

NATIONAL SKILL QUALIFICATION FRAMEWORK QUALIFICATION FILE

Version 6: Draft of 01 September 2016

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

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List of documents submitted in support of the Qualifications File

1. Qualifications Pack
2. Industry Validations letters
3. Industry Endorsement tracker
4. Integrated Occupational Map
5. Summary Sheet

NSQF QUALIFICATION FILE

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SUMMARY

Qualification Title	Solar Off Grid Entrepreneur
Qualification Code	QP SGJ/ 0118
Nature and purpose of the qualification	Nature of the qualification - A qualification pack The main purpose of the qualification - This Qualification will enable the individual to specialize in the selling, procurement, installation and maintenance of solar off grid systems
Body/bodies which will award the qualification	Skill Council for Green Jobs
Body which will accredit providers to offer courses leading to the qualification	Skill Council for Green Jobs
Body/bodies which will carry out assessment of learners	Affiliated Assessment Agency of SCGJ
Occupation(s) to which the qualification gives access	Solar Off Grid Entrepreneur
Licensing requirements	N/A
Level of the qualification in the NSQF	Level 5
Anticipated volume of training/learning required to complete the qualification	200 hours
Entry requirements and/or recommendations	12 th pass preferably. No prior experience required for this role
Progression from the qualification	Vertical Progression - Category Head – Solar Pumps – Level – 8/ Category Head – Solar Street Lighting – Level -8/ Category Head – Solar Lanterns and Solar Home Lighting – Level -8 Horizontal Progression – Solar Off- Grid Production Supervisor
Planned arrangements for the Recognition of Prior learning (RPL)	SCGJ recognizes that there may be candidates who have prior learning experience in the Renewable Energy Sector and are desirous of being certified. - Propose to carry out RPL for candidates working in Solar, Banking or Project Finance organizations. - A bridge course would be conducted for people who are working in solar industry. - Linking of this Qualification to Start Up India
International comparability where known	This Level 5 qualification compares with UK NOS: Level 3 NOS Mapping is NA
Date of planned review of the qualification.	30 th September 2019

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Formal structure of the qualification			
Title and identification code of component.	Mandatory/ Optional	Estimated size (learning hours)	Level
SGJ/ N0142 Develop solar lighting solutions business	Mandatory	40	5
SGJ/ N0143 Develop solar PV pumping business	Mandatory	40	5
SGJ/ N0144 Develop solar PV off – grid power plant business	Mandatory	40	5
SGJ/ N0111 Entrepreneurship Skills	Mandatory	40	4
SGJ/ N0106 Maintain personal health & safety at project site	Mandatory	20	2
SGJ/ N0120 Work effectively with others	Mandatory	20	4

Please attach any document giving further detail about the structure of the qualification – e.g. a Curriculum Document or a Qualification Pack.

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

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SECTION 1 **ASSESSMENT**

Body/Bodies which will carry out assessment:

Affiliated Assessment Agency of SCGJ

How will RPL assessment be managed and who will carry it out?

The RPL assessment will be carried out through pre assessment, identifying the skills gaps, provide bridge training to cover the competency gap, where required, and then conduct final assessment of the candidates.

Confederation of Indian Industry (CII) or any other Affiliated Assessment Agency of SCGJ, as per RPL Policy and Guidelines

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.

The emphasis is on examination of existing businesses through case study analysis and practical demonstration of skills and knowledge based on the performance criteria.

The assessment papers are developed by Subject Matter Experts (SME) available with the Assessment Agency, in collaboration with Skill Council for Green Jobs, as per the performance and assessment criteria mentioned in the Qualification Pack. The assessments papers are also checked for the various outcome based parameters such as quality, time taken, precision, tools & equipment requirement etc. The assessment sets are then reviewed for consistency. The technical limitations at the training centres are taken care in theory and viva.

The assessment agencies are instructed to hire assessors with integrity, reliability and fairness. Each assessor shall sign a document with its assessment agency by which they commit themselves to comply with the rules of confidentiality and conflict of interest, independence from commercial and other interests that would compromise impartiality of the assessments. The assessment agencies are instructed to identify assessors as per the Assessment Policy and Guidelines established by Skill Council for Green Jobs relevant for that Qualification.

