

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

Name and address of submitting body:

Directorate General of Training (DGT),
Ministry of Skill Development & Entrepreneurship (MoSDE)
Pusa, New Delhi

Name and contact details of individual dealing with the submission

Name: Shri. Dinesh Nijhawan

Position in the organization: Deputy Director General (A&WT)

Address if different from above:

Tel number(s): 011-25847036

E-mail address: dinesh_nij@hotmail.com

List of documents submitted in support of the Qualifications File

1. Qualification document for Solar PV Technician.
2. Curriculum for Solar PV Technician under Renewable Energy Sector for Modular Employable Scheme (MES)
3. Study/Report on Skill Requirement

SUMMARY

1	Qualification Title	Solar PV Technician
2	Qualification Code, if any	RNE805
3	NCO code and occupation	7421.1401: Solar Panel Installation Technician
4	Nature and purpose of the qualification (Please specify whether qualification is short term or long term)	NCVT Certificate in job role of Solar PV Technician Main Purpose of the Qualification to develop proficiency skill in installation & commissioning of solar Plant.
5	Body/bodies which will award the qualification	National Council for Vocational Training (NCVT)
6	Body which will accredit providers to offer courses leading to the qualification	GOI Ministries and State departments who have adopted MES qualifications, accredit training providers for their programs and schemes (only in case of SDIS schemes Training providers accredited by States on behalf of NCVT)
7	Whether accreditation/affiliation norms are already in place or not , if applicable (if yes, attach a copy)	-NA-
8	Occupation(s) to which the qualification gives access	After completion of the course the trainees shall be qualified for one or more of the following job roles: <ul style="list-style-type: none"> • Solar PV Technician • Solar System servicing Technician.
9	Job description of the occupation	Solar Panel Installation Technician is also known as 'Panel Installer', the Solar Panel Installation Technician is responsible for installing solar panels at the customers' premises. The individual at work checks the installation site, understands the layout requirement as per design, assesses precautionary measures to be taken, installs the solar panel as per customer's requirement and ensures effective functioning of the system post installation.
10	Licensing requirements	-NA-

11	Statutory and Regulatory requirement of the relevant sector (documentary evidence to be provided)	-NA-	
12	Level of the qualification in the NSQF	Level 3	
13	Anticipated volume of training/learning required to complete the qualification	500 Hours	
14	Indicative list of training tools required to deliver this qualification	Mentioned in curriculum attached	
15	Entry requirements and/or recommendations and minimum age	10th + ITI in Electrician, Electronics Mechanic, Fitter, Turner, Machinist, sheet metal or welder 18 years of age & above	
16	Progression from the qualification (Please show Professional and academic progression)	An individual can progress in an organisation as Solar PV System Installation Engineer, Solar System Maintenance Technician, Service Engineer, Can set its own establishment	
17	Arrangements for the Recognition of Prior learning (RPL)	RPL arrangements are not planned under this qualification.	
18	International comparability where known (research evidence to be provided)	-NA-	
19	Date of planned review of the qualification.	5 years after approval of the Qualification	
20	Formal structure of the qualification Mandatory components		
	Title of component and identification code/NOSs/Learning outcomes	Estimated size (learning hours)	Level
(i)	DGT/MES/RNE/N01: Introduction to Safety Precautions & Basic of Renewable Energy	50	3
(ii)	DGT/MES/RNE/N02: Knowledge of Solar PV systems Components	100	3
(iii)	DGT/MES/RNE/N03: Installation of Solar PV System	100	3

(iv)	DGT/MES/RNE/N04: Electrical Installation of the Solar System	100	3
(v)	DGT/MES/RNE/N05: Inspection, Testing & Commissioning of Solar plant	100	3
(vi)	DGT/MES/RNE/N06: Operation & Maintenance of Solar PV System	50	3
Sub Total (A)		500	
Optional components			
	Title of component and identification code/NOSs/ Learning outcomes	Estimated size (learning hours)	Level
	Sub Total (B)		
Total (A+B)		500	

