



QUALIFICATION FILE

Feedstock Manager - Procurement and Composition

- 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 OEM

NCrF/NSQF Level: 6

Submitted By:

Skill Council for Green Jobs

Chief Executive Officer

CBIP Building, Malcha Marg,

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Section 1: Basic Details

1.	Qualification Name	Feedstock Manager - Procurement and Composition														
2.	Sector/s	Environmental Science														
3.	Type of Qualification: <input type="checkbox"/> New <input checked="" type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options	NQR Code & version of existing/previous qualification: 2022/WSSWM/SCGJ/05144 & version 1	Qualification Name of existing/previous version: Feedstock Manager - Procurement and Composition													
4.	a. OEM Name b. Qualification Name (Wherever applicable)															
5.	National Qualification Register (NQR) Code &Version	QG-06-ES-01346-2023-V1.1-SCGJ	6. NCrF/NSQF Level: 6													
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other	Certificate														
8.	Brief Description of the Qualification	The individual at work is responsible for managing the feedstock supply, analyzing the supply chain, controlling the cost, managing suppliers as well as maintaining all documentation pertaining to feed supply of a CBG plant.														
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S. No.</th> <th style="width: 60%;">Academic/Skill Qualification (with Specialization - if applicable)</th> <th style="width: 30%;">Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Pursuing first year of 2-year PG program after completing 3year UG degree (in relevant field e.g., Agriculture/Environmental Science)</td> <td>NA</td> </tr> <tr> <td>2.</td> <td>Pursuing PG diploma after 3-year UG degree (in relevant field e.g., Agriculture/Environmental Science).</td> <td>NA</td> </tr> <tr> <td>3.</td> <td>Completed 4 year UG (in case of 4-year UG with honours/ honours with research, in</td> <td>NA</td> </tr> </tbody> </table>			S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1.	Pursuing first year of 2-year PG program after completing 3year UG degree (in relevant field e.g., Agriculture/Environmental Science)	NA	2.	Pursuing PG diploma after 3-year UG degree (in relevant field e.g., Agriculture/Environmental Science).	NA	3.	Completed 4 year UG (in case of 4-year UG with honours/ honours with research, in	NA
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)														
1.	Pursuing first year of 2-year PG program after completing 3year UG degree (in relevant field e.g., Agriculture/Environmental Science)	NA														
2.	Pursuing PG diploma after 3-year UG degree (in relevant field e.g., Agriculture/Environmental Science).	NA														
3.	Completed 4 year UG (in case of 4-year UG with honours/ honours with research, in	NA														

14 Progression path after attaining the qualification (Please show Professional and Academic progression)	Vertical Progression: Plant Head Compressed Biogas /Waste to Energy (Level 7) Horizontal Progression: Manager- Waste Management (Level 6)	
15 Other Indian languages in which the Qualification & Model Curriculum are being submitted	Nil	
16 Is similar Qualification(s) available on NQR-if yes, justification for this qualification	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
17 Is the Job Role Amenable to Persons with Disability	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes", specify applicable type of Disability: <input checked="" type="checkbox"/> Deaf <input checked="" type="checkbox"/> Hard of Hearing <input checked="" type="checkbox"/> Acid Attack Victims <input checked="" type="checkbox"/> Dwarfism	
18 How Participation of Women will be Encouraged	The programme would be proposed to be incorporated in women ITIs and diploma colleges to train women candidates on the job role. TPs shall be encouraged to onboard at least a certain number of female candidates in each batch	
19 Are Greening/ Environment Sustainability Aspects Covered (Specify the NOS/Module which covers it)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
20 Is Qualification Suitable to be Offered in Schools/Colleges	Schools <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Colleges <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
21 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@sscgi.in Contact No.: 9871119101 Website: https://sscgi.in/	
22 Final Approval Date by NSQC: 27/01/2022	23. Validity Duration: 3 years	24. Next Review Date: 26/01/2025

Section 2: Module Summary

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-Rec.	Total	Th.	Pr.	Pro j.	Viv a	Total	Weightage (%) (if applicable)
1.	Assess Supply Chain to Ensure Feedstock Procurement	SGJ/N0501 Version 3	Core	6	7	110	100			210						
2.	Manage the Suppliers, Financials and Documentation	SGJ/N0502 Version 3	Core	6	3	25	65			90						
3.	Ensure Compliance with Applicable Statutory Laws, Policies and Procedures	SGJ/N6503 Version 3	Core	6	1	15	15			30						
4.	Ensure Health and Safety at Workplace	SGJ/N6504 Version 4	Core	6	2	30	30			60						
5.	Employability Skills(90 hours)	DGT/VSQ/ N0103	Non - Core		3	90				90						
6.	On the Job Training				4					120						
Duration (in Hours) / Total Marks						20	270	210	120	600						

