

Driving the Global Transition to Clean Energy



COMPANY PROFILE

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Energy Transition

Our Role

The global energy landscape is undergoing a fundamental transformation as nations, industries, and communities shift away from fossil fuels toward sustainable, low carbon energy systems. Rapid advances in renewable technologies, evolving policy frameworks, and growing commitments to climate action are accelerating this transition at an unprecedented scale. Solar, wind, energy storage, and emerging solutions such as green hydrogen are now at the centre of strategies for energy security, decarbonization, and long term economic resilience. As the world races toward net-zero ambitions, the need for technically robust, financially viable, and scalable clean energy projects has never been more critical.

JEM Consultants aims to play a pivotal role in global energy transition by enabling the development of reliable, efficient, and globally compliant renewable energy projects. Through our expertise in solar, wind, BESS, hybrid systems, and grid connected power infrastructure, we support clients in shaping bankable projects from the ground up. Our involvement spans the entire lifecycle of the project starting from project conceptualization to final execution and asset management.

Feasibility studies, resource assessment, techno-economic modelling, and design optimization form the foundation of successful clean energy assets. We ensure accuracy, objectivity, and depth in every assessment accelerating the clean energy drive. Our contribution extends through the engineering and execution stages, where high quality design, technical advisory, and risk management become essential. As Owner's Engineers and Lender's Technical Advisors, we safeguard project performance, compliance, and investment security.

We support clients in navigating complex procurement cycles, selecting technologies, strengthening grid integration, and ensuring that each project meets international technical standards. By aligning engineering precision with strategic project execution, we help reduce uncertainties, minimize delays, and ensure long term asset reliability. Efficient stakeholder management is our key skillset enabling successful execution of every project.

JEM Consultants is committed to enabling the next wave of clean energy innovation including green hydrogen, long duration energy storage, carbon management, and integrated renewable energy. Through collaborations with global domain experts and a multidisciplinary team, we guide clients in adopting emerging technologies that will define the future of sustainable energy. Our mission is to provide the independent, high performance advisory support required to accelerate the global transition to clean energy and build a resilient, low carbon future.

Where We Excel



Spectrum of Solutions

PROJECT DEVELOPMENT

Support developers, IPPs, and governments in shaping successful large-scale renewable projects from the ground up including BESS.

- Site selection and resource assessment (solar irradiation, wind mapping, hydrogen feedstock availability).
- Techno-economic feasibility studies and Levelized Cost of Energy (LCOE) modeling.
- Grid connectivity and transmission system studies.

TECHNICAL ADVISORY

Independent, technology-agnostic advice to ensure projects are designed for efficiency, reliability, and long term performance.

- Technology selection and evaluation
- Plant sizing, hybridization, and layout optimization.
- Front End Engineering Design
- Energy yield assessments with uncertainty analysis.
- Grid integration and stability studies.

LENDER'S/ OWNER'S ENGINEER

Trusted technical advisory for investors, lenders, and project owners, ensuring projects are bankable, compliant, and well-executed.

- Independent engineering reviews for financing and due diligence.
- Contract reviews (EPC, O&M, PPA, supply agreements).
- Quality assurance and standard compliance verification
- Risk identification and mitigation strategies for long term investment security

O&M AND ASSET MANAGEMENT

Helping asset owners maximize project returns and extend operational lifetimes.

- Performance monitoring and benchmarking using plant data.
- O&M strategy advisory – preventive, predictive, and optimized.
- Root cause analysis for underperformance.
- Repowering and life- extension studies.

EPC PROCESS SUPPORT

We ensure that procurement and execution strategies align with global best practices and project goals.

- Preparation of technical specifications and bid documents.
- Technical Bid evaluation
- Vendor qualification and technology due diligence.
- Support in tender evaluations and negotiations.
- EPC oversight to safeguard timelines, quality, and costs.

CARBON/ POLICY ADVISORY

We help clients navigate complex global regulations while ensuring sustainable and responsible project development.

- Regulatory compliance and grid code advisory.
- Support with renewable tenders, incentives, and policy frameworks.
- ESG strategy and sustainability reporting aligned with global standards.
- Advisory for carbon credits and green financing opportunities.

The Core

Directors



Dr. Vani Vijay

MD & Technical Lead

Renewable energy and electrical engineering expert with 13+ years experience across engineering design, research and multinational utility-scale project management and delivery.

Highly skilled in solar PV engineering, energy management, feasibility studies, and technical leadership for major international projects.



Amal T Harshan

Director of Operations

Proven leader with 13+ years of diverse experience across operations, electrical engineering, and project management in India and the Middle East.