SECTION 1
ASSESSMENT

21	<p>Body/Bodies which will carry out assessment:</p> <p>DGT empaneled Assessing Bodies (ABs)</p>
22	<p>How will RPL assessment be managed and who will carry it out?</p> <p>RPL arrangements are not planned under this qualification.</p>
23	<p>Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.</p> <p>Criteria for selection of Assessment body</p> <p>Minimum Eligibility Criteria</p> <ul style="list-style-type: none"> • The applicant shall be a legal entity, registered in India. • The applicant should have in last two years carried out competency / skill assessment for minimum 1000 persons or should have trained minimum 1000 persons and got tested by some agencies such as NCVT, Sector Skill Council, State, board/ council and reputed industry Association. Organizations having experience in testing of competencies would be preferred. • In case more number of applications is received, preference will be given to those organizations that have trained/assessed larger number of persons. • The applicant is not a Training Provider (TP) in the same sector and in same State, but it can be TP in other States, other Sectors or other scheme. • The applicant shall have access to technically qualified personnel of repute and integrity in different industrial trades and technology. • The applicant shall develop dedicated human resource for handling the processes in assessment process. • The applicant shall declare its linkages with other organization(s), if any to ensure independence and avoid any conflict of interest. • Institutions/ Firms blacklisted by any Government Department shall not be considered in this RFP. • The Applicant shall provide the information and supporting documents towards their claims. • Initially provisional empanelment will be awarded to the organizations based on the evaluation of eligibility of the Assessing Body based on the criteria.

- Based on the module and sector that will be handled by the assessor, the assessing body shall send its assessor for competency evaluation in the institutions which will be notified by DGT time to time. The assessor will be assessed to ascertain the competency to carry out competency based assessment.
- Final empanelment would be granted subject to the Assessing Body fulfilling the following conditions of getting the competencies of 2 assessors of each module per State evaluated in the institutes notified by the DGT. Testing charges for evaluating the competencies of the assessors will be borne by the Assessing Bodies.

(1) Assessment process:

The assessment process aims to test and certify the competency of the persons through Assessing Bodies who seek certification of their skills acquired informally or the persons who have been trained at the registered TPs. The competency assessment of the candidate is being done by the Assessor Competency Evaluation (ACE) qualified assessor of the independent Assessing Bodies (AB) which is not involved in training delivery, to ensure an impartial assessment. ACE is conducted to evaluate the competency of the assessor. In the assessment process, identification of competency, ways to measure the competency and deciding on the type of evidence that has to be collected are the responsibility of the Assessing bodies whereas administering the assessment and collecting the evidence and reporting the results are the responsibility of the assessors. The assessment process consists of following components:

Theory Test:

- It must assess the knowledge which is essential for a person to do the job. Without this knowledge, the person will not be able to do the job.
- The questions shall be of objective type involving selection of correct response.
- The question paper should contain sketches/ diagrams/ photographs/ drawing to overcome the problems of reading comprehension.
- The test shall be of short duration.

Practical Test:

It shall be able to test:

- Manipulative skills to handle tools and equipment.
- Speed in doing work.
- Accuracy maintained
- Quality in workmanship.
- Sequence of performance.
- Economical use of material.

- Neatness & housekeeping.
- All the competencies prescribed in the course curriculum.

The Assessment Parameters adopted during assessment:

- Knowledge of equipment, limitation of use of tools and equipment, and methods & procedure.
- Understanding of functioning of equipment & tool, criteria to be used in selecting tools for given job, and the process of measurement.
- Skill in finishing to required measurement, handling measurement & calculations, handling tools and equipment with ease, finishing neatly.
- Abilities to take corrective steps, use correct work habits, take measurements, complete the job within stipulated time, and adopt safe practices.
- Attitude towards the work, accurate & precise work and co-workers and supervisor.

(2) Duration of Test:

The duration of test vary according to the task. Theory test shall be of 1 hour duration and practical test for engineering trade shall be 6 to 8 hours minimum and non-engineering it shall be of 4 hours minimum. Assessing Bodies while preparing practical test shall ensure that candidate shall be tested on all the competencies prescribed in the course module.

