

**INVITATION OF EXPRESSION OF INTEREST FOR
EMPANELMENT OF TRAINING PARTNERS FOR
IMPARTING TRAINING
UNDER**

**VAYUMITRA SKILL DEVELOPMENT PROGRAMME
(VSDP)**

FY 2024 - 25

Sponsored by

**Ministry of New and Renewable Energy
Government of India**



**NATIONAL INSTITUTE OF WIND ENERGY
CHENNAI-600 100**



National Institute of Wind Energy

(Formerly known as "Centre for Wind Energy Technology"
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Subject: Expression of Interest (EoI) of Vayumitra Skill Development Programme for the Financial Year 2024-25

Expression of Interest is hereby invited to empanel Training Partners (TP) to impart training under Vayumitra Skill Development Programme. The empanelment is subject to project extension to be given by MNRE.

The last date of submission of online application shall be **21 days from the release of advertisement.**

The link for online submission of application is _____

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Division Head, F&A

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1. Introduction

National Institute of Wind Energy formerly Centre for Wind Energy Technology shortly known as NIWE is an autonomous R&D institution established in 1998 at Chennai by the Ministry of New and Renewable Energy (MNRE), Government of India. NIWE is a premier institution of its kind in South East Asia with highly experienced professionals having expertise in all related disciplines of wind energy sector. NIWE is a forward looking and practical institution always well placed to take the next logical steps towards advancing wind technology in the right direction. With its progressive approach to all wind energy related science and technology from onshore to offshore, NIWE assures assistance from resource assessment (both wind and solar, RE forecasting for Energy production) to project implementation. As an integral part of NIWE, a world class accredited service providing Wind Turbine Test Station (WTTS) is established at Kayathar, Tamil Nadu. Perhaps, NIWE is the only Testing and Certification agency in the country.

Decades of concerted efforts have started to yield gratifying results and today, Wind power contributes to about ~10.5 % (44,563.68 MW) of the total Indian energy mix of 4,26,131.61 MW as on November 2023 and stands fourth in terms of installed wind power capacity worldwide. Among all renewable energy options, wind power accounts for 34 % of the installed RE capacity in the country, and is the most commercially competitive source of renewable energy.

Recognizing the need to reduce import dependence and improve the country's energy security combined with the need to move away from fossil fuels in the longer run, special efforts were made by Government of India to increase the supply of energy from renewable energy sources. Towards achieving the target, creation of mass skilled and trained man power in various facets of the sector is the need of the hour. One of the Charters of NIWE is to provide training and empower scientists and technologists with adequate domain knowledge and relevant skills. MNRE and NIWE recognize training and skill development in wind energy sector as an important grass root activity. To address the human resource development issue, NIWE is already extending its training support to various stakeholders on all the areas of wind energy technology. To highlight, NIWE has so far conducted 57 National and 47 International Training courses since 2004 and trained over 2000 national and over 1000 professionals from 102 countries. With this vast experience and its pre-eminent position, NIWE has all the needed expertise and infrastructure to undertake such an important task.

2. About Vayumitra Skill Development Program (VSDP)

Government of India launched a Skill India initiative to empower the youth of the country with skill sets in various industrial sectors, which make them more employable and productive in their work environment. Skill development of the youth add not only to their personal growth, but also to the country's economic growth as well. In recent years, new industries have ventured into many sectors with innovative ideas. The Renewable Energy sector, especially Wind Energy has gained momentum and developing fast in the country as the entire world is in the race of reducing carbon emission. As of November 2023, India had 179.578 GW of renewable energy installed capacity including large hydro and represents 42 % of the overall energy installed capacity of the country (426.131 GW). To achieve the targets of Government of India and also to meet the electricity demands, creation of mass skilled work force is need of the hour.

In order to give a thrust to the wind energy sector, MNRE has provided a sanction to NIWE for implementing the Vayumitra Skill Development Programme (VSDP). Under VSDP, the following three major areas / job levels were identified namely (1) O&M Electrical & Instrumentation Technician – WPP, (2) O&M Mechanical Technician – WPP and (3) Site Surveyor – WPP. Under VSDP, a total of 5010 participants are proposed to be trained through Training of Participants (ToP) program. The ToP training courses will be conducted through 22 identified institutions located close to the wind farms of windy states. To train the participants, NIWE is conducting Training of Trainers (ToT) programme to train 690 trainers who will train the participants. Already, 45 numbers of ToP program have been conducted through identified TPs and trained 1350 participants. Also, 171 trainers have been trained through 6 numbers of ToT programs. The VSDP project is in line with the guidelines/norms prescribed by the Ministry of Skill Development and Entrepreneurship (MSDE), Government of India.

VSDP aims to create field level skilled work force catering to the needs of entire life cycle of Wind Power Projects in achieving the targets of the Government of India. The wind energy technology demands highly skilled technicians/engineers who have to work at elevated height of more than 100 m with higher safety aspects as the personnel have to work against heavy wind loads at heights. It involves, preventive, scheduled and breakdown maintenance of electrical and mechanical components, inspection of screws, bolts, rotor brake, yaw motor & brake, gearbox oil level & leaks, changing gear oil, generator bearing, inspect cooling air, hydraulic fluid level, ball valves, pressure, sensors etc., which are located in the nacelle and is at a height of 100/150 m

from the ground with the modern Wind turbines. Hence, VSDP is planned in such a way to couple theoretical knowledge along with practical aspects to participants by exposing them to wind farms and introducing quality trainers to train the participants.

As the sector prepares to scale up, hands-on-practical training will play an important role in streamlining operations and accelerating the pace of skilling the work force. The very objective of VSDP project is to identify both industrial and institutional experts as trainers to provide precise training to the participants by giving exposure to the field experience.

As part of the activities, VSDP offers a component of structured course fee for the identified Training Partner Institutes to enhance the infrastructure facilities, trainers, and master trainers and for imparting qualitative and hassle-free training to participants.

3. Scope of Expression of Interest:

In sequel to the mandate, NIWE is inviting response document in the form of Expression of Interest (EoI) for identifying the Training Partners (TP) located in and around the wind farms in the following windy states to conduct training programs as envisaged in VSDP project. The complete requirements are explained below to enable the interested and eligible institutions to respond. The state-wise requirement of the Training Centres are as follows: -

Sl. No	State	No. of Training Centers required
1.	Tamil Nadu	4
2.	Gujarat	4
3.	Maharashtra	3
4.	Karnataka	3
5.	Rajasthan	3
6.	Andhra Pradesh	2
7.	Madhya Pradesh	1
8.	Telangana	1
9.	Kerala	1
	TOTAL	22

The identified/recognized Training Partners (TP's) shall be training the participants through Training of Participants (ToP) according to the job roles in line with the approved three Qualifications Packs (QP's) namely.

- O&M Electrical & Instrumentation Technician–Wind Power Plant (SGJ/Q1503)
- O&M Mechanical Technician–Wind Power Plant (SGJ/Q1502)
- Site Surveyor – Wind Power Plant - (SGJ/Q1202)

The detailed QPs are provided in the **Annexure-1**.

No of Participants: 30 participants per batch.

Any queries regarding EoI shall be mailed to vayumitra-skill@niwe.res.in. NIWE reserves the right to modify, amend or cancel the EoI without specifying any reason thereof.

The last date for submission of the online application is 21 days from the release of advertisement.

4. Eligibility Criteria

The applicant must fulfil all the following criteria mentioned below so as to be considered for the next level of evaluation in technical criteria else the application will be summarily rejected.

