



KCP SOLAR INDUSTRY



ACE RENEWTECH CONSULTING ENGINEERS

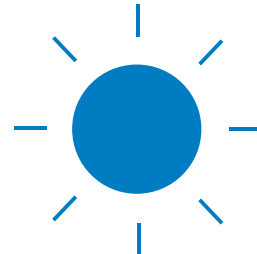
In people's hearts for 34 years

Overview

With an ambitious start in both Thermal and Photovoltaic industries in 1986, KCP Solar strengthened its position in the PV space to grow rapidly in the past 34 years. Along with our partners we offer quality products at competitive prices, placing us ahead of our competitors. Today, we have a recognised strong presence in all major orders with the state energy development agency (TEDA) as well as the central ministry for renewable energy (MNRE).



34 years of service



10000+ Projects



40+ Professional

5K+ Residential Customers

100+ C&I Customers

50+ Gov. & NGO Projects

1st Class Service Providers



ACE RENEWTECH

A One-Stop Solution Provider



Overview

- Backed up by 34 years of Solar Energy experience by the parent organization since 1986, ACE Renewtech Consulting Engineers was established in 2017 with a aim to improvise the standards of Renewable Energy Projects with our in-depth expertise acquired through 3 decades of on-field experience.
- Offering Services right from concept till commissioning and further O & M and asset management, ACE Renewtech is purely solar-focused consulting organization working with various project developers, EPC contractors and Project Investors.
- With the team of more than 30 young and vibrant engineers with strong solar specialized & global academic background, backed up an experienced & strong panel of solar expert team, who specialize in various sectors such as Electrical DC, Electrical-AC, Civil & Structural Engineering and multi-various Heavy Engineering industries in Power and steel sectors as well with cumulative 200+ man-year experience.

Driven by Three Decades of Resolute Passion to Contribute to our Society, Our Aim is to Provide Top-Notch & Tailor-made Renewable Energy Solutions with State-of-the-Art Technology to Achieve a Sustainable Future.

Our Client friendly approach and comprehensive engineering solutions to address specific project needs the state-of-art solar technology, from Concept to Completion

Quality-Focused: ACE Renewtech is a one-stop shop for solar solutions with state-of-art renewable energy technology to ensure top quality products and services to our clients.

Sustainability: Our focus doesn't stop with solar solutions, we extend it to sustainability – We care about People, Profit, and Planet

Health & Safety: Health and Safety of plant and staff are our top priority in all our projects. We adopt safety standards and procedures strictly in accordance with stipulated practice.

Vision & Mission

Approach

Values

Quality Focused, Achieving Sustainability & Importance to Health and Safety.



Mr. Ashok Kumar P

Director



Mr. Ramachandran. B

Director



Mr. Praveen Kumar P A

Chief Executive Officer



Mr. Karthikeyan Subramanian

Executive President



Mr. Vinoth Kumar P A

Vice President – Business Development

Panel of Experts

Mr. Sridhar Raghavan

Sr. Advisor - Distribution | Transmission

Mr. Gomathi Nayagam

Sr. Advisor - Civil | Structural

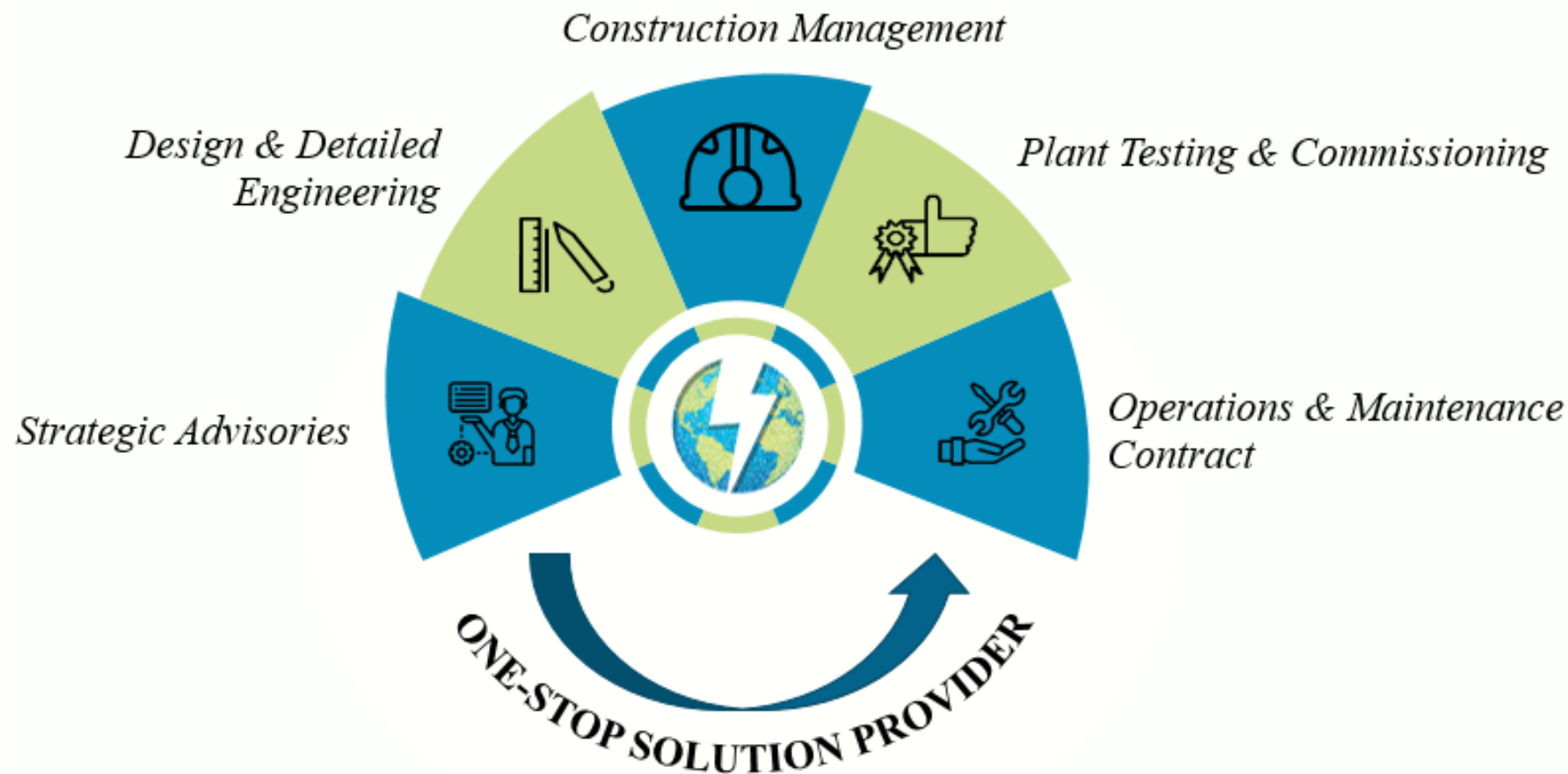
Mr. Thirumoorthy

Sr. Advisor - Solar Policies & Futuristic Planning



What we do?

