



REQUEST FOR PROPOSAL (RFP)

FOR CONSTRUCTION OF A:

HIGH BTU FACILITY

INCLUDING THE FOLLOWING SCOPES OF WORK:

**MECHANICAL
ELECTRICAL**

LOCATED IN

CANTON, MICHIGAN

REVISION DETAILS		
REV #	DATE	DESCRIPTION
A	11/15/16	RELEASE FOR BIDS

Prepared by:

Ameresco Woodland Meadows Romulus LLC
111 Speen Street, Suite 410
Framingham, Massachusetts 01701

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- SECTION 260533 - RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS
- SECTION 260536 - CABLE TRAYS FOR ELECTRICAL SYSTEMS
- SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS
- SECTION 262726 - WIRING DEVICES

RFP EXHIBITS:

- EXHIBIT 1: ISSUED FOR BID CONTRACT DRAWING LIST & DRAWINGS
- EXHIBIT 2: IFB CABLE/CONDUIT SCHEDULE (CABLE LIST AND RACEWAY LIST)
- EXHIBIT 3: EQUIPMENT LIST VENDOR DRAWING LIST AND DRAWINGS
- EXHIBIT 4: NETWORK DIAGRAM
- EXHIBIT 5: EXISTING CONTROL ROOM I/O
- EXHIBIT 6: SAMPLE CONSTRUCTION AGREEMENT
- EXHIBIT 7: FLOWDOWN PROVISION



HIGH BTU FACILITY

PART 1

INSTRUCTIONS TO SUBCONTRACTOR(S)

REVISION DETAILS		
REV #	DATE	DESCRIPTION
A	12/6/16	RELEASE FOR BIDS



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PART 1. INSTRUCTIONS TO SUBCONTRACTOR(S)

1.1. PROJECT SUMMARY:

- 1.1.1. Ameresco Woodland Meadows Romulus LLC (“Ameresco”), a developer of renewable energy projects, will build, own, and operate a new High BTU Landfill Gas Facility (“HBTU Facility”) at the Woodland Meadows Recycle and Disposal Facility (“Landfill”) located at 4620 Hannan Rd., Canton, MI, 48188. The facility will process raw landfill gas to produce “product gas” of pipeline quality that will be sourced to the local natural gas utility provider (“DTE”) for off-site transmission and distribution.

1.2. DEFINITIONS:

- 1.2.1. Throughout the documents the following definitions shall apply:
- A. **Owner / Contractor / Purchaser:** Ameresco Woodland Meadows Romulus LLC and/or Ameresco, Inc.
 - B. **General Contractor / Construction Manager:** Ameresco Inc.
 - C. **Contract Drawings and Specifications / Drawings / Specifications / Exhibits:** All documents included in this Request for Proposal.
 - D. **Subcontractor / Seller / Bidder:** Company supplying equipment, materials, labor, construction, and commissioning services to Owner per the requirements included of the Contract Drawings and Specifications included herein.
 - E. **Project Name:** Woodland Meadows High BTU Landfill Gas to Energy Project,
 - F. **Equipment:** Shall include all items listed in the Contract Drawings and Specifications.
 - G. **Materials:** Shall include all materials to execute the Scope of Work.
 - H. **HBTU:** High BTU
 - I. **DTE:** Detroit Edison Company (“DTE”) Gas Company and/or DTE Electric Company
 - J. **Landfill Operator / WMI / Waste Management:** Waste Management of Michigan, Inc.
 - K. **Engineer(s):**
 - 1. Cornerstone Environmental Group, LLC / Tetra Tech (“Cornerstone”)
 - 2. SEGA Engineering & Technical Services (“SEGA”)

1.3. CONFIDENTIALITY

- 1.3.1. This Request for Proposal and subsequent Contract Drawings and Specifications and/or Exhibits herein contained are proprietary and confidential. No part of any document contained herein may be disclosed in any manner to a third party without the prior written consent of the Owner.

1.4. GENERAL PROJECT SCOPE

- 1.4.1. To implement this project the Owner has issued this Request for Proposal(s) (RFP) to qualified Subcontractor(s) to allow selection and execution of Construction Agreement(s). This document details and references the Contract Drawings and Specifications for Demolition/Grading/Civil/Structural, Mechanical, and Electrical Scopes of Work. The Owner shall be the “General Contractor” for the Project and will accept Bids for the entire Project and/or individual Scopes of Work.

- 1.4.2. Project scope is concentrated in three (3) primary locations on the Project Site including (i) the Blower Station, (ii) DTE Receipt Meter Station (i.e. "DTE RMS"), and (iii) HBTU Facility areas as indicated in the Contract Drawings.
- 1.4.3. Demolition / Grading / Civil / Structural Scope: Seller shall provide all labor and materials necessary to (i) provide erosion control measures, (ii) perform site demolition, (iii) provide initial and final grading, (iv) construct the building/structural/piping/electrical/process equipment foundations, (v) provide and install cast-in-place anchoring, (vi) provide and grade final site gravel, (vii) provide and install fencing, and (viii) all else as indicated on/within the Contract Drawings and Specifications.
- 1.4.4. Mechanical Scope: Seller shall provide all labor and material necessary for installation of the mechanical portions of the facility inclusive of (i) rigging and setting of mechanical process equipment, (ii) process piping for gas/chilled water/safety relief vents/compressed air/condensate/lube oil/propane/sanitary sewer, (iii) pipe supports, (iv) building exhaust and ventilation equipment, and (v) all else as indicated on the Contract Drawings and Specifications.
- 1.4.5. Electrical Scope: Seller shall provide all labor and material necessary for installation of the electrical portions of the facility inclusive of (i) rigging and setting of electrical process equipment, (ii) below and above-grade power, controls, and communication conduit/wiring/cable, (iii) electrical panels, switches and circuit breakers, and (iv) all else as indicated on the Contract Drawings and Specifications.
- 1.4.6. Pre-Engineered Metal Building Scope: One (1) pre-engineered metal building entitled "Compressor Building" will house 12 screw and/or reciprocating gas compressors, one (1) condensate treatment skid, one (1) 6500-gallon vertical double walled condensate storage tank, and facility compressed air systems. This scope has been awarded and is under contract.
- 1.4.7. To implement this project the Owner has issued this Request for Proposal(s) (RFP) to qualified Subcontractor(s) to allow selection and execution of Construction Agreement(s). This document details and references the Contract Drawings and Specifications for Demolition/Grading/Civil/Structural, Mechanical and Electrical Scopes of Work. The Owner shall be the "General Contractor" for the project and will accept Bids for the entire Project and/or individual Scopes of Work.

