

**Indian Institute of Technology Roorkee**  
**Department of Hydro and Renewable energy**

Date: June 19, 2023

**Sub: Expression of Interest (EOI) of Jal Urja Mitra Skill Development Programme**

Expression of Interest is hereby invited only from the state of Bihar, Kerala, Maharashtra, Nagaland, Punjab, UT of Jammu & Kashmir, UT of Ladakh and Uttarakhand to empanel Training Centres (TCs) to impart training under Jal Urja Mitra skill development program. The empanelment of TCs may be considered for one year or beyond (up to four years), subject to the continuity of the programme.

**Last date to submit the online application is July 20, 2023.**

**Mode of Submission of EOI:** By email only [jalurja-mitra@hre.iitr.ac.in](mailto:jalurja-mitra@hre.iitr.ac.in)

**Contact:**

Prof Arun Kumar  
Hydro and Renewable Energy Department (formerly AHEC),  
Indian Institute of Technology Roorkee,  
Roorkee – 247 667, Uttarakhand,  
Phone: +91 1332 285821  
E-mail: [jalurja-mitra@hre.iitr.ac.in](mailto:jalurja-mitra@hre.iitr.ac.in)

**Invitation for Expression of Interest for  
empanelment of Training Centres for imparting  
training under  
Jal Urja Mitra Programme**

**Sponsored by**

**Ministry of New and Renewable Energy  
Govt. of India**



**Managed by:**



**Department of Hydro and Renewable Energy  
Indian Institute of Technology Roorkee, Roorkee**

## **TABLE OF CONTENTS**

SECTION 1: BACKGROUND .....	1
1.1 INTRODUCTION.....	1
1.2 ABOUT JAL URJA MITRA SKILL DEVELOPMENT PROGRAM (JSDP).....	1
1.3 IMPORTANT DATE .....	1
SECTION 2: TRAINING CENTRE .....	1
2.1 SCOPE OF WORK .....	1
2.2 SELECTION OF TRAINING INSTITUTE: BASIC INFRASTRUCTURE REQUIREMENT .....	1
2.3 ADMISSION OF THE JAL URJA MITRA .....	2
2.4 TEACHING AND PRACTICAL WORK .....	3
2.5 ASSESSMENT & CERTIFICATION OF TRAINEES.....	3
2.6 EMPLOYMENT ASPECTS .....	3
2.7 FINANCIAL SUPPORT FOR TRAINEES.....	4
3.0 TRAINING OF TRAINERS (TOT).....	4
4.0 ELIGIBILITY CRITERIA (ALL TCS MUST FULFIL FOLLOWING CRITERIA SO AS TO BE CONSIDERED FOR FURTHER EVALUATION AS PER TECHNICAL SCORING CRITERIA GIVEN AT PARA 2.2) .....	4
2.3 PROCESS OF SHORTLISTING THE TCS.....	5
Technical Scoring Criteria – maximum 100 marks.....	5
2.4 FINANCIALS AND PAYMENT TERMS .....	6
2.4.1 Fund Flow Mechanism.....	7
2.5 INFRASTRUCTURE.....	8
2.6 GENERAL INFORMATION .....	9
2.7 TERMINATION .....	9
Annexure 1: APPLICATION FORM (to be sent by email only).....	10
Annexure 2: General Information for The Qualification Pack.....	12
Annexure 3: Course Module .....	13
Annexure 4: List of preferable Tools & Equipment available with TC for a batch of 30 trainees .....	15
Annexure 5: Self-Declaration.....	18

## **SECTION 1: BACKGROUND**

### **1.1 INTRODUCTION**

Under the skill development initiatives, Ministry of New and Renewable Energy has mandated Department of Hydro and Renewable Energy (HRED) (formerly AHEC), IIT Roorkee as the nodal agency for implementation of Jal Urja Mitra Skill Development Programme (JSDP) during year 2022 – 26. Expression of Interest (EOI) for empanelment of training centres (TCs) for imparting training under JSDP is invited only from the state of Bihar, Kerala, Maharashtra, Nagaland, Punjab, UT of Jammu & Kashmir, UT of Ladakh and Uttarakhand.

### **1.2 ABOUT JAL URJA MITRA SKILL DEVELOPMENT PROGRAM (JSDP)**

Small Hydro Plant Technician (Jal Urja Mitra) is specialized to operate, test and maintain different electrical, mechanical and civil components of Small Hydro Power plants of all types (run of river, canal fall based and dam toe based) to meet the performance and reliability needs by incorporating quality workmanship and complying with all applicable codes, standards and safety requirements.

This job requires the individual to concentrate on the job and complete it without any accidents. Diligence, careful and hardworking is desired attributes for individuals performing this role. She/He must also demonstrate strong work ethics, ability to communicate courteously with co-workers and must be good with following instructions of the supervisor.

HRED reserves the right to modify/change/ update/amend/cancel the Expression of Interest (EOI) without specifying any reason. Any query related to this EOI can be sent only by e-mail to [jalurja-mitra@hre.iitr.ac.in](mailto:jalurja-mitra@hre.iitr.ac.in).

