JOB DESCRIPTION

Job Title:	C & I Technician (Control & Instrumentation Technician)
Department:	Technical
Reports To:	General Manager
Location:	Taiba N'Diaye Wind Project

Main Purpose of Role
C & I Technician will be responsible for ensuring/achieving the maximum SCADA communication availability, to ensure the plant maintains a high level of performance.

Key Responsibilities

1. Support the GSAMS Operations and Maintenance (O&M) on the SCADA, control system and plant engineering communications systems.
2. Provide technical support and fault diagnostics on inverter and SCADA networks
3. Analyse failures and availability statistics of communication networks to identify failure trends and initiate corrective actions
4. Work with the functional technical support teams to increase the system performance based on statistical data
5. Develop operational models to provide technical support for internal and external stakeholders, including network connectivity, data collection, and remote hardware management; collaborate with Power Engineering team to improve product support by tracking issues, projects and associated reports
6. Manage SCADA network communication protocols through ethernet, fibre optics or Profibus
7. Liaise with product engineers to define product support documentation and deliver content for publication
8. Perform field and lab test of prototype retrofits and verification of the technical documentation to meet the field engineering needs
9. Assist technical staff with high level of training on communications network
10. Manage and assist with hardware engineering configurations using functional diagrams
11. Conduct Root Cause Analysis (RCA) on all failures relating to the SCADA, control, plant communication systems and inverters.
12. Assist with writing and update of procedures when required (HSE, quality and operational)
13. Validate Weather station data
14. Carry out configuration and maintenance on SCADA used on site, like SCALANCE switches, AS3000 automation servers and other SPPA-T3000 equipment.
15. Carry out configuration and maintenance on control system equipment used on site, like SICAM PAS, Control Box and any other control or communication protocol equipment
16. Conduct annual SCADA and inverter audits and inspections
17. Perform standby duties when requested to ensure the plant and systems availability remain high
18. Enforce HSE compliance with contractors
19. Develop training material and train or mentor new staff
20. Interact with Eskom regional control centre as and when required
21. Assist and contribute to any organisational objective and key performance areas (KPI)

Skills & Competencies

1. Proven competency in troubleshooting and analysing data, including following various types of process charts, schematics, single line diagrams
2. Well organised and responsive in all communications including clear, concise e-mails; adept at writing technical reports and procedures
3. Good team player; able to balance team and individual responsibilities
4. Able to communicate effectively, orally and in writing
5. Able to manage stress and high-pressure situations
6. Able to handle multiple projects, prioritize work and work effectively under no supervision
7. Leadership and mentorship skills

Experience & Qualifications

1. Minimum of a S4 National Diploma Electrical Engineering (Power Electronics)
2. Minimum 5 years' utility experience in power plant or industry experience is desired
3. Working Knowledge of solar PV inverter systems. Previous Siemens SINVERT experience is an advantage
4. Working knowledge of solar PV plants is an advantage
5. Basic understanding of LV switching would be a benefit
6. Experience with lock-out tag-out procedures
7. Experience in communication protocols, like Modbus TCP/IP, Modbus RS485/RS232, Profibus, IEC61850, OPC DA/HDA/XML-DA, etc.
8. Knowledge of rigorous inspections, testing and debugging various electric circuits and specific components
9. Able to read and interpret single line diagrams and schematics
10. SCADA: able to analyse data, investigate and report on trends
11. General ERP/CMMS experience: SAP, Ellipse, IFS, Maximo
12. Working knowledge of Microsoft Office packages including Outlook, PowerPoint, Word and Excel
13. Code B driver's license required
14. Siemens SIMOTION and SINAMICS experience is an added advantage
15. PLC troubleshooting and maintenance is required
16. Must be competent in technical software packages (SPPA-T3000, SINVERT Config tools, SIMOTION, SINAMICS)

Prepared By		Date	