The assessors selected by Assessment Agencies are scrutinized and made to undergo training and introduction to SCGJ Assessment Framework, competency based assessments, and assessors guides. The assessors are provided with assessors guide developed by the Subject Matter Expert of the assessment agency in collaboration with SCGJ as per the assessment framework. The assessment guides are developed to ensure the maximum possible consistency in the assessment by different assessors and elaborate on the following

- Qualification Pack Structure
- Guidance for the assessor to conduct theory, practical and viva assessments
- Guidance for trainees to be given by assessor before the start of the assessments.
- Guidance on assessments process, practical brief with steps of operations practical observation checklist and mark sheet
- Viva guidance for uniformity and consistency across the batch.

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The assessment by assessment agency is completely based on the assessment criteria as mentioned in the Qualification Pack. Each NOS in the Qualification Pack (QP) is assigned a relative weightage for assessment based on the criticality of the NOS. Therein each Performance Criteria in the NOS is assigned marks for or practical based on relative importance, criticality of function and training infrastructure.

The following tools are proposed to be used for final assessment:

Practical Assessment: This will comprise of a test to evaluate the individual's grasp on domain skills imparted.

Viva/Structured Interview: This tool will be used to assess the conceptual understanding and the behavioural aspects as regards the job role and the specific task at hand. It will also include questions to ascertain the soft skills of interacting with the customer or client.

Written Test: Under this test few key items which cannot be assessed practically will be assessed. The written assessment will comprise of:

- True / False Statements
- Multiple Choice Questions
- Problem Statements
- Case Study Analysis

Please attach any 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.

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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 – i.e. Learning Outcomes to be assessed, assessment criteria and the means of assessment.

Title of Component: Solar Off Grid Entrepreneur

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Solar Off Grid Entrepreneur

Qualification Pack SGJ/ Q0118

Sector Skill Council Green Jobs

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6. To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
7. In case of *unsuccessful completion*, the trainee may seek reassessment on the Qualification Pack.

Assessment Outcomes	Assessment Criteria for outcomes	Total Marks	Marks allocation		
			Out of	Theory	Skills Practical
SGJ/ N0142 Develop solar lighting solutions business	PC1. Assess the market and evaluate the market trends to decide the strategy for sale	100	8	3	5
	PC2. Analyse the economic profile and power consumption trends		10	4	6
	PC3. Identify market opportunities and potential customers		8	4	4
	PC4. Identify the customer requirements for solar home lightening systems, solar lanterns, solar street lights, etc.		8	2	6
	PC5. Display and demonstrate these systems in your shop or at places of public gatherings		10	4	6
	PC6. Identify manufacturers and suppliers in the nearby areas		8	2	6

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	PC7. Procure the required systems from the manufacturers or their dealers		8	2	4
	PC8. Display and demonstrate the solar home lightening systems, solar lanterns, solar street lights, etc. in places of public gatherings		6	2	6
	PC9. Ensure the sales of the system		6	2	6
	PC10. Check all components of solar lighting system including cables while selling		6	3	5
	PC11. Register the product and handover warranty card to the customer		4	1	3
	PC12. Demonstrate the safe operation and maintenance of solar home lighting		6	2	4
	PC13. Demonstrate the safe operation and maintenance of solar lanterns		4	1	3
	PC14. Demonstrate the safe operation and maintenance of solar street lights		4	2	2
	PC15. Attend and resolve customer queries		4	2	2
		TOTAL	100	36	64
SGJ/ N0143 Develop solar PV pumping business	PC1. Identify areas with no electric grid or with long power cuts	100	5	2	3
	PC2. Study the drinking and irrigation water requirement of the user/s and it is being presently met		8	3	5
	PC3. Study the depth of the water/ground water source and the quantity/recharge period		5	2	3
	PC4. Study the solar irradiance at the site		6	4	2
	PC5. Create relevant solar pumping model of appropriate capacity and specifications		8	5	3
	PC6. Prepare cost benefit analysis of the solar pump and make a presentation to the customer		6	4	2
	PC7. Arrange for display and demonstration of solar pump from MNRE approved solar pump manufacturer		3	1	2
	PC8. Identify manufacturers and suppliers through various sources who can meet the requirements		8	2	6
	PC9. Procure the products/ systems from the approved manufacturers and their dealers		4	1	3
	PC10. Check that all the components of the solar pumping systems ; solar modules, MPPT & control electronics, inverter, pump, motor mounting structures, cables, switches etc. are in proper condition		6	3	3
	PC11. Ensure the drilling of bore of appropriate diameter and depth		4	1	3