1.5. OWNER PRE-PURCHASED EQUIPMENT:

- 1.5.1. The following major pieces of equipment have been or will be purchased by the Owner and shall be installed by the dependent Subcontractor(s) as required within dependent Scopes of Work. A more comprehensive Woodland Meadows Equipment List is included in Exhibit 3 and/or as indicated in the Contract Drawings and Specifications.
1. V-1099: HDPE Belowgrade Inline Sump
 2. V-1101: SST Inlet Filter/Separator
 3. V-1120: HDPE Belowgrade Condensate Sump
 4. Blower Skid A (All on-skid mech. and elect. equipment)
 5. Blower Skid B (All on-skid mech. and elect. equipment)
 6. HX-1160: Blower Station Ambient Air Cooler
 7. Pig Launcher Skid (All on-skid mech. and elect. equipment)
 8. Pig Receiver Skid (All on-skid mech. and elect. equipment)
 9. Feed A Compressor Skid (All on-skid mech. and elect. equipment)
 10. HX-132A Feed A Compressor Oil Aftercooler

11. Feed B Compressor Skid (All on-skid mech. and elect. equipment)
12. HX-132B: Feed B Compressor Oil Aftercooler
13. Feed C Compressor Skid (All on-skid mech. and elect. equipment)
14. HX-132C: Feed C Compressor Oil Aftercooler
15. Cooler Separator Skid (All on-skid mech. and elect. equipment)
16. HX-160: Cooler Separator Ambient Air Cooler
17. CO2 Molegate Valve Skid (All on-skid mech. and elect. equipment)
18. V-021: CO2 PSA Media Vessel A
19. V-022: CO2 PSA Media Vessel B
20. V-023: CO2 PSA Media Vessel C
21. V-024: CO2 PSA Media Vessel D
22. V-203A: CO2 PSA Equalizer 1 Vessel
23. V-203B: CO2 PSA Equalizer 2 Vessel
24. V-203C: CO2 PSA Equalizer 3 Vessel
25. V-208A: CO2 PSA Re-Pressurization 1 Vessel
26. V-208B: CO2 PSA Re-Pressurization 2 Vessel
27. V-204: CO2 PSA Purge Vessel
28. CO2 Vac 1A Compressor Skid (All on-skid mech. and elect. equipment)
29. CO2 Vac 1B Compressor Skid (All on-skid mech. and elect. equipment)
30. CO2 Vac 1C Compressor Skid (All on-skid mech. and elect. equipment)
31. CO2 Vac 1D Compressor Skid (All on-skid mech. and elect. equipment)
32. CO2 Vac 1E Compressor Skid (All on-skid mech. and elect. equipment)
33. V-259A: CO2 Tail Gas Vessel A
34. V-259B: CO2 Tail Gas Vessel B
35. HX-296: N2 PSA Inlet Ambient Air Cooler
36. N2 Molegate Valve Skid (All on-skid mech. and elect. equipment)
37. V-031: N2 PSA Media Vessel A
38. V-032: N2 PSA Media Vessel B
39. V-033: N2 PSA Media Vessel C
40. V-034: N2 PSA Media Vessel D
41. V-303A: N2 PSA Equalizer 1 Vessel
42. V-303B: N2 PSA Equalizer 2 Vessel
43. V-304: N2 PSA Purge Vessel
44. V-306: N2 PSA Recycle Vessel
45. V-308A: N2 PSA Re-pressurization 1 Vessel
46. V-308B: N2 PSA Re-Pressurization 2 Vessel

47. N2 Vac 2A Compressor Skid (All on-skid mech. and elect. equipment)
 48. N2 Vac 2B Compressor Skid (All on-skid mech. and elect. equipment)
 49. V-359: N2 Tailgas Vessel
 50. N2 Molegate Recycle Compressor Skid (All on-skid mech. and elect. equipment)
 51. Product Compressor Skid (All on-skid mech. and elect. equipment)
 52. HX-904A(1) & A(2): Product Compressor Aftercooler
 53. Deoxo Skid (All on-skid mech. and elect. equipment)
 54. HX-417: Deoxo Discharge Ambient Air Cooler
 55. Deoxo Propane Pump Skid (All on-skid mech. and elect. equipment)
 56. Temperature Swing Adsorption (TSA) Skid (All on-skid mech. and elect. equipment)
 57. V-457A: TSA Adsorber Vessel A
 58. V-457B: TSA Adsorber Vessel B
 59. CH-850: Air Cooled DX Chiller w/ On-board Chiller Pump Package
 60. V-855: Glycol Thermal Storage Tank
 61. Condensate Treatment Skid (All on-skid mech. and elect. equipment)
 62. V-971: Atmospheric Condensate Storage Tank
 63. TO-521: Enclosed Flare and associated appurtenances
 64. TO-550: Candlestick Flare and associated appurtenances
 65. C-1025: Blower Station Instrument Air Compressor
 66. DR-1026: Blower Station Desiccant Instrument Air Dryer
 67. C-025A: HBTU Plant Instrument Air Compressor A
 68. C-025B: HBTU Plant Instrument Air Compressor B
 69. V-025: HBTU Plant Instrument Air Wet Receiver Vessel
 70. DR-026: HBTU Plant Desiccant Instrument Air Dryer
 71. DS-52U / SS-52U: 41.6kV SF6 Circuit Breaker
 72. Main XFMR-T1: Utility Main Circuit Breaker
 73. XFMR: 4.16kV / 480V Transformer
 74. PDC: Power Distribution Center (including all PDC internal switchgear, soft starters, MCC, and controls equipment)
 75. Pre-Engineered Metal Building (PEMB)
 76. Substation Structures
 77. Waste Oil Tank
- B. Owner shall pre-purchase all Process Valves installed on piping systems ≥ 2 " unless otherwise communicated by Owner.
- C. Owner shall pre-purchase specialty equipment (i.e. expansion joints, strainers, liquid-drainers on piping system ≥ 2 " unless otherwise communicated by Owner.
- D. Owner shall pre-purchase all instrumentation.

