REQUEST FOR QUOTATION

FOR

Partner Empanelment & Supply of Lithium Ion Batteries

Dated: 4th January, 2019

PanIIT Alumni Reach For Jharkhand Foundation

A Non-profit Special Purpose Joint Enterprise between agencies of Department of Welfare, Government of Jharkhand and PanIIT Alumni Reach For India Foundation, Kalyan Complex, Balihar Road, Morabadi, Ranchi – 834008, Jharkhand
Contents

DISCLAIMER .............................................................................................................................................. 2

SECTION 1: LETTER OF INVITATION ......................................................................................................... 3
  PREFACE .................................................................................................................................................. 5
  Purpose of RFQ ....................................................................................................................................... 5

Section 2: Instructions to Bidders ................................................................................................................ 6
  General terms & Conditions: ................................................................................................................... 7

STANDARD FORMS .................................................................................................................................... 14
  Form Tech 1: Letter ................................................................................................................................. 15
  Form Tech 2: Bidder’s Organization and Experience ............................................................................ 16
  Form Tech 3: Techno commercial Offer ............................................................................................... 17
  Form Fin1: Financial Bid Proforma ......................................................................................................... 18
DISCLAIMER

The information contained in this Request for Quotation ("RFQ") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of PanIIT Alumni Reach For Jharkhand Foundation (hereinafter “PREJHA”) is provided to interested parties on the terms and conditions set out in this RFQ and such other terms and conditions subject to which such information is provided.

This RFQ is not an agreement and is neither an offer nor an invitation by PREJHA to interested parties who submit their quote (henceforth “Bidders”) in response to this RFQ. The purpose of this RFQ is to provide Bidders with information that may be useful to them in preparing and submitting their proposals ("Proposal") for selection as supply agency with PREJHA Foundation as per notified norms.

PREJHA Foundation makes no representation or warranty and shall have no liability to any person or Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFQ or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFQ and any assessment, assumption, statement or information contained herein or deemed to form part of this RFQ or arising in any way from this process.

A Bidder must warrant that all the information provided by it to PREJHA Foundation at the time of application & subsequently, is true to the best of it's knowledge and belief, and specially warrants that it has duly complied with the provisions of laws applicable to it. Bidder indemnifies PREJHA Foundation from any liabilities arising out of error or default or negligence or contravention in regard to any of the applicable laws, including, but not limited to, submission of statutory forms & other such documents.

The issue of this RFQ does not imply that PREJHA Foundation is bound to select any Bidder(s) or select any Bidder(s) for any project. PREJHA Foundation may accept or reject any proposal in its discretion and may ask for any additional information or vary its requirements, add to or amend the terms, procedure and protocol set out in RFQ for bona fide reasons, which will be notified to all the Bidders invited to tender. Further PREJHA Foundation hereby reserves its right to annul the process at any time prior to issuance of Purchase Order without incurring any liability towards the Tenderers.

The Bidder shall bear all costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by PREJHA Foundation or any other costs incurred regarding or relating to its Bid. All such costs and expenses will remain with the Bidder and PREJHA Foundation shall not be liable in any manner for the same or for any other costs or expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of this RFQ and related processes.
SECTION 1: LETTER OF INVITATION
PanIIT Alumni Reach for Jharkhand (PREJHA) Foundation invites proposals from reputed bidders for supply of Lithium Ion Batteries for PREJHA Foundation’s Gurukuls & Kaushal College in Jharkhand.

A bidder will be selected based on Lowest Cost Method (L1 basis) from suitable agencies qualifying the criteria as per described in this RFQ.

The content of this RFQ enlists the requirements of PREJHA Foundation. It includes the Bidding Terms & selection procedure which details out all that may be needed by the potential bidders to understand the financial terms and bidding process and explains the contractual terms that PREJHA Foundation wishes to specify at this stage.

The RFQ includes the following sections:

**Section 1 - Letter of Invitation**
**Section 2 - Instructions to Bidders (including pre-qualification criteria)**
**Section 3 - Standard Forms**

The information may be submitted online only at the following website.

https://eprocurement.mjunction.in/EPSV2Web/org/PREJHA/home.action

Yours faithfully,

Authorized signatory
PanIIT Alumni Reach For Jharkhand Foundation,
Kalyan Complex, Balihar Road, Morabadi,
Ranchi – 834008, Jharkhand
**PREFACE**

**About PREJHA Foundation**

Agencies of Department of Welfare, Government of Jharkhand and PanIIT Alumni Reach for India Foundation have partnered to form PanIIT Alumni Reach for Jharkhand (PREJHA) Foundation, a not-for-profit joint enterprise to implement and scale sustainable welfare initiatives. The initiative will replicate the PanIIT Skill Gurukul model of learning for skill development across all the districts of Jharkhand state and thus provide a network of ITI and sub-ITI institutions accessible to school dropouts, underprivileged and those who are from the lower strata of socio-economic background.

