





Skill Council for Green Jobs NCVET Recognised Awarding Body

A comprehensive information handbook to **foster career in Green Business.**



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About Skill Council for Green Jobs

Skill Council for Green Jobs (SCGJ) is the sector skill council created by the Ministry of Skill Development and Entrepreneurship (MSDE) and is working in the domain of capacity building for green businesses and cutting edge climate friendly technologies. SCGJ has been incorporated as a Society in October, 2015, which is being managed by industry led Governing Council. The SCGJ scope covers the entire gamut of "Green Businesses", viz Renewable Energy, Sustainable Development, Green Construction, Green Transport, Green Hydrogen, Solid Waste Management, Water Management & e-Waste Management, hence would have pan India impact.

National Council for Vocational Education and Training (NCVET) has recognised SCGJ as its Awarding Body.

The focus of SCGJ has been to establish a strong industry connect in all its areas of work. SCGJ is building on its industry connect with a governmentindustry interface and partnership with stakeholders from industry, labour as well as the academia. Its activities are linked to Skill India Mission, National Solar Mission, Swachh Bharat Mission and Make in India initiative of Government of India.

SCGJ is closely interacting with Ministry of New and Renewable Energy, Ministry of Environment, Forest & Climate Change, Ministry of Housing and Urban Affairs, Ministry of Jal Shakti and NITI Aayog to cater to the skilled manpower requirements for the changing scenario. Skill council for Green Jobs is working towards introducing environmental friendly and sustainability in existing job roles as well.





OUR MISSION

To capture the skilling needs for both service users and manufacturers/ service providers within the sector and implement a roadmap for a nation-wide, industry led collaborative skills and entrepreneur development initiatives that will enable meet India's potential for "Green Businesses".



Quality training to meet industry expectation and to promote skill development for Green Business and energy and environment conservation.



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Key Sectors covered under SCGJ

Renewable Energy

01



Solar PV & Solar Thermal Wind Hydro Energy Storage Biomass Power/Cogen + CHP / -Waste to Energy Clean Cook-Stoves

Bio fuels & Biogas - Compressed biogas / Bio CNG

Environment, Forest and Climate Change

02

- Solid waste management

 Municipal
 Agriculture & animal husbandry

 Water Management

 Sewage treatment
 Rain Water Harvesting
 & Micro-irrigation
- A E-Waste Management
- Carbon Sinks - TBO-Oil Seeds - Agro-Forestry + Plantation

03

Sustainable Development

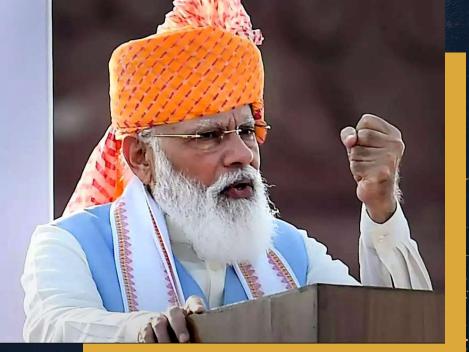
Green Construction

 Green Buildings
 Green Campuses

 Green Transportation

 Electric Vehicles
 Bio-fuels
 Bio-CNG

 Pollution Prevention & Control
 Green Hydrogen
 Energy Storage



Hon'ble Prime Minister Shri. Narendra Modi on 15th August 2021

Make India energy independent before the completion of **100 years of independence** (Year 2047).

3

The country is also emphasizing on **Mission Circular Economy.**

Environment and Renewable Energy

- There should be a network of CNG & PNG across the country. There should be a target of 20 percent ethanol blending (in petrol / diesel).
- India has set a target of 450 GW of renewable energy by the end of this decade 500 GW non fossil energy by 2030.
- Announced the National Hydrogen Mission.
- Make India a Global Hub for Green Hydrogen Production and Export during next 25 years.
- Move towards Clean Energy Transition.

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Waste and Water Management

- Campaign of water conservation.
- Plastic-free India, completely stop the use of single use plastic.
- To take the Swachh Bharat Mission to another new level.



New opportunities from Green Growth to Green Jobs are opening up today for our start-ups & youth.

India's path way to combat climate change

At the Glasgow summit, Hon'ble Prime Minister announced that India will **attain net zero** emissions by 2070, to combat climate change. He also announced that India will raise its non-fossil energy capacity to 500 GW by 2030 while meeting 50% of its energy demand from renewable sources, and cut its carbon emissions by a billion tonnes by the same year.

PANCHAMITRA at COP 26

India's five-point climate action plan, which PM Narendra Modi described as "Panchamitra (five values)", is set to give a firm push to India's plans for an accelerated transition to a low carbon economy.