- (i) **Legal Entity:** The Training Partner (TP) should be a legal entity with proper documents.
- (ii) **State:** The applicant should have the Training Centre (TC) located in any of the states viz, Tamil Nadu, Gujarat, Maharashtra, Karnataka, Rajasthan, Andhra Pradesh, Madhya Pradesh, Telangana, and Kerala only.
- (iii) **TP / TC Type:** The applicant should be a recognized Training Centre of the following type:
 - Government Institutes/Universities (Central/State/Deemed to be University/Private University recognized by UGC)/Wind Industry
 - Engineering College (Central/State/Private College approved by AICTE)
 - Polytechnic College (both government and private approved by designated state authority)/ITI College (both government and private approved by NCVET/SCVT)
- (iv) **TC Affiliation:** The applicant should have obtained the Letter of Recognition (LoR) for the QP SGJ/Q-1503, SGJ / Q-1502 & SGJ / Q-1202 from the NSDC (through Skill India Portal) for each Training Centre to conduct the training at the time of submitting the application. After selection, all the TCs will be required to undergo the Training Centre affiliation as per the MSDE Guidelines. The TP has to be ready with the affiliation certificate within 45 days of recognition of its Centre for the Vayumitra Skill Development Programme.
- (v) **No. of Faculty:** The applicant should have minimum 2 faculties for each QP (SGJ/Q-1503, SGJ/Q-1502 & SGJ/Q-1202) at the Training Centre.
- (vi) **Training Infrastructure:** The applicant should have well equipped laboratory required for the QP (Electrical / Mechanical / Civil) and classroom facilities at each Training Centre. Clear picture along with Geo-tagging of all the three laboratories with relevant equipment should be attached.
- (vii) **Hostel Facility:** The applicant should have separate hostel for boys and girls with Canteen, within the campus or within 1 km radius, at each Training Centre.
- (viii) **AEBAS:** The applicant should have the Aadhar Based Biometric Attendance System (AEBAS) with Registered Device (RD) compliance and Public IP based camera in the training room and labs installed at each Training Centre exclusively for this program. The applicant has to share URL of Public IP camera installed at the respective training center for access by NIWE.
- (ix) **Practical / OJT:** The applicant should have a minimum of one MoU with nearby wind farm (Large wind turbines) for field / practical training. The MoU will not be required, if the applicant itself is the owner of the wind farm.
- (x) **Post Training Employment:** The applicant should have a minimum of one MoU with the wind

industry for post training employment of the participants for each Training Centre.

- (xi) A List of necessary wind equipment needed for conducting the ToP training is given in Annexure II. Photographs of all the facilities available for conducting the ToP training must be sent along with the application. In the event of not having such facilities, TP must submit an undertaking on a non-judicial stamp paper to the extent that a well-equipped laboratory would be made available within the campus and the same will be submitted to NIWE along with proof like, purchase invoices, bills, photographs etc., before physical inspection, failing which the TP recognition will be withdrawn.
- (xii) Termination Clause: The empanelment of the TP may be terminated at any point of time if any violation of norms is found during the implementation of the VSDP project at its centres and appropriate action will be initiated as deemed fit by Competent Authority, NIWE.

5. Technical Response Scoring Criteria – 100 marks

S. No.	EvaluationCriteria	Weightage	Max. score	Proof / Documents require
I	Training Centre location with respect to Windy District			
A	Situated in windy district of the state	10	10	Ownership / Government documents along with Geo-tag image of the Centre
B	Situated in non-windy district of the state	5		
II	Training Centre infrastructure facility including classroom, labs, hostel, canteen etc.			
A	(i) Owned by the applicant	10	10	Ownership document, valid rental/lease deed with Geo-tag image and coordinates clearly showing the classrooms, labs, hostel and canteen
	(ii) On rent/lease	5		
B	(i) Hostel with Canteen facility within the campus	10	10	
	(ii) Hostel with Canteen facility outside the campus	5		
III	Distance of Wind Farms from your institute			
A	Distance of the Institution from the Windfarm - Less than 50 kms	15	15	Google map image with the distance from TC to wind farm in KM
B	Distance of the Institution from the Windfarm – 50 -100 kms	10		
C	Distance of the Institution from the Windfarm - 100 and above kms	5		
IV	Number of Faculties in Engineering / Technical Department			
A	No. of Faculties in Electrical/Mechanical/Civil Branch for each qualification in each stream (3 faculties each x 3 streams)	15	15	List of faculties duly certified by the authorized person of the institution along with resumes and proof of all the qualifications (clearly mentioning the branch and experience)
B	No. of Faculties in Electrical/Mechanical/Civil Branch for each qualification in each stream (2 faculties each x 3 streams)	10		

S. No.	EvaluationCriteria	Weightage	Max. score	Proof / Documents require
V	Existing TP of VSDP			
A	Existing TP	10	10	Attach relevant proof
VI	Experience in conducting Renewable Energy Training other than Vayumitra (No. of Participants trained in last 3 years)			
A	Participants Trained above 360	10	10	Sanction/Work Orders and completion certificate (mentioning number of trained participants) of the training projects undertaken issued by Government/PSU or certified by the Chartered Accountant.
B	Participants Trained between 181 to 360	6		
C	Participants Trained between 30 to 180	3		
VII	MOU with Wind Farms			
A	The applicant itself is the owner of the Large wind farm	10	10	Attach relevant proof
B	No. of MOU / Agreement with Industry for field / practical training during training period (5 marks for one MOU and restricted to maximum of 10 marks)	10		Attach MOU signed on a judicial stamp paper
VIII	No. of MOU/Agreement with Industry for post training employment (2 marks for one MOU and maximum of 5 MoU's – 10 marks)	10	10	Attach MOU signed on a judicial stamp paper
	TOTAL		100	

6. Infrastructure and General Information to be complied with:

- i.** A Class room to accommodate 30 participants with basic teaching aids and well ventilated rooms - white board, tables and chairs for adequate sitting arrangement with audio & video facility.
- ii.** The applicant should have separate hostel for boys and girls with Canteen, within the campus or within 1 km radius, at each Training Centre. Hostel facility should have well-ventilated rooms and proper bedding arrangement to accommodate 30 participants. Separate toilets for boys and girls should be available at the Training Centre and hostel premises respectively.
- iii.** Canteen facility with daily breakfast, lunch, dinner with two times tea and snacks for the participants. The dining area and food should be hygienic.
- iv.** Availability of internet connectivity at the Institute.
- v.** The institute must have Electrical, Mechanical and Civil Laboratory equipment along with the requisite facilities for the practical/hands-on experience of the participants.
- vi.** The documents with its supporting evidences should be properly uploaded in the portal. The application without complete documents/information will be summarily rejected.
- vii.** Applications of joint venture / consortium in any form shall not be considered.
- viii.** The subletting of training is not allowed.
- ix.** The TPs who are applying for multiple Training centres (TCs) within a state shall apply for one centre at one location / city and not exceeding more than 3 centres within the state / UT and also not more than 10 centres in total within the country.
- x.** The applicant has to deposit an online processing fee (non-refundable) of Rs.2500/- for submitting application for each training centre. In the case of multiple application, application and processing fee should be submitted separately centre wise.
- xi.** Candidates from rural background, unemployed youth, women and SC/ST shall be given due consideration during the selection process.
- xii.** The activities like, physical exercise, Yoga etc. may be included as part of the Programme.
- xiii.** Faculties having Energy / Renewable Energy training experience may be selected for the training of ToT.
- xiv.** The TP has to ensure that only the certified trainers who has a valid ToT certificate for the QP SGJ/Q-1503, SGJ/Q-1502 & SGJ/Q-1202 of SIP / NSDC / MSDE should take the classes for the ToP trainings.
- xv.** The TP has to ensure that out of the 200 hours duration of the course for the QPs (QP SGJ/Q-1503, SGJ/Q-1502), a minimum of 100 hours should be taken by the industry experts and the remaining is to be taken by the internal faculty (QP SGJ/Q-1503, SGJ/Q-1502). Similarly, for the

120 hours duration of the course for the QP (SGJ/Q-1202), a minimum of 60 hours should be taken by the industry experts and the remaining is to be taken by the internal faculty. No claim will be entertained in case of noncompliance of the minimum hours.

