



# ACE Renewtech

*A Unique One-Stop Solution Provider in Solar PV ..!*

- Backed up by 33 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.

# About Us

Leading Solar PV Consultancy Organisation

*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.

# The Team

‘Family United that shall Never be Defeated’



## Leadership



**Mr. Ashok Kumar P**  
Director



**Mr. Ramachandran. B**  
Director



**Mr. Praveen Kumar P A**  
Chief Executive Officer



**Mr. Karthikeyan Subramanian**  
Executive President

## Panel of Experts

**Mr. Sridhar Raghavan**

Sr. Advisor - Distribution | Transmission

**Mr. Gomathi Nayagam**

Sr. Advisor - Civil | Structural

**Mr. Thirumoorthy**

Chief Technical Advisor

# What we do?

A Unique One-Stop Solutions Provider



## Project Engineering



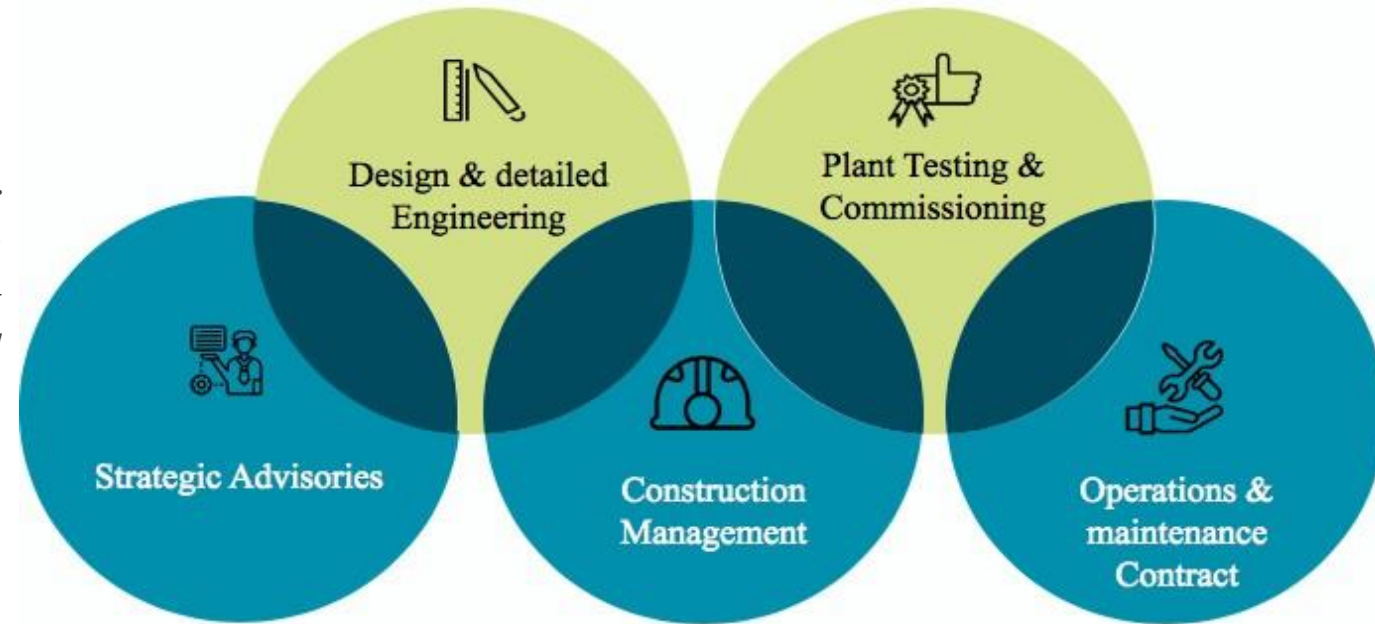
*To Harness Green & Clean Energy, at ACE Renewtech, We Design, Engineer & Optimize Solar PV Projects to Achieve a proper balance between project cost estimate and adoption of technological improvement which ultimately leads to formation of a project with formidable technology base combined with economic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