01 Achieve the target of net-zero by 2070

- **02** 50% of energy requirements to be met through RE by 2030
- **03** Emissions intensity of GDP to be reduced by 45% by 2030
- **04** Reduce 1 Billion tonne of Carbon Emissions by 2030

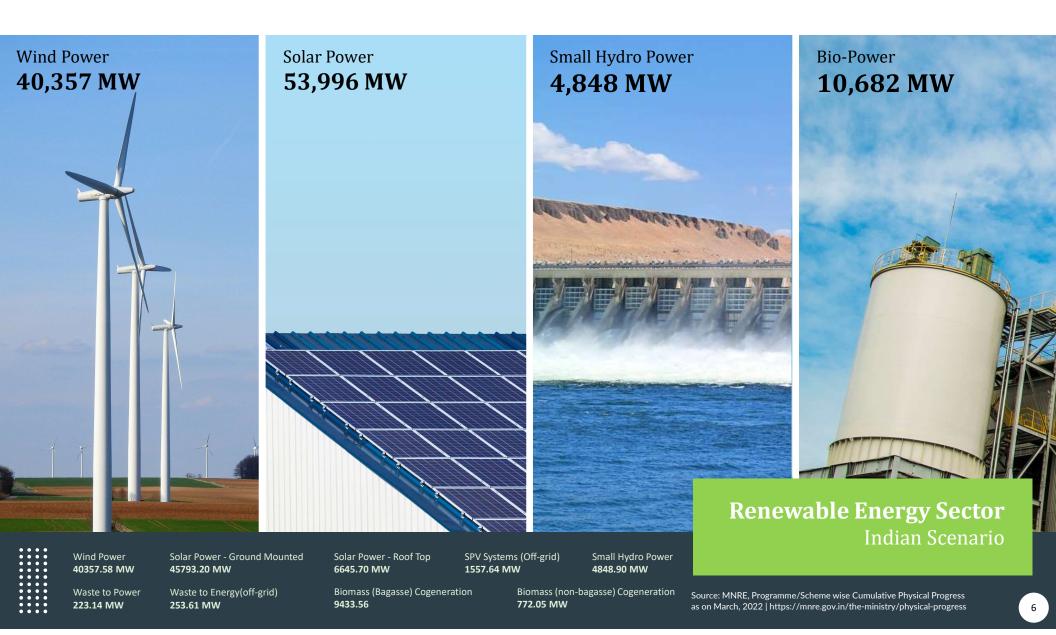
05 Non-fossil energy capacity to reach 500 GW by 2030

Hon'ble Prime Minister Shri. Narendra Modi in COP 26 (Nov. 2021)

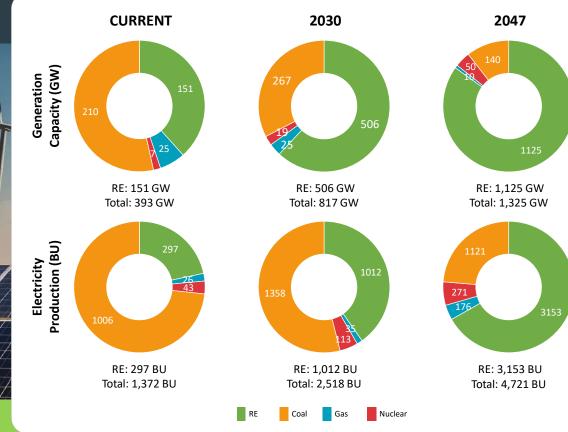


United Nations Climate Change





Indian Energy Sector 2022-2047





Source: MNRE Vision 2047 (CEA Optimal Energy Mix Report (Jan. 2020), NITI Aayog - India Energy Outlook, 2021)

Key Renewable Energy Sectoral Strengths - Leading to future job opportunities



Abundant RE Potential

Solar: 750 GW, Wind: 695 GW, Bio-energy: 42 GW, Waste-to-Energy: 5.65 GW



Strong Policy Backing

For Renewables Electricity Act, NDCs, State Policies



Robust Grid Infrastructure

One Nation-One Grid, Green Energy Corridors



Ability to attract Domestic & International capital

Through proven, sustainable and profitable business models



State-of-the-art Manufacturing Ecosystem

Available for Wind, Upcoming for Solar



Strong Institutional Framework

Dedicated Ministry, Regulatory Bodies and RE Implementing Agencies



Counter-Party Framework

For contracts, Payment security



Rich experience

In skillsets and capability building, regulations, project development, and financing

The potential estimates are likely to increase significantly with improvements in efficiency, land use optimization, etc. Source: MoP, MNRE, IEEMA and https://www.investindia.gov.in



Government of India Goals & Plan

RE Sector Key Goals for India - 2047

Energy Independence and Security

Enhancing Decarbonization of the Energy Sector

Self sufficiency in manufacturing of RE Technologies

Global hub for Green Hydrogen Production and Exports

Government Plan towards **Programmatic Interventions**

- 01 National Green Hydrogen Mission
- 02 Interventions to promote Domestic Manufacturing of RE equipment
- 03 Innovative Market Mechanisms for RE
- 04 Policies & Regulations to promote decarbonization and circularity across value chains



