Attachment 2 (REVISED 9/25/2020) – CTG PERFORMANCE TABLES

Bidder shall furnish the performance data and utility requirements summarized in the following tables. In addition, Vendor shall provide a set of Performance Correction curves illustrating the impacts on CTG net power output and net heat rate of the following parameters as a minimum:

Ambient temperature

Ambient relative humidity

Intake pressure drop

Exhaust backpressure

Any other relevant parameters specific to Vendor’s equipment

As an alternative, Vendor may furnish performance software (or access to Vendor’s online software) which allows for calculation of unit performance corrections for parameters noted above.

**Note: Bidder shall submit completed performance data sheets for the proposed CTG.**

Bid Alternate (“Base” or Alternate No.):

|  |  |  |
| --- | --- | --- |
| PERFORMANCE DATA | | |
| LOAD POINT | 100 Percent (Guarantee) | |
| AMBIENT TEMPERATURE ºF, DB/ºF, WB | 70ºF / 66 ºF | |
| TYPE OF FUEL | Natural Gas | |
|  | Required | Submitted |
| NET POWER OUTPUT, kW | 32K to 40K |  |
| GROSS POWER OUTPUT, kW | BY MFG |  |
| NET HEAT RATE (LHV) BTU/kW-hr | BY MFG |  |
| FUEL FLOW, LB/HR | BY MFG |  |
| FUEL FLOW, MMBTU/HR LHV | BY MFG |  |
| INLET AIR MASS FLOW, LB/HR | BY MFG |  |
| COMPRESSOR AIR INLET TEMPERATURE, ºF | BY MFG |  |
| EXHAUST GAS MASS FLOW, LB/HR | BY MFG |  |
| EXHAUST VOLUME FLOW, FT3/SEC | BY MFG |  |
| EXHAUST TEMPERATURE, ºF | BY MFG |  |
| EXHAUST HEAT, MMBTU/HR | BY MFG |  |
| EXHAUST Cp, BTU/lbm- ºR | BY MFG |  |
| INLET PRESSURE LOSS, IN H20 | BY MFG |  |
| EXHAUST PRESSURE LOSS, IN H2O - CTG PACKAGE | BY MFG |  |
| EXHAUST PRESSURE LOSS, IN H2O - HRSG (ASSUMED) | BY MFG |  |
| EMISSIONS: (At turbine exhaust flange) Corrected to 15% O2 |  |  |
| NOx, PPMV/LB/HR (Guaranteed) | <25ppm |  |
| CO, PPMV/LB/HR (Guaranteed) | <25ppm |  |
| UHC, PPMV/LB/HR | BY MFG |  |
| VOC, PPMV/LB/HR | BY MFG |  |
| PARTICULATE, LB/HR | BY MFG |  |
| PM10, LB/HR | BY MFG |  |
| OPACITY, PERCENT | BY MFG |  |
| SO2, PPMB/LB/HR | BY MFG |  |
| REQUIRED CHILLED WATER FLOW AT THIS CONDITION,  gal/min (if applicable) | N/A | N/A |
| REQUIRED FUEL GAS PRESSURE AT VENDOR INTERFACE, PSIG | BY MFG |  |
|  | Start up | Normal Operating |
| Auxiliary Power Requirements, KW (Respondent to identify and fill-in: attach separate sheet(s) if necessary) |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Bid Alternate (“Base” or Alternate No.):

