

$$\% \text{ Power mismatch in array} = (P_{Max} - P_{Min}) / (P_{Max} + P_{Min}) \times 100$$

P_{Max} = Maximum power among modules in array

P_{Min} = Minimum power among modules in array

10.7 Efficiency of Array

Efficiency of Array = The power output from array / (total area of modules in m^2 X Sun radiation in watts/ m^2)

10.8 Fill Factor of Array

Fill factor of Array = This has to be measured using a PV array tester. This depends on the overall series resistances and shunt resistances of modules in the array.

10.9 Output Voltage of Array

Output Voltage of Array = Sum of voltages of modules in series

In parallel connected module strings, the lowest voltage generating strings will set the voltage.

10.10 Output Current of Array

Output Current of an Array = Sum of currents of the parallel strings in the array.

The output current of a string is controlled by the lowest current generating module.

10.11 Output Power of Array

Output Power of Array = Sum of power of all modules- mismatch loss

This can be measured by PV array tester.



11 EXAMPLES:

11.1 Total per day flow

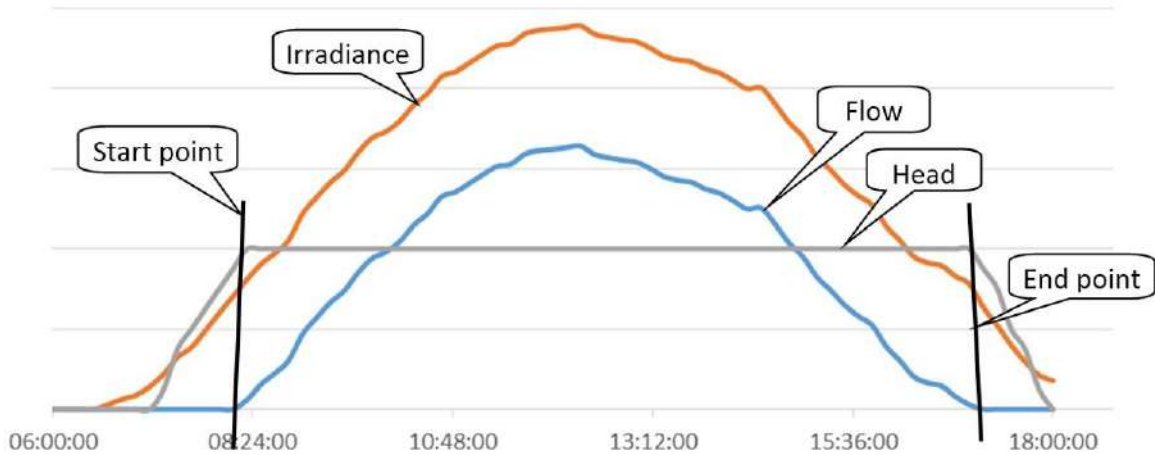


FIGURE 5- TYPICAL GRAPH FOR UNDERSTANDING CALCULATION

If pump achieved constant head at 8:15:30 AM (Start point in figure 5) and in evening pump unable to keep constant desired head at 17:45:30 PM (End point in figure 5).

Flow rate in lps is recorded from 08:15:30 AM to 17:45:30 PM (start point to end point)
If the average lps calculated is 3.55 lps then total flow will be

$$\begin{aligned} \text{Total duration of flow} &= \text{End Time} - \text{Start time} \\ &= 17:45:30 - 8:15:30 \\ &= 9 \text{ h} : 30 \text{ m} : 0 \text{ s} \end{aligned}$$

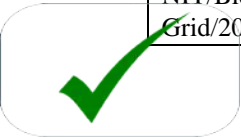
$$\begin{aligned} \text{Total duration from start to end seconds:} \\ &= (9 \times 3600) + (30 \times 60) + (0 \times 1) = 34200 \text{ seconds} \end{aligned}$$

$$\begin{aligned} \text{Total per day flow in liters} &= \text{Average flow in lps} \times \text{total seconds} \\ &= 3.55 \times 34200 = 121410 \text{ liters} \end{aligned}$$

For realistic test, correct total flow at reference Average Daily Solar Radiation as specified in MNRE specifications.

12 TEST REPORTS

In order to have uniformity, the test reports issued by the Labs shall use common format developed by NISE. The test report shall be issued only in the name of applicant and shall clearly indicate whether the Solar PV water pumping system qualifies as per MNRE



specifications or not along with details. A soft copy of test report shall also be provided to the applicant and shall be made available on web-portal of test lab, which may be accessed by the implementing agencies to verify the authenticity of the report. However, if the lab do not have such feature on their portal, the same can be verified by implementing agency by directly contacting the testing lab.

13 USE OF OTHER BRAND OF SOLAR MODULES

In case a test lab has tested and issued approval certificate for a particular model of SPV pumping system using a particular brand of SPV Modules, the applicant may use SPV Modules of other brand for the same model of SPV pumping system without going for retesting of SPV pumping system with other brand of SPV Modules provided the test lab certifies that the SPV Module of other brand is atleast of same wattage capacity and its parameters and characteristics are not inferior to the brand of SPV Module with which the model of SPV pumping system was tested and certified by the testing lab. In addition, configuration of solar array i.e. the number of solar modules in series and/or parallel combination will remain unaltered. Further, in each case the SPV module shall follow the quality control order issued by MNRE from time to time. Following criterion shall be followed:

- Solar Array Maximum voltage V_{mpp} with new brand module shall be within $\pm 2\%$ of earlier module.
- Modules Efficiency and Fill Factor shall qualify minimum requirement of MNRE specifications
- Array and module Mismatch shall meet the MNRE specifications.

13 LABS AUTHORISED FOR SOLAR PUMP TESTING

The National Institute of Solar Energy and any other lab accredited by NABL for testing of solar PV water pumping system as per MNRE specifications and testing procedure are authorized to issue approval certificate on successful testing of a solar PV water pumping system.



ANNEX A
(Clause 2)

LIST OF REFERRED STANDARDS

<i>IS NO.</i>	<i>Title</i>
14286 : 2010	Crystalline Silicon Terrestrial Photovoltaic (PV) Modules — Design Qualification and Type Approval
3043:1987	Code of Practice for Earthing
5120:1977	Technical requirements for rotodynamic special purpose pumps (First revision)
11346:2003	Tests for Agricultural and Water Supply Pumps - Code of Acceptance
6603:2001	Stainless Steel Bars and Flats
6911:2017	Stainless steel plate, sheet and strip
7538:1996	Three-phase squirrel cage induction motors for centrifugal pumps for agricultural applications
8034:2002	Submersible pump sets - Specification (second revision)
9079:2002	Electric monoset pumps for clear, cold water for agricultural and water supply purposes - Specification (second revision)
9283:2013	Motors for submersible pump sets
11346:2002	Code of acceptance tests for agricultural and water supply pumps (first revision)
14220:1994	Open well submersible pump sets - Specification
14582:1998	Single-phase small AC electric motors for centrifugal pumps for agricultural applications
ISO 9905:1994	Technical specifications for centrifugal pumps -- Class I
IEC 60068-2-6:2007	Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)
IEC 60068-2-30:2005	Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12+ 12h cycle)
IEC 60146-1-1:2009	Semiconductor converters - General requirements and line commutated converters - Part 1-1: Specification of basic requirements
IEC 60364-4-41:2005	Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock
IEC 60364-7-712:2017	Low voltage electrical installations - Part 7-712: Requirements for special installations or locations - Solar photovoltaic (PV) power supply systems
IEC 60529:1989	Degrees of protection provided by enclosures (IP Code)
IEC 60947-1:2007	Low-voltage switchgear and control gear - Part 1: General rules
IEC 61000-6-2:2016	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments
IEC 61000-6-3:2006	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments
IS/IEC 61683 :1999	Photovoltaic Systems — Power Conditioners— Procedure for Measuring Efficiency
IS/IEC 61730-1 : 2004	Photovoltaic (Photo Voltaic (PV)) Module Safety Qualification Part 1 Requirements for Construction



IS/IEC 61730-2 : 2004	Photovoltaic (Photo Voltaic (PV)) Module Safety Qualification Part 2 Requirements for Testing
IEC 61800-3:2017	Adjustable speed electrical power drive systems - Part 3: EMC requirements and specific test methods
IEC 62109-1:2010	Safety of power converters for use in photovoltaic power systems - Part 1: General requirements
IEC 62305-3:2010	Protection against lightning - Part 3: Physical damage to structures and life hazard
IEC 62458:2010	Sound system equipment – Electro-acoustical transducers - Measurement of large signal parameters



Universal Solar Pump Controller (USPC) Specifications for Stand-alone applications

1. Preamble:

The Controller for Solar PV pumping system is the heart and brain of the system. The Solar PV pumping system deployed at huge cost to the farmer and the exchequer for the Government is currently utilised only for half of the days in a year (around 150 days per year) on an average. In order to optimally utilize the solar photovoltaic system that generates the electricity throughout the year during sunshine hours, the controller supplied for installation of solar pumping system should be able to perform several other tasks for agricultural and other needs of a farmer. This will increase the productivity of agriculture sector and income of farmer. With the use of USPC the solar system could be used effectively throughout the year.

2. Technical Specification for Stand Alone Application

The USPC with SPV modules and structure can be used for agrarian applications such as water pumping, apple grading and polishing system, wheat (grain) flour grinding machine / aata chakki, cutter/chaff, deep-fridger / cold storage, blower fan for cleaning of grains, heating loads and any other standard voltage (400/415V) three phase motor/equipment of capacity not more than the capacity of Solar PV pumping system. The USPC operation schematic diagram is shown in Fig. 1. Further, the applications are not limited upto the few shown in the figure.

- I. Following table gives specifications of electrical supply from USPC for motors other than the solar pumps. For operating the pump the USPC must follow the MNRE specifications for SPV pumping systems.