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	drilled and fixing of pipe of appropriate diameter in the bore				
	PC12. Construct foundation for holding the module mounting structures		4	1	3
	PC13. Ensure the solar modules are mounted onto the structures		4	1	3
	PC14. Ensure the interconnection of the modules as per the pump literature		5	2	3
	PC15. Ensure the output of modules are connected to the electronic box containing MPPT, Inverter (for AC pump), controls and on off switches		6	2	4
	PC16. Ensure the proper placement of the pump into the bore		4	2	2
	PC17. Test if actual performance (discharge) is as per the specifications provided by manufacturer		3	1	2
	PC18. Record component serial number and complete equipment warranty registrations		2	0	2
	PC19. Deliver operation and maintenance documents with customer operation manual		2	0	2
	PC20. Demonstrate start up and shut down procedures		4	1	3
	PC21. Demonstrate the safe operation and maintenance of solar PV pumping system and provide basic training to user for maintaining the system		4	1	3
	PC22. Attend and resolve customer queries		4	2	2
		TOTAL	100	39	61
SGJ/ N0144 Develop business for solar PV off-grid power plants	PC1. Assess the market and evaluate the market trends to decide the strategy for sale	100	8	3	5
	PC2. Study the economic profile and power consumption trends		6	2	4
	PC3. Identify market opportunities and potential customers		6	2	4
	PC4. Identify the customer requirements for solar PV off-grid power plants		6	2	4
	PC5. Identify market price of different components of solar PV system		4	1	3
	PC6. Prepare a cost estimate for a solar project		6	1	5
	PC7. Select the right quality of solar module, mounting structure by identifying the key technical parameters in data specification sheets		6	1	5
	PC8. Select the right quality of battery by identifying the key technical parameters in data specification sheets		6	2	4
	PC9. Prepare the cost benefit analysis for setting up of rooftop solar PV		6	2	4

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	power plant prepare a pitch for the customer and close the sale			
	PC10. Check all components of solar PV off-grid power plants including cables while selling	4	1	3
	PC11. Check the status of battery charging and if required, fully charge the battery before installation	2	1	1
	PC12. Get the solar modules installed in open at shadow free sites on rooftop or on mounting structures facing south and inclined at local latitude	6	2	4
	PC13. Ensure the interconnection of the modules as per design & and connect the output to the battery bank through charge controller, inverter and preventive electronics	6	2	4
	PC14. Get the lights, fans, etc. installed at appropriate places, as per requirement, and do the wiring with switches up to the board up to the charge controller	4	1	3
	PC15. Compare the voltage of the batteries before switching on the loads as per design and ensure corrective action is taken	4	2	2
	PC16. Record component serial number and complete equipment warranty registrations	4	2	2
	PC17. Deliver operation and maintenance documents with customer operation manual	4	1	3
	PC18. Demonstrate start up and shut down procedures	4	2	2
	PC19. Demonstrate the safe operation and maintenance of solar off-grid power plants and provide basic training to the user for maintaining the system	4	2	2
	PC20. Attend and resolve customer queries	4	2	2
	TOTAL	100	34	66
SGJ/ N0111 Entrepreneurship Skills	PC1. Describe the process for setting up a new venture	8	4	4
	PC2. Identify the key ingredients of a business plan	12	5	7
	PC3. Distinguish between fixed and working capital requirements	8	3	5
	PC4. Describe the components of a loan application for fund raising	8	4	4
	PC5. Demonstrate good etiquettes and manners while communicating with the client	8	4	4
	PC6. Demonstrate the importance of time management	8	4	4
	PC7. Demonstrate leadership skills and effective resource management techniques	8	4	4
	100			