The marking pattern and distribution of marks for the qualification are as under:

Terminal competency	Maximum marks
Application of knowledge	30
Care for tools & equipment	15
Economic use of materials	15
Safety consciousness	10
Speed	10
Accuracy	15
Quality of workmanship	20
Amount of work	15
No. of attempts	10
Attitude	10
Total maximum marks	150

for Practical	
Maximum marks for theory	50

(3) Minimum pass mark:

Minimum passing marks for Practical is 60%

Minimum pass marks for theory is 40%

(4) Testing and certifications process for the course:**Pre- Assessment**

- Regional Directorate of Apprenticeship Training (RDAT) allot batches to the Assessing Bodies on rotational basis depending on the presence of assessing body in that region sector wise and the assessing body in coordination with Training Provider and assessor should confirm and schedule the assessment.
- The Assessing Body confirms the date of assessment in consultation with Training Provider and communicates to the RDAT/State.
- The Assessing Body forms a panel of ACE qualified assessors of high repute and integrity, sector wise and location wise.
- The assessment of the candidates is done by the Assessing Bodies in designated Testing Centre (TC). The Testing Centre where the assessment is carried out and Testing Centre can be Training Center also. The Assessing Body select the TC based on the location, accessibility and the infrastructure facilities available for conducting the test.
- The testing center is approved by the RDAT incase of courses run by DGT,MSDE. Incase where the courses are run by the Sate Govt., TC is approved by State Govt.. Training conducted by other dept. at their accredited Training Centre, same training centre is designated as Testing centre.
- The Assessing Body provide details of selected TC along with skill areas in which assessment can be done at the TC, to the RDAT and respective States/UTs.
- The Assessing Bodies depute ACE qualified assessors for assessments whose details are furnished by Assessing Bodies to DGT in advance.
- Assessing Body has to communicate to the Testing Centre following:
 - Details of the candidates to appear for assessment in various MES courses.
 - Details of Assessors selected with their contact details.
 - Requirement of infrastructure, raw material etc.
 - Testing charges to be reimbursed to Testing Centre

Preparation of assessment tools and prerequisites:

- The assessment tools contain components for testing the knowledge, application of knowledge and demonstration of skill. The knowledge test is objective paper based test or short structured questions based. The application of knowledge is verified based on questioning or seeking response for a case. Demonstration of skill is verified based on practical demonstration by the candidate.
- The type of assessment tools to be used for assessment are to be prepared in advance by the assessing body in accordance to the guidelines as prescribed below:
 - Define the performance objective – This is based on the course objectives and competency in workplace as prescribed by MES curriculum. The written tests and practical tests assess all the competencies mentioned in course curriculum.
 - In case of practical test, the operations which are to be observed in case of process test (how a particular task is being carried out) are clearly mentioned and the specifications of the final product in case of product test (the task in itself).
 - List of tools, infrastructure, and equipment to carry out the assessment are prepared based on the test instruments that are planned to be used.
 - Written directions are given to the candidates before the task is attempted.
 - Scoring system, observations and rating is prepared for each competency which is going to be assessed.

Pre-assessment activities for Assessor at the Testing Centre

- Verification of student credentials: The assessor check the application form submitted by the candidates and verify the photo pasted on the forms with candidates who are taking assessment in accordance with checklist
- Verification of testing centre for adequate infrastructure, tools and equipment: The assessor verifies the availability of infrastructure, tools and equipment for carrying out both theory and practical assessments. The minimum requirement prescribed under the MES modules is used as benchmark.
- Attendance verification: The assessor checks the attendance register of candidates and instructors until the time biometric attendance system is put in place. Once the biometric attendance system is in place, the biometric attendance of assessors along with that of trainees/candidates has to be captured during the assessment at the start as well as end of theory and practical test.
- Attendance during assessment: The assessor takes the attendance of all the students who appear for assessment after the successful verification of the student credentials and before the start of the assessment. The assessor also provides his/her attendance during

start and end of the practical and theory test.

- Verification of the documents related test carried out by Training Provider/ Testing Centre (TC) for candidates who were not able to produce document in support of having passed the qualification.

Assessment activities

- Before the start of assessment, read out the instructions to the students.
- The written test & practical test is for fixed duration as prescribed.
- It is ensured that individual attention is given to all the candidates during the practical test.
- The assessor takes photographs during the assessment process of all the students in the testing centre, the students during theory and practical tests, practical lab/workshop showing the equipment to be used for assessment, the assessor along with the students appearing for the assessment.