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

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 experience in Bio Energy processes/relevant experience Or Certified under relevant Craft Instructor Training Scheme (CITS) course. * Relevant experience includes Suitable work experience in Bio Energy
2.	Master Trainer’s Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	Engineering Graduate with 5 years of experience in Bio Energy
3.	Tools and Equipment Required for Training	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 5 years of experience in Bio Energy Or Certified under relevant Craft Instructor Training Scheme (CITS) course. * Relevant experience includes Suitable work experience in Bio Energy
2.	Proctor’s Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Engineering Graduate with 6 years of experience in Bio Energy

3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	Engineering Graduate with 10 years of experience in Bio Energy.
4.	Assessment Mode (Specify the assessment mode)	Online and offline both
5.	Tools and Equipment Required for Assessment	<input checked="" type="checkbox"/> Same as for training <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(details to be provided in Annexure-if it is different for Assessment)</i>

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	<p>Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes. Latest Skill Gap Study (not older than 2 years) (Yes/No): yes. Modern Bioenergy has been identified by Skill Council for Green Jobs as one alternative to contribute in this transition to self-reliance in the energy sector. Biomass as renewable resource for India can play important role to achieve a net-zero carbon emissions economy by 2070. We have a large surplus of biomass (230 million Metric tonne per year) which provides social and environmental benefits apart from clean fuels. Bioenergy applications can also reduce pollution create local jobs and business opportunities. It also overcomes the main problems of use of traditional biomass like inefficient combustion technologies, environmental hazards due to indoor pollution and unsustainable harvesting practices. Government of India has initiated many schemes for increased use of biomass for various end use applications. However it is necessary to ensure biomass resource availability and its demand through a proper supply chain management. Availability of skilled human resources is critical to achieve the goals. The current capacity and skills are not adequate and there is a gap in terms of knowledge and application which are critical to conceptualize, implement, regulate and monitor. It is necessary to create a cadre of local entrepreneurs who not only manage the surplus Agri residue of farm but also developed avenue for livelihood generation in villages. Skilling in this sector will not only organize it but also improve the service quality, its efficiency, livelihood of the farmers/labour's and to create a job opportunity in the existing and as well as upcoming CBG plants.</p> <p>As a part of its objectives for capacity building for green businesses and cutting-edge climate friendly technologies, Skill Council for Green Jobs along with KPMG, India has carried out sector analysis, skill gap studies, occupational mapping and process flow along with identification of job roles for the biomass sector with focus on biomass Supply chain and its utilization.</p> <p>As per the study, a part of agricultural residues generated in the country are consumed in traditional uses such as construction material for rural housing, domestic fuel for cooking etc. The surplus that is generated is burned by farmers in open fields in the absence of affordable disposal alternatives. The crop residue generated in the field has to be made available to the user facilities. The supply chain involves collection, storage and transportation of residue from field to site for end-use. Biomass also needs to be stored to ensure long term biomass availability for implementation of economically viable bio-based energy</p>
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	<p>projects. Biomass can be stored in Biomass storage depot which need to be built and maintained for comprehensive inventories of biomass preferably in States which have high biomass availability per unit area which in turn is linked to the number of jobs in the region. Job related to agri-residue supply chain include jobs related to field collection of agri residues, biomass densification and aggregation in biomass depots.</p> <p>Harvesting Raking Primary Baling Transport Debaling Secondary Baling Storage at Depot</p> <p>In order to plan for creating trained manpower for providing a sustained supply of feedstock for the CBG plants, it is necessary to develop a sustainable biomass supply chain and set up storage depots. As per the study conducted by SCGJ, 200 tons of paddy can be handled by each workforce annually and a biomass storage depot could house 10000 tonnes capacity/annum (280 days storage) in a radius of 25-30 km of the plant. Skill Council for Green Jobs (SCGJ) has developed Qualifications Packs of Agri-residue Aggregator, AnimalWaste Manure Aggregator and Biomass Depot Operator and Manager to skill local youth in collection, aggregation and storage of farm waste and also be trained for developing business in supply chain management of agri-residues/cattle manure.</p> <p>Keeping in view the focus of the Government to promote a Bio-CNG for automotive industrial and commercial usages, Skill Council for Green Jobs (SCGJ) in collaboration with Foreign Commonwealth Development Office (FCDO) India, Govt of UK (Formally DFID) has conducted another study with the objective to identify new and emerging Job Roles in the Bio-CNG sector for development of National Occupational Standards. The study has taken in to account global best practices to identify areas of potential growth in future and various government initiatives in the sector. SCGJ has also developed four training modules on the new and emerging job roles in the Bio-CNG/CBG sector for the job roles of Plant Head,</p> <p>Feedstock Manager (Procurement & Composition), Supervisor-CBG/WtE and Technician-CBG/WtE.</p> <p>Recently SCGJ has completed an in-depth study for assessments of biomass demand-supply value chain and entrepreneurship development for pellet production and identification for job roles. Skill council has developed qualification modules for Bioenergy Entrepreneur and Biomass Pellet Manufacturing Junior Technician.</p>
2.	<p>Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes</p> <p>1. https://www.ieabioenergy.com/wp-content/uploads/2021/11/CountryReport2021_India_final.pdf</p> <p>2. https://www.transparencymarketresearch.com/india-biomass-market.html</p>
3.	<p>Government /Industry initiatives/ requirement (Yes/No): • This Qualification Pack will be used across industry which is organised.</p> <ul style="list-style-type: none"> • It would be used by the training institute for new trainings/For employers to conduct RPL and for annual Appraisal • The SSC would submit details of the employment generated (wherever applicable) and realised.