- 05 Scaling up programmes for Off-shore wind, waste to energy, DRE, farmers (KUSUM), rooftop solarization
- 06 Strategic bilateral and multilateral partnerships on technology, finance, trade
- 07 Measures to build supply chains for critical materials and components
- 08 Strengthening institutional capacity and industrial competitiveness

Renewable Energy Projections by 2047



1,125 GW Installed RE Capacity



50 GW¹ Equipment Manufacturing Capacity



2.5 bn. tonnes² Emissions Averted



67%³ Share of RE in Electricity Generation



₹ 50-60 Lakh Cr.⁴ Total Investment



Top 1000 Corporations⁵ All energy requirement met through RE

Allied technologies including electrolysers, energy storage, EVs, biofuels processing units etc. to further expand manufacturing capacity and attract additional investments

1 Indicated annual capacity to manufacture power generation equipment (solar PV modules, wind turbines) to meet 100% of new-build of domestic demand plus 20% capacity designated for equipment exports

2 Based on a CO₂ emissions factor of 0.8 kg/kWh, annual CO₂ emissions abated by 3,153 BU of RE generated by 2047 as per CEA estimates 3 RE share in installed generation capacity is projected to be ~85%

4 Based on KPMG analysis

5 To include top 1000 companies (PSUs, private, international companies in India) by revenue from Indian operations 6 MNRE Vision 2047

Job Projections in Green Business

The Green Energy and Energy Independence vision of Government of India translates into a huge opportunity for Additional Job Creation in multiple cross cutting sectors.

The Green Business Sectors include Renewable Energy, Water and Waste management, Green Buildings, Smart cities, Green Transportation, Circular Economy and resources & energy efficiency across sectors.

The initial estimates indicates that about

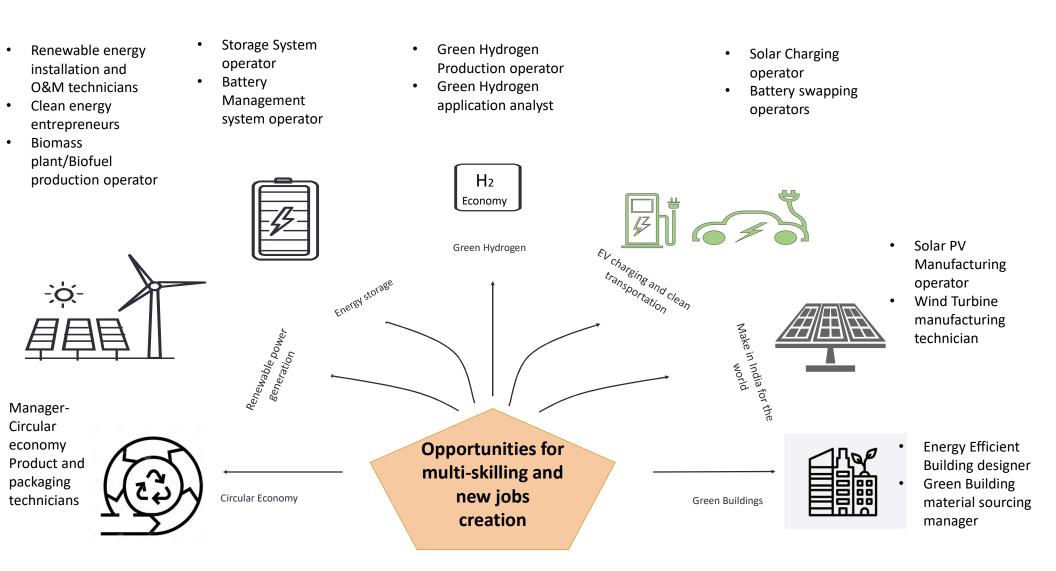
3 - 3.50 crore additional jobs will be created across sectors by 2047

Future sectors with high Job potential in Green Business

- 01 Green Hydrogen Energy
- 02 Floating Solar Power Plants
- **03** Off Shore Wind Power Plants
- 04 Hybrid Sola Wind and other Renewable Energy Systems
- 05 Biomass /Biofuels/ Bio CNG Production and Supply Chain
- 06 Large Size Energy Storage
- **07** EV Charging Through Solar Energy Plants
- **08** Pollution Prevention and Control Network
- 09 E-waste Management
- **10** De-Carbonisation of Energy intensive Sectors

Key existing and emerging thematic areas for accelerating job creation





SCGJ Goal 2030

Short term trainings in clean and Green Technologies

20 Lakh Virtual, blended mode, market mode upskilling and reskilling trainings across all sectors.



20 Center of Excellence PAN India

750 Affiliated Training Centers



SCGJ Vision 2047

- Every Job role will contribute in the **Green Energy Transition**.
- Green Energy will be part of every house hold and Industry.
- Traditional Job roles will be superimposed with new, green and future technologies.
- Unlimited job opportunities and need of upskilling based on new technological advances.
- 3 3.50 crore additional jobs will be created across sectors by 2047
- Over 1.00 crore skill trainings and job facilitation



Future Outlook of SCGJ

Skilling & Entrepreneurs Development

SCGJ intends on implementation of Skilling & Entrepreneurs Development related trainings with a focus on Sustainable Cities, under "Green Business" Framework in all Smart Cities. The initial program will encompass all Green Businesses relevant to sustainable development of cities, including but not limited to Energy, Waste, Water, Green Buildings & Green Transport.

