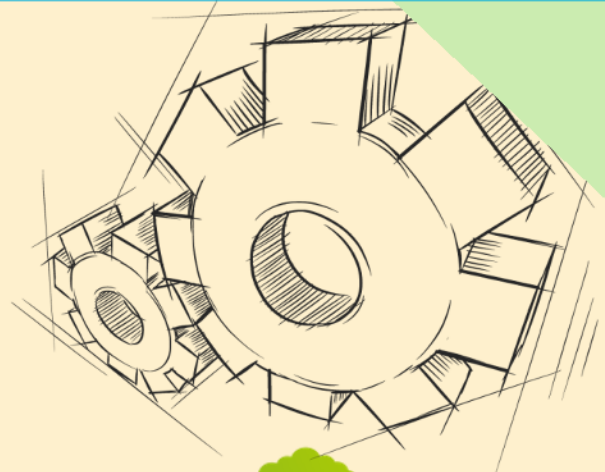


COMPANY BUSINESS PROFILE



DIRECTOR DESK

We at Abvolt Engineering & Consultancy Pvt Ltd uphold the ethos and values of the highest & best Industrial & Engineering Standards. We are a diverse team of engineers from fields like - Electrical, Mechanical Structural, Control and Instrumentation, and Civil who decided to combine their experiences over the years and use their collective expertise to form this Consultancy Startup and support organizations with a variety of services.

Our Team consists of experts from all domains & branches of engineering. From Design & Consultancy to Project Management, Maintenance & Commissioning, we offer the most cost-effective & viable solutions to industrial challenges like technical, finance, recruitment, import/export & technical audit for a variety of industries.



Ashis Dev
Director



“ TRUST OUR PROFESSIONAL

WHO ARE WE?

Abvolt Engineering & Consultancy Pvt Ltd, Abvolt Engineering & Consultancy Pvt Ltd We have come forward to help the industries with our past experience so that the problem faced may be addressed successfully. In past we have encountered different kind of industrial/engineering issues in our work domain and those are resolved by technical trial and error method which are documented as probable/firm solutions to different issues. With these rich experiences and data bank we are ready to help to solve any typical/critical/perennial industrial/engineering issues.

Any industry is comprising of electrical, mechanical and civil area/work. No industry can survive with only domain knowledge expertise. We have experienced engineer in different field of industries. So it is easy to solve the problems as we have experience in power sector design and operation.

Abvolt Engineering & Consultancy Pvt Ltd is a team of expert engineers of different wings of engineering mainly electrical, mechanical Structural and civil in a gathering those experts decided to share their expertise among themselves. Afterwards everybody decided that they can export their combined expertise to other industries and new team of enterprise. Thus, the team formed a consultant establishment.

Our teams of experts are from different branches of engineering. Some of them are from and design & consultancy cell and some of them are from project & maintenance. Our team can offer suitable solution of workload and can offer how to minimize cost. The team can handle relative matters of technical, finance, recruitment and import/export for verity of industries.

Flexible solutions for ENGINEERING & CONSULTANCY PROVIDES

A TOTAL END TO END SOLUTION Your business needs ”



BUSINESS STRATEGY



COMPANY OBJECTS

Consulting engineering is a professional service that provides basic, detailed engineering and construction monitoring/ supervision services for all types of project to diverse nature of clients – governments, lenders, private companies/ owners, industries, developers or contracting companies.

The engineering profession in India has also attained world class standards in providing services for multi-disciplinary complex and large projects as is evident from the large number of engineers working on projects abroad either from their home office or a project office abroad.

Abvolt Engineering & Consultancy Pvt Ltd is usually engaged for ability to provide appropriate and cost-effective solutions, world class standards and their ability to adapt and transfer the technology and designs for execution of new projects or for expansion of existing projects.



COMPANY VISION

Abvolt Engineering & Consultancy Pvt Ltd (AECPL) lucubrates its vision to be the pioneer in helping its customers fruitfully/successfully by catering to their exact needs and counseling in a befitting manner ensuring our ultimate aim and motto of service.