### **1.3 IMPORTANT DATE**

The applicant training centre (TC) has to submit application (Annexure-1) by e-mail [jalurja-mitra@hre.iitr.ac.in](mailto:jalurja-mitra@hre.iitr.ac.in) only and the applications submitted through any other mode shall not be considered.

**Last date to submit the online application is July 20,2023.**

## **SECTION 2: TRAINING CENTRE**

### **2.1 SCOPE OF WORK**

HRED invites response document to this EOI for the selection of TCs to impart training under Jal Urja Mitra Skill Development Programme only from the state of Bihar, Kerala, Maharashtra, Nagaland, Punjab, UT of Jammu & Kashmir, UT of Ladakh and Uttarakhand against the program sanctioned by MNRE for subject to the fulfilment of all qualifying conditions.

### **2.2 SELECTION OF TRAINING INSTITUTE: BASIC INFRASTRUCTURE REQUIREMENT**

- a. The training centre (TC) institute shall be an existing polytechnic or industrial training institute (ITI), or engineering / technology institute preferably government

owned/supported, having suitable laboratory and an agreement / arrangement with an existing operating small hydropower station (SHP) who is willing to allow the Jal Urja Mitra (trainees) for the training at that SHP station.

- b. The trainer should be certified with Skill Council of Green Jobs (SCGJ) and having undergone training of trainers programme under this proposal. The institute shall ensure the availability of the trainers within the institute and or by making arrangements with trainers having professional / industrial experience.
- c. A classroom to accommodate up to 30 participants with audio / video facility.
- d. Arrangement for transporting the trainees to the SHP stations from the place of trainees accommodation.
- e. Residential facility with three- time food availability (in-house/arranged)

Trainers should have the ability to make lesson plans and deliver classroom and practical training. Trainers shall impart training preferably in regional language of the location of the TC and SHP station. Trainees also, understands training delivery plan and curriculum for the relevant job role as summarized below:

- a. Communicate the learning objectives, session's topic, and relevance to participants at the beginning of the session & summarize the sessions with energy and hydropower.
- b. Assesses learner's progression and the effectiveness of learning materials, and adjust their teaching accordingly through written records of internal/ formative assessment
- c. have the ability to engage trainees in learning activities which include a mix of different methodologies such as project based work, team work, and practical workplace simulations
- d. have the ability to organize skills demonstrations, visit to SHP station and presentations for trainees in cooperation with SHP developers and other workplaces
- e. Have processes to identify the level of learners in the class and provide assistance to weaker trainees where needed
- f. Conducts baseline/diagnostic assessments to understand the gaps in trainees learning abilities.
- g. Cater to different learning styles and to candidates with different level of ability
- h. Provide learners with support they need to assess their own learning needs and goals
- i. Ensure required support to learners to develop the skills needed to make them ready for the workplace/industry

### **2.3 ADMISSION OF THE JAL URJA MITRA**

- a) The training centre (TC) shall advertise the schedule of the programme including dates and the venue of the training in the print and electronic media. The programme shall also be shared with HRED, IITR.

- b) The selection criteria shall be based on the marks obtained in qualifying examination and all norms of Government of India for reservation shall be followed.
- c) The final selection of the trainees for the programme shall be done by TC as per the guideline and the details of the participants and are communicated to HRED/concerned state nodal agencies (SNA) of MNREs before the commencement of the programme.
- d) During the selection of trainees, consideration shall be given to the trainees coming from rural background, unemployed youth, women candidates, SC/ST candidates etc.

## **2.4 TEACHING AND PRACTICAL WORK**

- a) Qualification Pack prepared by SCGJ in cooperation with Department of Hydro and Renewable Energy, IIT Roorkee shall be followed as course Annexure-2 & 3.
- b) The training programme shall be residential with a clear daily time table which also includes early morning physical exercise such as Yoga/PT etc.
- c) The first hour of the day shall be utilized for class-room lectures.
- d) The practical hours shall be utilized for hands on exercise in the lab sites, experiments, class room exercises, software simulations, quizzes/class test SHP stations visit and industrial visits etc.
- e) For training at SHP station, the batch shall be divided into multiple groups for focused attention for different components.
- f) Motivational sessions (1 hr. duration each) shall be conducted once every two weeks.
- g) The TC shall distribute safety helmets and boots, as required, to all the Jal Urja Mitra participants during the training in the machine hall with multiple floor based or overhead travelling crane.
- h) Each participant shall be given an access to proper toolkits for working in the lab/site.
- i) TC shall have the preferably equipment at their centre as suggested at Annexure-4.

## **2.5 ASSESSMENT & CERTIFICATION OF TRAINEES**

Assessment shall be done by the assessors from Skill Council of Green Jobs (SCGJ). The certificate is issued by SCGJ to the trainees. The individual must have expertise in the technical/vocational domain in which assessment is taking place. They must have strong communication, organizational and interpersonal skills. They must have sharp observation skills, be quality focused and well-organized at work. Additionally, they should remain abreast with the latest trends in their domain and upgrade their assessment related skills.

## **2.6 EMPLOYMENT ASPECTS**

At the end of the Jal Urja Mitra programme, the host training centre shall facilitate the trainees for placement by inviting small hydro industries, EPC companies and large contractors working with Hydro/water supply/lift irrigation Industry etc.