PREJHA Foundation sets up Rural Skill Gurukuls and Kaushal colleges to impart vocational Education to deserving candidates.

**Purpose of RFQ**

The objective of this assignment is to procure Lithium Ion Batteries required for PREJHA Foundation’s Gurukuls & Kaushal Colleges. The supplying agency should adopt a process that is not only transparent, competitive but should also be quick and timely.
Section 2: Instructions to Bidders
The evaluation criteria for the bidders is based on Lowest Cost Method (L1 basis) price bid subject to the bidders submitting and satisfying the basic qualification mentioned. Each Bidder must submit a single proposal only.

PREJHA foundation shall endeavor to adhere to the following schedule but reserves the right to alter the same:

**Time schedule of Tender:**

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Particulars</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tender e-Publication date</td>
<td>04.01.2019</td>
</tr>
<tr>
<td>2.</td>
<td>Start date for seeking Clarification</td>
<td>04.01.2019</td>
</tr>
<tr>
<td>3.</td>
<td>Last date for seeking clarification</td>
<td>10.01.2019</td>
</tr>
<tr>
<td>4.</td>
<td>Bid submission start date (only on-line bid accepted)</td>
<td>04.01.2019</td>
</tr>
<tr>
<td>5.</td>
<td>Bid submission end date</td>
<td>15.01.2019 (08:00PM)</td>
</tr>
<tr>
<td>6.</td>
<td>Schedule date for Technical bid opening</td>
<td>15.01.2019</td>
</tr>
<tr>
<td>7.</td>
<td>Comparative statement preparation by the system</td>
<td>15.01.2019</td>
</tr>
</tbody>
</table>

**General terms & Conditions:**

1. **Detailed BOQ**

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Item Description</th>
<th>UoM</th>
<th>Estimated Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Power Wall to store energy for backup produced by solar or normal electricity supply Store Capacity: 13.5 kWh Depth of Discharge: 100% Efficiency: 90% round-trip Power: 7kW peak / 5kW continuous Scalable: Up to 10 Powerwalls Operating Temperature: -5°C to 50°C All-in-one: Uses an internal inverter to convert DC energy to AC energy, lowering cost and complexity. Supported Applications: Solar self-consumption, Back-up power, Time-Based control, Off-grid capabilities Installation: Floor or wall mounted, Indoor or outdoor, Weatherproof: Water-resistant and dustproof for indoor or outdoor installation. Touch-safe: Child and pet friendly with no exposed wires or hot vents. Quiet: Operates with almost no noise and is significantly quieter than generators. Warranty: 10 years Make: TESLA or equivalent</td>
<td>Nos 3</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Lithium Ion battery to store energy produced by Solar or normal electricity supply for power backup. Store capacity: 10 KWh or more Continuous output: (AC) 8,000 W Usable capacity: 10 kWh - 20 kWh (in 2 kWh steps)</td>
<td>Nos 3</td>
<td></td>
</tr>
</tbody>
</table>
| 3 | Lithium Ion battery to store energy produced by Solar or normal electricity supply for power backup.  
Voltage: 48 V  
Store Capacity: 9.5 kWh or more  
Capacity: 180 Ah or more  
Nominal voltage: 51.4 or more  
Exposer protection rating: IP55  
Power output: 48V = 5.0kW, Maximum Peak = 7.0kW  
Round trip efficiency (claimed) = 80% or more  
Depth of discharge (DoD): 90%  
Battery life & warranty: 10 Years  
Duration of Discharge at maximum power level: 4-24 hours  
Brand: LG Chem or equivalent |
|---|---|
| 4 | Lithium Ion or Lithium LFP battery to store energy produced by Solar or normal electricity supply for power backup.  
Voltage: 48V DC  
Store Capacity: 2.5 Kwh or more  
Capacity: 180 Ah or more  
Max Continuous Current: 130 Adc or more  
Round trip efficiency (claimed) = 80% or more  
Depth of discharge (DoD): 90%  
Fast recharge, up to 5X faster than lead acid  
High charge.  
Battery life & warranty: 10 Years  
Duration of Discharge at maximum power level: 4-24 hours  
Brand: Crown/Discover/LG/Powervault/Enphase/Moixa/Solax/Fullriver/Samsung/Powerbrick/Excide/Luminous/Solax |