- 1.5.2. Owner specified, purchased, and fabricated equipment for the Project may be pre-assembled off-site, tested, and dismantled for delivery to the Jobsite. Subcontractor(s) agree to not refuse receipt of said equipment and/or performance of any connection to/from said equipment as required by the Contract Drawings and Specifications.
- 1.5.3. Equipment purchased by Owner is of a highly technical nature and may require supervision and installation by Owners' and/or Owners' Vendor(s) staff and technicians. Said staff and technicians may physically perform work and/or adjust the valves, regulator, limit switches, controls, etc., on the equipment and machinery as the Owner deems necessary for start-up, testing, and final operation. Where work by said staff and technicians is required to be performed, Subcontractor(s) agree to not interfere with dependent work and/or Owner may request Subcontractor(s) assistance with completing such work.
- 1.5.4. Subcontractor(s) authority over installation of equipment shall be coordinated with Owner. If said authority is not coordinated with the Owner, Subcontractor(s) authority over installation of equipment ends when systems and/or individual equipment have been received, set, aligned, leveled, rotation checked, and connected to process utilities per the Contract Drawings and/or acceptance is provided by the Owner. Upon Owner Acceptance, the Owner shall have the sole right to make all modifications with respect to the equipment to ensure proper operation of the Project/Facility.

1.6. CONTRACT DRAWINGS AND SPECIFICATIONS

- 1.6.1. Subcontractor(s) are responsible for review of the following Exhibits, collectively referred herein as the Contract Drawings and Specifications and/or Exhibits.

EXHIBIT 1: ISSUED FOR BID CONTRACT DRAWING LIST & DRAWINGS
EXHIBIT 2: IFB CABLE/CONDUIT SCHEDULE (CABLE LIST AND RACEWAY LIST)
EXHIBIT 3: EQUIPMENT LIST VENDOR DRAWING LIST AND DRAWINGS
EXHIBIT 4: NETWORK DIAGRAM
EXHIBIT 5: EXISTING CONTROL ROOM I/O
EXHIBIT 6: SAMPLE CONSTRUCTION AGREEMENT
EXHIBIT 7: FLOWDOWN PROVISION

- 1.6.2. It is the responsibility of the Subcontractor(s) before submitting a Bid to (i) examine the following Contract Drawings and Specifications thoroughly, (ii) consider federal, state, and local laws and regulations that may affect cost, progress, performance, or furnishing of the Work, (iii) study and carefully correlate Subcontractors' observations with the Contract Drawings and Specifications, and (iv) notify Owner of all conflicts, errors, or discrepancies in the Contract Drawings and Specifications.
- 1.6.3. Complete Sets of the Contract Drawings and Specifications must be used in preparing Bids; the Owner nor Engineer assumes responsibilities for errors or misinterpretations resulting from the use of incomplete set of Contract Drawings and Specifications.
- 1.6.4. Owner and Engineer, in making copies of the Contract Drawings and Specifications available on the above terms, do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.
- 1.6.5. Information and data reflected in the Contract Drawings and Specifications with respect to underground facilities at or contiguous to the site are based upon information and data collected by Owner and Engineer. Owner and Engineer do not assume responsibilities for the accuracy or completeness thereof.
- 1.6.6. Addenda may be issued to modify the Contract Drawings and Specifications as deemed advisable by the Owner.
- 1.6.7. A Contract Drawing package including the abovementioned Contract Drawings and Specifications and/or Exhibits has been completed by the Owner Engineer(s):

Cornerstone and SEGA. Contract Drawings and Exhibits can be downloaded from the following FTP Server:

Website: <https://sftp.ameresco.com/thinclient>
Username: sftp_a225_g01
Password: W14zn2xP

1.7. PERMITS:

- 1.7.1. Owner has obtained the following permits:
- A. Wayne County Construction Permit: C-49207.
 - B. NPDES Storm Water Discharge Permit
 - C. Wayne County Soil Erosion Permit 16-192
 - D. Canton Township Building Permit:
 - 1. Owner has submitted application for permit. Subcontractor(s) shall be required to pull this permit prior to construction. Cost of pulling the permit shall be a direct pass through to Owner.
 - E. Canton Township Grading Permit: Covered under the Canton Township Building Permit.
 - F. Canton Township Fence Permit: Covered under the Canton Township Building Permit.
 - G. Canton Township Demolition Permit –
 - 1. Owner has submitted application for permit. Subcontractor(s) shall be required to pull this permit prior to construction. Cost of pulling the permit shall be a direct pass through to Owner.
- 1.7.2. Subcontractor(s) will be required to apply and pay for any construction trade permits (i.e. Electrical, Plumbing, Mechanical, etc.) if needed.
- 1.7.3. Subcontractor(s) shall cooperate with the Owner and the local County inspectors during the construction and inspection of the works to meet compliance.
- 1.7.4. Subcontractor(s) will be responsible for meeting all requirements of all Permits.
- 1.7.5. Subcontractor(s) shall be responsible for any costs for re-inspection due to work not accepted by the local Permit Inspectors/Authorities Having Jurisdiction.