Sr No.	Description	Desired requirement
1	Motor Supply Phases	Three phase R-Y-B
2	Rated motor frequency	48-50Hz
3	Frequency operation	0 to 52Hz
4	Rated motor voltage	415V \pm 5%
5	Desired motor operation	Constant V by F or constant motor flux control

II. Proposed electrical properties of USPC when operating motors other than motor-pump set:

Sr No.	Description	Desired requirement
1	Characteristic of voltages	Pure sinusoidal or Filtered AC output voltage at motor terminal. No PWM pulses allowed at the motor terminal, as it generates pronounced voltage spikes. The USPC output is intended to use for the traditional induction motors based applications which are design for sinusoidal grid supply.
2	THD of motor terminal voltages	Below 3%
3	THD of motor current (in case of balance/linear motor)	Below 5%
4	Balance supply	Three phases should be balanced and no negative sequence components to be allowed
5	Voltage spikes	Recurring or non-recurring voltage spikes more than 620V (peak of 440V AC supply) is not allowed between any two terminals
6	Alarms and Protections	Output voltage low, Output frequency low/high, Low irradiance/PV power, Current overload, Peak Torque overload

III. Controller should be able to run SPV pumping system as per MNRE specifications as well as any other type of motor of suitable rating, subject to the load characteristics of the equipment in which the motor is used is any of the following:

- a) Constant torque loads
- b) Constant power loads
- c) Quadratic loads
- d) Impact loads
- e) Hydraulic loads

Subject to the maximum torque being not more than 150% of the rated torque of the motor.

IV. To ensure energy efficiency of solar PV system and to maintain reliability of PV installation against aging effect, module mismatch with time, partial shading, etc. , the desired USPC properties and configuration should be as follows:

- (a) Static MPPT efficiency of USPC should be equal or more than 98% during operation of 10 to 100% of rated STC PV power, and average MPPT tracking efficiency in the dynamic condition should be greater than 97 % with hot and cold profiles when feeding the water pumping, hydraulic or heating loads, so as to maintain MPPT irrespective of variation in solar energy or irradiance. `
- (b) USPC efficiency should be as follows for the operation at 80% rated STC power of the PV array:

Sr No.	SPV pumping system capacity	Controller power efficiency should be more than or equal to
1	3 HP	93.00%
2	5 HP	93.00%
3	7.5 HP	94.00%
4	1-10 HP	94.50%
5	15 HP	94.50%

(c) Considering voltage variation over the year due to variation in temperature, irradiance and effect due to ageing, environmental damages to PV panels with time, USPC should have MPPT channels as an integral part of system (or externally connected part) with wide range of input PV voltage for MPPT tracking of the PV panels. Input voltage range variation should be tested as per manufacturer declaration (min, nominal or 90% of the maximum) or if no declaration is made than at least it should be tested as per the table given below.

Sr No.	Motor Pump set capacity	Input voltage range		
		Minimum	Nominal	Maximum
1	3 HP	(Vnominal-50)	Nominal	(Vnominal+50)
2	5 HP	(Vnominal-70)		(Vnominal+70)
3	7.5 HP	(Vnominal-70)		(Vnominal+70)
4	1-10 HP	(Vnominal-100)		(Vnominal+100)
5	15 HP	(Vnominal-100)		(Vnominal+100)

V. There should be Mode selection located on control panel of the USPC along with display and user should be able to select either to run motor-pump set of any other application. The software/firmware required to operate these applications must get automatically loaded when an appropriate position of the switch is engaged.

VI. USPC must have at least four numbers of three phase output cables to feed power to the applications. The output power cable for specific application should get selected automatically upon selection of applications via keypad or via mobile or via remote control connectivity. The manual selector switch should not be used at the output to manage different loads. This is to ensure the hassle free operation of applications by farmer with adequate safety.



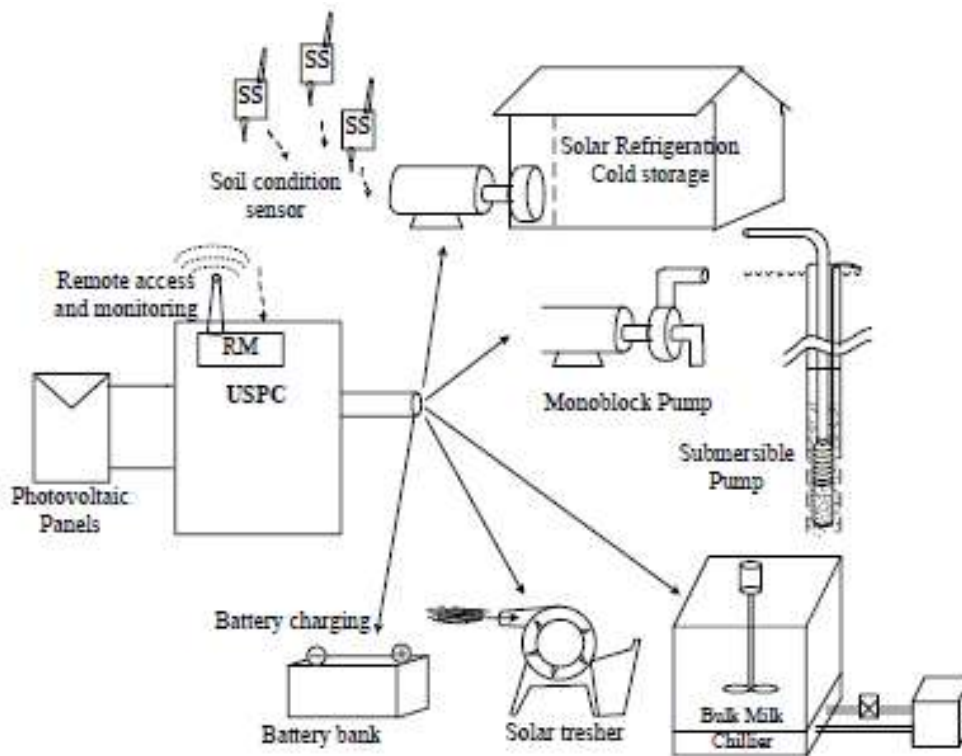


Fig. 1. USPC operation schematic diagram.

VII. USPC based Solar system must be equipped with Remote monitoring and remote fault identification:

- (a) Remote monitoring features should be integral part of solar pump controller and should provide time wise remote monitoring of PV voltage, PV Power, Water output, head, when used in solar pump mode. When operated in farm equipment mode, it should show, PV voltage, PV power, motor voltage, motor current and motor frequency.
- (b) Cumulative energy generation from PV panels for a month, year and 5 years should be provided.
- (c) Remote monitor should show current status of system like On, Off and fault.
- (d) Software associated with remote monitoring should also provide location of SPV pumping system.
- (e) Controller should have support of sufficient Internal memory/ SD card / memory card to support remote monitoring in case of network failure.

USPC must have IP65 protection or must be housed in a cabinet having at least IP65 protection.

Testing Procedure for Universal Solar Pump Controller (USPC)

USPC must be tested in two principle modes:

1. As an offgrid solar pump controller: the testing should be as per MNRE specifications and Test procedure.
2. As a controller to operate motorized farm equipment: The testing should be as described below.

To test the USPC in the second mode the test centres must have standard actual mode suitable for 4 loading modes. The input to the USPC must be from a solar PV simulator using the hot and cold profiles issued by MNRE. Following tests may be performed on USPC driving the agrarian load like Atta Chakki, Chaff Cutter and Deep Freezer under test. The USPC must be able to operate these motors of the attached agrarian load, so that they deliver the rated torque and are able to also operate till 150% of the rated torque for 30 seconds.

S.No	Test Performed	Expected result	Test Lab Observation	Remarks
1	Application description on screen and selection of applications	LCD screen provided on controller need to shows various applications which can be selected by keypad using up-down and enter key		
3	Mode operation of applications (Automatic: through keypad or remote / Manual: control switches)	Universal Solar Agriculture controller should come with multiple outputs which can be permanently connected to the application by selecting appropriate options for example following applications should automatically started by USPC by appropriate mean such as keypad or remote for selection. (i) Water Pumping (ii) Chaff Cutter (iii) Deep fridge/ Cold Storage (iv) Atta Chakki Manual changeover is not allowed.		
4	Application Specific output (Application specific software)	USPC should have inbuilt individual application specific software to run the agrarian applications other than pumps and output of the controller should be suitable for above mentioned applications	-	

