



Statement of Capabilities

in Renewables

***Harnessing & Implementing Solar Power
In Ways That Promotes Green Growth***





MESSAGE

FROM FOUNDER

Rajya V Kajaria

LSI Group was established with the mission of providing comprehensive business solutions within the Financial, Techno-Commercial and Technical sector. Over the past 25 years, we have built trusted relationships with our clients, sharing their vision for growth. Our team, comprising seasoned industry experts and emerging talent, delivers deep functional insights and innovative strategies that drive business excellence. Through our collaboration, clients benefit from increased productivity, enhanced efficiency, minimised risks, optimised costs, and time-efficient solutions. Today, LSI Group has a robust PAN-India presence, offering end-to-end business solutions across diverse industries and sectors.

The global economy is presently confronted with a dual challenge: addressing the increasing demand for energy while simultaneously reducing carbon emissions, and enhancing energy efficiency. Adoption of renewable energy is a unified strategy to create a favourable environment for achieving both objectives. Ubiquitous solar energy offers a sustainable solution for an enhanced energy security and cleaner environment in the face of climate change and ecological deterioration. In the field of renewable energy, we take pride in our various service capacities contributing to 17 GW of installed power capacity. As we look towards the future, the key to unlocking the full potential of solar energy lies in efficient Battery Energy Storage Systems (BESS) in place. BESS effectively solves the intermittent supply problem of solar energy enhancing grid stability, and optimizing energy consumption patterns, bridging the gap between power requirement and availability. At LSI Group, our expertise is in providing end-to-end comprehensive solutions from both technical and financial aspect, by committing to be a partner in the growth story of our clients, empowered by advisory on solar energy and BESS development, paving the way for a more sustainable and energy-secure India.

OUR HOLISTIC SERVICES IN RENEWABLE & BESS

FINANCIAL

1

- Advisory Services for Debt
- Financial Due Diligence
- Transaction Advisory
- Mergers & Acquisitions
- Resolution Plan / Support Services
- Process Advisory Services

TECHNO COMMERCIAL

2

- Financial & Technical Appraisal
- Techno Economic Viability (TEV)
- Lenders Independent Engineering (LIE)
- Technical Due Diligence

Asset Valuation



- Enterprise Valuation
- Valuation of Brand & Intangible Assets
- Valuation of Merger/Demerger
- Purchase Price Allocation
- Industry Reports

TECHNICAL

3

- Contract Progress & Performance Monitoring
- Bid Advisory
- Feasibility Studies & Detailed Project Report (DPR)
- End to End Project Management Services (PMC/PMU)
- Market Assessment & Strategy
- Engineering Services (Basic / Detailed Designs)
- Operational & Process Improvement



OUR LEADERSHIP TEAM

MR. ANSHUMAN NATHANY Joint Managing director - Investment Banking

QUALIFICATION :

B.Com (Hons.)

EXPERIENCE : 30+ Years

EXPERTISE:

An experienced finance professional, carrying more than three decades of experience in merger & acquisition, financial advisory, bankruptcy law, debt restructuring & PE Advisory. Has sectors specific knowledge and adept in customizing the financial solutions to the requirement of the corporate.

MR. AJEET KUMAR MISHRA Joint Managing Director - Renewables

QUALIFICATION :

Bachelor of Engineering (EEE)

EXPERIENCE : 15 Years

EXPERTISE:

Solar Photovoltaic Project Engineering Design, Planning & implementation in MW Scale grid – Ground Mount and Rooftop

MR. AVIK DAS

Senior Vice President - Investment Banking

QUALIFICATION :

B.E. & M.B.A & A.C.M.A (ICWAI)

EXPERIENCE : 20+ Years

EXPERTISE:

Seasoned finance professional retaining experience of working in financial institutions of repute. Proficient in Project Finance, Corporate Banking, Investment Banking ,Corporate Advisory. A noteworthy name in the field of advisory of term loans for large projects, assessment of credit, business & operational risks associated in the loan proposals.

MR. KARTIKEYA SRIVASTAVA Vice President - Investment Banking

QUALIFICATION :

Master of Management Studies (Finance)

EXPERIENCE : 21+ Years

EXPERTISE:

Extensive experience and proven track record of working with reputed banks. Proficient in the field of credit appraisal, structuring of debt, trade finance and project advisory.