## **2.7 FINANCIAL SUPPORT FOR TRAINEES**

Finance support shall be available to training centre as per the norms of ministry of skill development and employment (MSDE) as per following details, in vogue.

- a) The boarding and lodging charges is up to Rs. 315 per day (based on city category) per trainee for 90 days.
- b) The course fees is Rs 49/- per hour x 30 participants x 600 hours. The 50% candidates may be from the special status states.
- c) Special Support for trainees from Special area / BPL (20% persons @1000 per person per month) as per MSDE norms.

The target for conducting the training is a total of 56 nos. and for the year 2023 – 24 is 17, for 2024 – 25 is 18 and 2025 – 26 is 18.

## **3.0 TRAINING OF TRAINERS (TOT)**

The Training of trainers (TOT) shall be of 10 days duration with a batch of 20 trainees from training centres and shall be conducted along with the department of hydro and renewable energy, IIT Roorkee the specialized department and having required infrastructure preferably at HRED IIT Roorkee. There may be a total of 5 training programme for conducting the training of trainers with yearly target for the year 2023-24 as 2.

The trainer shall have 4 year bachelor degree in Engineering / technology and two years of relevant academic / industry experience or Diploma in engineering with five-year relevant industry / academic experience. The trainers shall be from the selected training centre who have handled the courses related to electricity as well as from small hydropower industry.

For each programme a sum of Rs. 8.00 Lakhs including an assessment charges, the expenditure on boarding, lodging and course fee etc. is included in the cost. GST is to be waived off being the programme sponsored by Government of India. However, to maintain the seriousness and partnership, a minimum of 10% of the TOT cost out of Rs. 8.0 Lakhs shall be borne by the training centre.

The course contents shall cover following:

- a) Role and Responsibilities of a Small Hydropower Plant O&M Technician (Jal Urja Mitra)
- b) Components and Layout of Small Hydro Power (SHP) Plant
- c) SHP Plant Components Inspection
- d) Start and shut down SHP plant
- e) Workplace Safety and Hygiene
- f) Effective and Efficient Working Practices
- g) Operate the Electro-Mechanical System in a Small Hydro Plant
- h) Maintain the Electro-Mechanical System
- i) Operate the Hydro-mechanical and Civil Systems in a Small Hydro Plant
- j) Maintain the Hydro-mechanical and Civil Systems

## **4.0 ELIGIBILITY CRITERIA (ALL TCS MUST FULFIL FOLLOWING CRITERIA SO AS TO BE CONSIDERED FOR FURTHER EVALUATION AS PER TECHNICAL SCORING CRITERIA GIVEN AT PARA 2.2)**

- (i) The TC must be an Institute/ Engineering College/ Polytechnic College/ ITI/duly affiliated

with SCGJ as per para 2.2.

- (ii) TC must have training experience in the renewable energy/ solar energy/hydro.
- (iii) The TC must have at least one MoU/Tie-up with SHP station for on job training.
- (iv) The TC must have valid centre affiliation from SCGJ to conduct training as per the relevant QP i.e. Q0604 Small Hydropower Plant Technician.
- (v) The TC shall have 3 trainers and at least two of them shall be certified as Training of Trainer (ToT) from SCGJ to conduct training as per the relevant Qualification Pack.
- (vi) TC must have well equipped laboratory, classroom facilities and residential facilities as per annexure-3 and para 2.2.
- (vii) The TC must provide all the required details in application form as given Annexure 1.

### 2.3 PROCESS OF SHORTLISTING THE TCS

- (a) HRED will form a **Technical Evaluation Committee (TEC)** duly approved by the competent authority to evaluate the response submitted by the TCs against this EoI.
- (b) The TEC will evaluate the responses submitted by the TCs as per following technical response scoring criteria:

#### Technical Scoring Criteria – maximum 100 marks

<b>"Jan Urja Mitra" TRAINING PROGRAMME</b>			
<b>MARKING CRITERIA - 100 MARKS</b>			
<b>S. No.</b>	<b>Evaluation Criteria / Weightage</b>	<b>Maximum marks</b>	<b>Proof / Documents required</b>
a	<b>Training Centre infrastructure facility</b>	20	Ownership document
	Training Centre including classroom, labs etc.		
	(i) Owned by the TC <b>(20 marks)</b>		Valid rental/ lease deed
	(ii) Rented/Lease <b>(10 marks)</b>		
b	<b>Hostel facility</b>	20	Geo-tagged image of hostel clearly showing the centre and hostel
	(i) within the campus <b>(20 marks)</b>		
	(ii) outside the campus <b>(10 marks)</b>		
c	<b>No of ToT certified trainer per centre</b>	20	CV with relevant documents
	No of ToT certified trainer 3 <b>(20 Marks)</b>		
	No. of ToT certified trainer 2 <b>(10 Marks)</b>		
d	<b>Total no of participants trained in Energy / electricity in last 3 years</b>	10	Centre-wise number of participants trained and placed certified by CA and self-declared by Head/Authorized Person
	No. of Trained participants above 101 <b>(10Marks)</b>		
	No. of Trained participants between 76 to100 <b>(8 Marks)</b>		
	No. of Trained participants between 51 to75 <b>(6 Marks)</b>		
	No. of Trained participants between 26 to50 <b>(4 Marks)</b>		
	No. of Trained participants 5 to 25 <b>(2 Marks)</b>		
	<b>Percentage (%) of participants Placed after training in Energy / Electricity in last 2 years</b>		



