

Your Associate for Energy Efficient Cost Effective EPC Solar Solution, Manufacturer of Solar Water Pumps, Controllers and Solar Power Consultant

INTRODUCTION

- ◆ Legacy of more than 30 years
- ♦ We are a multi-Crore industrial setup
- ♦ We diversified to solar power in the year 2012
- ◆ OEM of SPV Pumps and Controllers
- ♦ Our Products are tested by MNRE authorized Laboratories
- ◆ ISO-9001-2015 and ISO-14001-2015 certified company
- ♦ We have tie up with DCR/Non DCR Panel manufacturers of repute make for EPC Work
- ♦ We have installed almost 7000 number of SPV Water Pumping Systems so far
- ♦ We have installed almost 5 MW capacity of Solar Power Plants so far

We are successful bidders in the national tender of SECI (Solar Energy Corporation of India) in five states as detailed in next slide:

Request for Selection (RFS) Document for Selection of Vendors for Design, Manufacture, Supply, Transport, Installation, Testing and Commissioning of Off-Grid Solar Photovoltaic Water Pumping Systems (SPWPS) of 1-10 HP capacities in selected States on PAN India basis, including complete system warranty and its repair and maintenance for 5 Years under Component-B of PM-KUSUM scheme of MNRERFS No. SECI/C&P/MI/00/0010/2022-23 dated: 31.12.2022

We expect to receive huge Work order in bulk quantity and our current turnover shall increase by multifold.

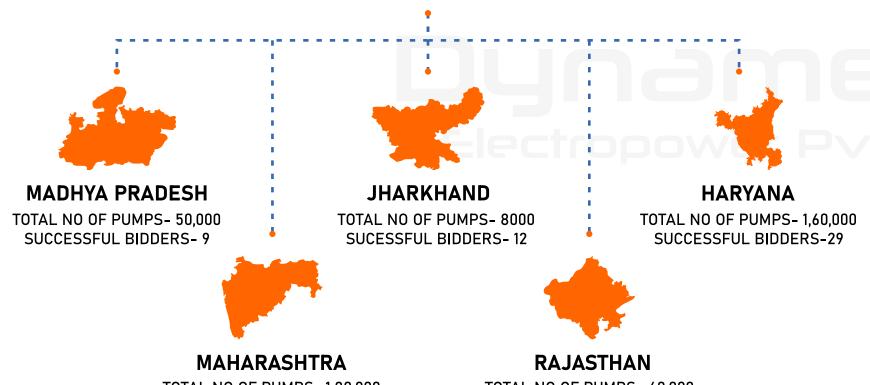


HOW SOLAR **PUMP** WORKS?

- ◆ The working of the solar pump starts with the solar panel. Solar panels are made up of a bunch of small silicon solar cells that absorb the sunlight and convert it into DC electricity, which powers the pump. The solar pump directly connects with the solar panel through a MPPT solar pump controller. So whenever sunlight hits the solar panel and you turn the pump on, it starts to lift the water.
- ♦ In case you are using an AC water pump, then the generated electricity will pass through the solar inverter. Therefore, you will have to install a solar inverter with your solar pump. The inverter will convert DC electricity into AC electricity & then transfer it to the pump.



Solar Energy Corporation of India



TOTAL NO OF PUMPS- 1,80,000

SUCCESSFUL BIDDERS-39

TOTAL NO OF PUMPS- 40,000 **SUCCESSFUL BIDDERS-24**

OUR ROAD MAP HOW DO WE WORK

GOVERNMENT
PLACES WORK
ORDER ON US AS
PER FARMER'S
REQUIREMENT

FARMERS SELECT OUR FIRM & APPLY ON GOVERNMENT PORTAL FOR SWPS

MARKETING
CAMPAIGN
FOR FARMERS
(USING CONVENTIONAL & DIGITAL MARKETING)