Post-assessment activities

- The assessor consolidates all the theory and practical test papers and ensures that all the mandatory information is filled. The total score for each student should be calculated and recorded in result sheet.
- The assessor send the attendance sheet, result sheet, answer papers by courier/post to the assessing body immediately after the completion of assessment
- Uploading outcome of the assessment and photos in portal by assessing body
- Assessing body upload the results within one week of the assessment date.
- Photos taken by the assessors during assessment are sent to respective RDATs through e-mail only. Non dispatch of photos of assessment to RDAT makes assessment void. Re-assessment of such batch is done by the Assessing Bodies on their own expenses.
- Details of assessors are emailed to RDAT at the time of uploading the outcome of the assessment. Outcome of the assessment is not accepted in case details of assessors are not emailed to respective RDAT.
- Maintaining assessment records
- Publishing of results and Certificate issue
- RDAT verifies the outcome of the assessment, details of assessors, photos and print and sign the certificates for successful candidates and send it to the respective candidates. In case of direct candidate's assessment, the Certificates are sent to the Assessing Body.
- Certificates which will be issued carry photograph of the trainee, name of Training Provider, start date & end date of training and duration of

	<p>training once the systems for the same are put in place.</p> <ul style="list-style-type: none"> • The certificate is issued under the aegis of NCVT. All the communications are done through portal.
--	--

Please attach most relevant and recent documents giving further information about assessment and/or RPL.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

ASSESSMENT EVIDENCE

Complete a grid for each component as listed in “Formal structure of the qualification” in the Summary.

NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – ie Learning Outcomes to be assessed, assessment criteria and the means of assessment.

24. Assessment evidences

Title of Component: Solar PV Technician

Outcomes to be assessed		Means of Assessment
Learning Outcome	Assessment criteria	
DGT/MES/RNE/N01: Introduction to Safety Precautions & Basic of Renewable Energy	AO1. Describe type of tools:- 1. Safety tools 2. Marking tools, 3. Measuring tools, 4. Testing tools 5. Working tools,	Theory Test
	AO2. Demonstrate Electrical Safety	Practical Test

	Electrical safety Rules, Simple First Aid , General safety of tools and equipment PPEs , Fire extinguishers, Use of type of fire extinguishers	
	AO3. Describe Conventional & Non-conventional sources of energy	Theory Test
DGT/MES/RNE/N02: Knowledge of Solar PV systems Components	AO1. Explain Solar photovoltaic cell & solar photovoltaic module, type and size: 1. Solar Photovoltaic system 2. Types of solar photovoltaic system, 3. Grid connected Solar PV system, 4. Grid connected with battery back-up solar PV, 5. Off Grid connected Solar PV system and 6. Standalone Solar PV	Theory Test
	AO2. Select Site, suitability & Planning for installation of Solar PV plant Use of protection system such as fuse, circuit breaker, relay, CT, PT, LA, Switchgear, isolator, ABT meter etc.	Theory Test
	AO3. Demonstrate Handling and Storage of DC components	Practical Test
DGT/MES/RNE/N03: Installation of Solar PV System	AO1. Read drawing and Specifications for the followings a. Civil Foundation or Ramming b. Structure Erection and Module Mounting c. Cabling from Module to Inverter Room d. Inverter and Transformer Installation and Connection e. Reading of Single Line Diagram (SLD)	Practical Test
	AO2. Plan Structure member, cable, cable laying, Types of cable laying:- Installation of inverter, LT panel Transformer, types of Transformer a. Power Transformer b. Distribution Transformer c. Auto Transformer d. Instrumentation transformer	Practical Test