STATEWISE MAJOR ASSIGNMENTS

Assam

Capacity : 200 MW

Haryana

Capacity : 3,019.8 MW

Uttar Pradesh

Capacity : 683.55 MW

West Bengal

Capacity : 48 MW

Rajasthan

Capacity : 14,787 MW

Odisha

Capacity : 60 MW

Madhya Pradesh

Capacity : 1,212.15 MW

Andhra Pradesh

Capacity : 731.9 MW

Maharashtra

Capacity : 3,140.1 MW

Kerala

Capacity : 125 MW

STATEWISE MAJOR ASSIGNMENTS

Himachal Pradesh

Capacity : 280 MW

Uttarakhand

Capacity : 8.7 MW

Punjab

Capacity : 403.5 MW

Jharkhand

Capacity : 6 MW

Chattisgarh

Capacity : 707 MW

Gujarat

Capacity : 2,912.15 MW

Telangana

Capacity : 75 MW

Others

Capacity : 23.34 MW

Karnataka

Capacity : 3,353.7 MW

OUR EMPANELMENTS

Banks



Central Public Sector Enterprise



Financial Institutions



Govt. Bodies

Port

Others



Asset Reconstruction Company



State Public Sector Undertaking



OUR CLIENTELE



LSI FINANCIAL SERVICES PVT. LTD.

Debt Advisory Services - Business Unit

Founded in 1997, LSI Financial Services Pvt. Ltd. is recognized as a Category 1 Merchant Banker by SEBI. We offer Advisory Services for Debt Raising including Project Finance, Working Capital, Acquisition Funding etc. Our team comprises of 150+ professionals, including senior former bankers and prominent industry specialists. LSI Financial Services Pvt. Ltd. has accumulated extensive experience across sectors over the last 25 years. Today, LSI operates PAN India, providing its financial solutions to companies across sectors and geographies.



LSI have successfully **completed more than 150 debt division projects**. We have leveraged our expertise via multiple debt advisory projects in the power sector and have achieved proficiency specifically in renewable energy sector.

OUR SERVICES

We specialize in delivering tailored financial solutions that help corporates to optimize their strategies and achieve the most effective capital structure, enhancing stakeholder value and ensuring sustainable growth and long-term profitability.

Advisory for Debt



Our team delivers optimal funding solutions, ensures timely arrangements and secures favourable terms for our clients.

M & A Assistance



Expertise in buy-side and sell-side advisory services for mergers & acquisitions.

Financial Due Diligence



Evaluates the financial health of the business in order to identify any risks and improve decision-making.

Advisory for Restructuring



Advising clients on restructuring debt to improve financial health.

LSI ENGINEERING & CONSULTANTS LTD.

SOLAR - Business Unit

Founded in 2015, LSI Engineering & Consultants Ltd. provides unparalleled technical expertise and advisory solutions in the renewable sector. With a portfolio exceeding 16+ gigawatts (GW), the company has contributed significantly to the development of sustainable energy projects across India. Our seasoned technical team, having extensive on-field experience, is equipped to deliver premium quality and time-bound solutions. We are dedicated towards India's clean energy transition by offering energy-efficient strategies.



**Project Management -
PMC**



**Technical Consulting
& DPRs**



**Technical Due
Diligence/ Health
Check-up**



Owner's Engineer



**Tendering & Bid
Process
Management**



TEV & LIE



**Comprehensive
EPC (Engineering,
Procurement &
Construction)**



**Complete Consultancy
Services for BESS
(Battery Energy
Storage System)**

PROJECT MANAGEMENT CONSULTANCY (PMC)

Engineering Review



Start with technology selection and design philosophy:

- 1) Feasibility study
- 2) Technology selection
- 3) Design philosophy.
- 4) Engineering review.
- 5) Overall engineering Strategy

Procurement Service



Utilizing our knowledge in procurement support and vendor due diligence:

- 1) Vendor due diligence
- 2) Contract vetting.
- 3) Procurement Management
- 4) Supply chain management
- 5) Cost & Time optimization
- 6) Risk & Safety management

Construction Monitoring



Equip the client's team with best project management practices to handle the construction on site:

- 1) Define specific resource requirements
- 2) Project monitoring and control
- 3) Handling project management tools and MIS
- 4) Quality tests onsite
- 5) Risk management & Safety practices

PROJECT MANAGEMENT CONSULTANCY (PMC)



LSI's Understanding & Approach: Steps from Concept to Commissioning



Stage 1

Prospection:

Offer expert suggestions & support

Economics:

Prepare pre-feasibility & feasibility reports

Exploration:

Offer expert services & support

Environment:

Impact Assessment & clearance support

Land:

Land acquisition & Project development planning

Design & Engineering:

Design and engineering strategy

Procurement:

Handle whole bid process from RFP till selection

EPC Selection:

Selection of EPC contractor

Clearances/ Approvals:

Plan and oversee all the approvals development

Construction Monitoring:

Ensure construction of plant is as per approved design plans

Quality monitoring:

Ensure quality of the project is as per standards

PG Test and handover:

Plant performance test as per the contract condition



Stage 2



Benefits for Client

- Timely project completion
- Faster govt. clearances
- No cost overruns
- EPC performance check
- Quality check
- Early risk identification
- 24x7 factual data availability
- Time saved for other critical activities



TECHNICAL CONSULTANCY & DPR



Core Offerings

Technical Feasibility Study

We offer technical feasibility study services. Our team has experience in conducting core technical feasibility study and reporting in the best standard format.

Energy Yield Assessment

We have in-house capabilities to do a detailed energy yield assessment using best software tools and enrich experience of the industry practices.

Detailed Project Report

We offer Detailed project report preparation services. Our team has experience in preparing several such reports using the best analysis and reporting standards.

Benefits for Client

Accurate Project Reports

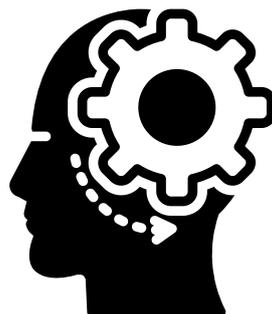
Reliable Generation Data

Expert Costing & Valuation

Precise Energy Yield Assessment

Optimized Project Plan

Detailed Feasibility Study



TECHNICAL DUE-DILIGENCE (TDD) & HEALTH CHECKUP

LSI's Understanding & Approach



Data Accumulation & Validation

- Identify existing data sources, including generation data, breakdown data, Operational data, resource data and spare list.
- Implement data validation processes to ensure accuracy, completeness, and reliability.
- Understand the existing details & systems in place.



Design Review

- Design review of proposal and as build drawings along with technical specifications of the equipment's used in plant design.
- Understanding of design philosophy used to build the plant and technology selection criteria.
- Reviewing the structural integrity of foundations and support structures.



Operational Review

- O&M Plan review along with cleaning and PM schedule.
- Breakdown history review and action plan to mitigate the breakdown.
- Spare list and external vendor support for major breakdown.
- OEM warranty status and project statutory/Insurance status.



Energy Yield Assessment

- Conduct an EYA assessment to identify potential energy generation projection.
- Support in EYA reporting following the industry best practices.
- Test energy flow and loss fractions to analyze the deviation of actual generation verses estimated.
- Equipment level marking for the performance



Equipment Health Check-Up

- To conduct detailed health checkup for all the major components used in the plant.
- Identification of critical spare requirement for the proper operationalisation of the plant.
- Study the breakdown pattern to identify deteriorated component and their estimated life.



Final Evaluation Report

- This will include all the findings and analysis done on the project.
- Will develop a comprehensive idea for the project performance and health status.
- Ensure developing an idea on quality standards alignment with industry , regulatory requirements, and best practices.

TENDERING & BID PROCESS MANAGEMENT



Core Offering

Tendering strategy and implementation works with partner ecosystem for different solar applications including use case basis

Various Expertise



Understanding and giving brief idea about solar functioning

An integrated working on understanding the application and developing a base case for the renewable project development considering all the practical aspects .



RFQ and technical specification preparation

Preparation of technical specification and RFQ for the renewable project tendering purpose considering all the prospect of the concept of design and planning.



Bids evaluation and analysis

Bid evaluation process based on the eligibility criteria and document verification of the bidders along with there market feedback on performance of similar works.



Contract finalisation

Preparing a contract including all the techno-commercial conditions suitable and necessary for the smooth project implementation work.

OWNER'S ENGINEERING

LSI's Approach & Solutions

Design Review:

1. Understand the proposed system design.
2. Review of design documents.
3. Stakeholder discussions on design basis.
4. Cost optimisation planning.

Project Planning

1. Implementation planning in line with the finalized project schedule.
2. Timeline of purchase and construction to be optimized as per the client requirements.