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	PC8. Demonstrate the use of MS word and MS excel for preparing a proposal		10	4	6
	PC9. Prepare a workable presentation for marketing and business development		10	4	6
	PC10. Choose the right buyer in a given situation of market parameters		10	4	6
	PC11. Identify the challenges and risks for new entrepreneurs and the possible mitigation measures		10	5	5
		TOTAL	100	45	55
SGJ/ N0106 Maintain personal health & safety at project site	PC1. Identify corporate policies required for workplace safety	50	2	1	1
	PC2. Identify requirements for safe work area and create a safe work environment		3	2	1
	PC3. Identify contact person when workplace safety policies are violated		1	1	0
	PC4. Provide information about incident/violation		1	1	0
	PC5. Identify the location of first aid materials and administer first aid		2	1	1
	PC6. Identify the personal protection equipment required for specific locations on-site		3	2	1
	PC7. Identify expiry dates and wear & tear issues of specified equipment		2	1	1
	PC8. Demonstrate safe and accepted practices for personal protection		3	2	1
	PC9. Identify environmental hazards associated with the project site		2	1	1
	PC10. Identify electrical hazards		4	2	2
	PC11. Identify personal safety hazards or work site hazards and mitigate hazards		4	2	2
	PC12. Select tools, equipment and testing devices needed to carry out the work		4	2	2
	PC13. Demonstrate safe and proper use of required tools and equipment		4	2	2
	PC14. Check access from ground to work area to ensure it is safe and in accordance with requirements		2	1	1
	PC15. Reassess risk control measures, as required, in accordance with changed work practices and/or site conditions and undertake alterations		2	2	0
	PC16. Inspect/install fall protection and perimeter protection equipment ensuring adequacy for work and conformance to regulatory requirements		4	2	2
	PC17. Identify approved methods of moving tools and equipment to work area and minimize potential		2	1	1

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	hazards associated with tools at heights				
	PC18. Select and install appropriate signs and barricades		2	1	1
	PC19. Place tools and materials to eliminate or minimize the risk of items being knocked down		1	1	0
	PC20. Dismantle plant safely in accordance with sequence and remove from worksite to clear work area		2	1	1
	TOTAL		50	29	21
SGJ/ N0120 Work effectively with others	PC1. Accurately pass on information to the authorized persons who require it and within agreed timescale and confirm its receipt		4	2	2
	PC2. Assist others in performing tasks in a positive manner where required and possible		4	2	2
	PC3. Consult and assist others to maximize effectiveness and efficiency in carrying out tasks		4	2	2
	PC4. Display appropriate communication etiquette while working		6	3	3
	PC5. Display active listening skills while interacting with others at work		4	2	2
	PC6. Demonstrate responsible and disciplined behaviours at the workplace		4	2	2
	PC7. Escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict	50	3	1	2
	PC8. Identify the need for common grounds with clients, team members, etc. and negotiate in an effective manner to achieve the same		3	1	2
	PC9. Consider and respect the opinions, creativity, values, beliefs and perspectives of others		4	2	2
	PC10. Ensure collaboration and group participation to achieve common goals		6	3	3
	PC11. Promote a friendly, co-operative environment that is conducive to employee's sense of belonging		4	2	2
	PC12. Facilitate an understanding and appreciation of the differences among team members		4	2	2
	TOTAL		50	24	26

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Means of assessment 1
Means of assessment 2
Pass/Fail

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SECTION 2 **EVIDENCE OF LEVEL**

Awarding bodies will enter a proposed NSQF level for the qualification in the Qualification File Summary. This section asks for the evidence on which that proposal is based. The evidence must refer to the level descriptors of the NSQF.

NSDA recommends an approach to working out the level of qualifications which starts with the level descriptor domains (Process, Professional knowledge, Professional skill, Core skill and Responsibility: see annex A). Two variants for providing the evidence of level are offered here: Option A and Option B in the following pages. Awarding bodies should choose the option which best suits the qualification.