Training on Carbon Neutral Processes

Introduce customized training modules on Carbon Neutral processes for every manufacturing job role.

Partnerships to Upskill Existing Workforce

SCGJ to work more closely with Industry for upskilling of existing workforce including on greening the jobs by introducing energy and material efficiency and waste management.

Partnerships with Educational Institutions

Provide increased focus on skill training with educational institutions with localized training contents on recycling / upcycling, green mobility, emissions reduction practices, entrepreneurship development through technology sharing and flexible financial products, etc.

Adopt Global Best Practices

Identify globally adopted best practices on zero emission processes for large scale production units, SMEs, Industrial clusters, farm practices, etc.; develop training modules & delivery platforms.





Solar Energy

- - Solar PV Installer (Suryamitra) SGJ/Q0101 v2.0 NQR Code: 2021/EHW/SCGJ/04257

DESCRIPTION

The Learner will be able to check, configure, install, inspect, test, and commission different components of photovoltaic systems, that meet the performance and reliability needs of customers by incorporating quality craftsmanship and complying with all applicable codes, standards, and safety requirements.

Overview of QP

NSQF Level: 4

Course Duration/Training Hours: 300

Trainee Qualification: 10th pass + ITI / Diploma (Electrical, Electronics, Civil, Mechanical, Fitter, Instrumentation/Welder)

Entry Age (Years): Minimum age: 18



Scan QR Code

2 Solar PV Installer – Electrical SGJ/Q0102 v2.0 NQR Code: 2021/EHW/SCGJ/04258

DESCRIPTION

The Learner will install, test, and commission different electrical components of photovoltaic systems, that meet the performance and reliability needs of customers by incorporating quality craftsmanship and complying with all applicable codes, standards and safety requirements.

Overview of QP

NSQF Level: 4

Course Duration/Training Hours: 220

Trainee Qualification: 10th + I.T.I (Electrical and Electronics)/Diploma (Electrical, Electronics) OR 10thpass+3 years of experience as Electrician

Entry Age (Years): Minimum age: 18

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Solar PV Solar PV Installer – Civil SGJ/Q0103 v2.0 NQR Code: 2021/EHW/SCGJ/04259

DESCRIPTION

The Learner will install different civil and mechanical components of photovoltaic systems that meet the performance and reliability needs of customers by incorporating quality craftsmanship and complying with all applicable codes, standards, and safety requirements.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 170

Trainee Qualification: 10th pass + ITI / Diploma (Civil/Mechanical/Fitter/Welder) OR 10 pass+3 years of experience as Mason



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Entry Age (Years): Minimum age: 18

Rooftop Solar Grid Engineer SGJ/Q0106 v2.0 NQR Code: <u>2021/POW/SCGJ/04261</u>

DESCRIPTION

NSQF Level: 5

The Learner will be able to checks, audits, inspects and tests different components of the grid connected Solar PV Power Plant in compliance with all relevant codes, standards, and safety requirements. S/He will be able to interconnect the solar plant with grid and perform post commissioning tests.

Overview of Qualification

Course Duration/Training Hours: 80

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Trainee Qualification: B.E./B.Tech (Electrical, Mechanical or equivalent) OR Graduate (Science) with 2 Year of experience OR Diploma (Electrical or equivalent) with 1 Year of experience

Entry Age (Years): Minimum age: 20



4 Solar Proposal Evaluation Specialist SGJ/Q0105 v2.0 NQR Code: 2021/EHW/SCGJ/04260

DESCRIPTION

The Learner will be able to review feasibility report of the site for installation, assess the techno -commercial feasibility and financial viability of setting up a Solar PV Power Plant. S/He will be able to providing techno - commercial advice, preparing lending or funding documents and write or review Solar PV project reports.

Overview of Qualification

NSQF Level: 5

Course Duration/Training Hours: 80(0:20)

Trainee Qualification: Any Graduate with 3 Years of experience in a financial institution/bank/managing project finance/Post Graduate (MBA/CA)

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Entry Age (Years): Minimum age: 23



Solar PV Business Development Executive SGJ/Q0107 v2.0 NOR Code: 2021/POW/SCGJ/04262

DESCRIPTION

The Learner will be able to tell to the client advantages of using solar power devices and systems to develop and generate business for the organization. S/He would have understanding of the rooftop SPV market, ground mount SPV market and decentralized SPV system market and will be able to suggest right kind of solar solution to meet the specific needs of the clients. S/He would have fair understanding of the solar PV technology, its applications and economics. S/He would keep track of central and state solar policies/programs to inform the client and let him avail the benefits of same.