SITE SURVEY FOR INSTALLATION FEASIBILITY

MATERIAL PLANNING & VENDOR SELECTION

TESTING
PROCESS OF
SPV MODULES

INSTALLATION
OF SWPS AT SITE

PDI AT LOCAL GODOWN

RAW MATERIAL ORDER & DISPATCH

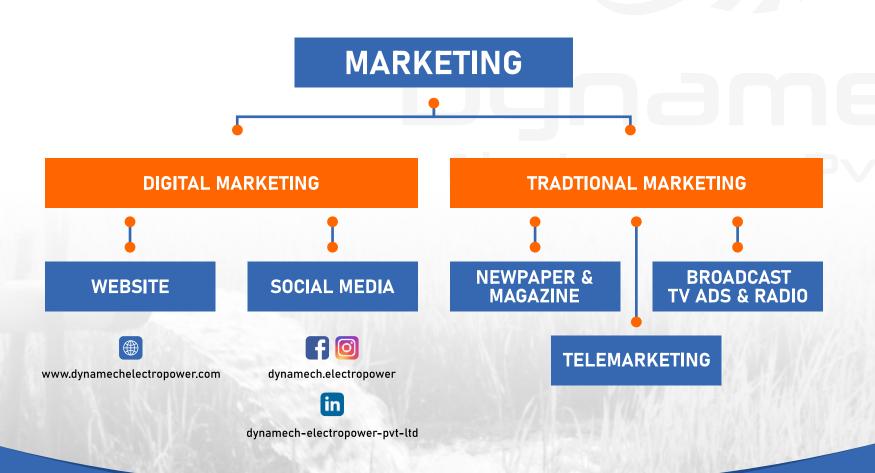
LOT CREATION & RMS MAPPING

JOINT COMMISSIONING REPORT SIGN

BILL SUBMISSION TO THE DEPARTMENT

PAYMENT

MARKETING PLAN OF DYNAMECH ELECTROPOWER



POSTER PRESENTATION





PEOPLE AWARENESS





MARKETING AT CUSTOMER SERVICE CENTRE POINTS





NON-MARKET MODE

- ♦ We participate in the government tender for their own institutional requirement
- ◆ This does not involve any subsidy
- ◆ Under non-marketing mode we have installed SWPS in the department MP Public Health Engineering Department, MP Forest Department and CREDA etc.

PAYMENT CYCLE

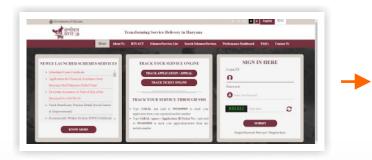
- ◆ Current rate contract period is of 2 years, which involve almost 8 to 11 cycles of payment for individual work order.
- ◆ Initially the first payment cycle is of 60 days, right from the date the work order is issued to the date when payment is received. This involves vendor selection ,compatibility testing, order of raw material to vendors, installation of received material, submission of JCRs (Joint Commissioning Report) and date of finally receiving the payment.
- ◆ Further payment cycles are of lesser duration, as the vendors are already selected and testing procedure is also completed in the first cycle.

FARMER APPLICATION ON PORTAL

- ◆ Farmer fill application form with required documents as below:-
- ◆ Land holding document
- ◆ Bank details(passbook)
- ◆ Family ID
- ♦ Adhaar card
- ◆ Registered mobile number
- ◆ After selection of the installer, save the details
- ◆ Acknowledgement submitted to the bank for payment process
- ◆ UTR no. upload on portal then complete the process for pump selection
- Photo of Farmer

HOW TO APPLY?

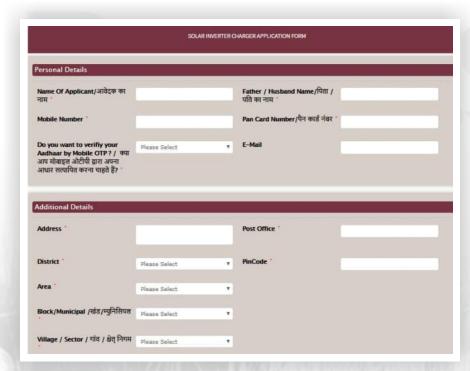
STEP 1



STEP 3



STEP 2



WORK ORDER

- ♦ We receive work orders from Government at different capacities along with quantity
- ♦ Here we are showing two Work Orders as example.