# Methodology

From Concept to Completion & Whole Lifecycle Management



## OWNER'S ENGINEER



Maximizing ROI with Highest Yields

Protect Owner's Interest

Detailed Engineering for cost Optimization

Contractor and Vendor Independent

Highest Quality in Project Construction

PROJECT INVESTOR/OWNER

## PROJECT MANAGEMENT CONSULTANT

Detailed Engineering & Expert Cost Estimation

Project Optimization for highest PAT

Technical Contracts Review

Construction Management

On Time Commissioning

PROJECT DEVELOPER/EPC CONTRACTOR



# Methodology

From Concept to Completion & Whole Lifecycle Management



**LIFECYCLE MANAGEMENT CONSULTANT/O&M  
CONTRACTOR**



Expert Analytics &  
Execution team for  
O&M

Plant Health Management  
with Analytical Team

Asset Management  
Services

Bridge the Gap between  
Buyer & Seller

PV Forecasting Services

**PROJECT INVESTOR/DEVELOPER/EPC  
CONTRACTOR**

**LENDOR'S ENGINEER**

Bankable DPR Presentation

Analysis of IRR & ROI  
Calculation

Reverse IRR estimation for  
reselling

Estimation of  
Project value

Plant Health Study

**PROJECT INVESTOR/BANKS**



# 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

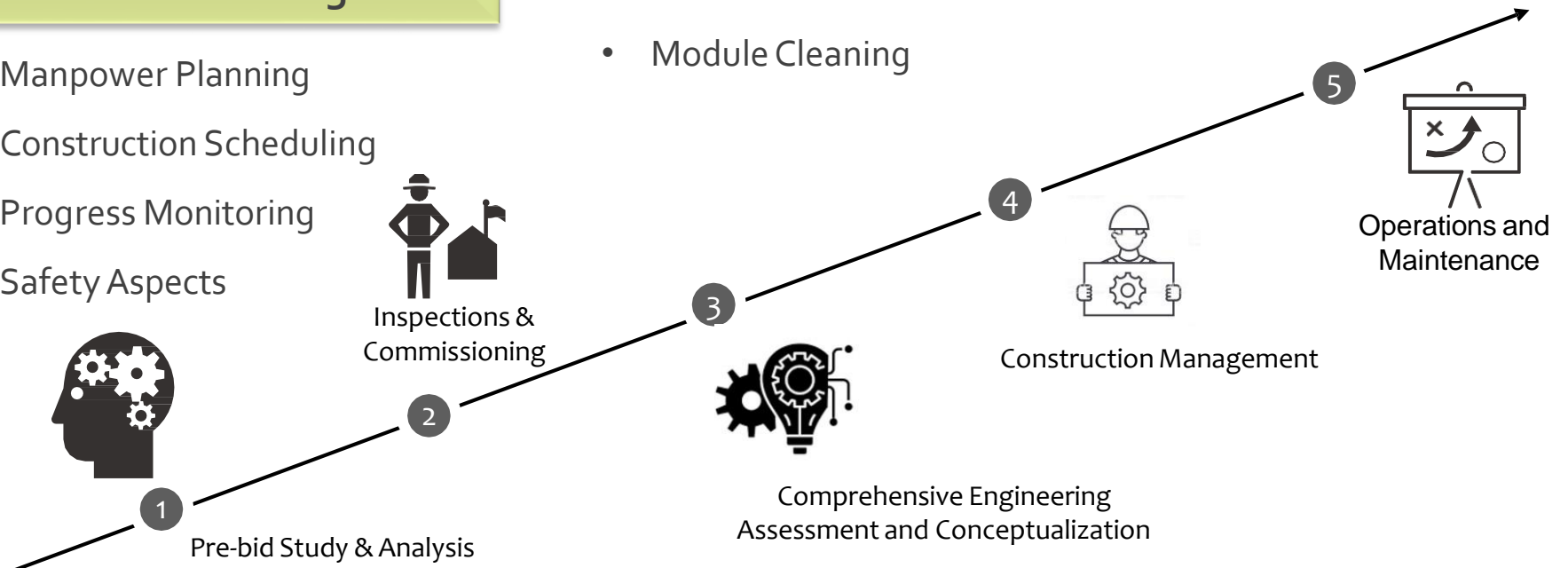
- Conceptual Design
- Detailed Engineering & Procurement Services

## 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



# Scope of Services – In a Nutshell

From Concept to Completion & Whole Lifecycle Management



## STRATEGIC ADVISORIES



### 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)



### 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
- Special Services – IV Curve Tracing, Infrared Inspection, Independent PR Test.

# Scope of Services – In a Nutshell

From Concept to Completion & Whole Lifecycle Management



## *STRATEGIC ADVISORIES*



### 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



## *LENDER'S ENGINEERING*



### Pre-Financial Closure Phase

- Review of Project Facility
- Review of Project Design
- Project Commercial appraisal
- Review of arrangements
- Review of Cost Breakup & Schedule
- Review of BOM & Technical Specifications
- Verification of Approvals & Clearances.



### Implementation Phase

- Physical Progress monitoring
- Verification of actual cost incurred
- Scrutiny of Test Reports
- Periodic Site Inspections
- Review of drawdown requests