Quality Assurance

1. Using modern quality control tools for quality checks.
2. FQT and MQT to be performed as per industry standards.
3. Dedicated resource deployment for quality check onsite.

Performance Test

1. A comprehensive PG test procedure to be followed.
2. Will insure accuracy of the test as per the standards.
3. Test result assessment and reporting.

Timeline & Cost

1. Detailed project monitoring using various tools.
2. Critical path analysis and timely resolution of challenges.
3. MIS discussion with all the stakeholders.

Benefits for Client



• Real time monitoring

• Quality checks

• Faster internal processes

• As per design construction

• Statuary compliance

• Improved safety

• Better performance management

• 24x7 factual data availability

TEV & LIE

TEV

Technical Feasibility Study:

Conduction technical aspect study of the project to understand the design basis and technology selection

Operational plan review:

Specialized in identifying the operational challenges of the project at the time of planning.

Project location suitability:

Through due-diligence of the project location selection.

Cost Benchmarking:

Comparing cost with the similar projects for the market benchmark and acceptable range.

Generation/PLF vetting:

Detailed study of the EYA report and loss factors considered for the study.

Construction Schedule Vetting:

Critical analysis of the construction schedule for the timely project implementation.



LIE

Conceptual design review:

Reviewing the design basis for the renewable plant and technology selection criteria.

Construction & Execution Monitoring:

Monitoring complete execution of the project to insure everything goes as per the defined schedule.

Quality & Safety Monitoring:

To ensure quality of the project as per the standards and safety on top priority.

Cost and timeline monitoring:

Regular check of cost and timeline of the project to avoid any overrun event.



COMPREHENSIVE EPC (ENGINEERING, PROCUREMENT & CONSTRUCTION)

We offer Complete Engineering, Procurement & Construction Services for Renewable Projects

CAPEX:

The initial capital expenditure required for purchasing and installing a solar energy system, including costs for equipment, labor, and infrastructure. It encompasses all upfront investments necessary to set up the solar project before it becomes operational.



RESCO:

The ongoing operational expenses associated with maintaining and running a solar energy system, including costs for maintenance, repairs, insurance, and monitoring. These expenses are incurred throughout the operational life of the system to ensure its efficiency and performance.

OPEN ACCESS:

This allows businesses and individuals to purchase solar power from a remote solar farm rather than installing panels on their own premises. This model provides flexibility and cost savings by enabling users to access renewable energy without the need for direct infrastructure investment.



Advantages & Disadvantages



CAPEX

Advantages

- o Ownership and Control
- o Long-Term Cost Savings
- o Financial Incentives

Disadvantages

- o Upfront Investment
- o Operational Risk
- o Maintenance and Repairs

OPEN ACCESS

Advantages

- o Access to Renewable Energy
- o Flexibility and Scalability
- o Sustainability and Corporate Social Responsibility (CSR)

Disadvantages

- o Regulatory Challenges
- o Contractual Obligations
- o Higher Cost of Energy

RESCO

Advantages

- o Low Upfront Investment
- o Immediate Savings
- o Performance Guarantees

Disadvantages

- o Long-Term Cost
- o Contractual Obligations
- o Dependency on Provider



Benefits for Client

Optimum Electricity Bill Reduction Solution:

Select of the best optimum solution for Solarizing Factory.

PPA Contract Closure with best industry acceptable terms:

Terms of PPA/EPC contract finalization as per the industry norms and practices will legal the statutory compliance.

Quality and timely delivery of projects:

Ensuring quality of projects by equipment selection and design consideration, timely delivery of project with proper project planning and monitoring

Engineering, Procurement & Construction:

Encompass the comprehensive engineering design, procurement of materials, and construction of a solar project, including system installation and commissioning.

COMPLETE CONSULTANCY SERVICES FOR BESS (BATTERY ENERGY STORAGE SYSTEM)

1

Feasibility Study :

Assessing technical, financial, and regulatory viability.

2

Detailed Project Report (DPR) / Techno Economic Viability (TEV) :

Comprehensive project planning, cost analysis, and performance evaluation.

3

Tendering Support :

Preparing bid documents, evaluating vendors, and financial analysis to help clients make informed decisions.



BENEFITS OF USING RENEWABLES



Lower transmission & distribution laws

Power factor improvement

Energy independence

Improve grid security

Air quality improvement



Tax benefit

ESG compliance

Reduce carbon footprint



OUR OFFICES

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