QUALIFICATION FILE

Renewable Energy

☐ Short Term Training (STT) ☐ Long Term Training (LTT) ☐ Apprenticeship

☐ Upskilling ☐ Dual/Flexi Qualification ☐ For ToT ☐ For ToA

☐General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☒ Future Skills

NCrF/NSQF Level: 4.5

Submitted By:

Skill Council for Green Jobs

Chief Executive Officer
CBIP Building, Malcha Marg,
Chanakyapuri, New Delhi – 110021
Contact no. and mail: 9871119101, ceo@sscgj.in

Table of Contents

Section 1: Basic Details

1.	**Qualification Name**	**Renewable Energy**	
2.	**Sector/s**	**Environmental Science**	
3.	**Type of Qualification: ☒ New ☐ Revised ☐ Has Electives/Options**	**NQR Code & version of existing/previous qualification: Not Applicable**	**Type of Qualification: ☒ New ☐ Revised ☐ Has Electives/Options**
4.	**a. OEM Name** **b. Qualification Name** (Wherever applicable)	Not Applicable	
5.	**National Qualification Register (NQR) Code &Version**	**QG-4.5-ES-01818-2024-V1-SCGJ** & version 1	**6. NCrF/NSQF Level:** 4.5
7.	**Award (Certificate/Diploma/Advance Diploma/ Any Other**	Certificate	
8.	**Brief Description of the Qualification**	The course is designed to undertake training for World Skill competition. The Aspirant would be responsible for designing sub-system for the installation of on grid, off grid and hybrid renewable energy plants including wind and solar energy. The individual at work complete, commission, maintain and optimize the renewable energy plant with safety standards.	

9. Eligibility Criteria for Entry for Student/Trainee/Learner/Employee

a. Entry Qualification & Relevant Experience:

S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)
1	Completed 1st year of UG (UG Certificate)	NA
2	12th grade pass	1 year of relevant experience in concerned sector like Solar/ power sector
3	10th grade pass with two years of any combination of NTC/NAC/CITS or equivalent	1 year of relevant experience in concerned sector like Solar/ power sector
4	Previous relevant Qualification of NSQF Level 4.0	1.5 year of relevant experience in concerned sector like Solar/ power sector

		b. Age: 19	
10	**Credits Assigned to this Qualification, Subject to Assessment** (as per National Credit Framework (NCrF))	17	**11. Common Cost Norm Category:** **I**
12	**Any Licensing requirements for Undertaking Training on This Qualification** (wherever applicable)	NA	

<table>
<tr><td>13</td><td>Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</td><td>☒Offline ☐Online ☐Blended
<table>
<tr><th>Training Delivery Modes</th><th>Theory (Hours)</th><th>Practical (Hours)</th><th>OJT Mandatory (Hours)</th><th>OJT Recommended (Hours)</th><th>Total (Hours)</th></tr>
<tr><td>Classroom (offline)</td><td>190</td><td>260</td><td>60</td><td></td><td>510</td></tr>
<tr><td>Online</td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
(Refer Blended Learning Annexure for details)</td></tr>
<tr><td>14</td><td>Aligned to NCO/ISCO Code/s (if no code is available mention the same)</td><td>NCO-2015/7421.1402</td></tr>
<tr><td>15</td><td>Progression path after attaining the qualification (Please show Professional and Academic progression)</td><td>Vertical Progression: Not Applicable</td></tr>
<tr><td>16</td><td>Other Indian languages in which the Qualification & Model Curriculum are being submitted</td><td>Hindi</td></tr>
<tr><td>17</td><td>Is similar Qualification(s) available on NQR-if yes, justification for this qualification</td><td>☐ Yes ☒ No
This has been developed with a focus on World Skill Competition.</td></tr>
<tr><td>18</td><td>Is the Job Role Amenable to Persons with Disability</td><td>☒ Yes ☐ No
If “Yes”, specify applicable type of Disability:
☒ Deaf ☒ Hard of Hearing ☒ Acid Attack Victims ☒ Dwarfism</td></tr>
<tr><td>19</td><td>How Participation of Women will be Encouraged</td><td>The programme would be proposed to be incorporated in women ITIs and diploma colleges to train women candidates on the job role.</td></tr>
</table>

20	**Are Greening/ Environment Sustainability Aspects Covered** (Specify the NOS/Module which covers it)	☒ **Yes** ☐ **No**	
21	**Is Qualification Suitable to be Offered in Schools/Colleges**	**Schools** ☐ **Yes** ☒ **No** **Colleges** ☒ **Yes** ☐ **No**	
22	**Name and Contact Details of Submitting / Awarding Body SPOC** (In case of CS or MS, provide details of both Lead AB & Supporting ABs)	**Name:** Dr. Praveen Saxena **Email:** ceo@sscgj.in **Contact No.:** 9871119101 **Website:** **https://sscgj.in/**	
23	**Final Approval Date by NSQC on 06.02.2024**	**24. Validity Duration:** 2 years	**25. Next Review Date:** 05.02.2026

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

***Th.**-Theory **Pr.**-Practical **OJT**-On the Job **Man.**-Mandatory Training **Rec.**-Recommended **Proj.**-Project*

S. No	NOS/Module Name	NOS/Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/ NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Recom.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) *(if applicable)*
1.	Explain Basics of Solar Photovoltaic Plant	SGJ/N4054 Version 1	Core	4.5	3	22:30	22:30	60		45	55	45			100	20
2.	Explain Basics of Wind Power Plant	SGJ/N4054 Version 1	Core	4.5		22:30	22:30			45						
3.	Identify Tools and equipment for Solar Photovoltaic and Wind Power Plants	SGJ/4055 Version 1	Core	4.5	1	15	15			30	20	30			50	10
4.	Follow best practices to Install Test and	SGJ/N4056 Version 1	Core	4.5	2	20	40			60	50	95			145	28