1.8. CONSTRUCTION MANAGEMENT:

- 1.8.1. Subcontractor(s) shall provide the following to facilitate and organize the construction:
- A. Project Schedule:
 - 1. Subcontractor(s) shall provide input to the Owner maintained Construction Master Schedule.
 - B. Weekly Construction Meetings:
 - 1. Subcontractor(s)'s Project Manager shall attend weekly construction meetings.
 - 2. Subcontractor(s) shall provide an accurate minimum 1 week in advance schedule with tasks and personnel.
 - 3. If tasks were not completed in the previous week, Subcontractor(s) shall provide necessary manpower to get back on schedule.
 - C. Temporary Construction Power:

1. Electrical power is available at the site for tools and lighting.
2. Subcontractor(s) shall be responsible for the distribution of temporary construction power to their respective area of work.
3. All temporary power wiring shall conform to latest local, state and NEC code requirements.

D. As-Built Documentation:

1. Subcontractor(s) shall maintain a clean and legible "Red Line" Set of drawings and a "Red Line" Set of discipline specific documents clearly noting all deviations from the design documents.
2. Subcontractor(s) shall submit a progress "Red Line" set of drawings to the Owner upon 50% and 75% completion milestones of work.
3. Issuance of progress payments will be dependent upon satisfactory completion and submittal of progress red-lines to be used for as-built drawing preparation.

E. Health and Safety:

1. Before mobilizing on site Subcontractor(s) shall submit a Health and Safety Plan, which meets all necessary, and prudent safety standards, and requirements to protect the health and safety of all personnel providing services on this project, to Owners Construction Manager for review and approval.
2. Air quality monitoring shall be conducted in subgrade excavations exceeding 4 feet or as directed by the Owner and as per Waste Management Contractor Safety Requirements.
 - a. Monitoring shall measure the levels of O₂, CH₄, H₂S, CO, and CO₂
3. It is the responsibility of Subcontractor(s) to execute their work in strict accordance with all OSHA requirements.
4. All Subcontractor(s) are required to complete, and show evidence of completion of the following Waste Management Safety Courses (instructions on how to complete courses can be obtained from Owner):
 - a. Basic Contractor Safety Orientation (~30 Minutes)
 - b. Landfill Contractor Safety Orientation (~20 Minutes)
 - c. Electrical Safety Contractor Safety Orientation (~10 Minutes)
 - d. Landfill Gas Operations Contractor Safety Orientation (~20 Minutes)

F. Project Management:

1. Subcontractor(s) shall provide full coordination and management of all employees/subs (working for Subcontractor(s)) by a **full time** on site qualified foreman.
2. Subcontractor(s) shall provide a daily/weekly/monthly notice of work schedule to Owner's Construction Manager.
3. On-site storage containers, trailers, communications equipment, etc., all shall be coordinated with Owner as required for Subcontractor(s) to manage and coordinate the project and complete the Work.
 - a. Subcontractor(s) shall be responsible for Subcontractor dependent temporary construction trailer, communications, restroom facilities, etc.

- c. At Owner's request, dependent Subcontractor(s) will witness deliveries of the equipment at the rigger's yard, and document rigging procedures through photographs.
- 2. Subcontractor(s) shall maintain records of all Equipment packing lists and provide a copy of all vendor packing lists to Owner's site representative for the equipment within their scope(s) of work.

1.9. ADDITIONAL SUBCONTRACTOR(S) RESPONSIBILITIES:

- 1.9.1. All work to be installed in a neat, quality manner. Follow equipment manufacturers' instructions and recommendations in the installation and connection of all equipment. No equipment installation or connections shall be made in a manner that voids a manufacturer's warranty.
- 1.9.2. Subcontractor(s) will be familiar with the construction details of the equipment, demolition and installation and be cognizant of coordination with other trades during performance of the Work.
- 1.9.3. Subcontractor(s) will be responsible to inspect all equipment shipped to the Jobsite and/or Rigger's yard prior to installation. All discrepancies between delivered equipment and the Contract Drawings and Specifications shall be noted and coordinated with Owner.
- 1.9.4. Subcontractor(s) will provide minimal impact to the landfill existing operations. Any scheduled outages of the landfill gas collection system shall be coordinated in advance with the Owner and Waste Management.

1.10. WORK SCHEDULE:

- 1.10.1. Subcontractor(s) shall submit a schedule for completion of their dependent Scope(s) of Work.
 - A. Submitted schedule(s) must include (i) staffing, (ii) work hours, (iii) Substantial Completion Date, and (iv) Final Completion Date.
 - 1. Within this context, Substantial Completion shall mean that the dependent Scope of Work performed by the Subcontractor(s) has been installed, tested, accepted by the Owner, and is operational.
 - 2. Within this context, Final Completion Date shall mean that all appurtenant work, surface restoration, insulation, and clean-up has been completed.
 - B. Owner shall use Subcontractor(s) submitted substantial completion schedule with the shortest schedules most preferred in Bid review.
 - C. The following dates/durations should be included in Subcontractor(s) submitted schedule to complete their dependent Scope of Work, unless otherwise agreed upon with Owner:

GRADING/CIVIL/STRUCTURAL MOBILIZATION DATE:	January 2017
MECHANICAL MOBILIZATION DATE:	~3/24/17
ELECTRICAL MOBILIZATION DATE:	~3/24/17
CONSTRUCTION SUBSTANTIALLY COMPLETE:	~7/14/17

- 1.10.2. Authorized representatives of Subcontractor(s) shall be allowed access to the Project during Working Hours by the Owner. All Subcontractor(s) shall comply with safety, security, visitation rules, etc. established by the Owner.