Overview of Qualification

NSQF Level: 5

Course Duration/Training Hours: 200

Trainee Qualification: 10th Class+ 2 years ITI/Diploma with 3 years of relevant experience; OR BBA/B.Com, with 1 year of experience; OR B.Tech/BE/B.VoC (Renewable Energy or equivalent) with no experience

Entry Age (Years): Minimum age: 21







Solar PV Structural Assistant Design Engineer SGJ/Q0109 v2.0 NQR Code: <u>2021/POW/SCGJ/04263</u>

DESCRIPTION

The learner would be able to designs the module mounting structures, foundations for the module mounting structures, inverters and transformers and the complete layout of the solar PV power plant including walkways between the module mounting structures civil/ structural work for the control room, and allied structural works for the rooftop or ground mount solar PV power plant.

Overview of Qualification

NSQF Level: 5

Course Duration/Training Hours: 200

Trainee Qualification: Diploma in Civil Engineering/Structural Engineering



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Entry Age (Years): Minimum age: 20



Solar PV Project Helper SGJ/Q0111 v2.0 NOR Code: 2021/EHW/SCGJ/04265

DESCRIPTION

The Learner would be able to assist in site survey, erection and commissioning activities and maintenance activities for ground mounted solar PV power plants as well as roof top and also assist in installation of off grid solar systems.

Overview of Qualification

NSQF Level: 2

Course Duration/Training Hours: 200

Trainee Qualification: Ability to read and write

Entry Age (Years): Minimum age: 18

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Solar PV Designer SGJ/Q0110 v2.0 NQR Code: <u>2021/POW/SCGJ/04264</u>

DESCRIPTION

The Learner would be able to review civil and electrical design of the Solar PV power plant & prepare the energy simulation report.

Overview of Qualification

NSQF Level: 7

Course Duration/Training Hours: 200

Trainee Qualification: Graduates (B. Tech/ B.E. in Solar/Electrical, Electronics, Civil, Mechanical/Energy Systems) with 5 years of Solar PV experience OR Post- Graduates (M. Tech in Solar/ Renewables/ Energy Studies) with 3 years of experience in the sector Scan QR Code to access related content



Entry Age (Years): Minimum age: 25

10 Solar PV Engineer SGJ/Q0112 v2.0 NQR Code: 2021/EHW/SCGJ/04266

DESCRIPTION

The Learner would be able to take responsibility of design, installation and commissioning of solar power plant at site, its quality QA and HSE issues. S/he would also prepare site feasibility report. Learner also given an option to opt training on Solar Water Pumping, as a part of learning, S/he would also be able to design, install and commission solar water pumping systems.

Overview of Qualification

NSQF Level: 5

Course Duration/Training Hours: 300 (Optional: 120)

Trainee Qualification: B.E./B.Tech OR Diploma (Electrical/Electronics/ Civil/Mechanical) with 2 years of relevant experience

Entry Age (Years): Minimum age: 20





Solar PV Project Manager(E&C) SGJ/Q0114 v2.0 NQR Code: 2021/EHW/SCGJ/04267

DESCRIPTION

11

The Learner with her/his team of site in-charge and commercial manager, receives different components of the solar PV power plant (modules, inverter, transformers etc.) procure as per the design, checks the components for specifications and quality, installs the solar PV power plant as per the design, constructs the substation and grid interface incorporating grid code and regulatory provisions incorporated in the design.

Overview of Qualification

NSQF Level: 7

Course Duration/Training Hours: 200

Trainee Qualification: B.E./ B.Tech. in Engineering and Technology with 6 years' of experience in renewable energy/power sector utilities/consulting firms/solar PV power plant installation and commissioning OR M.Sc. / BVoc with 5 years of experience in renewable energy/power sector utilities/consulting firms/solar PV power plant installation and commissioning OR M Tech/MBA, with 3 years of relevant experience in renewable energy/power sector utilities/consulting firms/solar PV power plant installation and commissioning OR M Tech/MBA, with 3 years of relevant experience in renewable energy/power sector utilities/consulting firms/solar PV power plant installation and commissioning Entry Age (Years): Minimum age: 30

Solar PV Manufacturing Operator SGJ/Q0119 v2.0 NQR Code: 2021/EHW/SCGJ/04269

DESCRIPTION

13

The Learner would be able to clean and check front glass cover for the PV module; monitor the process of soldering solar cells to the strings to make interconnect, lamination of modules, framing of solar PV module, module testing and packaging for transit.