2. **Definitions**

- "**Buyer**" means PREJHA Foundation
- "**Bidder**" means suppliers or contractors who have participated in tender
- "**The Vendor**" means the supplier or contractor or service provider to whom the Order is addressed.
- "**The Purchase Order**" means terms and conditions signed between Buyer and the Vendor governing the subject matter of this Order
- **The Goods / Services** means the goods or services to be supplied under the Order.

3. **Amendment of RFQ**
At any time before the submission of Proposals, PREJHA Foundation may amend the RFQ by issuing an addendum in writing or by standard electronic means. The addendum shall be uploaded on the https://eprocurement.mjunction.in/EPSV2Web/org/PREJHA/home.action and will be binding on them. To give Bidders reasonable time in which to take an amendment into account in their Proposals, PREJHA Foundation may, if the amendment is substantial, extend the deadline for the submission of Proposals.

4. **Bidding**  
(to be solely done through portal)  
https://eprocurement.mjunction.in/EPSV2Web/org/PREJHA/home.action

   a) Offer to be submitted only on e-procurement portal. Hard copy of offer is **not required** to be submitted to PREJHA Foundation. Any offer received in Hard copy shall **not be accepted** and will stand disqualified

   b) Mode of Submission of offer: Being e-tender, offer will be solely submitted online through e-tender portal: https://eprocurement.mjunction.in/EPSV2Web/org/PREJHA/home.action through following Application Service Providers (ASPs) appointed by PREJHA:

   M/s Mjunction Services Limited, 6thFloor, Tata Centre.43 J N Road,  
   Kolkata – 700 071,  
   **Contact Person: Helpdesk Officer** Sumant Kumar Choudhary  
   9163348104,  
   sumant.choudary@mjunction.in

   c) They may obtain further information regarding this tender from the office of PREJHA, Kalyan Gurukul, Kumarbagh Road, Arsande, Kanke, Ranchi – 834006 from 10:00 hours to 17:00 hours on all working days till the date of bidding is open.

   Contact Person: Abhinav Prakash, Project Sevak, PREJHA  
   Contact No.: 7041866069  
   Email-ID: abhinav.p@parfi.org

d) Bidders are expected to adequately apprise themselves regarding the procedure and provisions available on the e-procurement portal operated/ maintained by M/S. Mjunction services limited. Buyer shall not be responsible for any issues related to timely or proper uploading/submission of the bid.

5. **Validity of Proposal**

Bidders’ proposals must remain **valid for a period of min 180 days** after the submission of proposal. Should the need arise, PREJHA Foundation may request Bidders to extend the validity period of their proposals. If a bidder is selected as vendor, his proposal will remain same for whole of the delivery schedule.

6. **Submission of proposal**
The Proposal as well as all related correspondence exchanged by the bidders and PREJHA Foundation, shall be only through the portal of mjunction and electronic means. The offer shall be submitted as per the instructions of tender document and as detailed in this RFQ. Price shall be furnished in the relevant price schedule only. In case of any clarification, bidder may contact the concerned contact persons at mjunction Services or PREJHA as listed above.

7. **Latest updates**

Latest updates on the critical dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc. to Tender Specifications will be hosted on PREJHA-mjunction webpage. Bidders to keep themselves updated with all such information. Bidders may please visit [https://eprocurement.mjunction.in/EPSV2Web/org/PREJHA/home.action](https://eprocurement.mjunction.in/EPSV2Web/org/PREJHA/home.action) for document submission.

8. **Technical Bid (incl. Pre-Qualification Criteria)**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>PQR Condition</th>
<th>Bidder Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Have supplied similar items to institutional buyers in previous 2 years or authorized dealer of the similar items or manufacturer of the same.</td>
<td></td>
</tr>
</tbody>
</table>

Bidder should submit the prequalification documents (Tech1, Tech2, Tech3 & Fin1) at the portal.

9. **Financial Proposal**

Financial Proposal must be submitted in the format shared in this RFQ. Financial proposal must be shared in the same format as provided else it shall be declared non-responsive.