- xvi.** Each ToP program should have 30 participants. At the end of each ToP training, the assessment will be done by the Assessors nominated by the Skill Council for Green Jobs (SCGJ). NIWE will release the assessment fee directly to SCGJ. On successful assessment, the certificates for the participants will be issued by NSDC / MSDE through SIP portal. The re-assessment of failed candidates is allowed as per the MSDE norms.
- xvii.** Aadhar Enabled Bio-metric System (AEBAS) and IP based camera system is mandatory at the training centre.
- xviii.** The TP has to mobilize the participants through camps / newspaper / website / social media advertisements with tentative date of the training. A transparent mechanism of selection of trainees should be adopted and proof should be included with the first installment claim along with the joining report.
- xix.** TP has to provide 2 set of uniforms with VSDP Logo and Course Kit (Writing Pad, Pen, and Participants Hand Book) for each participant. Uniform is mandatory during class hours including practical sessions.
- xx.** TP's are requested to follow the COVID-19 protocols as declared by State/Central Government from time to time during the entire training period.
- xxi.** The TP is solely responsible to ensure that they follow the safety guidelines during the training of candidates.
- xxii.** The TP must strictly adhere to the Guidelines for conducting ToP Training Courses which will be amended from time to time. The Guidelines will be issued to the selected TPs along the Batch allotment letter.
- xxiii.** The court of Jurisdiction for any dispute will be Madras High Court, Chennai only. The decision of the Competent Authority, NIWE shall be final in all matters relating to eligibility, acceptance or rejection of application, and mode of selection.

7. Process of Shortlisting the TPs

- a) NIWE will form a committee duly approved by the competent authority to evaluate the response submitted by the TPs against this EoI. The decision of the DG, NIWE will be final in all matters pertaining to the EoI.
- b) The Committee will evaluate the responses submitted by the TPs as per the Technical Response Scoring Criteria shown in the table under heading 5 above.
- c) NIWE reserves the right to decide the number of TPs to be selected from the merit list subject to

targets / availability of funds.

- d) The shortlisted TP will be provisionally empaneled and after inspection of the Training Partner facilities physically by the officials of NIWE, the final confirmation letter will be issued.

8. Prospective Training Partners (TP) – State wise:

Training Partners selection will be based on the potential and installed capacity of wind in the states. The wind farms in India are majorly established in 9 windy states. We are expecting EoI from the following 9 windy states and are spread across in about 67 districts and their details are given below:



Existing wind farms in India

Sl. No.	STATE	DISTRICTS
1	Andhra Pradesh (5)	Anantapur, Kurnool, Kadapa, Chittoor, Nellore,
2	Gujarat (12)	Kutch, Patan, Dwarka, Rajkot, Jamnagar, Amreli, Morbi, Botad, Bhavnagar, Porbandar, Surendranagar, Junagadh
3	Karnataka (15)	Belgaum, Bijapur, Vijayapura, Raichur, Davangere, Gadag, Yadgir, Chitradurga, Koppal, Bagalkot, Hassan, Bellary, Shimoga, Tumkur, Gulbarga
4	Kerala (1)	Pallakkad
5	Maharashtra (12)	Ahmednagar, Amaravati, Aurangabad, Beed, Dhule, Kolhapur, Nandurbar, Nashik, Raigarh, Sangli, Satara, Sindhudurg
6	Madhya Pradesh (8)	Shajapur, Ujjain, Mandsaur, Dewas, Ratlam, Dhar, Betul, West Nimar
7	Rajasthan (4)	Jaisalmer, Pratapgarh, Barmer, Jodhpur
8	Tamil Nadu (9)	Coimbatore, Tiruppur, Tirunelveli, Kanyakumari, Theni, Dindugal, Tuticorin, Karur, Erode
9	Telangana (1)	Rangareddy

9. Financial & Payment Terms

The funding breakup for VSDP is based on the sanction letter received from MNRE in accordance with Ministry of Skill Development and Entrepreneurship (MSDE) norms, as amended from time to time. The details of course fee, assessment charges and boarding & lodging sanctioned per participant is as follows:

The hourly rates (course fee) shall be inclusive of cost components such as:

- i. Mobilization of candidates
- ii. Post-placement tracking/monitoring
- iii. Curriculum / Course Material
- iv. Placement expenses
- v. Trainers' training
- vi. Equipment
- vii. Amortization of Infrastructure costs/Utilities
- viii. Teaching Aid
- ix. Raw material
- x. Salary of trainers

NIWE will release the funds for Course fee, Boarding & Lodging, Local Conveyance for external faculty and study tour fee to the TP as per the MNRE sanction and MSDE norms.

Each ToP 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 TP shall be released against Bank Guarantee (BG) i.e. 30% of the total value of the fund allotted for the respective ToP training program as per the cost break up given in the clause 9(d) i & 9(d) ii. The schedule of release of payment will be based on MSDE Gazette notification released on 8th August, 2015., 28th February, 2017., 11th November, 2020, 1st January, 2021. NIWE shall consider release of funds to the Training Partners, subject to submission of all required documents as stipulated in this EoI, and compliance to all EoI Terms & Conditions as per the following schedule.

S. No	Percentage of total cost	Particulars
1	30% (subject to submission of documents as mentioned in 9(a) A)	On training commencement against BG Or On completion of successful certification, (Payment shall be made for number of candidates certified in actual).
2	40%	On completion of successful certification, (Payment shall be made for number of candidates certified in actual). Excess

S. No	Percentage of total cost	Particulars
		payment, if any, made during the first instalment, based on the actual number of candidates certified, will be recovered accordingly.
3	30%	On verified employment (Continuous employment of 3 months-desk and verified placement as per standard norms) as per details given in 9.(c).

9. (a) First Instalment:

A. NIWE will release 30% of total cost in advance on commencement of training program subject to submission of BG for an equivalent amount valid for a period of six months. The BG will be returned on completion of second Instalment payment. Further the first installment payment of 30% is subject to submission of the following documents:

- i. Against Bank Guarantee (BG) if advance payment is required
- ii. Copy of Total Batch Allocation Letter from NIWE
- iii. Copy of Batch Commencement Letter issued by NIWE
- iv. Claim letter (in TPs Letterhead)
- v. Tentative Program schedule along with the speaker name
- vi. Brief report of the commencement of the training
- vii. Mobilization Report (in TPs letterhead)
- viii. Participant Joining Report (to be downloaded from VSDP Portal) with individual participant's signature and TCs Programme Head's sign and seal. The same should be uploaded back in the VSDP portal.

B. The Training partner may also claim the 30% first instalment after completion of the Training program without BG on submission of above documents along with the documents for 2nd instalment with each instalment documents separately.

The claim of 1st instalment of 30% as advance against BG shall be submitted within 15 days from the date of commencement of training program along with requisite documents as specified in 9. (a) A, failing which the TP shall claim the 1st instalment of 30% payment along with 2nd instalment of 40% after successful certification of candidates.