5	Input PV voltage range Minimum – Voc at STC Nominal – Voc at STC Maximum – Voc at STC																																																																																											
6	USPC Efficiency measurement in Hot and cold profile should be measured as per BS EN 50530/IEC 62891	<table border="1"> <thead> <tr> <th colspan="4" data-bbox="547 405 1503 448">Efficiency of the UPSC at minimum..... VOC</th> </tr> <tr> <th data-bbox="547 448 738 593">Load %</th> <th data-bbox="738 448 927 593">Charge controller eff (%)</th> <th data-bbox="927 448 1117 593">Power tracking Efficiency (%)</th> <th data-bbox="1117 448 1503 593">Overall charge controller efficiency (%)</th> </tr> </thead> <tbody> <tr><td data-bbox="547 593 738 631">10</td><td data-bbox="738 593 927 631"></td><td data-bbox="927 593 1117 631"></td><td data-bbox="1117 593 1503 631"></td></tr> <tr><td data-bbox="547 631 738 669">25</td><td data-bbox="738 631 927 669"></td><td data-bbox="927 631 1117 669"></td><td data-bbox="1117 631 1503 669"></td></tr> <tr><td data-bbox="547 669 738 707">50</td><td data-bbox="738 669 927 707"></td><td data-bbox="927 669 1117 707"></td><td data-bbox="1117 669 1503 707"></td></tr> <tr><td data-bbox="547 707 738 745">75</td><td data-bbox="738 707 927 745"></td><td data-bbox="927 707 1117 745"></td><td data-bbox="1117 707 1503 745"></td></tr> <tr><td data-bbox="547 745 738 784">100</td><td data-bbox="738 745 927 784"></td><td data-bbox="927 745 1117 784"></td><td data-bbox="1117 745 1503 784"></td></tr> <tr> <th colspan="4" data-bbox="547 784 1503 822">Efficiency of the UPSC at Nominal VOC</th> </tr> <tr><td data-bbox="547 822 738 860">10</td><td data-bbox="738 822 927 860"></td><td data-bbox="927 822 1117 860"></td><td data-bbox="1117 822 1503 860"></td></tr> <tr><td data-bbox="547 860 738 898">25</td><td data-bbox="738 860 927 898"></td><td data-bbox="927 860 1117 898"></td><td data-bbox="1117 860 1503 898"></td></tr> <tr><td data-bbox="547 898 738 936">50</td><td data-bbox="738 898 927 936"></td><td data-bbox="927 898 1117 936"></td><td data-bbox="1117 898 1503 936"></td></tr> <tr><td data-bbox="547 936 738 974">75</td><td data-bbox="738 936 927 974"></td><td data-bbox="927 936 1117 974"></td><td data-bbox="1117 936 1503 974"></td></tr> <tr><td data-bbox="547 974 738 1012">100</td><td data-bbox="738 974 927 1012"></td><td data-bbox="927 974 1117 1012"></td><td data-bbox="1117 974 1503 1012"></td></tr> <tr> <th colspan="4" data-bbox="547 1012 1503 1050">Efficiency of the UPSC at 90 % of Max VOC</th> </tr> <tr><td data-bbox="547 1050 738 1088">10</td><td data-bbox="738 1050 927 1088"></td><td data-bbox="927 1050 1117 1088"></td><td data-bbox="1117 1050 1503 1088"></td></tr> <tr><td data-bbox="547 1088 738 1126">25</td><td data-bbox="738 1088 927 1126"></td><td data-bbox="927 1088 1117 1126"></td><td data-bbox="1117 1088 1503 1126"></td></tr> <tr><td data-bbox="547 1126 738 1164">50</td><td data-bbox="738 1126 927 1164"></td><td data-bbox="927 1126 1117 1164"></td><td data-bbox="1117 1126 1503 1164"></td></tr> <tr><td data-bbox="547 1164 738 1202">75</td><td data-bbox="738 1164 927 1202"></td><td data-bbox="927 1164 1117 1202"></td><td data-bbox="1117 1164 1503 1202"></td></tr> <tr><td data-bbox="547 1202 738 1240">100</td><td data-bbox="738 1202 927 1240"></td><td data-bbox="927 1202 1117 1240"></td><td data-bbox="1117 1202 1503 1240"></td></tr> <tr> <td colspan="4" data-bbox="547 1240 1503 1279">Dynamic MPPT Efficiency</td> </tr> <tr> <td colspan="2" data-bbox="547 1279 738 1317">Hot Profile</td> <td colspan="2" data-bbox="738 1279 1503 1317"></td> </tr> <tr> <td colspan="2" data-bbox="547 1317 738 1355">Cold Profile</td> <td colspan="2" data-bbox="738 1317 1503 1355"></td> </tr> </tbody> </table>			Efficiency of the UPSC at minimum..... VOC				Load %	Charge controller eff (%)	Power tracking Efficiency (%)	Overall charge controller efficiency (%)	10				25				50				75				100				Efficiency of the UPSC at Nominal VOC				10				25				50				75				100				Efficiency of the UPSC at 90 % of Max VOC				10				25				50				75				100				Dynamic MPPT Efficiency				Hot Profile				Cold Profile			
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7	Ripple and distortion at output on full load	Should below 5 % after 25 % loading condition																																																																																										
8	Measurement of Output voltage waveform	Three phase output with up to 440 V rms pure Sine Wave to be measured at least 4 times between 300W/m2 irradiance and maximum irradiance as per the irradiance profile.	CF value should be provided by lab for voltage and current																																																																																									
9	Operation at different output from array with all four load types (Array wattage as per MNRE model:	Above Watt DC output Should not stop functioning at any load condition. Observation should be recorded.	Power value should be recorded by the lab with all agrarian load	Motor current should be recorded (for torque behavior) It must be almost constant																																																																																								

	<p>Example 4800 Wp array) At 40% Power At 50% Power At 75% Power At 100% Power</p>		supported by USPC	irrespective of available DC power from array (motor running condition). This is for Impact loading condition (such as Chaff cutter) current variation need to be recorded by laboratory.
10	<p>Operation at different output from array with all four load types (Array wattage as MNRE model: Example 4800 Wp array) At 10 % Power At 25 % Power At 30 % Power</p>	<p>USPC need to run all the agrarian load in variable frequency at the lower irradiance value</p> <p>The load may be increased beyond 150% of rated torque to determine at what level the motor is stalling and stopping and it must trigger 'torque overload' alert. If it goes beyond 150% of the motor rated torque the USPC must trip indicating an 'overload tripping'.</p>	Motor current should be recorded (for torque behavior) as it is a function of V/F ratio controlled by USPC	
11	Total circuit protection observation	<ul style="list-style-type: none"> ☐ Soft Startup, ☐ low radiation protection, ☐ overload protection, ☐ Open circuit protection ☐ Reverse polarity protection 		

Expected output of individual applications must be specify as per their power rating and SPV capacity, such as:

1. kg/hour grinding of atta chakki, and granularity.
2. Volumetric Iceing of cold storage in x hours.
3. Output in terms of kg/hours for a specific capacity grass-cutter.
4. Output must be quantify in terms of rate of volume or weight as above for any other applications.

ANNEXURE-II**QUALIFYING REQUIREMENT (QR)**

In addition to the satisfactory fulfillment of requirements stipulated under section ITB, the following shall also apply:

Sr. No (A)	Criteria (B)	Documents to be Submitted (C)	Particulars in brief of the Documents submitted by the Bidder on Covering Letter (D)
1	<p>The bidder should be a firm registered/incorporated under Companies Act, 1956 or Companies Act, 2013/ and further amendment (s),</p> <p style="text-align: center;">OR</p> <p>A registered partnership firm (registered under section 59 of the Partnership Act, 1932)</p> <p style="text-align: center;">OR</p> <p>A limited liability partnership (under the Limited Liability Partnership Act, 2002).</p> <p>**Joint Venture is allowed in this tender</p>	<p>Copy of certificate of incorporation under Indian Companies Act 1956, repealed as 2013 and further amendment(s) from Registrar of Companies.</p> <p style="text-align: center;">OR</p> <p>A Registered partnership deed</p> <p style="text-align: center;">OR</p> <p>A LLP registration certificate issued by registrar of companies</p> <p>In addition, PAN Card and GST Registration Certificate shall also be submitted.</p>	<p>Company Incorporation Certificate/Partnership/LLP No.</p>
2	<p>The bidder should be, either of the following:</p> <p>i) Manufacturer of Solar PV Module</p> <p style="text-align: center;">OR</p> <p>ii) Manufacturer of Solar Pump</p> <p style="text-align: center;">OR</p> <p>iii) Manufacturer of Solar Pump Controller using indigenous technology</p> <p style="text-align: center;">OR</p> <p>iv) EPC/SI of 'similar works' in Joint venture with Solar PV Module Manufacturer or Solar Pump Manufacturer or Manufacturer of Solar Pump Controller using indigenous technology</p> <p>'Similar Works' means - Design, Supply, Erection, Testing and Commissioning of standalone (off-grid) solar PV based water pump</p>	<p>Work order copies/LoA's and Completion Certificates from registered central/state/PSU (Public Sector Undertaking)/Distribution Company (DISCOM).</p> <p style="text-align: center;">AND</p> <p>Memorandum of Association, Article of Association needs to be attached along with the bid. The bidder should also highlight the relevant provision/ article number which highlights the objects relating to the business fields mentioned in the previous column.</p> <p style="text-align: center;">AND</p> <p>Copy of Factory License Indian Factories Act, 1948 or any document to establish factory in running operations under the and GST registration Certificate, supporting the fact of the bidder being engaged in the business field mentioned in column B. If factory</p>	<p>Tabular details comprising of Order No.; Order Date; Client's Name; Description of Project; Supply/Completion Period (with from/to-dates); Ref. No. & Date of Material Receipt Certificates/ PO/Work Completion Certificates</p>

	sets. Past experience required for the bidders to be counted from 01-04-2015 shall be as per Table 1 below	license does not specify that business field, a separate Government issued document shall be submitted in support of the bidder being engaged in the business field mentioned in column B	
3	Bidders should have Average Annual Turnover (ATO) as per Table 2 below for any 3 years out of the last 4 years i.e 2016-17, 2017-2018, 2018-2019 and 2019-2020.	Duly authorized copy of audited annual report/Balance Sheet for any three financial years out of last four years (i.e 2016-17, 2017-18, 2018-19 and 2019-20) is to be submitted by respondent along with CA certificate. Turnover means operating income. Profitability means: Profit after tax	M/s 2016-17 2017-18: 2018-19: 2019-20 Refer Format-1 in Annexure-III
4	The bidder should be profitable in at least two of the last four financial year out of 2019-20, 2018-19, 2017-18 and 2016-17.	Duly authorized copy of audited annual report/Balance Sheet for any three financial years out of last four years (i.e 2016-17, 2017-18, 2018-19 and 2019-20 is to be submitted by respondent along with CA certificate. Turnover means operating income. Profitability means: Profit after tax	M/s 2016-17 2017-18: 2018-19: 2019-20 Refer Format-2 in Annexure-III
5	The Net worth of bidder as on the last day of preceding financial year (2018-19 or 2019-20) shall not be less than 100% of the paid-up share capital.	Duly authorized copy of audited annual report/Balance Sheet for any three financial years out of last four years (i.e 2016-17, 2017-18, 2018-19 and 2019-20 is to be submitted by respondent along with CA certificate. Turnover means operating income. Profitability means: Profit after tax In case of partnership, total closing capital of last financial year (2018-19) should not be less than total opening capital of 2018-19. The same will be treated as negative net worth and vice versa.	Individual Net Worth Details M/s 2016-17 2017-18: 2018-19: 2019-20

6	Bidder needs to submit documentary evidence that components should be indigenously manufactured for the supplied systems.	<p>Declaration of sourcing/ manufacturing of components, clearly specifying as being indigenously manufactured. Details of the manufacturing/ sourcing firm/ facility, including Company Profile, to be provided accordingly.</p> <p>AND</p> <p>The bidder should submit the list and pictures of the manufacturing and testing facilities and submit an undertaking that if the details provided by the bidders are in deviation with the provision of the scheme, it will call for disqualification. If considered necessary, a team of SIA officials may visit the facilities of the bidders for verification</p> <p>Along with above documents required to be annexed to the invoice (at the time of payment in case of successful bidder), copies of the Excise invoice(s) of the manufacturing unit(s) of the Solar PV Module, Pumps etc. shall also be annexed to the invoice for claiming payment.</p>	Attachment 15
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*In accordance with order No: P-45021/2/2017-PP (BE-II) dated: 16-Sept-2020 of Department of Promotion of Industry and Internal Trade and Order No F. No. 283/22/2019-GRID SOLAR, Ministry of New & Renewable Energy dated: 23-09-2020, **only 'Class-I Local Suppliers' are eligible to bid in this tender.**

** Conditions for Joint Venture: A joint venture (JV) is a business arrangement in which two or more parties agree to come together, pool their resources for the purpose of accomplishing a specific project or business activity. In the current context, JV includes any Joint Venture company (hereby referred as JV Company) registered under Companies Act, 1956 and any consortium formed among two or more parties. The terms JV and Consortium may have been used interchangeably, in the following section and submissions by the bidder may be made (as applicable).