### Post Commissioning Phase

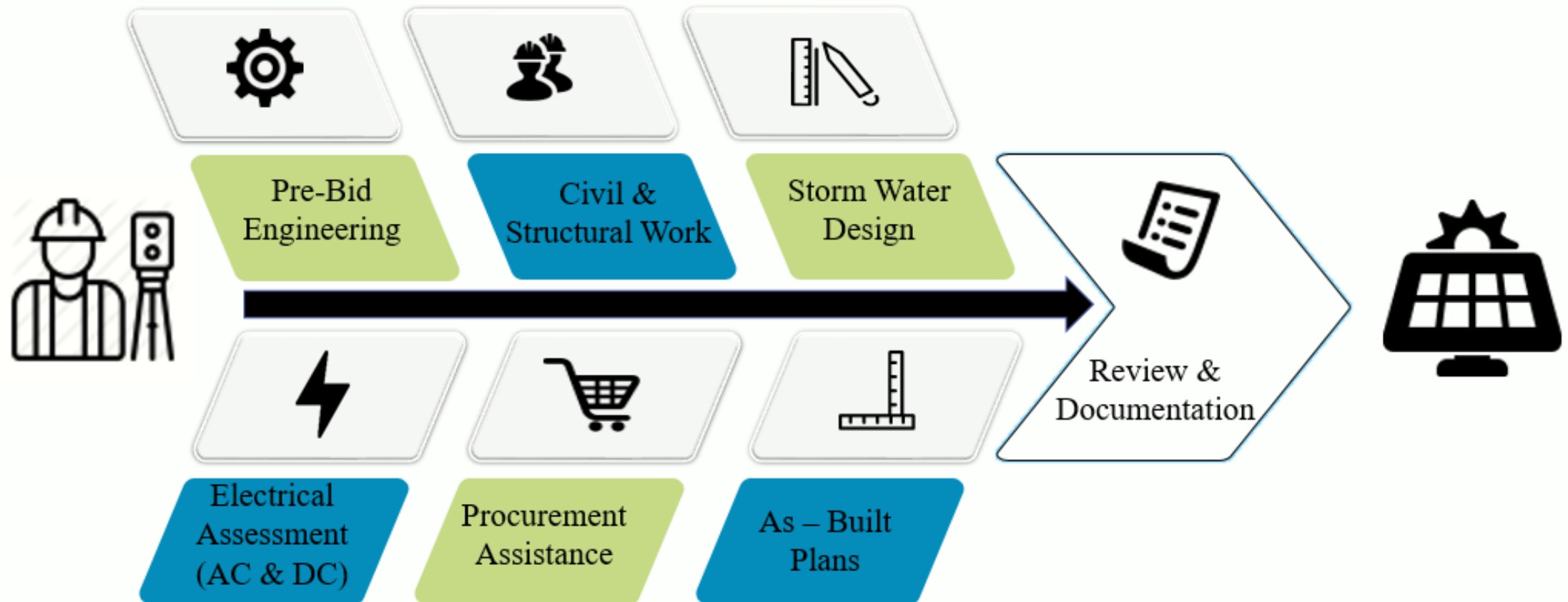
- Review of O&M arrangements
- O&M schedule review
- Comments on adequacy of spares
- Periodical performance assessments
- Periodical O&M site Inspections



# Scope of Services – In a Nutshell

From Concept to Completion & Whole Lifecycle Management

## *DESIGN ENGINEERING*



# Scope of Services – In a Nutshell

From Concept to Completion & Whole Lifecycle Management



## ***CONSTRUCTION MANAGEMENT***

Our expertise is cantered on maximizing energy yields through Standard design and selection of quality-good components. We guarantee our designs and implementing the procurement strategy as Owner's Agent. We coordinate, construct, supervise, and carryout construction activities until Installation & Commissioning. We currently do all the following on behalf of our owners:

- ✓ Engineering & Design Co-Ordination.
- ✓ Store and HR Management.
- ✓ Construction.
- ✓ Health and Safety.
- ✓ Plant Testing & Commissioning.
- ✓ Plant Handover.



# Scope of Services – In a Nutshell

From Concept to Completion & Whole Lifecycle Management



## **QUALITY ASSURANCE**

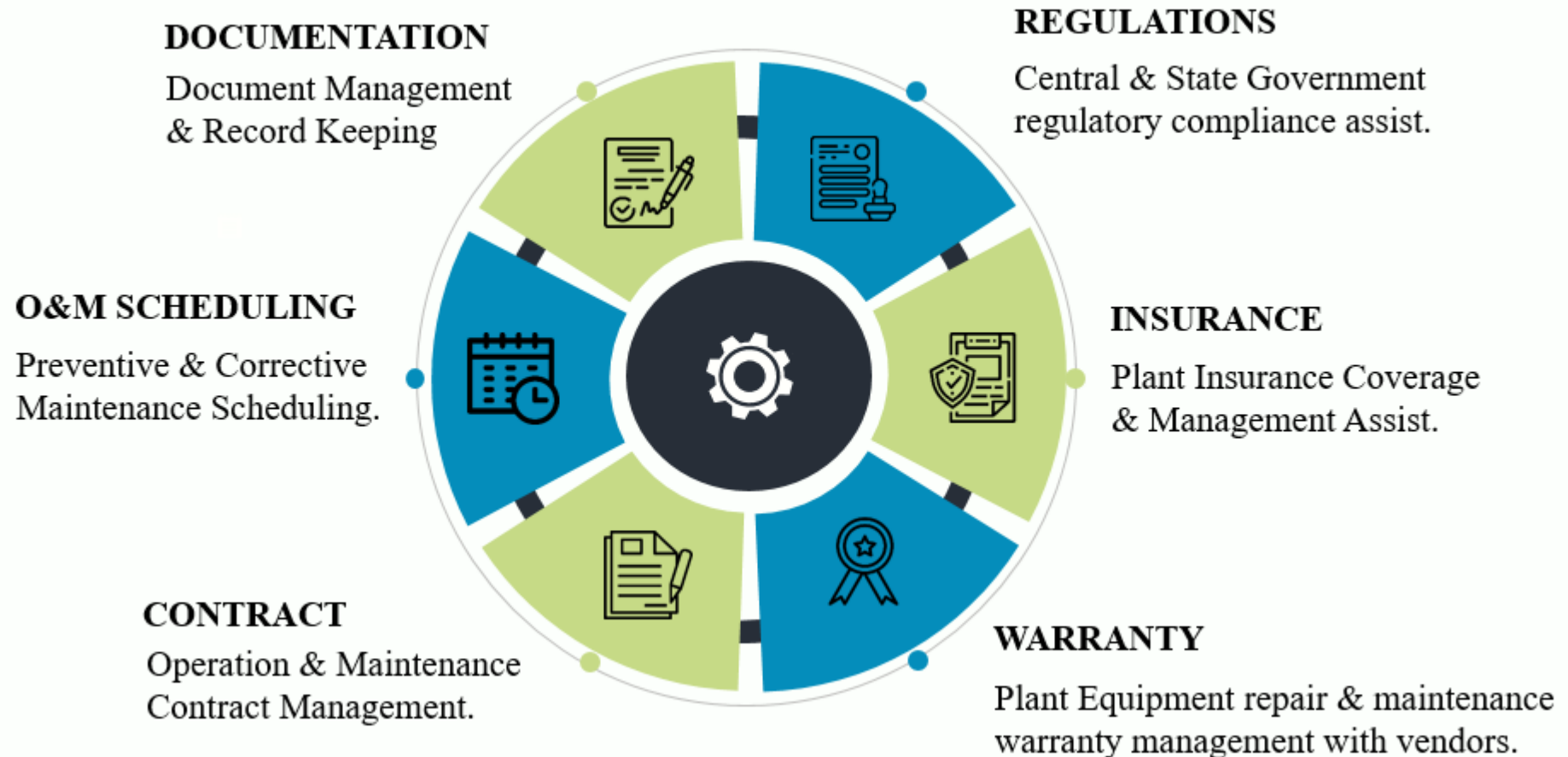
- Our quality policy is an enabler for our team to upgrade their workmanship continuously and deliver products with zero defect adding value to our customers.
- Implementing a Quality Assurance Plan (QAP) will efficiently diminish the technology risk associated with solar investment. Robust quality systems need to be in phase for performing vigorous material level evaluation, production process and post-production process.
- ACE have stringent Testing and quality assurance plan at OEM place to maintain equipment standards as per project specifications and design requirements.
- Our brief Scope Includes;
  - ✓ Site Quality Assurance Plan
  - ✓ Module Quality Assurance
  - ✓ Other Balance of System Assurance