Overview of Qualification

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NSQF Level: 4

Course Duration/Training Hours: 200

Trainee Qualification: 10th pass

Entry Age (Years): Minimum age: 18



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12 Solar PV Maintenance Technician - Electrical (Ground Mount) SGJ/Q0115 v2.0 NQR Code: 2021/EHW/SCGJ/04268

DESCRIPTION

The Learner would be able to periodically check and maintain all the electrical components of the solar PV power plant for proper electrical connectivity, incorporating quality craftsmanship and complying with all applicable codes, standards, and safety requirements.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 200

Trainee Qualification: ITI - Electrical and Electronics

Entry Age (Years): Minimum age: 18

Scan QR Code to access related content



14 Solar Lighting Assembler SGJ/Q0201 v2.0 NQR Code: 2021/EHW/SCGJ/04270

DESCRIPTION

The Learner would be able to perform assembly of different types of solar lamps, repair of solar lamps with safety. With an elective, S/he would be able to assemble and repair of solar home lighting systems and solar street lights.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 220 (Elective: 40/40)

Trainee Qualification: 8th Pass

Entry Age (Years): Minimum age: 18

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Solar Energy

Potential Job role

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Solar Photovoltaic Entrepreneur SGJ/Q0901 v1.0 15 NOR Code: 2022/ES/SCGJ/05148

DESCRIPTION

The Learner would ventures into Solar market to lead an enterprise. He/She has the understanding of solar business models, market, technical knowledge of solar PV plants/system, along with components procurement and financing. Learner can prepare the feasibility study report and perform basic energy generation forecasting using simulation software for solar PV system and is also responsible for the managing the complete Solar PV project lifecycle.

Learner may choose at least one elective out of four electives. After the training, the candidate would be suitable to work as a Solar PV Entrepreneur across solar rooftop, solar pumping or ground mounted/utility scale solar space . S/he would create and operate a successful solar enterprise across the concerned sub domains.

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Overview of Qualification

NSQF Level: 5

Course Duration/Training Hours: 520 hours including 120 Hours with Entrepreneurship+200 hours of 1 elective + 200 hours Mandatory OJT Or 720 hours including 120 Hours with Entrepreneurship +400 hours of 2 electives + 200 hours Mandatory OJT

Trainee Qualification: Class 12th with 3 years of relevant experience in solar sector Or

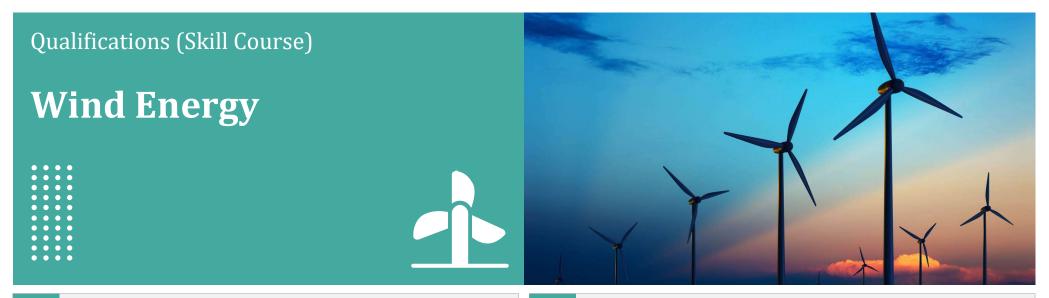
10th plus ITI or Diploma in relevant trade, with 2 years of relevant experience in solar sector Or

Previous NSQF level attained: Level 4 with solar installation or related job role with at least one year of relevant work experience in solar sector Or

Graduate (BA/B.Sc/B Com/BBA) with one year of relevant work experience in solar sector Or

BE/BTech/ Post Graduate in relevant discipline

Entry Age (Years): Minimum age: 21



Project Assistant Planner – Wind Power Plant SGJ/Q1201 v2.0 NQR Code: 2021/POW/SCGJ/04651

DESCRIPTION

16

The Learner would assists in carrying out planning of workflow for turbines & electrical systems, Erection & Commissioning (E&C), help in conducting statistical studies of product quality and time usage and support to analyze production costs while complying with all operational manuals, applicable codes, standards and safety requirements.

Overview of Qualification

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NSQF Level: 3

Course Duration/Training Hours: 250

Trainee Qualification: Class 12th with Science OR ITI after Class 10th (in Electrical/ Mechanical/ Civil/ and related trades) or Government recognized 3 years Diploma (Electrical/ Mechanical/ Civil/Electronics & Communication / Control & Instrumentation)

Entry Age (Years): Minimum age: 18



17 Wind Resource Assessor and Site Surveyor-Wind Power Plant SGJ/Q1202 v2.0 NQR Code: 2021/POW/SCGJ/04652

DESCRIPTION

The Learner would carries out wind energy site inspection, site assessment, checking site access, approach roads, grid availability for power evacuation, substation availability & its capacity and other relevant proximity of site.