	AO3. Perform PV module Series & parallel connection & testing	Practical Test
DGT/MES/RNE/N04: Electrical Installation of the Solar System	AO1. Demonstrate Use of following tools and tackles and safe application practices a. Voltmeter b. Amp meter c. MultiMate d. Tong tester AC/DC side testing	Theory Test
	AO2. Dismantle of Module mounting structure and fixing of the same. Proper alignment and tightening. Fixing of module and its connection. Installation of balance equipment and End termination Power cable. Cable Gland-Types of Cable Gland a. Single compression Cable Gland b. Double compression Cable Gland Installation of Junction String testing DC Side box.	Practical Test
	AO3. Install electrical substation, Pole Erection, Select & Install Cable tray Erect Battery, Installation of battery Installation of HT & LT Control panels,	Practical Test
	AO4. Explain Grid Fundamental AC & DC Working, AC Side Testing, DC Side Testing	Theory Test
DGT/MES/RNE/N05: Inspection, Testing & Commissioning of Solar plant	AO1. Prepare work statement & documents for the followings: a. Foundation- P&M, Tools & Tackles b. Structure Erection- P&M, Tools & Tackles c. Module Mounting- Module Sorting, Tools & Tackles d. Cable Trenching & Conduit Laying- P&M, Tools & Tackles f. Cable Laying & Termination- Tools & Tackles, Pre Requisite g. Cable tray & cable laying h. SCADA & Control System I. End termination of power cable (LT/ HT) j. Junction box Installation- Basic	Practical Test

	<p>knowledge</p> <p>k. Inverter Erection- Tools & Tackles</p> <p>l. Battery installation& maintenance</p> <p>m. Installation of AC Equipment</p>	
	<p>AO2. Prepare work method & document for the followings</p> <p>a. String Testing- Pre-checks</p> <p>b. Short Circuit Test- Work Method</p> <p>c. Inverter Testing- Work Method</p> <p>d. Check list preparation</p> <p>e. Pre -requirement of installation of sub-station equipment</p> <p>f. Basics and erection of transformers, pole erection and stringing</p>	Practical Test
DGT/MES/RNE/N06: Operation & Maintenance of Solar PV System	<p>AO1. Perform Solar PV module cleaning & testing</p> <p>Inverter testing, Battery testing, Cell voltage testing, HT&LT Panel testing, Earthing testing, Cable testing, Transformer condition monitoring.</p>	Practical Test
	<p>AO2. Describe Operation & Maintenance of following</p> <p>a. Equipment's under AC Side & DC Side and regular maintenance</p> <p>b. General Safety Guidelines for O&M</p>	Theory Test
<p>Means of assessment 1</p> <p>The assessment comprise of</p> <ul style="list-style-type: none"> • Theory Examination MCQ, VIVA Voce • Practical assessment Role plays, Demonstration 		
<p>Pass/Fail</p> <p>The trainee is judged as pass in the qualification if minimum passing marks is obtained in each test i.e Theory and Practical.</p> <p>Minimum pass mark: Minimum passing marks for Practical is 60% Minimum pass marks for theory is 40%</p>		

NSQF QUALIFICATION FILE

SECTION 2

25. EVIDENCE OF LEVEL

OPTION A

Title/Name of qualification/component: Solar PV Technician		Level: 3	
NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
Process	The job holder is expected to have the knowledge and display skills in the field of work like: <ul style="list-style-type: none"> – Selection of site for Solar system Installation – Electrical Systems of Solar PV Plant – Operation & Maintenance of Solar PV plant Equipments 	The job requires the limited range of activities routine and predictable like cabling, installing solar equipments etc as per requirement.	3
Professional knowledge	The job holder is required to have knowledge in the related field of work like: <ul style="list-style-type: none"> – Various process involved in Installation & commissioning of Solar Plant – Storage & handling of AC & DC Equipments 	The job holder understands the basic facts , process and principles involved in his job role like operation of Solar PV system, working of various sub systems of Solar Plant etc.	3
Professional skill	The job holder needs to know and understand : <ul style="list-style-type: none"> – Installation of Solar Electrical Systems – Operation & Maintenance of Solar Equipments – Inspection & Commissioning of Solar Plants 	The job role only includes the Installation, Commissioning & Operation of Solar PV Plants which is a routine & repetitive job.	3
Core skill	The job holder is expected to possess knowledge and skills regarding: <ul style="list-style-type: none"> – Communicate with the customer – Prepare commissioning Reports – Collect orders 	The candidate will be able to explain the product to the customer, Prepare reports to check the requirement of a site.	3
Responsibility	The job holder works under the supervision of his superior, as per his directions. He is responsible for	The job holder works under the supervision of his superiors and is responsible for his own	3

NSQF QUALIFICATION FILE

Title/Name of qualification/component: Solar PV Technician		Level: 3	
NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
	his designated task as and when given by the superior.	limited work assigned like Connecting cables as per layouts etc.	