9. (b) Second Instalment

The TP may claim 40% of the total cost after the successful certification of participants of the ToP program. The payment of dropout candidates shall be adjusted in the 2nd instalment. The funds shall be released for successfully certified participants only. No fund shall be released for dropout and failed participants.

The claim of second instalment payment (40%) should be submitted to NIWE within 45 days from

the successful certification of participants along with the following documents for release of payment;

- i. Claim letter (in TPs Letterhead)
- ii. Batch Completion report downloaded from VSDP portal with TCs Programme Head's sign and seal
- iii. Certificates of successful participants issued by NSDC / MSDE
- iv. Participants Group photo at the time of commencement and valedictory along with classroom, Practical & Site visit session with VSDP Banner
- v. Aadhaar Enabled Biometric Attendance System (AEBAS) attendance sheet
- vi. Feedback forms
- vii. Audited Utilization Certificate (UC) in GFR 12-A format
- viii. Audited Statement of Expenditure (SoE)
- ix. Actual Program Schedule

9. (c) Third Instalment

The 30% of training cost is linked with the employment, which would be released to the TP subject to the following:

Sl. No.	Placement Achievement	Payout Linked to placement
1	70%	100% (Full Tranche/Instalment linked to placement layout)
2	40 – 70%	Pro-rata basis
3	Below 40%	Nil (No payment), penalty as per scheme guidelines

A. Penalty Clause: Those who have not achieved any employability or the achievement of employability / placement falls below 40%, the following penalty clause will be imposed:

- (i) **Defaulting for the first time:** warning letter will be issued to the TP/TC.
- (ii) **Defaulting for the second time:** one ToP batch allotted to the TC will be withdrawn.
- (iii) **Defaulting for the third time:** all remaining ToP batches allotted to the TC will be withdrawn.
- (iv) **Exceeding three times:** TC will not be allowed to participate in any of the NIWE tenders / EOI for one year and the pertaining information regarding this will be published in the website of NIWE and the same will also be reported to MNRE and NSDE / MSDE.

B. Documents for release of payment;

The TP has to ensure the employment as mentioned in table above within six months of completion of training. The following document(s) shall be provided as the proof of employment-

- i. Claim letter (in TP Letterhead)
- ii. Placement report from VSDP portal with TCs Programme Head's sign and seal
- iii. Offer letter to the participant with joining date

The following should be submitted as a proof of placement:

Sl.No.	Type of Organization	Proof for placement
1.	Organization with Human Resources department and providing salary slips	1. Salary Slips - Consecutive 3 months 1. Salary payment proof (one of the following): Successfully completed bank transfer, like NEFT or RTGS, from the Employer or Bank account statement or passbook entries of the candidate's account indicating that wages have been paid. Or 2. EPF Records or ESIC Records
2.	All other Organizations	1. Offer Letter issued by the employer and candidate 2. Salary payment proof (one of the following): Successfully completed bank transfer, like NEFT or RTGS, from the Employer or Bank account statement or passbook entries of the candidate's account indicating that wages have been paid. Or 2. EPF Records or ESIC Records

The following document(s) shall be provided as the proof of self-employment (any one)-

- a. Trade License / Udyog Adhaar issued by competent authority
- b. Firm establishment certificate issued by CA
- c. Any certificate issued by the appropriate Ministry, Government of India
- d. Document related to loan taken for business
- e. Any other evidence to support the revenue generated through self-employment

9. (d) The cost breakup of QP-

(i) For SGJ/Q1502 and SGJ/Q1503 is as follows-

S. No.	Particulars	Description	Amount (in Rupees)
1	Course fee to the institute Extra Honorarium for industrial expert	Rs. 49/- per hour * 200 hours * 30 participants	2,94,000/- 12,780/-
2	Boarding and Lodging (as per city categorization 'X'/'Y'/'Z'/Rural Area')	Rs 375/- * 30 * 45 days ('X' cities) Rs 315/- * 30 * 45 days ('Y' cities) Rs 250/- * 30 * 45 days ('Z' cities) Rs 220/- * 30 * 45 days ('Rural area')	5,06,250/- 4,25,250/- 3,37,500/- 2,97,000/-
3	Local Conveyance for external faculty for lecture and practical sessions	Rs 800/- per session of an hour for 100 hrs	80,000/-
4	Study Tour from training institute to nearby filed / wind farms	Rs 2500/- * 30 participants	75,000/-
	Total per Batch of 30 participants	Total for Category-X Total for Category-Y Total for Category-Z Total for Category-Rural Area	9,68,030/- 8,87,030/- 7,99,280/- 7,58,780/-

(ii) For SGJ/Q1202 is as follows-

S. No.	Particulars	Description	Amount (in Rupees)
1	Course fee to the institute Extra Honorarium for industrial expert	Rs.49/- per hour * 120 hours * 30 participants	1,76,400/- 7,668/-
2	Boarding and Lodging (as per city categorization 'X'/'Y'/'Z'/Rural Area')	Rs 375 * 30 * 25 days ('X' cities) Rs 315 * 30 * 25 days ('Y' cities) Rs 250 * 30 * 25 days ('Z' cities) Rs 220 * 30 * 25 days ('Rural area')	2,81,250/- 2,36,250/- 1,87,500/- 1,65,000/-
3	Local Conveyance for external faculty for lecture and practical sessions	Rs 1000/- per session of an hour for 60 hrs	60,000/-
4	Study Tour from training institute to nearby filed / wind farms	Rs 2000/- * 30 participants	60,000/-
	Total per Batch of 30 participants	Total for Category-X Total for Category-Y Total for Category-Z Total for Category-Rural Area	5,85,318/- 5,40,318/- 4,91,568/- 4,69,068/-

At the end of each ToP training, the assessment will be done by the Assessors nominated by the Skill Council for Green Jobs (SCGJ). NIWE will release the assessment fee of Rs.800/- for the QPs SGJ/Q-1503, SGJ/Q-1502 and Rs.1000/- for the QP SGJ/Q-1202 directly to SCGJ. On successful assessment, the certificates for the participants will be issued by NSDC / MSDE through SIP portal.

The above rates are subject to revision from time to time.

The Categorization of cities for Residential Training Costs is as follows- (as per MSDE notification dated 11th November 2020)