महाराष्ट्र ऊर्जा विकास अभिकरण (महाऊर्जा) महाराष्ट्र शासनाची संस्था

Maharashtra Energy Development Agency (MEDA)



REN/PM-KUSUM Component-B/LoA/2021-22/4798

Date: 5th December, 2022

M/s DYNAMECH ELECTRO POWER PVT. LTD., 55 & 56-A, Sector - H, Govindpura Industrial Area,

Sub: - Letter of Award (LoA) phase-II for Supply, Installation, Testing & Commissioning of 500 no of Off-grid Solar Photovoltaic Water Pumping System (SPWPS) on Turnkey basis for irrigation purpose under MNRE Component-B of PM-KUSUM Scheme.

- Ref: MNRE Office Memorandum No.F.32/645/2017-SPV Division dbd. 22nd july, 2019.

 2. ESSI, New Delhi tender No. ERSI,/06/2010-21/JPM-KUSUM/SWF3/01-10 Hg/Offi-grd/202010022 del 14/01.0221 with all amendements and clarifications.

 3. MNRE Sanction Letter No. 32/54/2018-SFV Division, did. 13nd January, 2021.

 4. God RG No. Samper-2037/jrs/Rax Sel/Julia-7 data12 Way, 2021.

- MNRE Office Memorandum No. 32/54/2018-SPV Division, dtd. 27th October, 2022.
- i. MEDA email dated 2nd November, 2022. 1. Your Letter of Acceptance dtd 30th November, 2022.

With reference to the subject & EESL, New Delhi, tender No. EESL/06/2020-21/PM-KUSUM/SWPS/01-10 Hp/Off-grid/202101032 dtd 14.01.2021 with all amendments and your letter of acceptance referred above, Maharashtra Energy Development Agency (MEDA) is pleased to issue Letter of Award (LoA) to you (hereinafter called 'Vendor') for Supply, Installations, Testing & Commissioning including 5 years of repair & maintenance and Comprehensive Maintenance Contract (CMC) of 500 no of Solar Photovoltaic Water Pumping System (SPWPS) for irrigation purpose on Turnkey Basis at various locations across the State of Maharashtra under Component-B of PM-KUSUM Scheme on rates, terms and conditions mentioned bereunder:

1. Total Cost (excluding GST) for Solar water Pumping System (SPWPS) with normal

Solar Pump Capacity / Type	3 HP DC	5 HP DC	7.5 HP DC	TOTAL		
Quantity	300	150	50	500		
Final L1 unit Price in Rs.	170301	237035	329000			
Total Price in Rs.	5,10,90,300/-	3,55,55,250/-	1,64,50,000/-			
Total Order Value in Rs.	10,30,95,550/-					
Order Value In words	Ten Crore Thirty Lakh Ninety Five Thousand Five Hundred Fifty Only					

औंच तेंड, स्पायसर कॉलेज समोर, पशुसंबर्धन अधुकतालवा शेजारी, औध, पुग्ने – ४११ ००७. सुध्वमी : ०२० – ३५०० ०४५०

Aunch Road, Opposite Spicer College, Near Commissione rate of Artiflat Hilbhundry, Aundh, Pune - 411 007 Tel. No.: 020 - 3500 0450 Web-site :www.mahaurja.com

New& Renewable Energy Department Harvana & HAREDA

M's DYNAMECH ELECTROPOWER PVT LTD 55-56A, Soctor-H, Govindpuru Industrial Area, Bhopel MP -462023

Memo no. DNREEH/2022/M/6

Notice to Proceed (NTP)/Work order for supply, installation and commissioning of solar water pumping systems under Component-B of the PM-KUSUM Scheme

- I. NIT no. EESL/06/2020-21/KUSUM/SWPS/1-10 HP/Off-Grid/202101032 dated
- II. DNRE & H amended Letter of Emparelment (LoE) No.14270-88 dated 15.12.2021.