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OPTION A

Title/Name of qualification/component: Solar Off Grid Entrepreneur		Level: 5	
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
Process	<p>The individual is expected to identify the potential market and the client needs/ requirements to propose the right kind of technically and economically feasible Off Grid Solar solution. He/she then selects the right product from the suppliers and sells them to the customer and ensures its installation and maintenance.</p>	<p>The Job holder is expected to exhibit well developed skills with a clear choice of procedures in familiar context such as assessing the market potential through primary and secondary research, identifying customer requirements for solar lighting, small solar systems and solar PV pumps, preparing relevant solutions to meet customer requirements, ensure sales by preparing cost benefit analysis, identifying manufacturers for procuring the identified solutions and procure the same, ensuring proper installation of systems like solar PV pumps and small solar systems by overseeing the checking of all components, ensuring interconnection of various components as per design, carrying out of pre-commissioning and commissioning tests, providing post sales and installation support and taking measures for maintaining the solar PV business. Thus considering the scope of work the job holder can be placed at Level 5.</p> <p>Since the individual's work is not limited to working in familiar, routine & predictable environment but rather encompasses jobs that requires working in non-routine and fairly unpredictable environment such as assessing market potential for setting up business, preparing relevant solutions and selling to the customer, ensuring the proper installation and commissioning of solutions, etc., s/he can't be placed in Level 4.</p> <p>And as the individual doesn't require to exhibit wide range of specialized developed skill and working around non-standard practices, the roles does not qualify as a level 6 role.</p>	5

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Title/Name of qualification/component: Solar Off Grid Entrepreneur		Level: 5	
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
Professional knowledge	<p>The individual is expected to exhibit the knowledge of basics of solar systems like solar PV pumps, solar lightings and small solar systems like typical specifications, functioning, operating principle, requirements, handling procedures and warranties, different marketing methods, and government policies and subsidies for solar off-grid solutions</p>	<p>The Job holder is expected to exhibit knowledge of facts such as typical specifications, functioning, cost, etc. of types of solar PV off grid systems like solar PV pumps, solar lighting systems and small solar systems knowledge of principles such as principles of marketing and selling of solar off grid systems, finance principles for maintaining business, etc. knowledge of processes like demonstration process for various solar off grid systems, installation and maintenance procedures for various solar off grid systems and general concepts of in the field of solar such as basics of solar technology and power generation and general concepts in the field of entrepreneurship such as time management, leadership, communication, etc. S/he should possess the ability to speak, read and write in the local vernacular language and English which is always preferred.</p> <p>Thus considering the professional knowledge, s/he can be placed at level 5</p> <p>The Job holder is expected to possess professional knowledge more than just factual knowledge about solar PV components but also knowledge of principles like marketing principles, financial principles, etc. processes such as demonstration procedures, installation and maintenance procedures and general concepts such as time management, financial modelling and entrepreneurship as a whole. Therefore s/he can't be placed at Level 3</p> <p>And since the job holder doesn't require to exhibit factual & theoretical knowledge in broad contexts within solar such as evolving technological trends, the various socio-</p>	5

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Title/Name of qualification/component: Solar Off Grid Entrepreneur		Level: 5	
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
		economic factors and their impact on solar etc. but knowledge specific to solar off grid solutions, the role can't be placed at level 6	
Professional skill	<p>The individual is expected to plan & organize the schedule for all meetings and discussions to be undertaken by self or by the team. Further s/he must be able to take decisions on a regular basis, manage relationship with customers and apply domain knowledge to perform tasks related to solar off grid. S/he is also expected to critically evaluate information obtained from customers and teams to create relevant solutions for customers.</p>	<p>The Job holder 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. For example, the individual has to assess the market and identify potential customers, plan to organise customer meetings for demonstrations and sales, identify client's requirement and prepare relevant solutions, prepare cost benefit analysis to convince client and ensure sales and oversee the installation of systems and provide post installation support. The job holder also has to ensure preparation of effective business plan for maintaining and sustaining off grid solutions business. Thus considering the professional skills the job holder can be placed at Level 5.</p> <p>Since the Job holder is expected to exhibit cognitive skills along with practical skills required to accomplish the tasks and solve problems by identifying customer needs and preparing solutions, identifying market trends, etc. s/he can't be placed at Level 4.</p> <p>And as the job holder is not expected to possess practical and cognitive skills required to generate solutions for specific problems related to solar as a whole, but rather expected to generate solutions specific to the solar off grid, s/he can't be placed at level 6</p>	5