4.	Number of Industry validation provided: 5
5.	<p>Estimated nos. of persons to be trained and employed: Bioenergy has started to provide promising results in India’s decarbonization efforts. It is no more the ‘sleeping giant’ of renewables in the country and has a significant role to play in India achieving its 2030 Conference of Parties 26 (COP26) target of achieving a cumulative non-fossil fuel-based energy capacity of 500 GW and reduction of total projected carbon emissions by 1 billion tonnes. It can also help to achieve the low-carbon transition pathway by focusing on rational utilisation of national resources as committed by India in COP27.</p> <p>In terms of its socioeconomic impact, bioenergy also bodes well for the Government of India’s push for home-grown initiatives – underlined in programmes and campaigns such as Make in India, Aatmanirbhar Bharat Abhiyaan and Swachh Bharat Abhiyan. It also offers opportunities for augmenting farmers’ income, easing the pressure on India’s exchequer, and generating employment and waste-to-wealth creation.</p> <p>As of August 2022, based on the total installed capacity of bioenergy projects in India, an estimated 0.43 million direct jobs and 0.66 million indirect jobs had been created in the economy. Of these, approximately 0.25 million jobs across the value chain of bioenergy projects are for women.</p>
6.	<p>Evidence of Concurrence/Consultation with Line Ministry/State Departments:</p> <p>Concurrence has been requested from the Ministry of New and Renewable Energy</p>

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

[Annexure: Evidence of Level](#)

Title/Name of qualification/component: Feedstock Manager - Procurement and Composition		Level:6	
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relate to the NSQF level descriptors	NSQF Level
Professional Theoretical Knowledge/ Process	<p>The Factual and theoretical knowledge in broad contexts within a field of work or study.</p> <ul style="list-style-type: none"> • Methods to collect information regarding the feedstock suppliers • Procedure to analyze supplier’s profile and shortlisting them as per requirement • Process to get the sample feedstock tested • How to discover new opportunities for feedstock procurement • Feedstock inventory and delivery forecasting techniques • Feedstock sourcing and procurement methods • Resource mobilization process • Procedure to monitor the feedstock levels • Regulation and compliances for feedstock procurement • Vendor management process • Stakeholders’ analysis methods • Supply chain management process • How to check feedstock for quantity and quality against specified standards • Waste management procedures • Methods of effective utilization of resources • Vendor Management process • Procedures to prepare supplier’s agreement and approval forms • Auditing procedures • Pricing and trend analysis procedures • Various records and reports to be maintained for feedstock procurement and management • Cost control methods • Local corporations / authorities that have a bearing on the particular business process. • Policies and procedures that impact the business process. 	<p>A Feedstock Manager - Procurement and Composition have theoretical knowledge in broad contexts within a field of work such as methods to collect information, procedure to analyse supplier’s profile, etc. Hence Level 6S/he can’t be placed at level 6.</p> <p>Since person is expected to ensure effective functioning of electrolysis process and required to communicate in Hindi/English. He/She is expected to build a team to cater specific problem. This cannot be placed at level 6.</p>	6