Overview of Qualification

NSQF Level: 5

Course Duration/Training Hours: 120 hours +100 hours (Optional OJT)

Trainee Qualification: B.E./B.Tech (Electrical/ Mechanical/ Civil/ Electronics and Communication / Control & Instrumentation) Or Government recognised 3 years Diploma after class XII (Electrical/ Mechanical/ Civil/Electronics & Communication / Control & Instrumentation), with 2 years of relevant work experience

Entry Age (Years): Minimum age: 21

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Construction Technician- Wind Power Plant SGJ/Q1401 v2.0 NQR Code: 2021/POW/SCGJ/04656

DESCRIPTION

18

The Learner would carry out installation, testing, erection & commissioning of all parts & components of wind power plant including WTG, transformer, blades, nacelle, junction boxes and other associated accessories as per design drawing. With an elective of mechanical, electrical and civil, s/he would carryout installation and commissioning of respective components.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 350 hours including common NOS: 50 hours; Elective : 200 hours and OJT (Optional 100 hours)

Trainee Qualification: Class 12th with science with 1 year relevant work experience OR ITI after class 10th (in Electrician /Mechanical/ Fitter/Welder/ and related trades) with 1 year of relevant work experience OR Government recognized 3 years Diploma (in Electrical/ Mechanical/ Civil/Electronics & Communication / Control & Instrumentation)

Entry Age (Years): Minimum age: 18

O&M Mechanical Technician – Wind Power Plant SGJ/Q1502 v2.0 NQR Code: <u>2021/POW/SCGJ/04654</u>

DESCRIPTION

20

The Learner would carry out operations and maintenance of mechanical components of wind power plant, complying with all operational manuals, applicable codes, standards, and safety requirements.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 200 hours + 100 hours (Optional OJT)

Trainee Qualification: Class 12th with science with 1 year relevant work experience or ITI after Class 10th (Electrician /Mechanical/ Fitter/Welder/ and related trades) with 1 year of relevant work experience Or Government recognised 3 years Diploma (Electrical/ Mechanical/ Civil/Electronics & Communication / Control & Instrumentation)

Entry Age (Years): Minimum age: 18

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19 CMS Engineer- Wind Power Plant SGJ/Q1501 v2.0 NQR Code: 2021/POW/SCGJ/04653

DESCRIPTION

The Learner would be able to carry out installation and commissioning of Condition Monitoring System(CMS) of Wind Power Plant. S/he would also monitor the operation and maintenance of the CMS with a continuous stream of system data, mostly based on vibration monitoring and other operating conditions.

Overview of Qualification

NSQF Level: 5

Course Duration/Training Hours: 200+ 100 hours (Optional OJT)

Trainee Qualification: B.E./B.Tech (Electrical /Electronics/Instrumentation and control engineering/Mechanical/Computer and Communications)



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Entry Age (Years): Minimum age: 21

21 O&M Electrical & Instrumentation Technician – Wind Power Plant SGJ/Q1503 v2.0 NQR Code: 2021/POW/SCGJ/0465

DESCRIPTION

The Learner would perform operation and maintenance of switchgear, transformer, O/H and U/G Lines, SCADA, communication system (Fibre Optics) and complying with all operational manuals, applicable codes/standards, and safety requirements.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 200 hours + 100 hours (Optional OJT)

Trainee Qualification: Class 12th with science with 1 year relevant work experience OR ITI after class 10th (in Electrician /Mechanical/ Fitter/Welder/ and related trades) with 1 year of relevant work experience OR Government recognised 3 years Diploma (in Electrical/ Mechanical/ Civil/Electronics & Communication / Control & Instrumentation)

Entry Age (Years): Minimum age: 18

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Small Hydro

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Small Hydro Power Plant Technician (Jal Urja Mitra) SGJ/Q0604 v1.0 NQR Code: <u>2021/POW/SCGJ/04657</u>

DESCRIPTION

The Learner would be specialized to operate, test and maintain different electrical, hydro-mechanical, civil components of Small Hydro Power plant to meet the performance and reliability needs by incorporating quality workmanship and complying with all applicable codes, standards and safety requirements.

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Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 250

Trainee Qualification: Class 12th with science with 1 year relevant work experience or

ITI after Class 10th (in Electrical/ Mechanical/ Civil/ Instrumentation and related trades) with 1 year of relevant work experience or Government recognised 3 years Diploma (Electrical/ Mechanical/ Civil/ Control & Instrumentation)

Entry Age (Years): Minimum age: 18





DESCRIPTION

23

The Learner would be able to properly collect, identify different types of waste and segregate at source or at collection center as per recycling / reuse / disposal requirement. S/he also ensure health and safety at the workplace. As an entrepreneur S/he would be able to venture into entrepreneurship for recyclable waste collection.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 160

Trainee Qualification: Ability to read and write

Entry Age (Years): Minimum age: 16

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24 Safai Karamchari SGJ/Q6102 v2.0 NQR Code: 2021/WSSWM/SCGJ/04272

DESCRIPTION

The Learner would be able to sweep with a broom and / or other suitable equipment to remove dust, debris and garbage. In buildings, s/he will be able to sweep the floor, scrub the floor using appropriate cleaning solution to remove the fine dust. As an elective for wet cleaning, S/he would specialize in wet cleaning, cleaning and washing bathrooms, lavatory and removing garbage and other waste in closed dustbin. As an elective for mechanized cleaning, s/he will specialize in mechanized cleaning and removing garbage with the help of vacuum cleaner, mechanical sweeper, mechanical sweeper ride and mechanized scrubbing machine.