# Scope of Services – In a Nutshell

From Concept to Completion & Whole Lifecycle Management

## ***OPERATIONS & MAINTENANCE***



# 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

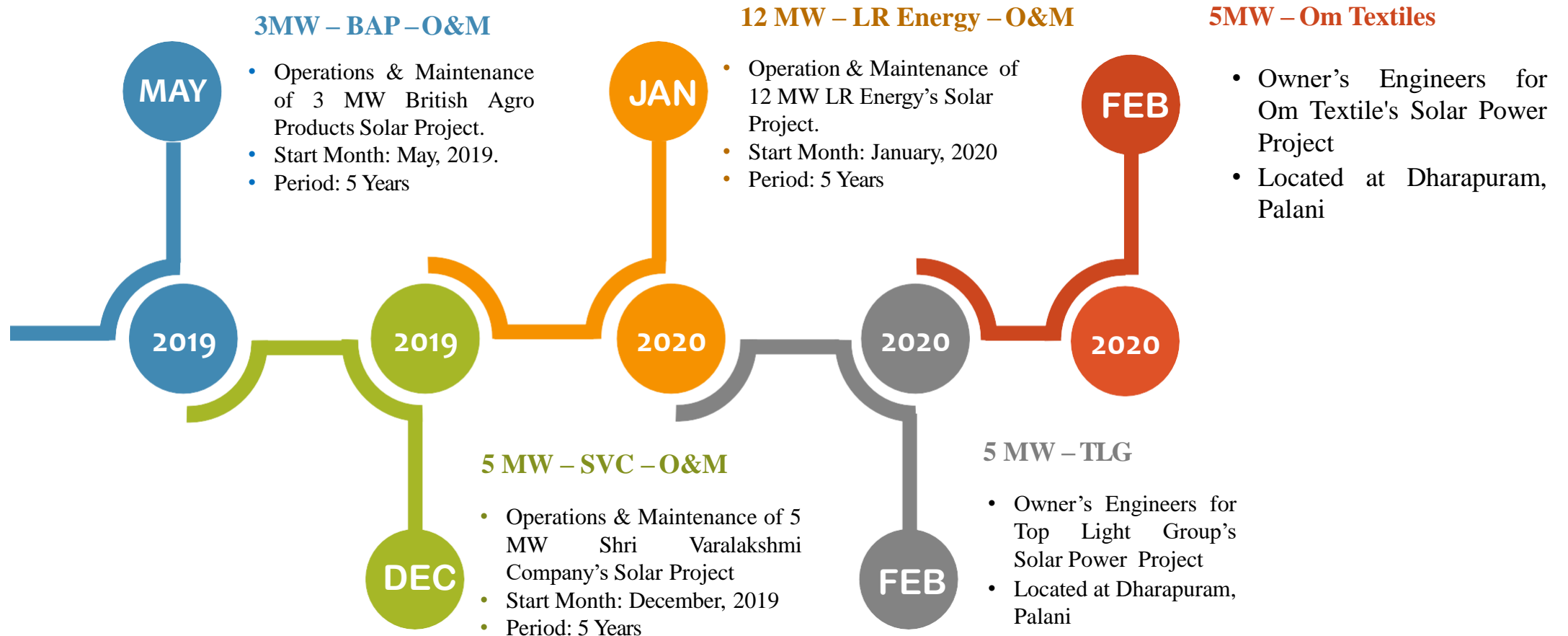
- Owner's Engineer for Ahil Green Energie's PPA Type Solar Power Project
- Located at Aruppukottai, Virudhunagar

JUL

# TIME LINE



Continued.....