e	Percentage of Placed participants 90% and above (20 Marks)	20	of the Centre (Refer Annexure-5)
	Percentage of placed participants More than 70% to 90 % (15 Marks)		
	Percentage of placed participants More than 50% to 70% (10 Marks)		
	Percentage of placed participants 30% to 50% (5 Marks)		
f	<b>MOU/Tie-up with Industries for SHP station job training</b>	10	Attach Copies of MoU
	(i) Number of MoU's more than 5 (10 marks)		
	(ii) Number of MoU's 3 (5 marks)		
	(iii) Number of MoU's 2 (3 marks)		
<b>TOTAL</b>		<b>100</b>	

(c) Based upon the evaluation/recommendation of the TEC as per above technical scoring criteria, state-wise merit list of the TCs will be prepared.

#### 2.4 FINANCIALS AND PAYMENT TERMS

The present funding breakup for SSDP are based on Ministry of Skill Development and Entrepreneurship (MSDE) norms and as per the sanction letter received from MNRE, however it may vary time to time as per notification received from MSDE / MNRE. The details of course fee, assessment charges and boarding & lodging sanctioned per participant is as below (and shall be actual number and type):

S. No.	Particulars	Description	Amount (in Lakh)
1	Course fee to the institute*	Rs 49/- per hour X 600 hours X 30 participants Rs. 53.9 / participants / hr x 600 x upto 50 candidates	9.20
2	Assessment Charges	Rs 800 per participant X 30 participants	0.24
3	Boarding and Lodging** (**as per Classification 'X'/'Y'/'Z')	Rs 315 X 30 X 90 days ('Y' cities) Rs 250 X 30 X 90 days ('Z' cities)	8.505 6.750
4	Transportation Charges to study SHP station	Rs. 5000/- per day	2.25
5	Support to special group (women and BPL)	Rs 3,000 per participant @ Rs. 1,000 per month X 6 participants	0.18

\*Base cost of rupees 49.00/per hour of training is taken as per the MSDE notification dated 1<sup>st</sup> January 2021.

\*\*Boarding charges will be adjusted as per actual expenditure on city classification as per details provided in MSDE Gazette notification 1<sup>st</sup> January 2021.

The course fee shall be Rs. 53.90 (10% increase of base cost @ Rs 49) per hour per participant as per details provided in MSDE Gazette notification 11<sup>th</sup> November 2020 for batches conducted in North Eastern States, Jammu & Kashmir, Himachal Pradesh,

Uttarakhand, Andaman & Nicobar Island, Lakshadweep and the districts affected by Left Wing Extremism(LWE) as identified by M/o Home Affairs.

**Table 1: Categorization of Indian cities for Residential Training Costs**

S. No.	State	Cities classified as “Y”
1.	Andhra Pradesh	Vijayawada [Urban Agglomeration (UA)], Visakhapatnam (UA), Guntur
2.	Assam	Guwahati (UA)
3.	Bihar	Patna (UA)
4.	Chandigarh	Chandigarh
5.	Chhattisgarh	Durg- Bhilai Nagar (UA), Raipur (UA)
7.	Gujarat	Ahmedabad (UA), Rajkot (UA), Jamnagar (UA), Vadodara
8.	Haryana	Faridabad
9.	J & K	Srinagar (UA), Jammu (UA)
10.	Jharkhand	Jamshedpur (UA), Dhanbad
11.	Karnataka	Belgaum (UA), Hubli-Dharwar, Mangalore (UA)
12.	Kerala	Kozhikode (UA), Kochi (UA), Thiruvanthapuram (UA)
13.	Madhya Pradesh	Gwalior (UA), Indore (UA), Bhopal (UA), Jabalpur
14.	Maharashtra	Amravati, Nagpur (UA), Aurangabad (UA), Nasik (UA), Bhiwandi (UA), Pune (UA), Solapur, Kolhapur (UA)
15.	Orissa	Cuttack (UA), Bhubaneswar (UA)
16.	Puducherry	Puducherry (UA)
17.	Punjab	Amritsar (UA), Jalandhar
18.	Rajasthan	Bikaner, Jaipur, Jodhpur (UA), Kota
19.	Tamil Nadu	Salem (UA), Tiruppur (UA), Coimbatore (UA), Tiruchirapalli (UA), Madurai (UA),
20.	Telangana	Warangal (UA)
21.	Uttar Pradesh	Moradabad, Meerut (UA), Ghaziabad, Aligarh, Agra (UA), Bareilly, (UA), Lucknow (UA), Kanpur (UA)
22.	Uttarakhand	Dehradun (UA)
23.	West Bengal	Asansol (UA)

All other cities/towns in various States /UTs which are not covered by classification as “Y” are classified as “Z”.

The breakup of expenditure out of course fee shall be as follows:

- (a) Mobilization of participants
- (b) Post-placement tracking/monitoring
- (c) Curriculum
- (d) Placement Expenses
- (e) Training of Trainer
- (f) Equipment
- (g) Amortization of Infrastructure costs/ utilization
- (h) Teaching aid
- (i) Raw material
- (j) Salary of trainers and support staff
- (k) Uniforms to each participant
- (l) Jal Urja mitra Handbook/ study material to each participant
- (m) Any other expenditure for imparting the training programme.