S. No.	State	Cities classified as “X”	Cities classified as “Y”
1.	Andhra Pradesh / Telangana	Hyderabad (UA)	Vijayawada (UA), Warangal (UA), Greater Visakhapatnam (M.Corp.), Guntur (UA), Nellore (UA)
2.	Assam		Guwahati (UA)
3.	Bihar		Patna (UA)
4.	Chandigarh		Chandigarh (UA)
5.	Chhattisgarh		Durg- Bhilai Nagar (UA), Raipur (UA)
6.	Delhi	Delhi (UA)	
7.	Gujarat	Ahmedabad (UA)	Rajkot (UA), Jamnagar (UA), Bhavnagar (UA), Vadodara (UA), Surat (UA)
8.	Haryana		Faridabad (M.Corp.), Gurgaon (UA)
9.	J & K		Srinagar (UA), Jammu (UA)
10.	Jharkhand		Jamshedpur (UA), Dhanbad (UA), Ranchi (UA), Bokaro Steel City (UA)
11.	Karnataka	Bengaluru (UA)	Belgaum (UA), Hubli-Dharwad (M.Corp.) Mangalore (UA), Mysore (UA), Gulbarga (UA)
12.	Kerala		Kozhikode (UA), Kochi (UA), Thiruvananthapuram (UA), Thrissur (UA), Malappuram (UA), Kannur (UA), Kollam (UA)
13.	Madhya Pradesh		Gwalior (UA), Indore (UA), Bhopal (UA), Jabalpur (UA), Ujjain (M.Corp.)
14.	Maharashtra	Greater Mumbai (UA), Pune (UA)	Amravati (M.Corp.), Nagpur (UA), Aurangabad (UA), Nashik (UA), Bhiwandi (UA), Solapur (M.Corp.), Kolhapur (UA), Vasai-Virar City (M.Corp.), Malegaon (UA), NandedWaghala (M.Corp.), Sangli (UA)
15.	Orissa		Cuttack (UA), Bhubaneswar (UA), Raurkela (UA)
16.	Puducherry		Puducherry (UA)
17.	Punjab		Amritsar (UA), Jalandhar (UA), Ludhiana (M.Corp.)
18.	Rajasthan		Bikaner (M.Corp.), Jaipur (M. Corp), Jodhpur (UA), Kota (M. Corp.), Ajmer (UA)
19.	Tamil Nadu	Chennai (UA)	Salem (UA), Tiruppur (UA), Coimbatore (UA), Tiruchirappalli (UA), Madurai (UA), Erode (UA)
21.	Uttar Pradesh		Moradabad (M.Corp.), Meerut (UA), Ghaziabad (UA), Aligarh(UA), Agra(UA), Bareilly (UA), Lucknow (UA), Kanpur (UA), Allahabad (UA), Gorakhpur (UA), Varanasi (UA), Saharanpur (M.Corp.), Noida (CT), Firozabad (NPP), Jhansi (UA)
22	Uttarakhand		Dehradun (UA)

S. No.	State	Cities classified as “X”	Cities classified as “Y”
23.	West Bengal	Kolkata (UA)	Asansol (UA), Siliguri (UA), Durgapur (UA)

All other cities / towns in various States / UTs, which are not covered by classification as “X or Y”, are classified as “Z”. Any area not notified as municipal/town area shall be classified as “Rural Area”.

Before starting any ToP batches, the TP has to ensure that it has the necessary approval for the program (Commencement Letter) and NIWE will not be liable to release fund for any unapproved ToP batches.

Annexure-1

List of Tools& Equipment for a batch of 30 trainees:

Tools and Equipment

Sl. No.	Electrical Equipment's
1.	Three Phase Circuits
2.	AC Motor
3.	DC Motor
4.	Transformer
5.	Synchronous Generator
6.	DC Generator
7.	D.C Machines
8.	Energy Meter
9.	Strain Gauge
10.	Single Phase Induction Motor
11.	Three Phase Induction Motor
12.	8085 Microprocessor
Sl. No.	Demo Equipment's in wind farms
1.	Gear Box
2.	Inverter
3.	Controller
4.	Current Transformer
5.	Potential Transformer
6.	Anemometer
7.	Wind Vane
8.	Temperature sensor
9.	Pressure sensor
10.	GPS (Global Positioning System)
11.	Data logger – Optional
12.	DC/AC Generator

Sl. No.	Tools & Measuring Instruments
1.	Tool kit
2.	Electrical Symbol and Accessories Charts
3.	Combination and Side cutting pliers
4.	Nose pliers, Wire stripper, Electrician knife, Cable cutter
5.	Hand crimping tools
6.	Hack saw frame with blade
7.	All size Screw driver
8.	Water level, Measuring tape
9.	Vanier caliper, Sprit level
10.	Centre punch, Standard wire gauge
11.	All size Flat files
12.	Drill m/c, cutting m/c, welding m/c
13.	All size of hammer, chisel
14.	Tong tester AC/DC, Multimeter, Megger, Hydro meter, Magnetic Flux Meter
15.	Soldering Iron & Flux, Earthing Rod
16.	Pry Bar, crow bar, Allen Keyes
17.	Pipe wrenches, Torque wrench
Sl. No.	Safety & Protective Equipment
1.	Safety helmet
2.	Safety shoes
3.	Safety belt
4.	Nose mask
5.	Safety goggles
6.	Ear plug
7.	PVC hand glove
8.	Cotton hand glove
9.	Reflective jacket
10.	First aid kit
11.	Gum boots

Selected Qualification Pack**1. O&M Electrical & Instrumentation Technician-Wind Power Plant**

(i) Brief Job Description: O&M Electrical & Instrumentation Technician – wind power plant is expected to inspect, diagnose, troubleshoot and repair electrical & instrumentation systems of wind power plant. S/he is expected to perform operation and maintenance of switch gear, transformer, O/H and U/G Lines, SCADA, communication system (Fiber-Optics) and complying with all operational manuals, applicable codes / standards, and safety requirements.

(ii) Personal Attributes: This job requires the individual to concentrate on the job at hand and complete it without any accidents so hence diligence and hardworking are desired attributes for individuals performing this role. S/he must also be medically fit to work on heights, demonstrate strong work ethics, an ability to communicate courteously with co-workers, and must be good with following instructions of the supervisor

NSQF level	O&M Electrical & Instrumentation Technician–Wind Power Plant (Level 4)
Qualification pack Code	SGJ/Q1503
Educational Qualifications	Class 12 th with science with 1year relevant work experience or ITI after class 10 th (in Electrician / Mechanical / Fitter / Welder / and related trades) with 1year of relevant work experience or Government recognized 3 years Diploma (in Electrical / Mechanical / Civil / Electronics & Communication / Control & Instrumentation)
Minimum Job Entry Age	18 years
Course Duration / Training hours	200
Learning Outcome	<ul style="list-style-type: none"> • Carry out operation and Maintenance of electrical and Instrumentation of Wind Power Plant • Perform basic health and safety practices at project site (Ground and Height) • Work effectively with others • O&M Electrical & Instrumentation technician–wind power plant is expected to inspect, diagnose, troubleshoot and repair electrical & instrumentation systems of wind power plant. S/he is expected to perform operation and maintenance of switchgear, transformer, O/H and U/G Lines, SCADA, communication system (Fiber Optics) and complying with all operational manuals, applicable codes / standards and safety requirements
Note: The eligibility criteria will be revised by NSDC/MSDE from time to time and will be incorporated with the due approval of the competent authority of NIWE/MNRE.	

Module 1	Introduction to Wind Power Sector	
	Duration:12:00	Duration:00:00
	Theory	Practical
	<ul style="list-style-type: none"> Identify different types of wind technology and overview of wind energy sector in India Understand key insights in the sector through various market research reports and magazines Identify different types of wind power plant its components and working principles. Understand basics of electrical concepts like voltage, current, power, energy, etc. Explain the benefits of wind energy over conventional sources of energy. Describe the typical specifications, functioning, operating principle, maintenance requirements, warranties, and safe operating & handling procedures of different wind power plant components like blades, towers, motors, monitoring system and other components. Identify various ways to optimize material, energy/electricity consumption across processes and follow specified process for waste disposal. 	
Module 2	Carry out operation of electrical & instrumentation system of wind power plant	
	Duration:24:00	Duration:40:00
	Theory	Practical
	<ul style="list-style-type: none"> Explain how to identify the design, drawings and specification of equipment for inspection. Explain how to carry out scheduled & preventive inspections of electrical / instrumentation components & equipment. Discuss how to verify and record the running parameters of WTG, transformer and switch gear with design document Discuss how to identify the location the conduit, cables & other undergoing devices prior to performing maintenance work Explain how to measure and record for performance parameters of transformer like input voltage / output voltage, frequency, phase sequence, etc. Explain how to maintain log of all performance parameters of switch gear Explain to prepare report to be submitted to site in-charge/plant head for further action 	<ul style="list-style-type: none"> Demonstrate to select the relevant PPE to carry out a specific activity. Demonstrate how to monitor the working efficiency of WTG and associated wind power plant equipment Show how to check all the intersections & joints (termination) in the line and cable for faults like loose joint, short circuit, open circuit etc. Demonstrate how to acquire required approvals and permit to work (PTW) from the concerned authority.

