glass	100%	\$54/Ton	4,248/ta	273,857	22,806	22,806	22,806	22,806	22,806	22,806	22,806	22,806	22,806	22,806	22,806	22,806
10060 Material Sales - Mixed Glass	100%	\$20/Ton	6,063/ta	137,263	11,439	11,439	11,439	11,439	11,439	11,439	11,439	11,439	11,439	11,439	11,439	11,439
10070 Material Sales - Wood and Misc. C&D	100%	\$0/Ton	10,212/ta	-	-	-	-	-	-	-	-	-	-	-	-	-
10080 Material Sales - Misc (ewaste/sludgewaste)	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10081 Material Sales - Misc (Bulky Items)	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10090 Material Sales - Steel (Tin Cans)	0%	\$49/Ton	616/ta	30,120	2,510	2,510	2,510	2,510	2,510	2,510	2,510	2,510	2,510	2,510	2,510	2,510
10100 Material Sales - Aluminum Cans	50%	\$3,773/Ton	255/ta	963,140	80,262	80,262	80,262	80,262	80,262	80,262	80,262	80,262	80,262	80,262	80,262	80,262
10110 Material Sales - Aluminum Scrap	50%	\$1,691/Ton	144/ta	243,667	20,322	20,322	20,322	20,322	20,322	20,322	20,322	20,322	20,322	20,322	20,322	20,322
10120 Material Sales - Scrap Metal	0%	\$93/Ton	4,659/ta	434,191	36,183	36,183	36,183	36,183	36,183	36,183	36,183	36,183	36,183	36,183	36,183	36,183
10130 Material Sales - HDPE - Natural	100%	\$508/Ton	624/ta	317,228	26,436	26,436	26,436	26,436	26,436	26,436	26,436	26,436	26,436	26,436	26,436	26,436
10140 Material Sales - HDPE - Color	100%	\$333/Ton	565/ta	188,149	15,679	15,679	15,679	15,679	15,679	15,679	15,679	15,679	15,679	15,679	15,679	15,679
10150 Material Sales - LDPE (A)	100%	\$278/Ton	297/ta	82,701	6,892	6,892	6,892	6,892	6,892	6,892	6,892	6,892	6,892	6,892	6,892	6,892
10160 Material Sales - LDPE (C)	100%	\$32/Ton	3,755/ta	119,411	9,951	9,951	9,951	9,951	9,951	9,951	9,951	9,951	9,951	9,951	9,951	9,951
10170 Material Sales - PET	100%	\$1,377/Ton	1,091/ta	1,501,888	125,166	125,166	125,166	125,166	125,166	125,166	125,166	125,166	125,166	125,166	125,166	125,166
10180 Material Sales - Plastics - Mix	100%	\$76/Ton	6,939/ta	530,042	44,170	44,170	44,170	44,170	44,170	44,170	44,170	44,170	44,170	44,170	44,170	44,170
10190 Waste Brokering	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10220 Recyclable Revenue Pass Through	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10230 Miscellaneous Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenue	77%	108,75	74,613/ta	11,204,507	933,709											
Expenses				7,942,680												
20000 Disposal Fees																
20010 Disposal Fees - Hazardous Waste																
20020 Processing Fees																
20030 COGS - Waste, Uxwaste, HHW																
20040 COGS - Misc. Bulky Items																
Total Fees					1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837
30000 Wages					2,195	2,195	2,195	2,195	2,195	2,195	2,195	2,195	2,195	2,195	2,195	2,195
30010 Overtime					4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032	4,032
30020 Holiday, Vacation, Sick & Floet Pay					227,061	227,061	227,061	227,061	227,061	227,061	227,061	227,061	227,061	227,061	227,061	227,061
30030 Bonus Pay					17,239	17,239	17,239	17,239	17,239	17,239	17,239	17,239	17,239	17,239	17,239	17,239
30040 Payroll Taxes					21,987	21,987	21,987	21,987	21,987	21,987	21,987	21,987	21,987	21,987	21,987	21,987
30050 Pension Contribution					8,948	8,948	8,948	8,948	8,948	8,948	8,948	8,948	8,948	8,948	8,948	8,948
30060 Medical/Life Insurance					100,078	100,078	100,078	100,078	100,078	100,078	100,078	100,078	100,078	100,078	100,078	100,078
30070 Insurance - Workers' Comp					41,422	41,422	41,422	41,422	41,422	41,422	41,422	41,422	41,422	41,422	41,422	41,422
30080 Employee Expenses - Education					-	-	-	-	-	-	-	-	-	-	-	-
30090 Employee Expenses - Medical					-	-	-	-	-	-	-	-	-	-	-	-
30100 Employee Expenses - Misc.					-	-	-	-	-	-	-	-	-	-	-	-
Total Employee Wages & Benefits					416,735	416,735	416,735	416,735	416,735	416,735	416,735	416,735	416,735	416,735	416,735	416,735
40000 Finance Cost - Rolling Stock		5%	4 Yr/Amo	671,982	55,998	55,998	55,998	55,998	55,998	55,998	55,998	55,998	55,998	55,998	55,998	55,998
40010 Equipment Rental					-	-	-	-	-	-	-	-	-	-	-	-
40020 Insurance - Property					-	-	-	-	-	-	-	-	-	-	-	-
40030 Insurance - Liability/Umbrella		0.00%	\$ 66,180,000	32,596	2,715	2,715	2,715	2,715	2,715	2,715	2,715	2,715	2,715	2,715	2,715	2,715
40040 Insurance - Mobile Equipment					1,135	1,135	1,135	1,135	1,135	1,135	1,135	1,135	1,135	1,135	1,135	1,135
40042 Insurance - Pollution					5,551	5,551	5,551	5,551	5,551	5,551	5,551	5,551	5,551	5,551	5,551	5,551
40050 O & M - LFG CHP Expenses (condensate + siloxane)					37,767	37,767	37,767	37,767	37,767	37,767	37,767	37,767	37,767	37,767	37,767	37,767
40060 Repairs to Customer's Property					-	-	-	-	-	-	-	-	-	-	-	-
40070 Safety Equipment					-	-	-	-	-	-	-	-	-	-	-	-
40080 Electricity/LFG CHP Fuel Expense					25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
40090 Temporary Labor - Operations					-	-	-	-	-	-	-	-	-	-	-	-
40100 Uniforms					-	-	-	-	-	-	-	-	-	-	-	-
40110 Vehicle Licenses					-	-	-	-	-	-	-	-	-	-	-	-
40120 Fuel					39,704	39,704	39,704	39,704	39,704	39,704	39,704	39,704	39,704	39,704	39,704	39,704
40130 Oil					476,447	476,447	476,447	476,447	476,447	476,447	476,447	476,447	476,447	476,447	476,447	476,447
40140 R & M - MRF Equipment					60,847	60,847	60,847	60,847	60,847	60,847	60,847	60,847	60,847	60,847	60,847	60,847
40150 R & M - Rolling Stock					15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885
40160 Shop Supplies		8.00%	\$ 2,325,000	190,625	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885
40170 MRF Consumables (Balling Wire)					20,497	20,497	20,497	20,497	20,497	20,497	20,497	20,497	20,497	20,497	20,497	20,497
40180 Tire Expense					-	-	-	-	-	-	-	-	-	-	-	-
40190 Trailer Expense					-	-	-	-	-	-	-	-	-	-	-	-
40200 O&M Performance Bond					16,654	16,654	16,654	16,654	16,654	16,654	16,654	16,654	16,654	16,654	16,654	16,654
Operational Expenses					281,755	281,755	281,755	281,755	281,755	281,755	281,755	281,755	281,755	281,755	281,755	281,755

Amended Exhibit H - Amendment Contractor's Final Proforma

TAJIGUAS RESOURCE RECOVERY PROJECT		Revised	Increase	Previous	Jan. 1	Feb. 2	March 3	April 4	May 5	June 6	July 7	Aug. 8	Sep. 9	Oct. 10	Nov. 11	Dec. 12
Table 1 - MRF Operating P&L		16,230	(0.00)	16,230	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
13	50000 Accounting Fees (Compliance)		CPI	25,622	-	-	-	-	-	-	-	-	-	-	-	-
	50020 Advertising & Promotion			-	-	-	-	-	-	-	-	-	-	-	-	-
	50020 Amortization Expense/Operating Contingency			-	-	-	-	-	-	-	-	-	-	-	-	-
14	50030 Computer Expense			-	-	-	-	-	-	-	-	-	-	-	-	-
	50040 Consulting Fees			-	-	-	-	-	-	-	-	-	-	-	-	-
	50050 Credit Card Processing Fees			-	-	-	-	-	-	-	-	-	-	-	-	-
	50060 Dues & Subscriptions			-	-	-	-	-	-	-	-	-	-	-	-	-
	50070 Legal Fees			-	-	-	-	-	-	-	-	-	-	-	-	-
15	50080 Management Fee	\$5,127/ton	185,807/ton	952,136	79,345	79,345	79,345	79,345	79,345	79,345	79,345	79,345	79,345	79,345	79,345	79,345
	50090 Meals - 100%			-	-	-	-	-	-	-	-	-	-	-	-	-
	50100 Meals - 50%			-	-	-	-	-	-	-	-	-	-	-	-	-
	50110 Office Expense			-	-	-	-	-	-	-	-	-	-	-	-	-
	50120 Other Misc. Expenses			-	-	-	-	-	-	-	-	-	-	-	-	-
	50130 Pension Fee Expense			-	-	-	-	-	-	-	-	-	-	-	-	-
	50140 Postage			-	-	-	-	-	-	-	-	-	-	-	-	-
	50150 R & M - Buildings			-	-	-	-	-	-	-	-	-	-	-	-	-
	50160 R & M - Office Equipment			-	-	-	-	-	-	-	-	-	-	-	-	-
	50170 Rent Expense			-	-	-	-	-	-	-	-	-	-	-	-	-
	50180 Telephone Expense			-	-	-	-	-	-	-	-	-	-	-	-	-
	50190 Travel Expense			-	-	-	-	-	-	-	-	-	-	-	-	-
	50200 Utilities			-	-	-	-	-	-	-	-	-	-	-	-	-
16	50210 Permitting Costs		CPI	25,622	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
16	50220 Monitoring & Other Compliance Costs		CPI	25,622	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
	Total Overhead Expenses			1,029,001	85,750	85,750	85,750	85,750	85,750	85,750	85,750	85,750	85,750	85,750	85,750	85,750
	Total Operating Expenses			9,459,261	\$788,272	\$788,272	\$788,272	\$788,272	\$788,272	\$788,272	\$788,272	\$788,272	\$788,272	\$788,272	\$788,272	\$788,272
	60000 Charitable Donations			-	-	-	-	-	-	-	-	-	-	-	-	-
	60010 Contributions			-	-	-	-	-	-	-	-	-	-	-	-	-
	60020 Gain/Loss - Asset Disposal			-	-	-	-	-	-	-	-	-	-	-	-	-
	60030 Gain/Loss - Other			-	-	-	-	-	-	-	-	-	-	-	-	-
	60040 Interest Income			-	-	-	-	-	-	-	-	-	-	-	-	-
	60050 Discounts from Vendors			-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Misc Income & Adjustments			-	-	-	-	-	-	-	-	-	-	-	-	-
17	70000 Guaranteed Materials Revenue Payment		CPI	140,631	11,719	11,719	11,719	11,719	11,719	11,719	11,719	11,719	11,719	11,719	11,719	11,719
	70010 Mustang Management			-	-	-	-	-	-	-	-	-	-	-	-	-
	70020 Penalties			-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Taxes			140,631	11,719	11,719	11,719	11,719	11,719	11,719	11,719	11,719	11,719	11,719	11,719	11,719
	NET OPERATING INCOME			1,604,616	133,718	133,718	133,718	133,718	133,718	133,718	133,718	133,718	133,718	133,718	133,718	133,718

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2.49% CPI

Table 2 - Estimated MRF Employees & Labor Cost

MRF	Day MSW	2nd MSW/SS	3rd	Total	Hourly Wage	Annual Wage	Total Annual Wage	2 Hours overtime - 1		Total Labor Cost
								OT -1	Benefits Total Unit Cost	
MRF Manager	1	-	-	1	\$ 46.12	95,927	95,927	58%	\$ 151,372	151,372
Line Supervisor	1	1	-	2	\$ 25.62	57,290	114,580	N	\$ 95,755	191,510
FE Loader/Forklift Operator	4	4	1	9	\$ 20.50	45,832	412,488	N	\$ 81,455	733,098
Sorter	18	18	-	36	\$ 13.24	29,607	1,065,869	N	\$ 58,839	2,118,188
Spotter	2	-	-	2	\$ 13.24	29,607	59,215	N	\$ 58,839	117,677
Litter Crew	2	-	-	2	\$ 13.24	29,607	59,215	N	\$ 58,839	117,677
Mechanic	1	1	1	3	\$ 21.52	53,719	161,158		\$ 90,862	272,587
Maint & Equip Cleaning	2	2	2	6	\$ 13.24	33,050	198,301		\$ 62,591	375,547
Mechanic Helper	1	1	1	3	\$ 15.37	38,371	115,113		\$ 71,832	215,497
Electrician/Instrumentation	1	-	-	1	\$ 25.62	71,946	71,946		\$ 112,902	112,902
Total FTE's	33	27	5	65	\$ 12.50	31,200	2,353,813		\$ 62,298	4,406,053
MRF Management/Administration										
General Manager	1	-	-	1	\$ 61.49	127,903	127,903		\$ 193,744	193,744
Compliance/Safety	1	-	-	1	\$ 30.75	63,952	63,952		\$ 104,443	104,443
Office Manager/Marketing	1	-	-	1	\$ 30.75	63,952	63,952		\$ 104,443	104,443
HR	1	-	-	1	\$ 30.75	63,952	63,952		\$ 104,443	104,443
Administrative/Collections	1	-	-	1	\$ 20.50	51,161	51,161		\$ 87,691	87,691
Total FTE's	5	-	-	5		370,920	370,920		\$ 87,691	594,762
Total	38	27	5	70		2,724,732	2,724,732			5,000,815