S. No	NOS/Module Name	NOS/Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/ NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Recom.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) *(if applicable)*
	commission Solar Photovoltaic Plant															
5.	Follow best practices to Install Wind Turbine	SGJ/N4056 Version 1	Core	4.5	2	20	40			60						
6.	Plan and design Wind and Solar power plant	SGJ/N4057 Version 1	Core	4.5	3	30	60			90	30	50			80	15
7.	Operate and maintain Wind and Solar power plant	SGJ/N4058 Version 1	Core	4.5	2	15	45			60	15	40			55	11
8.	Follow Health and Safety practices and guidelines	SGJ/N4059 Version 1	Core	4.5	1	15	15			30	20	20			40	7
9.	Employability Skills (30 hours)	DGT/VSQ/ N0101 Version 1	Non-Core	2	1	30				30	20	30			50	9
10.	OJT				2					60						
Duration (in Hours) / Total Marks					17	190	260	60		**510**	210	310			**520**	100

Assessment - Minimum Qualifying Percentage

Minimum Pass Percentage – Aggregate at qualification level: 70 % *(Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)*

Section 3: Training Related

1.	**Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	Graduate/Diploma (Technical) with Two years of relevant experience in Renewable Energy Or Certified under relevant Craft Instructor Training Scheme (CITS) course
2.	**Master Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	Engineering Graduate with 5 years of Solar PV Rooftop and Wind Energy trainings
3.	**Tools and Equipment Required for Training**	☒Yes ☐No (*If "Yes", details to be provided in Annexure)*
4.	**In Case of Revised Qualification, Details of Any Upskilling Required for Trainer**	Not Applicable

Section 4: Assessment Related

1.	**Assessor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Graduate/Diploma (Technical) with Ten years of relevant experience in Renewable Energy Or Have worked as a Jury member/expert in skill competitions and other competitions of similar nature at regional/national levels Or Trained/mentored competitors for India Skills/ WorldSkills competitions (national/ international)
2.	**Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Graduate/Diploma (Technical) with Three years of relevant experience in Renewable Energy Or Certified under relevant Craft Instructor Training Scheme (CITS) course

3.	**Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Graduate/Diploma (Technical) with 12 years of relevant experience in Renewable Energy
4.	**Assessment Mode** *(Specify the assessment mode)*	Online and offline both
5.	**Tools and Equipment Required for Assessment**	☒ Same as for training ☒ Yes ☐ No *(details to be provided in Annexure-if it is different for Assessment)*

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	**Latest Skill Gap Study (not older than 2 years) (Yes/No):** Yes, available at https://sscgj.in/wp-content/uploads/2022/03/Green-Jobs-Report-Jan27.pdf
2.	**Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):** Yes following key documents are available in the public domain a. **https://sscgj.in/wp-content/uploads/2022/03/Green-Jobs-Report-Jan27.pdf** b. **https://solarrooftop.gov.in/knowledge/file-44.pdf** c. **https://jmkresearch.com/wp-content/uploads/2022/02/Photovoltaic-Manufacturing-Outlook-in-India_February-2022_JMK.pdf**
3.	**Government /Industry initiatives/ requirement (Yes/No):** The Government of India has set the target to expand India's non fossil fuel based installed capacity to 500 GW by 2030. Out of this target over 300 GW is expected to be achieved exclusively through solar. India has promised to source nearly half its energy from non-fossil fuel sources by 2030 and, in the shorter term, source at least 60% of its renewable energy from solar power. National Solar Mission: It is a major initiative of the Government of India to promote ecologically sustainable growth while addressing India's energy security challenge.

	Key schemes of the Government on Solar energy ● Solar Park Scheme: This plans to build a number of solar parks, each with a capacity of nearly 500 MW, across several states. ● Rooftop Solar Scheme: The Rooftop Solar Scheme aims to harness solar power by installing solar panels on the roof of various consumers including residential, commercial and industrial. ● SRISTI Scheme: Sustainable rooftop implementation of Solar transfiguration of India (SRISTI) scheme to promote rooftop solar power projects across residential consumers in India. ● International Solar Alliance: International Solar Alliance is an action-oriented, member-driven, collaborative platform for increased deployment of solar energy technologies. ● Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM): Launched by the Ministry of New and Renewable Energy (MNRE), it aims to support deployment of solar pumps in rural areas. This qualification aims to prepare the candidates on the knowledge and competencies required for performing the role of technicians for installing small grid interactive and off grid solar projects. This qualification also complements wind power plant installation. It is proposed to introduce this qualification for World Skill competition.
4.	**Number of Industry validation provided:** Waived off as per World Skills Requirement
5.	**Estimated nos. of persons to be trained and employed** This modules is focused for training to World Skills Aspirants
6.	**Evidence of Concurrence/Consultation with Line Ministry/State Departments:** Exempted for World Skill Qualification

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	**Annexure:** NCrF/NSQF level justification based on NCrF level/NSQF descriptors *(Mandatory)*	Annexure: Evidence of Level
2.	**Annexure:** List of tools and equipment relevant for qualification *(Mandatory, except in case of online course)*	Annexure: Tools and Equipment (Lab Set-Up)
3.	**Annexure:** Detailed Assessment Criteria *(Mandatory)*	Annexure: Detailed Assessment Criteria (Mandatory)
4.	**Annexure:** Assessment Strategy *(Mandatory)*	Annexure: Assessment Strategy
5.	**Annexure:** Acronym and Glossary *(Optional)*	Annexure: Acronym and Glossary
6.	**Supporting Document:** Model Curriculum *(Mandatory – Public view)*	Attached
7.	**Supporting Document:** Career Progression *(Mandatory - Public view)*	Annexure: Career progression and OM
8.	**Supporting Document:** Occupational Map *(Mandatory)*	Annexure: Career progression and OM
9.	**Supporting Document:** Assessment SOP *(Mandatory)*	Annexure: Assessment Strategy