SECTION 3
EVIDENCE OF NEED

<p>26</p>	<p>What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate?</p> <p>Need of the Qualification:As India faces rising fuel demand, threats to energy security, and the impacts of climate change, renewable energyoffers a critical solution. Innovative clean energy solutions, including large solar parks and rooftop solar panels indense urban areas, can help solve these daunting challenges, while increasing energy access, creating jobs, andreducing toxic pollution. By the Government of India’s own estimates, a \$100 billion investment and a strong policyframework are needed to stimulate immense growth of solar and wind energy markets. (Source : Filling The Skill Gap In India’s Clean Energy Market: Solar Energy Focus,February 2016 by Council on Energy, Environment and Water, New Delhi and Natural Resources Defense Council, USA).</p> <p>Industry Relevance: List of Trade Committee members is attached in curriculum</p> <p>Usage of the Qualification: Moreover about 775 individuals have been assessed in this course under this scheme in FY 2016-17 & 2017-18, which shows there is huge requirement of this skill in the Market.</p> <p>Estimated uptake:At the United Nations’ Conference of Parties in December 2015, Prime Minister Narendra Modi announced India would lead an International Solar Alliance of more than 120 solar rich countries to facilitate widespread deployment of solar power and development of the supporting ecosystemincluding knowledge exchange on manufacturing and skills. Given the population growth rate of the country, India needs to create 10 million new jobs every year.</p> <p>New CEEW and NRDC analysis of the jobs created in the solar PV sector along with the related skills required in every phase of a solar project, estimates that India would need nearly 210,800 skilled plant design and site engineers and approximately 624,600 semi-and low skilled technicians for construction, most of whom would be needed to achieve the targeted 40 GW rooftop solar capacity addition. As many as 81,000 highly skilled workers would be needed by 2022 to carry out annual and ongoing performance data monitoring of solar projects totalling 100 GW. An additional 182,400 workers would be needed by 2022 to carry out low-skill operation and maintenance functions for the numerous solar rooftop and utility scale projects.</p> <p>(Source : Filling The Skill Gap In India’s Clean Energy Market: Solar Energy Focus, February 2016 by Council on Energy, Environment and</p>
-----------	---

NSQF QUALIFICATION FILE

	Water, New Delhi and Natural Resources Defense Council, USA)
--	--

27	Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidences -NA-
28	What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF? Give justification for presenting a duplicate qualification The Qualification has been mapped with the National Qualification Register, maintained by NSDA to ensure the qualification does not duplicate. Qualification like Solar PV Installer – Electrical, Solar PV Installer-Suryamitra and Solar PV System Installation Engineer are available on NQR with similar Outcomes but the present qualification is an comprehensive qualification with more practice hours as compare to other qualifications.
29	What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated? Specify the review process here 1) DGT interacts with training providers to gather feedback in implementation and updation of qualification. 2) Monitoring of results of assessments 3) Employer feedback will be sought post-placement 4) In a recent initiative, a Mentor Council (MC) for the relevant sector has been formed to review the curriculum of this qualification under the sector. 5) CSTARI, the research wing of DGT, reviews and updates the qualification, in consultation with industries and other stakeholders, on a regular basis. The qualification is reviewed after every 5 years for updation according to latest Technologies and practices.

Please attach most relevant and recent documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

SECTION 4

EVIDENCE OF PROGRESSION

30	What steps have been taken in the design of this or
----	--

NSQF QUALIFICATION FILE

	<p>other qualifications to ensure that there is a clear path to other qualifications in this sector? Show the career map here to reflect the clear progression</p> <p>An Individual has vertical pathway to promote to higher designations in an organisation. Can further undergo specialization course to excel to the higher post in jobs listed above or can start with up his/her own business.</p> <p>Progression chart: Solar PV Technician > Solar PV Service Engineer> Solar PV Maintenance Engineer</p>
--	---

Please attach most relevant and recent documents giving further information about any of the topics above.

Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

NSQC Approved