A Unique One-Stop Solutions Provider



Project Engineering

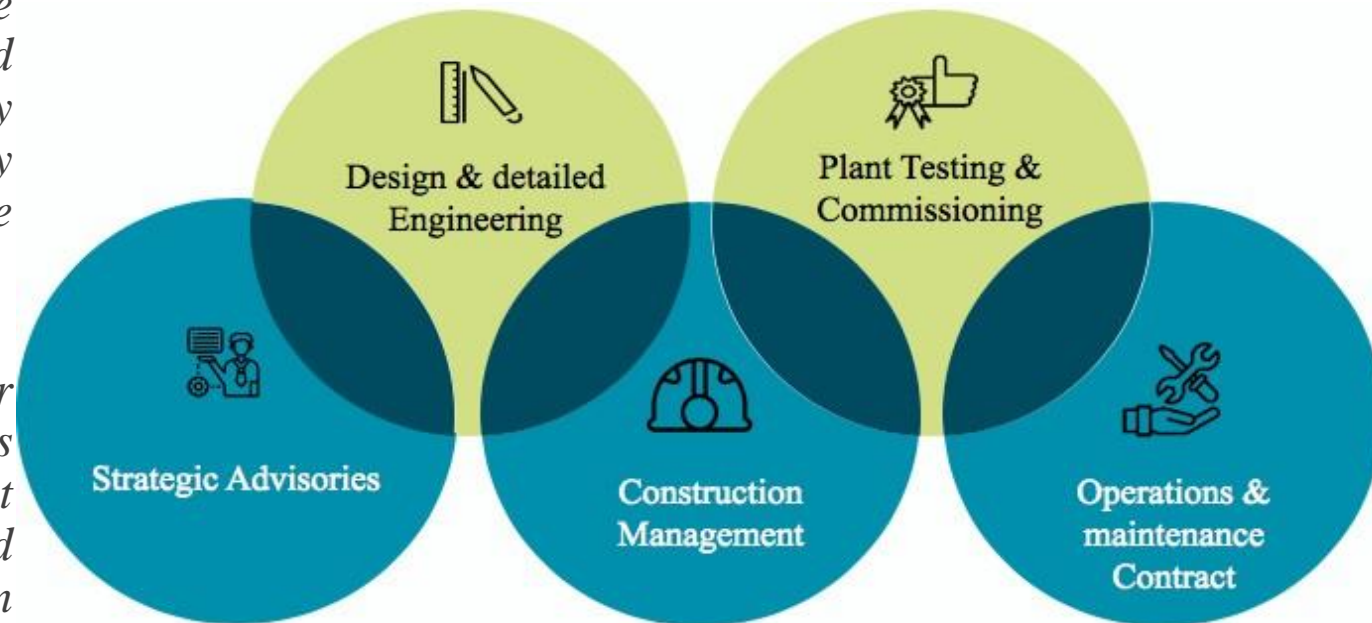
To Harness Green & Clean Energy, at ACE Renewtech, We Design, Engineer & Optimize Solar PV Projects to Achieve a proper balance between project cost estimate and adoption of technological improvement which ultimately leads to formation of a project with formidable technology base combined with economic viability on a sustainable basis.

Project Construction

Our expertise in engineering and optimum design further extends to provide construction monitoring services during execution to ensure seamless interface amongst EPC agency, sub contractors, construction agency and project owner to take it through to successful completion and commissioning with in the target milestone.

Operations & Maintenance Contract

As a further extension of our services, we also get associated as operation & maintenance agency after project commissioning thereby providing an unique one Stop solutions



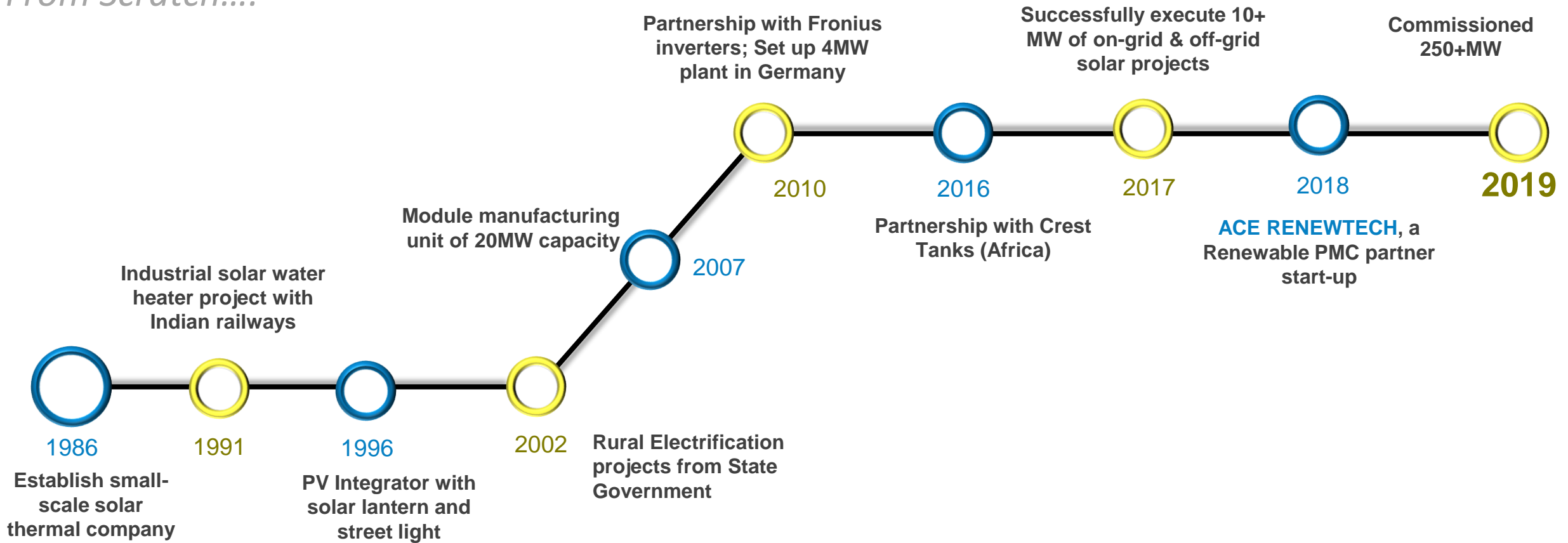


Timeline

33 year family legacy



From Scratch....



TIME LINE



14MW - MHIPL & SJCPL

- Owner's Engineer for My home industries's Captive consumption Solar Power Project
- Located at Kurnool and Vizag of Andhra Pradesh

AUG

3 MW – BAP

- Owner's Engineer for British Agro Product's Captive Wheeling Solar Power Project
- Located at Madhuranthakam, Kancheepuram District.