COMPANY MISSION

Our mission will always attach utmost importance of the strategic quality of our job support and usual time-frame to be at par with the competitive market of the industry and to achieve our status fruitfully in the successfully global market in future.



OUR ENGINEERING & ADVISORY TEAM

- **Ashis Dev:** -B. Tech in Instrumentation& Electronics Engineering from Jadavpur University with 36 years of Experience in Project Management, Commissioning and O&M of various Power projects of NTPC & NSPCL. As Chief General Manager (Operation Services), NTPC Corporate Centre, handled power Stations at various stages like Erection, Commissioning & Maintenance of Sub-Critical as well as Supper Critical Power Plant Automation System. Presently associated as Sr. Advisor HPGCL and ISA, (Delhi Chapter) & Senior Faculty of NTPC PMI (Power Management Institute).

Associate Consultant:-

- **Sidhartartha Sen** :-An Experienced & accomplished Electronics Engineer from Jadavpur University with 40 years experience in Management, Engineering and Execution of Transmission sector. As Executive Director, Power Grid India Corporation Ltd (PGCIL), contributed a lot in transmission & distribution sector in India, specially in 735 KV Transmission, HVDC & Other areas. At PGCIL, he headed many important Task Forces for State of Earth Sub-Station Control.
- **Bhaskar Sengupta:**- A veteran Electrical Engineer with 45 years of Experience in various Power projects having worked for WBSEB, Kolkata as Chief Engineer- Transmission handled power project management from concept to commissioning.
- **Debasis Roy Chowdhury:**- Tech in Electrical Engineering from Jadavpur University with 38 years of Experience in Project Management, Commissioning and O&M of various Power projects of NTPC. He retired as General Manager, NTPC during his long service tenure in NTPC he worked in power Stations at various stages like Erection, Commissioning & Maintenance of Sub-Critical as well as Supper Critical Power Plant Electrical (specially in 765/400/132 kV Switch Yard) System.



IDEAS THAT PROVOKE

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HOW WE WORK

Our objective is to offer Total Client/Customer Satisfaction through Engineering & Technological Proficiency and Professional Services in the Area of Energy and Environment, Fuel, Air, Water & Waste Water Management and Transmission Drive Systems.



Abvolt Engineering & Consultancy Pvt Ltd is committed to comply with the requirements of its Clients and continually improve the effectiveness of its Quality Management System by:

- Providing Quality Products and Consistent Services on Agreed Specification and Delivery Time Schedules.
- Optimum Utilization of its resources and cost effectiveness
- Enhancing Client satisfaction levels.
- Involvement of employees through training and development.

Abvolt Engineering & Consultancy Pvt Ltd is committed to comply with The Indian Standards (IS), Bureau of Indian Standards (BIS) & International Electrotechnical Commission (IEC) standards (with latest or superseded versions) as applicable, however Client Specific Standard also being followed during time of design engineering.

OUR CLIENTS & PROJECTS



ALTMAN POWER INFRA PVT LTD

- Pre bid Engineering Drawing Services for Conceptual Plant Layout Drawing for SSP Package
- Engineering & Drawing Services for heat balance diagram for Steam & Power Plant



CABCON INDIA LTD

- Engineering & Drawing Services for Steam & Power Plant 33/11KV Sub Station & 33/11Kv Grid Sub Station under NBPDC



BLUE STAR LTD

- Pre bid Engineering Consultancy service for 765/400/220 KV GIS Sub Station Project at Bhadla-II under PGCIL
- Pre bid Engineering Consultancy service for 110/11 KV Sub Station Project at Belgum under KSPTCL



EVERLITE ENGINEERING INDUSTRIES PVT LTD

- Basic Engineering Services at ONGC GAS Injection facilities, Assam GAS Injection Plant-Execution
- Earth Mat Desig of GANOL Hydro Electric Project, Tura Meghalaya