#### 2.4.1 Fund Flow Mechanism

Each program should have 30 participants. Any revision of fee structure shall be based

on MNRE approval, which shall be communicated accordingly. The funds will be released as per common norms of Ministry of Skill Development and Entrepreneurship (MSDE). Advance (30%) if requested by the TC shall be released against Bank Guarantee (BG) i.e. 30% of the total value of the fund as per norm valid for 6 months from the closing date of the programme. TC has to submit the documents for each program such as:

- Utilization Certificate (UC) in GFR 12A, Statement of Expenditure (SoE), Attendance Sheet, Group Photo, Assessment & Certification receipt, Feedback Forms, Placement Information, details of participants in the specified format (Adhaar number of participants is mandatory) and any other information required by NISE.

The schedule of release of payment will be based on MSDE Gazette notification dated 5<sup>th</sup> January, 2021. The funds should be released to the TCs as per the following schedule:

<b>Instalment</b>	<b>Percentage of Total Cost</b>	<b>Output Parameter</b>
1 <sup>st</sup>	30% less aggregate amount of refundable security deposit collected from each trainee	On Commencement of training Batch
2 <sup>nd</sup>	30%	On Utilization of 70% of first instalment and continuation of training with at least 70% of initial trainees continuing
3 <sup>rd</sup>	20% Plus aggregate amount of refundable security deposit collected from each certified trainee	On completion of training and certification of the successful trainees
4 <sup>th</sup>	20%	Outcomes based as under*

\*For the release of 20% of training cost which is linked to outcome i.e. Placement of Jal Urja Mitra Participants (4<sup>th</sup> instalment) to the TCs please refer MSDE Gazette notification dated 1<sup>st</sup> January 2021.

## **2.5 INFRASTRUCTURE**

1. A Class room to accommodate 30 participants with basic teaching aids- white board, tables and chairs for adequate sitting arrangement with audio & video facility maintaining COVID protocol.
2. Laboratory with minimum 300 sqft area to carry out hands on activities to understand the various concepts related to SHP power generation.
3. Hostel facility with well-ventilated rooms and proper bedding arrangement to accommodate 30 participants. Separate arrangements for boy and girl participants should be made at the hostel premises.
4. Canteen facility with daily breakfast, lunch, dinner with two times tea for the participants. The dining area and food should be hygienic. Weekly menu should be fixed which includes local food dishes and seasonal green vegetables.
5. Availability of internet connectivity at the centre, necessarily at IT/ computer laboratory.
6. Adhaar Enabled Biometric Attendance System
7. IP based camera system for class room and laboratory
8. Basic Electrical and mechanical laboratories

## 2.6 GENERAL INFORMATION

- (a) The documents with its supporting evidences should be properly send by email. The application with incomplete documents/ information will be out-rightly rejected and no correspondence for that will be entertained.
- (b) Applications of joint venture / consortium in any form shall not be considered.
- (c) The subletting of training is not allowed and will attract the cancellation of empanelment of TC.
- (d) HRED ITR will prepare a state-wise merit list of the training centres. The state wise distribution of the TCs will be done based on the criteria: Installed SHP Capacity and SHP Potential of the respective state. if two or more training centres get the same marks in evaluation then the order of selection preference will be the institutes located in hilly area of special states.
- (e) The empanelled TC has to submit the yearly plan with starting dates of the batches and details of participants in advance in the following format-

S. No	Duration	Name of Candidate	Father's Name & Mother's Name	Date of birth	Permanent Address, email id, Mobile No.	Physically Handicapped if any	Category(Gen/SC /ST/OBC )	Aadhar No.	Mobile No	No. of Days attended / Total no. of days of training)	Grade	Photograph

- (f) TC has to provide 2 set of uniform and Jal Urja mitra Handbook/ study material to each participant from the course fee head of the project cost.
- (g) A minimum of 300 hours training at SHP station is mandatory.
- (h) Aadhar Enabled Bio-matric System (AEBAS) and IP based camera system is to be used mandatorily at the training centre. The payment shall be released based on AEBAS attendance system or any other similar biometric system only.
- (i) Court of Jurisdiction for any dispute will be Uttarakhand high court Naintial. The decision of the Competent Authority, HRED shall be final in all matters relating to eligibility, acceptance or rejection of application, mode of selection.

## 2.7 TERMINATION

The empanelment of the TC may be terminated at any point of time if any violation of norms and agreed terms is found during the implementation of the Jal Urja mitra programs at its centres and accordingly performance bank guarantee will be forfeited.