JAN

ACE - CURVE

Joined hands with CURVE ENGINEERING Sdn. Bhd. KL, Malaysia.

JUL

2017

2018

2019

2019

2019

2019

2019

100 MW – LNVN & NLC

- Project Management Consulting (PMC) for NLC's Solar Power Project
- Located at Maranthai of Tirunelveli District, Tamil Nadu, India.

NOV

100 MW – PREMIER & NLC

- Project Management Consulting (PMC) for NLC's Solar Power Project
- Located at Pudur of Tirunelveli District, Tamil Nadu, India

JAN

5 MW - SVC

- Owner's Engineer for Shri Varalakshmi Company's Captive consumption Solar Power Project
- Located at Trichy, Tamil Nadu, India.

MAY

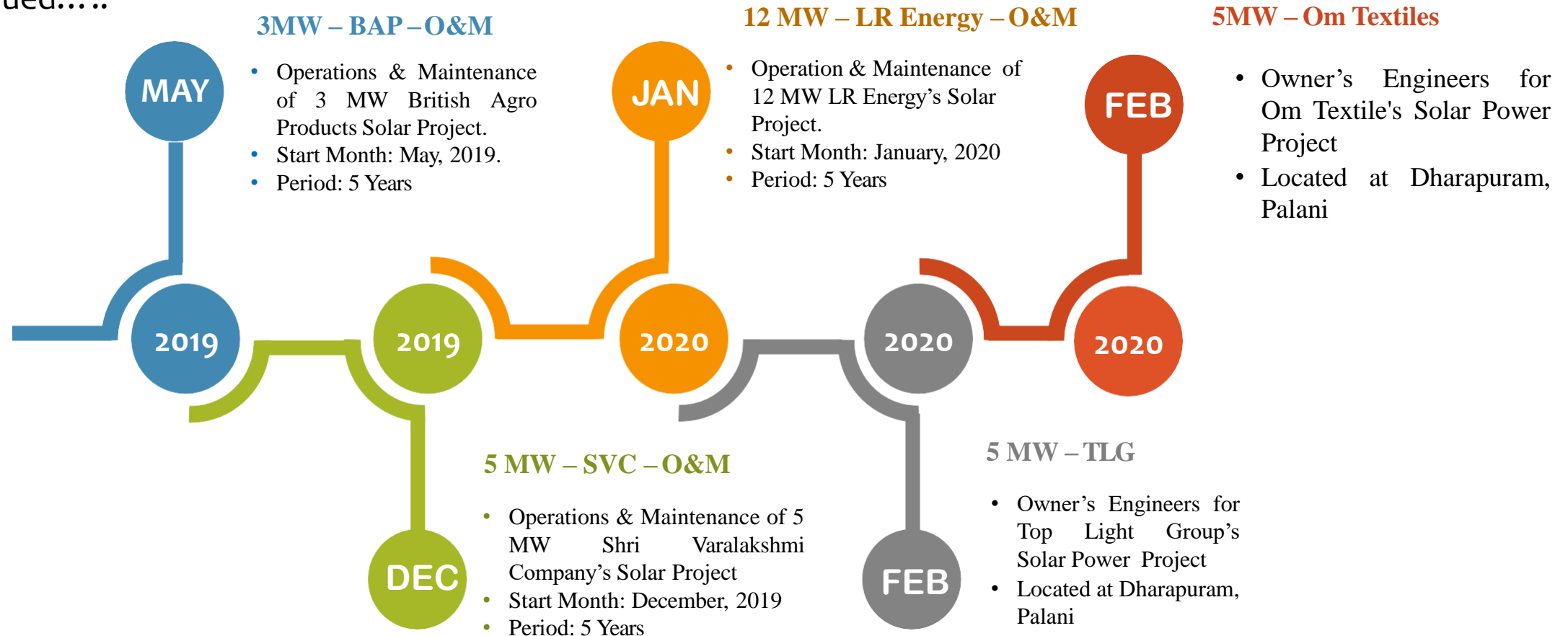
6MW – AGEPL

- Owner's Engineer for Ahil Green Energie's PPA Type Solar Power Project
- Located at Aruppukottai, Virudhunagar

JUL

TIME LINE

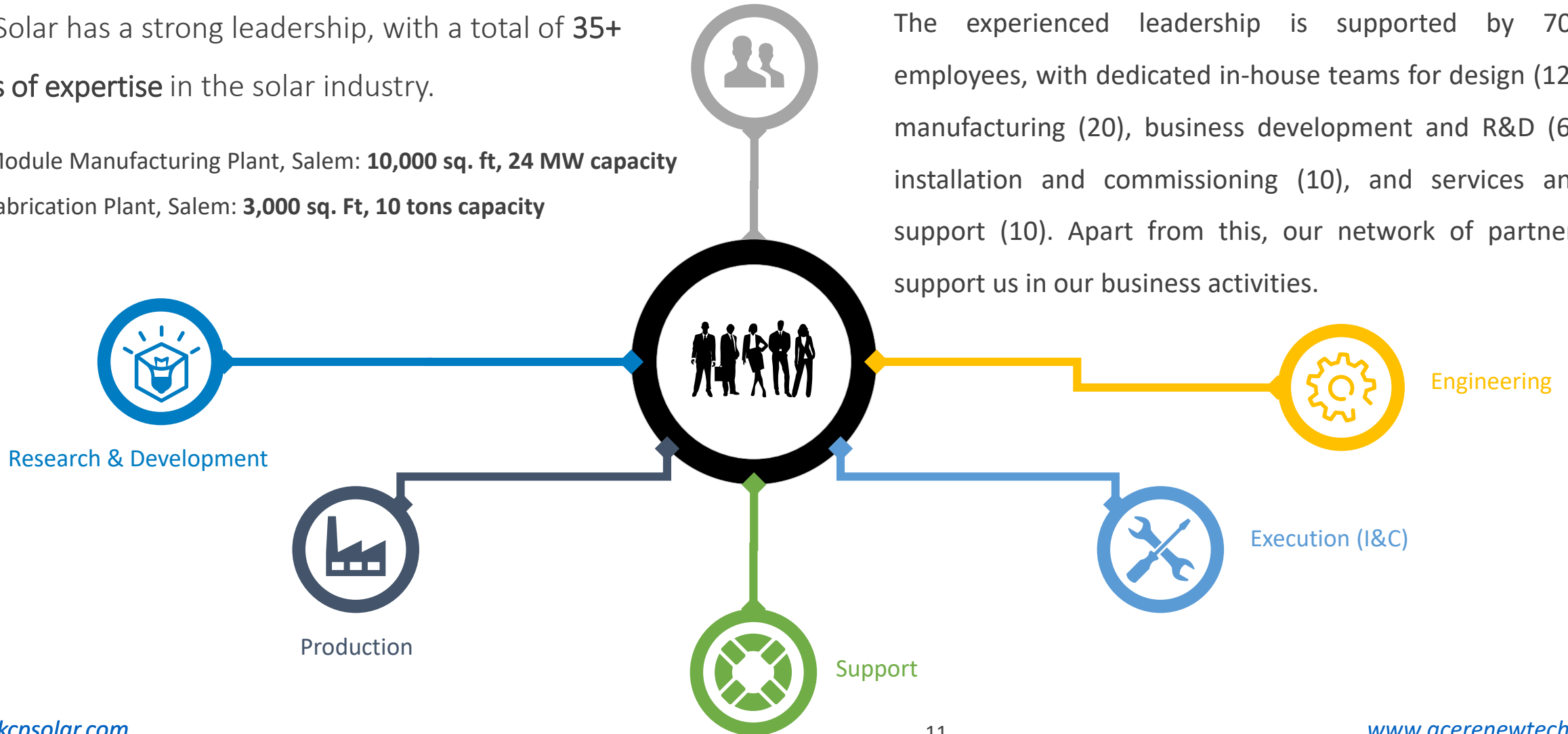
Continued....