Amended Exhibit H - Amended Contractor's Final Proforma

Table 3 - Estimated MRF Employee Benefits Cost

MRF														
Pension	Total	Medical	Total	Sick/Vac/Hol	Total	PR Tax	Total	Work		Total	Benefits Exp	Total	Total Unit	
								Comp	Total				Cost	% Wage
7,674	7,674	17,156	17,156	13,651	13,651	9,862	9,862	7,101	7,101	7,101	55,445	55,445	151,372	58%
4,583	9,166	17,156	34,313	4,099	8,199	5,525	11,050	7,101	7,101	14,202	38,465	76,930	95,755	67%
3,667	32,999	17,156	154,406	3,280	29,516	4,420	39,780	7,101	7,101	63,908	35,623	320,610	81,455	78%
-	-	17,156	617,625	2,119	76,270	2,855	102,793	7,101	7,101	255,631	29,231	1,052,318	58,839	99%
-	-	17,156	34,313	2,119	4,237	2,855	5,711	7,101	7,101	14,202	29,231	58,462	58,839	99%
-	-	17,156	34,313	2,119	4,237	2,855	5,711	7,101	7,101	14,202	29,231	58,462	58,839	99%
4,298	12,893	17,156	51,469	3,444	10,331	5,145	15,434	7,101	7,101	21,303	37,143	111,429	90,862	69%
-	-	17,156	102,938	2,119	12,712	3,165	18,991	7,101	7,101	42,605	29,541	177,245	62,591	89%
3,070	9,209	17,156	51,469	2,460	7,379	3,675	11,024	7,101	7,101	21,303	33,461	100,384	71,832	87%
5,756	5,756	17,156	17,156	4,099	4,099	6,844	6,844	7,101	7,101	7,101	40,956	40,956	112,902	57%
-	-	17,156	-	3,700	-	3,141	-	7,101	7,101	-	31,098	-	62,298	100%
	\$77,697		\$1,115,157		\$170,631		\$227,200				\$461,556		2,052,241	
MRF Management/Administration:														
Pension	Total	Medical	Total	Sick/Vac/Hol	Total	PR Tax	Total	Work		Total	Benefits Exp	Total	Total Unit	
								Comp	Total				Cost	% Wage
10,232	10,232	17,156	17,156	18,202	18,202	13,149	13,149	7,101	7,101	7,101	65,840	65,840	193,744	51%
5,116	5,116	17,156	17,156	4,919	4,919	6,198	6,198	7,101	7,101	7,101	40,491	40,491	104,443	63%
5,116	5,116	17,156	17,156	4,919	4,919	6,198	6,198	7,101	7,101	7,101	40,491	40,491	104,443	63%
5,116	5,116	17,156	17,156	4,919	4,919	6,198	6,198	7,101	7,101	7,101	40,491	40,491	104,443	63%
4,093	4,093	17,156	17,156	3,280	3,280	4,900	4,900	7,101	7,101	7,101	36,529	36,529	87,691	71%
	\$ 29,674		\$ 85,781		\$ 36,239		\$ 36,644				\$ 35,504		\$ 223,843	
	\$ 107,371		\$ 1,200,938		\$ 206,870		\$ 263,844				\$ 497,060		\$ 2,276,083	

Amended Exhibit H - Amendeu Contractor's Final Proforma

TAJIGUAS RESOURCE RECOVERY PROJECT

ESTIMATED MRF PROCESSING HOURS

152,361 MSW + 33,446 CSSR + 4,910 SSOW + 00 Spot = 190,717 Total: Public Scenario 8A - 04/18/15

	52	52	52	52	52	52	52	52	52	52	52	Hou Breaks	Net Ava	Net Proce	Net Proce
Weeks	52	52	52	52	52	52	52	52	52	52	52				
Days per week	5	5	5.5	5.5	6	6	6	6	6	5.5	6				
Holidays	6	6	6	6	6	6	6	6	6	1	6				
Operating days per year	254	254	280	280	306	306	306	306	306	285	306				
Hours per Day	16	20	16	20	16	20	16	20	16	15.0	20				
Breaks paid	0.5	0.75	0.5	0.75	0.5	0.75	0.5	0.75	0.5	1.0	0.75				
Breaks not paid	1	1	1	1	1	1	1	1	1	1.0	1				
Paid hours	15	19	15	19	15	19	15	19	15	14.0	19				
Paid hours per year	3,810	4,826	4,200	5,320	4,590	5,320	4,590	5,320	4,590	3,990	5,814				
Processing Hours per Day	14.5	18.25	14.5	18.25	14.5	18.25	14.5	18.25	14.5	13.0	18.25				
Reserve for downtime	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%				
Available processing hours	3,388	4,265	3,735	4,701	4,082	4,701	4,082	4,701	4,082	3,409	5,138				

	Incoming TPY	Processing capacity			Processing Hours Required			Hours Per Day 285 Days
		Low end	Average	High end	Worst	Average	Best	
SS	33,446	20.0	35.0	30.0	1,672	956	1,115	3.4 HPD
COMM dry	0	28.0	32.0	36.0	0	0	0	
Res & Comm wet	132,361	50.0	70.0	70.0	2,647	1,891	1,891	6.6 HPD
Self-Haul	20,000	40.0	70.0	60.0	500	286	333	1.0 HPD
Spot Market	0	40.0	70.0	60.0	0	0	0	- HPD
Total	185,807				4,820	3,132	3,339	11.0 HPD

Amended Exhibit H - Amendeu Contractor's Final Proforma

Table 4 - MRF Rolling Stock Cap Ex Budget

Equipment Finance							MRF Equipment	
	Interest Rate	Par (M)	Term (Years)	Start Year	Payment			
Equipment	5.00%	\$2,325,000	4	2019	655,678	1st	2	608,000
	5.00%	\$2,441,250	4	2023	688,461	2nd	1	305,000
	5.00%	\$2,563,313	4	2027	722,884	3rd	1	106,000
Total	5.00%	\$4,766,250		2023	1,344,139		3	45,000
							1	40,000
							2	30,000
							1	45,000
							1	66,000
								2,325,000

	Beg Principal	Principal	Interest	Payment	End Principal
MRF1st	\$2,325,000	539,428	116,250	655,678	1,785,572
2020	1,785,572	566,399	89,279	655,678	1,219,174
2021	1,219,174	594,719	60,959	655,678	624,455
2022	624,455	624,455	31,223	655,678	-
2023	-	-	-	-	-
2024	-	-	-	-	-
2025	-	-	-	-	-
2026	-	-	-	-	-
2027	-	-	-	-	-
2028	-	-	-	-	-
2029	-	-	-	-	-

	Beg Principal	Principal	Interest	Payment	End Principal
MRF 2nd	\$2,441,250	566,399	122,063	688,461	1,874,851
2024	1,874,851	594,719	93,743	688,461	1,280,132
2025	1,280,132	624,455	64,007	688,461	655,678
2026	655,678	655,678	32,784	688,461	-
2027	-	-	-	-	-
2028	-	-	-	-	-
2029	-	-	-	-	-
2030	-	-	-	-	-
2031	-	-	-	-	-
2032	-	-	-	-	-
2033	-	-	-	-	-

	Beg Principal	Principal	Interest	Payment	End Principal
MRF 3rd	\$2,563,313	594,719	128,166	722,884	1,968,594
2028	1,968,594	624,455	98,430	722,884	1,344,139
2029	1,344,139	655,678	67,207	722,884	688,461
2030	688,461	688,461	34,423	722,884	-
2031	-	-	-	-	-
2032	-	-	-	-	-
2033	-	-	-	-	-
2034	-	-	-	-	-

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Table 5 - MRF Rolling Fuel Cost

MRF Equipment	#	Type	Eng HP	GPH	HPD	GPD	Ave Hours of Operation/Day	MPG	MPH	RT (miles)	# of Trips/Day	MPD	On/Off Site
CAT 980M	2	Diesel	400	8	16	256	7 am -11 pm	5	5				
CAT 938K	1	Diesel	173	2.7	16	43	7 am -11 pm	5	5				
CAT 906H	1	Diesel	56	1.3	16	21	7 am -11 pm	5	5				
CAT M322D	1	Diesel	173	2.7	16	43	7 am -11 pm						
CAT 2P6000	3	Diesel	57	1.5	16	72	7 am -11 pm	3	3				
Utility Truck (Ford F350XL)	1	Diesel	400	2		3		14	45	6	6	36	On
Pickup Trucks (Ford F250 4WD)	2	Diesel	400	2		13		16	45	50	2	200	On & Off
Mechanics Tools	1	N/A		0	0	-							
Sweeper (Tennant 800)	1	Diesel	63	4	12	48	12 am - 4 am						
				24.2		498							
Assumptions													
				311			Days/Yr						
				3.00			\$/Gal Diesel						
				154,962			Gals/Yr						
				464,887			\$/Yr						

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TAJIGUAS RESOURCE RECOVERY PROJECT
Table 6 - ADF Operating P&L

Revenue	Footnote	Assumptions	Jan. 1	Feb. 2	March 3	April 4	May 5	June 6	July 7	Aug. 8	Sep. 9	Oct. 10	Nov. 11	Dec. 12
10000 Processing Fee Revenue	1	\$16.23/Ton	79,688	79,688	79,688	79,688	79,688	79,688	79,688	79,688	79,688	79,688	79,688	79,688
10010 Electricity Sales	2	4,910 t/a	2,309,229	2,309,229	2,309,229	2,309,229	2,309,229	2,309,229	2,309,229	2,309,229	2,309,229	2,309,229	2,309,229	2,309,229
10020 Compost Sales - Good Quality														
10030 Compost Sales - Fair Quality														
10040 Waste Brokering														
10220 Recyclable Revenue Pass Through	3													
10230 Miscellaneous Income														
Total Revenue			2,388,917											
Expenses														
20030 Cost of Goods Sold - Compost	4	\$6.15/Ton	89,987	89,987	89,987	89,987	89,987	89,987	89,987	89,987	89,987	89,987	89,987	89,987
20040 MSW Pre-Treatment	5	\$1.02/Ton	47,425	47,425	47,425	47,425	47,425	47,425	47,425	47,425	47,425	47,425	47,425	47,425
20050 Compost Processing	6	\$3.07/Ton	226,905	226,905	226,905	226,905	226,905	226,905	226,905	226,905	226,905	226,905	226,905	226,905
20060 Disposal Fees														
Total Fees			364,297											
30000 Wages	7	CPI	357,722	357,722	357,722	357,722	357,722	357,722	357,722	357,722	357,722	357,722	357,722	357,722
30010 Overtime														
30020 Holiday, Vacation, Sick & Float Pay														
30030 Bonus Pay														
30040 Payroll Taxes														
30050 Pension Contribution														
30060 Medical/Life Insurance														
30070 Insurance - Workers' Comp														
30080 Employee Expenses - Education														
30090 Employee Expenses - Medical														
30100 Employee Expenses - Misc.														
Total Employee Wages & Benefits			599,086											
40000 CHP supplemental LFG	9		300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
40010 Finance Cost - Rolling Stock	10	5%	641,489	641,489	641,489	641,489	641,489	641,489	641,489	641,489	641,489	641,489	641,489	641,489
40020 Equipment Rental														
40030 Insurance - Property/Liability	11	0.00%	47,368,000	47,368,000	47,368,000	47,368,000	47,368,000	47,368,000	47,368,000	47,368,000	47,368,000	47,368,000	47,368,000	47,368,000
40040 Insurance - Umbrella														
40042 Insurance - Pollution														
40050 Insurance - Vehicle/Mobile Equipment														
40060 O&M CHP (WES contract)	12		398,174	398,174	398,174	398,174	398,174	398,174	398,174	398,174	398,174	398,174	398,174	398,174
40070 Safety Equipment														
40080 Consumables														
40090 R & M - ADF Plant & Equipment														
40100 R&M - Replacement Reserves														
40110 Temporary Labor - Operations														
40120 Uniforms														
40130 Vehicle Licenses														
40140 Process Electricity														
40150 Fuel														
40160 Oil														
40170 R & M - Rolling Stock														
40180 Shop Supplies														
40190 Tire Expense														
40200 Trailer Expense														
40210 O&M Performance Bond	15		77,880	77,880	77,880	77,880	77,880	77,880	77,880	77,880	77,880	77,880	77,880	77,880
Operational Expenses			2,346,255											

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TAJIGUAS RESOURCE RECOVERY PROJECT		Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Table 6 - ADF Operating P&L		1	2	3	4	5	6	7	8	9	10	11	12
16	50000 Accounting Fees (Compliance) CPI	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
	50010 Advertising & Promotion	-	-	-	-	-	-	-	-	-	-	-	-
17	50020 Amortization Expense/Operating Contingency CPI	6,284	6,284	6,284	6,284	6,284	6,284	6,284	6,284	6,284	6,284	6,284	6,284
	50030 Computer Expense	-	-	-	-	-	-	-	-	-	-	-	-
	50040 Consulting Fees	-	-	-	-	-	-	-	-	-	-	-	-
	50050 Credit Card Processing Fees	-	-	-	-	-	-	-	-	-	-	-	-
	50060 Dues & Subscriptions	-	-	-	-	-	-	-	-	-	-	-	-
	50070 Legal Fees	-	-	-	-	-	-	-	-	-	-	-	-
18	50080 Management Fee 82,000 l/a	28,013	28,013	28,013	28,013	28,013	28,013	28,013	28,013	28,013	28,013	28,013	28,013
	50090 Meals - 100%	-	-	-	-	-	-	-	-	-	-	-	-
	50100 Meals - 50%	-	-	-	-	-	-	-	-	-	-	-	-
	50110 Office Expense	-	-	-	-	-	-	-	-	-	-	-	-
	50120 Other Misc. Expenses	-	-	-	-	-	-	-	-	-	-	-	-
	50130 Pension Fee Expense	-	-	-	-	-	-	-	-	-	-	-	-
	50140 Postage	-	-	-	-	-	-	-	-	-	-	-	-
	50150 R & M - Buildings	-	-	-	-	-	-	-	-	-	-	-	-
	50160 R & M - Office Equipment	-	-	-	-	-	-	-	-	-	-	-	-
	50170 Rent Expense	-	-	-	-	-	-	-	-	-	-	-	-
	50180 Telephone Expense	-	-	-	-	-	-	-	-	-	-	-	-
	50190 Travel Expense	-	-	-	-	-	-	-	-	-	-	-	-
	50200 Utilities	-	-	-	-	-	-	-	-	-	-	-	-
19	50210 Permitting Costs	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
19	50220 Monitoring & Other Compliance Costs	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
	Total Overhead Expenses	\$ 36,432	\$ 36,432	\$ 36,432	\$ 36,432	\$ 36,432	\$ 36,432	\$ 36,432	\$ 36,432	\$ 36,432	\$ 36,432	\$ 36,432	\$ 36,432
	Total Operating Expenses	\$ 74,999											
	60000 Charitable Donations	-	-	-	-	-	-	-	-	-	-	-	-
	60010 Contributions (U.S.C.C. other)	-	-	-	-	-	-	-	-	-	-	-	-
	60020 Gain/Loss - Asset Disposal	-	-	-	-	-	-	-	-	-	-	-	-
	60030 Gain/Loss - Other	-	-	-	-	-	-	-	-	-	-	-	-
	60040 Interest Income	-	-	-	-	-	-	-	-	-	-	-	-
	60050 Discounts from Vendors	-	-	-	-	-	-	-	-	-	-	-	-
	Total Misc Income & Adjustments	-	-	-	-	-	-	-	-	-	-	-	-
	70000 Working Capital Amortization	12,208	12,208	12,208	12,208	12,208	12,208	12,208	12,208	12,208	12,208	12,208	12,208
	70010 Mustang Management	4,081	4,081	4,081	4,081	4,081	4,081	4,081	4,081	4,081	4,081	4,081	4,081
	70020 Penalties	-	-	-	-	-	-	-	-	-	-	-	-
	Total Taxes	16,289											
	NET OPERATING INCOME	(1,804,616)											