**Annexure 1: APPLICATION FORM** (to be sent by email only)

**PART-A**

<b>A.1</b>	<b>Title of the Project</b>	Jal Urja mitra Skill Development Program																																
<b>A.2</b>	<b>Name of TC</b>																																	
<b>A.3</b>	<b>Name of the Authorized Person of TC with Designation</b>																																	
<b>A.4</b>	<b>Address of the registered office and contact details of the TC</b>	<b>Address:</b>	<b>Phone:</b>			<b>Mob.:</b>			<b>Location:</b>																									
<b>A.4</b>	<b>Legal status of the TC</b>	<i>(Attach proof of Certificate of Incorporation from the competent Authority) (Attach Copies of, PAN GST registration etc.)</i>																																
<b>A.5</b>	<b>Annual Turnover</b>	<table border="1"> <thead> <tr> <th>S. No.</th> <th>FY Year</th> <th>Annual Turnover(in rupees)</th> <th>Upload Audited Balance Sheets</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td><b>Total</b></td> <td></td> <td></td> </tr> </tbody> </table>									S. No.	FY Year	Annual Turnover(in rupees)	Upload Audited Balance Sheets	1				2				3					<b>Total</b>						
S. No.	FY Year	Annual Turnover(in rupees)	Upload Audited Balance Sheets																															
1																																		
2																																		
3																																		
	<b>Total</b>																																	
<b>A.6</b>	<b>Electrical and fluid machinery laboratory – List of equipment, along with based</b>	<i>Attach geo-tagged Photo</i>																																
<b>A.7</b>	<b>Training Centre (TC) Detail:</b>	<table border="1"> <thead> <tr> <th>Sr.No</th> <th>Name of TC</th> <th>State/UT</th> <th>District</th> <th>City</th> <th>Complete Address</th> <th>Centre Affiliation Certificate Number along with validity</th> <th>Ownership of Training Centre (Owned/ Lease)* If leased date of validity of lease agreement</th> <th>Hostel Facility within the Campus/ Outside the campus#</th> <th>Number of candidates Trained in last three years in this Centre in energy**</th> <th>Number of candidates for whom Placement done in last three years from this centre in energy**</th> <th>Upload document described at *,** and#, Centre Affiliation certificate Geo-tagged Photos of Centre, classroom, lab, Hostel</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><i>*Attach proof of the Training Centres Ownership or Lease/Rent Agreements along with Geo-tagged Photos. **Attach statement certified by a Chartered Accountant to have trained and placed number of participants electricity Sector specifically for the centre applied #Outside Hostel facility but within the radius of 1 km of training centre may be considered as with in the campus. Attach the screen shot of Google map as proof of distance.</i></p>									Sr.No	Name of TC	State/UT	District	City	Complete Address	Centre Affiliation Certificate Number along with validity	Ownership of Training Centre (Owned/ Lease)* If leased date of validity of lease agreement	Hostel Facility within the Campus/ Outside the campus#	Number of candidates Trained in last three years in this Centre in energy**	Number of candidates for whom Placement done in last three years from this centre in energy**	Upload document described at *,** and#, Centre Affiliation certificate Geo-tagged Photos of Centre, classroom, lab, Hostel												
Sr.No	Name of TC	State/UT	District	City	Complete Address	Centre Affiliation Certificate Number along with validity	Ownership of Training Centre (Owned/ Lease)* If leased date of validity of lease agreement	Hostel Facility within the Campus/ Outside the campus#	Number of candidates Trained in last three years in this Centre in energy**	Number of candidates for whom Placement done in last three years from this centre in energy**	Upload document described at *,** and#, Centre Affiliation certificate Geo-tagged Photos of Centre, classroom, lab, Hostel																							

**PART-B**

**B.1 Past experience of the TC– Skill Development Training in Renewable Energy (minimum 80 Hours) in last one year**

S. No.	Financial Year	Name of the training program	Candidates Trained	Name of Sector Skill Council
1				
2				
3				
	<b>Total</b>			

**B.2 Trainers with relevant qualification and Experience (at least two trainers should be certified by SCGJ as per relevant QP)**

Sr. No.	Name of the Training Centre	Name of Trainer	SCGJ Certificate Number, issue and validity of Certificate	Qualification (Diploma+ 5 years of Experience or B.tech/ B.E +2years of experience)	Institution	Total Experience as trainer in Electricity sector	Upload relevant Documents ToT certificate, Degree, Experience Letter
1							
2							

**B.3 MOU/Tie-up of TP with Industries for training at SHP power plant**

List the name of organizations where placement linkages are established

Name of TC	Name of Industry	MOU/ Agreement Copy to be uploaded

TC must have one MOU/tie-up with SHP station for on job industrial training in SHP developed at energy and possible placement.

**Self declaration as given at Annexure-5.**

## Annexure 2: General Information for The Qualification Pack

1.	<b>Name of the QP</b>	Small Hydropower Plant Technician (Jal Urja mitra)
2.	<b>Sector</b>	Renewable Energy / Electricity
3.	<b>Qualification Pack</b>	SGJ/Q0604
4.	<b>Trainee Qualification</b>	10th pass + ITI/ Diploma (Electrical, Electronics, Civil, Mechanical, Fitter, Instrumentation)
5.	<b>Age</b>	Minimum age: 18
6.	<b>Description</b>	<p>At the end of the program, the learner should have acquired the listed knowledge and skills.</p> <ul style="list-style-type: none"> <li>• Analyze the components and water flow in SHP</li> <li>• Demonstrate working of measuring devices in a SHP plant</li> <li>• Perform the inspection procedure of different SHP components</li> <li>• Report and record the inspection results</li> <li>• Demonstrate the start and shut down procedure of SHP</li> <li>• Operate the SHP in special or emergency</li> <li>• Operate and maintain hydro-mechanical and civil/electro-mechanical system of SHP</li> <li>• Plan work effectively, implement safety practices and optimize use of resources</li> <li>• Communicate, develop interpersonal skills and develop sensitization towards gender and person with disability</li> </ul>