# Credentials

Optimum Design, On-time deliverables & 24x7  
Coordination



ACE Renewtech had the privilege of providing Project Management Consulting (PMC) 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
- Area Covered : 370 acres
- Project Completion : 2019 August
- Highest Generation : 6.3L Units/day

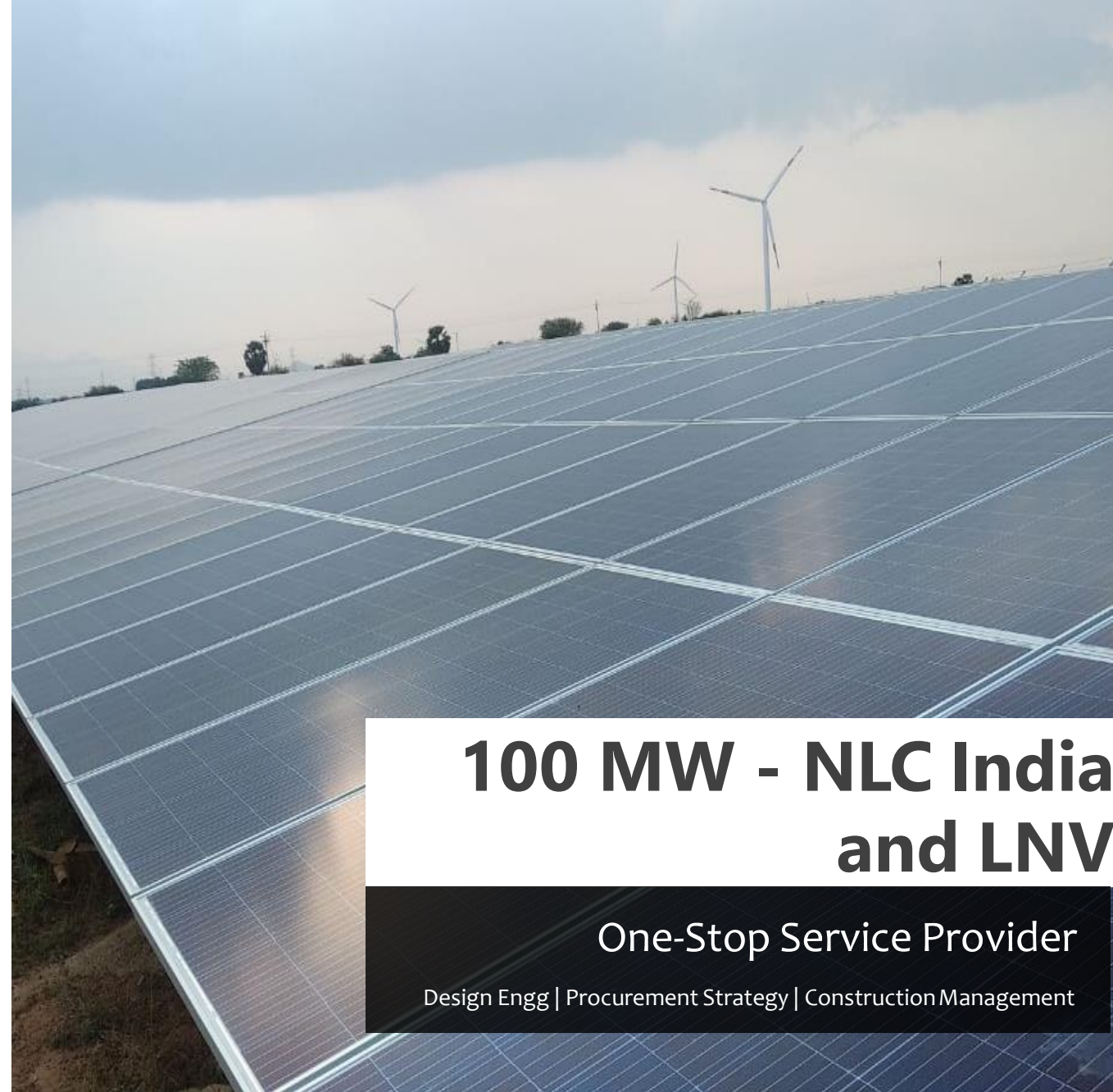
# 100 MW - NLC India and LNV

## One-Stop Service Provider

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

# MILESTONES

- 🚩 Raved the Solar PV Service-Provider with 100 MW Debut and achieved the 'Best Project' status from NLCIL
- 🚩 Working with Navaratna Organisation like NLC India, we flourished project construction methodology in terms of stringent specifications and quality adherence of equipment and construction.
- 🚩 Backbone of our client LNVT's Pre – Bid Engineering Preparation & Cost Optimization and succeeded in making our client LNVT as L1 Bidder in their Debut Solar Contract
- 🚩 Undertook Construction Management Services with Quality Supervision at site with the perseverance of 20+ Engineers
- 🚩 MQP and QAP inspections carried out at vendor by our specialized team