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2.49%

Table 8 - Estimated ADF Employees & Labor Cost

AD Facility		Day	2nd	3rd	Total	Total	Annual Wage	Total Annual Wage	Benefits	Total Unit Cost	Total Labor Cost
Supervisor/System Monitor	1	-	-	-	1	\$ 46.12	95,927	95,927	50%	\$ 143,513	143,513
Windrow Specialist/Loader Opera	2	-	-	-	2	\$ 25.62	53,293	106,586	56%	\$ 83,219	166,438
FE Loader Operator	2	-	-	-	2	\$ 20.50	42,634	85,269	64%	\$ 69,855	139,710
Laborer	3	-	-	-	3	\$ 12.81	26,647	79,940	87%	\$ 49,808	149,425
Mulch Operations	-	-	-	-	-	\$ -	-	-	87%	\$ -	-
Total FTE's	8	-	-	-	8	-	367,722	367,722	-	-	599,086

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Table 9 - Estimated ADF Employee Benefits Cost

Pension	AD Facility										Total Unit		
	Total	Medical	Total	Sick/Vac/Hol	Total	PR Tax	Total	Comp	Total	Benefits Exp	Total	Cost	% Wage
7,674	10,249	10,249	10,249	13,651	9,862	9,862	9,862	6,149	6,149	47,585	47,585	47,585	50%
4,263	10,249	10,249	20,497	4,099	5,165	5,165	10,331	6,149	12,298	29,926	59,852	29,926	56%
3,411	10,249	10,249	20,497	3,280	4,132	4,132	8,265	6,149	12,298	27,220	54,441	27,220	64%
2,132	10,249	10,249	30,746	2,050	2,583	2,583	7,748	6,149	18,448	23,162	69,486	23,162	87%
			\$ 81,989	\$ 34,558	\$ 36,205		\$ 49,194				\$ 231,364		

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Table 10 - ADF Rolling Stock Cap Ex Budget

Equipment Finance									
	Interest Rate	Par (M)	Term (Years)	Start Year	Payment				
Equipment	5.00%	\$3,177,000	6	2019	625,924				
	5.00%	\$3,335,850	6	2023	657,221	1st			
	5.00%	\$3,502,643	6	2030	690,082	2nd			
Total	5.00%	\$6,512,850		2023	1,283,145	3rd			

AD 1st	Beg Principal	Principal	Interest	Payment	End Principal
2020	\$3,177,000	467,074	158,850	625,924	2,709,926
2021	2,709,926	490,428	135,496	625,924	2,219,497
2022	2,219,497	514,950	110,975	625,924	1,704,548
2023	1,704,548	540,697	85,227	625,924	1,163,851
2024	1,163,851	567,732	58,193	625,924	596,119
2025	596,119	596,119	29,806	625,924	-
2026	-	-	-	-	-
2027	-	-	-	-	-
2028	-	-	-	-	-
2029	-	-	-	-	-

AD 2nd	Beg Principal	Principal	Interest	Payment	End Principal
2024	\$3,335,850	490,428	166,793	657,221	2,845,422
2025	2,845,422	514,950	142,271	657,221	2,330,472
2026	2,330,472	540,697	116,524	657,221	1,789,775
2027	1,789,775	567,732	89,489	657,221	1,222,043
2028	1,222,043	596,119	61,102	657,221	625,924
2029	625,924	625,924	31,296	657,221	-
2030	-	-	-	-	-
2031	-	-	-	-	-
2032	-	-	-	-	-
2033	-	-	-	-	-

AD 3rd	Beg Principal	Principal	Interest	Payment	End Principal
2031	\$3,502,643	514,950	175,132	690,082	2,987,693
2032	2,987,693	540,697	149,385	690,082	2,446,996
2033	2,446,996	567,732	122,350	690,082	1,879,264
2034	1,879,264	596,119	93,963	690,082	1,283,145
2035	1,283,145	625,924	64,157	690,082	657,221
2036	657,221	657,221	32,861	690,082	-

AD Equipment					
CAT 938M	2	305,000			610,000
CAT 938K	1	305,000			305,000
Windrow Turner Verm CT1010	1	450,000			450,000
Grinder Morbark 3800	1	550,000			550,000
eNoise Monitoring System	1	250,000			250,000
Tractor Freighliner	2	207,000			414,000
Trailers Western	2	55,000			110,000
Tractor Freighliner	2	194,000			388,000
Trailers Globe End Dump	2	50,000			100,000
					3,177,000

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Table 11 - ADF Rolling Fuel Cost

MRF Equipment	#	Type	Eng HP	GPH	HPD	GPD	Ave Hours of Operation/Day	MPG	MPH	RT (miles)	# of Trips/Day	MPD	On/Off Site
Komptech Hurrikan S (&/or 2 screens)	1	Electric	47kw		4		8 am - 12 pm						
Compost-Screen Machine 612T	1	Diesel	84	5	6	30	8 am - 2 pm						
CAT 938M	2	Diesel	280	6	8	48	8 am - 2 pm				5		
CAT 938K	1	Diesel	173	2.7	4	11	12 pm - 4 pm						
Windrow Turner Verm CT1010	1	Diesel	215	12	4	48	8 am - 12 pm						
Grinder Morbark 3800	1	Electric			4	-	8 am - 12 pm						
eNoise Monitoring System	1												
Tractor Freighliner	2	CNG	400			76			6	60	114	2	454
Trailers Western	2	N/A										8.5	26
Tractor Freighliner	2	Diesel	500	6	8	48			6	10	1.5		On
Trailers Globe End Dump	2	N/A		0	0	-							
				26.7									
						261							
Assumptions													
			52	Wks/Yr									
			5	Days/Mk									
			3.00	\$/Gal Diesel									
			67,739	Gals/Yr									
			203,216	\$/Yr									

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TAJIGUAS RESOURCE RECOVERY PROJECT		Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Table 13 - MRF & ADF Consolidated Operating P&L		1	2	3	4	5	6	7	8	9	10	11	12
Revenue	Footnote: Assumptions	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
10000 Processing Fee Revenue		3,095,281	257,940	257,940	257,940	257,940	257,940	257,940	257,940	257,940	257,940	257,940	257,940
10010 Recyclable Material Sales		8,168,915	682,410	682,410	682,410	682,410	682,410	682,410	682,410	682,410	682,410	682,410	682,410
10020 Compost Sales													
10030 Electricity Sales		2,309,228	192,436	192,436	192,436	192,436	192,436	192,436	192,436	192,436	192,436	192,436	192,436
Total Revenue	2	13,593,424	1,132,785										
20030 ADF COGS - Compost	3	69,967	7,497	7,497	7,497	7,497	7,497	7,497	7,497	7,497	7,497	7,497	7,497
20040 MSW Pre-Treatment		47,425	3,952	3,952	3,952	3,952	3,952	3,952	3,952	3,952	3,952	3,952	3,952
20050 Compost Processing		228,905	18,909	18,909	18,909	18,909	18,909	18,909	18,909	18,909	18,909	18,909	18,909
20060 COGS - E-waste, U-waste, HHW		22,044	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837	1,837
20070 COGS - Misc. Bulky Items		26,338	2,195	2,195	2,195	2,195	2,195	2,195	2,195	2,195	2,195	2,195	2,195
Total Fees	4	412,678	34,390										
30000 MRF Wages		2,724,732	227,061	227,061	227,061	227,061	227,061	227,061	227,061	227,061	227,061	227,061	227,061
30010 ADF Wages		367,722	30,643	30,643	30,643	30,643	30,643	30,643	30,643	30,643	30,643	30,643	30,643
30020 MRF Benefits		2,276,063	189,674	189,674	189,674	189,674	189,674	189,674	189,674	189,674	189,674	189,674	189,674
30030 ADF Benefits		231,364	19,280	19,280	19,280	19,280	19,280	19,280	19,280	19,280	19,280	19,280	19,280
Total Employee Wages & Benefits	6	5,969,902	466,658										
40000 CHP supplemental grid gas		300,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
40010 MRF Finance Cost - Rolling Stock		671,982	55,998	55,998	55,998	55,998	55,998	55,998	55,998	55,998	55,998	55,998	55,998
40020 ADF Finance Cost - Rolling Stock		841,489	53,457	53,457	53,457	53,457	53,457	53,457	53,457	53,457	53,457	53,457	53,457
40030 MRF Insurance		112,824	9,402	9,402	9,402	9,402	9,402	9,402	9,402	9,402	9,402	9,402	9,402
40040 ADF Insurance		129,133	10,761	10,761	10,761	10,761	10,761	10,761	10,761	10,761	10,761	10,761	10,761
40045 O & M - LFG CHP Expenses (condensate + siloxane)		453,199	37,767	37,767	37,767	37,767	37,767	37,767	37,767	37,767	37,767	37,767	37,767
40050 ADF Process Electricity													
40055 Electricity/LFG CHP Fuel Expense		300,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
40060 MRF Fuel		476,447	39,704	39,704	39,704	39,704	39,704	39,704	39,704	39,704	39,704	39,704	39,704
40070 ADF Fuel		208,269	17,356	17,356	17,356	17,356	17,356	17,356	17,356	17,356	17,356	17,356	17,356
40080 ADF OAM CHP (WES contract)		398,174	33,181	33,181	33,181	33,181	33,181	33,181	33,181	33,181	33,181	33,181	33,181
40085 ADF - R&M Plant & Equipment, Consumables, Reserves		368,268	30,689	30,689	30,689	30,689	30,689	30,689	30,689	30,689	30,689	30,689	30,689
40090 MRF - R & M - MRF Equipment		730,169	60,847	60,847	60,847	60,847	60,847	60,847	60,847	60,847	60,847	60,847	60,847
40100 MRF - R & M - Rolling Stock	10	190,025	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885	15,885
40110 ADF - R & M - Rolling Stock		223,031	18,588	18,588	18,588	18,588	18,588	18,588	18,588	18,588	18,588	18,588	18,588
40120 MRF Consumables (Baling Wire)		245,868	20,497	20,497	20,497	20,497	20,497	20,497	20,497	20,497	20,497	20,497	20,497
40130 MRF OAM Performance Bond		199,849	16,654	16,654	16,654	16,654	16,654	16,654	16,654	16,654	16,654	16,654	16,654
40140 ADF OAM Performance Bond		77,890	6,491	6,491	6,491	6,491	6,491	6,491	6,491	6,491	6,491	6,491	6,491
Operational Expenses		5,727,317	477,276										
50000 MRF Accounting Fees (Compliance)		25,622	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
50010 ADF Accounting Fees (Compliance)		25,622	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
50020 MRF Operating Contingency													
50030 ADF Operating Contingency		75,405	6,284	6,284	6,284	6,284	6,284	6,284	6,284	6,284	6,284	6,284	6,284
50040 MRF - Management Fee	11	952,136	79,345	79,345	79,345	79,345	79,345	79,345	79,345	79,345	79,345	79,345	79,345
50050 ADF - Management Fee		336,156	28,013	28,013	28,013	28,013	28,013	28,013	28,013	28,013	28,013	28,013	28,013
50060 MRF Permitting Costs		25,822	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
50070 ADF Permitting Costs		25,822	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
50080 MRF Monitoring & Other Compliance Costs		25,622	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
50090 ADF Monitoring & Other Compliance Costs		25,622	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135	2,135
Total Overhead Expenses		1,517,427	126,452										
Total Operating Expenses		13,257,324	1,104,777										
Total Misc Income & Adjustments													
70000 Working Capital Amortization (ADF Only)		146,600	12,208	12,208	12,208	12,208	12,208	12,208	12,208	12,208	12,208	12,208	12,208
70010 Mustang Management		169,600	15,600	15,600	15,600	15,600	15,600	15,600	15,600	15,600	15,600	15,600	15,600
Total Taxes:		336,100	28,008										
NET OPERATING INCOME		(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

(0.0000)
 13,503,457 condensate removal system O&M
 89,987 contract year 1 revenue requirement
 13,593,424
 13,893,424
 1,024,16
 72,85
 74,61
 1,76

Tajiguas Resource Recovery Project
MRF electrical & maintenance cost breakdown

Mustang Renewable Power
Ventures
V2015.02.09.02

Plant throughput
Per year @ CapHr Operating hours/Year Balance

Tons input MSW 152361 Tph 70 Tph 3291 25%
Tons input SS 33446 Tph 30 Tph 1,115 75%
Tons through the boiler 63175 Tph 17 Tph 3,716
Solid Repair labor cost \$100.00
Energy cost \$0.14 per kw