10. **Empanelment followed by Letter of Award**

1. The technical bid (incl. pre-qualification criteria) will be verified by PREJHA Foundation. The Procurement System will determine the lowest financial bid including on a possible line-item basis among the technically qualified bidders.
2. PREJHA Foundation shall award the Empanelment Contract possibly with SOR to successful bidders and then issue a purchase award that will be deemed as the Letter of Award (LOA) for the estimated order value along with terms & Conditions governing the Award and notify the same to the bidder through email. The selected bidder shall submit security deposit of 5% of the estimated order value in the form of either a bank guarantee from a scheduled bank or a PDC or a DD drawn on any scheduled bank in favour of “PanIIT Alumni Reach for Jharkhand Foundation” payable at par in Ranchi.
3. The selected bidder is expected to commence the assignment on the date and at the location specified in the LOA/Contract.
4. If the selected bidder does not sign the Contract within the stipulated period, the LOA may be cancelled, and the next lowest bidder will be considered for award of Contract.
5. If at any stage in the bidding process including after bid opening or Issuance of Purchase orders pertaining to this RFQ, PREJHA believe that the Bidders do not meet the requisite Technical criteria set out in the Bid Document or delivery schedule or that the rate quoted
exceeds its own estimates for the supply value, PREJHA reserves the right to cancel the tender or particular line item(s) without incurring any obligation or liability towards the tenderers.

6. PREJHA Foundation reserves the right to issue a part order of any 'line item' or sets of line items from BoQ in the bid to another empaneled vendor based on cost, time & quality considerations at its sole discretion. The transport cost in such cases will be on actual basis.

7. Purchase Orders & Delivery details Over the validity of this RFQ, purchase orders with specified quantity & delivery details would be issued as per requirements

8. Delivery time is the essence of this order and must be strictly adhered to. If the vendor fails to deliver the goods in time, the Buyer may, at its sole discretion:
   - Treat the order as cancelled at any time and recover any loss or damage from the vendor by invoking Security Deposit;
   - purchase the goods ordered or any part thereof from other sources on the vendor’s account, in which case, the Vendor shall be liable to pay the Buyer not only the difference between the price at which such goods have been purchased and the price calculated at the rate set out in this order, but also any other loss or damage the Buyer may suffer;

11. Indicative Delivery Schedule
   - Goods to be delivered at our Gurukul as per following as needed:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Delivery Location</th>
<th>Delivery Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kalyan Gurukul, Palamu</td>
<td>Within 15 days of issuance of PO</td>
</tr>
<tr>
<td>2</td>
<td>Kalyan Gurukul, Biru (Simdega)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Kalyan Gurukul, Torpa (Khunti)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Kalyan Gurukul, Sini (Saraikela)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Kaushal College, chanho (Ranchi)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Kaushal College, ITKI (Gumla)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Kaushal College, Sahebganj</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Kaushal College, Rajnagar (Gumla)</td>
<td></td>
</tr>
</tbody>
</table>

12. Payment Terms
   a. 100% within 60 days of delivery on submission of invoice & delivery challan for each unit. If the vendor delivers goods within 7 days of order confirmation, 100% payment will be done within 45 days.
   b. If a vendor fails to deliver the goods as per the delivery schedule. PREJHA foundation is entitled to delay payment by 2 days for each day delay in delivery. If such delay extends beyond 7 days, it could lead to possible forfeiture of security deposit.

13. Unloading
   a. Unloading is in Vendor’s scope, cost & arrangement will be borne by Vendor.
   b. The risk of all materials till receipt at location will be in vendor’s scope.
14. Quality of goods and services.
The Vendor should warrant to PREJHA that:

- The Goods and Services would conform in all respects to the Order and to recognized Indian or equivalent standards and codes (where applicable) and be at the complete satisfaction of Buyer.
- The said goods/services processed and delivered by the Vendor shall be made from good quality bought out components/materials, as acceptable to the Buyer and it should have standard/excellent workmanship and fit for their intended purpose.

15. Warranty/ Guarantee

a) The said goods/services delivered by the Vendor should be identical to the sample/specification given by the Vendor.

b) Where the said goods/services delivered by the Vendor to the Buyer is according to sample as well as certain specification/description, if any, the said goods/services processed and delivered, shall match not only with the said sample, but also with the said specification/description.

c) If deficiency is identified before or during the transfer of risk or during the Guarantee/warranty Period, the Vendor must at its own expense and at the discretion of the Buyer either repair the deficiency or provide re-performance of the Services or replacement of delivery. This provision also applies to delivery subject to inspection by sample test. The discretion of the Buyer shall be final.