Title/Name of qualification/component: Feedstock Manager - Procurement and Composition		Level:6	
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relate to the NSQF level descriptors	NSQF Level
	<ul style="list-style-type: none"> • Legal formalities applicable for the particular business. • Benefits to the company due to practice of these procedures. • The importance of having an ethical and value-based approach to governance. • Knowledge of processes involved in the business. • Country specific regulations for the waste management sector and its importance. • Reporting procedure in case of deviations. • Importance of effective communication and establishing good working relationships with team members, customers, superiors and other stakeholders • Gender based concepts, issues and legislations • Organizational standards and guidelines on respecting gender and disabilities • Organizational policies and procedures pertaining to written and verbal communication • Escalation matrix and procedures for reporting work • Various categories of people that one is required to communicate and co-ordinate within the organization • Importance of effective communication in the at project site • Importance of teamwork in organizational and individual success • Organizational health and safety related practices applicable at the workplace • SOP to demonstrate safe and accepted practices for personal protection to the team, ensure compliance to emergency, rescue and first-aid procedures, organize and attend fire drills and workplace safety workshops, clean and disinfect of all material, tools and supplies • Safety signs, labels and charts are displayed at appropriate places • PPE and how to use them 		

Title/Name of qualification/component: Feedstock Manager - Procurement and Composition		Level:6	
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relate to the NSQF level descriptors	NSQF Level
	<ul style="list-style-type: none"> Organizational procedures for safe handling of equipment and machine operations Proper disposal system for waste and by-products Basic first aid procedures Methods to minimize accidental risks Emergency procedures to be followed in case of a mishappening 		
Professional and Technical Skills/ Expertise/ Professional Knowledge	<p>A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study.</p> <ul style="list-style-type: none"> Read and interpret instructions, procedures, and information at the workplace Communicate effectively with suppliers/ vendors and stakeholders Assess and estimate resource requirement Write reports like audit reports, monthly report, etc. Fill up relevant documents Prepare and write detailed reports of the studies performed Read and understand organizational and regulatory guidelines Read and understand manuals, health and safety instructions, memos, and other company documents Express statements or information clearly so that other can comprehend Participate in and understand main points of simple discussion Respond appropriately to queries Follow organization rule-based decision making process Take decision with systematic course of actions and/or response Complete tasks efficiently and accurately within stipulated time 	<p>A Feedstock Manager - Procurement and Composition will apply professional skills to manage CBG plant and solve work related day-to-day problems, etc. as per the organizational service standards. Hence Level 6</p>	6

Title/Name of qualification/component: Feedstock Manager - Procurement and Composition		Level:6	
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relate to the NSQF level descriptors	NSQF Level
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	Reasonable good in mathematical calculation, understanding of social, political and reasonably good in data collecting organising information, and logical communication. <ul style="list-style-type: none"> • Complete tasks efficiently and accurately within stipulated time • Take decisions in a time bound manner • Improve and modify own work practices • Work constructively and collaboratively with others • coordinate with multidisciplinary stakeholders • follow code of conduct • recognize problems and search for solutions • choose best methods to complete assigned tasks • approach relevant authority when required • apply domain knowledge to ensure compliance • critically evaluate the information obtained from other departments and stakeholders • ask questions for better understanding • Make timely decisions for efficient utilization of resources • Modify work practices to improve them • Work with supervisors/team members to carry out work related tasks • Complete tasks efficiently and accurately within stipulated time • Read instructions/guidelines/procedures • Approach relevant authority when required • Apply domain knowledge, observations and data to select course of action to perform tasks • Evaluate information and feedback obtained from customers, superiors and teams to perform day to day activities • Read statutory documents relevant to health and safety • Communicate effectively with team regarding the significance of health and safety at the workplace • Fill in relevant forms, formats and checklist accurately 	Job Holder is responsible for his/ her own work as s/he has excellent knowledge of manufacturing of electrolyzer and responsible in limited context. <ul style="list-style-type: none"> • A Feedstock Manager - Procurement and Composition applies understanding of social, and communication along with organization skills to deal staff, suppliers and clients.Hence Level 6 	6

Title/Name of qualification/component: Feedstock Manager - Procurement and Composition		Level:6	
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relate to the NSQF level descriptors	NSQF Level
	<ul style="list-style-type: none"> Analyze the impact of not adhering to the health and safety procedures Analyze, review and decide on approval / rejection based on quality standards of the organization 		
Broad Learning Outcomes/ Core Skill	<p>Demands a wide range of specialised technical skill, clarity of knowledge and practice in broad range of activity involving standard and non-standard practices.</p> <ul style="list-style-type: none"> Assess supply chain to ensure feedstock procurement Manage the suppliers, financials and documentation. Ensure compliance with applicable statutory laws, policies and procedures. Work effectively with team, customers and others Ensure health and safety at workplace 	<ul style="list-style-type: none"> A Feedstock Manager - Procurement and Composition is responsible for assessing supply chain to ensure feedstock procurement, manage the suppliers, financials and documentation, etc. The person has wide range of specialised technical skill, clarity of knowledge and practice in broad range of activity. Hence Level 6 	6
Responsibility	<ul style="list-style-type: none"> Responsibility for own work and learning and full responsibility for other's works and learning. Evaluate availability for consistent feedstock supply Monitor resource mobilization Manage quality and quantity of the feedstock and its storage Implement resource optimization and waste management Manage the suppliers Monitor the cost Prepare and monitor reports and records Liaise with government authorities/local authorities, corporations etc. for smooth conduct of business operations. 	<ul style="list-style-type: none"> Feedstock Manager is responsible for managing different activities of the feedstock supply which involves managing grower relationships, understanding crop inputs, and the management of farm contracts., etc. Hence Level 6 	6