Maintenance & Replacements	Equipment replacements per shift/yr	Labor hrs required per shift/yr	# of hours operating	Equipment replacement cost	Labor for maintenance & repairs	Total	R&M per hour
Double line MSW System							
Size reducer	\$140,000	520	2	2177	\$277,020	\$102,899	\$379,913
Drum rolls	\$20,000	104	2	3291	\$38,636	\$31,115	\$69,751
Motor screens	\$25,000	208	4	3291	\$50,000	\$40,000	\$90,000
Water	\$2,500	26	2	3291	\$7,442	\$7,780	\$15,222
Magnets	\$7,500	26	5	3291	\$18,449	\$38,151	\$56,600
Eddy current	\$10,000	104	2	3291	\$32,442	\$31,119	\$63,561
Balilica separators	\$10,000	104	4	3291	\$59,845	\$62,238	\$122,083
Bunkers	\$2,000	12	14	3291	\$41,881	\$25,135	\$67,016
Triche	\$2,500	26	10	3291	\$37,403	\$38,989	\$76,392
Film separation	\$5,000	52	1	3291	\$7,481	\$7,780	\$15,260
Dust collection	\$10,000	52	1	3291	\$14,981	\$7,780	\$22,761
Chain conveyors	\$3,500	52	6	3291	\$41,691	\$62,238	\$104,130
Slider / Throughed conveyors	\$1,500	12	5	3291	\$3,444	\$3,444	\$6,888
Conveyors	\$3,500	15	8	3291	\$59,020	\$14,163	\$73,183
RED Paper Dryer	\$30,000	40	1	3291	\$52,364	\$1,684	\$54,048
Control	\$30,000	52	1	3291	\$44,893	\$7,780	\$52,673
Total MSW System				\$1,153,735	\$647,774	\$1,801,509	\$11.82
RSS & CSS Front end system							
OCC screen	\$5,000	52	1	1115	\$2,534	\$2,635	\$5,169
Slider / Throughed conveyors	\$1,500	12	15	1115	\$11,402	\$9,122	\$20,524
Sorting conveyors	\$2,500	12	3	1115	\$3,801	\$1,824	\$5,625
Total SS System				\$17,737	\$13,581	\$31,318	\$9.94
HBC-1205 Baling System							
Baler	\$15,000	208	1	3716	\$25,337	\$31,135	\$56,472
Chain conveyors	\$2,500	52	3	3716	\$36,006	\$6,268	\$42,274
Total Baling System				\$1,209,478	\$72,844	\$1,932,316	\$10.46
Estimated total MRF Equipment R&M/year & Non							
Year 1	65%	423,117	488,116	\$1,752,483	46%	Outside Labor	\$1,017,416
Year 2	70%	84,811	84,811	\$1,818	15%	Outside Labor	\$1,317,904
Year 3	100%	1,209,478	1,209,478		15%	Outside Labor	
Organics cleanup System (ADFCMU Budget)							
Slider / Throughed conveyors	\$1,500	12	8	2000	\$10,909	\$8,727	\$19,636
Organics screens	\$30,000	60	3	2000	\$81,818	\$16,364	\$98,182
Diablo	\$30,000	20	1	2000	\$77,273	\$1,818	\$79,091
Total Organics System				\$120,000	\$28,909	\$146,909	\$3.71
Estimated total MRF & CMU Equipment R&M/year & Non							
				\$1,329,478	\$749,780	\$2,079,257	\$11.19

Electrical	Total System HP	Nominal kw per hour	# of hours operating	Total kw Demand	Total energy cost	Energy cost per ton processed
Double line MSW System	2,000	1500	3291	4,937,179	\$739,205	4.85
RBD (1 unit)	220	165	2177	359,137	\$98,279	0.65
Diablo (1 unit)	100	70	2000	140,000	\$67,600	0.44
RSS & CSS Front end system	300	200	1115	222,973	\$37,216	1.11
HBC-1205 Baling System	200	150	3716	557,424	\$92,439	1.46
Total System energy consumption						5.57 per ton
6,216,713						\$1,034,740

Baling wire	Baleable tons	Wire cost per ton	Total Wire cost	Wire cost per incoming ton
Process MSW	38,090	\$3.85	\$146,047	\$0.96
Process SS	25,085	\$3.85	\$96,575	\$2.89
Total system wire cost				\$1.37 per ton
\$243,223				

**AMENDEL HABIT H
AMENDED CONTRACTOR'S FINAL PROFORMA
BEKON ADF O&M EXPENSE**

Replacements Major Parts	Note	Replacement after x years	Replacement Costs after x years	\$/year
Major Generic / Recurring Plant Replacements		Replacement after year(s): 8	\$300,000	37,500
Minor Generic / Recurring Plant Replacements		Replacement after year(s): 3	\$85,000	28,333
Major CHP replacements		Replacement after year(s): 8	\$800,000	Included in WES Maint. Contract
Minor CHP replacements		Replacement after year(s): 3	\$180,000	Included in WES Maint. Contract
Major machinery replacements		Replacement after year(s): 6		to be determined by MSB
Minor machinery replacements		Replacement after year(s): 8		to be determined by MSB
Windrow turner	0	Replacement after year(s): 10	\$0	
Wheelloader	0	Replacement after year(s): 7	\$0	
Shredder	0	Replacement after year(s): 10	\$0	
Sieve	0	Replacement after year(s): 12	\$0	
Bag opener	0	Replacement after year(s): 8	\$0	
AD biofilter media exchange		Replacement after year(s): 5	\$65,000	13,000
...				78,833

Operations / Service and Maintenance

BioGas	Note	Costs per unit	Costs per year	Sensitivity increase (+), decrease (-)	Sensitivity Interval of changes
Ordinary Maintenance	excl. Replacements	n/a	170,000 \$/y	2.0%	after year(s): 1
Extraordinary Maintenance & Repairs	excl. Replacements	n/a	40,000 \$/y	2.0%	after year(s): 1
GHP		n/a	307,000 \$/y	2.0%	after year(s): 1
Excess Percolate		0.00 \$/gal	0 \$/y	2.0%	after year(s): 1
Utilities	e.g. auxiliary materials	n/a	25,000 \$/y	2.0%	after year(s): 1
Licenses, Testing		n/a	45,000 \$/y	2.0%	after year(s): 1
Plant consumables	Ferric chloride, H2S04	n/a	100,000 \$/y	2.0%	after year(s): 1
Active Carbon			65,000 \$/y	2.0%	after year(s): 1
Excess Leachate and condensate (scrubber excess, floor washdown)		0.00 \$/gal	0 \$/y	2.0%	after year(s): 1
Compost Screening Ordinary Maint. & Repairs		n/a	120,000 \$/y	2.0%	after year(s): 1
TOTAL Operations and Maintenance \$/y			872,000 \$/y		

377,000 \$/y In Budget	
495,000 \$/y Not included in Budget	
78,833 \$/y Replacement Reserves	
573,833 \$/y Total Unbudgeted ADF Expenses	
Allocated	
165,000 \$/y Consumables	
78,833 \$/y Replacement Reserves	
330,000 \$/y Maintenance & Repairs (35% Year 1, 70% year 2, 100% Year 3+)	
495,000 \$/y	

Bekon Recommended Repairs & Maintenance Budget Consumables	Replacement Res	Maint & Repairs	Total
Year 1	165,000 \$/y	78,833 \$/y	359,333 \$/y
Year 2	165,000 \$/y	78,833 \$/y	474,833 \$/y
Year 3+	165,000 \$/y	78,833 \$/y	573,833 \$/y

Amended Exhibit I - Amendment 2 Development Cost Detail

Detailed Construction Cost Budget	Source	Prior Approved Project Capital Cost - 12/13/16		Revised with ADF in Alt Location		Total	Variance
		MRF	ADF/CMU	MRF	ADF/CMU		
TOTALS							
Permits & Entitlements	Mustang	2,000,000	2,900%	2,000,000	2,000,000	4,450,000	450,000
Design & Engineering	Mustang	1,920,000	3.40%	1,920,000	1,920,000	5,390,000	1,550,000 MSB/Design Team
General Conditions & Site Work	Diani	8,200,000	11.00%	3,466,000	8,200,000	17,696,000	6,030,000 DBC
Building	Diani	20,550,000	28.60%	15,132,000	21,030,000	34,890,000	-792,000 DBC
Plant Equipment & Construction	VDRS/Diani/Beko	24,230,000	30.30%	21,178,000	26,400,000	47,860,000	2,452,000 VDRS/DBC
Solar Energy Facility	Mangan/Diani	1,400,000	2.90%	0	1,900,000	1,900,000	500,000 DBC
Contingency	Diani	820,000	1.80%	520,000	820,000	1,340,000	0
EPC Wrap	Diani	1,190,000	1.80%	920,000	1,190,000	2,110,000	0
Insurance (Construction & Startup)	AJG	367,000	0.40%	367,000	481,000	962,000	228,000 Ins.
Start-up & Acceptance	MarBorg & NP	125,000	0.20%	175,000	125,000	300,000	0
Development Fee	Mustang	1,750,000	2.60%	1,340,000	1,750,000	3,090,000	0
SCE Interconnect	County	50,000	0.00%	1,150,000	1,150,000	1,150,000	0
Contract Administration	County	50,000	0.10%	50,000	50,000	100,000	0
LFG Project by County (Optional)	County/(Diani)		0.00%		9,275,000	9,275,000	9,275,000 DBC/County
Total Costs		62,602,000	100.00%	48,218,000	65,866,000	130,513,000	19,693,000
Mustang Budget							
Permits & Entitlements		2,000,000		2,000,000	2,000,000	4,450,000	450,000
Design & Engineering		1,920,000		1,920,000	1,920,000	5,390,000	1,550,000
Development Fee		1,750,000		1,340,000	1,750,000	3,090,000	9,840,000
Mustang Budget		5,670,000		5,260,000	5,670,000	13,930,000	2,000,000
Diani Budgets							
GC & Site Work		8,200,000		3,466,000	8,200,000	17,696,000	6,030,000
Building		20,550,000		15,132,000	21,030,000	34,890,000	(792,000)
Plant Equipment & Construction				18,678,000	18,960,000	18,960,000	282,000
LFG Project				0	9,275,000	9,275,000	9,275,000
Solar Energy Facility		1,400,000		1,400,000	1,900,000	1,900,000	500,000
Contingency		30,150,000		37,276,000	31,130,000	82,721,000	15,295,000
EPC Wrap		820,000		520,000	820,000	1,340,000	-
		1,190,000		920,000	1,190,000	2,110,000	-
		2,010,000		1,440,000	2,010,000	3,450,000	-
Diani Budget		32,160,000		38,716,000	33,140,000	86,171,000	15,295,000
VDRS Budget		24,230,000		2,500,000	26,400,000	28,900,000	2,170,000
Diani + VDRS							
SCE Interconnection		97,606,000		1,150,000	115,071,000	17,465,000	-
Insurance, start-up and acceptance, contract admin, currency hedge		1,134,000		1,150,000	1,362,000	2,512,000	2,512,000
County - MSB Investors WSA Contract Amount		99,890,000		99,890,000	117,583,000	17,693,000	-

Amended Exhibit I - Amencor Development Cost Detail

DIANI BUILDING CORP.
 TRRP MRF BUILDING - OPTION 3
 TAJIGUAS LANDFILL, SANTA BARBARA, CALIFORNIA



**** BASE BID ****		LABOR	EQUIPMENT/SUB	MATERIALS	TOTAL
DESCRIPTION					
VISITOR CENTER & MRF OFFICES					
1	VISITOR AREA - THREE STORY WITH 2 EACH ENCLOSED STAIRWAYS	\$ -	\$ 1,705,239	\$ -	\$ 1,705,239
MRF AREA & BUILDING					
1	STRUCTURAL EXCAVATION	\$ 5,989	\$ 11,600	\$ -	\$ 17,589
2	MAT SLAB CONCRETE - 12" THICK	\$ 401,290	\$ 78,697	\$ 712,469	\$ 1,192,456
3	FOOTINGS, PILES AND GRADE BEAMS	\$ 190,309	\$ 1,925,309	\$ 276,867	\$ 2,392,486
4	REINFORCING STEEL	\$ -	\$ 1,195,368	\$ -	\$ 1,195,368
5	PUSH WALLS, VAULTS, LOADING DOCK, RETAINING WALLS AND TRANSFER ARE	\$ 64,943	\$ 2,375,022	\$ 55,000	\$ 2,494,965
6	DOORS AND HATCHES	\$ 9,327	\$ 293,500	\$ 8,750	\$ 311,577
7	PRE-ENGINEERED METAL BUILDING	\$ 39,971	\$ 3,954,893	\$ -	\$ 3,994,865
8	PAINTING AND COATINGS	\$ -	\$ 137,830	\$ -	\$ 137,830
	TOTAL MRF AREA & BUILDING				\$ 11,737,136
BIOFILTER AREA					
1	STRUCTURAL EXCAVATION	\$ 1,198	\$ 2,320	\$ -	\$ 3,518
2	MAT SLAB CONCRETE - 6" & 12" THICK	\$ 66,955	\$ 20,470	\$ 79,561	\$ 166,987
3	WALLS - 8" THICK	\$ 220,890	\$ 26,729	\$ 92,099	\$ 339,718
4	REINFORCING STEEL	\$ -	\$ 102,956	\$ -	\$ 102,956
5	BIOFILTER MATERIAL	\$ 132,248	\$ 326,833	\$ 53,000	\$ 512,081
6	BIOFILTER HUMIDIFIER AND DUST COLLECTION SYSTEM	\$ -	\$ 1,395,807	\$ -	\$ 1,395,807
7	BIOFILTER AREA PRE-ENGINEERED COVER	\$ -	\$ -	\$ -	\$ -
8	PAINTING AND COATINGS	\$ -	\$ 35,200	\$ -	\$ 35,200
	TOTAL BIOFILTER AREA				\$ 2,556,266
PURGING/VENTILATION/UTILITIES					
1	MRF AREA VENTILATION SYSTEM	\$ -	\$ 1,582,774	\$ -	\$ 1,582,774
ELECTRICAL, GROUNDING AND CONTROLS					
1	MRF AREA ELECTRICAL REQUIREMENTS	\$ -	\$ 1,353,298	\$ 15,000	\$ 1,368,298
MISCELLANEOUS					
1	FIRE SPRINKLER SYSTEM AND MISTING SYSTEM	\$ -	\$ 414,873	\$ -	\$ 414,873
TOTAL					
		\$ 1,133,119	\$ 16,938,719	\$ 1,292,746	\$ 19,364,585
	COLUMN TOTALS	\$ 1,133,119	\$ 16,938,719	\$ 1,292,746	\$ 19,364,584
0.0%	UNCERTAINTY/LIVING WAGE INCREASE (7/1/2016)	\$ 330,000	\$ -	\$ -	\$ 330,000
6.0%	DBC MARK-UP	\$ 87,787	\$ 1,016,323	\$ 77,565	\$ 1,181,675
0.739%	BOND - IF REQUIRED	\$ 11,454	\$ 132,606	\$ 10,120	\$ 154,180
	TOTAL BASE BID AMOUNT	\$ 1,562,000	\$ 18,088,000	\$ 1,380,000	\$ 21,030,000