**100 MW - NLC India  
and LNVT**

**One-Stop Service Provider**

Design Engg | Procurement Strategy | Construction Management

# GALLERY





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

One-Stop Service Provider

Design Engg & Review | Construction Management

# MILESTONES

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- 🚩 An Appreciation for our Flawless perseverant work in the previous 100 MW with LNV
- 🚩 Completed Detailed Engineering and sought approval from NLC in record time of 60 Days to start the site activity on time
- 🚩 Construction Management is done with 30+ Engineers
- 🚩 Constant Interaction on the updates by virtue of Weekly Reports
- 🚩 Completed successful commissioning of 100MW project in Eight (8) Months.



**100MW–NLCINDIAand  
PREMIER**

**One-Stop Service Provider**

Design Engg & Review | Construction Management

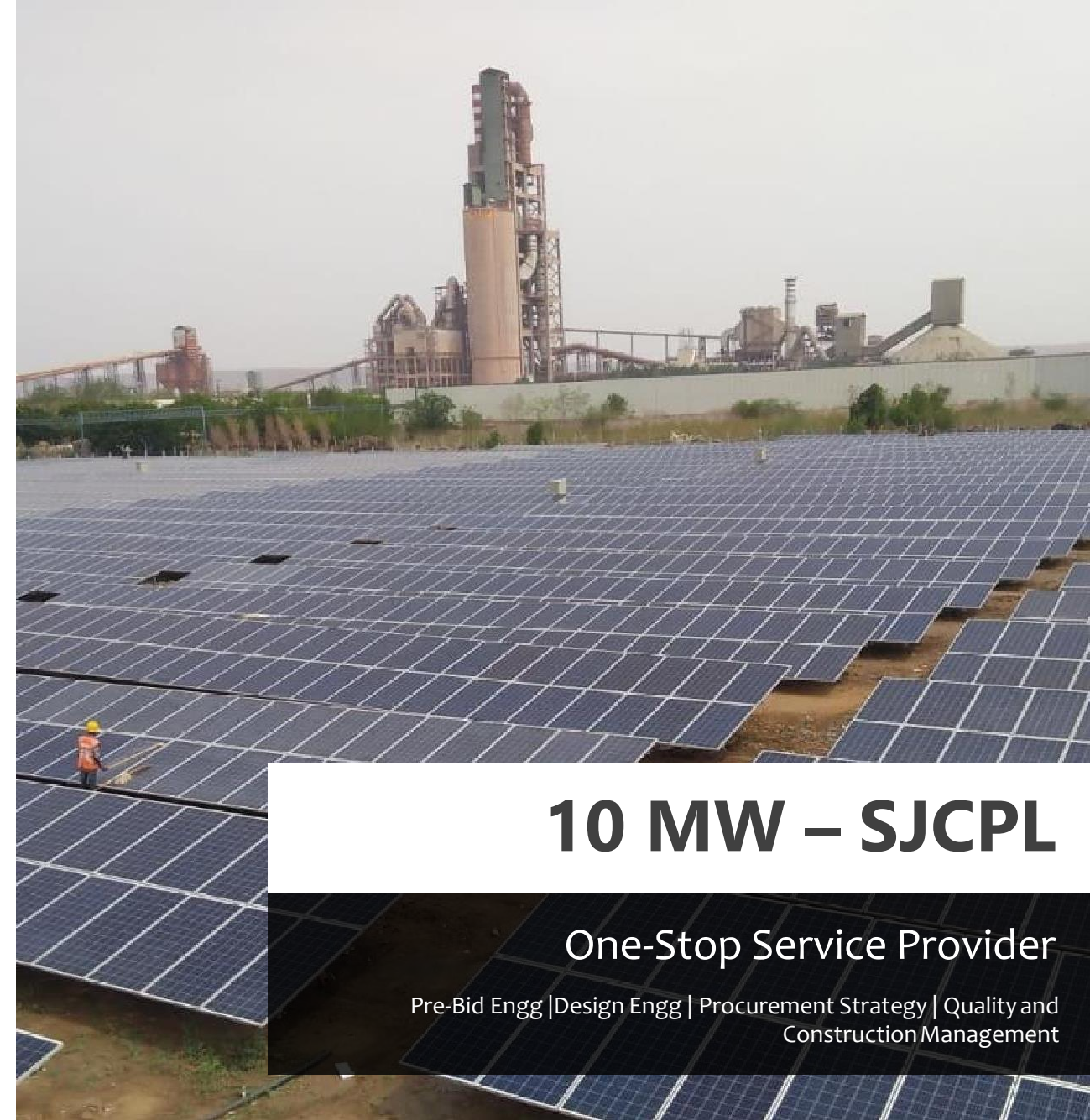
# GALLERY



**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**

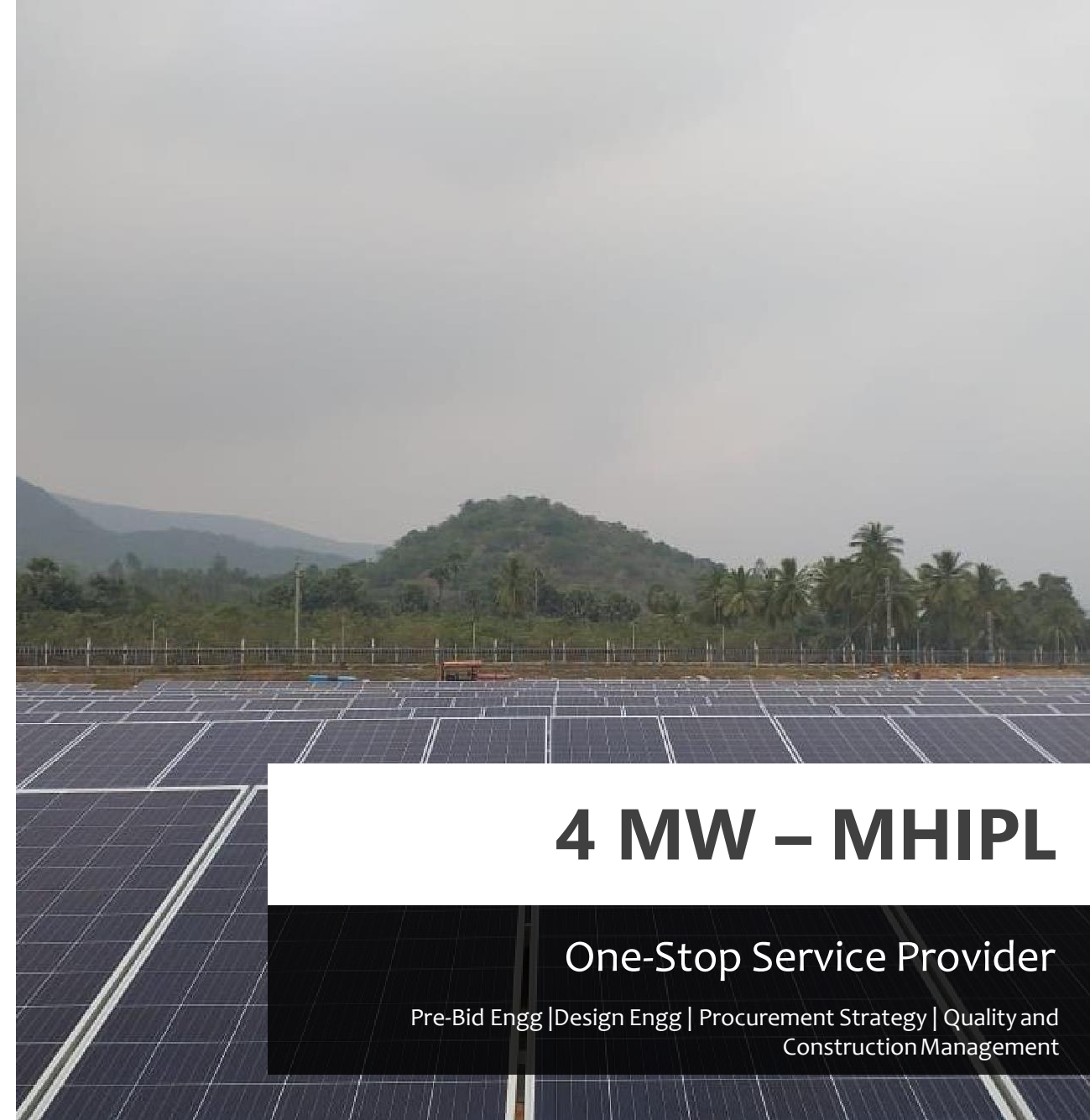
**One-Stop Service Provider**

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

### One-Stop Service Provider

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

# MILESTONES

- 🚩 First of its kind in India designed with 1500V (DC) & 800V (AC) with String Inverters to reduce losses & increase Efficiency Time & Cost Optimization.