Annexure: Evidence of Level

Title/Name of qualification/component: Renewable Energy		**Level: 4.5**	
NSQF Domain	**Outcomes of the Qualification/Component**	**How the outcomes relate to the NSQF level descriptors**	**NSQF Level**
Professional Theoretical Knowledge/Process	The individual is responsible for design sub-system for the installation of on grid, off grid and hybrid renewable energy plants including wind and solar energy. The individual at work complete, commission, maintain and optimize the renewable energy plant with safety standards. He/she is expected to have Basic knowledge of electrical systems. Has knowledge of collecting and interpreting the available information, drawing conclusions & communicating the same to the concerned people.	The individual needs to know various sub sections of the small solar pv and wind power plant and their operation and maintenance. The individual is expected to exhibit knowledge of facts such as type of material, functioning of devices, storage etc. He/she should have general concepts of physical and chemical composition of cells of Solar Pv Project and how to safely handle the plant. He/she should possess the ability to speak, read and write in the local vernacular language and English which is always preferred. Thus considering the professional knowledge, s/he can be placed at level 4.5.	4.5
Professional and Technical Skills/	The individual is expected to exhibit the basic knowledge of producing Solar power including operation and maintenance of various sub components. He/She needs to have skills to set up hybrid power	World Skill aspirant in Renewable Energy will install, and maintain solar photovoltaic (PV) systems. He/She connect the panel to the electrical system.	4.5

Expertise/ Professional Knowledge	system. He/She has the knowledge and ability to use hand-held tools. He/she is expected to have good understanding of solar PV module and its components like cell, module, and array. Glass, insulating film, EVA sheet. The individual is expected to exhibit the knowledge of collecting and interpreting the available information, drawing conclusions & communicating the same to the concerned team members.	The Solar Photovoltaic technician must assemble and install the racking, panels and the electrical system. The individual must activate and test the solar panel system. World Skill aspirant is expected to possess a range of practical and cognitive skills required to accomplish tasks and solve problems by selecting and applying basic methods and tools and install systems and provide post installation support. The job holder also has to ensure preparation of effective installation plan for setting up renewable energy project project. Thus, considering the professional skills the job holder can be placed at Level 4.5.	
Employment Readiness & Entrepreneurship **Skills & Mind-set/Professional Skill**	The individual is expected to plan & organize the schedule for all installations and related activities to be undertaken by self or by the team. Further He/she must be able to take decisions on a regular basis, manage relationship with colleagues and apply domain knowledge to perform tasks related to Renewable Energy Plant Installation. Requires good understanding Equipment installation and problems, Site Topology and equipment location, knowledge of unpacking and positioning the equipment in professional way, and methodically routing the interconnecting cables, power cables and wires.	World Skill aspirant is expected to represent and demonstrate practical skills, which are routine and repetitive in a narrow range of application such as checking the mechanical and electrical equipment's using standard protocols. Since all the above-mentioned professional skill are related to demonstrating practical skills, which are routine and repetitive in a narrow range and using appropriate rule and tool, the role qualifies for Level 4.5. World Skill aspirant is expected to possess professional skills more than just demonstrating practical skills, which are routine and repetitive in a narrow range but also using appropriate rules & tools to identify and communicate to the Supervisor. Example, He/she is expected to use practical skills and basic fundamental principles of	4.5

		Solar pv set up. He should have knowledge pertaining to operate different tools and equipment required for production of Solar power. Hence, the role can't be placed at Level 4.5.	
Broad Learning Outcomes/Core Skill	The individual is expected to exhibit fluent communications skills, with fellow Technician & is capable of understanding the need of fellow Technician.	World Skill aspirant is expected to be possess establishing and maintaining customer confidence and trust. He/She is maintaining and keeping knowledge base up to date. He/She is well versed with roles and requirements of related trades. He/She build and maintain productive working relationships with team mates and rapidly resolving misunderstandings and conflicting demands. Thus, considering the core skills, s/he can be placed at Level 4.5. World Skill aspirant is expected to exhibit core skills more than language to communicate with required clarity, basic algebraic and arithmetic skill. For example, s/he is supposed to organize and collect information regarding the local energy usage practices through discussions, etc., And since the job holder requires only some skill of collecting and organizing information but doesn't need to be reasonably good and only the desired mathematical skill restricted to the production plant, s/he can't be placed at Level 4.5.	4.5
Responsibility	The individual is primarily responsible for to ensure the efficient operation of equipment. Responsibility of completing the work assigned and reporting the same as per standards.	He/She collects, generates, or distributes power from renewable energy sources. Depending on capability, who does not design all renewable energy systems' capacities (above 75Kw of installed power for instance), they may design sub-systems for the installations that they can complete, commission, maintain, and optimize. The individual is primarily responsible for updating self with industry trends to an extent influence subordinate's works and	4.5

		learning as He/she is responsible for passing knowledge and skills to his/ her team of Junior technicians and helpers. Considering the responsibilities, the individual can be placed at level 4.5. Since the Job holder responsibility is not limited till his/her own work & learning but also encompasses some responsibilities for others learnings as He/she is expected to ensure knowledge transfer to team members He/she can't be placed at 4.5.	