Amended Exhibit I - Amended Development Cost Detail

DIANI BUILDING CORP.
 TRRP AD FACILITY - OPTION 3
 TAJIGUAS LANDFILL, SANTA BARBARA, CALIFORNIA



**** BASE BID ****		LABOR	EQUIPMENT/SUB	MATERIALS	TOTAL
DESCRIPTION					
TECHNOLOGY BUILDING					
1	CHP, WATER TREATMENT, GAS AND ELECTRICAL ROOMS	\$ -	\$ 677,067	\$ -	\$ 677,067
2	CONTROL & CONFERENCE ROOM 2ND FLOOR	\$ -	\$ 126,574	\$ -	\$ 126,574
	TOTAL TECHNOLOGY BUILDING	\$ -	\$ 803,641	\$ -	\$ 803,641
PERCOLATION TANK - 1 EACH 40' DIA X 24' HIGH & 1 EACH 46' DIA X 31' HIGH WITH 16' DIA INNER TANK					
1	STRUCTURAL EXCAVATION	\$ 1,198	\$ 2,320	\$ -	\$ 3,518
2	MAT SLAB CONCRETE - 18" THICK	\$ 25,479	\$ 12,791	\$ 46,541	\$ 84,811
3	WALLS - 12" THICK	\$ 237,812	\$ 42,817	\$ 113,206	\$ 393,835
4	RAISED SLAB CONCRETE - 12" THICK	\$ 84,546	\$ 30,815	\$ 43,394	\$ 158,755
5	REINFORCING STEEL	\$ -	\$ 118,432	\$ -	\$ 118,432
6	INSULATION AND SIDING	\$ 78,231	\$ 15,776	\$ 77,747	\$ 171,754
7	DOORS AND HATCHES	\$ 9,993	\$ 27,225	\$ -	\$ 37,218
8	PAINTING AND COATINGS	\$ -	\$ 8,756	\$ -	\$ 8,756
	TOTAL PERCOLATION TANK	\$ 437,258	\$ 258,931	\$ 280,888	\$ 977,078
DELIVERY AND MIXING AREAS					
1	STRUCTURAL EXCAVATION	\$ 1,797	\$ 3,480	\$ -	\$ 5,277
2	MAT SLAB CONCRETE - 12" THICK	\$ 147,562	\$ 91,485	\$ 243,442	\$ 482,489
3	PUSH WALLS - 16" THICK	\$ 611,554	\$ 108,219	\$ 373,114	\$ 1,092,887
4	REINFORCING STEEL	\$ -	\$ 691,339	\$ -	\$ 691,339
5	DOORS AND HATCHES	\$ 7,994	\$ 3,000	\$ 7,500	\$ 18,494
6	DELIVERY AND MIXING AREAS PRE-ENGINEERED METAL BUILDING	\$ 45,572	\$ 1,192,866	\$ 28,317	\$ 1,266,755
7	PAINTING AND COATINGS	\$ -	\$ 67,596	\$ -	\$ 67,596
	TOTAL DELIVERY AREA	\$ 814,479	\$ 2,157,985	\$ 652,373	\$ 3,624,837
BIOFILTER AREA					
1	STRUCTURAL EXCAVATION	\$ 1,797	\$ 3,480	\$ -	\$ 5,277
2	MAT SLAB CONCRETE - 6" THICK	\$ 32,177	\$ 5,510	\$ 29,200	\$ 66,887
3	WALLS - 8" THICK	\$ 148,980	\$ 16,082	\$ 61,990	\$ 227,052
4	REINFORCING STEEL	\$ -	\$ 52,047	\$ -	\$ 52,047
5	BIOFILTER MATERIAL	\$ 71,863	\$ 48,000	\$ 28,800	\$ 148,663
	LIKUSTA BIOFILTER HUMIDIFIER	\$ -	\$ 444,022	\$ -	\$ 444,022
6	BIOFILTER AREA PRE-ENGINEERED COVER	\$ -	\$ -	\$ -	\$ -
7	PAINTING AND COATINGS	\$ -	\$ 17,280	\$ -	\$ 17,280
	TOTAL BIOFILTER AREA	\$ 254,816	\$ 586,421	\$ 119,990	\$ 961,226

Amended Exhibit I - Amended Development Cost Detail

DIANI BUILDING CORP.

TRRP AD FACILITY - OPTION 3

TAJIGUAS LANDFILL, SANTA BARBARA, CALIFORNIA



**** BASE BID ****		LABOR	EQUIPMENT/SUB	MATERIALS	TOTAL
DESCRIPTION					
DIGESTER AREA					
1	STRUCTURAL EXCAVATION	\$ 3,593	\$ 6,960	\$ -	\$ 10,553
2	MAT SLAB CONCRETE, DRAINAGE & SUMPS - 24" THICK	\$ 329,366	\$ 130,882	\$ 793,852	\$ 1,254,100
3	WALLS - 12" THICK	\$ 1,366,440	\$ 249,389	\$ 720,527	\$ 2,336,356
4	RAISED SLAB CONCRETE - 24" THICK	\$ 837,520	\$ 166,003	\$ 690,275	\$ 1,693,798
5	REINFORCING STEEL	\$ -	\$ 1,332,105	\$ -	\$ 1,332,105
6	MISCELLANEOUS STEEL STAIRS, HANDRAILS AND PIPING COVER	\$ -	\$ 169,306	\$ -	\$ 169,306
7	INSULATION AND ROOFING	\$ 118,243	\$ 88,530	\$ 108,156	\$ 314,929
8	PAINTING AND COATINGS	\$ -	\$ 41,725	\$ -	\$ 41,725
	TOTAL DIGESTER AREA	\$ 2,655,161	\$ 2,184,901	\$ 2,312,810	\$ 7,152,872
	TOTAL CONSTRUCTION WORKS	\$ 4,161,715	\$ 5,991,879	\$ 3,366,061	\$ 13,519,655
MECHANICAL SYSTEM DETAIL					
PNEUMATICS					
1	COMPRESSORS AND REGULATOR PANELS	\$ 15,120	\$ -	\$ 11,002	\$ 26,122
2	EBRO VALVES AND AIR SERVICE	\$ 27,510	\$ -	\$ 117,616	\$ 145,126
3	PERCOLATE AIR SYSTEM	\$ -	\$ -	\$ 57,949	\$ 57,949
4	DIGESTER DOOR AIR SYSTEM	\$ 10,808	\$ -	\$ 2,601	\$ 13,409
BEKON \$	BEKON COMPRESSED AIR	\$ -	\$ -	\$ 53,450	\$ 53,450
	TOTAL PNEUMATICS	\$ 71,078	\$ -	\$ 242,619	\$ 313,697
BIOGAS					
1	ATTIC AREA	\$ 107,415	\$ -	\$ 62,086	\$ 169,501
2	CLEANING SYSTEM	\$ 39,060	\$ -	\$ 25,356	\$ 64,416
3	ENGINE ROOM	\$ 10,815	\$ -	\$ 5,538	\$ 16,353
4	FLARE PIPING	\$ 50,610	\$ 1,800	\$ 28,599	\$ 81,009
5	CONDENSATE COLLECTION	\$ 19,530	\$ -	\$ 6,871	\$ 26,401
ZINK	ZTOF FLARE SYSTEM - 5' x 50'	\$ -	\$ 35,000	\$ 242,750	\$ 277,750
TBD	CARBON FILTER AND ACID SCRUBBER	\$ -	\$ 10,000	\$ 50,000	\$ 60,000
BEKON \$	BEKON BIOGAS MATERIAL PRICING	\$ -	\$ -	\$ 199,478	\$ 199,478
	TOTAL BIOGAS	\$ 227,430	\$ 46,800	\$ 620,677	\$ 894,907
HEATING/COOLING					
1	DIGESTER PEX SYSTEM	\$ 360,045	\$ 8,500	\$ 98,023	\$ 466,568
2	PERCOLATE TANK 1 AND 2 PEX SYSTEM	\$ 85,995	\$ -	\$ 19,532	\$ 105,527
3	ENGINE ROOM	\$ 103,320	\$ 25,000	\$ 76,356	\$ 204,676
BEKON \$	BEKON HEATING SYSTEM	\$ -	\$ -	\$ 272,264	\$ 272,264

Amended Exhibit I - Amended Development Cost Detail

DIANI BUILDING CORP.

TRRP AD FACILITY - OPTION 3

TAJIGUAS LANDFILL, SANTA BARBARA, CALIFORNIA



**** BASE BID ****		LABOR	EQUIPMENT/SUB	MATERIALS	TOTAL
	DESCRIPTION				
	TOTAL HEATING/COOLING	\$ 549,360	\$ 33,500	\$ 466,174	\$ 1,049,034
	PERCOLATE				
1	MAIN PIPING SYSTEM WITH PUMP	\$ 97,440	\$ -	\$ 103,127	\$ 200,567
2	FLOW STATION AND FILTRATION SYSTEM (EXCLUDES FILTERS)	\$ 22,260	\$ -	\$ 21,502	\$ 43,762
3	DIGESTER SPRAY AND SUMP SYSTEM	\$ 162,540	\$ -	\$ 75,282	\$ 237,822
BEKON \$	BEKON PERCOLATE SYSTEM		\$ -	\$ 274,250	\$ 274,250
	TOTAL PERCOLATE	\$ 282,240	\$ -	\$ 474,160	\$ 756,400
	PURGING/VENTILATION				
1	DIGESTER VENTILATION SYSTEM	\$ 188,324	\$ 46,000	\$ 508,871	\$ 743,195
2	MIXING AREA VENTILATION SYSTEM	\$ 199,997	\$ 5,750	\$ 186,088	\$ 391,835
3	DELIVERY AREA VENTILATION SYSTEM	\$ 77,700	\$ 5,750	\$ 111,275	\$ 194,725
4	PAPER DRYING HEATING SYSTEM	\$ -	\$ -	\$ -	\$ -
5	GENERATOR BREECHINGS	\$ 12,700	\$ 2,150	\$ 19,500	\$ 34,350
BEKON \$	VENTILATION SYSTEM		\$ -	\$ 346,302	\$ 346,302
	TOTAL PURGING/VENTILATION	\$ 478,721	\$ 59,650	\$ 1,172,036	\$ 1,710,407
	HYDRAULIC DOOR SYSTEM				
1	HYDRAULIC DOOR INSTALLATION, SUPPLY AND INSTALL GATES	\$ 31,977	\$ 64,000	\$ 2,000	\$ 97,977
2	PUMP, TUBING, CONTROLLERS AND HOSES	\$ -	\$ -	\$ -	\$ -
DBC	HYDRAULIC CYLINDERS	\$ -	\$ -	\$ -	\$ -
DBC	BEKON DIGESTER DOORS	\$ -	\$ -	\$ 560,000	\$ 560,000
	TOTAL HYDRAULICS	\$ 31,977	\$ 64,000	\$ 562,000	\$ 657,977
	ELECTRICAL, GROUNDING AND CONTROLS				
1	DELIVERY AND MIXING AREA GENERAL ELECTRICAL REQUIREMENTS	\$ -	\$ 429,446	\$ -	\$ 429,446
2	BIOFILTER AREA GENERAL ELECTRICAL REQUIREMENTS	\$ -	\$ 43,913	\$ -	\$ 43,913
3	CONTROLS, WIRING AND GROUNDING	\$ 343,750	\$ 56,250	\$ 311,569	\$ 711,569
4	UTILITY CONNECTION COSTS	\$ -	\$ -	\$ -	\$ -
BEKON \$	ELECTRICAL AND CONTROL SYSTEM INCLUDING LICENSES		\$ 529,609	\$ 583,257	\$ 583,257
	TOTAL ELECTRICAL	\$ 343,750	\$ 529,609	\$ 894,826	\$ 1,768,184
	MISCELLANEOUS				
WES	GE JENBACHER ENGINE (INCLUDES INSTALL, STACKS, EXHAUST AIR TREATMENT)	\$ -	\$ 672,025	\$ 2,223,450	\$ 2,895,475
	GE JENBACHER BEARING REPLACEMENT PER GE GUIDANCE	\$ -	\$ -	\$ 238,362	\$ 238,362
2	FIRE SPRINKLER SYSTEM	\$ -	\$ 142,422	\$ -	\$ 142,422
3	MISCELLANEOUS STEEL EMBEDS	\$ -	\$ 280,000	\$ -	\$ 280,000

Amended Exhibit I - Amended Development Cost Detail

		 DIANI BUILDING CORP. TRRP AD FACILITY - OPTION 3 TAJIGUAS LANDFILL, SANTA BARBARA, CALIFORNIA			
**** BASE BID ****		LABOR	EQUIPMENT/SUB	MATERIALS	TOTAL
BEKON \$	DESCRIPTION				
	BEKON ADD ADF SPARE PARTS INVENTORY - OPERATIONAL REQ	\$ -	\$ -	\$ 80,000	\$ 80,000
	TOTAL MISCELLANEOUS	\$ -	\$ 1,094,447	\$ 2,541,812	\$ 3,636,259
	TOTAL	\$ 6,146,271	\$ 7,819,885	\$ 10,340,366	\$ 24,306,522
	COLUMN TOTALS	\$ 6,146,271	\$ 7,819,885	\$ 10,340,366	\$ 24,306,522
0.00%	UNCERTAINTY/LIVING WAGE INCREASE (7/1/2016)	\$ 340,000	\$ -	\$ -	\$ 340,000
6.00%	DBC MARK-UP	\$ 389,176	\$ 469,193	\$ 620,422	\$ 1,478,791
0.739%	BOND - IF REQUIRED	\$ 45,393	\$ 57,753	\$ 76,368	\$ 179,514
	TOTAL BASE BID AMOUNT	\$ 6,921,000	\$ 8,347,000	\$ 11,037,000	\$ 26,305,000
		26%	32%	42%	100%
	CONTINGENCY	\$ -	\$ -	\$ -	\$ -
	TRAVEL COSTS, INSURANCES, BONDS	\$ -	\$ -	\$ -	\$ -
	DESIGN/ENGINEERING - CA TEAM (in Pre-Dev Budget)	\$ -	\$ -	\$ -	\$ -
	DESIGN/ENGINEERING - BEKON (in Pre-Dev Budget)	\$ -	\$ -	\$ -	\$ -
	BEKON LICENSE FEE, Supply, commissioning	\$ -	\$ -	\$ -	\$ -
	Total Design, Engineering & BEKON Fees	\$ -	\$ -	\$ 2,684,144	\$ 2,684,144
	TOTAL PRICE (USD)	\$ -	\$ -	\$ 2,684,144	\$ 28,990,000

Amended Exhibit I - Amended Development Cost Detail

DIANI BUILDING CORP.