1.11. OWNER'S RIGGERS YARD

- 1.11.1. All Owner Pre-Purchased Equipment will be shipped by the Owner to the Owner's Riggers Yard and off-loaded by the Owner's Rigger at the Owners' expense.

- A. Owner Pre-Purchased Equipment will be stored at Owners' Rigger Yard until Subcontractor(s) are ready to set said equipment in-place at Jobsite.
- B. Owner shall provide for all ongoing costs including lifting of Owner's Pre-Purchased Equipment off-of, or on-to, transport trucks at Owners' Rigger's Yard.
- C. Owner shall provide for all costs of transport of Owners' Pre-Purchased Equipment to Jobsite.
- D. Owner shall provide for all costs for offloading and rigging of Owners' Pre-Purchased Equipment at Jobsite.
- E. The Mechanical and Electrical Subcontractor(s) shall be responsible for coordination with Owner/Owners Rigger during rigging/setting activities and shall be responsible for proper equipment installation per the Contract Drawings and Specifications.
- F. Subcontractor is responsible for offloading and rigging Subcontractor Supplied equipment that is direct shipped to the project location at Subcontractor sole expense.

1.11.2. Rigger's yard address:

Laramie Enterprises, Inc.
48400 West Rd.
Wixom, MI 48393
Office: (248) 313-5800

- 1.11.3. Subcontractor(s) shall reference specific discipline and/or equipment dependent contract drawings and specifications for details on equipment that will need to be rigged.

1.12. WARRANTY:

- 1.12.1. Subcontractor(s) shall warrant all work for one (1) year from the date of Final Acceptance by the Owner.

1.13. APPLICABLE CODES AND STANDARDS:

- 1.13.1. Subcontractor(s) shall be responsible for complying with the latest revisions of all State, Federal and Local Codes, Regulations, Ordinances and Industrial Standards including, but not limited to the following:

- A. ISO (International Standards Organization) standard
- B. ASME (American Society of Mechanical Engineers)
- C. ASTM (American Society for Testing and Materials)
- D. API (American Petroleum Institute)
- E. ANSI (American National Standards Institute) standards
- F. FM (Factory Mutual Engineering & Research Corporation)
- G. U.L. (Underwriter's Laboratories) standards
- H. NEMA (National Electrical Manufacturers Association) standards
- I. NFPA (National Fire Protection Association) regulations
- J. IEEE (Institute of Electrical and Electronics Engineers) standards
- K. OSHA (Occupational, Safety, Hazards Administration) standards
- L. NEC (National Electrical Code) regulations
- M. FCC (Federal Communications Commission) regulations
- N. AWMA (American Water Works Association)

- O. AWS (American Welding Society)
- P. AISC (American Institute of Steel Construction)

1.13.2. If a conflict is found, the most stringent of the codes, regulations, and ordinances shall be enforced.

1.14. SUBMITTAL APPROVAL PROCESS

- 1.14.1. Subcontractor(s) shall submit electronic copies via email or FTP Server of catalog cuts, brochures, or other technical data for all equipment and materials furnished under this contract to the Owner's Construction Manager for review and approval before procurement of any materials and/or fabrication of the work.
- 1.14.2. Materials shall be of high quality exhibiting no flaws or deficiency. Where products or materials are specified by brand or trade name within the Contract Drawings and Specifications, substitution of an approved substitute is acceptable, unless otherwise noted.
- 1.14.3. Materials used shall be suitable for use in an industrial environment with possible splashdown conditions and a high dust concentration. Materials shall function reliably under the following ambient conditions:
 - A. Temperature: -20°F – 105°F, unless otherwise specified
 - B. Humidity: 5% to 95% Relative Humidity, non-condensing
 - C. Elevation: ≤700ft above sea level
- 1.14.4. Subcontractor(s) shall be responsible to re-submit revised submittals to Owner, if required by Owner.
- 1.14.5. Owner shall make all reasonable effort to review and comment on submittals within 10 working days.
- 1.14.6. All Submittals shall clearly identify any and all Exceptions and Variations from the Contract Drawings and Specifications.

1.15. CONFLICTS:

- 1.15.1. In the event of conflict within the Contract Drawings and Specifications, generally, the more stringent requirement shall apply
- 1.15.2. It is the intent of this Contract Drawings and Specifications to describe a functionally complete Project (or part thereof). Any required incidental item(s) of material, labor, or detail that may reasonably be inferred from the Contract Drawings and Specifications or from prevailing custom or trade usage shall be provided, even though not specifically addressed or identified.

1.16. INSTALLATION, OPERATIONS AND MAINTENANCE MANUAL SUBMITTALS

- 1.16.1. Subcontractor(s) shall submit three (3) copies of any Subcontractor(s) furnished equipment operations and maintenance manual to the Owner's Construction Manager.

1.17. PERFORMANCE AND PAYMENT BOND

- 1.17.1. Subcontractor(s) shall include the cost of a performance and payment bond as defined in GC4-8 of the Construction Agreement.
- 1.17.2. Subcontractor(s) shall submit a Performance Bond and a Payment Bond, both in the full amount of the Contract Price, to the Owner with full documentation concurrent to the signing of the Contract.