The Department is pleased to place the work order of the stores as per the detail given below for design, manufacture, supply, installation, testing & commissioning of Solar Water Pumping Systems (SWPS) with five years warranty of the complete system(s) from the date of commissioning and PV modules used must be warranted for their output peak won capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 stars at various locations across the State of Haryana under PM-KUSUM Scheme on rates

1. PRICE (Excluding GST) for Solar Photovoltaic Water Pumping System with normal

Pump Capacity & Type	Controller	Rate/system (Rs.)	Quantity (Nos.)	Total Value
3 HP DC Surface	Normal	1,58,435	156	2,47,15,860
3 HP DC Submersible	Normal	1,64,000	3	4,92,000
3 HP AC Submersible	Nermal	1,59,500	17	27,11,500
5 HP DC Surface	Normal	2,27,000	147	3,33,69,000
5 HP DC Submersible	Normal	2,27,500	18	40,95,000
5 HP AC Submersible	Normal	2,27,000	66	1,49,82,000
7.5 HP DC Surface	Normal	3,23,000	48	1,55,04,000
7.5 HP DC Submersible	Normal	3,23,400	22	71,14,800
7.5 HP AC Submersible	Nermal	3,25,000	78	2,53,50,000
		Total	555	12.83.34.168

(Total work order value is Rs. Twelve Crore Eighty Three Lakh Thirty Four Thousand One Hundred Sixty only, excluding GST)

2. Eligible Beneficiary (farmer) for Solar Photovoltaic Water Pumping (SWPS)

List of beneficiary is attached with this work order as per selection of supplier by the farmer applicant. The supplier has to carry out site survey on said applicant within 15 days and if any ning /no feasibility observed then the said same be informed within 15 days and alternate beneficiary shall be provided.

FORFEITURE OF EMD

- ◆ If the Bidder withdraws or varies the bid after due date and time of bid submission and during the validity of bid.
- ◆ In case, the SIA issues LOA to the Selected Vendor and if the Selected Vendor does not submit the Performance Bank Guarantee within the stipulated time period (i.e. 15 days from issuance of LOA);
- ◆ If after empanelment of vendors or after issuance of LOA by SIA, it is found that the documents furnished by the Bidder as part of response to RFS are misleading or misrepresented in any way.

PERFORMANCE BANK GUARANTEE (PBG)

- ◆ A Performance Guarantee for a value @ 3% of the amount equivalent to the 6% of the value of total state-wise allocation or 25 numbers of SPWPS, whichever is higher.
- ◆ However, if total number of SPWPS awarded to vendor is more than 25 nos. of SPWPS or 6% of the value of total state-wise allocation. vendor shall submit another PBG equivalent to differential value of order as per notice to proceed (NTP).
- ♦ Bidders shall submit the Performance Guarantee with a validity period up to (& including) the date as on 24 months from placement of award by respective SIA. Validity of PBG shall be extended by the vendor for every year for the first five year.
- ◆ All Performance Bank Guarantees (PBGs) shall be submitted separately for each State/UT.

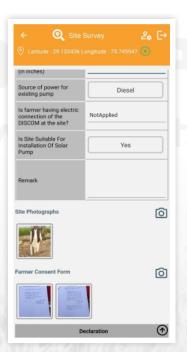
SITE SURVEY











AFTER SALES SUPPORT

After installation and commissioning of SPWPS along with 5 years of repair and maintenance, the firm shall ensure :-

- ◆ Timely maintenance of SPWPS
- ◆ Training a local person
- ♦ Making available necessary spare parts & tools in each district,
- ◆ Vendor shall have one authorized service centre in each operational district
- ♦ Helpline in local language in each operational State.
- ♦ Each pump should be marked with Toll Free No. of successful bidder

MATERIAL PLANNING

MATERIAL PLANING

SOLAR PUMP SET WITH ON SITE WARRANTY SOLAR MODULES AT DIFFERENT CAPACITY HOT DIP GALVANIZED MMS

BALANCE OF SYSTEM

TEST REPORT

- ♦ Compatibility tests are cheaper than buying Modules and solar pump sets from other individual vendors for every other city/state.
- ♦ Hence, we conduct a compatibility test of the module and solar pump set which adds to our delivery time.