MRF/ADF - GENERAL CONDITIONS AND SITE WORK - OPTION 3
TAJIGUAS LANDFILL, SANTA BARBARA, CALIFORNIA



**** BASE BID ****								
		DESCRIPTION	LABOR	EQUIPMENT/SUB	MATERIALS	TOTAL		
GENERAL CONDITIONS								
1		GENERAL CONDITIONS	\$ 1,436,609	\$ 356,090	\$ 102,500	\$ 1,895,199		
2		PRECONSTRUCTION SERVICES	\$ 56,031	-	\$ 18,750	\$ 74,781		
3		QUALITY CONTROL & TESTING	\$ 94,567	\$ 116,301	-	\$ 210,868		
4		13 MOS CARRY (MAR 2017-MAR 2018)-ADJUSTED - \$250,000	\$ 437,148	\$ 1,950	\$ 21,840	\$ 460,938		
SITE WORK								
1		CLEARING, EXCAVATION, GRADING AND CONC/AC PAVING	\$ -	\$ 4,367,128	\$ -	\$ 4,367,128		
2		SITE UTILITIES - TANKS, SEWER, WATER AND STORM DRAIN	\$ 55,000	\$ 3,980,650	\$ 256,755	\$ 4,292,404		
3		RETENTION AREA AND STORM WATER RUN OFF COLLECTION	\$ -	\$ 141,960	\$ -	\$ 141,960		
4		EXTERIOR CHILLER PADS - ON CHP ROOF	\$ -	\$ -	\$ -	\$ -		
5		SITE CONCRETE, SOG, RETAINING WALLS	\$ 97,836	\$ 1,789,688	\$ 40,825	\$ 1,928,349		
6		REINFORCING STEEL	\$ -	\$ 782,917	\$ -	\$ 782,917		
7		SITE ELECTRICAL	\$ -	\$ 2,421,843	\$ -	\$ 2,421,843		
TOTAL			\$ 2,177,191	\$ 13,958,528	\$ 440,670	\$ 16,576,389		
	0.0%	COLUMN TOTALS	\$ 2,177,191	\$ 13,958,528	\$ 440,670	\$ 16,576,389		
	6.0%	UNCERTAINTY	\$ -	\$ -	\$ -	\$ -		
	0.75%	DBC MARK-UP	\$ 130,631	\$ 837,512	\$ 26,440	\$ 994,583		
		BOND - IF REQUIRED	\$ 16,427	\$ 105,317	\$ 3,325	\$ 125,069		
TOTAL BASE BID AMOUNT			\$ 2,324,000	\$ 14,901,000	\$ 470,000	\$ 17,696,000		

Amended Exhibit I - Amenc... Development Cost Detail

		DIANI BUILDING CORP.			
		CONSULTANT			
		DIANI BUILDING CORP.			
		SANTA BARBARA			
		COUNTY OF SANTA BARBARA - LANDFILL GAS GENERATORS - 2 EACH			
		TAJIGUAS LANDFILL, SANTA BARBARA, CALIFORNIA			
		**** BASE BID ****			
	DESCRIPTION	LABOR	EQUIPMENT/SUB	MATERIALS	TOTAL
	LANDFILL GAS GENERATORS - 1 EACH 412 AND 1 EACH 416 (GE Jen)				
1	CHP, FLARE AND ELECTRICAL SWITCH GEAR PAD	\$ -	\$ 195,559	\$ -	\$ 195,559
2	LF GAS PIPING TO ENGINES FROM COUNTY POC (COASTAL ZONE)	\$ 16,223	\$ -	\$ 12,398	\$ 28,621
3	LFG CONDENSATE/SILOXANE REMOVAL SYSTEM PIPING	\$ 32,445	\$ -	\$ 24,795	\$ 57,240
4	FLARE PIPING	\$ 75,915	\$ 2,700	\$ 64,027	\$ 142,642
5	ZTOF FLARE SYSTEM - 7' x 50', WITH FENCED ENCLOSURE - 1	\$ -	\$ 59,000	\$ 257,750	\$ 316,750
6	CONDENSATE COLLECTION (CHP CONTAINERS)	\$ 29,295	\$ -	\$ 15,383	\$ 44,678
7	CONTROLS, WIRING AND GROUNDING	\$ 128,906	\$ 21,094	\$ 116,838	\$ 266,838
8	CONTAINERIZED GE JENBACHER ENGINE (INCLUDES, EXHAUST AIR	\$ -	\$ 953,071	\$ 3,455,460	\$ 4,408,531
9	SITE ELECTRICAL	\$ -	\$ 1,412,143	\$ -	\$ 1,412,143
10	ELECTRICAL DESIGN ALLOWANCE	\$ -	\$ 70,000	\$ -	\$ 70,000
	TOTAL	\$ 282,784	\$ 2,713,566	\$ 3,946,650	\$ 6,943,000
	COLUMN TOTALS	\$ 282,784	\$ 2,713,566	\$ 3,946,650	\$ 6,943,000
	UNCERTAINTY	\$ 14,139	\$ 135,678	\$ 187,333	\$ 347,150
	DBC MARK-UP	\$ 17,815	\$ 170,955	\$ 248,639	\$ 437,409
	BOND - IF REQUIRED	\$ 2,134	\$ 20,474	\$ 29,777	\$ 52,385
	TOTAL BASE BID AMOUNT	\$ 317,000	\$ 3,041,000	\$ 4,422,000	\$ 7,780,000

Revised Diani LFG Budget at 10/12/17			
CHP Engines - Containerized GE 416 & GE 412 (incl. CEMS & Condensate :	1	4,939,957	
Flare (John Zink) 1 @ 7' X50' 1,300 SCFM capacity	1	354,933	
Site Work/Slabs (Diani)	1	219,133	
Mechanical/Piping (Diani)	1	306,110	
Site Electrical (switch gear/transformers/line to ADF)	1	1,582,370	
Controls, Wiring and Grounding (Diani)	1	299,004	
Electrical Design	1	78,438	
Total DBC LFG Scope		7,780,000	
Piping, valves, etc. for LFG to AD			75,000
LFG supply, compress & pretreat			-
CEMS Adder			-
SCE interconnect			600,000
SCE transmission lines & meter upgrade (part of interconnect)			300,000
permitting, excl. ERCs			120,000
plan, engineer, commission			300,000
SBC staff			100,000
Sub-total County Scope			1,495,000
Total LFG Project			9,275,000

EXTENDED DELAY DETAIL 101117	PREVIOUS CONTRACT DOLLARS	DIFFERENCE	Incl Markup, bond &
\$ 163,126	\$ 32,433		219,133
\$ 28,620	\$ 57,240		32,070
\$ 142,642	\$ -		64,140
\$ 316,750	\$ -		159,836
\$ 44,678	\$ -		354,933
\$ 266,838	\$ -		50,063
\$ 3,691,149	\$ 717,382		299,004
\$ 1,412,143	\$ -		4,939,957
\$ 70,000	\$ -		1,582,370
\$ 6,135,945	\$ 807,055		78,438
\$ 6,135,946	\$ 807,054		5.00%
\$ 306,798	\$ 40,352		6.30%
\$ 386,564	\$ 50,845		0.75%
\$ 46,296	\$ 6,089		
\$ 6,876,000	\$ 904,000		

Amended Exhibit I - Amended Development Cost Detail

DIANI BUILDING CORP.

COMPOSTING MANAGEMENT UNIT - OPTION 3

TAJIGUAS LANDFILL, SANTA BARBARA, CALIFORNIA



**** BASE BID ****					
	DESCRIPTION	LABOR	EQUIPMENT/SUB	MATERIALS	TOTAL
SITE WORK					
1	GRADING, AC PAVING AND FENCING	\$ -	\$ 1,727,977	\$ -	\$ 1,727,977
2	SITE UTILITIES - WATER, STORM DRAIN, TANKS	\$ -	\$ 1,112,629	\$ -	\$ 1,112,629
3	STORM WATER PREVENTION RUN OFF COLLECTION	\$ -	\$ 73,500	\$ -	\$ 73,500
4	STATIONARY TARP STORAGE SYSTEM	\$ -	\$ -	\$ 392,000	\$ 392,000
5	DIGESTATE CONVEYOR FROM ADF TO CMU (BEKON)	\$ -	\$ 275,000	\$ -	\$ 275,000
	TOTAL	\$ -	\$ 3,189,106	\$ 392,000	\$ 3,581,106
	COLUMN TOTALS	\$ -	\$ 3,189,106	\$ 392,000	\$ 3,581,106
	UNCERTAINTY	\$ -	\$ -	\$ -	\$ -
	DBC MARK-UP	\$ -	\$ 191,346	\$ 23,520	\$ 214,866
	BOND - IF REQUIRED	\$ -	\$ 24,966	\$ 2,895	\$ 27,861
	TOTAL BASE BID AMOUNT	\$ -	\$ 3,405,000	\$ 418,000	\$ 3,824,000

	Prior	Revised	Variance
Diani Building Corp. Contract Budget			
General Conditions & Site Work	\$ 17,741,000	\$ 17,696,000	\$ (45,000)
MRF Building	\$ 20,900,000	\$ 21,030,000	\$ 130,000
ADF Building & Systems	\$ 28,840,000	\$ 28,990,000	\$ 150,000
CMU Development Cost	\$ 3,820,000	\$ 3,824,000	\$ 4,000
Solar Energy Facility	\$ 1,900,000	\$ 1,900,000	\$ -
LFG CHP Engines - 2 Each	\$ 8,771,000	\$ 9,275,000	\$ 504,000
Sub-Total Diani Budget (Hard Cost)	\$ 81,972,000	\$ 82,715,000	\$ 743,000
Contingency	\$ 1,340,000	\$ 1,340,000	\$ -
EPC Wrap	\$ 2,110,000	\$ 2,110,000	\$ -
Total Diani Budget (Hard & Soft Cost)	\$ 85,422,000	\$ 86,165,000	\$ 743,000

Amended Exhibit I - Amer Development Cost Detail

	Mustang Santa Barbara-VanDyk Recycling Solutions Contract Budget					
	004222-0011-01					
	6/10/2016 to 4/17/2017, Revised 8/11/17 & 10/13/17					
			Prior	Revised	Variance	
	Sorting Line:					
10	Size Reducer SSI		725,000	725,000	-	
20	Feed conveyor Unders Size Reducer HBT1200/1800*16000		81,580	84,027	2,447	
	Chain lubrication		1,600	1,648	48	
30	Incline conveyor HBT1200/1800*16100		95,088	97,951	2,853	
	Chain lubrication		1,600	1,648	48	
40	3D trommel screen		615,175	615,461	286	
50	Maintenance platform 3D Screens		70,579	72,697	2,117	
60	Discharge conveyor Overs 3D Screens HBGT250/1400*12400		47,546	48,973	1,426	
70	Quality control conveyor Overs 3D Trommel HBGT250/1400*21750		62,221	64,088	1,867	
80	Sorting platform		181,015	186,445	5,430	
90	Discharge conveyor Ferrous HBGT250/800*10400		30,584	31,502	918	
100	Transfer conveyor Ferrous HBGT250/800*18250		44,275	45,604	1,328	
110	Quality control conveyor Wood HBGT250/1400*18750		62,706	64,588	1,881	
120	Quality control platform Wood		38,415	39,567	1,152	
130	Trommel Unders Conveyor TB 1600*9500		61,155	62,990	1,835	
	Scraiper inside conveyor		567	585	17	
	Stainless Steel section		21,444	22,087	643	
140	Top belt magnet HBM LDS900.1600/1600		73,392	75,594	2,202	
150	Discharge conveyor Ferrous HBGT250/800*14400		36,268	37,356	1,088	
160	Incline conveyor to AWS Screen HBT1200/1600*10000		57,588	59,316	1,728	
	Drainage plate for dirt		967	996	29	
	Chain lubrication		1,600	1,648	48	
170	AWS 550 2540*9000		193,957	199,776	5,819	
	Lightning in screen		1,059	1,090	32	
180	Maintenance platform AWS 1 Screen		44,373	45,704	1,331	
190	Discharge conveyor Heavies HBGT250/1400*18900		61,634	63,483	1,849	
	Stainless Steel section		3,727	3,839	112	
200	Top belt magnet HBM LDS900.1400/1600		75,951	78,229	2,279	
210	Air conveyance		641,279	660,518	19,238	
220	Maintenance platform Vei Air System		90,087	92,790	2,703	
230	Discharge conveyor Middle Heavies HBGT250/1400*27900		79,863	82,259	2,396	
	Stainless Steel section		3,727	3,839	112	
240	Top belt magnet HBM 500.28.044		53,884	55,501	1,617	
250	Discharge conveyor Ferrous HBGT250/800*16400		43,891	45,208	1,317	
260	Incline conveyor to Elliptical Separator HBGT250/1400*3900		26,623	27,421	799	
270	Elliptical Separator		206,605	212,803	6,198	
280	Maintenance platform		36,258	37,345	1,088	
290	Discharge conveyor Backs of Elliptical Separator HBGT250/800*13900		33,930	34,948	1,018	