Module 3	Carry out maintenance of electrical & instrumentation system of power plant	
	Duration:24:00	Duration:34:00
	Theory	Practical
	<ul style="list-style-type: none"> • Explain to ensure that power supply is isolated prior to carrying out work. • Explain how to perform visual inspection of the electrical and instrumentation system and record any defects. • Discuss to arrange for tools and replacement equipment from the supervisor, required. • Explain how to carryout repair or replacement of faulty equipment's /components of WTG, transformer, switch gear etc. as per standard operating procedures. 	<ul style="list-style-type: none"> • Demonstrate how to select the appropriate PPE to carry out the specific activity. • Demonstrate how to acquire required approvals and permit to work (PTW) from the concerned authority. • Show how to measure and record all parameters of WTG and associated components like continuity, earthling resistance, etc. • Demonstrate how to report to the supervisor in case of any deviations from standard values
Module 4	Perform basic health and safety practices at project site (Ground and Height)	
	Duration:18:00	Duration:30:00
	Theory	Practical
	<ul style="list-style-type: none"> • Explain the importance of selecting the relevant protective clothing /equipment for specific task and work. • Discuss about relevant documents and people responsible for health and safety at project site. • Identify possible causes of risk at project site and their mitigation measures. • Explain how to identify and follow warning signs on site. • Discuss how to establish safe working practices when working at heights, confined areas and trenches. • Identify methods of accident prevention in the work environment. • Discuss how to follow safe operating procedures for lifting, carrying and transporting heavy objects & tools. • Inspect the project site on a regular basis for any signs of spillage. • Ensure safe storage of flammable materials and machine lubricating oil. • Explain how to apply good housekeeping practices at all times by removal / disposal of waste products. • Explain how to promptly inform relevant authorities about any abnormal situation/behavior of any equipment/system. 	<ul style="list-style-type: none"> • Demonstrate how to use appropriate personal protective equipment (PPE) while performing work. • Employ appropriate techniques while handling tools and equipment to ensure safety of self and others. • Demonstrate how to properly work while sitting or lifting heavy materials as per standards ergonomic principles to avoid injury. • Perform the steps to clean and disinfect material, tools, equipment and other supplies before starting work and after completing the job. • Demonstrate how to participate in emergency and evacuation drills to be able to take necessary action in case of accidents, fires and natural calamities. • Demonstrate correct techniques to move an injured person during an emergency. • Demonstrate how to use appropriate fire extinguishers for different types of fire at workplace.

- Exhibit the use of various appropriate fire extinguishers on different types of fires.
- Identify rescue techniques applied during fire hazard.
- Explain how to administer appropriate first aid to victims where required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc.
- Discuss how to respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments.
- Explain how to report the accident to the relevant authority in the prescribed format.

- Show how to provide first aid to a victim in case of exposed wound, cuts, burns, choking, electric shock, poisoning, or any other situation such as a cardiac arrest.
- Demonstrate how to dispose hazardous waste as per organizational norms.

Module 5	Effective and Efficient Working Practices	
	Duration:06:00	Duration:12:00
	Theory	Practical

- Describe the legislation, standards, policies, and procedures to be followed at the work place within one's own scope of work.
- Identify the different types of communication and the basic etiquette involving verbal and non-verbal communication.
- Explain how to collect complete information and instructions from concerned authority/person.
- Discuss the importance of communicating without any personal, gender, disability, caste, religion, color, and sexual orientation and culture biases.
- Distinguish between different types of disabilities with their respective consideration and limitations.
- Elaborate how to assist others in their tasks using positive attitude to maximize effectiveness and efficiency at work.
- Describe the communication etiquette to be followed at work place.
- Explain the importance of listening actively while interacting with others at work.
- Outline basic characteristics that define responsible and disciplined behavior at the work place.
- Discuss the need to attain common grounds with clients, team members, and other working personnel to enable smooth efficient work flow while considering and respecting the opinions, creativity, values, beliefs and perspectives of others.
- Elaborate the need of ensuring a friendly, co-operative environment that is conducive to

- Demonstrate how to communicate verbal, non-verbal and written information timely, accurately and clearly using an inclusive language that is gender, disability and culturally sensitive.
- Show how to interact using appropriate behavior and gestures/body language, taking gender and disability into consideration to depict equal treatment for all clients, colleagues and co-workers.
- Outline various methods to escalate and report grievances and issues to concerned authority as per organizational procedure to resolve them and avoid conflict.
- Demonstrate how to collaborate with other and participate in group activities and tasks.

Employees' sense of belonging at work place while understanding and appreciating the differences among team members.	
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Theory Duration- (hh:mm) 84:00

Practical Duration- (hh:mm) 116:00

Grand Total Course Duration:200 Hours, 0 Minutes

2. O&M Mechanical Technician-Wind Power Plant

(i) Brief Job Description: The O&M Mechanical Technician – Wind Power Plant, carries out operation and maintenance of mechanical components of wind power plant, complying with all operational manuals, applicable codes, standards, and safety requirements

(ii) Personal Attributes: This job requires the individual to concentrate on the job at hand and complete it without any accidents so hence diligence and hardworking are desired attributes for individuals performing this roles. He must be medically fit so as to work on heights, demonstrate strong work ethics, an ability to communicate courteously with co-workers, and must be good with following instructions of the supervisor

NSQF level	4
Qualification pack code	SGJ/Q1502
Educational Qualifications	Class 12 th with science with 1 year relevant work experience or ITI after class10th (in Electrician / Mechanical / Fitter / Welder / and related trades) with 1 year of relevant work experience or Government recognized 3 years Diploma (in Electrical / Mechanical / Civil / Electronics & Communication / Control & Instrumentation)
Minimum Job Entry Age	18 years
Course Duration/Training hours	200
Learning Outcome	<ul style="list-style-type: none"> Carries out operation and maintenance of mechanical components of wind power plant, complying with all operational manuals, applicable codes, standards and safety requirements Perform basic health and safety practices at project site (Ground and Height) Work effectively with others
Note: The eligibility criteria will be revised by NSDC/MSDE from time to time and will be incorporated with the due approval of the competent authority of NIWE/MNRE.	