In case Bidder wishes to participate in as a JV, following conditions are additionally applicable: -

1. The term Bidder used hereinafter would therefore apply to both a single entity and a Consortium/ JV.
2. Consortium of companies/organizations (maximum of two members) registered in India and in existence for at least (3) years as on publication of this tender.
3. Lead Bidder should be a registered as an MSE to claim the benefits provided to the MSE.
4. A consortium of maximum two (02) members is allowed in this RfP including one as lead bidder.
5. In case of JV, either one may act as a lead member.
6. In case of JV all the members should mandatorily be from the business as defined in the QR for similar work.
7. Lead Bidder accepts primary responsibility for providing a robust and quality product meeting technical specifications of tender.

8. Member of any Joint Venture Firm shall not be permitted to participate either in individual capacity or as a member of any other Consortium/Joint Venture Firm in the same tender. Submission or participation in more than one bid will cause disqualification of all the proposals submitted by the bidder.
9. All formalities in respect of submission of tender shall be done only in the name of 'Lead Member' and not in the name of Joint Venture Firm. However, name & other details of both the members of Consortium/Joint Venture Firm should be clearly mentioned in the Bid/Response.
10. A copy of Memorandum of Understanding (MOU) executed between the members of JV shall be submitted along with the tender. The complete details of the members of the Joint Venture Firm, their share and responsibility in the JV etc. particularly with reference to financial, technical and other obligations shall be furnished in the MOU.
11. Once the offer/ bid is submitted, the MOU shall not be modified / altered/ terminated during the period of execution including any extension thereafter by EESL or validity of any letter of award awarded to the said Consortium/Joint Venture Firm. In case, the tenderer fails to observe/comply with this stipulation, the full Security Deposit/ Performance Bank Guarantee (PBG) shall be liable to be forfeited.
12. A duly notarized agreement of Joint Venture Firm shall be executed between the 'Lead Member' and Consortium/JV Partner. This Agreement should be submitted in original with your offer/ bid.
13. Authorized Member of Joint Venture Firm: 'Lead Member' shall be authorized on behalf of Joint Venture Firm to deal with the tender/EESL, sign the agreement or enter into contract in respect of the said tender, to receive payment and such activities in respect of the said tender/ contract. All notices/ correspondences with respect to the contract would be sent only to this 'Lead Member' of Joint Venture Firm.
14. Required processing fee shall be submitted by the 'Lead Member'. Submission of processing fee by the 'Lead Member' it should be deemed as processing fee submitted by the Joint Venture Firm.
15. Duration of MOU and JV Agreement shall be valid during the entire execute in period/ validity of letter of award and any extension thereafter /currency of the contract including the period of extension, if any
16. Any change in constitution of Joint Venture Firm shall not be allowed.
17. On award of any contract to the Joint Venture Firm, a single Performa i.e Bank Guarantee shall be submitted by the lead bidder as per tender conditions. All the Guarantees like Security Deposit, Earnest money Deposit, Performance Guarantee, and Bank Guarantee for Mobilization Advance etc. shall be accepted only in the name of 'Lead Member' and splitting of guarantees among the members of JV shall not be permitted.
18. Members of the Joint Venture Firm shall be jointly and severally liable to the EESL for execution of the project/ Work/ Assignment etc. The JV members shall also be liable jointly and severally for the loss, damages caused to the EESL during the course of execution of any awarded contract or due to non-execution of the contract or part thereof. Governing Laws for Consortium/ Joint Venture Firm: The JV Agreement in all respect be governed by and interpreted in accordance with Indian Laws.
19. In case a group of MSMEs registered with NSIC (under single point registration scheme) form a JV under NSIC, the Consortium needs to provide an authorization letter from NSIC accepting the terms and conditions of tender (except for those terms and conditions in which NSIC consortia are given special status as per Government of India Policy for the Government Purchase Programme) and also provide details of Consortium members, their manufacturing capacities, the share-out of quantities with schedule of supplies as per EESL tender schedule. Further, NSIC consortium mandatorily submit their service tax, pan card and other relevant documents.
20. Further, MSMEs are also eligible to participate in tender directly provided they meet all QRs in their individual capacities and are not part of NSIC Consortium or any other Consortium.
21. In case of Consortium of NSIC, the lead members/ partners in the consortium shall not separately participate as independent bidder or as members of any other consortium in this bidding process. All bids in contravention of this shall be rejected.
22. In case of participation as NSIC, it is clarified as consortium of maximum three member are allowed including NSIC as lead member.
23. NSIC consortium members *should be* from industries as mentioned in Qualifying Requirement (QR).
24. In one tender, only bid from one NSIC Consortium will be accepted.
25. All correspondence by EESL will be done with 'Lead member' only.



Notes:

1. Bidder has to submit the test certificates for each pump category in which bidder gets empanelled based on MNRE technical specs 2019 along with the CPG. Bidder has to provide a declaration as per **Attachment-17**
2. Test certificate already available for a solar pumping system can be used for other installers provided the user obtains written consent from the owner of test certificate to use the same. Further, in case of any change in the component of already tested solar pumping system the user shall get technical compatibility certificate for the changes component along with the consent from certificate owner.

For manufacturer of Solar Pump or SPV modules or Solar Pump Controller using indigenous technology:

1. If a bidder has submitted LoA/work experience certificates for supplying solar pump or SPV modules or Solar pump controllers to successful bidder (some other firm) who got that work from some Govt. tender, then, such work experiences shall only be considered on submission of the following along with the work experience certificate (as asked above):
 - a. LoA and completion certificate given by Govt. department to the firm for which supply work has been completed by the bidder. The LoA and completion certificate shall be in line with the documents as asked in the tender document.

Signature :-
Subject: CN=NIKHIL BHANDARI, ST=DELHI, O=D, C=IN, OU=STATE CHINA
NIT/Bid Document No: EESL/06/2020-21/KUSUM/SWPS/ 1-10 HP/ Off
User ID: nikhil.bhandari
Serial No: 3048

NIT/Bid Document No: EESL/06/2020-21/KUSUM/SWPS/ 1-10 HP/ Off Grid/2/2101032 Dated:- 14.01.2021	SECTION -4 Technical & SCC	Page 83 of 129
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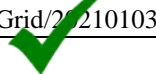


Table-1 (Past Experience):

Cluster	State	Quantity (State-wise)	Quantity (Cluster-wise)	For Solar Pumps/Controller (No. of Solar Pumps installed/Controller installed or supplied)	For Solar PV Modules (Experience in MWp)
1	Chhattisgarh	20000	20000	1200	6
2	Haryana	22000	22000	1320	6.6
3	Madhya Pradesh	50000	50000	3000	15
4	Maharashtra	100000	100000	6000	30
5	Rajasthan	50000	50000	3000	15
6	Uttar Pradesh	15000	15000	900	4.5
7	Tripura	2600	2600	156	0.78
8	Jammu & Kashmir	5000	5600	336	1.68
	Ladakh	600			
9	Bihar	1000	11000	660	3.3
	Jharkhand	10000			
10	Karnataka	10000	10200	612	3.06
	Goa	200			
11	Himachal Pradesh	1000	1100	66	0.33
	Uttarakhand	100			
12	Assam	500	6000	360	1.8
	West Bengal	500			
	Odisha	5000			
13	Gujarat	775	875	52.5	0.26
	Dadra & Nagar Haveli	50			
	Daman & Diu	50			
14	Punjab	15000	15600	936	4.68
	Chandigarh	100			
	Delhi	500			
15	Tamil Nadu	5000	7200	432	2.16
	Andhra Pradesh	1000			
	Kerala	100			
	Telangana	1000			
	Puducherry	100			



16	Arunachal Pradesh	50	800	48	0.24
	Sikkim	50			
	Manipur	50			
	Meghalaya	500			
	Mizoram	100			
	Nagaland	50			
Total		317975	317975	19078.5	95.39

NOTE 1: The combine past experience for all clusters applied by the bidder shall be considered for evaluation. For example: If bidder quoted for Cluster 1 and Cluster 2, the past experience for Solar Pumps/Controller should be 2520 (1200 + 1320), past experience for Solar PV Modules should be 12.6 Mega Watt-peak (6+ 6.6).

Experience in any i.e. Pumping or Solar PV modules or Solar Pump Controller is Sufficient

Table-2 (Annual Turn Over Requirement):

Cluster	State	Quantity (State-wise)	Quantity (Cluster-wise)	ATO in INR Crore
1	Chhattisgarh	20000	20000	28.38
2	Haryana	22000	22000	31.22
3	Madhya Pradesh	50000	50000	70.95
4	Maharashtra	100000	100000	141.90
5	Rajasthan	50000	50000	70.95
6	Uttar Pradesh	15000	15000	21.29
7	Tripura	2600	2600	4.06
8	Jammu & Kashmir	5000	5600	8.75
	Ladakh	600		
9	Bihar	1000	11000	15.61
	Jharkhand	10000		
10	Karnataka	10000	10200	14.47
	Goa	200		
11	Himachal Pradesh	1000	1100	1.72
	Uttarakhand	100		
12	Assam	500	6000	8.59
	West Bengal	500		



	Odisha	5000		
13	Gujarat	775	875	1.24
	Dadra & Nagar Haveli	50		
	Daman & Diu	50		
14	Punjab	15000	15600	22.14
	Chandigarh	100		
	Delhi	500		
15	Tamil Nadu	5000	7200	10.22
	Andhra Pradesh	1000		
	Kerala	100		
	Telangana	1000		
	Puducherry	100		
16	Arunachal Pradesh	50	800	1.25
	Sikkim	50		
	Manipur	50		
	Meghalaya	500		
	Mizoram	100		
	Nagaland	50		
	Total	317975	317975	452.73

NOTE 2: The combine ATO for all the states applied by the bidder shall be consider for evaluation. For example: If bidder has quoted for Cluster 1 and Cluster 2, the ATO of the bidder should be at least INR 59.6 Cr (28.38 Cr +31.22 Cr)

Note:

- NSIC Consortium shall consist of maximum Two members including NSIC as lead member.
- In case a group of MSMEs registered with NSIC (under single point registration scheme) form a consortium under NSIC, the Consortium needs to provide an authorization letter from NSIC accepting the terms and conditions of tender (except for those terms and conditions in which NSIC consortia are given special status as per Government of India Policy for the Government Purchase Program) and also provide details of Consortium members, their manufacturing capacities, the share-out of quantities with schedule of supplies as per EESL tender schedule. Further, NSIC consortium mandatorily submits their GSTN, pan card and other relevant documents.
- In this tender, only one bid from NSIC Consortium will be accepted.
- In case of Consortium of NSIC, the lead members/ partners in the consortium shall not separately participate as independent bidder or as members of any other consortium in this bidding process. All bids in contravention of this shall be rejected. NSIC consortium members should be from relevant industry only as mentioned in QR.
- Further, MSMEs are also eligible to participate in tender directly provided they meet all QRs in their



individual capacities and are not part of NSIC Consortium or any other Consortium. “Holding Company” and “Subsidiary” shall have the meaning ascribed to them as per Companies Act, 1956 or, in vogue.