16. Inspection

a) All materials supplied against the order should conform strictly to the specifications laid down by the Buyer, and should be new, merchantable quality, fit for their intended purpose and should be in line with "Quality Assurance Plan", if any, which must be approved in advance by the Buyer. All such materials will be subject to inspection and approval by the Buyer, either at the Vendor's premises and/or at the place of delivery indicated by the Buyer.

b) The Buyer reserves the rights to inspect the material at any stage during manufacture or supply and reject the same if found defective or not in conformity with the specifications or not fit for their intended purpose without invalidating the remainder of the order, if so desired by the Buyer.

c) All rejected material from the Buyer’s site store shall be removed by the vendor at their own cost positively within 15 days from the date of rejection note / intimation issued by the Buyer to them. In case of any failure to remove the same by the vendor within the stipulated period, the Buyer shall have all rights to remove the rejected materials/goods from their premises and discard it. Any cost on this account would be debited to vendor’s account.

d) The Buyer under no circumstances will be liable or held accountable for any damage, loss, deterioration of the rejected materials/goods for discarding the material/goods, or for any value for it.

17. Damage or loss in transit
18. **Ownership and risk**

Subject to the terms of the delivery and without prejudice to PREJHA Foundation’s other rights under the Conditions of the Order:

a) Ownership in the Goods shall pass to PREJHA on delivery and acceptance.
b) Risk in the Goods shall pass to PREJHA on delivery, save where the Order includes installation, in which case risk shall not pass to PREJHA until completion of the installation work.

19. **Fraud/Corruption**

PREJHA Foundation requires that the bidders participating in the selection process adhere to the highest ethical standards, both during the selection process and throughout the execution of the Contract.

PREJHA Foundation will terminate the Contract, if already awarded and will declare the bidder ineligible, either indefinitely or for a stipulated period, to be awarded a Contract, if at any time it determines that the bidder has in contravention to the undertaking given in the Bid document and/or contract, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a Contract as enshrine in the undertaking in bidding document and contract.

20. **Conflicting relationships**

Bidder has an obligation to disclose as part of the bid document any situation of actual or potential conflict that impacts their capacity to serve the best interest of PREJHA Foundation, or that may reasonably be perceived as having this effect. Failure to disclose the said situations may lead to the disqualification of the bidder or the termination of its Contract.

21. **Jurisdiction.**

- The disputes if any between the parties shall be subject to the exclusive jurisdiction of the courts in Ranchi alone.
### STANDARD FORMS

<table>
<thead>
<tr>
<th>TECH FORMS</th>
<th>FORM NAME</th>
<th>Mention list of all supporting documents attached (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECH-1</td>
<td>Letter of proposal submission</td>
<td>Pls scan &amp; attach</td>
</tr>
<tr>
<td>TECH-2</td>
<td>Bidder’s organization and experience</td>
<td>Pls Put details during bid submission online</td>
</tr>
<tr>
<td>TECH-3</td>
<td>Techno commercial offer</td>
<td>Pls Put details during bid submission online</td>
</tr>
<tr>
<td>Fin – 1</td>
<td>Financial Bid Format</td>
<td>Pls Put details during bid submission online</td>
</tr>
</tbody>
</table>
To,  
Executive Director  
PanIT Alumni Reach For Jharkhand Foundation  
Kalyan Complex, Balihar Road, Morabadi,  
Ranchi – 834008, Jharkhand  

We, the undersigned, offer to supply Lithium Ion Batteries for PREJHA Foundation, in accordance with your Request for Quotation dated 03-02-2019. We are hereby submitting our proposal, which includes this Technical Proposal, and the Financial Proposal as indicated.

We undertake the total responsibility for supply of the goods, if awarded to us.

We hereby declare that all the information and statements made in this proposal are true and accept that any misrepresentation contained in it may lead to our disqualification.

We understand that PREJHA Foundation is not bound to accept any proposal it receives.

We further state that we understand that PREJHA Foundation will terminate the Contract, if already awarded and will declare the bidder ineligible, either indefinitely or for a stipulated period, to be awarded a Contract, if at any time it determines that the bidder has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing a Contract.

