

Model Curriculum

Site Surveyor-Wind Power Plant

SECTOR: GREEN JOBS
SUB-SECTOR: RENEWABLE ENERGY
OCCUPATION: Engineering and Design
REF ID: SGJ/Q1202, V1.0
NSQF LEVEL: 6

 <p>Skill India शिक्षण करो - कुशल करो</p>	 <p>SCGJ SKILL COUNCIL FOR GREEN JOBS</p>	 <p>N-S-D-C National Skill Development Corporation Transforming the skill landscape</p>
<h1>Certificate</h1>		
<h2>CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS</h2>		
is hereby issued by the		
SKILL COUNCIL FOR GREEN JOBS		
for the		
MODEL CURRICULUM		
Complying to National Occupational Standards of Job Role/ Qualification Pack: <u>'Site Surveyor-Wind Power Plant'</u> QP No. <u>'SGJ/Q1202 NSQF Level 6'</u>		
Date of Issuance:	February 5 th , 2018	 Authorised Signatory (Skill Council for Green Jobs)
Valid up to:	September 30 th , 2019	
* Valid up to the next review date of the Qualification Pack		

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Solar PV Business Development Executive

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Site Surveyor-Wind Power Plant”, in the “Green Jobs” Sector/Industry and aims at building the following key competencies amongst the learner.

Program Name	Site Surveyor-Wind Power Plant		
Qualification Pack Name & Reference ID.	SGJ/Q1202, v1.0		
Version No.	1.0	Version Update Date	01 th Jan 2018
Pre-requisites to Training	B.E. / B. Tech. (Electrical/ Mechanical/ Civil/ Electronics and Communication / Electrical and Electronics/ Control & Instrumentation)		
Training Outcomes	After completing this programme, participants will be able to: <ul style="list-style-type: none"> • Conduct site survey for wind power plant • Perform basic health and safety practices at project site (Ground and Height) • Work effectively with others 		

		<ul style="list-style-type: none"> exhibit the use of various appropriate fire extinguishers on different types of fires correctly demonstrate rescue techniques applied during fire hazard administer appropriate first aid to victims were required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc. respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments participate in emergency procedures: raising alarm, safe/efficient, evacuation, correct means of escape, correct assembly point, roll call, correct return to work report the accident to the relevant authority in the prescribed format 	
4	<p>Work effectively with others</p> <p>Theory Duration (hh:mm) 6:00</p> <p>Practical Duration (hh:mm) 12:00</p> <p>Corresponding NOS Code SGJ/N0120</p>	<ul style="list-style-type: none"> accurately pass on information to the authorized persons who require it and within agreed timescale and confirm its receipt assist others in performing tasks in a positive manner where required and possible consult and assist others to maximize effectiveness and efficiency in carrying out tasks display appropriate communication etiquette while working display active listening skills while interacting with others at work demonstrate responsible and disciplined behaviours at the workplace escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict identify the need for common grounds with clients, team members, etc. and negotiate in an effective manner to achieve the same consider and respect the opinions, creativity, values, beliefs and perspectives of others ensure collaboration and group participation to achieve common goals promote a friendly, co-operative environment that is conducive to employee's sense of belonging facilitate an understanding and appreciation of the differences among team members validate collected wind data from site 	

		<ul style="list-style-type: none"> verify the wind potential with other resources such as NREL/ATLAS prepare detailed site survey report using GPS/DGPS and wind data analysis software 	
	Theory Duration (hh:mm) 36:00 Practical Duration (hh:mm) 84:00	Licensed solar PV simulation software; Site visit for practical learning	

Grand Total Course Duration: 120 **Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Skill Council for Green Jobs](#))

Trainer Prerequisites for Job role: “Site Surveyor-Wind Power Plant” mapped to Qualification Pack: “SGJ/Q1202, v1.0”.

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “SGJ/Q1202, Version 1.0”.
2	Personal Attributes	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	B.E/B. Tech (Electrical/ Mechanical/ Civil/ Electronics and Communication / Electrical and Electronics/ Control & Instrumentation)
4a	Domain Certification	Certified for Job Role: “Site Surveyor-Wind Power Plant” mapped to QP: “SGJ/Q1202, Version 1.0”. Minimum accepted score as per respective as per SCGJ guidelines is 80%.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q0102” or equivalent. Minimum accepted score as per SSC guidelines is 80%.
5	Experience	B.E/B. Tech (Electrical/ Mechanical/ Civil/ Electronics and Communication / Electrical and Electronics/ Control & Instrumentation) with 2 years of relevant industry experience or M.E/M. Tech (Electrical, Electronics, Instrumentation, Renewable Energy) with 1 years of relevant industry experience

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Site Surveyor - Wind Power Plant

Qualification Pack SGJ/Q1202

Sector Skill Council Skill Council for 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.