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Title/Name of qualification/component: Solar Off Grid Entrepreneur		Level: 5	
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
Core skill	The individual is expected to exhibit fluent business communications skills, networking skills & capable of handling and using customer data in the prescribed way.	<p>The Job holder is expected to possess the desired mathematical skills for preparing the business plan, preparing cost benefit analysis for solar off grid solution, etc. have understanding of social /political environment like local cultures so as to communicate effectively with customers, understand their daily requirements of energy, interact effectively with helpers, skill of collecting and organizing information like analysing local market trends, understanding requirements of the local demographics to prepare solutions, etc. and communication skill for so as to interact effectively with customers, ensure sales and pass on instruction to helpers.</p> <p>Thus considering the core skills, s/he can be placed at Level 5.</p> <p>The Job holder is expected to exhibit core skills more than language to communicate with required clarity, basic algebraic and arithmetic skill and basic understanding of socio- political environment. For example, s/he is supposed to organize and collect information regarding the local energy usage practices through discussions, etc., have desired mathematical skill to create efficient business plans, etc.</p> <p>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 off grid business, s/he can't be placed at Level 6.</p>	5
Responsibility	The individual is primarily responsible for ensuring the development of solar off grid business through monitoring the plant performance and ensuring proper	The solar off grid entrepreneur is responsible for his/ her own work as s/he has to ensure development of his/her off grid business through identification of opportunities,	5

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Title/Name of qualification/component: Solar Off Grid Entrepreneur		Level: 5	
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
	<p>maintenance of plant equipment through his/her team of technicians and helpers.</p>	<p>updating self with industry trends and skills for ensuring selling of solutions and to an extent subordinate's works and learning as s/he is responsible for passing knowledge and skills to his/ her team of technicians and helpers.</p> <p>Considering the responsibilities the individual can be placed at level 5.</p> <p>Since the Job holder responsibility is not limited till his/her own work & learning but also encompasses some responsibilities for others learnings as s/he is expected to ensure knowledge transfer to team members s/he can't be placed at 4.</p> <p>As the number of people reporting to him are less and he has the responsibility of a only a couple of helpers and technicians etc. s/he can't be placed at level 6.</p>	

India-EU Skills Development project: Qualification File

SECTION 3 **EVIDENCE OF NEED**

What evidence is there that the qualification is needed?

During extensive industry interactions carried out while creating occupational maps and prioritization of job roles for Qualification Pack development, the mentioned qualification was indicated as a key requirement by the industry. In addition, the Skill Gap Report for the sector has indicated that a significant proportion of the workforce is involved in this work function. The study also indicates that this domain will be in great demand, due to focus of Government of India to support the sector through policy and implementation. Research was conducted in the Renewable energy sector manpower requirement estimates till 2025. The research provides the data that the discussed qualification is one of the critical roles in the sector. The details of statistics and research analysis are provided separately as a research analysis report

Evidence of the qualification is supported by validations with representation from across sub sectors. The complete list of validating companies has been enclosed as an annexure to the Q file.

What is the estimated uptake of this qualification and what is the basis of this estimate?

The increase in manpower requirements (as per projections) from 2017 to 2025 is approx. 10 times for this role. All the numbers are provided in research analysis study

What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?

Currently, Skill Council for Green Jobs is the only Sector Skill Council set up which has the mandate of Certification and Assessment of candidates undergoing Skill Development courses in Solar Photovoltaic domain. NSDC list of Approved QPs was checked prior to commissioning the work. There is no overlap of these Qualification Packs with existing Qualification Packs.

The NCO/2015 Classification and MES Course List was also cross examined for existing trades, wherein no overlap / existing trade was found.

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?

In the Qualification Pack, review date is scheduled for after 3 years in consultation with Subject Matter Experts. The monitoring of evaluation of assessments and Employer feedback will be sought post-placement, for review of the effectiveness of the Qualification.