Title/Name of qualification/component: Feedstock Manager - Procurement and Composition		Level:6	
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relate to the NSQF level descriptors	NSQF Level
	<ul style="list-style-type: none"> • Communicate effectively with team members, customers and others. • Interact with supervisors • Work in collaborative manner and respect. • Gender and disabilities. • Monitor safe work practices at the workplace • Ensure compliance to emergency, rescue and first-aid procedures Ensure good housekeeping practices and infection control guidelines		

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	First aid kit	Each	3
2	Fire extinguisher	Types	4
3	Warning signs and tapes	Nos	5
4	Safety footwear	Each	30
5	Rubber gloves	Each	30
6	Head protection	Each	30
7	Safety glasses	Each	30
8	Personal Protection Equipment	Each	30
9	2.1 Laptop External Speakers	No	1
10	Participant Handbook and Related Standard Operating Procedures	Each	1
11	Training kit (Trainer guide, Presentations)	Each	1
12	Laptop	Nos	3
13	Projector	No	1
14	Duster	No	1
15	Marker	Nos	5
16	Whiteboard	No	1

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 Feedstock Manager - Procurement and Composition

Annexure: Industry Validations Summary

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

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	Cyra Engines Pvt. Ltd	Dr. Rajesh C. Iyar	Founder	Surat	7203847496	rajesh_c_ayer@yahoo.com	NA
2	Enprotech Solution	Mr. Sanjay Nandre	Managing Partner	Pune	9890044785	enprotech@gmail.com	NA
3	REVV Environmental Solutions Pvt. Ltd	Dr. Vanita Prasad	CTO	Vadodara, Gujarat	8156006652	vanita.prasad@revv.co.in	NA
4	MSA Bio-Energy Pvt Ltd	Mr Deepak Gadhia	Director	Valsad, Gujarat	9825117353	Deepak.gadhia@greenashram.org	NA
5	United Nations Development Program	Srikrishna Balachandran	Project Manager	Lodhi Estate, New Delhi	7406133000	Srikrishna.balachandran@undp.org	N/A

Annexure: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2024-25	100	10	30	30	10	10
2025-26	500	50	50	60	20	20
2026-27	300	30	60	60	20	20

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
1		Nil											

5	<input checked="" type="checkbox"/> Tutorials/ Assignments/ Drill/ Practice	
6	<input checked="" type="checkbox"/> Proctored Monitoring/ Assessment/ Evaluation/ Examinations	
7	<input checked="" type="checkbox"/> 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	Practical Marks	Project Marks	Viva Marks
SGJ/N0501: Assess supply chain to ensure feedstock procurement	<i>Evaluate availability for consistent feedstock supply</i>	18	27	-	-
	PC1. perform thorough analysis of stakeholder requirements and market provider	1	1	-	-
	PC2. gather and analyze information regarding the feedstock suppliers near the plant	1	2	-	-
	PC3. develop supplier options/pool for sourcing of new and existing materials	1	2	-	-
	PC4. develop supplier options/pool for sourcing of new and existing materials	1	2	-	-
	PC5. obtain feedstock samples from the identified suppliers or third parties to test suitability	1	2	-	-

	PC6. negotiate an ideal binding supply agreement with suppliers available on the organization's panel as per the specified standards	1	2	-	-
	PC7. scope out and develop long term structural opportunities for feedstock supply in coordination with the feedstock traders or suppliers	1	2	-	-
	PC8. identify new opportunities to secure feedstock from various sectors	1	2	-	-
	PC9. develop logistics supply chains for feedstock supply	1	2	-	-
	PC10. define and implement appropriate procurement processes and sourcing strategies for the entire supply chain	1	1	-	-
	PC11. perform daily scheduling and planning of all inbound and outbound feedstock shipments	1	1	-	-
	PC12. forecast inventory movements proactively across suppliers and feeds in order to prevent any over or under supply penalties	2	1	-	-
	PC13. maintain accurate inventory positions for all products, including month-end inventory reconciliation with third party storage locations	1	1	-	-
	PC14. collaborate with other departments to ensure all inventory targets are met without any availability issues to the plant	1	2	-	-