- In case bidder is not able to furnish its audited financial statements on standalone entity basis, the unaudited unconsolidated financial statements of the bidder can be considered acceptable provided the bidder furnishes the following further documents on substantiation of its qualification:
 - Copies of the unaudited unconsolidated financial statements of the Bidder along with copies of the audited consolidated financial statements of the Holding Company with a letter of undertaking from holding company supported by Board pledging unconditional and financial support. Irrevocable in the format enclosed in Attachemnt-9 of Section-6, Forms & Procedures.
 - A Certificate from the CEO/CFO of the Holding Company, stating that the unaudited unconsolidated financial statements form part of the Consolidated Annual Report of the Company.
- In case a bidder does not satisfy the financial criteria, the holding company would be required to meet the stipulated turn over requirements, provided that the net worth of such holding company as on the last day of the preceding financial year is at least equal to or more than the paid-up share capital of the holding company. In such an event, the bidder would be required to furnish along with its bid, a letter of Undertaking from the holding company, supported by the Board Resolution, as per the format enclosed in the bid documents (Attachemnt-9 of Section-6, Forms & Procedures), pledging unconditional and irrevocable financial support for the execution of the Contract by the bidders in case of award.
- In case the Bidder meets the requirement of Net worth based on the strength of its Subsidiary(ies) and/or Holding Company and/or Subsidiaries of its Holding Companies wherever applicable, the Net worth of the Bidder and its Subsidiary(ies) and/or Holding Company and/or Subsidiary(ies) of the Holding Company, in combined manner should not be less than 100% of their total paid up share capital. However individually, their Net worth should not be less than 75% of their respective paid up share capitals.
- Net worth means the sum total of the paid up share capital and free reserves. Free reserve means all reserves credited out of the profits and share premium account but does not include reserves credited out of the revaluation of the assets, write back of depreciation provision and amalgamation. Further any debit balance of Profit and Loss account and miscellaneous expenses to the extent not adjusted or written off, if any, shall be reduced from reserves and surplus.
- Other income shall not be considered for arriving at annual turnover.
- The supporting documents in support of above Qualification Requirement should be submitted along with tender document, otherwise Techno-commercial offer submitted by the bidder is liable to be considered as non-responsive.
- All the required documents must be properly annexed and submitted as mentioned above with necessary details in brief in Column D.
- In case bidder has been found to be defaulting on the delivery period (in each LoA issued) as per assessment (supply, installation etc.) will be liable to be rejected. Bidder have to provide the quantity (Nos. & Percentage) supplied and installed against each LoA awarded by SIA at the date of submission of bid.



Format 1**Information on Average Annual Turnover**

{To be printed on the Letterhead of the bidder including full postal address, telephone, faxes and e-mail address}

Annual Turnover Data for the Last 3 Years

Year	Net Worth(in INR)	Annual Turnover (in INR)
2019-20		
2018-19		
2017-18		
2016-17		
Annual Average		

{This format should be certified by the practicing CA's of the Bidder}

Format 2**Information on Profitability**

{To be printed on the Letterhead of the bidder including full postal address, telephone, faxes and e-mail address}

Profit After Tax Data for the last 4 years

Year	Amount (in INR)
2019-20	
2018-19	
2017-18	
2016-17	

{This format should be certified by the practicing CA of the Bidder}



SPECIFIC CONFIRMATION BY BIDDER	
Note: Please submit the table below duly filled, signed and stamped along with Techno-Commercial Bid.	
Description	Remarks
In case more than one bidder gets qualified based on the Techno-commercial Bid, then the bidder quoting the lowest total price for SPWPS defined in price-bid table will qualify as the successful bidder.	Agreed
Bidders should have financial and technical capabilities to execute the Scope of Work as specified in the RFP.	Vendor to give their acceptance along with supporting documents
Offer of Warranty less than 5 YEARS from the date of delivery of respective consignment will not be accepted and bidder shall be disqualified.	Agreed
Payment Terms—as per SCC Clause No. 1.0.	Agreed
Test Reports of SPWPS are to be submitted as per MNRE technical specifications and testing procedures issued in 2019 and its subsequent amendment(s) if any.	Agreed
For the purpose of this Tender, the successful bidder needs to provide name, address, mobile no., email addresses, designations of at least 3 Senior Nodal Officers (Regular Employees of their organization), nominated by their top management, who are reachable through any means of modern communication and who shall be accountable to deliver the product and associated services to SIA as per the tender.	To be indicated. To be enclosed separately
Any entity which has been barred by the Central/State Government or PSUs (Public Sector Undertakings), from participating in any bid, and the bar subsists as on the Bid Due date, would not be eligible to submit a Bid. Necessary declaration to this effect has to be given by the bidder as per format in the tender form.	Vendor to give a declaration on its letterhead pad.
Bidder should have an existing network or has to set-up a local service network in the Project Areas to support post-delivery maintenance activities. The Successful Bidder has to further support the project by opening office in the state for delivery with one Project Manager and one Project Engineer dedicated full-time to support supply and post-distribution warranty commitments.	Details of service support network or plans for deployment of such network in project area to be provided. To be enclosed separately as Annexure.
EESL/SIA reserves the right to ask other qualified bidders to match the evaluated price of L-1 Bidder. EESL/SIA reserves the right to offer up-to 25 % of L-1 quantity to NSIC Consortium, provided they meet all tender terms and conditions (except where they are exempted by Government Order) and also comply with the L-1 rate, quality, supply schedules of tender for bidders.	Agreed
EESL/SIA reserves the right for quantity variation up to +/- 20%. Further EESL/SIA reserves the right to place a repeat order in case of urgency for part quantity in the Letter of Award for similar work on same prices, terms and conditions.	Agreed



EESL/SIA shall give preference domestically manufacturers as per Policy Notification no. F.No.33 (3)/2013-IPHW dated 22.05.14 of Department of Electronics & Information Technology, provided they meet all terms and conditions of tender on price, quality, supply schedule, branding, etc.	Agreed
It will be the sole discretion of EESL/SIA to award the quantity irrespective of the quantity mentioned by the bidder and the band provided.	Agreed
Detailed Test certificate for SPWPS being offered meets Technical Specifications as per RfP.	Agreed
Sample copy of batch test report specifying all the required tests will be reported with each consignment.	Agreed
Undertaking by authorized signatory that all Central/State taxes, duties, levies, etc. shall be complied with by the supplier.	Undertaking to be provided. To be enclosed separately as Annexure.
Declaration that Bidder has not been barred/ banned/ black-listed by Central/ State Government or PSUs (Public Sector Undertakings).	Agreed
Price Validity till 365 days from the date of Price Bid opening	Agreed
Declaration for using same make of equipment's as per test certificate in accordance with Attachment-16	Attachment-16 to be filled and submitted



PRICE BID FORMAT
(For Indicative purpose. To be filled online only).

Name of Work: - Design, Manufacture, Supply, Transport, Installation, Testing and Commissioning of Off Grid Solar Photovoltaic Water Pumping Systems of 1-10 HP in selected States on PAN India basis, including complete system warranty and its repair and maintenance for 5 Years under MNRE KUSUM scheme Component-B.

NIT/Bid Document No.: - EESL/06/2020-21/KUSUM/SWPS/1-10 HP/Off Grid/202101032 Dated:- 14.01.2021

Sr. No	Description	Quantity	Unit of Measurement (UOM)	Unit Rate exclusive of GST (IGST/SGST/CGST/ UGST) (in Rs.) on F.O.R Destination Basis (In Figure)	Unit Rate exclusive of GST (IGST/ SGST/CGST/UGST) (in Rs.) on F.O.R Destination Basis (In Words)
For Cluster 1 - Chattisgarh					
1	Cluster-1 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
2	Cluster-1 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
3	Cluster-1 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
4	Cluster-1 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
5	Cluster-1 1 HP DC - Surface Pump with normal controller	1	Nos		
6	Cluster-1 1 HP AC - Surface Pump with normal controller	1	Nos		
7	Cluster-1 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
8	Cluster-1 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
9	Cluster-1 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
10	Cluster-1 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
11	Cluster-1 2 HP DC - Surface Pump with normal controller	1	Nos		
12	Cluster-1 2 HP AC - Surface Pump with normal controller	1	Nos		
13	Cluster-1 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		

NIT/Bid Document No.: - EESL/ 06/ 2020-21/ KUSUM/ SWPS/ 1-10 HP/ Off Grid/202101032 Dated:- 14.01.2021

SECTION –4 Technical & SCC

Page 91 of 129



Signature :-
Subject : CN=NIKHIL BHANDARI, ST=DELHI, OID.2.5.4.17=110003, OU=SUPPLY CHAIN MANAGEMENT, O=ENERGY EFFICIENCY SERVICES LIMITED, C=IN
User ID : nikhil.bhandari
Serial No : 13183FB