KCP Solar has a strong leadership, with a total of **35+ years of expertise** in the solar industry.

- Module Manufacturing Plant, Salem: **10,000 sq. ft, 24 MW capacity**
- Fabrication Plant, Salem: **3,000 sq. Ft, 10 tons capacity**

The experienced leadership is supported by 70+ employees, with dedicated in-house teams for design (12), manufacturing (20), business development and R&D (6), installation and commissioning (10), and services and support (10). Apart from this, our network of partners support us in our business activities.





ACE
RENEWTECH

Clientele | Associations



Strong portfolio of Public and Private Clients, Long term partnerships with Government Associations



Partners



A long presence in the field of solar industry has enabled KCP to boast a large portfolio of satisfied, public and private global institutional clients, International suppliers, and Government Associations.



Government



Clients



KCP is looking for development of multiple projects across the globe. We have capabilities to serve our clients across geographies.

Why choose KCP

amongst a lot of players in the Industry

First Mover Advantage

KCP was one of the earliest believers and investors in PV technology. We are the only ones to have constantly added to our capabilities for the last 32 years and expanded rapidly within the solar industry.

Brand Name Recognition

Over time we have proven to be a reliable solar partner to our clients. Our strong track record offers us an advantage in winning projects, while our reliable product and service quality has strengthened our brand within the solar industry.

Superior Expertise

Our unparalleled in-house technological and management expertise is strengthened by our global partnerships, enabling us to offer end to end solar solutions, while constantly exceeding client expectations.

Strong Leadership

Our leaders with extensive experience in solar, energy, and public office domains, and access to recognised industry experts, have enabled the company to grow in the past and are the key to sustaining a successful solar business.

Our Approach

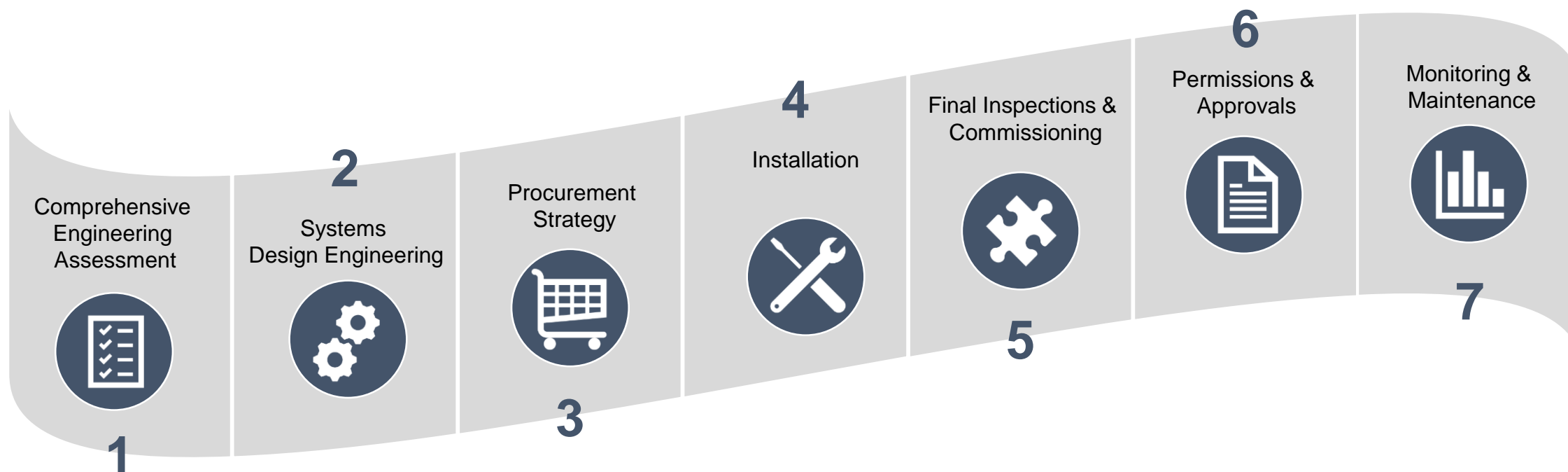
Our Engineering and Manufacturing unit is scanned with the qualified personnel, with ISI marked system. We strive for the best quality and all our outlets undergo with stringent quality control at every stage of production, engineering and execution.

We at KCP ensure

- Zero compromise in our quality
- Zero compromise in our professional marketing ethics

Provider of end to end solar solutions

Along with our partners, we offers complete Innovative value chain consisting of Engineering, Procurement, Construction, Delivery and Maintenance of Solar PV and Thermal systems. 100% comprehensive, fully-integrated design, procurement, installation, project management, commissioning, maintenance and monitoring solution provided by KCP.





Sustainability

Energy | Environment



1.2+

Million litres of capacity

14+

MW Installed Base

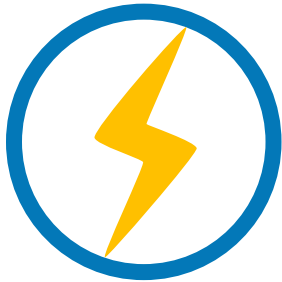
1000+

Pumps installed

10000+

Street lights installed

Tangible Positive Impact on Environment in India by KCP till Date



23 Million+ Units
saved annually



Equivalent to 205K+
trees planted



20 Million+ litres
water pumped

- Solar Street lights
- Solar Water Heating Systems
- Solar Lantern with CPRI Technology
- Garden and Home Lighting Systems
- Solar Refrigerator
- Solar Fencing
- Solar Road Signals
- Solar Blinkers
- Solar Educational Kit
- Solar Sense E.B Saver
- Solar Radio & TV Systems

What we offer



Customized solutions



Guaranteed savings



Predictive solution



Easy maintenance



Our Services

Strategic Advisories

- Feasibility Study
- Pre-bid Engineering
- Technical Due Diligence
- Lender's Engineering
- Plant Health Study
- Asset management
- O&M Methodology