Yours faithfully,  

*Authorized Signatory [In full and Designation]: Name and Title of Signatory:
Name of Bidder:
Address:
Form Tech 2: Bidder's Organization and Experience

Bidder's Organization

Provide here a brief description of the background and organization of your Agency/entity.

<table>
<thead>
<tr>
<th>Years</th>
<th>2015-16</th>
<th>2016-17</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (INR)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attach PAN card copy, Bank Details (along with copy of cancelled cheque)
<table>
<thead>
<tr>
<th><strong>Form Tech 3: Techno commercial Offer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TENDER PROFORMA for Techno-commercial</strong></td>
</tr>
<tr>
<td><strong>PREJHA reference</strong></td>
</tr>
<tr>
<td><strong>Name of Bidder</strong></td>
</tr>
<tr>
<td><strong>Address of Bidder</strong></td>
</tr>
<tr>
<td><strong>Acceptance of Delivery Schedule</strong></td>
</tr>
<tr>
<td><strong>Acceptance of payment terms</strong></td>
</tr>
<tr>
<td><strong>GSTIN No</strong></td>
</tr>
<tr>
<td><strong>Acceptance of Guarantee clause</strong></td>
</tr>
<tr>
<td><strong>Acceptance of Jurisdiction clause</strong></td>
</tr>
<tr>
<td>SN</td>
</tr>
<tr>
<td>----</td>
</tr>
</tbody>
</table>
| 1  | Power Wall to store energy for backup produced by solar or normal electricity supply  
Store Capacity: 13.5 kWh  
Depth of Discharge: 100%  
Efficiency: 90% round-trip  
Power: 7kW peak / 5kW continuous  
Scalable: Up to 10 Powerwalls  
Operating Temperature: -5°C to 50°C  
All-in-one: Uses an internal inverter to convert DC energy to AC energy, lowering cost and complexity.  
Supported Applications: Solar self-consumption, Back-up power, Time-Based control, Off-grid capabilities  
Installation:  
Floor or wall mounted, Indoor or outdoor,  
Weatherproof: Water-resistant and dustproof for indoor or outdoor installation.  
Touch-safe: Child and pet friendly with no exposed wires or hot vents.  
Quiet: Operates with almost no noise and is significantly quieter than generators.  
Warranty: 10 years  
Make: TESLA or equivalent | 3             |           |                |        |     |         |
| 2  | Lithium Ion battery to store energy produced by Solar or normal electricity supply for power backup.  
Store capacity: 10 kWh or more  
Continuous output: (AC) 8,000 W  
Usable capacity: 10 kWh - 20 kWh (in 2 kWh steps)  
Off-grid output at 25 deg C: 8kW  
On-grid output at 25 deg C: 7kW  
Capacity: 48V DC or more, Ampere Hour: 180 Ah or more  
Depth of discharge: 90 %  
Efficiency: 80 % Round trip  
Depth of discharge (DoD): 90%  
Battery life & warranty: 10 Years  
Duration of Discharge at maximum power level: 4-24 hours  
Brand/Make: Sonnen or equivalent | 3             |           |                |        |     |         |
| 3 | Lithium Ion battery to store energy produced by Solar or normal electricity supply for power backup.  
Voltage: 48 V  
Store Capacity: 9.5 kWh or more  
Capacity: 180 Ah or more  
Nominal voltage: 51.4 or more  
Exposer protection rating: IP55  
Power output: 48V = 5.0kW, Maximum Peak = 7.0kW  
Round trip efficiency (claimed) = 80% or more  
Depth of discharge (DoD): 90%  
Battery life & warranty: 10 Years  
Duration of Discharge at maximum power level: 4-24 hours  
Brand: LG Chem or equivalent |
|---|---|
| 4 | Lithium Ion or Lithium LFP battery to store energy produced by Solar or normal electricity supply for power backup.  
Voltage: 48V DC  
Store Capacity: 2.5 Kwh or more  
Capacity: 180 Ah or more  
Max Continuous Current: 130 Adc or more  
Round trip efficiency (claimed) = 80% or more  
Depth of discharge (DoD): 90%  
Fast recharge, up to 5X faster than lead acid  
High charge.  
Battery life & warranty: 10 Years  
Duration of Discharge at maximum power level: 4-24 hours  
Brand: Crown/Discover/LG/Powervault/Enphase/Moixa/Solax/Fullriver/Samsung/Powerbrick/Excide/Luminous/Solax |

(*- Freight – Ex Ranchi)