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

S. No.	Tool / Equipment Name and Specification	Quantity
1	MC4 Crimping pliers 2,5; 4; 6mm²	5 pc
2	Stripping pliers 1.5 -6mm²	5 pc
3	Aluminium Straight edge & screed rule	2 pc
4	6 PC. SCREWDRIVER SET	5 sets
5	Bevelled-Edge Square, DIN 875, 150x100mm Stainless Steel	5 pc
6	BEAM LEVEL 48 in box beam level (1-43-548)	5 pc
7	Combination Pliers	5 pc
8	Metal file set	2 sets
9	Hexagon key T-wrench 2.5 – 8mm	3 sets
10	LASER TRIPOD	2 pc
11	Cross Line Laser Level Kit.	2 pc
12	Electrician's Knife ~ Stainless Steel	5 pc

13	CORDLESS DRILL/DRIVER KIT WITH DRILL BIT SET	2 sets
14	BM Measuring tape (5m)	5 pc
15	Long Nose pliers (160 mm)	5 pc
16	Scientific calculator	5 pc
17	SET OF KEYS COMBINED WRENCHES (SPANNER) IN A BAG, 6-34 MM	3 sets
18	Socket wrench (Torque wrench)	3 sets
19	Multi Meter and Clamp meter	3 pc
20	Hacksaw frame	3 pc
21	Cutting Pliers	5 pc
22	Digital Magnetic Compass	5 pc
23	Two Cup Aluminium Suction Glass Lifter; Glass Carrying Handle; 70 Kg Capacity (Silver Black or red)	6 pc
24	Hexagon Key Set 1.5 – 10mm	3 sets
25	Digital protractor	3 pc
26	Socket wrench insert	3 pc
27	600W Wind Turbine, 12V/24V/48V	2 pc
28	Hybrid Solar Inverter	1 pc
29	MG 2Kw Single-Phase On-Grid Solar Inverter	1 pc
30	Mini Drone (up to 249g)	1 pc
31	Stepladder (3 steps)	1 pc
32	Wind Charge Controller	2 pc
33	Solar PV Module 350Wp	6 pc
34	Protection Relay	1 pc
35	Tool Box Cabinet	2 pc
36	2.50m Pole for Wind Turbine Installation	2 pc
37	Simulated Tile Roof Top for PV Installation	2 pc

38	Vacuum cleaner dust	2 pc
39	crimping tool	5 pc
40	DC Solar Power Cable 1 C x 4.00 Sq mm Black & Red strip	200 m
41	Photovoltaic Cable 4.0mm² - Outer Sheath Black	200 m
42	Female Cable Coupler MC4	5 pc
43	Insulation tape	30 pc
44	300mm Hacksaw Spare Blade	10 pc
45	Photovoltaic Cable 4.0mm² - Outer Sheath Green (Green/Yellow)	150 m
46	HSS DRILL ASSORTMENT	5 sets
47	Carbide drill (Ø 6.0 mm)	10 pc
48	Carbide drill (Ø 8.0 mm)	10 pc
49	Safety Static Rope (Ø 9.0 mm)	3 pc
50	CYLINDRICAL FUSE-HOLDER 10X38 1000V 25A 1-POLE FOR PHOTOVOLTAIC-APPLICATION	5 pc
51	CYLINDRICAL FUSE-LINK 10X38MM 1000V 16A GPV	5 pc
52	Surface-mounting distribution board 1-tier	5 pc
53	End Clamp for Tile Roof PV Module Assembly	25 pc
54	Mid Clamp for Tile Roof PV Module Assembly	15 pc
55	Aluminium Rail for Tile Roof PV Module Assembly	20 m
56	5W LED Bulb Lamp	5 pc
57	Sconce for Apparent Installation	5 pc
58	Rail Type Mounting System (Aluminium) with all required Hardware and accessory	1 set
59	DC Surge Protector Device TPS3 03 DC For DC Photovoltaic Applications	5 pc
60	DC Isolators 1000 V DC, 63A	5 pc
61	Flexible Cable 2.5mm² Red	200 m
62	Vinyl-Insulated Blade Terminal – Blue – 2.5mm²	50 pc

63	AC Surge Protective Device Class 2	5 pc
64	Flexible Cable 2.5mm² Blue	200 m
65	CIRCUIT BREAKER 10KA, 3POLE C32A	5 pc
66	Miniature circuit breaker 240 V 14Ka, 1-pole, B, 16A	5 pc
67	Vinyl-Insulated Blade Terminal – Yellow – 4.0mm²	50 pc
68	Flexible Cable 2.5mm² Yellow	200 m
69	Flexible Cable 2.5mm² Black	200 m
70	Flexible Cable 2.5mm² Green/Yellow	200 m
71	Miniature circuit breaker 230 V D=70 mm 25 Ka according to EN 60947-2, 1P+N, C20	5 pc
72	Miniature circuit breaker 230 V D=70 mm 25 Ka according to EN 60947-2, 1P+N, C25	5 pc
73	Simulated Vertical Wall for PV Device Installation	2 pc
74	Halogen light for PV module with stand）	8 pc
75	Pin busbar, 10 mm2 connection: 6x 2-phase touch-safe, 630 mm long can be cut, without end caps	
76	Touch protection for unassigned connections yellow	
77	4*200MM Standard Cable Tie Plastic Nylon Cable Ties with Self-locking Colourful	200 pc
78	Facial tissues (box of 100)	box of 100
79	Wet Wipes	
80	4*100MM Standard Cable Tie Plastic Nylon Cable Ties with Self-locking Colourful	200 pc
81	PVSyst	1 licence
82	Safety Glasses	8 pc
83	Safety Helmet/Hard Hat	8 pc
84	Self-Retracting Lifeline	5 pc
85	1.8m double-leg 100% tie-off lanyard	5 pc
86	Safety Harness	5 pc
87	Fire extinguisher (Carbon dioxide)	4 pc

88	Alcohol hand rub (1 L)	2 pc
89	Half Mask Respirator kit	5 pc
90	HSE First Aid Kit	2 kit
91	Battery (75 Ah)	2 pc

Classroom Aids

The aids required to conduct sessions in the classroom are:

Marker, chart and visual aid, Pellet production flowchart, raw material supply chain flow chart, Schematics of Solar Domestic Product production plant;

Annexure: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

Not Applicable

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET "Guidelines for Blended Learning for Vocational Education, Training & Skilling" available on:
https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline : Online Ratio
1	☐Theory/ Lectures – Imparting theoretical and conceptual knowledge	Not Applicable	Not Applicable