Quality Assurance

- Stage Inspection during manufacturing
- Post Manufacture Shop Insurance
- Field Quality Assurance site

Design & Detailed Engg

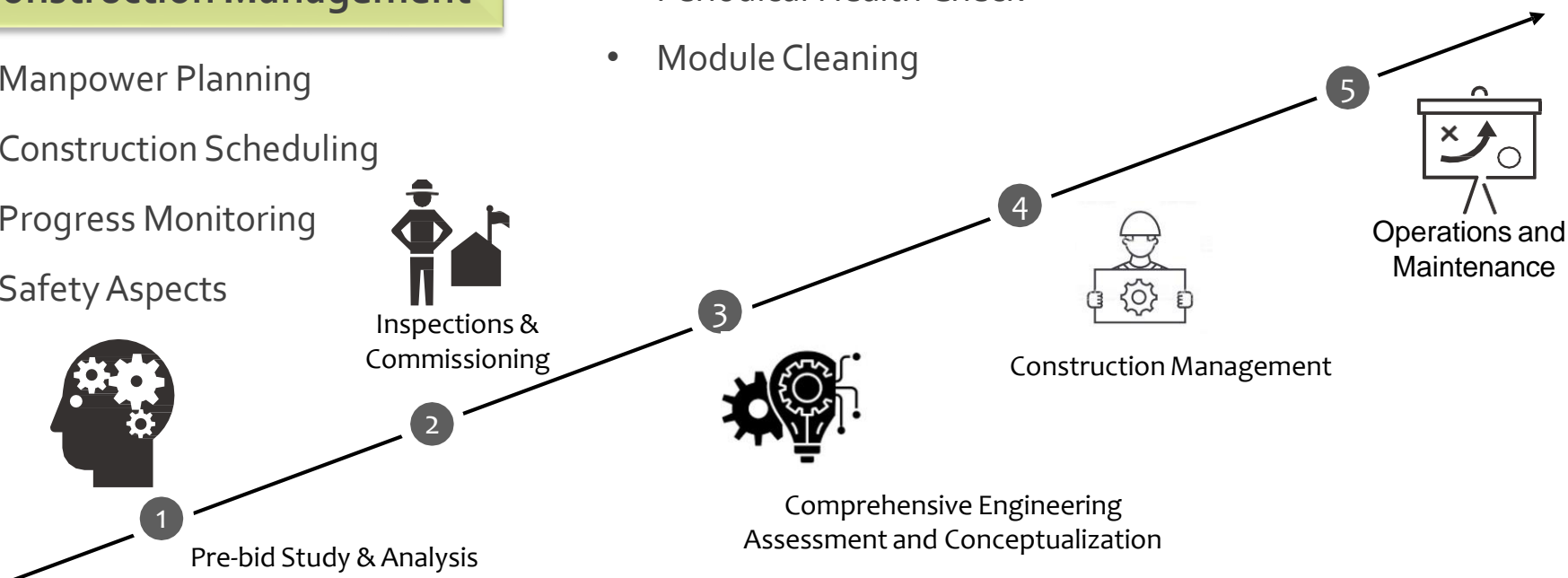
- Conceptual Design
- Detailed Engineering & Procurement Services

Construction Management

- Manpower Planning
- Construction Scheduling
- Progress Monitoring
- Safety Aspects

Operation & Maintenance Services

- Operations & Maintenance manuals
- Real time Analytics & Reporting
- Preventive Maintenance Scheduling & Execution
- Periodical Health Check
- Module Cleaning





Our Services – In detail

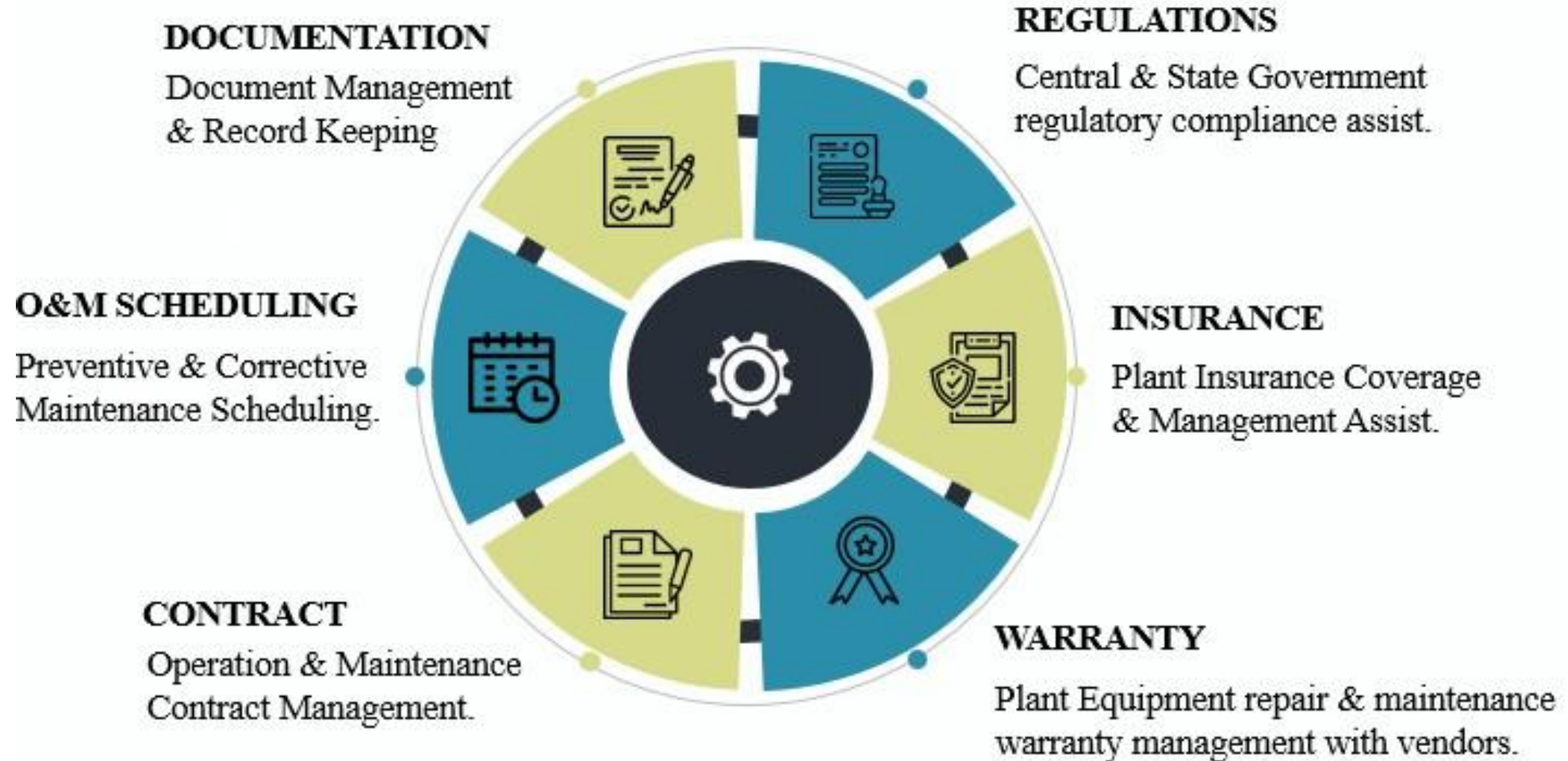
Design & Detailed Engineering





Our Services – In detail

Operations & Maintenance





Pre-bid Engineering

- RFP Documentation
- Project Startup & Financial Requirements
- Contractor's & Owners basic obligation
- Project Warranties & Plant performance benchmark
- Technical Specification
- Project performance guarantee
- Defects Liability Criteria
- Project Acceptance Criteria