	PC15. identify bottlenecks in the process and resolve them at the earliest	1	2	-	-
	PC16. maintain feedstock delivery forecast and present the same to the Plant Head periodically	1	1	-	-
	PC17. deliver savings and added value through effective sourcing and procurement activities	1	1	-	-
	Monitor resource mobilization	8	12	-	-
	PC18. acquire feedstock and digestate from the suppliers	1	1	-	-
	PC19. ensure that feedstock is aligned to sales target and growth	1	1	-	-
	PC20. monitor feedstock levels daily to ensure sufficient supply is on site or planned for delivery to meet the plant's needs	1	2	-	-
	PC21. support the development of in-house opportunities with the help of technology teams to optimize across the feedstock supply interface	1	1	-	-

	PC22. coordinate with trading team to understand the national and local regulations, their impact on supply and demand balances and develop strategies for optimal supply	1	2	-	-
	PC23. maintain a strong compliance culture for resource mobilization	1	1	-	-
	PC24. manage supplier performance and act as the point of escalation for purchasing issues	1	2	-	-
	PC25. report any shortages or discrepancies to the Plant Head	1	2	-	-
	Manage quality and quantity of the feedstock and its storage	9	12	-	-
	PC26. inform the supplier of any deviation in the quantities ordered and received and fix it during price settlement	1	1	-	-
	PC27. coordinate with third party inspectors when needed to ensure all feedstock quality targets are met	1	2	-	-
	PC28. monitor First Made Batch (FMB) trials to determine effectiveness of the formulated material and note any specifics that might lead to a change in raw material specification	1	2	-	-

	PC29. ensure proper storage of the feedstock in the biomass depot	1	1	-	-
	PC30. manage moisture content to minimize degradation and material loss as SOP	2	1	-	-
	PC31. manage the inventory to monitor and maintain feedstock quality over longer storage times	1	2	-	-
	PC32. minimize losses from handling and microbial degradation	1	1	-	-
	PC33. develop strategies to minimize fire risk from spontaneous combustion, lightning strikes, and human causes	1	2	-	-
	Implement resource optimization and waste management	5	9	-	-
	PC34. make sure effective utilization of available resources	1	1	-	-
	PC35. implement methods to optimize usage of material	1	2	-	-

	PC36. identify materials which can be replaced by environment friendly substitutes	1	2	-	-
	PC37. identify recyclable and non-recyclable, and hazardous waste	1	2	-	-
	PC38. dispose of hazardous waste appropriately as per SOP	1	2	-	-

NOS Total		40	60	-	-
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NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
SGJ/N0502: Manage the suppliers, financials and documentation	<i>Manage the suppliers</i>	6	8	-	-
	PC1. negotiate the fees with the suppliers	1	2	-	-
	PC2. ensure all contacts or supplier approval forms are in place with the feedstock suppliers	1	2	-	-
	PC3. arrange and hold periodic meetings with key suppliers to build long term relations and secure the best feedstocks	2	2	-	-
	PC4. manage the digestate disposal supplier by ensuring the disposal is being undertaken in a timely manner	2	2	-	-
	<i>Monitor the cost</i>	10	13	-	-

	PC5. monitor and report storage volumes and costs	1	2	-	-
	PC6. identify opportunities to reduce costs including maximizing book-outs/lineups	2	1	-	-
	PC7. audit the pricing to check that invoicing is accurate	2	2	-	-
	PC8. track feedback pricing and trends	2	2	-	-
	PC9. provide periodic updates to the team on opportunities to modify procurement plans to capture value and/ delay negative pricing events	1	2	-	-
	PC10. maintain records of the cost of feedstocks against budget set for the year	1	2	-	-
	PC11. implement cost down initiatives through process improvement in collaboration with the suppliers	1	2	-	-
	<i>Prepare and monitor reports and records</i>	8	9	-	-
	PC12. prepare relevant reports such as weekly delivery forecasts and expenditure	1	1	-	-
	PC13. prepare monthly reports on things such as risks, opportunities, deliveries and consumption	2	2	-	-
	PC14. perform a wide variety of transactions like purchase orders, sales orders, goods receipt/deliveries, transport accruals, stock transfers, washouts and others manually or on systems like SAP, as applicable	2	2	-	-

	PC15. maintain live feedstock tracker which details what is secured and what is being pursued	1	2	-	-
	PC16. issue monthly report on feedstocks consumed, impact on budgets, risks and opportunities in the coming months to the plant manager for inclusion in the monthly reports	2	2	-	-
NOS Total		24	30	-	-