## Annexure 3: Course Module

### Jal Urja Mitra (Breakup of Schedule)

NOS and Module Details	Theory Duration (hrs)	Practical Duration (hrs)	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration (hrs)
Role and Responsibilities of a Jal Urja Mitra Module 1 (Bridge Module)	08		-	-	8
SGJ/N1205– Study components and layout of Small Hydro Power (SHP) Plant NOS Version No. 1.0 NSQF Level 4	60	80	-	-	140
Module 2: Components and Layout of Small Hydro Power (SHP) Plant	60	80	-	-	140
SGJ/N0701 – Inspect different components of Small Hydro Power (SHP) Plant NOS Version No. 1.0 NSQF Level 4	40	80	-	-	120
Module 3: SHP Plant Components Inspection	40	80	-	-	120
SGJ/N0610 – Start and shut Small Hydro Power (SHP) Plant NOS Version No. 1.0 NSQF Level 4	24	28	-	-	52
Module 4: Start and shut down SHP Plant	24	28	-	-	52
SGJ/N0106 – Maintain health, safety and hygiene at workplace NOS Version No. 1.0 NSQF Level 4	16	24	-	-	40
Module 5: Workplace Safety, health and Hygiene	16	24	-	-	40
SGJ/N0120 – Work effectively with others NOS Version No. 1.0 NSQF Level 4	16	24	-	-	40
Module 6: Effective and Efficient Working Practices	16	24	-	-	40
<b>Total Duration</b>	164	236	-	-	400

#### Elective Modules

The table lists the elective modules, their duration and mode of delivery.

#### Elective 1:

NOS and Module Details	Theory Duration (hrs)	Practical Duration (hrs)	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration (hrs)
SGJ/N0611 – Study electro-mechanical system of Small hydro plant NOS Version No. 1 NSQF Level 4	80	120			200



Module 7: Operate the Electro-Mechanical System in a Small Hydro Plant	40	80			120
Module 8: Maintain the Electro-Mechanical System	40	40			80
<b>Total Duration</b>	<b>80</b>	<b>120</b>			<b>200</b>

**Elective 2:**

<b>NOS and Module Details</b>	<b>Theory Duration</b>	<b>Practical Duration</b>	<b>On-the-Job Training Duration (Mandatory)</b>	<b>On-the-Job Training Duration (Recommended)</b>	<b>Total Duration</b>
SGJ/N0612 – Study Hydro-mechanical and Civil system of Small hydro plant NOS Version No. 1 NSQF Level 4	<b>80</b>	<b>120</b>			<b>200</b>
Module 9: Operate the Hydro-mechanical and Civil Systems in a Small Hydro Plant	40	80			120
Module 10: Maintain the Hydro-mechanical and Civil Systems	40	40			80
<b>Total Duration</b>	<b>80</b>	<b>120</b>			<b>200</b>

Note: Any part or whole content and curriculum may change/ update at any point of time based on the industry requirement under the directions of MNRE/HRED IITR.

**Annexure 4: List of preferable Tools & Equipment available with TC for a batch of 30 trainees**

<b>LIST OF TOOLS &amp; EQUIPMENT (Electrical)</b>		
<b>S No.</b>	<b>Name of the Tools and Equipment</b>	<b>Specification</b>
<b>A. TRAINEES TOOL KIT</b>		
1.	Measuring Steel Tape	5 meter
2.	Combination Plier Insulated	200 mm
3.	Screwdriver Insulated	4mm X 150 mm, Diamond Head
4.	Screwdriver Insulated	6mm X 150 mm
5.	Electrician Screwdriver thin stem insulated handle	4mm X 250 mm
6.	Knife Double Bladed Electrician	100 mm
7.	Steel Rule Graduated both in Metric and English Unit	300 mm with precision of 1/4th mm
<b>B. SHOP TOOLS &amp; EQUIPMENT – For 2 (1+1) units no additional items are required</b>		
<b>(i) List of Tools &amp; Accessories</b>		
8.	Hammer, ball peen With handle	500 grams
9.	Spanner Adjustable drop forged, SS	150 mm & 300mm
10.	Chisel Cold	25 mm X 200 mm
11.	Pully Puller with 3 legs	150 mm & 300mm
12.	Crimping Tool	1.5 sq mm to 16 sq mm 16 sq mm to 95 sq mm
13.	Wire Cutter and Stripper	150 mm
14.	Hand Drill Machine	0-6 mm capacity
15.	Portable Electric Drill Machine	0-12 mm capacity 750w, 240v with chuck and key
16.	Out Side Micrometer	0 - 25 mm least count 0.01mm
17.	Thermometer Digital	0° C - 150° C
18.	Cables: Twisted Pair Non-Metallic Sheathed Cable Underground Feeder Cable Ribbon Cable Metallic Sheathed Cable Multi-Conductor Cable Coaxial Cable Direct-Buried Cable	1 m each
<b>(ii) List of Equipment</b>		
19.	Digital Wattmeter	230 V, 1 KW, 50 Hz
20.	A.C. Energy Meter	Single Phase, 10 A, 240 V induction type
21.	A.C. Energy Meter	Three Phase, 15 A , 440 V induction type
22.	Frequency Meter	45 to 55 Hz
23.	Lux meter	lux meter LCD read out 0.05 to 7000 lumens with battery.
24.	Tachometer	Analog Type - 10000 RPM
25.	Tong Tester / Clamp Meter	0 - 100 A (Digital Type)
26.	Inverter with Battery	1 KVA with 12 V Battery Input- 12 volt DC, Output- 220 volt AC