MONTECARLO LIMITED

- Pre bid Engineering Consultancy service for Development of 2X 400/220kV, 500MVA GSS at Sangod along with 220/132kV, 160 MVA transformer and associated transmission line i.e. 7.5 Km LILO of One Circuit of 400 kV D/C Kalisindh (400 kV) – Anta (765kV) line at 400 kV GSS Sangod-under RAJ-PPP-11
- Detailed Engineering Consultancy Services for 220/132/33KV GSS at Bikampur & Sawa, Rajasthan
- Detailed Engineering Consultancy Services for 220/132/33KV GSS at Kumhari, Chattisgarh



NAVODIT PROJECT PVT LTD

- Design Engineering & Drawing Services of 33/11KV Sub Station at Mansi Industrila Area & 11KV, 33KV Distribution Line at Barsoi GSS to 33/11KV Salmari & Balia- Belaun PSS, 33/11KV Bhelwa PSS, 33/11KV Khurda under NBPDC



AI ELECTRICAL

- Engineering & Drawing Services for WOW Momo Tower Engineering Consultancy at WOW Momo Tower, Kolkata



AKS VENTURE PVT LTD

- Design Engineering & Drawing Services of 33/11KV Sub Station at Basaitha & Parsahi West under NBPDC



SUNESONS ENGINEERING & FABRICATIONS (P) LTD

- Engineering & Drawing Services of LT PCC, & Main Panel and other accessories Panels



KANTI PRASAD MITTAL INFRA PVT LTD

- Design & Engineering Consultancy Services for construction of 02 nos 400KV Line Bay alongwith one no Tie Bay Extension GIS Sub Station at Naubatpur, Patna



LARSEN & TOUBRO CONSTRUCTION LIMITED

- Power System Studies for LOT 1A, LOT 1B & LT 1C- Insulation Coordination Studies - TOV, LIOV, VFTO Performance analysis (Lot- 1A), Switching Studies covering TRV analysis of selected feeder/SCLR and transformer energization studies (Lot 1A, Lot 1B & Lot 1C) at TANE, TDPS & EMAL SS, Abu Dhabi, UAE

OUR SERVICES

Abvolt Engineering & Consultancy Pvt Ltd apply proven, robust and reliable Engineering design solutions to manage and deliver large, complex projects Low & Medium voltage platforms and in challenging climatic and topographic conditions (including high altitude regions).

We are also doing the consultancy job of Pre & post tender activities. Like; Preparation of technical bid & estimation in respect of the requirements of the scheme, Bill of Material, cable schedule, termination schedule, SLD, switchyard layout, trench layout design and drawings of associated civil/ Mechanical /Structural work.

Our Design & Engineering Offerings:-

- Pre-feasibility & Feasibility Reports
- Detailed Project Reports
- System Studies
- Frontend Engineering Design (FEED)
- Detailed Engineering



OUR BUSINESS AREA

Abvolt Engineering & Consultancy Pvt Ltd is a group of Engineers and Professionals with wide and diversified experienced in India and abroad in Quality Engineering Services. We have rendered an Engineering & Consultancy business, especially in the undernoted areas: -

- A. System Design Engineering of Bulk Material Handling Plant
- B. Basic & Details Engineering Services of EBOP (Power /Steel/Aluminum Plants)
- C. EHV/MV Sub-station, Transmission & Distribution System design
- D. Industrial Energy Audit
- E. Tender evaluations and Pre-bid Engineering & BOQ Estimation services
- F. Earthing, Lightning & Illumination (Indoor & Outdoor) system design
- G. Engineering Maintenance & Training Manual Preparation
- H. Power System Studies

FEATURED WORK

Our ultimate goal is to consistently provide a high level of service. By close co-operation with our client and partners, we get the best results. We closely match the expectations of our client and their financial capabilities to the objectives.

A. SYSTEM DESIGN ENGINEERING OF BULK MATERIAL HANDLING PLANT

Abvolt Engineering & Consultancy Pvt Ltd offers engineering services related to Material Handling Plant (Like; Iron Ore, Coal, Lignite, Aluminum, etc). We provide basic, detailed engineering and construction monitoring/ supervision services of Material Handling plant. Complete System Design Engineering of Mechanical / Civil & Structural / Electrical including power system protection schemes.