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| --- | --- | --- |
| PERFORMANCE DATA | | |
| LOAD POINT | 100 Percent (High Ambient) | |
| AMBIENT TEMPERATURE ºF, DB/ºF, WB | 96°F / 80°F | |
| TYPE OF FUEL | Natural Gas | |
|  | Required | Submitted |
| NET POWER OUTPUT, kW | BY MFG |  |
| GROSS POWER OUTPUT, kW | BY MFG |  |
| NET HEAT RATE (LHV) BTU/kW-hr | BY MFG |  |
| FUEL FLOW, LB/HR | BY MFG |  |
| FUEL FLOW, MMBTU/HR LHV | BY MFG |  |
| INLET AIR MASS FLOW, LB/HR | BY MFG |  |
| COMPRESSOR AIR INLET TEMPERATURE, ºF | BY MFG |  |
| EXHAUST GAS MASS FLOW, LB/HR | BY MFG |  |
| EXHAUST VOLUME FLOW, FT3/SEC | BY MFG |  |
| EXHAUST TEMPERATURE, ºF | BY MFG |  |
| EXHAUST HEAT, MMBTU/HR | BY MFG |  |
| EXHAUST Cp, BTU/lbm- ºR | BY MFG |  |
| INLET PRESSURE LOSS, IN H20 | BY MFG |  |
| EXHAUST PRESSURE LOSS, IN H2O - CTG PACKAGE | BY MFG |  |
| EXHAUST PRESSURE LOSS, IN H2O - HRSG (ASSUMED) | BY MFG |  |
| EMISSIONS: (At turbine exhaust flange) Corrected to 15% O2 |  |  |
| NOx, PPMV/LB/HR (Guaranteed) | <25ppm |  |
| CO, PPMV/LB/HR (Guaranteed) | <25ppm |  |
| UHC, PPMV/LB/HR | BY MFG |  |
| VOC, PPMV/LB/HR | BY MFG |  |
| PARTICULATE, LB/HR | BY MFG |  |
| PM10, LB/HR | BY MFG |  |
| OPACITY, PERCENT | BY MFG |  |
| SO2, PPMB/LB/HR | BY MFG |  |
| REQUIRED CHILLED WATER FLOW AT THIS CONDITION,  gal/min (if applicable) | BY MFG |  |
| REQUIRED FUEL GAS PRESSURE AT VENDOR INTERFACE, PSIG |  |  |
|  | Start up | Normal Operating |
| Auxiliary Power Requirements, KW (Respondent to identify and fill-in: attach separate sheet(s) if necessary) |  |  |
|  |  |  |
|  |  |  |
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Bid Alternate (“Base” or Alternate No.):

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| --- | --- | --- |
| PERFORMANCE DATA | | |
| LOAD POINT | 100 Percent (Low Ambient) | |
| AMBIENT TEMPERATURE ºF, DB | 25°F | |
| TYPE OF FUEL | Natural Gas | |
|  | Required | Submitted |
| NET POWER OUTPUT, kW | BY MFG |  |
| GROSS POWER OUTPUT, kW | BY MFG |  |
| NET HEAT RATE (LHV) BTU/kW-hr | BY MFG |  |
| FUEL FLOW, LB/HR | BY MFG |  |
| FUEL FLOW, MMBTU/HR LHV | BY MFG |  |
| INLET AIR MASS FLOW, LB/HR | BY MFG |  |
| COMPRESSOR AIR INLET TEMPERATURE, ºF | BY MFG |  |
| EXHAUST GAS MASS FLOW, LB/HR | BY MFG |  |
| EXHAUST VOLUME FLOW, FT3/SEC | BY MFG |  |
| EXHAUST TEMPERATURE, ºF | BY MFG |  |
| EXHAUST HEAT, MMBTU/HR | BY MFG |  |
| EXHAUST Cp, BTU/lbm- ºR | BY MFG |  |
| INLET PRESSURE LOSS, IN H20 | BY MFG |  |
| EXHAUST PRESSURE LOSS, IN H2O - CTG PACKAGE | BY MFG |  |
| EXHAUST PRESSURE LOSS, IN H2O - HRSG (ASSUMED) | BY MFG |  |
| EMISSIONS: (At turbine exhaust flange) Corrected to 15% O2 |  |  |
| NOx, PPMV/LB/HR (Guaranteed) | <25ppm |  |
| CO, PPMV/LB/HR (Guaranteed) | <25ppm |  |
| UHC, PPMV/LB/HR | BY MFG |  |
| VOC, PPMV/LB/HR | BY MFG |  |
| PARTICULATE, LB/HR | BY MFG |  |
| PM10, LB/HR | BY MFG |  |
| OPACITY, PERCENT | BY MFG |  |
| SO2, PPMB/LB/HR | BY MFG |  |
| REQUIRED CHILLED WATER FLOW AT THIS CONDITION,  gal/min (if applicable) | N/A | N/A |
| REQUIRED FUEL GAS PRESSURE AT VENDOR INTERFACE, PSIG |  |  |
|  | Start up | Normal Operating |
| Auxiliary Power Requirements, KW (Respondent to identify and fill-in: attach separate sheet(s) if necessary) |  |  |
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Bid Alternate (“Base” or Alternate No.):