Please attach any 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.

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SECTION 4

EVIDENCE OF PROGRESSION

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

1. Discussing the growth trajectory within each occupation after studying organisational charts of various industry players across small, medium and large scale organizations.
2. Exploring various lateral career opportunities for the discussed qualification
3. Ensuring that there is a clear role up in terms of performance criteria qualification experience and skill requirement from lower NSQF Level to higher levels in the hierarchy.

Please refer to attached career path as per annexure 1 which clearly defines the career path.

Please attach any documents giving further information about any of the topics above.

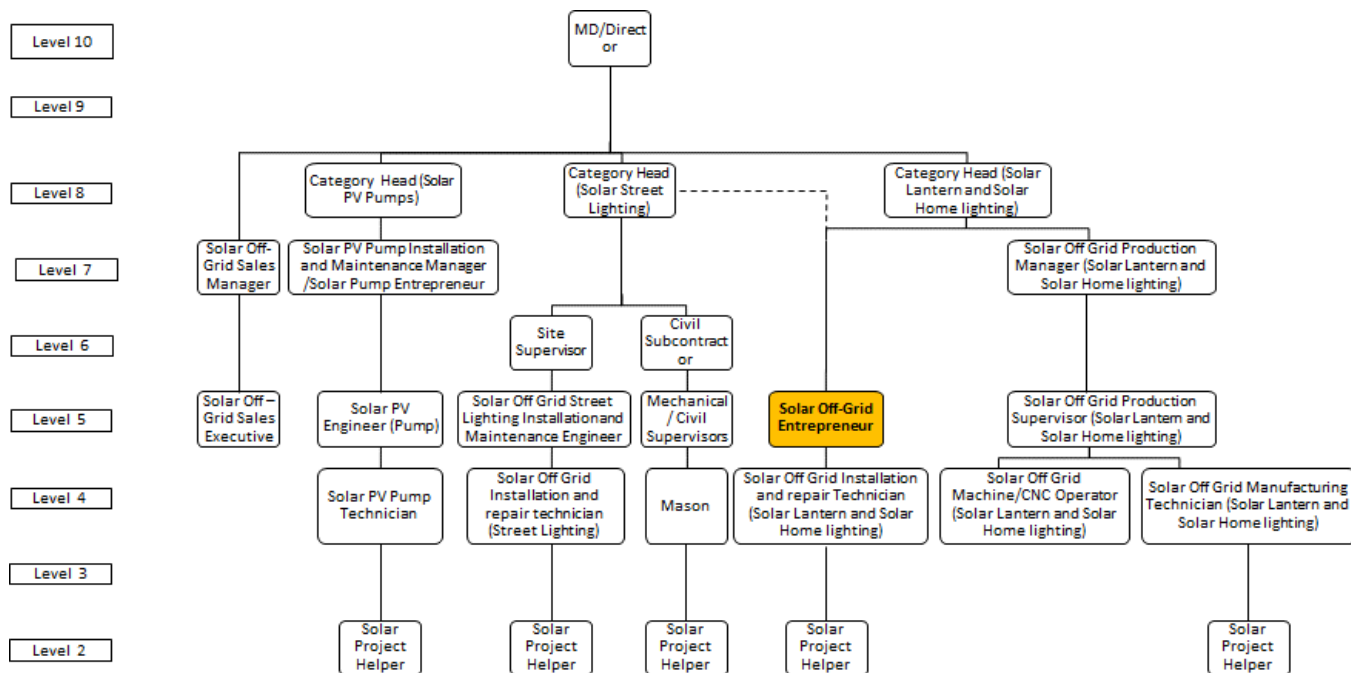
Give the titles and other relevant details of the document(s) here. Include page references showing where to find the relevant information.

1. Career Map of Solar Off Grid Entrepreneur - Annexure 1
2. QP SGJ/ Q0118 - Annexure 2

NSQF QUALIFICATION FILE

Version 6: Draft of 01 September 2016

Annexure 1: Career Map



Annexure 2: QP SGJ/ Q0118