2	☐Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners		
3	☐Showing Practical Demonstrations to the learners		
4	☐Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training		
5	☐Tutorials/ Assignments/ Drill/ Practice		
6	☐Proctored Monitoring/ Assessment/ Evaluation/ Examinations		
7	☐On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training		

Annexure: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks/ Judgement	Practical Marks/ Measurement	Project Marks	Viva Marks

SGJ/N4054.Basic of Solar and Wind Energy	*Basics of Solar Photovoltaic Plant*	25	25	-	-
	PC1. define Solar and explain terminology used in the Solar Industries	2	-	-	-
	PC2. explain the Sun Path Diagram, Solar Radiation its effect on the performance of the plant	2	2	-	-
	PC3. identify the different components of a Solar PV system and explain its basic operation	2	3	-	-
	PC4. explain the types of Solar Photovoltaic Systems	2	1	-	-
	PC5. discuss Technical Parameters and Performance of Solar PV Panel	2	1	-	-
	PC6. explain Ohm's Law and basics of electricity and electrical concepts	2	-	-	-
	PC7. perform simple calculations to derive power and energy	2	-	-	-
	PC8. explain and understand DNI, GHI, and Diffused Irradiance and irradiation	2	-	-	-
	PC9. explain the working of different types of Solar PV systems	2	3	-	-
	PC10. describe and assess the different types, sizes, and specifications of modules, inverters, charge controllers, cables, conduits, junction boxes, solar batteries, and allied accessories	2	4	-	-
	PC11. explain and assess the manufacturing data specification sheets of different types of solar PV components	1	2	-	-
	PC12. read and interpret various certification requirements for solar PV system components	1	2	-	-
	PC13. demonstrate how to interpret signs, notices, and/or cautions at the project site	1	2	-	-

		PC14. demonstrate how to acquire know-how of different types, sizes, and specifications of foundations/ footings	1	3	-	-
		PC15. demonstrate to selection of the right footing/foundation as per site location including suitability of roof condition or suitability of soil	1	2	-	-
		Basics of Wind Power Plant	**30**	**20**	-	-
		PC16. identify different types of Wind technology and overview of the Wind energy sector in India	2	1	-	-
		PC17. illustrate key insights in the sector through various market research reports and magazines	1	-	-	-
		PC18. identify different types of wind power plants, their components, and working principles	2	2	-	-
		PC19. explain the benefits of wind energy over conventional sources of energy	2	-	-	-
		PC20. describe the typical specifications, functioning, operating principle, warranties, and safe operating & handling procedures of different Wind power plant components like Blades, towers, motors, monitoring systems, and other components.	2	4	-	-
		PC21. identify various ways to optimize material, energy/electricity consumption across processes and follow specified processes for waste disposal	2	2	-	-
		PC22. explain how to analyze project site conditions	1	1	-	-
		PC23. 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	2	1	-	-
		PC24. discuss and analyze the wind data collected from the met mast for estimating wind potential	2	-	-	-
		PC25. show pictures or videos of the working of the Wind Power plant	2	-	-	-

	PC26. demonstrate how to analyze the daily, monthly, and annual wind resource data of the project site to evaluate the potential for wind energy generation	3	-	-	-
	PC27. analyze the pre-site selection baseline data for project execution suitability	2	2	-	-
	PC28. demonstrate how to verify the wind potential with other resources such as NREL/ATLAS	3	-	-	-
	PC29. demonstrate how to prepare a contour map of the proposed wind plant site	1	3	-	-
	PC30. demonstrate how to carry out route surveys	1	2	-	-
	PC31. demonstrate how to prepare detailed site survey reports using GPS/DGPS and wind data analysis software	2	2	-	-
	NOS Total	**55**	**45**	**-**	**-**

SGJ/N4055.Tools and Equipment Used in Solar and Wind Energy		*Identification of Tools and equipment*	**20**	**30**	-	-
		PC1. discuss and demonstrate use of electrical tools used in Solar plants for installation, operation, and maintenance	2	2	-	-
		PC2. discuss and demonstrate use of mechanical tools used in Solar plants for installation	2	2	-	-
		PC3. discuss and demonstrate use of electrical tools used in Wind for installation, operation, and maintenance	1	3	-	-
		PC4. prepare a toolkit list for installation, testing and commissioning, Operation and Maintenance	2	3	-	-
		PC5. discuss checking and detection of Damaged tools	1	2	-	-
		PC6. discuss Basic Hand Tools used in Solar Photovoltaic power plants	2	2	-	-
		PC7. discuss the Measuring and Testing Instruments used in Solar and Wind plants	2	3	-	-
		PC8. discuss the Cordless drill used for different purposes	1	2	-	-
		PC9. discuss about Anemometer used in Wind plants	1	1	-	-
		PC10. show how to Identify all the tools & equipment needed for the erection of wind power plant components	1	3	-	-
		PC11. demonstrate how to use Spirit Level and where to use	1	2	-	-
		PC12. demonstrate the use of Tri square	1	1	-	-
		PC13. illustrate how to use Tripod Laser Beam for marking to get accuracy	1	1	-	-
		PC14. demonstrate how to use Water Level Pipe	1	2	-	-