Feasibility Studies

- Site Selection
- Energy Yield Estimation
- Technology Assessment
- Tilt/Pitch optimization
- Overloading Analysis
- Grid Connection Assessment
- Basic Engineering
- Project Risk Analysis
- Financial Modelling
- Detailed Project Report (DPR)



Design Engineering

- Project Layouts
- Civil Plans
- Structural Plans
- Structural Analysis
- Electrical Diagrams
- Energy Yield Analysis
- Shadow Analysis
- Site Execution drawings
- Quantity estimation sheet
- Design basis report



Technical Due Diligence

- Engineering Review
- Review of Land Leases
- Review of Power Purchase Agreement (PPA) & EPC Contracts
- Project Costing
- On-site Analysis
- Energy Yield Assessment



Plant Health Study

- On site Solar Resource Assessment
- Energy loss and Downtime analysis
- Operation and Maintenance Practices
- Existing Plant asset walkthroughs
- Equipment Healthiness Check.
- Module Degradation Analysis using IR Thermography and IV Curve Tracing.
- Quality, Environment, Health, and Safety (QEHS)



Asset Management

- Technical Management and Reporting
- Financial/Commercial management and Reporting
- Grid Management
- Buyer and Seller Collaboration
- Plant Health Check & Reporting

Scope of Services – In a Nutshell

From Concept to Completion & Whole Lifecycle Management



Procurement Strategy

- Estimation of Bill of Quantity (BOQ)
- Vendor selection assistance
- RFP & Review
- Validation of equipment cost & Negotiation
- Preparation of detailed BOQ



Construction Management

- Contractor Selection
- Supervise & Reporting
- Establish communication procedures
- Implementation Schedule & Periodical Review
- Quality control plans & Procedures
- Testing & Commissioning
- Project Handover



Operations & Maintenance

- Maintenance and Inspection
- Corrective maintenance
- Remote Monitoring & Control
- PR Maintenance
- Reporting
- Spares Management
- On-Site Security

Distributed Energy Systems (DES) – Grid-Connected Solar PV



Distributed Energy Storage Systems (DESS) – Solar PV Plus Storage



KCP offers end to end services in setting up Grid-Connected and Storage kind of Solar Solutions on Rooftop as well as Ground level from the range of 1 KW - MW's. Our EPC division is specialized in the setting up of Solar PV Power Plants on turnkey basis which conceives & implements projects right from inception to implementation & maintenance, using the best available components and cutting-edge technical solutions supervised by highly qualified professionals.

- CAPEX
- Government/Private PPA
- BOOT/OPEX



- Distributed Solar PV
- Battery Storage
- Hybrid Solution with Grid + Solar + Wind



Technical Consultant for 4 MW, Germany



1

FEASIBILITY STUDY

- Customer Discussion
- Area Assessment
- Shading Analysis
- Interconnection
- Equipment Placement

2

DESIGN ENGINEERING

- Project Layouts
- Structural Analysis
- Electrical Specification
- Energy yield Assessment
- Design Basis Report

3

PROCUREMENT

- Detailed BOQ
- RFP & Review
- Direct from vendors
- Pre-dispatch inspection

4

CONSTRUCTION

- Contractor Selection
- On-site supervision
- Quality Plans & Control
- Safety Walks
- Handover Procedures

5

INSPECTION

- Sample Testing
- Quality Checks
- Review & Reporting

6

PERMITTING/ COMMISSIONING

- Interconnect permits
- Grid Synchronization

7

MONITORING & MAINTENANCE

- Periodic Cleaning
- Predictive Monitoring
- Preventive Checkups
- Emergency Responses



ACE Renewtech had the privilege of providing Project Management Consulting (PMC) & KCP Solar Industry provided Installation and Commissioning Services for NLC's Solar Power Project as a part of the 709 MW project announced by the Prime minister of India. 100 project is located at Maranthai of Tirunelveli District, Tamil Nadu, India.

Project Highlights

- Project Size : 100 MW
- Project Type : Utility Scale
- Location : Tirunelveli, Tamil Nadu
- Developer : NLC India Limited
- EPC Contractor : LNV Technology Limited
- I&C Contractor : KCP Solar Industry
- Area Covered : 370 acres
- Project Completion : 2019 August
- Highest Generation : 6.3L Units/day

100 MW - NLC India and LNV

Project Management Consultant
& I&C Contractor

Pre-Bid Engg | Design Engg | Procurement Strategy | Quality
and Construction Management | Installation &
Commissioning



ACE Renewtech is engaged by Premier Solar as the Project Management Consultant of 100 MW Solar Power Project for NLC India as a part of the 709MW project announced by the Prime Minister of India in Tirunelveli, Tamil Nadu. The role is to provide engineering support in design, construction, quality assurance and support during commissioning.

Project Highlights

- Project Size : 100 MW
- Project Type : Utility Scale
- Location : Pudur, Tirunelveli
- Developer : NLC India Limited
- EPC Contractor : Premier Solar Tech
- Area Covered : 370 acres
- Project Completion : 2019 Sep
- Commissioned in 8 Months period