1.18. INSURANCE

1.18.1. Subcontractor(s) shall include the cost of insurance as defined in Appendix C.2.1 of the Construction Agreement.

1.19. SAFETY PROGRAMS

1.19.1. Subcontractor(s) must follow all Owner and Waste Management of Michigan, Inc. job site safety rules, policies, requirements and Security rules.

1.20. CORRESPONDENCE AND COMMUNICATIONS

1.20.1. All correspondence (email preferred) in connection with this RFP and the Subcontractor(s) Bid shall be addressed to:

Ameresco, Inc. 5200 Seventy-Seven Center Drive Suite 300 Charlotte, NC 28217 Attn: Robert Bell Senior Project Management Engineer Phone: 704-916-3545 Email: rbell@ameresco.com	Ameresco, Inc. 5200 Seventy-Seven Center Drive Suite 300 Charlotte, NC 28217 Attn: Steven Bushey Project Management Engineer Phone: 704-916-3516 Email: sbushey@ameresco.com
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1.20.2. Subcontractor(s) are requested to provide Owner within three (3) days of the receipt of the RFP, the name of the person who will be the principal point of contact for the Subcontractor(s) with regard to the RFP and its Bid and the additional information, as shown:

Name	
Title	
Company Name	
Address	
Telephone Number	
E-mail Address	

1.20.3. The address should be specific (including location, suite, floor, and/or room numbers as appropriate) to allow for reliable receipt and delivery of correspondence. The address should be to a physical street address, not a Post Office Box. The communications shall be sent via electronic transmission to the address provided above.

1.20.4. All communications between Owner and the Subcontractor(s) shall be in writing and sent to the person and addresses above.

- A. Information exchanged by telephone or in meetings must be confirmed in writing.
- B. Letters and other items may be sent by e-mail, but should be confirmed by originals or copies sent by mail or courier service.

1.20.5. All communications shall be clearly dated and identify the transmitting party.

1.21. PRE-BID WALK-THROUGH / SITE VISITS:

1.21.1. Site visits may be arranged with the Owner as needed.

1.21.2. All visits must be escorted either by the Owner or Engineer.

1.21.3. Subcontractor(s) shall not visit the site without the consent from the Owner.

1.21.4. Questions asked during any site walk-through(s) may be ignored and responses will not be considered part of the Bid if not followed up with written correspondence via e-mail.

1.22. COST OF THE BID AND SUBCONTRACTOR(S) SELECTION

1.22.1. The cost of preparation of each Subcontractor Bid is to be borne entirely by the Subcontractor(s).

- A. Owner will not be responsible for any costs incurred by the Subcontractor(s) or their Subcontractor(s) and vendors for any reason whatsoever.

1.23. BID REQUIREMENTS:

1.23.1. RFP Receipt and Confirmation

- A. Subcontractor(s) shall notify Owner of the receipt of the RFP and confirm that it has received all documents comprising the RFP no later than the date indicated.
- B. Subcontractor(s) are asked to confirm that it will submit a Bid in compliance with the requirements of the RFP by the date indicated.
 - 1. Partial Bids for Demolition, Grading, Civil/Structural, Mechanical, or Electrical are acceptable, but the associated Bid Form(s) must be completed in their entirety and submitted on time to be considered a valid Bid. Please send an e-mail if you have questions on the Bid forms as incomplete forms will not be accepted.
- C. If any document of the RFP, or portion thereof, is missing from the set received by the Subcontractor(s), the Subcontractor(s) should include in its notice of receipt a list of such documents. Owner will immediately supply such missing documents.

1.23.2. Submission of a Bid will constitute an incontrovertible representation by the Subcontractor(s) that he has complied with every requirement of this Request for Bid, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Drawings and Specifications and such means, methods, techniques, sequences, or procedures of construction as may be indicated or required by the Contract Drawings and Specifications, and that the Contract Drawings and Specifications are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performing and furnishing of the Work.

1.23.3. All Bids must be submitted along with the associated Bid Form(s) attached hereto.

- A. Bid Form(s) shall be completely executed and shall give the price bid for each item of work proposed:
 - 1. The Sum of the items listed in the Bid Forms shall equal to the Contract Lump Sum/Total Bid. Overhead and Profit shall not be listed as separate items.
 - 2. Breakdown prices included on the Bid Form, or as deemed necessary by the Owner, will be revised by the Subcontractor(s) and resubmitted until acceptable to the Owner.
- B. All Bids shall contain an acknowledgement of any received addenda (the numbers of which must be filled in on the Bid Form)

1.23.4. Owner requests Subcontractor(s) to propose the most cost effective construction schedule.

- A. Owner Requests Subcontractor(s) to submit proposed Schedule/milestones with submission of all Bid(s).
- B. Based upon Subcontractor(s) proposed schedule(s), the Substantial Completion Date and Final Completion Date shall be established by the Owner.

1.23.5. All Bids submitted become the property of Owner.

1.23.6. Owner will take reasonable efforts to maintain the confidentiality of the Pricing and Technical Bids of the Subcontractor(s). Subcontractor(s) are not to submit any information which they consider proprietary without clearly indicating the information is proprietary.

- 1.23.7. All Bids are firm for a period of 180 days after submittal; after which they may be withdrawn by written notice of the Subcontractor(s).

1.24. SUBCONTRACTOR SELECTION

- 1.24.1. Upon receipt of and analysis of the Bids, the Subcontractor(s) may be requested to confer with Owner and may be asked for supplemental information, which may amend their Bid.
- 1.24.2. Owner may choose not to select the lowest price Subcontractor(s). Owner may select Subcontractor(s), select other vendors, choose to build the Plant itself or abandon the program. The Subcontractor(s), their sub-contractors, and vendors will not be entitled to any compensation from Owner for any reason.
- 1.24.3. Owner will evaluate the Bids submitted by Subcontractor(s) as it determines to be in its best interest; Final decision will be at the discretion of Owner.