ULR - TC877422000001618F

MAXOP RESEARCH & TESTING INSTITUTE PVT.LTD.

TERI Gram, Gwal Pahari, Gurgaon-Faridabad Road, Gurgaon-122003

™www.maxop.com 2011-41637224/323

2022-2023 **SPV MODULE** COMPATIBILITY REPORT

Discipline

Submitted by

: Miscellaneous Product Module Manufacturers names

: M/s ECE (India) Energies Private Limited : M/s Icon Solar-En Power Technologies Pvt. Ltd.

: M/s Dynamech Electro Power Pvt. Ltd.

Test Report No.	Date of Issue	Total No. of pages	Page No.
MRTMCT20220319	26.04.2022	5	1

MATERIAL ORDER

- ◆ Ordered material must be as per MNRE guidelines.
- ◆ F.O.R. charges are inclusive.
- ♦ Motor pumps & controller should be 5 year on site warranty service.
- ◆ Material must be supplied along with certification specified by MNRE.
- ◆ Material ordered with 10% to 30% amount in advance as required and rest through against before dispatch the material. After sharing TAX invoice and E-way Bill.
- ♦ All the material supplied must be covered under transit insurance.

PRE DISPATCH INSPECTION







MATERIAL DISPATCH





INSTALLATION & COMMISSIONING

- ♦ Installation and commissioning of SPWPS is to be in co-ordination with respective SIAs for repair and maintenance of SPWPS for 5 years.
- ♦ Monthly consent of beneficiaries in their Favor to SIA for which SIA's issue Notice to Proceed. The installation work is to be completed within 120 days.

INSTALLATION







OPERATION & MAINTENANCE

- ♦ Minimum 2% of allotted quantity of each component of the complete system is to be maintained at the service centre. Ensure to provide local training to local persons regarding proper maintenance of SPWPS.
- ◆ Any complaint should be attended within 3 days from date of complaint received/informed to the vendor.
- ♦ MNRE officials, SIA may inspect the systems during the installation or operational phase. In case the installed systems are not as per the standards, SIA reserves the right to encash the CPG and/or blacklist the vendor for the period 3 years.
- ◆ Rating of installed SWPS, with Clear instruction on regular maintenance and troubleshooting, Preventive maintenance schedule, warranty coverage, Dos and Don'ts and Name and address of the contact person for repair and maintenance in case of nonfunctionality are to be furnished.
- ◆ The 0&M cost for 5 years should be inbuilt with system cost.