Module 1	Introduction to Wind Power Sector	
	Duration: 12:00	Duration: 00:00
	Theory	practical
	<ul style="list-style-type: none"> Identify different types of wind technology and overview of wind energy sector in India Understand key insights in the sector through various market research reports and magazines. 	
	<ul style="list-style-type: none"> Identify different types of wind power plant, its components and working principles. Understand basics of electrical concepts like voltage, current, power, energy, etc. Explain the benefits of wind energy over conventional sources of energy. Describe the typical specifications, functioning, operating principle, maintenance requirements, warranties, and safe operating & handling procedures of different wind power plant components like blades, towers, motors, monitoring system and other components. Identify various ways to optimize material, energy/electricity consumption across processes and follow specified process for waste disposal. 	
Module 2	Carry out operation of Components of Wind Power Plant	
	Duration: 24:00	Duration: 40:00
	Theory	practical
	<ul style="list-style-type: none"> Identify the operation manuals of all mechanical components for inspection. Explain how to prepare site and equipment for inspection. Discuss how to carry out in sections of WTG, blade and associated mechanical components as per schedule. Explain how to monitor working efficiency of WTG and associated components. Explain to identify the location of the conduit, cables, pipes & other undergoing devices prior to performing maintenance work. Explain to arrange for tools to carry out online testing of WTG and components. Explain to measure and record real time parameters of WTG and associated components like vibration, torqueing, alignment etc. Discuss to measure and record real time parameters of wind turbine blades and associated components like temperature, vibration, alignment, etc. 	<ul style="list-style-type: none"> Demonstrate how to select the appropriate PPE (Personal Protective Equipment) to carry out the specific activity Demonstrate how to acquired approvals and permit to work (PTW) from the concerned authority. Demonstrate if the equipment/machine is functioning normally before commencing work and rectify wherever required. Show how to verify and record the operative parameters for all components as per design standards. Demonstrate how to perform visual inspection of the surroundings and the mechanical components and record any defects. Demonstrate how to maintain log of all system condition (parameters). Show how to prepare report and submit to site in-charge/plant head for further action
Module 3	Carry out maintenance of mechanical components of wind power plant	
	Duration: 24:00	Duration: 34:00
	Theory	Practical

<ul style="list-style-type: none"> • Identify required approvals and permit to work (PTW) from the concerned authority. • Discuss to ensure that the system is shut down prior to carrying out work 	<ul style="list-style-type: none"> • Demonstrate to select the appropriate PPE (Personal Protective Equipment) to carry out the specific activity
<ul style="list-style-type: none"> • Explain to carry out maintenance activities for mechanical components of WTG as per standard operating procedures • Explain how to carry out testing of WTG and associated components on universal testing machine (UTM), compression testing machine (CTM). • Arrange for tools and replacement equipment from the supervisor if required • Explain the importance of performing repair or replacement of faulty mechanical components of wind power plant as per standard operating procedures • Explain how to conduct readiness test on post replacement of equipment 	<ul style="list-style-type: none"> • Demonstrate to perform visual inspection of the mechanical components of wind power plant and record any defects • Demonstrate to measure and record parameters post maintenance activities. • Demonstrate how to report to the supervisor in case of any deviations from standard values. • Demonstrate how to carry out repair or replacement of faulty mechanical components of wind power plant as per standard operating procedures.
Module 4	Perform basic health and safety practices at project site (Ground and Height)
Duration: 18:00	Duration: 30:00
Theory	Practical

<ul style="list-style-type: none"> • Explain the importance of selecting the relevant protective clothing/equipment for specific tasks and work. • Discuss about relevant documents and people responsible for health and safety at project site. • Identify possible causes of risk at project site and their mitigation measures. • Explain how to identify and follow warning signs on site. • Discuss how to establish safe working procedures at the project site. • Discuss how to ensure safe working practices when working at heights, confined areas and trenches. • Identify methods of accident. Prevention in the work environment. • Discuss how to apply good housekeeping practices at all times by removal/disposal of waste products. • Explain how to promptly inform relevant authorities about any abnormal situation / behavior of any equipment / system. • Exhibit the use of various appropriate fire extinguishers on different types of fires. • Identify rescue techniques applied during fire hazard. • Explain how to administer appropriate first aid to victims were required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc. • Discuss how to respond promptly and appropriately To an accident situation or medical emergency in real or simulated environments. 	<ul style="list-style-type: none"> • Demonstrate how to use appropriate Personal Protective Equipment (PPE) while performing work. • Employ appropriate techniques while handling tools and equipment to ensure safety of self and others. • Demonstrate how to properly work while sitting or lifting heavy materials as per standards ergonomic principles to avoid injury. • Perform the step to clean and disinfect material, tools, equipment and other supplies before starting work and after completing the job. • Demonstrate how to participate in emergency and evacuation drills to be able to take necessary action in case of accident, fires and natural calamities • Demonstrate correct techniques to move an injured person during an emergency. • Demonstrate how to use appropriate fire extinguishers for different types of fire at workplace. • Show how to provide first aid to a victim in case of exposed wound, cuts, burns, choking, electric shock, poisoning, or any other situation such as a cardiac arrest.
<ul style="list-style-type: none"> • Explain how to report the accident to the relevant authority in the prescribed format. 	<ul style="list-style-type: none"> • Demonstrate how to dispose hazardous waste as per organizational norms.

Module 5		Effective and Efficient working practices	
Duration:06:00		Duration: 12:00	
Theory		Practical	
<ul style="list-style-type: none"> Describe the legislation, standards, policies, and procedures to be followed at the workplace within one's own scope of work. Identify the different types of communication and the basic etiquette involving verbal and non-verbal communication. Explain how to collect complete information and instructions from concerned authority / person. Discuss the importance of communicating without any personal, gender, disability, caste, religion, color, and sexual orientation and culture biases. Distinguish between different types of disabilities with their respective consideration and limitations. Elaborate how to assist others in their tasks using a positive attitude to maximize effectiveness and efficiency at work. Describe the communication etiquette to be followed at workplace. Explain the importance of listening actively while interacting with others at work. Outline basic characteristics that define responsible and disciplined behavior at the workplace. Discuss the need to attain common grounds with clients, team members, and other working personnel to enable smooth sufficient workflow while considering and respecting the opinions, creativity, values, beliefs and perspectives of others. Elaborate the need of ensuring a friendly, co-operative environment that is conducive to Employees' sense of belonging at workplace while understanding and appreciating the differences among team members. 		<ul style="list-style-type: none"> Demonstrate how to communicate verbal, non-verbal and written information timely, accurately and clearly using an inclusive language that is gender, disability and culturally sensitive. Show how to interact using appropriate behavior and gestures/body language, taking gender and disability into consideration to depict equal treatment for all clients, colleagues and co-workers. Outline various methods to escalate and report grievances and issues to concern to resolve them and avoid conflict. Demonstrate how to collaborate with other and participate in group activities and tasks. 	
Theory Duration-(hh:mm) 84:00		Practical Duration-(hh:mm) 116:00	
Grand Total Course Duration: 200 Hours, 0 Minutes			

3. Site Surveyor-Wind Power Plant

(i) Brief Job Description: Site Surveyor - Wind Power Plant carries out site inspection, site assessment, checking site access, approach roads, grid availability for power evacuation, substation availability & its capacity and other relevant proximity of site.

(ii) Personal Attributes: This job requires the individual to survey the site for feasibility. Therefore, concentration and diligence are desired attributes for individuals performing this role. S/he must also be medically fit to work on heights, demonstrate strong work ethics, an ability to communicate courteously with co-workers, sub-ordinates and superiors.

NSQF level	6
Qualification pack code	SGJ/Q1202
Educational Qualifications	B.E./B.Tech .(Electrical / Mechanical / Civil / Electronics and Communication / Electrical and Electronics / Control & Instrumentation) Or Government recognized 3 years Diploma after class XII (Electrical / Mechanical / Civil / Electronics & Communication / Control & Instrumentation) with 2 years of experience.
Minimum Job Entry Age	21 years
Course Duration/Training hours	120
Learning Outcome	<ul style="list-style-type: none">• Conduct Site survey for Wind power plant• Perform basic health and safety practices at project site• Work effectively with others• He / She is responsible to carry out site inspection, site assessment, checking site access, approach roads, grid availability for power evacuation, substation availability and its capacity and other relevant proximity of site
Note: The eligibility criteria will be revised by NSDC/MSDE from time to time and will be incorporated with the due approval of the competent authority of NIWE/MNRE.	