14	Cluster-1 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster-1 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster-1 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster-1 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster-1 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster-1 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster-1 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster-1 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster-1 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster-1 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster-1 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster-1 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
26	Cluster-1 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster-1 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster-1 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster-1 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster-1 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster-1 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster-1 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster-1 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster-1 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster-1 5 HP DC - Surface Pump with USPC	1	Nos	
36	Cluster-1 5 HP AC - Surface Pump with USPC	1	Nos	
37	Cluster-1 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
38	Cluster-1 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
39	Cluster-1 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
40	Cluster-1 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
41	Cluster-1 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
42	Cluster-1 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
43	Cluster-1 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	



44	Cluster-1 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos		
45	Cluster-1 7.5 HP DC - Surface Pump with normal controller	1	Nos		
46	Cluster-1 7.5 HP AC - Surface Pump with normal controller	1	Nos		
47	Cluster-1 7.5 HP DC - Surface Pump with USPC	1	Nos		
48	Cluster-1 7.5 HP AC - Surface Pump with USPC	1	Nos		
49	Cluster-1 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
50	Cluster-1 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
51	Cluster-1 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
52	Cluster-1 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
53	Cluster-1 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos		
54	Cluster-1 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos		
55	Cluster-1 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos		
56	Cluster-1 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos		
57	Cluster-1 10 HP DC - Surface Pump with normal controller	1	Nos		
58	Cluster-1 10 HP AC - Surface Pump with normal controller	1	Nos		
59	Cluster-1 10 HP DC - Surface Pump with USPC	1	Nos		
60	Cluster-1 10 HP AC - Surface Pump with USPC	1	Nos		
For Cluster 2 - Haryana					
1	Cluster-2 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
2	Cluster-2 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
3	Cluster-2 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
4	Cluster-2 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
5	Cluster-2 1 HP DC - Surface Pump with normal controller	1	Nos		
6	Cluster-2 1 HP AC - Surface Pump with normal controller	1	Nos		
7	Cluster-2 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
8	Cluster-2 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
9	Cluster-2 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
10	Cluster-2 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
11	Cluster-2 2 HP DC - Surface Pump with normal controller	1	Nos		
12	Cluster-2 2 HP AC - Surface Pump with normal controller	1	Nos		



13	Cluster-2 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster-2 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster-2 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster-2 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster-2 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster-2 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster-2 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster-2 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster-2 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster-2 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster-2 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster-2 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster-2 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
26	Cluster-2 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster-2 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster-2 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster-2 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster-2 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster-2 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster-2 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster-2 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster-2 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster-2 5 HP DC - Surface Pump with USPC	1	Nos	
36	Cluster-2 5 HP AC - Surface Pump with USPC	1	Nos	
37	Cluster-2 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
38	Cluster-2 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
39	Cluster-2 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
40	Cluster-2 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
41	Cluster-2 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
42	Cluster-2 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	



43	Cluster-2 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
44	Cluster-2 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
45	Cluster-2 7.5 HP DC - Surface Pump with normal controller	1	Nos	
46	Cluster-2 7.5 HP AC - Surface Pump with normal controller	1	Nos	
47	Cluster-2 7.5 HP DC - Surface Pump with USPC	1	Nos	
48	Cluster-2 7.5 HP AC - Surface Pump with USPC	1	Nos	
49	Cluster-2 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
50	Cluster-2 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
51	Cluster-2 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
52	Cluster-2 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
53	Cluster-2 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
54	Cluster-2 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
55	Cluster-2 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
56	Cluster-2 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
57	Cluster-2 10 HP DC - Surface Pump with normal controller	1	Nos	
58	Cluster-2 10 HP AC - Surface Pump with normal controller	1	Nos	
59	Cluster-2 10 HP DC - Surface Pump with USPC	1	Nos	
60	Cluster-2 10 HP AC - Surface Pump with USPC	1	Nos	

For Cluster 3 - Madhya Pradesh

1	Cluster- 3 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
2	Cluster- 3 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
3	Cluster- 3 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
4	Cluster- 3 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
5	Cluster- 3 1 HP DC - Surface Pump with normal controller	1	Nos	
6	Cluster- 3 1 HP AC - Surface Pump with normal controller	1	Nos	
7	Cluster- 3 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
8	Cluster- 3 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
9	Cluster- 3 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
10	Cluster- 3 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
11	Cluster- 3 2 HP DC - Surface Pump with normal controller	1	Nos	



12	Cluster- 3 2 HP AC - Surface Pump with normal controller	1	Nos	
13	Cluster- 3 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster- 3 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster- 3 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster- 3 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster- 3 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster- 3 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster- 3 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster- 3 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster- 3 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster- 3 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster- 3 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster- 3 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster- 3 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
26	Cluster- 3 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster- 3 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster- 3 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster- 3 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster- 3 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster- 3 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster- 3 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster- 3 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster- 3 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster- 3 5 HP DC - Surface Pump with USPC	1	Nos	
36	Cluster- 3 5 HP AC - Surface Pump with USPC	1	Nos	
37	Cluster- 3 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
38	Cluster- 3 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
39	Cluster- 3 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
40	Cluster- 3 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
41	Cluster- 3 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	



42	Cluster- 3 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
43	Cluster- 3 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
44	Cluster- 3 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
45	Cluster- 3 7.5 HP DC - Surface Pump with normal controller	1	Nos	
46	Cluster- 3 7.5 HP AC - Surface Pump with normal controller	1	Nos	
47	Cluster- 3 7.5 HP DC - Surface Pump with USPC	1	Nos	
48	Cluster- 3 7.5 HP AC - Surface Pump with USPC	1	Nos	
49	Cluster- 3 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
50	Cluster- 3 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
51	Cluster- 3 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
52	Cluster- 3 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
53	Cluster- 3 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
54	Cluster- 3 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
55	Cluster- 3 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
56	Cluster- 3 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
57	Cluster- 3 10 HP DC - Surface Pump with normal controller	1	Nos	
58	Cluster- 3 10 HP AC - Surface Pump with normal controller	1	Nos	
59	Cluster- 3 10 HP DC - Surface Pump with USPC	1	Nos	
60	Cluster- 3 10 HP AC - Surface Pump with USPC	1	Nos	
For Cluster 4 - Maharashtra				
1	Cluster- 4 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
2	Cluster- 4 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
3	Cluster- 4 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
4	Cluster- 4 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
5	Cluster- 4 1 HP DC - Surface Pump with normal controller	1	Nos	
6	Cluster- 4 1 HP AC - Surface Pump with normal controller	1	Nos	
7	Cluster- 4 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
8	Cluster- 4 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
9	Cluster- 4 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
10	Cluster- 4 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	



11	Cluster- 4 2 HP DC - Surface Pump with normal controller	1	Nos	
12	Cluster- 4 2 HP AC - Surface Pump with normal controller	1	Nos	
13	Cluster- 4 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster- 4 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster- 4 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster- 4 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster- 4 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster- 4 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster- 4 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster- 4 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster- 4 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster- 4 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster- 4 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster- 4 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster- 4 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
26	Cluster- 4 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster- 4 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster- 4 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster- 4 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster- 4 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster- 4 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster- 4 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster- 4 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster- 4 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster- 4 5 HP DC - Surface Pump with USPC	1	Nos	
36	Cluster- 4 5 HP AC - Surface Pump with USPC	1	Nos	
37	Cluster- 4 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
38	Cluster- 4 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
39	Cluster- 4 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
40	Cluster- 4 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	



41	Cluster- 4 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
42	Cluster- 4 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
43	Cluster- 4 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
44	Cluster- 4 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
45	Cluster- 4 7.5 HP DC - Surface Pump with normal controller	1	Nos	
46	Cluster- 4 7.5 HP AC - Surface Pump with normal controller	1	Nos	
47	Cluster- 4 7.5 HP DC - Surface Pump with USPC	1	Nos	
48	Cluster- 4 7.5 HP AC - Surface Pump with USPC	1	Nos	
49	Cluster- 4 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
50	Cluster- 4 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
51	Cluster- 4 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
52	Cluster- 4 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
53	Cluster- 4 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
54	Cluster- 4 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
55	Cluster- 4 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
56	Cluster- 4 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
57	Cluster- 4 10 HP DC - Surface Pump with normal controller	1	Nos	
58	Cluster- 4 10 HP AC - Surface Pump with normal controller	1	Nos	
59	Cluster- 4 10 HP DC - Surface Pump with USPC	1	Nos	
60	Cluster- 4 10 HP AC - Surface Pump with USPC	1	Nos	
For Cluster 5 - Rajasthan				
1	Cluster- 5 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
2	Cluster- 5 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
3	Cluster- 5 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
4	Cluster- 5 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
5	Cluster- 5 1 HP DC - Surface Pump with normal controller	1	Nos	
6	Cluster- 5 1 HP AC - Surface Pump with normal controller	1	Nos	
7	Cluster- 5 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
8	Cluster- 5 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
9	Cluster- 5 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	



10	Cluster- 5 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
11	Cluster- 5 2 HP DC - Surface Pump with normal controller	1	Nos	
12	Cluster- 5 2 HP AC - Surface Pump with normal controller	1	Nos	
13	Cluster- 5 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster- 5 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster- 5 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster- 5 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster- 5 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster- 5 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster- 5 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster- 5 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster- 5 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster- 5 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster- 5 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster- 5 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster- 5 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
26	Cluster- 5 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster- 5 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster- 5 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster- 5 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster- 5 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster- 5 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster- 5 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster- 5 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster- 5 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster- 5 5 HP DC - Surface Pump with USPC	1	Nos	
36	Cluster- 5 5 HP AC - Surface Pump with USPC	1	Nos	
37	Cluster- 5 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
38	Cluster- 5 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
39	Cluster- 5 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	