1.25. AWARD OF CONTRACT:

- 1.25.1. Owner reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Subcontractor(s), and the right to disregard all non-conforming, non-responsive, unbalanced, or conditional Bids.
- 1.25.2. Owner reserves the right to reject the Bid of any Subcontractor(s) if Owner believes that it would not be in the best interest of the Project to make an award to that Subcontractor, whether because the Bid is not responsive or the Subcontractor is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the Owner.
- 1.25.3. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the unit prices.
- 1.25.4. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

1.26. BID DUE DATE:

A. BIDS ARE DUE ON 1/10/17; NO LATER THAN 5:00 PM EST.

- B. Emailed (preferred) or faxed Bids are acceptable and may be submitted to the following person(s) if they contain a statement that the offer is binding, should it be accepted:

Ameresco, Inc.
5200 Seventy-Seven Center Drive
Suite 300
Charlotte, NC 28217
Attn: Robert Bell
Senior Project Management Engineer
Phone: 704-916-3545
Email: rbell@ameresco.com

Ameresco, Inc.
5200 Seventy-Seven Center Drive
Suite 300
Charlotte, NC 28217
Attn: Steven Bushey
Project Management Engineer
Phone: 704-916-3516
Email: sbushey@ameresco.com

1.27. BASIS OF BID EVALUATION

- 1.27.1. The intent of this Request for Proposal is to get firm fixed pricing Bids based on the attached Contract Drawings and Specifications.
- 1.27.2. Owner will consider the following criteria to arrive at an overall evaluation and selection of the successful Subcontractor(s):
- A. Compliance with the Contract Drawings and Specification
 - B. Price



- C. Demonstrated Experience and Qualifications
- D. Technical know-how
- E. Operating and Maintenance requirements
- F. Team
- G. Proposed Schedule

1.28. REQUIRED BID FORMS

(See Following Pages)

PART 3: MECHANICAL SCOPE OF WORK BID TABULATION

COMPANY NAME OF SUBCONTRACTOR	
CONTACT	
PHONE/EMAIL	

In Submitting this Bid, Subcontractor(s) represent that:	Subcont. Initials								
A. Subcontractor has carefully studied the Contract Drawings and Specifications, including the following Addenda, receipt of which is hereby acknowledged. <div style="text-align: center;"> <table border="0"> <tr> <td>Addendum Date</td> <td>Addendum #</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> </tr> </table> </div>	Addendum Date	Addendum #	_____	_____	_____	_____	_____	_____	
Addendum Date	Addendum #								
_____	_____								
_____	_____								
_____	_____								
B. Subcontractor is aware of Work at the site to be performed by the Owner and/or by other Subcontractor(s).									
C. Subcontractor is aware of general, local, and site conditions which may affect cost, progress, and performance of the Work.									
D. Subcontractor has given Owner written notice of all conflicts, errors, or discrepancies in the Contract Drawings and Specifications with the Bid.									
E. Subcontractor has reviewed the Sample Construction Agreement provided and has listed all commercial clarifications to this document with the Bid.									
F. Bidder has completed the Schedule of Values, material estimates, manpower, and schedule milestones information in this section.									

GENERAL	
GENERAL CONDITIONS (i.e. Mobilization, site facilities, waste handling, demobilization)	\$
RENTAL EQUIPMENT	\$
RIGGING / SETTING EQUIPMENT	\$
MISCELLANEOUS (<i>provide details</i>)	\$
LABOR	
TRADE	\$
PROJECT MANAGMENT	\$
ADMINISTRATION	\$
MOBILIZATION	\$
STAINLESS STEEL PIPING	\$
CARBON STEEL PIPING	\$
HDPE PIPING	\$
SANITARY SEWER PIPING (ABOVEGRADE)	\$
A/G FIRE-PROTECTION PIPING	\$
A/G & B/G PROPANE PIPING, EXCAVATION, & RESTORATION	\$
STRUCTURAL SUPPORTS	\$
PIPE-RACKS (INLCLUDING SHOES, SADDLES, SUPPORTS) (ADD ALT.)	\$
PIPE SUPPORTS (NOT ASSOCIATED W/ PIPE-RACK)	\$
BUILDING EXHAUST EQUIPMENT	\$
INSULATION	\$
PAINTING	\$
TESTING, CHECKOUT AND COMMISIONING	\$
EPOXY ANCHOR BOLTING (MECH EQUIPMENT)	\$
GROUTING OF MECHANICAL EQUIPMENT (ADD-ALTERNATE)	\$
PLC PANEL BIMINI COVERS (ADD ALTERNATE)	\$
MISCELLANEOUS (<i>provide details</i>)	\$

PART 3: MECHANICAL SCOPE OF WORK BID TABULATION

COMPANY NAME OF SUBCONTRACTOR	
CONTACT	
PHONE/EMAIL	

MATERIALS	
STAINLESS STEEL PIPING	\$
CARBON STEEL PIPING	\$
HDPE PIPING	\$
INSULATION	\$
STRUCTURAL SUPPORTS	\$
PIPE RACK (INCLUDING SHOES, SADDLES, SUPPORTS) (ADD ALT.)	\$
PIPE SUPPORTS (NOT ASSOCIATED W/ PIPE RACK)	\$
STAINLESS STEEL BOLTS, NUTS, & WASHERS [ADD-ALTERNATE]	\$
BUILDING EXHAUST EQUIPMENT	\$
PROPYLENE GLYCOL SUPPLY	\$
PLC PANEL BIMINI COVERS	\$
EPOXY ANCHOR BOLTS (MECH EQUIPMENT)	\$
GROUT FOR MECHANICAL EQUIPMENT (ADD ALTERNATE)	\$
PLC PANEL BIMINI COVERS MATERIAL (ADD ALTERNATE)	\$
MISCELLANEOUS (<i>provide details</i>)	\$