	PC15. show how to use Socket Wrench	1	1	-	-
	NOS Total	**20**	**30**	-	-

SGJ/N4056.Solar and Wind Turbine installation		*Solar Photovoltaic Plant Installation Techniques and best practices*	**20**	**40**	-	-
		PC1. discuss best solar panel Installation Processes	1	-	-	-
		PC2. explain grid-tied PV systems, off-grid and hybrid PV systems	2	-	-	-
		PC3. read and Interpret the Single Line Diagrams, Layouts, and drawings	2	-	-	-
		PC4. explain DO's and Don'ts of material handling	1	-	-	-
		PC5. read and Interpret the Bill of Material to verify the delivery of components on-site and understand performing quality checks of material	1	-	-	-
		PC6. explain how to install electrical components including inverters, batteries, junction boxes and energy meters	-	2	-	-
		PC7. perform pre-installation checks for electrical components	-	1	-	-
		PC8. Identify and acquire know-how of installation of cables and conduits	-	1	-	-
		PC9. explain dos and Don'ts of DC wiring	1	-	-	-
		PC10. identify and understand the use of tools &tackles used for cable and conduit installation	1	1	-	-
		PC11. explain and perform Different types of Earthing and its installation	1	1	-	-
		PC12. Identify the significance and types of earth faults as per standards	1	1	-	-
		PC13. demonstrate how to assess the load to be connected to the Solar PV system and how to prepare the load profile	2	1	-	-
		PC14. install on-grid Solar Photovoltaic System	-	2	-	-
		PC15. install Solar panels on the slanted roof	-	2	-	-

		PC16. install off-grid Solar Photovoltaic Systems	-	3	-	-	
		PC17. demonstrate how to assess the site conditions for the safe installation of a Solar PV system	1	1	-	-	
		PC18. install Balance of System (BOS) such as ACDB, DCDB, inverter and install on a wooden plyboard maintaining proper distance	-	2	-	-	
		PC19. show how to use the End Clamp and Mid Clamp	-	1	-	-	
		PC20. installation of the module mounting structure in the proper orientation	-	1	-	-	
		PC21. demonstrate how to do the Alignment of the module	-	1	-	-	
		PC22. measure the orientation of the roof as well as the structure	-	1	-	-	
		PC23. measure the tilt angle of the Module Mounting Structure as well as the deviation from the actual	-	1	-	-	
		PC24. show how to measure the distance between the Inverter, ACDB, and DCDB	-	1	-	-	
		PC25. show how to install the Module Mounting Structure according to the AutoCAD drawing	1	1	-	-	
		PC26. show how to strip the wire	-	1	-	-	
		PC27. show how to crimp the lugs	-	1	-	-	
		PC28. show how to properly connect the MC4 connector with the cable	-	2	-	-	
		PC29. show how to perform all the test related with strings	1	2	-	-	
		PC30. show how to perform all the test related with module mounting structure	1	2	-	-	
		PC31. demonstrate the commissioning of inverter	1	3	-	-	

		PC32. show how to perform all the test related with Inverter	1	2	-	-	
		PC33. show how to perform test related with Resistance and Continuity test	1	2	-	-	
		Wind Turbine Installation Techniques and best practices	30	55	-	-	
		PC34. discuss best Installation Methods	2	-	-	-	
		PC35. explain to identify the relevant technical and schematic drawings	3	-	-	-	
		PC36. explain how to carry out the alignment of the turbine hub gearbox assembly with the turbine generator gearbox assembly	-	3	-	-	
		PC37. explain how to ensure the readiness of plant and equipment for erection	3	-	-	-	
		PC38. explain how to prepare the site for the erection of mechanical components	2	2	-	-	
		PC39. explain how to conduct a route survey for each WTG base point	-	2	-	-	
		PC40. discuss how to carry out the erection of the tower shells as per standard operating procedures	1	3	-	-	
		PC41. explain to perform torquing of the joints to ensure optimum tightness	1	1	-	-	
		PC42. discuss to carry out the correct placement of the nacelle assembly at the top of the tower shell	1	3	-	-	
		PC43. discuss to carry out the proper alignment of the nacelle assembly with the center of the tower foundation	1	3	-	-	
		PC44. explain how to carry out fixing of nacelle assembly with the tower shell using nuts and bolts	1	2	-	-	
		PC45. explain how to carry out proper alignment of blades with the turbine hub	-	2	-	-	

		PC46. explain how to carry out proper fixing of the turbine hub with the blades with the nacelle assembly	-	3	-	-
		PC47. explain how to perform the planning and sourcing of construction power supply	2	-	-	-
		PC48. explain how to install allied components like lights, AHUs for control rooms, etc.	1	2	-	-
		PC49. discuss carrying out the laying of U/G cables in trenches as per the design	1	1	-	-
		PC50. discuss carrying out the laying of the earth mat as per design drawings	1	-	-	-
		PC51. discuss to ensure the cable connections of the generator terminal box are as per design	2	-	-	-
		PC52. discuss to carry out pre-installation tests like earthing resistance, coil resistance, etc	1	-	-	-
		PC53. explain how to carry out the installation of WTG in the nacelle assembly	-	2	-	-
		PC54. explain how to ensure the alignment of WTG with gearbox	-	2	-	-
		PC55. discuss carrying out the cable termination of WTG with the control panel	1	1	-	-
		PC56. discuss carrying out the installation of CMS measuring equipment and sensors as per design	-	2	-	-
		PC57. explain how to install wind turbine's electronic components such as I/O units, programmable logic controllers, etc	1	3	-	-
		PC58. demonstrate to identify and mark the area where the tower is to be installed	-	1	-	-
		PC59. demonstrate how to select the appropriate PPE (Personal Protective Equipment) to carry out the specific activity	-	2	-	-
		PC60. show how to arrange all tools, tackles, equipment, and associated components	-	3	-	-

		PC61. perform to carry out routine cleaning of tools, machines, and equipment	-	1	-	-
		PC62. show to install anemometer as per schematic drawing	-	1	-	-
		PC63. demonstrate to identify ways to optimize the usage of material including water in various tasks/activities/processes	-	1	-	-
		PC64. analyze the single-line diagram, technical drawings/wiring/circuit diagrams, and schematic diagrams	2	-	-	-
		PC65. analyze the related manuals, blueprints, and schematic diagrams to determine the tasks, tools, equipment, and parts needed	2	-	-	-
		PC66. show to identify relevant technical and schematic drawings	1	2	-	-
		PC67. show how to perform the route survey for laying of O/H line or U/G cables	-	2	-	-
		PC68. show how to do Testing of Wind Turbine	-	1	-	-
		PC69. show how to detect faults in the wind turbine system	-	1	-	-
		PC70. show how to perform commissioning of Wind turbine system	-	2	-	-
		PC71. show how to detect faults using drone	-	1	-	-
		NOS Total	**50**	**95**	**-**	**-**