40	Cluster- 5 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
41	Cluster- 5 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos		
42	Cluster- 5 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos		
43	Cluster- 5 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos		
44	Cluster- 5 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos		
45	Cluster- 5 7.5 HP DC - Surface Pump with normal controller	1	Nos		
46	Cluster- 5 7.5 HP AC - Surface Pump with normal controller	1	Nos		
47	Cluster- 5 7.5 HP DC - Surface Pump with USPC	1	Nos		
48	Cluster- 5 7.5 HP AC - Surface Pump with USPC	1	Nos		
49	Cluster- 5 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
50	Cluster- 5 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
51	Cluster- 5 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
52	Cluster- 5 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
53	Cluster- 5 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos		
54	Cluster- 5 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos		
55	Cluster- 5 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos		
56	Cluster- 5 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos		
57	Cluster- 5 10 HP DC - Surface Pump with normal controller	1	Nos		
58	Cluster- 5 10 HP AC - Surface Pump with normal controller	1	Nos		
59	Cluster- 5 10 HP DC - Surface Pump with USPC	1	Nos		
60	Cluster- 5 10 HP AC - Surface Pump with USPC	1	Nos		
For Cluster 6 - Uttar Pradesh					
1	Cluster- 6 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
2	Cluster- 6 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
3	Cluster- 6 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
4	Cluster- 6 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
5	Cluster- 6 1 HP DC - Surface Pump with normal controller	1	Nos		
6	Cluster- 6 1 HP AC - Surface Pump with normal controller	1	Nos		
7	Cluster- 6 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
8	Cluster- 6 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		



9	Cluster- 6 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
10	Cluster- 6 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
11	Cluster- 6 2 HP DC - Surface Pump with normal controller	1	Nos	
12	Cluster- 6 2 HP AC - Surface Pump with normal controller	1	Nos	
13	Cluster- 6 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster- 6 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster- 6 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster- 6 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster- 6 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster- 6 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster- 6 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster- 6 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster- 6 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster- 6 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster- 6 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster- 6 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster- 6 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
26	Cluster- 6 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster- 6 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster- 6 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster- 6 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster- 6 7 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster- 6 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster- 6 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster- 6 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster- 6 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster- 6 5 HP DC - Surface Pump with USPC	1	Nos	
36	Cluster- 6 5 HP AC - Surface Pump with USPC	1	Nos	
37	Cluster- 6 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
38	Cluster- 6 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	



39	Cluster- 6 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
40	Cluster- 6 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
41	Cluster- 6 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
42	Cluster- 6 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
43	Cluster- 6 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
44	Cluster- 6 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
45	Cluster- 6 7.5 HP DC - Surface Pump with normal controller	1	Nos	
46	Cluster- 6 7.5 HP AC - Surface Pump with normal controller	1	Nos	
47	Cluster- 6 7.5 HP DC - Surface Pump with USPC	1	Nos	
48	Cluster- 6 7.5 HP AC - Surface Pump with USPC	1	Nos	
49	Cluster- 6 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
50	Cluster- 6 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
51	Cluster- 6 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
52	Cluster- 6 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
53	Cluster- 6 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
54	Cluster- 6 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
55	Cluster- 6 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
56	Cluster- 6 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
57	Cluster- 6 10 HP DC - Surface Pump with normal controller	1	Nos	
58	Cluster- 6 10 HP AC - Surface Pump with normal controller	1	Nos	
59	Cluster- 6 10 HP DC - Surface Pump with USPC	1	Nos	
60	Cluster- 6 10 HP AC - Surface Pump with USPC	1	Nos	
For Cluster 7 - Tripura				
1	Cluster- 7 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
2	Cluster- 7 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
3	Cluster- 7 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
4	Cluster- 7 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
5	Cluster- 7 1 HP DC - Surface Pump with normal controller	1	Nos	
6	Cluster- 7 1 HP AC - Surface Pump with normal controller	1	Nos	
7	Cluster- 7 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	



8	Cluster- 7 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
9	Cluster- 7 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
10	Cluster- 7 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
11	Cluster- 7 2 HP DC - Surface Pump with normal controller	1	Nos	
12	Cluster- 7 2 HP AC - Surface Pump with normal controller	1	Nos	
13	Cluster- 7 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster- 7 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster- 7 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster- 7 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster- 7 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster- 7 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster- 7 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster- 7 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster- 7 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster- 7 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster- 7 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster- 7 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster- 7 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
26	Cluster- 7 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster- 7 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster- 7 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster- 7 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster- 7 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster- 7 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster- 7 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster- 7 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster- 7 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster- 7 5 HP DC - Surface Pump with USPC	1	Nos	
36	Cluster- 7 5 HP AC - Surface Pump with USPC	1	Nos	
37	Cluster- 7 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	



38	Cluster- 7 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
39	Cluster- 7 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
40	Cluster- 7 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
41	Cluster- 7 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
42	Cluster- 7 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
43	Cluster- 7 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
44	Cluster- 7 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
45	Cluster- 7 7.5 HP DC - Surface Pump with normal controller	1	Nos	
46	Cluster- 7 7.5 HP AC - Surface Pump with normal controller	1	Nos	
47	Cluster- 7 7.5 HP DC - Surface Pump with USPC	1	Nos	
48	Cluster- 7 7.5 HP AC - Surface Pump with USPC	1	Nos	
49	Cluster- 7 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
50	Cluster- 7 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
51	Cluster- 7 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
52	Cluster- 7 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
53	Cluster- 7 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
54	Cluster- 7 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
55	Cluster- 7 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
56	Cluster- 7 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
57	Cluster- 7 10 HP DC - Surface Pump with normal controller	1	Nos	
58	Cluster- 7 10 HP AC - Surface Pump with normal controller	1	Nos	
59	Cluster- 7 10 HP DC - Surface Pump with USPC	1	Nos	
60	Cluster- 7 10 HP AC - Surface Pump with USPC	1	Nos	

**For Cluster 8 - Jammu & Kashmir,
Ladakh**

1	Cluster- 8 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
2	Cluster- 8 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
3	Cluster- 8 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
4	Cluster- 8 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
5	Cluster- 8 1 HP DC - Surface Pump with normal controller	1	Nos	



6	Cluster- 8 3 1 HP AC - Surface Pump with normal controller	1	Nos	
7	Cluster- 8 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
8	Cluster- 8 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
9	Cluster- 8 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
10	Cluster- 8 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
11	Cluster- 8 2 HP DC - Surface Pump with normal controller	1	Nos	
12	Cluster- 8 2 HP AC - Surface Pump with normal controller	1	Nos	
13	Cluster- 8 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster- 8 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster- 8 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster- 8 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster- 8 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster- 8 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster- 8 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster- 8 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster- 8 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster- 8 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster- 8 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster- 8 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster- 8 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
26	Cluster- 8 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster- 8 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster- 8 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster- 8 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster- 8 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster- 8 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster- 8 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster- 8 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster- 8 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster- 8 5 HP DC - Surface Pump with USPC	1	Nos	



36	Cluster- 8 5 HP AC - Surface Pump with USPC	1	Nos		
37	Cluster- 8 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
38	Cluster- 8 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
39	Cluster- 8 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
40	Cluster- 8 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
41	Cluster- 8 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos		
42	Cluster- 8 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos		
43	Cluster- 8 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos		
44	Cluster- 8 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos		
45	Cluster- 8 7.5 HP DC - Surface Pump with normal controller	1	Nos		
46	Cluster- 8 7.5 HP AC - Surface Pump with normal controller	1	Nos		
47	Cluster- 8 7.5 HP DC - Surface Pump with USPC	1	Nos		
48	Cluster- 8 7.5 HP AC - Surface Pump with USPC	1	Nos		
49	Cluster- 8 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
50	Cluster- 8 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
51	Cluster- 8 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
52	Cluster- 8 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
53	Cluster- 8 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos		
54	Cluster- 8 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos		
55	Cluster- 8 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos		
56	Cluster- 8 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos		
57	Cluster- 8 10 HP DC - Surface Pump with normal controller	1	Nos		
58	Cluster- 8 10 HP AC - Surface Pump with normal controller	1	Nos		
59	Cluster- 8 10 HP DC - Surface Pump with USPC	1	Nos		
60	Cluster- 8 10 HP AC - Surface Pump with USPC	1	Nos		
For Cluster 9 – Bihar & Jharkhand					
1	Cluster- 9 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
2	Cluster- 9 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
3	Cluster- 9 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
4	Cluster- 9 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		



5	Cluster- 9 1 HP DC - Surface Pump with normal controller	1	Nos	
6	Cluster- 9 1 HP AC - Surface Pump with normal controller	1	Nos	
7	Cluster- 9 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
8	Cluster- 9 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
9	Cluster- 9 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
10	Cluster- 9 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
11	Cluster- 9 2 HP DC - Surface Pump with normal controller	1	Nos	
12	Cluster- 9 2 HP AC - Surface Pump with normal controller	1	Nos	
13	Cluster- 9 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster- 9 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster- 9 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster- 9 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster- 9 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster- 9 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster- 9 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster- 9 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster- 9 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster- 9 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster- 9 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster- 9 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster- 9 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
26	Cluster- 9 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster- 9 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster- 9 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster- 9 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster- 9 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster- 9 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster- 9 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster- 9 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster- 9 5 HP AC - Surface Pump with normal controller	1	Nos	



35	Cluster- 9 5 HP DC - Surface Pump with USPC	1	Nos		
36	Cluster- 9 5 HP AC - Surface Pump with USPC	1	Nos		
37	Cluster- 9 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
38	Cluster- 9 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
39	Cluster- 9 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
40	Cluster- 9 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
41	Cluster- 9 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos		
42	Cluster- 9 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos		
43	Cluster- 9 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos		
44	Cluster- 9 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos		
45	Cluster- 9 7.5 HP DC - Surface Pump with normal controller	1	Nos		
46	Cluster- 9 7.5 HP AC - Surface Pump with normal controller	1	Nos		
47	Cluster- 9 7.5 HP DC - Surface Pump with USPC	1	Nos		
48	Cluster- 9 7.5 HP AC - Surface Pump with USPC	1	Nos		
49	Cluster- 9 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
50	Cluster- 9 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
51	Cluster- 9 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
52	Cluster- 9 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
53	Cluster- 9 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos		
54	Cluster- 9 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos		
55	Cluster- 9 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos		
56	Cluster- 9 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos		
57	Cluster- 9 10 HP DC - Surface Pump with normal controller	1	Nos		
58	Cluster- 9 10 HP AC - Surface Pump with normal controller	1	Nos		
59	Cluster- 9 10 HP DC - Surface Pump with USPC	1	Nos		
60	Cluster- 9 10 HP AC - Surface Pump with USPC	1	Nos		
For Cluster 10 – Karnataka & Goa					
1	Cluster- 10 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
2	Cluster- 10 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
3	Cluster- 10 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		