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| --- | --- | --- |
| PERFORMANCE DATA | | |
| LOAD POINT | 75 Percent | |
| AMBIENT TEMPERATURE ºF, DB/ºF, WB | 70ºF / 66 ºF | |
| TYPE OF FUEL | Natural Gas | |
|  | Required | Submitted |
| NET POWER OUTPUT, kW | BY MFG |  |
| GROSS POWER OUTPUT, kW | BY MFG |  |
| NET HEAT RATE (LHV) BTU/kW-hr | BY MFG |  |
| FUEL FLOW, LB/HR | BY MFG |  |
| FUEL FLOW, MMBTU/HR LHV | BY MFG |  |
| INLET AIR MASS FLOW, LB/HR | BY MFG |  |
| COMPRESSOR AIR INLET TEMPERATURE, ºF | BY MFG |  |
| EXHAUST GAS MASS FLOW, LB/HR | BY MFG |  |
| EXHAUST VOLUME FLOW, FT3/SEC | BY MFG |  |
| EXHAUST TEMPERATURE, ºF | BY MFG |  |
| EXHAUST HEAT, MMBTU/HR | BY MFG |  |
| EXHAUST Cp, BTU/lbm- ºR | BY MFG |  |
| INLET PRESSURE LOSS, IN H20 | BY MFG |  |
| EXHAUST PRESSURE LOSS, IN H2O - CTG PACKAGE | BY MFG |  |
| EXHAUST PRESSURE LOSS, IN H2O - HRSG (ASSUMED) | BY MFG |  |
| EMISSIONS: (At turbine exhaust flange) Corrected to 15% O2 |  |  |
| NOx, PPMV/LB/HR (Guaranteed) | <25ppm |  |
| CO, PPMV/LB/HR (Guaranteed) | <25ppm |  |
| UHC, PPMV/LB/HR | BY MFG |  |
| VOC, PPMV/LB/HR | BY MFG |  |
| PARTICULATE, LB/HR | BY MFG |  |
| PM10, LB/HR | BY MFG |  |
| OPACITY, PERCENT | BY MFG |  |
| SO2, PPMB/LB/HR | BY MFG |  |
| REQUIRED CHILLED WATER FLOW AT THIS CONDITION,  gal/min (if applicable) | N/A | N/A |
| REQUIRED FUEL GAS PRESSURE AT VENDOR INTERFACE, PSIG | BY MFG |  |
|  | Start up | Normal Operating |
| Auxiliary Power Requirements, KW (Respondent to identify and fill-in: attach separate sheet(s) if necessary) |  |  |
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Bid Alternate (“Base” or Alternate No.):

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| --- | --- | --- |
| PERFORMANCE DATA | | |
| LOAD POINT | 50 Percent | |
| AMBIENT TEMPERATURE ºF, DB/ºF, WB | 70ºF / 66 ºF | |
| TYPE OF FUEL | Natural Gas | |
|  | Required | Submitted |
| NET POWER OUTPUT, kW | BY MFG |  |
| GROSS POWER OUTPUT, kW | BY MFG |  |
| NET HEAT RATE (LHV) BTU/kW-hr | BY MFG |  |
| FUEL FLOW, LB/HR | BY MFG |  |
| FUEL FLOW, MMBTU/HR LHV | BY MFG |  |
| INLET AIR MASS FLOW, LB/HR | BY MFG |  |
| COMPRESSOR AIR INLET TEMPERATURE, ºF | BY MFG |  |
| EXHAUST GAS MASS FLOW, LB/HR | BY MFG |  |
| EXHAUST VOLUME FLOW, FT3/SEC | BY MFG |  |
| EXHAUST TEMPERATURE, ºF | BY MFG |  |
| EXHAUST HEAT, MMBTU/HR | BY MFG |  |
| EXHAUST Cp, BTU/lbm- ºR | BY MFG |  |
| INLET PRESSURE LOSS, IN H20 | BY MFG |  |
| EXHAUST PRESSURE LOSS, IN H2O - CTG PACKAGE | BY MFG |  |
| EXHAUST PRESSURE LOSS, IN H2O - HRSG (ASSUMED) | BY MFG |  |
| EMISSIONS: (At turbine exhaust flange) Corrected to 15% O2 |  |  |
| NOx, PPMV/LB/HR (Guaranteed) | <25ppm |  |
| CO, PPMV/LB/HR (Guaranteed) | <25ppm |  |
| UHC, PPMV/LB/HR | BY MFG |  |
| VOC, PPMV/LB/HR | BY MFG |  |
| PARTICULATE, LB/HR | BY MFG |  |
| PM10, LB/HR | BY MFG |  |
| OPACITY, PERCENT | BY MFG |  |
| SO2, PPMB/LB/HR | BY MFG |  |
| REQUIRED CHILLED WATER FLOW AT THIS CONDITION,  gal/min (if applicable) | N/A | N/A |
| REQUIRED FUEL GAS PRESSURE AT VENDOR INTERFACE, PSIG | BY MFG |  |
|  | Start up | Normal Operating |
| Auxiliary Power Requirements, KW (Respondent to identify and fill-in: attach separate sheet(s) if necessary) |  |  |
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