# **Dheeraj Agarwal**

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# **RESUME**

## **Synopsis**

Electrical Engineer with 25+ years of rich experience in Power Sector specializing in Digital Transformation of Electrical Utilities, Lab management as per ISO17025-2017, Smart Meters, AMI, SCADA, DMS, Smart Grid, Electrical Utility Commercial Processes, Metering etc., with strong academic background (ME in Power System, Certified Energy Auditor from BEE, 6 $\sigma$  GreenBelt holder & Member of IE).

## Core Knowledge and Skill Areas

 Specialist in Commercial Operation of Electrical Utility, Smart Grids Solutions, Digital Transformation of Electrical Utility, ISO 17025-2017, MDM, DR/DSM, PLM, SCADA, AMR/AMI, ABT, MDAS, Energy Audit and Data Analytics for Power Distribution Utilities.

#### **Publication**

An Article – "Time for a Relook – Reevaluating Energy Meter to Remove Redundancy", Published in Aug-2022 issue of Power Line Magazine.

## **Professional Experience**

1. TP Western Odisha Ltd (TPWODL)

(Sep 2021 - till date)

## Responsible for the AMR & Meter Testing Lab, salient achievements are as:

- Establish, Commissioned the three Nos of Meter Testing Lab with facility of testing Meters, CT & PT from scratch, operation & compliance as per ISO 17025-2017. Implementation of Quality Management System and get audited from NABL All three facilities are suitable to test all type of Meters as per IS 13779, 14697 & 16444 (part1 & part2).
- NABL accreditation received for Meter Testing Lab.
- Architect of Smart Meter project, validation of specification of Smart Meter, HES and Integration with MDMS.
- Improve Modem Communication success rate by resolving different issues. Achieve More than 90% consumer billing on 1st of every month. (EHT & HT Consumer Category).
- Identified Suspected cases by Data Analysis and so organization claim additionally 4+ Cr revenue.
- Verify the Energy Audit Reports of DISCOM in the capacity of Energy Manager as per Gazette Notification of Gol.

Perform pivotal role in evaluation under PAT scheme.

### 2. PricewaterCooper house Ltd.

(Dec 2018 – Aug 2021)

- Providing Consultancy to Jodhpur DISCOM on current issue of RAPDRP, CCC & SCADA. Presently DISCOM is using 17 software's using as per defined SRS including MDM.
- Providing Consultancy to Jodhpur DISCOM on Smart Meter & associated app like MDM, PLM, DSM and AMI, SCADA, DMS, IT project and future roadmap.
- Prepared RFP including Technical Specifications for Smart Meter Project (1.25 lacs), Evaluation of technical response and monitoring of project progress.
- Assist DISCOM to take decisions on AMI project (40K) on various issues.
- Providing consultancy to MP DISCOM for MDM development.
- Project Delivery of IEC project for Energy Department of Jharkhand.

## 3. Independent Trainer & Partner in Eco Smart Solutions

(Oct 2017 - Nov 2018)

- Deliver Training on behalf of EnY for Capacity Building in DISCOMS for Demand Side Management.
- Providing Consultancy to Jodhpur DISCOM on behalf of EnY on Smart Meter & associated app like MDM, PLM, DSM and AMI, SCADA, DMS, IT project and future roadmap.
- Developing Ecosystems for automation projects for electrical utility.

## 4. Wipro Ltd

Designation: Principal Architect

(Jun 2010 – Oct 2017)

Main Responsibility:

Domain Knowledge Support to Team during Tender Response Preparation, Project Implementation, Eco System building for Power Sector Solution, Project Management, Partner Management Delivery of Smart Meter Project.

#### Following Project Delivered

- 1. Represent Wipro in various government forum (CEA, MoP, PGCIL, NSGM etc) for policy making related to Smart Grid. Smart City standards
- 2. Delivery Manager for Tripura Smart Grid Project

(Nov 2015 – Nov 2016)

Project Description: Smart Grid Project having 45000 smart meters on PLC and various IT application (PLM, DSM, DR, MDM), & Integration with DISCOM legacy software's like Billing, CRM etc. Responsibility:

- - Project Management from conceptualization to implementation,
  - Customer & Consultant Management
  - Meter Partner Management
  - Support & impart Training to Team for domain knowledge.
- 3. Solution Architect for RAPDRP project ITIA project.

(May 2012 – Jun 2014)

Project Description: RAPDRP Project for J&K, DC, DR, CCC creation, implementation of 19 Applications including MDM, Bandwidth, Modem Installation and associated activities Responsibility:

- Design of Solution, Stich of various modules, Identification of all Integration points as per business processes among all software applications
- AMI of 25K Meters
- Customer & Partner Management
- Training to team and customer
- Domain knowledge Support to Team
- 4. Solution Architect of CESU RAPDRP Project

(Feb 2017 - Oct 2017)

Project Description: Implementation of SAP ISU solution for RAPDRP project in CESU Responsibility:

- Design of Solution, Stich of various modules, Identification of all Integration points as per business processes among all software applications
- Customer Management
- Domain knowledge Support to Team
- 5. Project Manager for OMS implementation in NPCL

(May 2015 – June 2017)

Project Description: Oracle OMS Implementation, Integration with SAP & GIS Responsibility:

- Project Management,
- Customer Management
- Domain knowledge Support to Team
- 6. Delivery Manager for Oracle ERP Sustenance project for GUVNL (Jul 2014 Jun 2015)

Project Description: Oracle ERP after implementation support for 7 companies of Gujrat, Responsibility:

- Project Management,
- Customer Management
- OEM Management
- 7. Different Pilot Project delivery:
  - Smart Grid Pilot project in Ahmedabad
  - Historian implementation Project for Wipro Water
  - Identify security vulnerability in IT OT project for Tata Power Delhi Project Manager
  - Gap Analysis of existing nonfunctioning SCADA at Thimphu Project Manager

## 5. Secure Meters Limited - Entity Group

(Secure Meters Limited is India's leading energy meter manufacturing company providing comprehensive energy metering solutions, revenue management services to electricity utilities in India)

Designation: Manager 3 (Dec 2005 – May 2010)

Service Design Group - Team Leader

Responsible for Service Designing of different services executed by the company like Energy Audit, Meter

Data Analysis, GIS based Consumer Indexing, MDM for RAPDRP Projects taking care of all SRS

functionality and said milestones with special focus on delivering value added quality services to each

customer.

Identified opportunities for reducing delivery cost and increasing operational efficiency in all services

Continuously evaluated the in-house software and hardware products vis-à-vis market needs on a regular

basis and support Product Manager in managing Product Life Cycle

Evaluated 3<sup>rd</sup> party vendor for necessary tools and software development and grooming them by working

in conjunction

Designed project specific Management Information System (MIS) for taking better decisions

Investment Grade Energy Audit of 5 Nos of Government Building – Project Manager

Client BEE

Scope Visit the 5 Nos of Government Building (RDSO Lucknow, IT building Lucknow, Kisan Mandi Lucknow,

CLW complex west bangal, GM Building Railway Allahabad) site and calculate energy consumption

per year per sqm. Identify improvement area for energy conservation. Proposed Energy Conservation

method and calculate ROI for each method.

Revenue Management for NDPL (A TATA Power Group) - Project Manager

Client

NDPL. Delhi

Scope

This includes application of different suite of revenue management applications like (a)

Carrying out DTL bill verification between DTL and NDPL measured points, (b) Energy

accounting across different segment of distribution system (NDPL measured point - 11kV

feeder level, feeder - DT and DT - End consumer) (c) Generating related MIS report (d)

Monthly meter reading of approx. 0.6 million consumers (e) Monthly billing and tamper

analysis of high valued HT consumers (f) Regular metering system (CT/PT/Meter) testing of HT consumers (g) Implementation of pre-payment metering system for early revenue

reorganization. This includes data collection from meters spread geographically in entire

NDPL on a Monthly basis and documenting the same in software.

6. CMC Limited

Designation: Senior Engineer - System Integrator

(Apr 2001 - Oct 2005)

**SCADA Implementation – Team Leader** 

Clients - Jaipur Vidyut Vitran Nigam Limited

**Scope** – Automation of 16 Nos of 33/11kV substation and 5 Nos of 132/33/11kV GSS. It includes to captures complete analog and digital data on real time basis and control the circuit breaker remotely.

#### Responsibility

- Study the complete GSS & EHV / HV network and collect all relevant information.
- Lead the Implement, Integrate & Commissioned the complete SCADA system
- Training imparted to customer personal
- Various technical support to Business Development Group (Demo of system, Technical support to Tender etc).

# Technical Study for SCADA implementation on 66kV Ring Main of Ludhiana City

Clients - Punjab State Electricity Board

Scope: Prepare a DPR to access feasibility of SCADA implementation for Substation Automation.

#### Responsibility:

- Study the system and gather various data
- Prepare DPR covering investment detail and simple payback.

## Remote Controlled Load Management System (RCLMS)

Location: Haryana: Shahbad 220/132kV GSS Control Center

Client: HVPNL, Haryana-Discom

#### Main project features:

The Project envisaged Demand Side Management Systems with Real Time Data Acquisition, LT Side Circuit Breaker Controls for Automatic Load Rostering of 210 Nos. of 11kV/.4 Distribution Transformers (Amorphous Core) on 2 Feeders, over 25Km+ area with GSS Control Centre at 33/11kV GSS Shahbad for the HVPNL, Haryana-Discom.

The Oil Temperature and Oil Level of distribution transformers were monitored for automatic trip / auto reclose on temperature rise and low Oil level including transient fault & T&D Loss management automatically.

The RTUs were integrated with the 100kVA/ 66kVA / 25kV DTRs for secondary LT Tele-Metering, Motorised Circuit Breaker Controls and Fault management with dedicated Point To Multi Point UHF (849-943Mz) Radio network as the communication backbone for the real time System.

#### 7. Rajasthan State Electricity Board

Designation: Junior Engineer

(May 1997 - Mar 2001)

- Provide support to CMC engineer in implementation of SCADA at different substations.
- Worked in O&M where responsible for supply maintenance, new connection, disconnection and reducing arrears in the area.

## Training, Certifications, and Awards

- <u>Certified Energy Auditor</u> from Bureau of Energy Efficiency 2009
- Certified as Internal Quality Auditor (ISO 9000:2001)
- Certificate of <u>Six Sigma Green Belt</u>
- Certificate for Lab Management System as per ISO 17025 2017 from STQC Pune
- Certificate for Measurement Uncertainty from STQC Pune

- Advance Certificate in Power Distribution Management from IGNOU 2009
- Concepts of ABT Tariff Systems
- Concepts of GIS and its application in Power Sectors

Educational Background		
Malaviya Regional Engineering College, Jaipur		1997
Master of Engineering in Power System	75.95%	
Malaviya Regional Engineering College, Jaipur		1995
Bachelor of Engineering in Electrical Engineering	65.50%	