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
SGJ/N6503: Ensure compliance with applicable statutory laws, policies and procedures	<i>Liaise with government authorities/local authorities, corporations etc. for smooth conduct of business operations</i>	12	18	-	-
	PC1.. outline the functioning of local corporations/authorities that have a bearing on the business process	2	3	-	-
	PC2.. build and maintain relationships with key persons to ensure smooth functioning of business	2	3	-	-
	PC3.. acquire permissions and fulfil compliance requirements as per legal norms	2	3	-	-
	PC4.. complete business registration and associated legal formalities	2	3	-	-
	PC5.. update self with knowledge and understanding of the relevant rules and policies	2	3	-	-

	PC6.. update self with information pertaining to compliances, laws, policies, and procedures	2	3	-	-
NOS Total		12	18	-	-

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
SGJ/N6504: Ensure health and safety at workplace	<i>Monitor safe work practices at the workplace</i>	15	15	-	-
	PC1. monitor the workplace and work processes for potential risks and threats	2	2	-	-
	PC2. ensure recommended safe practices in handling physical, chemical, electrical and fire hazards and risk are followed	2	2	-	-
	PC3. demonstrate safe and accepted practices for personal protection	2	2	-	-
	PC4. make sure usage of PPE by self and the team members	2	2	-	-
	PC5. ascertain the team follows safe working practices when working at height and in confined space	2	1	-	-

	PC6. monitor safe handling and usage of appropriate tools, materials and equipment during the work processes	2	2	-	-
	PC7. make sure ergonomic principles are followed, wherever required	2	2	-	-
	PC8. ensure safety signs, labels and charts are displayed at appropriate places	1	2	-	-
	<i>Ensure compliance to emergency, rescue and first-aid procedures</i>	15	15	-	-
	PC9. recognize emergency and potential emergency situations	2	2	-	-
	PC10. ensure no accidents and damages take place at the workplace	2	2	-	-
	PC11. organize and attend fire drills and workplace safety workshops	3	2	-	-
	PC12. ensure proper emergency and evacuation procedures are followed in case of accidents, fires and natural calamities	2	2	-	-
	PC13. make sure appropriate fire extinguishers are used for different types of fire	2	3	-	-
	PC14. administer first aid to victim in case of various medical emergencies including bleeding, burns, choking, electric shock, cardiac arrest, etc.	2	2	-	-

	PC15. ensure usage of correct and specified method to move injured person during an emergency	2	2	-	-
	Ensure good housekeeping practices and infection control guidelines	20	20	-	-
	PC16. ensure recommended personal hygiene, workplace hygiene and sanitation practices are followed at all times	3	2	-	-
	PC17. monitor cleaning and disinfecting procedures for all material, tools and supplies	2	3	-	-
	PC18. carry out periodic walk-through inspections to keep work area free from hazards and obstructions	3	3	-	-
	PC19. make sure any case report regarding sign and symptoms of illness of self and other colleagues are reported immediately to concerned authorities	3	3	-	-
	PC20. identify corrective actions for hazards such as illness, accidents, fires or any other natural calamity	3	3	-	-
	PC21. identify and recommend suggestions for improving health and safety at the workplace	3	3	-	-

	PC22. ensure proper processes are followed for disposal of hazardous waste as per standards	3	3	-	-
NOS Total		50	50	-	-

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory	Practical	Project	Viva
DGT/VSQ/N0103: Employability Skills (90 Hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. understand the significance of employability skills in meeting the current job market requirement and future of work	-	-	-	-
	PC2. identify and explore learning and employability relevant portals	-	-	-	-
	PC3. research about the different industries, job market trends, latest skills required and the available opportunities	-	-	-	-
	<i>Constitutional values – Citizenship</i>	1	1	-	-

PC4. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC5. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC6. recognize the significance of 21st Century	-	-	-	-
PC7. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
PC8. adopt a continuous learning mindset for personal and professional development	-	-	-	-
<i>Basic English Skills</i>	3	4	-	-
PC9. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-

	PC10. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
	PC11. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
	<i>Career Development & Goal Setting</i>	1	2	-	-
	PC12. identify career goals based on the skills, interests, knowledge, and personal attributes	-	-	-	-
	PC13. prepare a career development plan with short- and long-term goals	-	-	-	-
	<i>Communication Skills</i>	2	2	-	-
	PC14. follow verbal and non-verbal communication etiquette while communicating in professional and public settings	-	-	-	-
	PC15. use active listening techniques for effective communication	-	-	-	-
	PC16. communicate in writing using appropriate style and format based on formal or informal requirements	-	-	-	-
	PC17. work collaboratively with others in a team	-	-	-	-
	<i>Diversity & Inclusion</i>	1	1	-	-