SGJ/N4057.Planning and Designing	*Plan and design Wind and Solar power plant*	**30**	**50**	-	-
	PC1. explain the parameter to be kept in mind before designing an ON grid Solar Photovoltaic Plant	1	-	-	-
	PC2. explain how to design the solar plant using an Excel sheet and perform all the calculations	1	2	-	-
	PC3. explain how to do Site feasibility using Google Earth Pro for a given Site Location	1	1	-	-
	PC4. explain the designing of off-grid and hybrid solar plants	1	2	-	-
	PC5. discuss how to do plant design using PV Syst software	1	2	-	-
	PC6. discuss the financial analysis and payback period calculation of the Solar Plant	1	1	-	-
	PC7. explain how to design a solar plant using helioscope software	1	2	-	-
	PC8. discuss the difference between helioscope and PV Syst Software	1	-	-	-
	PC9. explain how to draw an Electrical Single Line diagram using AutoCAD	1	2	-	-
	PC10. discuss the Solar policy of solar required while designing of solar plant	1	-	-	-
	PC11. discuss how to draw plant layouts using AutoCAD	1	2	-	-
	PC12. discuss about Wind Pro used for wind plant designing	1	4	-	-
	PC13. explain the parameter to be kept in mind before designing an ON grid Solar Photovoltaic Plant	1	2	-	-
	PC14. discuss about Wind Pro used for wind plant designing	1	3	-	-

PC15. discuss about Mean Power density curve from Wind Atlas	1	3	-	-
PC16. explain about Wind Rose diagram	1	-	-	-
PC17. discuss about the Mean wind speed	1	-	-	-
PC18. discuss the Wind speed variability monthly, annually, and hourly	1	-	-	-
PC19. demonstrate how to draw the layout of the plant for a given site location using Google Earth Pro and select the best area for Solar plant installation	1	2	-	-
PC20. calculate shadow free area available and download the kmz file	-	2	-	-
PC21. show how to read electricity bills	1	1	-	-
PC22. design a Solar Photovoltaic plant for a given site location and also define the maximum capacity of the plant on an Excel sheet	1	2	-	-
PC23. design a Solar plant using PV Syst and perform shadow analysis	1	3	-	-
PC24. calculate the performance ratio and Capacity Utilization Factor	1	2	-	-
PC25. draw a Single line diagram of a plant	1	2	-	-
PC26. show how to do a load assessment of a building	1	1	-	-
PC27. illustrate how to read a single-line diagram	1	1	-	-
PC28. design a wind plant using Wind Atlas	1	2	-	-
PC29. show how to download and read the Wind rose diagram and download the wind frequency, wind speed, and wind power diagram	1	2	-	-
PC30. show to download and read mean wind speed at different heights	1	2	-	-
PC31. show how to view and download the Energy Yield calculation using Wind Atlas	1	2	-	-

	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	NOS Total	30	50	-	-

SGJ/N4058.Operation and Maintenance of Wind and Solar power Plant		*Operation and Maintenance of Wind and Solar Power Plant*	**15**	**40**	-	-
		PC1. explain how to do Visual Inspection using drone technology	1	1	-	-
		PC2. explain Thermography analysis	1	1	-	-
		PC3. discuss how to forecast the generation	1	-	-	-
		PC4. discuss types of maintenance and its importance	1	-	-	-
		PC5. discuss physical cleaning of components	1	1	-	-
		PC6. discuss electrical cleaning of contacts	1	1	-	-
		PC7. explain how to Commission on protection relays (ABB CM-UFD. M34) using a universal relay test set and commissioning tool	2	4	-	-
		PC8. different faults in Solar Power plant	1	2	-	-
		PC9. identify required approvals and permit to work (PTW) from the concerned authority	1	1	-	-
		PC10. discuss to ensure that the system is shut down before carrying out work	-	1	-	-
		PC11. explain how to carry out maintenance activities for mechanical components of WTG as per standard operating procedures	-	2	-	-
		PC12. explain how to carry out testing of WTG and associated components on a universal testing machine (UTM), and compression testing machine (CTM)	-	2	-	-
		PC13. explain the importance of performing repair or replacement of faulty mechanical components of wind power plants as per standard operating procedures	1	2	-	-
		PC14. explain how to conduct readiness tests on post-replacement equipment	1	2	-	-

		PC15. demonstrate IV curve tracing over on the PV panel with SEAWARD PV 220/200	-	2	-	-
		PC16. demonstrate thermography analysis on solar panels	-	2	-	-
		PC17. show to do the cleaning of the inverter fan and other components	1	2	-	-
		PC18. show anti-islanding protection of the inverter	1	1	-	-
		PC19. show how to identify faults in the inverter	-	2	-	-
		PC20. carry out operation of mechanical components of wind power plant	-	2	-	-
		PC21. carry out maintenance of mechanical components of wind power plant	-	2	-	-
		PC22. demonstrate to select the appropriate PPE (Personal Protective Equipment) to carry out the specific activity	-	1	-	-
		PC23. demonstrate perform visual inspection of the mechanical components of a wind power plant and record any defects	-	1	-	-
		PC24. demonstrate to measure and record parameters post-maintenance activities	1	1	-	-
		PC25. demonstrate how to carry out repair or replacement of faulty mechanical components of a wind power plant as per standard operating procedures	-	2	-	-
		PC26. demonstrate how to report to the supervisor in case of any deviations from standard values	-	2	-	-
		NOS Total	**15**	**40**	-	-