Our Design and Engineering team work in the following areas of Material Handling Plants:-

- Electromechanical Engineering
- Industrial Civil & structure Engineering
- Automation & Instrumentation Engineering
- Utilities Engineering services

We offer AutoCAD® drafting services to provide for both mapping and design needs. We can produce AutoCAD® drawings of Electrical/Mechanical/Civil & Structures, system wide layouts, Sub Station, transmission and distribution systems.

B. BASIC & DETAILS ENGINEERING SERVICES OF EBOP (POWER/ STEEL/ ALUMINUM PLANTS)

Abvolt Engineering & Consultancy Pvt Ltd offers basic engineering services consisting of Site visits, Data collection, Preliminary discussion/Kick off meeting with Client, Design Basis Report, Engineering drawings, Design calculations for High /Medium/ Low voltage Electrical systems and equipment. Engineering work covers Electrical, Civil, Structural, Mechanical, and Controls & Instrumentation of Power/Steel/Aluminum Plant.

Engineering Drawings: Single line diagram (SLD), Relay & Metering SLD of power plants / substations / industrial power distributing projects, breaker /disconnects/ ground switch control schematics, HV/MV switchgear schematics and wiring diagrams, Electrical layouts consisting of equipment layout, switchyard layouts, Equipments Supporting Structure, Cable Trench, Equipment Mounting Structure, Control Building, etc.



Design calculations: Breaker/Transformer sizing calculations, Grounding / Shielding (DSLSP) / Illumination calculations, Cable sizing & Cable Schedule, Neutral grounding equipment sizing calculations, AC/DC auxiliary system sizing calculations including battery & charger sizing, Short circuit force and insulator spacing calculations (for HV Sub Station), Sag & tension calculation and stringing chart, CT & PT sizing calculations, Relay setting calculation, etc.



Abvolt Engineering & Consultancy Pvt Ltd also offers engineering services related to Protection and Coordination including power system protection schemes any LT distribution voltage, as well as distributed generation interconnection protection and diesel generator protection schemes. We have experience in designing relay control panels, performing fault current calculations, coordination studies and programming protection systems equipment.

We can offer protection and coordination services related to new projects and modifications to existing protection installations by means of adding new protection aspects, upgrading, or updating existing protection devices.



Abvolt Engineering & Consultancy Pvt Ltd offers engineering services related to the Design, Engineering, Construction, Erection, Testing, and Commissioning support of grid connected Solar PV plant along with power evacuation system up to ISTS/InSTS/DISCOM substation for the allocated capacity.

- Basic & Detail Engineering of the plant and systems and equipment system(s) including civil works.
- Topographical survey & Geo-Technical investigation

C. EHV/MV SUB-STATION, TRANSMISSION & DISTRIBUTION SYSTEM DESIGN



Abvolt Engineering & Consultancy Pvt Ltd offers engineering services related to the design and project management for new construction or modification of existing distribution EHV / MV substations, transmission breaker stations and step-down stations.

We offer the following services with respect to Substation design:-



- Basic Design & Engineering of EHV / MV station to fit your facility requirements of Client.
- Geotechnical Investigation with Topography, Site Survey
- Detailed design of all the equipment and system(s) including civil works.
- Support/technical assistance for review and approval of engineering drawings, data, process calculations, testing procedures, structural design calculations, Equipment layout, Drawings/Data sheets of bought out items, Civil structural/architectural Drawings, Performance & Guarantee Test procedure etc.
- Providing Operation & Maintenance/ instruction manuals, as built drawings and other information

- Finalization of sub-vendors, manufacturing quality plans and Field quality plans.
- Specification and technical detail preparation for procurement of materials and equipment.
- Coordination of the bidding process for station materials and equipment also for erection contractor of the station
- Conduct site inspections during construction
- Prepare closeout documents

Abvolt Engineering & Consultancy Pvt Ltd can specify and prepare contract documents as well as evaluate quotations on materials and equipment. Once the materials and equipment are ordered, we can work with the suppliers to ensure timely receipt exact equipment to satisfy the (client) needs.