Compulsory NOS		Marks Allocation			
Total Marks: 300		Total Marks	Out Of	Theory	Skills Practical
Assessment outcomes	Assessment Criteria for outcomes				
SGJ /N1204 Conduct site survey for wind power plant	PC1. analyse detailed site information	100	4	1	3
	PC2. analyse the daily, monthly and annual wind resource data of site to evaluate the potential for wind energy generation		5	2	3
	PC3. ensure collection of data on local weather conditions such as temperature range, flooding (in case of onshore), wind speed, humidity, rainfall and assess its impact on wind energy generation		4	1	3
	PC4. assess the ground water availability and quality, load bearing capacities, pH levels and seismic risk		5	2	3
	PC5. analyse the pre-site selection baseline data for project execution suitability		4	1	3
	PC6. identify location for Power Curve test		4	1	3

	PC7. ensure installation of meteorological mast (met mast) at site		4	1	3
	PC8. analyse wind data collected from met mast for wind potential		5	2	3
	PC9. prepare a detailed survey plan of the land proposed for installation of wind power plant with elevations and topography		4	1	3
	PC10. calculate the exact land area of the proposed site where installation is to be commenced		4	1	3
	PC11. prepare contour map of proposed wind plant site		4	1	3
	PC12. conduct field surveys and give site ranking		4	1	3
	PC13. identify position of WTG, substation, transmission line, transformers, etc.		5	2	3
	PC14. identify accessibility of the site i.e., its connectivity to various transport mechanisms including rail, road, connecting roads etc.		5	2	3
	PC15. ensure conducting of route survey		4	1	3
	PC16. identify soil type and its strength		4	1	3
	PC17. identify state/central law of land leasing and purchase		4	1	3
	PC18. assess grid availability for power evacuation including nearest substation and transmission line capacity		5	1	4
	PC19. identify the relevant grid authority		4	1	3
	PC20. check the feasibility of point of power evacuation		4	1	3
	PC21. validate collected wind data from site		5	2	3
	PC22. verify the wind potential with other resources such as NREL/ATLAS		5	2	3
	PC23. prepare detailed site survey report using GPS/DGPS and wind data analysis software		4	1	3
	TOTAL		100	30	70
SGJ/N1201 Perform basic health and safety	PC1. select the relevant protective	100	5	1	4

practices at project site (Ground and Height)	clothing/equipment for specific tasks and work			
	PC2. state the name and location of relevant documents and people responsible for health and safety at the project site	5	1	4
	PC3. identify possible causes of risk at project site and their mitigation measures	6	2	4
	PC4. identify and follow warning signs on site	6	2	4
	PC5. establish safe working procedures at the project site	5	2	3
	PC6. ensure safe working practices when working at heights, confined areas and trenches	6	2	4
	PC7. identify methods of accident prevention in the work environment	5	2	3
	PC8. follow safe operating procedures for lifting, carrying and transporting heavy objects & tools	5	1	4
	PC9. inspect the project site on a regular basis for any signs of spillage	6	2	4
	PC10. ensure safe storage of flammable materials and machine lubricating oil	5	1	4
	PC11. apply good housekeeping practices at all times by removal/disposal of waste products	5	1	4
	PC12. inform relevant authorities about any abnormal situation/behavior of any equipment/system promptly	5	1	4
	PC13. exhibit the use of various appropriate fire extinguishers on different types of fires correctly	6	2	4
	PC14. demonstrate rescue techniques applied during fire hazard	6	2	4
	PC15. administer appropriate first aid to victims were required e.g. in case of bleeding, burns, choking,	6	2	4

	electric shock, poisoning etc.				
	PC16. respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments		6	2	4
	PC17. participate in emergency procedures: raising alarm, safe/efficient, evacuation, correct means of escape, correct assembly point, roll call, correct return to work		6	2	4
	PC18. report the accident to the relevant authority in the prescribed format		6	2	4
		TOTAL	100	30	70
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	50	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 behaviors at the project site		4	2	2
	PC7. escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict		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,		4	2	2

	values, beliefs and perspectives of others				
	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