



***Appendix D-1 Attachment C-2
Wind MFS Bidder Questions***

for

2022 Request for Proposals

for

***Renewable Resources
For Entergy Arkansas, LLC***

Entergy Arkansas, LLC
June 20, 2022

Appendix C-2: Proposed Project Information

Bidder must fill out this table for the proposed wind project and attach equipment datasheets.

| Item | Site Information /Design Conditions | Responses | Units |
|------|--|-----------|----------|
| 1 | Design Lifetime of the plant | | Yr |
| 2 | Site coordinates | | |
| 3 | Project Size | | Mwac |
| 4 | Project Land Area | | ac |
| 5 | Site Description | | |
| 6 | Distance to POI | | miles |
| 7 | Annual Yield | | GWh/yr |
| 8 | Seasonal Yield | | GWh/yr |
| 9 | Project Availability | | % |
| 10 | Average Elevation | | FT a.s.l |
| 11 | Ambient Temperature Recorded (Minimum/Average/Maximum) | | °F |
| 12 | Design Temperature for Operation (Minimum/Maximum) | | °F |
| 13 | Design Relative Humidity | | % |
| 14 | Design wind speed | | mph |
| 15 | Rainfall (Annual Avg/Annual Max/1-day Max) | | in. |
| 16 | Seismic Zone (Zone and ground acceleration values shall be confirmed by the geotechnical study). | | |

| Item | Wind Turbine Generators (WTG) | Responses | Units |
|------|------------------------------------|-----------|-------|
| 1 | <i>Attach datasheets</i> | | |
| 2 | Manufacturer | | |
| 3 | Model Number | | |
| 4 | Wind Turbine Classification | | |
| 5 | Turbine Nameplate for MW | | |
| 6 | Turbine Nameplate for Power Factor | | |
| 7 | Turbine Nameplate for MVA | | |
| 8 | Cut-in Wind Speed | | mph |
| 9 | Rated Wind Speed | | mph |
| 10 | Cut-Out Wind Speed | | mph |

| | | | |
|----|--|--|----------------|
| 11 | Survival Wind Speed | | mph |
| 12 | Standard Operating Temperature Range | | |
| 13 | Cold Weather Package Temperature Range | | |
| 14 | Hot Weather Package Temperature Range | | |
| 15 | Hub Height | | m |
| 16 | Rotor Diameter | | m |
| 17 | Rotor Swept Area | | m ² |
| 18 | Gearbox or Direct Drive | | |
| 19 | Gearbox Manufacturer | | |
| 20 | Gearbox Model | | |
| 21 | Generator Manufacturer | | |
| 22 | Generator Model | | |
| 23 | Blade Manufacturer | | |
| 24 | Blade Model | | |
| 25 | Plant Control Platform / System | | |
| 26 | SCADA for Turbine or complete Wind Farm including MET tower | | |
| 27 | WTG transformer location (up tower, down tower, pad mount) | | |
| 28 | Can the Gearbox be replaced without removing the blades? | | Y/N |
| 29 | Can the Generator be replaced without removing the blades? | | Y/N |
| 30 | How often does the WTG require regular maintenance? | | |
| 31 | Warranty for WTG Performance | | |
| 32 | Warranty for Gearbox (years) | | YRS |
| 33 | Warranty for Generator (years) | | YRS |
| 34 | Warranty for Blades (years) | | YRS |
| 35 | Warranty for Tower (years) | | YRS |
| 36 | Warranty for Other Parts | | YRS |
| 37 | How many of these WTG Models are operational in the USA? | | |
| 38 | How many years has this WTG model been operational in the USA? | | |
| 39 | Please confirm the WTGs meet each of the following conditions: | | |
| 40 | Curtailment Control | | Y/N |

| | | | |
|-------------|---|------------------|---------------------|
| 41 | Voltage Control | | Y/N |
| 42 | Voltage Droop Control | | Y/N |
| 43 | Power Factor Controls | | Y/N |
| 44 | Frequency Controls | | Y/N |
| 45 | Integrated Control of Capacitor and Inductor Banks | | Y/N |
| 46 | Reactive Power Production During Zero Real Power Production | | Y/N |
| 47 | Mechanical Loads Analysis included in SCADA? | | Y/N |
| 48 | Low/High/Zero Voltage Ride-Through | | Y/N |
| 49 | Special Installation Tools Included | | Y/N |
| 50 | Wind Farm Control Management System included in SCADA? | | Y/N |
| 51 | Does the WTG include electrically driven service Lift? | | Y/N |
| 52 | Which of the following WTG options are included in this Proposal: | | |
| 53 | Weather Condition Monitoring System | | Y/N |
| 54 | 24/7 Offsite Monitoring (if yes, how many years) | | Y/N |
| 55 | Icing Detection System | | Y/N |
| 56 | Corrosion protection category for exposed sections | | category C1 - C5 |
| Item | WTG Transformer | Responses | |
| 1 | <i>Attach datasheets</i> | | |
| 2 | Manufacturer | | |
| 3 | Model Number | | |
| 4 | WTG transformer location (up tower, down tower, pad mount) | | |
| 5 | Rating / Cooling | | kVA |
| 6 | Is the transformer Dry-type or oil insulated? | | Y/N |
| 7 | If wet, what is the oil quantity? | | |
| | | | |
| Item | Wind Monitoring Stations | Responses | |
| 1 | Type of System to be Used (Met Towers, LIDAR/Sodar, etc.) | | |
| 2 | <i>Attach datasheets</i> | | |

| | | | |
|----|---|--|-----|
| 3 | Number of towers or LIDAR/Sodar installations | | |
| 4 | Tower or LIDAR/Sodar Manufacturer | | |
| 5 | Tower or LIDAR/Sodar Model | | |
| 6 | Is the tower in accordance to IEC 61400-12? | | |
| 7 | Is the data integrated with the WTG OEM SCADA system? | | |
| 8 | Is remote monitoring available? | | |
| 9 | Provide list of sensors installed and data provided to SCADA system | | |
| 10 | What wind heights (i.e. 40m, 60m & 80m) or range of heights will be measured? | | Y/N |
| 11 | Are met towers guyed or free standing? | | Y/N |
| 12 | Do the monitoring systems have UPS system? How many hours? | | Y/N |
| | | | |