We can also conduct transmission and distribution system Sectionalizing Studies. An accurate Sectionalizing Study is key to limiting outages in terms of occurrence and lengths. AECPL offer the following services with respect to Transmission design:-

- Walk over survey (interval level by using GPS) and report comparison of three alternative route with detail report
- Basic Engineering of the plant and systems.
- Topographical survey & Geo-Technical investigation
- Detailed design of all the equipment and equipment system(s) including civil works.
- Cumulative Estimation BOQ of Transmission line
- Prepare closeout documents



D. INDUSTRIAL ENERGY AUDIT

Energy saving is the main vision of every country and that energy auditing is required for every industry to minimize their energy consumption. Thus we are benefited by two ways. The electricity bill will be reduced and cost of production will be reduced. The industry will get more profit and will be able to compete with others.

Our main motto is to reduce the control of global warming and by educating the common workers (people) regarding global warming and by changing a little bit habit we can reduce it. We can help analyze the impacts that an interconnection will have on a power system and provide a full impact study report.



By analyzing the effects of the interconnection of the distributed generation, we are able to make recommendations to utility clients regarding any necessary system improvements to facilitate the connection. We can then, as necessary, provide protective settings for interconnection switching equipments etc. by which design engineering activity will be guided.

E. TENDER EVALUATIONS AND PRE-BID ENGINEERING & BOQ ESTIMATION



Abvolt Engineering & Consultancy Pvt Ltd provides Tender evaluations works, with economical and project friendly recommendations to client and providing assistance to client for placement of orders by issuing technical specifications, tender evaluation, recommendation report and suggestion for equipment and system procurement.

We provide Walk over survey (interval level by using GPS), Geotechnical investigation Pre-bid Engineering & Design services to help Client/ EPC contractors to prepare their techno-commercial offers.

We Provide comprises of (Electrical/ Mechanical/Civil) estimation works for Material handling Plant, Substation, Transmission Lines and Other Industrial systems.

- Walk over survey (interval level by using GPS) and report comparison of alternative route with detail report of Transmission Line (upto 765KV)
- Preparation of Profile with tower schedule Transmission Line (upto 765KV)
- Geotechnical investigation Test & Soil resistivity Test
- Substation Topography Survey and drawing
- Cumulative Estimation BOQ of Transmission line & substation including civil work
- Prepare closeout documents

F. EARTHING, LIGHTNING & ILLUMINATION SYSTEM DESIGN

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Abvolt Engineering & Consultancy Pvt Ltd Provide the earthing & lightning protection design Engineering solution comprise of earth mat & electrodes with an interconnecting earth grid and lightning earthing terminals, roof conductors, down conductors, test links and earth electrodes for all kinds of Industrials application like, Material handling Plant, substation and other convenient places, equipment level too.

We are expertise in residential and Industrial Indoor & Outdoor Illumination cost effective (**DiaLux**) design as per Client requirements and Engineering standard & Practice.

We offer high quality outdoor lighting solutions based on latest technology at competitive energy efficient solution.