Expert in turning complex, multi stakeholder environments into smooth, high performance operations through strong people leadership and technical depth.

Expert Advisors



Anoop Babu

Advisor - Energy Transition

Seasoned energy market specialist with 17+ years of experience contributing to over 15 GW of global solar, wind, BESS, and grid integration projects.

Expert in IPP/PPP development, techno-commercial advisory, due diligence, and grid strategy for governments, utilities, investors and lenders.



Nevil Jose

Technical Advisor

Renewable energy expert with 13+ years experience spanning solar design, substation engineering, project execution and technical leadership.

Expert in detailed engineering, PV system design, commissioning, and electrical power systems backed by global academic training.

Technical Support



Niranjana Vijayan

Project Engineer

Results driven renewable energy engineer with strong hands-on experience across solar PV, hybrid systems, O&M and energy storage project execution.

Skilled technical design professional bringing in a unique blend of analytical thinking, field expertise, and sustainability driven commitment to accelerate clean energy project success.



Aysha P. A

Electrical Engineer

Adaptable electrical engineering professional with a solid foundation in power systems, equipment performance, and site level technical operations.

Expert in technical precision with practical problem solving to deliver efficient, robust, and standards driven engineering solutions.

Associate Companies



Specialised in Carbon Accounting and Energy Auditing



RENEWCORE

Specialized in Solar Power Plant Design and Installation

Team's Industry Footprint

Our leadership team and advisors have executed landmark renewable energy projects across the Middle East, Africa, and Asia coordinating with EPC contractors, developers, lenders, government bodies, utilities, and technology suppliers across geographies. This global exposure enables us to bring best-in-class engineering practices to every assignment.

- SHUAA Energy II- 800 MW Solar Plant- MBR Phase III – Dubai (Owner's Engineer)
- Zafarana 50 MW solar Power plant by NREA- Egypt (Owner's Engineer)
- 5.8 MW Solar PV plant with BESS (Microgrid)- ADOC, Abu Dhabi (FEED)
- 2x40MW power plant, PROLER Program, Mozambique (Technology assessment)
- Al Kahfah PV IPP 1425 MW, KSA (Lenders' Advisory)
- Ar Rass PV IPP 700 MW, KSA (Lenders' Advisory)
- Al Muwayah PV IPP 2000 MW, KSA (Lenders' Advisory)
- Tabarjal PV IPP 400 MW, KSA (Lenders' Advisory)
- MBR Solar Park, Phase 5, Dubai, 900 MW (Technical Advisory)
- Al Ajban PV IPP, UAE, 2600 MW (Lenders advisory)
- Tororo North Solar 10 MW PV Plant, Uganda. (Technical Advisory for MRA)
- 100MWh grid tied BESS implementation, Assam, India (Technical study)
- Expo 2020, Dubai (Onsite and offsite renewable energy consultancy)
- Al Sheera – DEWA Headquarters, Dubai (Design consultancy)
- RHS 7 MW roof top Solar PV project, Dubai (DAFZ, JAFZA and DWC)
- Camellicious 5 MW ground mounted PV plant, Dubai (Design consultancy)
- Nestle Al Maha Ground mounted Solar PV Plant (Earthing design)
- 11MWp Grid Connected Ground Mounted Projects, India (Pradhan Manthri Kusum Yojana)
- 8MWp Grid Connected Ground Mounted (KSEB, India)
- 500+ residential rooftop projects, India
- 33/11kV GIS Substation Project for the Federal Electricity and Water Authority, UAE.



Our Edge

Deep Expertise in Utility Scale Clean Energy Projects

JEM Consultants brings hands on experience from some of the world's largest solar and wind projects, including multi hundred MW IPP developments, detailed engineering, and cross country renewable portfolios. Our team's background in high complexity, grid connected projects ensures that every client benefits from insights rooted in real world execution

Precision Driven Engineering and Quality Assurance

Our engineering expertise is backed by strong technical rigor, including layout optimization, grid stability studies, FEED engineering, O&M strategy design, and advanced performance diagnostics. We maintain high accuracy in assessments, minimizing uncertainty and maximizing project value.

Agile, Collaborative, and Client Centric Approach

We operate with the flexibility of a specialized consultancy, responding quickly, adapting to project needs, and working closely with clients to deliver tailored solutions. This efficiency gives us an advantage over other advisory firms.



Global Experience

The international project experience of the team leaders and advisors help us to deliver solutions built on proven global engineering standards.

We continuously analyze global policy changes, market developments, technology evolution, and investment patterns, enabling clients to take strategic decisions in a rapidly transforming energy landscape.



JEM Consultants Pvt. Ltd.

JUGGERNAUT ENERGY MANAGEMENT

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