**ANNEXURE MT-2: SEGREGATION OF TELEMETERED POINTS FOR WIND TURBINE GENERATING PLANTS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | | **Unit** | **Data type** | **Remarks** | |
| **Telemetry from WTG** | | | | |
| Active Power | | MW | Analog |  | |
| Reactive Power | | MVAR | Analog |  | |
| Wind Speed | | m/s | Analog |  | |
| WTG CB status | | Boolean | Status |  | |
| LVRT trigger | | Boolean | SOE |  | |
| HVRT trigger | | Boolean | SOE |  | |
| **Plant level Telemetry** | | | | |
| No. of WTG online | | Numbers | Analog |  | |
| Available Active Power | | MW | Analog |  | |
|  | |  |  |  | |
| Voltage Control Mode | | Boolean | Status |  | |
| Voltage Control Set Point (Vref) | | kV | Analog |  | |
| Actual Voltage | | kV | Analog |  | |
| Slope/Droop-Voltage Control  Mode | | - | Analog |  | |
| Deadband-Voltage Control  Mode | | %of nominal voltage | Analog |  | |
|  | |  |  |  | |
| Constant Reactive Power Control Mode | | Boolean | Status |  | |
| Constant Reactive Power Control – Set Point | | MVAR | Analog |  | |
| Constant Reactive Power Control–Actual MVAR | | MVAR | Analog |  | |
|  | |  |  |  | |
| Constant Power Factor Mode | | Boolean | Status |  | |
| Constant Power Factor  Control-Setpoint | | - | Analog |  | |
| Constant Power Factor  Control-Actual | | - | Analog |  | |
|  | |  |  |  | |
| Maximum reactive power  Absorption limit (Q min) | | MVAR | Analog |  | |
| Maximum reactive power  Injection limit (Q max) | | MVAR | Analog |  | |
|  | |  |  |  | |
| Active Power Control mode | | Boolean | Status |  | |
| Active Power Set Point | | MW | Analog |  | |
| Active Power UP Ramp Rate | | MW/minute | Analog |  | |
| Active Power DN Ramp Rate | | MW/minute | Analog |  | |
|  | |  |  |  | |
| Frequency Control Mode | | Boolean | Status |  | |
| Frequency Control Droop | % | Analog |  | |
| Frequency Control UP Dead band value | Hz | Analog |  | |
| Frequency Control DN Dead band value | Hz | Analog |  | |
| Any overriding command received to stall the complete wind farm must be shared  With SLDC/RLDC in SCADA | Boolean | Status |  | |
|  |  |  |  | |
| PPC Inputs from POI | Boolean | Status |  | |

Telemetry from Developer Pooling Station

|  |  |  |  |
| --- | --- | --- | --- |
| Active Power | MW | Analog |  |
| Reactive Power | MVAR | Analog |  |
| CB Status | Boolean | Status |  |
| Isolator Status | Boolean | Status |  |
| Bus Voltage | KV | Analog |  |
| Bus Frequency | Hz | Analog |  |
| Wind Speed | Meter/Second | Analog | From Weather Station |
| Ambient Air Temperature | OC | Analog |
| Barometric Pressure | Pascal | Analog |
| Relative Humidity | % | Analog |
| Air Density | Kg/m3 | Analog |
| Wind Direction | Degrees from  North | Analog |

**Note:**

Developer pooling station shall preferably provide telemetry to the respective SLDC/RLDCs from the Gateway of the Developer Pooling station. In case direct integration of the Gateway is not feasible, telemetry could be provided from Central Control Centre of the developer. However, in case the telemetry is provided from a Central Control Centre of the Developer, efforts should be made to integrate communication to the nearest wideband node of ISTS for transmitting the data to the respective SLDC/RLDCs over IEC-104.