Module 1	Introduction to Wind Power Sector Mapped to Bridge Module	
	Duration:12:00	Duration:00:00
	Theory	Practical
	<ul style="list-style-type: none"> • Identify different types of Wind technology and overview of Wind energy sector in India • Understand key insights in the sector through various market research reports and magazines. • Identify different types of wind power plant, its components and working principles. • Understand basics of electrical concepts like voltage, current, power, energy, etc. • Explain the benefits of wind energy over conventional sources of energy. • Describe the typical specifications, functioning, operating principle, maintenance requirements, warranties, and safe operating & handling procedures of different Wind power plant components like Blades, Towers, motors, monitoring system and other components. <p>Identify various ways to optimize material, energy/electricity consumption across processes and follow specified process for waste disposal.</p>	

Module 2	Conduct site survey for wind power plant Mapped to SGJ/N1204	
Duration:30:00		Duration:30:00
Theory		Practical
<ul style="list-style-type: none"> • Explain how to analyze project site conditions. • Explain how to collect data on local weather conditions such as temperature range, flooding (in case of onshore), wind speed, humidity, wind direction, pressure, and rainfall and assess its impact on wind energy generation. • Explain how to assess the ground water availability and quality, load bearing capacities, pH levels and seismic risk. • Identify location for Power Curve test. • Discuss to ensure installation of meteorological mast (met mast) at site. • Discuss and analyze the wind data collected from met mast for estimating wind potential • Explain how to prepared detailed survey plan of the land proposed for installation of wind power plant with elevations and topography with the help of software like Windographer, WASP, Wind Sim, Google Earth, Global Mapper. • Explain to calculate the exact land area of the proposed site where installation is to be commenced. • Discuss how to prepare contour map of proposed windplant site. • Explain how to conduct field surveys and provide site ranking. • Identify position of WTG, substation, transmission line, transformers, etc. • Identify accessibility of the site i.e, Its connectivity to various transport mechanisms including rail, road, connecting roads etc. • Discuss how to conduct route survey. • Identify soil type and its strength. • Explain state/central law of land leasing and purchase. • Discuss how to assess grid availability for power evacuation including nearest substation and transmission line capacity. • Identify the relevant grid authority. • Discuss how to check the feasibility of point of power evacuation. • Explain how to validate collected wind data from site. 		<ul style="list-style-type: none"> • Analyze detailed site information. • Demonstrate how to analyze the daily, monthly and annual wind resource data ofproject site to evaluate the potential for wind energy generation. • Analyze the pre-site selection base line data for project execution suitability. • Demonstrate how to verify the wind potential with other resources such as NREL/ATLAS. • Demonstrate how to prepare contour map of proposed wind plant site. • Demonstrate how to carry out route survey. • Demonstrate how to prepare detailed site survey report using GPS/DGPS and wind data analysis software. • Demonstrate how to assess grid availability for power evacuation including nearest substation and transmission line capacity. • Demonstrate how to ensure compliance with applicable environmental, waste management and disposal regulations.

Module 3	Perform basic health and safety practices at project site (Ground and Height) Mapped to SGJ/N1201	
	Duration:10:00	Duration:20:00
	Theory	• Practical
	<ul style="list-style-type: none"> • Explain the importance of selecting the relevant protective clothing/equipment for specific task and work. • Discuss about relevant documents and people responsible for health and safety at project site. • Identify possible causes of risk at project site and their mitigation measures. • Explain how to identify and follow warning signs onsite. • Discuss how to establish safe working procedures at the project site. • Discuss how to ensure safe working practices when working at heights, confined areas and trenches. • Identify methods of accident prevention in the work environment. • Discuss how to follow safe operating procedures for lifting, carrying and transporting heavy objects & tools. • Inspect the project site on a regular basis for any signs of spillage. • Ensure safe storage of flammable materials and machine lubricating oil. • Explain how to apply good housekeeping practices at all times by removal/disposal of waste products. • Explain how to promptly inform relevant authorities about any abnormal situation/behavior of any equipment/system. • Exhibit the use of various appropriate fire extinguishers on different types of fires. • Identify rescue techniques applied during fire hazard. • Explain how to administer appropriate first aid to victims were required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc. • Discuss how to respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments. • Explain how to report the accident to the relevant authority in the prescribed format. 	<ul style="list-style-type: none"> • Demonstrate how to use appropriate Personal Protective Equipment (PPE) while performing work. • Employ appropriate techniques while handling tools and equipment to ensure safety of self and others. • Demonstrate how to properly work while sitting or lifting heavy materials as per standards ergonomic principles to avoid injury. • Perform the steps to clean and disinfect material, tools, equipment and other supplies before starting work and after completing the job. • Demonstrate how to participate in emergency and evacuation drills to be able to take necessary action in case of accidents, fires and natural calamities • Demonstrate correct techniques to move an injured person during an emergency. • Demonstrate how to use appropriate fire extinguishers for different types of fire at work place. • Show how to provide first aid to a victim in case of exposed wounds, cuts, burns, choking, electric shock, poisoning, or any other situation such as a cardiac arrest. • Demonstrate how to dispose hazardous waste as per organizational norms.
Module 4	Effective and Efficient Working Practices Mapped to SGJ/N0120	
	Duration:06:00	Duration:12:00
	Theory	Practical
	<ul style="list-style-type: none"> • Describe the legislation, standards, policies, and procedures to be followed at the work place within one's own scope of work. 	<ul style="list-style-type: none"> • Demonstrate how to communicate verbal, non-verbal and written information timely, accurately and clearly using an

- Identify the different types of communication and the basic etiquette involving verbal and non-verbal communication.
- Explain how to collect complete information and instructions from concerned authority/person.
- Discuss the importance of communicating without any personal, gender, disability, caste, religion, color, and sexual orientation and culture biases.
- Distinguish between different types of disabilities with their respective consideration and limitations.
- Elaborate how to assist others in their tasks using a positive attitude to maximize effectiveness and efficiency at work.
- Describe the communication etiquette to be followed at work place.
- Explain the importance of listening actively while interacting with others at work.
- Outline basic characteristics that define responsible and disciplined behavior at the workplace.
- Discuss the need to attain common grounds with clients, team members, and other working personnel to enable smooth efficient workflow while considering and respecting the opinions, creativity, values, beliefs and perspectives of others.
- Elaborate the need of ensuring a friendly, co-operative environment that is conducive to employees' sense of belonging at workplace while understanding and appreciating the differences among team members,

Inclusive language that is gender, disability and culturally sensitive.

- Show how to interact using appropriate behavior and gestures/body language, taking gender and disability into consideration to depict equal treatment for all clients, colleague's and co-workers.
- Outline various methods to escalate and report grievances and issues to concerned authority as per organizational procedure or resolve them and avoid conflict.
- Demonstrate how to collaborate with others and participate in group activities and tasks.

Theory Duration-(hh:mm) 58:00

Practical Duration-(hh:mm) 62:00

Grand Total Course Duration: 120 Hours, 0 Minutes

Proposed number of ToP training (Tentative)

States	Institute to be identified	Proposed No. of Training			
		E	M	S	Total
Tamil Nadu	4	4	3	1	8
Gujarat	4	10	11	8	29
Maharashtra	3	2	4	7	13
Karnataka	3	9	9	7	25
Rajasthan	3	5	7	6	18
Andhra Pradesh	2	4	4	3	11
Madhya Pradesh	1	1	1	1	3
Telangana	1	2	2	0	4
Kerala	1	2	2	0	4
TOTAL	22	39	43	33	115