	PC18. communicate and behave appropriately with all genders and PwD	-	-	-	-
	PC19. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
	<i>Financial and Legal Literacy</i>	2	3	-	-
	PC20. identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.	-	-	-	-
	PC21. carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook	-	-	-	-
	PC22. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
	PC23. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
	<i>Essential Digital Skills</i>	3	5	-	-
	PC24. operate digital devices and use their features and applications securely and safely	-	-	-	-

PC25. carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth Wi-Fi etc	-	-	-	-
PC26. display responsible online behaviour while using various social media platforms	-	-	-	-
PC27. create a personal email account, send and process received messages as per requirement	-	-	-	-
PC28. carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications	-	-	-	-
PC29. utilize virtual collaboration tools to work effectively	-	-	-	-
<i>Entrepreneurship</i>	2	3	-	-
PC30. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC31. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-

PC32. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC33. identify different types of customers and ways to communicate with them	-	-	-	-

PC34. identify and respond to customer requests and needs in a professional manner	-	-	-	-
PC35. use appropriate tools to collect customer feedback	-	-	-	-
PC36. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC37. create a professional Curriculum vitae	-	-	-	-
PC38. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-

	PC39. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
	PC40. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
	PC41. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total		20	30	-	-

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.

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SDSM/SID or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SCGJ
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SCGJ monitors the assessment process & records

2. Testing Environment:

- Confirm that the centre is available at the same address as mentioned on SDMS or SIP
- Check the duration of the training.
- Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.

- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
- Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
- Check the availability of the Lab Equipment for the particular Job Role.

3. Assessment Quality Assurance levels / Framework:

- Question papers created by the Subject Matter Experts (SME)
- Question papers created by the SME verified by the other subject Matter Experts
- Questions are mapped with NOS and PC
- Question papers are prepared considering that level 1 to 3 are for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
- Assessor must be ToA certified & trainer must be ToT Certified
- Assessment agency must follow the assessment guidelines to conduct the assessment

4. Types of evidence or evidence-gathering protocol:

- Time-stamped & geotagged reporting of the assessor from assessment location
- Center photographs with signboards and scheme specific branding
- Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
- Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos

5. Method of verification or validation:

- Surprise visit to the assessment location
- Random audit of the batch
- Random audit of any candidate

6. Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored
- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage

- Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

On the Job:

OJT Monitoring Report

- As in Green Jobs Sector, reproducing the evidence for assessment is not feasible due to constraints like cost, confidentiality and controlled environment, every
- Apprentice is required to record the evidences performed during the OJT and the same gets authorized by his/her supervisor.
- The evidence recording is done in a structured monitoring report, termed as OJT Monitoring report.
- During the OJT, every trainee is required to fill the OJT monitoring report which is required to be signed by his/her supervisor.
- Towards the end of OJT period these reports are submitted with the HR department of company
- These duly submitted reports are then verified by an Industry nominated assessor for verification of evidence.

Theory, Practical & Viva:

- Scope – Is used to test the knowledge and understanding and skills acquired during the OJT as well as to conform the OJT monitoring report.
- Some personality traits and generic skills (such as – promptness, sharpness, communication skills, depth of knowledge, comprehension, presentation, patience
- etc) can also be tested, which is also required for the QP.
- Tools – The assessment's questions should be aligned with the Qualification Pack, covering the PCs. There will be summative assessment at the end of the OJT.
- Method – Direct questions open and close ended questions, situation-based questions, analytical questions, and decision-making based questions for Viva,
- MCQ for the theory and performing QP related operations for practical. Different questions in theory, practical and viva are included to test relevant PCs from
- the QP
- Analysis – Assessor draws a spectrum of ready answers to be expected from trainee for Viva. This reduces effect of subjectivity of the assessor. Comparative
- Quality of trainees within a batch or different institutes can be gauged. The skill is gauged by observing the practical work.

Execution of OJT Assessment:

- HR department hands over the individual OJT monitoring report with Industry nominated assessor and schedules an assessment meeting for each trainee.

- Industry nominated assessor assesses each trainee based on OJT monitoring report, viva on each PC and also takes into account attendance of each trainee towards the end of the OJT period.
- The OJT marks are compiled for each NOS by the Industry nominated assessor and submitted with HR department of company.
- The OJT assessment results are then sent to SCGJ by HR department of company in a sealed envelope for compiling the assessment results in case of offline assessment.

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

