

# COMPETENCY PROFILE

Senior Technician - DC Area - B

A Report By



Position Name : **Senior Technician D** Area

#### Position Details

Job Title	Senior Technician - DC Area - B	Grade/ Level	Supervisory - DC
Business	Adani Green Energy	Function	Solar
Location	Dawara,Kajasar,Nedan,Reewari		

#### Competencies Required

##### Technical

Competencies	Required Level	Criticality
PV Modules - Maintenance Operation	Level 2-Practitioner	Critical C
ACB/SMB	Level 1-Novice	Critical C
DC Cable Management	Level 2-Practitioner	Critical C
Solar Power Plant Technology	Level 2-Practitioner	Important I
Control System Architecture and SCADA	Level 1-Novice	Important I
Weather Monitoring System	Level 1-Novice	Important I
Plant Performance	Level 1-Novice	Important I
Transmission Lines and Grid	Level 1-Novice	Important I

##### Cross Functional

Competencies	Required Level	Criticality
Safety	Level 2-Practitioner	Critical C
ISO Standards	Level 1-Novice	Important I
ESG	Level 1-Novice	Important I
SAP PM and MM Module	Level 1-Novice	Important I

## PV Modules - Maintenance Operation

Level 2-Practitioner

Criticality:Critical C

### Level Indicators

- Types of solar panels cleaning Manual / Non-Automated Cleaning
- Understanding of Module tilting angle mechanism
- Methods of vegetation control
- Visual inspection of structure MMS - Basics of small structures including pillar foundations / rusting / corrosion.
- Visual inspection of MC4 connectors - Basics understanding of MC4 connectors in Solar Array and its healthiness checks and PM
- Basics of earthing checking
- Checking of looseness in Cables connectors and structures
- Module type specification related issues identification inspection rectification operations
- Basics - theory of PV Cell, Material of Construction, Silicon Semiconductors, Multijunction cells, Band Gap
- Faults Issues and Factors affecting PV Module
- Module testing Healthiness check Thermography testing PID Flash test Soling report study
- Type of defects in modules – bus bar corrosion burn marks EVA sheet Glass crack etc

ACB/SMB

Level 1-Novice

Criticality:Critical C

#### Level Indicators

- Understanding importance of an ACB/SMB Distribution Box in the Solar Plant
- Standard protocol for ACB/SMB inspection isolation PM
- Fault identification in ACB/SMB
- Rectification components replacement procedure
- Uses of related tools and safety systems
- Importance of Surge Protection systems components

## DC Cable Management

Level 2-Practitioner

Criticality:Critical C

### Level Indicators

- String cable physical routing knowledge source and destination identification
- Fault removal/ identification
- Importance of HDPE Pipe/DWC pipe Hole sealing
- Cable dressing jointing lugging ferruling

## Solar Power Plant Technology

Level 2-Practitioner

Criticality:Important I

### Level Indicators

- Definition/ Name Plate Details of all the components
- Understanding the AC/DC SLD of the Solar Power Plant
- Components of Solar Power Plant
- Synergy integration of the components

## Control System Architecture and SCADA

Level 1-Novice

Criticality:Important I

### Level Indicators

- Knowledge of SCADA architecture and components
- Knowledge of RTUs PPC PLCs PCs HMIs servers switches firewall Gateway FOTE communication CITET config.
- Knowledge of testing operations rectification monitoring these components and Hardware
- Knowledge of Data monitoring transmission to the control centres ensuring the 24X7 availability at SCADA.
- Knowledge of Protection and escalation of possible cyber-attacks and breaches prepared with emergency response
- Undertake preventive checks as per OEM and knowledge of trouble shooting bugs and issues
- Knowledge of Connectivity RF/Broadband/ILL/MPLS/PLCC trouble shooting, cable slicing

## Weather Monitoring System

Level 1-Novice

Criticality:Important I

### Level Indicators

- Weather Factors influencing the Solar Plant
- Geographic Location- Latitude Longitude Time Regional Weather and Microclimatic factors
- Knowledge of WMStype configurations troubleshooting IOT Apps
- Awareness of Meteo Station and weather forecasting systems
- Sensors and data logging system



## Plant Performance

Level 1-Novice

Criticality:Important I

### Level Indicators

- Data Visualisation - Knowledge of Parameters to be monitored for Performance
- Data Visualisation - Knowledge of monitoring the parameters from SCADA systems
- Data Visualisation - Knowledge using of various monitoring system Power BI DSM F S
- Data Analytics - Knowledge of CUF Bridge, PR Bridge, Loss diagram, repeated errors, Loss reduction, report generation and transmission loss, Plant availability, Grid availability

## Transmission Lines and Grid

Level 1-Novice

Criticality:Important I

### Level Indicators

- Knowledge Compliance with Grid codes
- Troubleshooting methods in Transmission systems
- Coordination for Line Shutdowns
- Knowledge of type of insulators condition monitoring relays operations
- Insulators rectification/ replacement procedures
- Grid operation and coordination
- Coordination with SLDC/RLDC SECI
- Transmission Line patrolling

## Safety

Level 2-Practitioner

Criticality:Critical C

### Level Indicators

- Safety Guidelines awareness applicable for Power Plant
- Knowledge of HIRA / JSA preparation as per the Company Safety Policy OEM Guidelines
- Disaster / Emergency Management Plan Knowledge preparation
- Accident possibilities Identification of Disaster-prone Areas prevention
- Fire Detection Control Process thoroughness Fire Fighting System knowledge
- Encourage drive safety culture for all the team members
- Conducting Mock drills
- Implementation of PTW Systems
- PPE / safety items / equipment's identification applicability

ISO Standards

Level 1-Novice

Criticality:Important I

#### Level Indicators

- Awareness adherence to define process

ESG

Level 1-Novice

Criticality:Important I

Level Indicators

- Awareness adherence to define process

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