100 MW – NLC INDIA and PREMIER

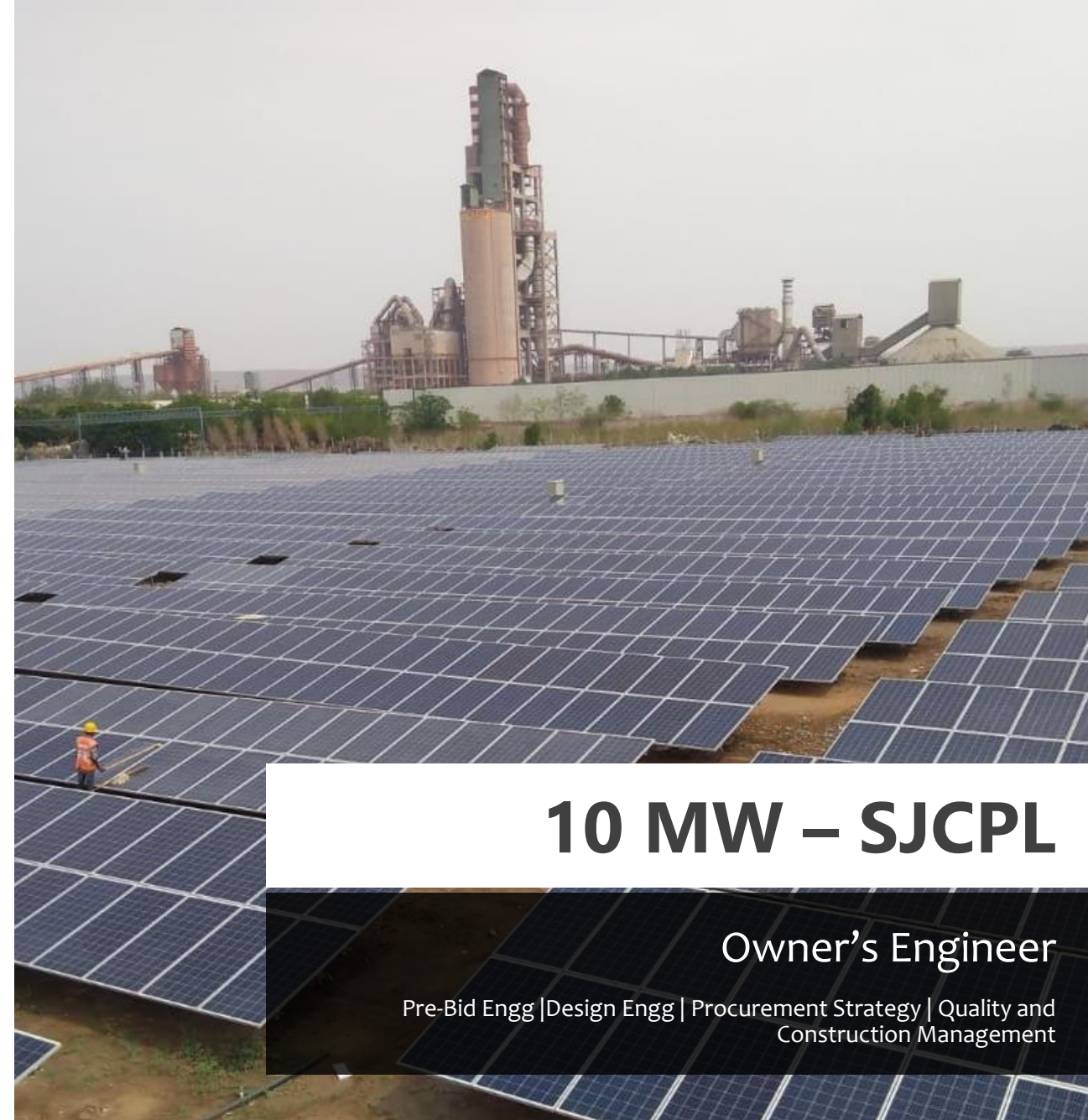
Project Management Consultant

Design Engg & Review | Construction Management

ACE Renewtech is engaged as Owner's engineer of 10 MW Captive Solar Power Project in Kurnool, Andhra Pradesh. The role is to provide engineering support in design, construction, quality assurance and support during commissioning.

Project Highlights:

- Project Size : 10 MW
- Project Type : Captive Consumption
- Location : Kurnool, Andhra Pradesh
- End Client : Sri Jayajothi Cements Private Limited
- Area Covered : 34 acres
- Project Completion : 2018 Dec



10 MW – SJCPL

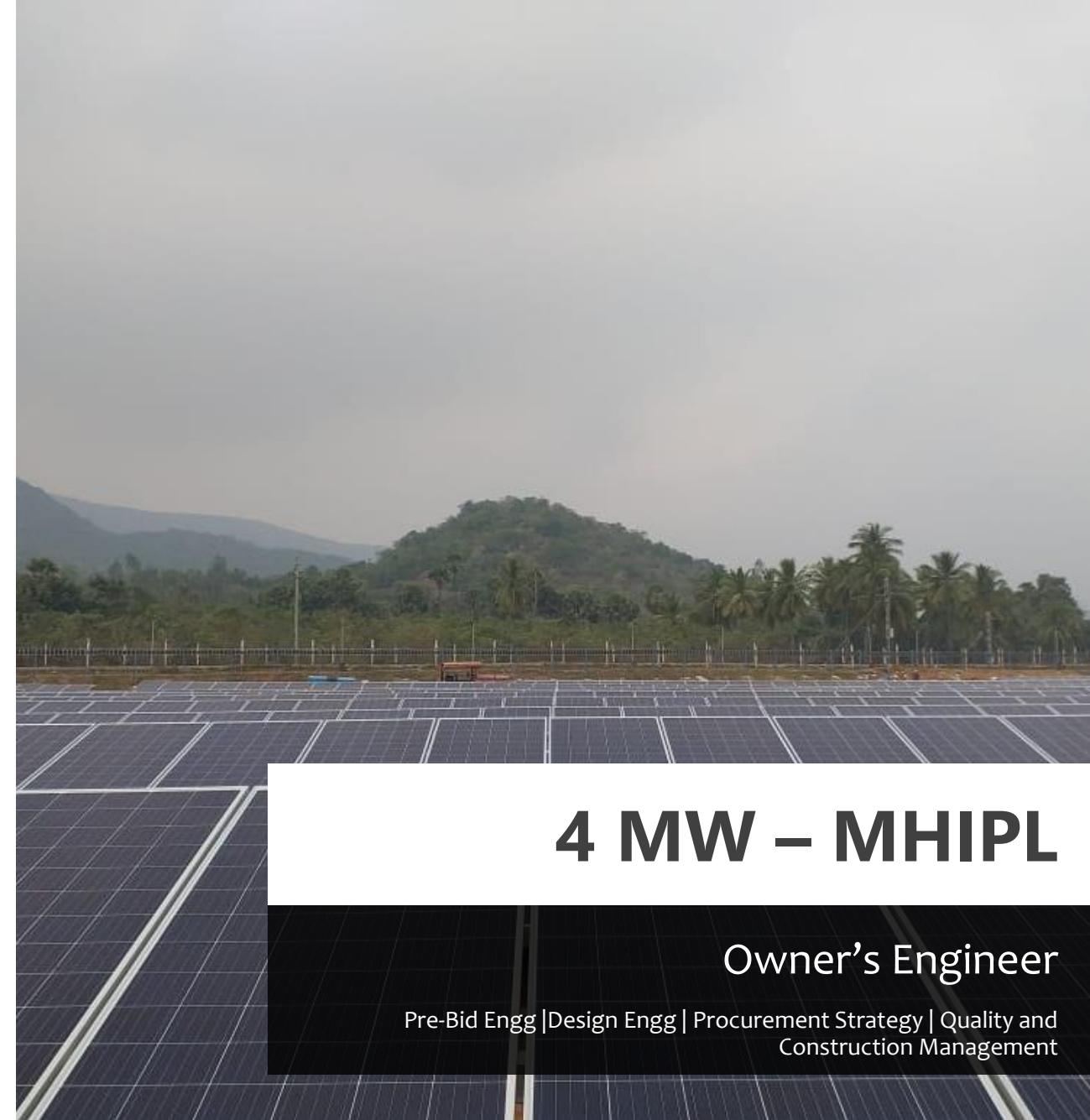
Owner's Engineer

Pre-Bid Engg | Design Engg | Procurement Strategy | Quality and Construction Management

ACE Renewtech is engaged as Owner's engineer for 4 MW Captive Solar Power Project at Vishakhapatnam, Andhra Pradesh. Responsibilities included review of design and engineering in electrical, civil and structural, Inspection of equipment, Construction monitoring and support, quality assurance and operation and maintenance.