27.	Battery Charger	0 - 6 - 9 - 12 - 24 - 48 V, 30amp
28.	Current Transformer	415 V, 50Hz, CT Ratio 25 / 5 A, 5VA
29.	Potential Transformer	415 V, 50Hz, PT Ratio, 440V/110V, 10VA
<b>LIST OF TOOLS &amp; EQUIPMENT (Mechanical)</b>		
<b>S No.</b>	<b>Name of the Tools and Equipment</b>	<b>Specification</b>
<b>B. TRAINEES TOOL KIT</b>		
1.	Allen Key set of 12 pieces	2mm to 14mm
2.	Calliper inside with spring	15 cm
3.	Callipers outside with spring	15 cm
4.	Center Punch.	10 mm. Dia. x 100 mm
5.	Dividers with spring	15 cm
6.	Electrician Screw Driver	250mm
7.	Hammer ball peen with handle	0.5 kg
8.	Hands file for Second cut flat	20 cm.
9.	Philips Screw Driver set of 5 pieces	100 mm to 300 mm
10.	Pliers combination	20 cm.
11.	Screw driver Blade	20cm. x 9mm.
12.	Screw driver Blade	30 cm. x 9 mm.
13.	Scriber	15 cm
14.	Spanner D.E. set of 12 pieces	6mm to 32mm
15.	Spanner, ring set of 12	6 to 32 mm. (metric)
16.	Spanners socket with speed handle, T-bar, ratchet and universal set of 28 pieces with box	up to 32 mm
17.	Steel rule	30 cm inch and metric
18.	Steel tool box with lock and key (folding type)	400x200x150 mm
19.	Wire cutter and stripper	
<b>B. SHOP EQUIPMENT</b>		
20.	DC Ammeter with external shunt	300A/ 60A
21.	Auto Electrical test bench	
22.	Battery –charger	5 meters flexible in case
23.	Chain Pulley Block capacity with tripod stand Chisel flat	3 ton 10 cm
24.	Testing equipment suitable for turbine – generator unit	
25.	DC Ohmmeter	0 to 300 Ohms
26.	Depth micrometer	0-25mm
27.	Different types of turbine runner model	
28.	Electric Soldering Iron	230 V, 60 watts
29.	Feeler gauge 20 blades (metric)	
30.	Magnifying glass	75mm
31.	Marking out table	90 x 60 x 90 cm.
32.	Multimeter digital	DC 200mv - 500 V, 0 – 10A & AC 200mv- 500V , 0-10A, resistance 0-20 MΩ and 3 1/2 digit
<b>C. CONSUMABLE</b>		
33.	Battery- SMF	

34.	Brake fluids	
35.	Chalk, Prussian blue	
<b>Note: -</b>		
1. All the tools and equipment are to be procured as per BIS specification.		
2. Internet facility is desired to be provided in the class room		
<b>LIST OF TOOLS &amp; EQUIPMENT (Civil)</b>		
<b>S No.</b>	<b>Name of the Tools and Equipment</b>	<b>Specification</b>
<b>C. LIST OF SURVEYING INSTRUMENTS</b>		
1.	Dumpy Level with all accessories	
2.	Auto level With all accessories	
3.	Instrument for Total Station with latest model, With all accessories	Graphic LCD display on both side. Multi-function key board on both sides. Able to interchange data between GPS and Total station without any data conversion. Minimum 8 hours rechargeable li-ion battery. Poles and Prism 2Nos each
4.	Hand held GPS	(latest uncertainly model) with $\pm 2$ mm specification
5.	First-aid kit	
	Fire extinguishes	

### Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
<b>B.E/B.Tech</b>	Electrical/ Electronics/Agriculture/Civil/Instrumentation	3		3	Trainer	NA

Trainer Certification	
Domain Certification	Platform Certification
<b>Job Role: “Small Hydro Power Plant Technician (Jal Urja Mitra)” “SGJ/Q0604” v1.0, Minimum accepted score is 70%</b>	Job Role: “Trainer”, “MEP/Q2601” v1.0, Minimum accepted score is 80%

**Annexure 5: Self-Declaration**

I, .....(Name of the Authorized Person), .....(Designation of the Authorized Person) ..... Name and address of Training Centre, do hereby declare that the information provided herein in the application form is true and correct to the best of my knowledge and belief and nothing has been falsely stated or concealed therein. I understand that if the said information as given in the application form is found false, at any stage the empanelment of the centre will be liable to be rejected.

Date:

Signature

(Name of the Authorized Person)  
Stamp