SGJ/N4059.Health and Safety Practices in Solar and Wind Power		*Health and Safety Practices in Solar and Wind Power Plants*	**20**	**20**	-	-	
		PC1. explain to identify the requirements for a safe work area	1	-	-	-	
		PC2. identify a contact person for reporting the violation of safety policies at the workplace and provide information about the incident/violation	1	-	-	-	
		PC3. explain purpose, uses, care, maintenance and storage of all the tools and equipment together with their safety implications	1	1	-	-	
		PC4. explain the importance of administering first aid	1	1	-	-	
		PC5. identify the personal protective equipment used for the specific purpose	1	1	-	-	
		PC6. identify the hazards associated with photovoltaic installations including electric shock and required mitigating measures	1	-	-	-	
		PC7. identify work safety procedures and instructions for working at height and handling heavy material	1	-	-	-	
		PC8. explain the importance of occupational health and safety standards and regulations for installation of Solar PV systems	1	-	-	-	
		PC9. incorporate good housekeeping practices and infection control guidelines	-	1	-	-	
		PC10. safe operating & handling procedures of different Wind power plants	1	2	-	-	
		PC11. discuss how to use the personal protective equipment required at the workplace	1	1	-	-	
		PC12. explain how to ensure personal hygiene at the workplace	1	1	-	-	
		PC13. discuss how to identify the location of first-aid materials and how to administer first-aid	1	1	-	-	

		PC14. explain how to report immediately to concerned authorities regarding signs and symptoms of illness	1	1	-	-
		PC15. explain the safety operating procedures for the collection, segregation, and transportation of recyclable waste	1	1	-	-
		PC16. explain the processes specified for the disposal of hazardous waste from the project site as per organizational norms	1	1	-	-
		PC17. demonstrate to identify the requirements for a safe work area	1	-	-	-
		PC18. demonstrate how to administer first aid	1	-	-	-
		PC19. demonstrate the usage of personal protective equipment for ensuring safety during installation and O&M work	-	1	-	-
		PC20. show work safety procedures and instructions for working at height and handling heavy material	-	1	-	-
		PC21. demonstrate how and when to use appropriate Personal Protective Equipment (PPE) while performing work	-	1	-	-
		PC22. demonstrate how to ensure personal hygiene at the workplace	1	1	-	-
		PC23. demonstrate how to identify the location of first-aid materials and how to administer first-aid	1	-	-	-
		PC24. demonstrate how to participate in emergency and evacuation drills to be able to take necessary action in case of accidents, fires, and natural calamities	1	1	-	-
		PC25. perform the steps to clean and disinfect material, tools, equipment, and other supplies before starting work and after completing the job	-	1	-	-
		PC26. show the safety operating procedures for the collection, segregation, and transportation of recyclable waste	-	1	-	-

	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	PC27. show the processes specified for the disposal of hazardous waste from the project site	-	1	-	-
	NOS Total	**20**	**20**	**-**	**-**

DGT/VSQ/N0101.Employability Skills (30 Hours)		*Introduction to Employability Skills*	1	1	-	-
		PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
		Constitutional values - Citizenship	1	1	-	-
		PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
		Becoming a Professional in the 21st Century	1	3	-	-
		PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
		Basic English Skills	2	3	-	-
		PC4. speak with others using some basic English phrases or sentences	-	-	-	-
		Communication Skills	1	1	-	-
		PC5. follow good manners while communicating with others	-	-	-	-
		PC6. work with others in a team	-	-	-	-
		Diversity & Inclusion	1	1	-	-
		PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
		PC8. report any issues related to sexual harassment	-	-	-	-
		Financial and Legal Literacy	3	4	-	-
		PC9. use various financial products and services safely and securely	-	-	-	-

		PC10. calculate income, expenses, savings etc.	-	-	-	-	
		PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-	
		Essential Digital Skills	4	6	-	-	
		PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-	
		PC13. use internet and social media platforms securely and safely	-	-	-	-	
		Entrepreneurship	3	5	-	-	
		PC14. identify and assess opportunities for potential business	-	-	-	-	
		PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-	
		Customer Service	2	2	-	-	
		PC16. identify different types of customers	-	-	-	-	
		PC17. identify customer needs and address them appropriately	-	-	-	-	
		PC18. follow appropriate hygiene and grooming standards	-	-	-	-	
		Getting ready for apprenticeship & Jobs	1	3	-	-	
		PC19. create a basic biodata	-	-	-	-	
		PC20. search for suitable jobs and apply	-	-	-	-	
		PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-	
		NOS Total	20	30	-	-	
	Grand Total		**210**	**310**			

Annexure: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

Assessment is governed by the WorldSkills Assessment Strategy. The Strategy establishes the principles and techniques to which WorldSkills assessment and marking must conform. Expert assessment practice lies at the heart of the WorldSkills Competition. For this reason, it is the subject of continuing professional development and scrutiny. The growth of expertise in assessment will inform the future use and direction of the main assessment instruments used by the WorldSkills Competition: the Marking Scheme, Test Project, and Competition Information System (CIS).

Assessment at the WorldSkills Competition falls into two broad types: Measurement and Judgement. For both types of assessment, the use of explicit benchmarks against which to assess each Aspect is essential to guarantee quality.

The Marking Scheme must follow the weightings within the Standards. The Test Project is the assessment vehicle for the skill competition, and therefore also follows the Standards. The CIS enables the timely and accurate recording of marks; its capacity for scrutiny, support, and feedback is continuously expanding. The Marking Scheme, in outline, will lead the process of Test Project design. After this, the Marking Scheme and Test Project will be designed, developed, and verified through an iterative process, to ensure that both together optimize their relationship with the Standards and the Assessment Strategy. They will be agreed by the Experts and submitted to WSI for approval together, to demonstrate their quality and conformity with the Standards. Prior to submission for approval to WSI, the Marking Scheme and Test Project will liaise with the WSI Skill Advisors for quality assurance and to benefit from the capabilities of the CIS.

Annexure: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf

Annexure: Annexure: Career Progression and OM

Not Applicable