Project Highlights:

- Project Size : 4 MW
- Project Type : Captive Consumption
- Location : Vishakhapatnam, Andhra Pradesh
- End Client : My Home Industries Private Limited
- Area Covered : 16 acres
- Project Completion : 2018 Dec



4 MW – MHIPL

Owner's Engineer

Pre-Bid Engg | Design Engg | Procurement Strategy | Quality and Construction Management



ACE Renewtech had the privilege of providing Project Management Consulting (PMC) & KCP Solar Industry provided EPC Services with our sister concern of KCP Solar Industry as an EPC Player for BAP's Solar Power Project located at Madhuranthakam of Kancheepuram District, Tamil Nadu, India.

Project Highlights

- Project Size : 3 MW
- Project Type : Captive Consumption
- Location : Chennai, Tamil Nadu
- End Client : British Agro India Limited
- EPC Contractor : KCP Solar Industry
- Area Covered : 8 acres
- Project Completion : 2019 Mar

3 MW – KCP & British Agro

Owner’s Engineer & EPC Contractor

Design Engg | Procurement Strategy | Construction Management



Project Highlights:

- Project Size : 6.6 MW (DC), 5 MW (AC)
- Project Type : Captive Consumption
- Location : Trichy, Tamil Nadu
- End Client : Shri Varalakshmi Company
- EPC Contractor : KCP Solar Industry
- Area Covered : 20 acres
- Tilting : Seasonal Tilt
- Project Completion : 2019 November

5 MW – Shri Varalakshmi Company

Owner's Engineer & EPC Contractor

Design Engg | Procurement Strategy | Construction Management



Project Highlights:

- Project Size : 6.9 MW (DC), 6 MW (AC)
- Project Type : Power Purchase Agreement (PPA)
- Location : Aruppukottai, Virudhunagar.
- End Client : Ahil Green Energie Private Limited
- EPC Contractor : KCP Solar Industry
- Project Mode : Ongoing
- Area Covered : 21 acres
- Project Completion : 2020 July

6 MW – Ahil Green Energie Pvt. Ltd.

Owner's Engineer & EPC Contractor

Design Engg | Procurement Strategy | Construction Management



ACE Renewtech had the privilege of providing Operations and Maintenance (O&M) service as an PMC Player of the same project for BAP's Solar Power Project located at Madhuranthakam of Kancheepuram District, Tamil Nadu, India.

Project Highlights

- Project Size : 3 MW
- Project Type : Captive Consumption
- Start Month : May, 2019
- Period : 5 Years
- PR achieved : 79% (Average)
- Highest Generation : 13900 Units/day

3 MW – KCP & British Agro

Operations & Maintenance

O&M Management | Lifecycle Management



ACE Renewtech had the privilege of providing Operations and Maintenance (O&M) service as an PMC Player of the same project for SVC's Solar Power Project located at Puthanampatti of Trichy District, Tamil Nadu, India.

Project Highlights

- Project Size : 5 MW
- Project Type : Captive Consumption
- Tilting : Seasonal Tilt
- Start Month : December, 2019
- Period : 5 Years
- PR achieved : 78% (Average)
- Highest Generation : 40873 Units / day

5 MW – Shri
Varalakshmi Company

Operations & Maintenance

O&M Management | Lifecycle Management



ACE Renewtech had the privilege of providing Operations and Maintenance (O&M) service as an PMC Player of the same project for SVC’s Solar Power Project located at Puthanampatti of Trichy District, Tamil Nadu, India.

Project Highlights

- Project Size : 12 MW
- Project Type : Captive Consumption
- Tilting : Seasonal Tilt
- Start Month : January, 2020
- Period : 5 Years
- PR achieved : 78% (Average)
- Highest Generation : 62000 Units / day

12 MW – LR ENERGY

Operations & Maintenance

O&M Management | Lifecycle Management



PV Power Plants

Rooftop



PV Power Plants

Ground Mount





PV Power Plants

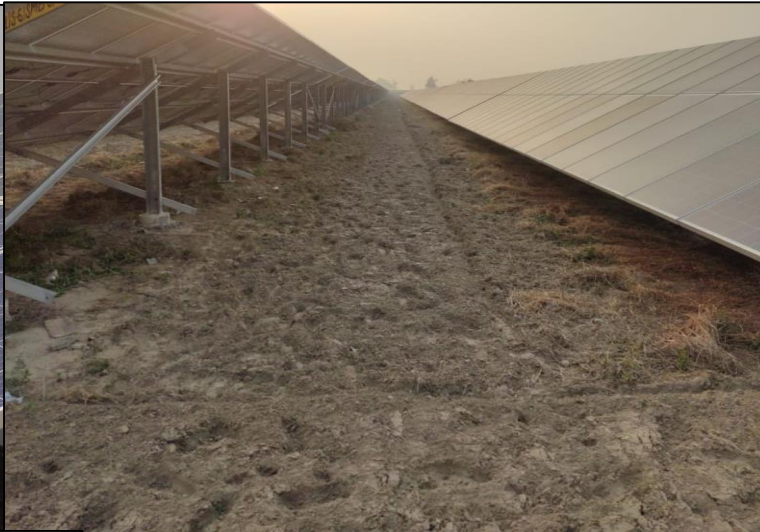
Battery Storage | Hybrid





PV Power Plants

Operations & Maintenance



Why you choose us?

Perfect partner for Project developers, EPC Contractors, and Investors



Technical Expertise

To ensure top quality products and services to our client



Sustainability

We care about People, profit & Planet



Quality - Focused

We assure top notch, cent-per-cent quality for all projects from small kW's to large MW's scale.



Health & Safety

H&S of our workers & plants are our top priority.



NEW BUSINESS VERTICALS

Charging Infrastructure
Development of Charging Infrastructure (CI) for Electric Vehicles (EV)

Mini-Grid

Development of Mini-Grid Infrastructure for Tribal and Rural Communities

Energy Storage

Energy Storage Solutions for Commercial and Industrial sectors

PV Recycling

We are open to partnerships with firms who are into PV recycling through thorough life cycle analysis and material & resource efficiency





THANK YOU