4	Cluster- 10 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
5	Cluster- 10 1 HP DC - Surface Pump with normal controller	1	Nos	
6	Cluster- 10 1 HP AC - Surface Pump with normal controller	1	Nos	
7	Cluster- 10 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
8	Cluster- 10 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
9	Cluster- 10 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
10	Cluster- 10 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
11	Cluster- 10 2 HP DC - Surface Pump with normal controller	1	Nos	
12	Cluster- 10 2 HP AC - Surface Pump with normal controller	1	Nos	
13	Cluster- 10 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster- 10 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster- 10 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster- 10 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster- 10 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster- 10 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster- 10 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster- 10 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster- 10 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster- 10 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster- 10 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster- 10 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster- 10 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
26	Cluster- 10 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster- 10 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster- 10 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster- 10 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster- 10 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster- 10 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster- 10 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster- 10 5 HP DC - Surface Pump with normal controller	1	Nos	



34	Cluster- 10 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster- 10 5 HP DC - Surface Pump with USPC	1	Nos	
36	Cluster- 10 5 HP AC - Surface Pump with USPC	1	Nos	
37	Cluster-10 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
38	Cluster- 10 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
39	Cluster- 10 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
40	Cluster- 10 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
41	Cluster- 10 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
42	Cluster- 10 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
43	Cluster- 10 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
44	Cluster- 10 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
45	Cluster- 10 7.5 HP DC - Surface Pump with normal controller	1	Nos	
46	Cluster- 10 7.5 HP AC - Surface Pump with normal controller	1	Nos	
47	Cluster- 10 7.5 HP DC - Surface Pump with USPC	1	Nos	
48	Cluster- 10 7.5 HP AC - Surface Pump with USPC	1	Nos	
49	Cluster- 10 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
50	Cluster- 10 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
51	Cluster- 10 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
52	Cluster- 10 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
53	Cluster- 10 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
54	Cluster- 10 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
55	Cluster- 10 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
56	Cluster- 10 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
57	Cluster- 10 10 HP DC - Surface Pump with normal controller	1	Nos	
58	Cluster- 10 10 HP AC - Surface Pump with normal controller	1	Nos	
59	Cluster- 10 10 HP DC - Surface Pump with USPC	1	Nos	
60	Cluster- 10 10 HP AC - Surface Pump with USPC	1	Nos	



For Cluster 11 – Himachal Pradesh & Uttarakhand

1	Cluster- 11 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
2	Cluster- 11 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
3	Cluster- 11 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
4	Cluster- 11 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
5	Cluster- 11 1 HP DC - Surface Pump with normal controller	1	Nos		
6	Cluster- 11 1 HP AC - Surface Pump with normal controller	1	Nos		
7	Cluster- 11 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
8	Cluster- 11 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
9	Cluster- 11 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
10	Cluster- 11 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
11	Cluster- 11 2 HP DC - Surface Pump with normal controller	1	Nos		
12	Cluster- 11 2 HP AC - Surface Pump with normal controller	1	Nos		
13	Cluster- 11 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
14	Cluster- 11 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
15	Cluster- 11 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
16	Cluster- 11 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
17	Cluster- 11 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos		
18	Cluster- 11 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos		
19	Cluster- 11 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos		
20	Cluster- 11 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos		
21	Cluster- 11 3 HP DC - Surface Pump with normal controller	1	Nos		
22	Cluster- 11 3 HP AC - Surface Pump with normal controller	1	Nos		
23	Cluster- 11 3 HP DC - Surface Pump with USPC	1	Nos		
24	Cluster- 11 3 HP AC - Surface Pump with USPC	1	Nos		
25	Cluster- 11 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos		
26	Cluster- 11 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos		
27	Cluster- 11 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos		
28	Cluster- 11 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos		
29	Cluster- 11 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos		

30	Cluster- 11 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster- 11 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster- 11 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster- 11 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster- 11 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster- 11 5 HP DC - Surface Pump with USPC	1	Nos	
36	Cluster- 11 5 HP AC - Surface Pump with USPC	1	Nos	
37	Cluster- 11 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
38	Cluster- 11 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
39	Cluster-11 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
40	Cluster- 11 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
41	Cluster-11 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
42	Cluster- 11 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
43	Cluster- 11 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
44	Cluster- 11 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
45	Cluster- 11 7.5 HP DC - Surface Pump with normal controller	1	Nos	
46	Cluster-11 7.5 HP AC - Surface Pump with normal controller	1	Nos	
47	Cluster- 11 7.5 HP DC - Surface Pump with USPC	1	Nos	
48	Cluster- 11 7.5 HP AC - Surface Pump with USPC	1	Nos	
49	Cluster- 11 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
50	Cluster- 11 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
51	Cluster- 11 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
52	Cluster- 11 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
53	Cluster- 11 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
54	Cluster- 1110 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
55	Cluster- 1110 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
56	Cluster- 11 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	



57	Cluster- 11 10 HP DC - Surface Pump with normal controller	1	Nos	
58	Cluster- 11 10 HP AC - Surface Pump with normal controller	1	Nos	
59	Cluster- 11 10 HP DC - Surface Pump with USPC	1	Nos	
60	Cluster- 11 10 HP AC - Surface Pump with USPC	1	Nos	
For Cluster 12-Assam, West Bengal, Odisha				
1	Cluster-12 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
2	Cluster- 12 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
3	Cluster-12 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
4	Cluster- 12 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
5	Cluster-12 1 HP DC - Surface Pump with normal controller	1	Nos	
6	Cluster-12 1 HP AC - Surface Pump with normal controller	1	Nos	
7	Cluster-12 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
8	Cluster-12 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
9	Cluster-12 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
10	Cluster-12 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
11	Cluster-12 2 HP DC - Surface Pump with normal controller	1	Nos	
12	Cluster-12 2 HP AC - Surface Pump with normal controller	1	Nos	
13	Cluster- 12 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster- 12 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster-12 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster- 12 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster- 12 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster- 12 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster- 12 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster- 12 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster- 12 3 HP DC - Surface Pump with normal controller	1	Nos	
22	Cluster-12 3 HP AC - Surface Pump with normal controller	1	Nos	
23	Cluster- 12 3 HP DC - Surface Pump with USPC	1	Nos	
24	Cluster- 12 3 HP AC - Surface Pump with USPC	1	Nos	
25	Cluster- 12 5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	



26	Cluster- 12 5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
27	Cluster- 12 5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
28	Cluster- 12 5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
29	Cluster- 12 5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
30	Cluster- 12 5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
31	Cluster- 12 5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
32	Cluster- 12 5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
33	Cluster- 12 5 HP DC - Surface Pump with normal controller	1	Nos	
34	Cluster- 12 5 HP AC - Surface Pump with normal controller	1	Nos	
35	Cluster- 12 5 HP DC - Surface Pump with USPC	1	Nos	
36	Cluster- 12 5 HP AC - Surface Pump with USPC	1	Nos	
37	Cluster- 12 7.5 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
38	Cluster- 12 7.5 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
39	Cluster- 12 7.5 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
40	Cluster- 12 7.5 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
41	Cluster- 12 7.5 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
42	Cluster- 12 7.5 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
43	Cluster- 12 7.5 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
44	Cluster- 12 7.5 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
45	Cluster- 12 7.5 HP DC - Surface Pump with normal controller	1	Nos	
46	Cluster- 12 7.5 HP AC - Surface Pump with normal controller	1	Nos	
47	Cluster- 12 7.5 HP DC - Surface Pump with USPC	1	Nos	
48	Cluster- 12 7.5 HP AC - Surface Pump with USPC	1	Nos	
49	Cluster- 12 10 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
50	Cluster- 12 10 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
51	Cluster- 12 10 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
52	Cluster- 12 10 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	



53	Cluster- 12 10 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
54	Cluster- 12 10 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
55	Cluster- 12 10 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
56	Cluster- 12 10 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
57	Cluster- 12 10 HP DC - Surface Pump with normal controller	1	Nos	
58	Cluster- 12 10 HP AC - Surface Pump with normal controller	1	Nos	
59	Cluster- 12 10 HP DC - Surface Pump with USPC	1	Nos	
60	Cluster- 12 10 HP AC - Surface Pump with USPC	1	Nos	
For Cluster 13-Gujarat,Dadra & Nagar Haveli, Daman & Diu-				
1	Cluster- 13 1 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
2	Cluster- 13 1 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
3	Cluster- 13 1 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
4	Cluster- 13 1 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
5	Cluster- 13 1 HP DC - Surface Pump with normal controller	1	Nos	
6	Cluster- 13 1 HP AC - Surface Pump with normal controller	1	Nos	
7	Cluster- 13 2 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
8	Cluster- 13 2 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
9	Cluster- 13 2 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
10	Cluster- 13 2 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
11	Cluster- 13 2 HP DC - Surface Pump with normal controller	1	Nos	
12	Cluster- 13 2 HP AC - Surface Pump with normal controller	1	Nos	
13	Cluster- 13 3 HP DC - Submersible Water Filled Pump with normal controller	1	Nos	
14	Cluster- 13 3 HP AC - Submersible Water Filled Pump with normal controller	1	Nos	
15	Cluster- 13 3 HP DC - Submersible Oil Filled Pump with normal controller	1	Nos	
16	Cluster- 13 3 HP AC - Submersible Oil Filled Pump with normal controller	1	Nos	
17	Cluster- 13 3 HP DC - Submersible Water Filled Pump with USPC	1	Nos	
18	Cluster- 13 3 HP AC - Submersible Water Filled Pump with USPC	1	Nos	
19	Cluster- 13 3 HP DC - Submersible Oil Filled Pump with USPC	1	Nos	
20	Cluster- 13 3 HP AC - Submersible Oil Filled Pump with USPC	1	Nos	
21	Cluster- 13 3 HP DC - Surface Pump with normal controller	1	Nos	