- 🚩 Pre – Bid Engineering activities with direct end-client coordination and successful bid.
- 🚩 Comprehensive Construction Management Support for Quality Construction and On-Time Commissioning achieved at site with our Site Construction management and Quality Assurance team.



## 10 & 4 MW – MY HOME

### One-Stop Service Provider

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



ACE Renewtech had the privilege of providing Project Management Consulting (PMC) 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

Design Engg | Procurement Strategy | Construction Management

# MILESTONES

- 🚩 First of its kind in Tamil Nadu designed with 1500V (DC) & 800V (AC)
- 🚩 Employed 90 kW String Inverters to reduce losses & to increase Efficiency
- 🚩 Successfully Commissioned in 70 Days
- 🚩 Achieved Peak Efficiency up to 2.5 MW with 3 MW(DC)
- 🚩 Comprehensive Construction Management Support
- 🚩 Operations & Maintenance taken by us



## 3 MW – KCP & British Agro

Owner's Engineer

Design Engg | Procurement Strategy | Construction Management

# GALLERY





### Project Highlights:

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

## 5 MW – Shri Varalakshmi Company

Owner's Engineer

Design Engg | Procurement Strategy | Construction Management

# GALLERY





### 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
- Project Mode : Ongoing
- Area Covered : 21 acres
- Project Completion : 2020 July