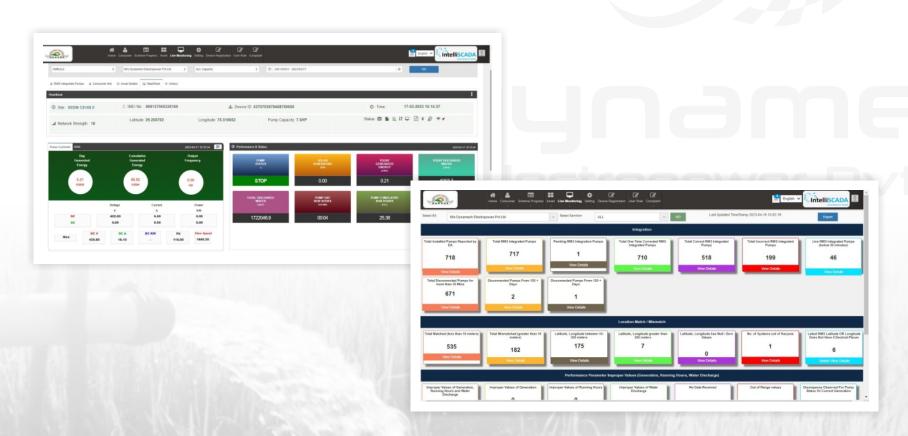
OPERATION & MAINTENANCE

- ◆ Insurance coverage for the installed systems should be against natural calamities and theft Selected Vendor shall provide a copy of valid insurance certificate of SPWPS to the beneficiary and same shall be renewed every year.
- ◆ Vendors have to provide the Remote Monitoring System (RMS) failing which the installation of the system will not be accepted by SIA.
- ◆ Vendor shall ensure that the local training, awareness and sensitization campaigns on usage of the SPWPS are conducted.

WARRANTY & MAINTENANCE

- ◆ The complete Solar Photovoltaic Water Pumping System and display board / Name Plate (SIA's will provide the details) shall be warranted and maintained for 05 years from the date of installation.
- ◆ Local representative of bidder should meet governing authorities of each block and should submit the minutes of meeting to SIA's on quarterly basis.

LOT CREATION & RMS



JCR SIGNING

- ◆ After installation we create a lot on portal then submit the details.
- ◆ After mapping the RMS with controller then, four photos are uploaded on portal.
- ♦ Hard copy of JCR submitted to the district officer
- ◆ District officer check the hard copy and verify the details which are uploaded on portal
- ◆ After verification of all the details district officer sign the JCR.

BILL SUBMISSION

After signing the JCR. Bill submitted to the head of the department with following documents.

COVERING LETTER

CONSOLIDATE INVOICE

FARMER LIST

ORIGINAL COPY JCR

PAYMENT PROCESS

Stage-1: 90% of the value of month wise nos. of SPWPS installed at site based on :-

- ◆ Submission of detailed work plan (Project Execution Plan) with timeline for the lot supplied duly approved by the SIA's representative.
- ◆ Submission of evidence in hard copy regarding completion of installation of SPWPS in good condition at site duly verified and acknowledged by Engineer-In Charge/SIA and Beneficiary.
- ◆ All the relevant warranty and quality (Performance Test Reports) of the lot to be submitted.
- ◆ Signing of contract agreement between SIA and Vendor.
- ◆ Submission of Original Supply invoices/bills duly verified by the SIA.
- ◆ Submission of software generated installation reports as per prescribed format by SIA which shall include following but not limited to consumer details, site survey details, asset inspection and mapping details, Remote monitoring system parameters etc.

PAYMENT PROCESS

Stage-1: 90% of the value of month wise nos. of SPWPS installed at site based on :-

- ◆ Proof of distribution of O&M Manual to beneficiary printed in both English and local language.
- ◆ Submission of handing over certificates of SPWPS in the format as suggested by MNRE.
- ◆ Performance report for one week after commissioning based on the accurate data of the parameters received from RMS or data logger in case of internet unavailability.
- ◆ An Undertaking with respect to withstand ability of SPWPS to the wind speed of 150 km/hr in all weather conditions.

PAYMENT PROCESS

Stage-2: Balance 10% on completion of one month from date of completion certificate Note:-

- ◆ Payment shall be made to vendor within 30 days after submission of three copies of invoices to Engineer-in charge, complete in all respect (showing description, quantity, unit rate and total number of systems.
- ◆ SIA has the right to seek any additional documents/certificates/information it deems fit prior to release of any payment.
- ◆ If the invoices are incomplete in any respect or in case on non-compliance with terms and conditions of letter of award/Notice to Proceed, the payment due date shall start from the submission of all necessary documents.

CONCLUSION

- ◆ Solar Power will dominate the source of electric power in future.
- ♦ At least 40% of electricity generation by year 2040 would be from renewable energy sources. It will reduce the CO₂ emissions substantially.
- ♦ Investment in solar Power is highly beneficial.