Amended Exhibit I - Amer. Development Cost Detail

	Mustang Santa Barbara-VanDyk Recycling Solutions Contract Budget								
	094222-0011-01								
	6/10/2016 to 4/17/2017, Revised 8/11/17 & 10/13/17								
			Prior	Revised	Variance				
300	Incline conveyor Backs of Elliptical Separator HBGT250/800*13900		38,024	39,165	1,141				
310	Discharge conveyor Fines of Elliptical HBGT250/1000*18250		50,080	51,582	1,502				
320	Unders Conveyor Fines AWS Screen TB 1600*25500		121,930	125,588	3,658				
	Scrapers inside conveyor		567	585	17				
	Stainless Steel section		6,401	6,593	192				
330	Transfer conveyor Fines HBGT250/1000*19750		52,101	53,664	1,563				
	Cover of the belt		6,715	6,917	201				
340	Top belt magnet HBM 500.28.0M5		49,474	50,959	1,484				
350	Discharge conveyor Ferrous HBGT250/800*4400		21,643	22,293	649				
360	Transfer conveyor Ferrous HBGT250/800*9750		29,381	30,262	881				
370	Speed Up Conveyor HBGT250/2800*7900		48,615	50,074	1,458				
	AutoSort 4 NIR1 NIR2 Standard High 2800		239,755	239,755	-				
	POLYMER Software		9,590	9,590	-				
	VB-400/25		10,874	10,874	-				
	EM2		59,236	59,236	-				
	CU-COOL		2,471	2,471	-				
380	TITECH single-valve isolation box/2800		28,856	29,722	866				
390	Maintenance platform		26,880	27,687	806				
400	Discharge conveyor Paper HBGT250/1000*12400		38,198	39,344	1,146				
410	Dryer		1,357,989	1,357,989	-				
420	Quality control conveyor from Dryer HBGT250/1200*18900		51,816	53,370	1,554				
	Cover of the belt		3,959	4,077	119				
430	Quality control platform		50,254	51,761	1,508				
440	Bunker belt Paper HBT1200/2000*23500		135,347	139,407	4,060				
	Chain lubrication		1,600	1,648	48				
450	Negatives / Overs conveyor of Optical and Elliptical Unit HBGT250/2000*12400		65,408	67,370	1,962				
460	Transfer conveyor Negatives / Overs conveyor HBGT250/2000*16900		59,279	61,057	1,778				
470	Quality control conveyor Fuel / Film HBGT250/2000*27750		88,304	90,953	2,649				
480	Transfer conveyor Fuel / Film HBGT250/2000*14250		55,863	57,539	1,676				
490	Transfer conveyor Fuel HBGT250/1000*29250		73,838	76,053	2,215				
500	Speed Up Conveyor HBGT250/2800*6900		45,484	46,848	1,365				
	AutoSort 4 NIR1 NIR2 Standard High 2800		239,755	239,755	-				
	POLYMER Software		9,590	9,590	-				
	VB-200/25		5,341	5,341	-				
	EM2		59,236	59,236	-				
	CU-COOL		2,471	2,471	-				
510	TITECH single-valve isolation box/2800		28,856	29,722	866				
520	Maintenance platform		21,971	22,631	659				
530	Discharge conveyor Paper HBGT250/1000*14400		42,956	44,245	1,289				
540	Incline conveyor Paper HBGT250/1000*13400		39,841	41,036	1,195				
	Cover of the belt		5,783	5,957	173				
550	Transfer conveyor Paper HBGT250/1000*11900		35,869	36,945	1,076				
	Cover of the belt		5,208	5,364	156				

Amended Exhibit I - Amer. evelopment Cost Detail

	Mustang Santa Barbara-VanDyk Recycling Solutions Contract Budget 004222-001-01 6/10/2016 to 4/17/2017, Revised 8/11/17 & 10/13/17		Prior	Revised	Variance
560	Negatives conveyor of Optical Units HBGT250/2000*15400		73,229	75,426	2,197
570	Quality control platform		12,282	12,650	368
580	AWS 1 Unders Conveyor TB 1600*7000 Scrapor inside conveyor		51,239 567	52,776 585	1,537 17
590	Transfer Unders Conveyor AWS Screen TB 1400*11000 Scrapor inside conveyor Stainless Steel section		49,477 488 19,038	50,962 503 19,609	1,484 15 571
600	Top belt magnet HBM LD500.1400/1400		64,203	66,129	1,926
610	Discharge conveyor Ferrrous HBGT250/1400*2900		20,415	21,028	612
620	Incline conveyor TB 1400*17500 Scrapor inside conveyor		74,861 488	77,107 503	2,246 15
630	AWS 550 2040*7500 Lightening in screen		168,273 1,059	173,321 1,090	5,048 32
640	Maintenance platform		57,065	58,777	1,712
650	Speed Up Conveyor HBGT250/2800*6400 Autosort 4 NIR1 NIR2 Standard High 2800 POLYMER Software VB-400/25 EM2 CU-COOL		43,049 239,755 9,590 10,874 59,236 2,471	44,340 239,755 9,590 10,874 59,236 2,471	1,291 - - - - -
660	TITECH single-valve isolation box/2800		28,856	29,722	866
670	Maintenance platform		48,268	49,716	1,448
680	Discharge conveyor Plastics HBGT250/1000*5900		26,139	26,923	784
690	Incline conveyor HBGT250/1000*4400		24,275	25,003	728
700	Elliptical Separator		206,605	212,803	6,198
710	Maintenance platform		27,028	27,839	811
720	Discharge conveyor Backs of Elliptical Separator HBGT250/2000*2900		28,029	28,870	841
730	Transfer conveyor Backs of Elliptical Separator HBGT250/1400*16900		43,171	44,466	1,295
740	Incline conveyor Backs of Elliptical Separator HBGT250/1400*16900		55,672	57,343	1,670
750	Discharge conveyor Ferrrous HBGT250/800*33900		68,082	70,125	2,042
760	Transfer conveyor Ferrrous HBGT250/800*19900		46,979	48,388	1,409
770	Quality control platform Aluminium		25,652	26,422	770
780	Fixed bin Al - 65 m3		28,468	29,323	854
790	Incline conveyor HBGT250/1400*6400		29,236	30,113	877
800	Speed Up Conveyor HBGT250/2000*6400 Autosort 4 NIR1 NIR2 Standard High 2000 POLYMER Software VB-400/25 EM2 CU-COOL		32,430 169,775 7,216 8,402 46,860 2,471	33,403 169,775 7,216 8,402 46,860 2,471	973 - - - - -
810	TITECH single-valve isolation box/2000		26,131	26,915	784
820	Maintenance platform		30,833	31,758	925

Amended Exhibit I - Ameer Development Cost Detail

	Mustang Santa Barbara-VanDyk Recycling Solutions Contract Budget				
	004222-0011-01				
	6/10/2016 to 4/17/2017, Revised 8/11/17 & 10/13/17				
		Prior	Revised	Variance	
830	Discharge conveyor Heavies HBG155/1400*3660	25,378	26,139	761	
840	Transfer conveyor Heavies HBG1250/1400*26900	75,764	78,037	2,273	
850	Incline conveyor Heavies HBG1250/1400*12900 Stainless Steel section	45,191 3,727	46,547 3,839	1,356 112	
860	Top belt magnet HBM 500.28.044	50,161	51,666	1,505	
870	Discharge conveyor Ferrous HBG1250/800*9750	35,585	36,652	1,068	
880	Eddy Current HBM 29.726/12/B-1500	95,803	98,677	2,874	
890	Maintenance platform	34,491	35,526	1,035	
900	Discharge conveyor Negatives of Eddy-Current HBG1250/800*13900	35,777	36,850	1,073	
910	Quality control conveyor Aluminium HBG1250/600*12750	42,570	43,847	1,277	
920	Incline conveyor Heavies HBG1250/2000*18400	57,523	59,248	1,726	
930	Incline conveyor Heavies HBG1250/1600*7400	29,710	30,602	891	
940	Transfer conveyor Heavies HBG1250/2000*19400	56,725	58,427	1,702	
950	Speed Up Conveyor HBG1250/2000*6400 AutoSort 4 NIR1 NIR2 Standard High 2000 C&D Software VB-400/12.5 CU-COOL	30,449 169,775 6,366 22,104 2,471	31,362 169,775 6,366 22,104 2,471	913 - - - -	
960	TITECH single-valve isolation box/2000	26,131	26,915	784	
970	Maintenance platform	45,737	47,109	1,372	
980	Catwalk	28,803	29,667	864	
990	Quality control conveyor Wood HBG1250/1000*18400	46,013	47,393	1,380	
1000	Quality control platform Wood and Heavies	59,445	61,228	1,783	
1010	Quality control conveyor Heavies HBG1250/1000*18400	46,013	47,393	1,380	
1020	Transfer conveyor Trash HBT8/1200*12500	54,803	56,447	1,644	
1030	Incline conveyor Plastics HBG1250/2000*11900	49,682	51,172	1,490	
1040	Speed Up Conveyor HBG1250/1400*6400 AutoSort 4 NIR1 Standard High 1400 POLYMER Software VB-400/25 CU-COOL	30,449 135,923 6,116 5,931 2,471	31,362 135,923 6,116 5,931 2,471	913 - - - -	
1050	TITECH single-valve isolation box/1400	26,131	26,915	784	
1060	Maintenance platform	38,938	40,106	1,168	
1070	Discharge conveyor PET HBG1250/800*9400	24,826	25,570	745	
1080	Speed Up Conveyor HBG1250/2000*9400 AutoSort 4 NIR1 Standard High 1400 POLYMER Software VB-400/25 CU-COOL	39,820 167,854 6,921 8,402 2,471	41,014 167,854 6,921 8,402 2,471	1,195 - - - -	
1090	TITECH single-valve isolation box/2000	27,274	28,092	818	
1100	Maintenance platform	28,606	29,464	858	

Amended Exhibit I - Amer development Cost Detail

	Mustang Santa Barbara-VandDyk Recycling Solutions Contract Budget						
	004222-0011-01						
	6/10/2016 to 4/17/2017, Revised 8/11/17 & 10/13/17						
			Prior	Revised	Variance		
1110	Quality control conveyor PET / PE HBG1250/1600*12250		57,933	59,671	1,738		
1120	Discharge conveyor from presort PE/ PET HBG1155/800*3660		24,119	24,843	724		
1130	Transfer conveyor for recovery HBG1250/600*7900		27,625	28,454	829		
1140	Transfer conveyor for recovery HBG1250/800*7400		25,604	26,372	768		
1150	Transfer conveyor for recovery HBG1250/800*10400		31,118	32,052	934		
1160	Transfer conveyor for recovery HBG1250/800*8750		34,958	36,007	1,049		
1170	Discharge conveyor 1-7 HBG1155/800*3660		25,486	26,251	765		
1180	Discharge conveyor PP HBG1155/800*3660		25,486	26,251	765		
1190	Quality control conveyor 1-7/PP HBG1250/1600*18750		70,370	72,481	2,111		
1200	Quality control platform PET / PE / 1-7 / PP		71,820	73,974	2,155		
1210	Fixed bin 1-7 - 65 m3		28,468	29,323	854		
1220	Fixed bin PP - 65 m3		28,468	29,323	854		
1230	Fixed bin PET - 81 m3		31,088	32,020	933		
1240	Fixed bin HDPE Coloured - 52 m3		26,728	27,530	802		
1250	Fixed bin HDPE Natural - 52 m3		26,728	27,530	802		
1260	Speed Up Conveyor HBG1250/2800*8900		52,110	53,674	1,563		
	AutoSort 4 NIR1 NIR2 Standard High 2800		239,755	239,755	-		
	POLYMER Software		9,590	9,590	-		
	VB-400/25		10,874	10,874	-		
	EM2		59,236	59,236	-		
	CU-COOL		2,471	2,471	-		
1270	TITECH single-valve isolation box/2800		28,856	29,722	866		
1280	Maintenance platform		21,971	22,631	659		
1290	Discharge conveyor Heavies HBG1155/1400*3660		25,378	26,139	761		
1300	Discharge conveyor Shredder HBT1200/1800*10500		65,039	66,990	1,951		
	Chain lubrication		1,600	1,648	48		
1310	Sire Reducer SSI		725,000	725,000	-		
1320	Incline conveyor HBT1200/1800*13300		82,838	85,323	2,485		
	Chain lubrication		1,600	1,648	48		
1330	3D trommel screen		624,918	625,204	286		
1340	Trommel Unders Conveyor TB 1600*9500		61,155	62,990	1,835		
	Scraper inside conveyor		567	565	-2		
	Stainless Steel section		21,444	22,087	643		
1350	Top belt magnet HBM LD500.1600/1600		73,392	75,594	2,202		
1360	Incline conveyor to AWS Screen HBT1200/1600*10000		57,588	59,316	1,728		
	Drainage plate for dirt		967	996	29		
	Chain lubrication		1,600	1,648	48		
1370	AWS 550 2540*9000		193,957	199,776	5,819		
	Lightening in screen		1,059	1,090	32		
1380	Maintenance platform AWS 1 Screen		43,412	44,714	1,302		
1390	AWS 1 Unders Conveyor TB 1600*7000		51,239	52,776	1,537		

Amended Exhibit I - Amen Development Cost Detail

	Mustang Santa Barbara-VanDyk Recycling Solutions Contract Budget								
	004222-0011-01								
	6/10/2016 to 4/17/2017, Revised 8/11/17 & 10/13/17								
			Prior	Revised	Variance				
	Scrapers inside conveyor		567	585	17				
1400	Speed Up Conveyor HBGT250/2800*14800		72,190	74,356	2,166				
	AutoSort 4 NIR1 NIR2 Standard High 2800		239,755	239,755	-				
	POLYMER Software		9,590	9,590	-				
	VB-400/25		10,874	10,874	-				
	EM2		59,236	59,236	-				
	CU-COOL		2,471	2,471	-				
1410	TITECH single-valve isolation box/2800		28,856	29,722	866				
1420	Maintenance platform		39,167	40,342	1,175				
1430	Discharge conveyor Plastics HBGT250/1000*18400		44,878	46,224	1,346				
1440	Transfer conveyor Plastics HBGT250/1000*3900		19,982	20,582	599				
1450	Incline conveyor to Elliptical Separator HBGT250/1000*4400		24,812	25,556	744				
1460	Elliptical Separator		206,605	212,803	6,198				
1470	Maintenance platform		27,028	27,839	811				
1480	Discharge conveyor Backs of Elliptical Separator HBGT250/2000*2900		28,029	28,870	841				
1490	Speed Up Conveyor HBGT250/2800*12400		63,211	65,108	1,896				
	AutoSort 4 NIR1 NIR2 Standard High 2800		239,755	239,755	-				
	POLYMER Software		9,590	9,590	-				
	VB-400/25		10,874	10,874	-				
	EM2		59,236	59,236	-				
	CU-COOL		2,471	2,471	-				
1500	TITECH single-valve isolation box/2800		28,856	29,722	866				
1510	Maintenance platform		21,971	22,631	659				
1520	Discharge conveyor Heavies HBGT155/1400*3660		25,378	26,139	761				
1530	Bunker belt with drum feeder BDF1200/2000*8000		98,508	101,463	2,955				
	PhotoCell electric		885	911	27				
	Higher sidewall towards the wall		1,814	1,868	54				
	Chain lubrication		1,600	1,648	48				
1540	Incline conveyor HBT1200/2000*16800		101,162	104,197	3,035				
	Chain lubrication		1,600	1,648	48				
1550	Pre sort conveyor HBGT250/1600*22750		66,400	68,391	1,992				
1560	OCC screen 2540*7000		135,777	139,850	4,073				
1570	Quality control conveyor OCC HBGT250/1600*4900		26,009	26,790	780				
1580	Quality control platform OCC		37,859	38,995	1,136				
1590	Quality control platform OCC		8,770	9,033	263				
1600	Discharge conveyor OCC HBGT250/1600*7900		31,924	32,881	958				
1610	Discharge conveyor Unders OCC Screen HBGT250/1600*29250		93,793	96,006	2,814				
1620	Transfer conveyor Unders OCC Screen HBGT250/1600*8400		34,050	35,072	1,022				
1630	Incline conveyor Unders OCC Screen HBGT250/1600*33400		98,691	101,652	2,961				
1640	Diverter		7,888	8,125	237				
1650	Reversible conveyor HBGT250/1400*3900		26,330	27,120	790				
1660	Reversible conveyor HBGT250/1400*3900		26,330	27,120	790				