CONTRACTUAL REQUIREMENTS	
SALES TAX ON MATERIALS	\$
PERFORMANCE & PAYMENT BOND (PER GC4-8)	\$
INSURANCE (PER APPENDIX C.2.1)	\$
MISCELLANEOUS (<i>provide details</i>)	\$

TOTAL BID	\$
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PIPE RACK FABRICATION/INSTALL METHOD (I.E. CONVENTIONAL / PRE-FABRICATED / ETC.)	
UNION LABOR PROPOSED?	
PREVAILING WAGE RATES PROPOSED?	
PROPOSED CREW SIZE AVERAGE	
NUMBER OF WEEKS TO COMPLETE (5-10'S, 4-10's etc.)	

*Attach separate sheet detailing any/all exceptions taken to the Contract Drawings & Specifications.
Send completed Bid Tabulation form to Owner contact listed in Section 1.20.*

SUBCONTRACTOR SIGNATURE	
SUBCONTRACTOR NAME (PRINT)	
DATE	

PART 4: ELECTRICAL SCOPE OF WORK BID TABULATION

COMPANY NAME OF SUBCONTRACTOR	
CONTACT	
PHONE/EMAIL	

In Submitting this Bid, Subcontractor(s) represent that:	Subcont. Initials								
A. Subcontractor has carefully studied the Contract Drawings and Specifications, including the following Addenda, receipt of which is hereby acknowledged. <table border="0" style="margin-left: 100px;"> <tr> <td style="text-align: center;">Addendum Date</td> <td style="text-align: center;">Addendum #</td> </tr> <tr> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> </table>	Addendum Date	Addendum #	_____	_____	_____	_____	_____	_____	
Addendum Date	Addendum #								
_____	_____								
_____	_____								
_____	_____								
B. Subcontractor is aware of Work at the site to be performed by the Owner and/or by other Subcontractor(s).									
C. Subcontractor is aware of general, local, and site conditions which may affect cost, progress, and performance of the Work.									
D. Subcontractor has given Owner written notice of all conflicts, errors, or discrepancies in the Contract Drawings and Specifications with the Bid.									
E. Subcontractor has reviewed the Sample Construction Agreement provided and has listed all commercial clarifications to this document with the Bid.									
F. Bidder has completed the Schedule of Values, material estimates, manpower, and schedule milestones information in this section.									

GENERAL	
GENERAL CONDITIONS (i.e. Mobilization, site facilities, waste handling, demobilization)	\$
RENTAL EQUIPMENT	\$
RIGGING / SETTING EQUIPMENT	\$
MISCELLANEOUS (<i>provide details</i>)	\$
LABOR	
TRADE	\$
PROJECT MANAGEMENT	\$
ADMINISTRATION	\$
MOBILIZATION	\$
POWER CABLE & TERMINATIONS (≤ 600V)	\$
POWER CABLE & TERMINATIONS (> 600V)	\$
CONTROLS & INSTRUMENTATION CABLE & TERMINATIONS	\$
COMMUNICATIONS CABLE & TERMINATIONS	\$
GROUNDING SYSTEM	\$
LIGHTING SYSTEM	\$
BELOW-GRADE RACEWAY & DUCTBANK	\$
ABOVE-GRADE CONDUITS/RACEWAY/CABLETRAY	\$
HEAT TRACE	\$
EPOXY ANCHOR BOLTING (ELECT EQUIPMENT)	\$
GROUTING OF ELECTRICAL EQUIPMENT (ADD ALTERNATE)	\$
MISCELLANEOUS (<i>provide details</i>)	\$

PART 4: ELECTRICAL SCOPE OF WORK BID TABULATION

COMPANY NAME OF SUBCONTRACTOR	
CONTACT	
PHONE/EMAIL	

MATERIALS	
EQUIPMENT, CABLE, TERMINATIONS (≤ 600V)	\$
EQUIPMENT, CABLE, & TERMINATIONS (> 600V)	\$
CONTROL / INSTRUMENTATION EQUIPMENT, CABLE & TERMINATIONS	\$
COMMUNICATIONS EQUIPMENT, CABLE, & TERMINATIONS	\$
GROUNDING SYSTEM	\$
LIGHTING SYSTEM	\$
BELOW-GRADE RACEWAY & DUCTBANK	\$
ABOVE-GRADE CONDUITS/RACEWAY/CABLETRAY	\$
HEAT TRACE	\$
EPOXY ANCHOR BOLTS (ELECT EQUIPMENT)	\$
GROUT FOR ELECTRICAL EQUIPMENT (ADD ALTERNATE)	\$
MISCELLANEOUS (<i>provide details</i>)	\$

CONTRACTUAL REQUIREMENTS	
SALES TAX ON MATERIALS	\$
PERFORMANCE & PAYMENT BOND (PER GC4-8)	\$
INSURANCE (PER APPENDIX C.2.1)	\$
MISCELLANEOUS (<i>provide details</i>)	\$

TOTAL BID	\$
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UNION LABOR PROPOSED?	
PREVAILING WAGE RATES PROPOSED?	
PROPOSED CREW SIZE AVERAGE	
NUMBER OF WEEKS TO COMPLETE (5-10'S, 4-10's etc.)	

*Attach separate sheet detailing any/all exceptions taken to the Contract Drawings & Specifications.
Send completed Bid Tabulation form to Owner contact listed in Section 1.20.*

SUBCONTRACTOR SIGNATURE	
SUBCONTRACTOR NAME (PRINT)	
DATE	