## 6 MW – Ahil Green Energie Pvt. Ltd.

Owner's Engineer

Design Engg | Procurement Strategy | Construction Management



# Credentials

## Operations & Maintenance



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

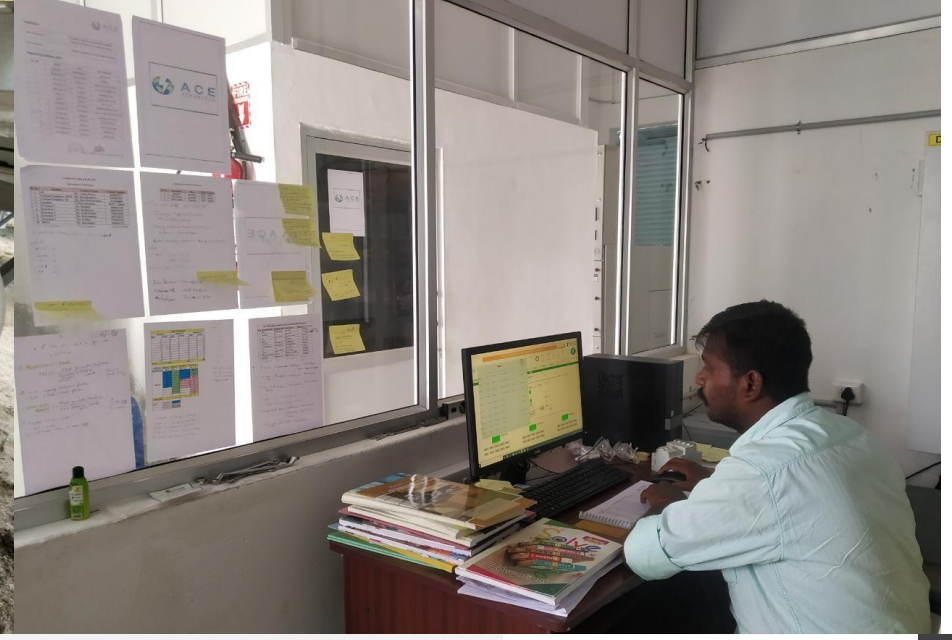
- Project Size : 5 MW
- Project Type : Captive Consumption
- Tilting : Seasonal Tilt
- Start Month : December, 2019
- Period : 5 Years
- PR achieved : 78% (Average)
- Highest Generation : 40873 Units / day

5 MW – Shri Varalakshmi Company

Operations & Maintenance

O&M Management | Lifecycle Management

# GALLERY





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

# GALLERY





# Credentials

International Projects

# MALDIVES



ACE Renewtech had the privilege of providing Pre-Bid Engineering and Design & Detailed Engineering service for 21 MW Solar PV Power Projects as an PMC Player.

## PROJECT DETAILS:

**CLIENT** : M/s. GKD Groups

**CAPACITY** : 21 MW (AC)

**PROJECT DESCRIPTION** : Installation of 21 MW Grid-tied Solar Photovoltaic System in Addu City, Fuvahmulah City, Kulhudhuffushi City, GDh. Thinadhoo, B. Eydhafushi and Lh. Hinnavaru under Design, Build, Finance, Own, Operate, and Transfer Basis.

**PROJECT LOCATION** : Maldives

**PROJECT START MONTH** : May, 2020

**PROJECT STATUS** : Ongoing

# OMAN



ACE Renewtech had the privilege of providing Pre-Bid Engineering and Design & Detailed Engineering service for 15 MW Solar PV Power Project as an PMC Player.

## PROJECT DETAILS:

<b>CLIENT</b>	: M/s. Global Chemicals & Maintenance Systems LLC.
<b>CAPACITY</b>	: 15 MW(AC) , 18 MWp (DC)
<b>PROJECT DESCRIPTION</b>	: Design, procurement, quality control testing, supply, installation, and integration with electrical system, commissioning, flawless synchronizing/ Paralleling with available grids (i.e. utility power supply) & DG performance testing & guarantee and handing.
<b>TENDERING AUTHORITY</b>	: A'NAMAA Poultry Company SAOC
<b>PROJECT LOCATION</b>	: Ibri, Sultanate of Oman
<b>PROJECT START MONTH</b>	: April, 2020
<b>PROJECT STATUS</b>	: Ongoing

# MALAYSIA



ACE Renewtech had the privilege of providing Pre-Bid Engineering for Large Scale Solar (LSS) Photovoltaic project of 500 MW capacity in Peninsular Malaysia as an PMC Player. We have signed MOU with a company called “Curve Engineering” and worked for 100 MW capacity of Solar power project in LSS Scheme. In join hands with curve we also provided solar solutions for Rural Electrification in Sarawak Region, Malaysia.

## LSS PROJECT DETAILS:

<b>CLIENT</b>	: M/s. Curve Engineering.
<b>CAPACITY</b>	: 100 MW (AC)
<b>PROJECT DESCRIPTION</b>	: Large Scale Solar Photovoltaic Plant in Peninsular Malaysia (LSS3)
<b>PROJECT LOCATION</b>	: Malaysia
<b>PROJECT STATUS</b>	: Completed

# 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

Mr. Praveen Kumar PA CEO



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