Amended Exhibit I - Amen development Cost Detail

	Mustang Santa Barbara-VanDyk Recycling Solutions Contract Budget								
	004222-0011-01								
	6/10/2016 to 4/17/2017, Revised 8/11/17 & 10/13/17								
			Prior	Revised	Variance				
1670	Bunker belt OCC HBT1200/2000*16000		104,536	107,673	3,136				
	Chain lubrication		1,600	1,648	48				
1680	Bunker belt Paper HBT1200/2000*16000		104,501	107,636	3,135				
	Chain lubrication		1,600	1,648	48				
1690	Bunker belt Film HBT1200/2000*16000		104,501	107,636	3,135				
	Chain lubrication		1,600	1,648	48				
1700	Bunker belt X HBT1200/2000*16000		104,501	107,636	3,135				
	Chain lubrication		1,600	1,648	48				
1710	Bunker belt OCC HBT1200/2000*16000		104,501	107,636	3,135				
	Chain lubrication		1,600	1,648	48				
1720	Bunker belt MRP HBT1200/2000*16000		104,256	107,383	3,128				
	Chain lubrication		1,600	1,648	48				
1725	Transfer Conveyor Organics TB 1000*2000			49,634	49,634				
	Cover over the belt			5,957	5,957				
1726	Transfer Conveyor Organics TB 1000*13000			52,776	52,776				
	Cover over the belt			6,917	6,917				
1727	Two-way Conveyor Organics			42,424	42,424				
	Cover over the belt			4,077	4,077				
1728	Two-way Conveyor Organics/Glass			65,992	65,992				
	Cover over the belt			5,957	5,957				
1729	Maintenance Platform with Stairs			23,569	23,569				
	Freight, installation, bonding			22,565	22,565				
1730	Switchbox sorting system		818,166	842,711	24,545				
	Emergency stop connection		6,447	6,640	193				
	Extra loud horn		1,103	1,136	33				
	Extra touchscreen operational panel (1)		9,498	9,783	285				
	Modem		1,641	1,691	49				
	Air conditioning switchbox		34,929	35,977	1,048				
	Remote control bunker		950	979	29				
	SCADA system		23,454	24,158	704				
1740	Baler Line:								
	Feed conveyor Baler HBT1200/2000*21500		93,637	96,446	2,809				
	Chain lubrication		1,600	1,648	48				
1750	Incline conveyor Baler HBT1200/2000*20600		99,327	102,307	2,980				
	Drainage plate for dirt		1,072	1,105	32				
	Chain lubrication		1,600	1,648	48				
1760	Baler, HBCL20S(90KW)		458,922	472,690	13,768				
	Middle hopper		2,093	2,094	61				
	Belt infeed hopper		4,535	4,671	136				
	Viewing platform with caged ladder		4,223	4,349	127				
	Bale exit ramp outlet with closed bottom		5,004	5,154	150				
	Wire platform behind		4,223	4,349	127				
	Wire platform in front		4,223	4,349	127				
	Hardox bottom floor plate only		3,440	3,543	103				
	Variable channel pressure control		783	806	23				
	Plastic valve		783	806	23				
	PET bottle perforator		48,316	49,766	1,449				
	Extra set of photo-electric cells		625	644	19				
	Higher installation of the baler		8,913	9,181	267				
	Cross wires 5 wires horizontal		46,753	48,155	1,403				
	Press for needle slots		157	162	5				
	Wire platform right		6,099	6,282	183				
	Wire platform left		6,099	6,282	183				

Amended Exhibit I - Amer. Development Cost Detail

			Prior	Revised	Variance
Mustang Santa Barbara-VanDyk Recycling Solutions Contract Budget					
00422-0011-01					
6/10/2016 to 4/17/2017, Revised 8/11/17 & 10/13/17					
Double wires horizontal			2,346	2,417	70
Large digital bale length display			2,033	2,094	61
Air-conditioning for switch box			5,316	5,476	159
BIOS Statistics			3,753	3,865	113
BIOS Energy			2,502	2,577	75
BIOS Office			2,972	3,061	89
Manual Spanish			783	806	23
Project costs			291,406	300,148	8,742
Freight (includes duties and insurance)			1,192,000	1,192,000	-
Mobilization			18,500	18,500	-
Electrical installation			219,958	219,958	-
Mechanical installation			2,545,578	2,545,578	-
Start-up and Training			38,500	38,500	-
Compressors (estimated 1750 CFM)			371,500	371,500	-
Cranes			588,500	588,500	-
Dust Collection					
Parts Package			300,000	300,000	-
Payment, Performance & Completion Bonds			614,709	614,709	-
TOTAL MSW/SS Line - Delivered and Installed			24,529,306	25,166,728	637,422
Complex Screening/Densimetric Line:					
10 Bunkerfeeder			109,492	112,777	3,285
20 Incline conveyor TB 1600*17000			83,935	86,453	2,518
Scraper inside conveyor			654	674	20
30 AWS 550 1640*7500			159,013	163,783	4,770
Maintenance platform			6,315	6,504	189
Cage ladder			1,879	1,935	56
40 Discharge conveyor TB 1400*4000			40,015	41,216	1,200
Scraper inside conveyor			563	580	17
50 Discharge conveyor TB 1400*7500			40,288	41,497	1,209
Scraper inside conveyor			563	580	17
60 Incline conveyor TB 1400*18000			79,522	81,908	2,386
Scraper inside conveyor			563	580	17
70 Vibrating screen/feeder			151,179	155,714	4,535
Support and platform			32,940	33,516	976
Discharge conveyor TB 1000*12000			54,248	55,876	1,627
Scraper inside conveyor			494	509	15
90 Discharge conveyor TB 1400*19000			89,212	91,889	2,676
Scraper inside conveyor			563	580	17
100 Densimetric Table			439,834	439,834	-
110 Discharge conveyor TBL 600*12000			41,348	42,888	1,240
Scraper inside conveyor			489	504	15
120 Discharge conveyor TBL 600*4500			27,899	28,735	837
Scraper inside conveyor			489	504	15
130 Discharge conveyor TBL 600*12000			43,565	43,842	1,277
Scraper inside conveyor			489	504	15
140 Switchbox sorting system			111,930	115,288	3,358
Extra loud horn			1,300	1,339	39
Air conditioning switchbox			6,969	7,178	209
Project costs			36,848	37,953	1,105
Freight			119,000	119,000	-
Mobilization			12,325	12,325	-

Amended Exhibit I - Amer. Development Cost Detail

		Prior	Revised	Variance
Mustang Santa Barbara-VanDyk Recycling Solutions Contract Budget				
004222-0011-01				
6/10/2016 to 4/17/2017, Revised 8/11/17 & 10/13/17				
Electrical Installation		64,875	64,875	-
Mechanical Installation		196,085	196,085	-
Start-up and Training		22,500	22,500	-
Crane, forklift, scissor lift rental		48,000	48,000	-
Payment, Performance & Completion Bonds		52,025	52,025	-
TOTAL Densimetric Line - Delivered and Installed		2,076,008	2,109,649	33,641
TOTAL MSW Line and Densimetric Line - Delivered and Installed		26,605,314	27,276,377	671,063
Bonding Amount: add \$124,686 FX Hedge Reimbursement		26,730,000	27,400,000	670,000
CMU Screening Equipment			2,500,000	
MRS Equipment			24,900,000	
To eliminate FX risk (8/11/17 Adjustment based on 3/31/18 Financial Close)			26,190,000	
Revised VDRS Contract as of 8/11/17				
Mustang Dewey Group - Santa Barbara				
004222-0010E-01				
	8/11/2017			
As per 4/17/17, incl. 3% BRM increase and based on 1.14				
Total MSW/SS Line - Compost Line - Delivered and Installed		27,276,377	\$27,276,377	
80% subject to FX fluctuations		\$21,821,102		
FX Increase from 1.14 to 1.1821 (end of day 8/11/17) on \$21,821,102			\$805,849	
Additional BRM Increase			No Charge	
Hedge till Jan 31, 2018 on \$22,626,951 (\$21,821,102 + \$805,849)			\$452,539	
Increase Bonding fee on previous increase			No Charge	
Increase Bonding fee on current increase			\$32,466	
Revised Price including adjustment for current FX and hedging			\$28,567,231	
Revised total for Bonding amount (add \$124,686 FX hedge reimbursement)		\$28,691,917	124,686	
Revised Total			\$28,690,000	
Mustang Dewey Group - Santa Barbara				
004222-0010E-01				
	10/13/2017			
As per 8/11/17, and based on 1.1821: Total MSW/SS Line + Compost Line - Delivered and Installed				
80% subject to FX fluctuations		\$22,853,785		
FX Increase from 1.1821 to 1.1820 (as of 10/13/17)			(1,933)	
New hedge from Jan 31, 2018 to March 31, 2018 on \$22,853,785 - \$1,933			\$198,049	
Labor Rate Increase (CBA) 1.55% on 50% of equipment value only (50% of \$22,853,785)			\$177,117	
General CPI (inflation) increase on remainder for 2 months @2.5% annually			\$71,148	
Increase Bonding fee on current increase			\$11,472	
Discount per Agreement with County (10/20/17)			(\$250,000)	
Revised Price including adjustment for current FX and hedging (based on 3/31/18 Financial Close)			210,000	
Revised Total for Bonding amount (add \$124,686 FX hedge reimbursement)		\$28,773,084	124,686	
Revised Total			\$28,900,000	
Installation based on regular working hours during normal business days, unless specifically mentioned otherwise				
Excluded / Customer Responsibility:				
Bringing electricity to the switchboxes, including the e-stop control box. Bringing Manufacturing of the pits (and roof, if applicable) according to our blueprints				
Running a telephone line and/or internet access to the TITECH unit (3) depending on				
Delivery Time:				
Shipping in approx. 6 - 8 months				
Delivery time starts from date of signed approval drawing				

Contract Rate 1.14 19,141,317
 Revised USD
 8/11/2017 1.1821 22,626,951
 \$21,821,102
 \$805,849
 \$452,539
 \$32,466
 \$1,290,000

Contract Rate 1.1821 19,333,208
 Revised USD
 10/13/2017 1.1820 22,853,785
 \$22,853,785
 (1,933)
 \$198,049
 \$177,117
 \$71,148
 \$11,472
 (\$250,000)
 \$210,000
 \$28,773,084
 \$ 460,000

AMENDED EXHIBIT L – Amended Project Approvals and Permits

September 2016

- Air Pollution Control District (APCD) Authority to Construct (ATC) permit issued.
- APCD Permit to Operate (PTO) will be issued when facility is operating and passes acceptance testing. Assumed to be 24 months after construction begins. Estimated issuance March 2020.
- Obtain Well Permit from County Environmental Health Services-EHS.

February 2017

- LEA/CalRecycle issued Revised Solid Waste Facility Permit (SWFP) on February 2, 2017.

November 2017

- November 14, 2017 Board of Supervisors hearing to consider Final Subsequent EIR Addendum and approve amended project contract, Comprehensive Plan Amendment and financing.
- File Notice of Determination (NOD) within 5 days.
- RRWMD to file the California Department of Fish and Wildlife (CDFW) CEQA EIR document filing fee (if required) with the County Clerk simultaneous with NOD. Challenge Period to EIR Addendum ends 30 days after filing NOD.

December 2017

- Submit SWFP Amendment Application and amended Joint Technical Document to the LEA/CalRecycle in early December 2017.

January 2018

- Air Pollution Control District (APCD) Authority to Construct (ATC-14500-2) modification permit issued.

February 2018

- LEA/CalRecycle SWFP Joint Technical Document amendments approved. Regional Water Quality Control Board (RWQCB) Construction SWPPP approved and Construction Storm Water General Permit issued for MRF/ADF site.
- Contractor begins demo and grading.

March 2018

- Obtain structural plan approval from County Planning and Development (P&D) Building & Safety Division (B&S) (which cover pile foundations, building slabs, retaining walls and most of the MRF walls).
- Obtain certain site related utilities permits (electrical and mechanical) simultaneous with the structural permits (P&D B&S).
- Obtain miscellaneous infrastructure permits (Non-transient, non-community water system permit (Well 6) onsite wastewater treatment system) from EHS.
- Obtain SB County Fire Department (SBCFD) approval of site, architectural and MEP plans prior to submittal to B&S to insure that the TRRP meets all state and local fire and life safety requirements.
- Obtain architectural & mechanical, electrical, plumbing (MEP) permits from Building & Safety.

September 2018

- SCE permitting of interconnection improvements with P&D.

February 2019

- RRWMD to incorporate TRRP facilities SWPPPs provided by MSB Investors into Landfill SWPPP and obtain amended Industrial General Permit/SWPPP approval for all facilities at the landfill property.
- RWQCB Construction SWPPP approved/Construction General Storm Water Permit issued for Compost Management Unit site.