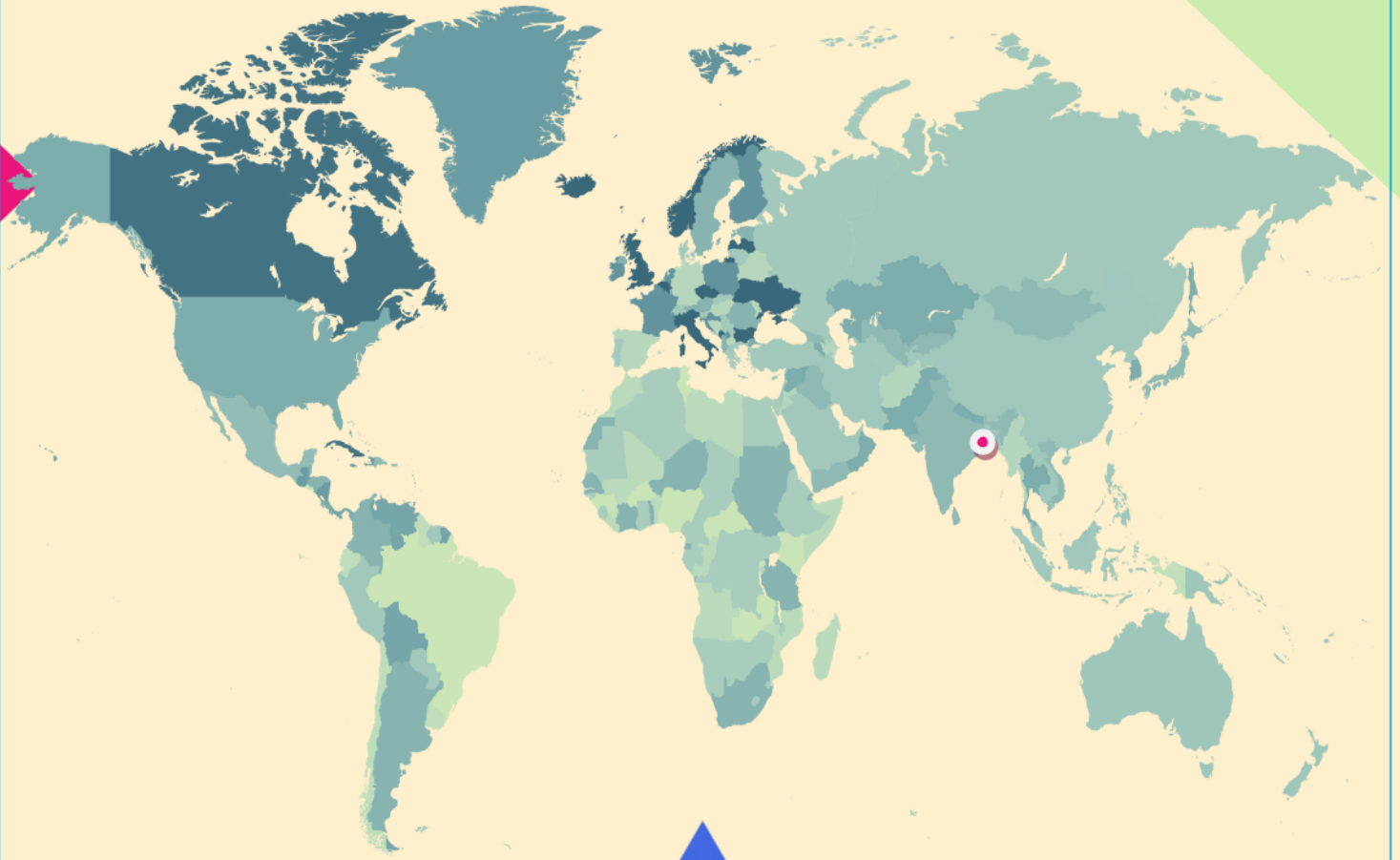
G. ENGINEERING MAINTENANCE & TRAINING MANUAL PREPARATION

Abvolt Engineering & Consultancy Pvt Ltd offers Engineering Maintenance & Training Manual in a small/medium size, as per the client requirements. These offers include all overhead and underground distribution assembly drawings with material lists, specification, operation details, which are a great reference tool for operations crew members.

H. POWER SYSTEM STUDIES

- Basic Engineering of the plant and systems.
- **Insulation Coordination Studies** for the EHV Switching Station including the interconnecting Grid Stations for selection of Switching Surge Protection Equipment.
- **Switching Studies- It's** Covering TRV analysis of selected feeder /SCLR and transformer energisation studies
- Switching Studies Covering TRV analysis of selected feeder /SCLR and transformer energisation studies
- **Harmonic Study**
- **Protection Setting Studies** (These studies will be done in **DIGSILENT** software)





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FOR MORE INFORMATION