Overview of Qualification

NSQF Level: 3

Course Duration/Training Hours: 200 (Elective:40/40) Trainee Qualification: Ability to read and write Entry Age (Years): Minimum age: 18





Waste Picker SGJ/Q6103 v2.0 25 NOR Code: 2021/WSSWM/SCGJ/04273

DESCRIPTION

The Learner would be able to identify equipment used for waste collection, identify source of waste generation in local area including the streets, bins, landfills, material recovery facilities, processing and waste disposal facilities. S/he recognize different color codes used in waste management. As per type of refuse, s/he would suitably modify the collected waste, possibly for a better value.

Overview of Qualification

NSQF Level: 3

Course Duration/Training Hours: 160

Trainee Qualification: Not Applicable

Entry Age (Years): Minimum age: 18

Plant Head- Operations (Compressed Biogas/Waste To Energy) SGJ/Q0607 v1.0 NQR Code: 2022/WSSWM/SCGJ/05145

DESCRIPTION

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The Learner would develop and implement organizational Strategies and Policies to monitor Operation and Maintenance of the Production Unit. S/he would ensure Resource Optimization, Waste Management and Appropriate Documentation. S/he would also manage Human Resources in the CBG Plant and other administrative activities with applicable statutory compliances.

Overview of Qualification

NSQF Level: 7

Course Duration/Training Hours: 600 hours including 400 hours of compulsory modules and 200 hours of mandatory OJT

Trainee Qualification: B.Tech./B.E (Agriculture/ Environment /Civil/Mechanical/Electrical Engineering or Equivalent) with 8 Years of experience in the relevant field OR MTech /Post Graduate (Agriculture/Environment science) or in any relevant discipline with 6 years of experience in the relevant field OR NSQF level 6 certified in relevant job role (e.g. Manager- Waste Management) with 2 years of relevant experience Or Certified Supervisor - Operations and Maintenance Compressed Biogas/Waste to Energy - Level 5 with 5 years of relevant work experience.

Entry Age (Years): Minimum age: 28

Animal Waste Manure Aggregator SGJ/Q6302 v 1.0 26 NOR Code: 2019/ES/SCGJ/3325

DESCRIPTION

The Learner would be able to collect and aggregate animal manure from sources such as animal farms, gaushalas, rural households etc., aggregate supplies, as per the market requirement for various end-uses. As an option for Biogas Operator, S/he would monitor, operate and maintain biogas plant. As an option for Compost Plant Operator, S/he would monitor, operate and maintain compost plant.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 45(Optional: 45/45)

Trainee Qualification: 5th Pass

Entry Age (Years): Minimum age: 18

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Biomass Depot Operator SGJ/Q6207 v1.0 28 NQR Code: 2019/ES/SCGJ/3326

DESCRIPTION

The Learner would be appropriately able to handle, store and manage biomass at the storage depot. He/she will suitably undertake activities such as biomass receipt from suppliers, biomass pre-processing/densification and store in a manner so as to ensure its guality and safety from hazards as per standards.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 72

Trainee Qualification: 10th Pass

Entry Age (Years): Minimum age: 18







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29 Manager- Waste Management SGJ/Q6501 v2.0 NQR Code: 2022/WSSWM/SCGJ/05149

DESCRIPTION

The Learner would be appropriately able to carry out market analysis and formulate the business plan for the center. S/He will be able to manage the overall operation of the center and ensure health and safety at the workplace. S/He would ensure compliance of applicable statutory laws, policies and procedures relating to the center. As an elective for Biomass Depot, She/he specialize in overall operations of biomass depot and associated business. As an elective for Compost Yard, S/he specialize overall operations of compost yard and associated business. As an elective for Dry Waste Center, s/he specializes overall operations of dry waste collection center and associated business.

Overview of Qualification

NSQF Level: 6

Course Duration/Training Hours: 520 hours including 220 hours of compulsory modules +100 hours of mandatory "on the job training" + 100 hours of optional "on the job training", with one compulsory Elective of 100 hours

Trainee Qualification: Diploma (Government recognised 3 years Diploma in a relevant discipline) with 4 Years of experience in the relevant field Or Graduate in relevant discipline with 3 Years of experience in the relevant field Or BE (Agricultural Engineering) / BE/BTech in relevant discipline, with 2 years of experience in the relevant field Or MSc Agriculture OR Post Graduation in relevant discipline, with 1 year of experience in relevant field Or NSQF level 5 certified in relevant job role (e.g. Supervisor Operations and Maintenance Compressed Biogas/Waste to Energy) with 2 years of relevant experience

Entry Age (Years): Minimum age: 23

Supervisor – Operations & Maintenance (Compressed Biogas/Waste to Energy) SGJ/Q0605 v1.0 NQR Code: 2022/WSSWM/SCGJ/05147

DESCRIPTION

31

The Learner would supervises the team of Operations and Maintenance (O&M) technicians and maintains the operations of plant systems and equipment of a Compressed Biogas (CBG) plant to ensure smooth and profitable functioning of the business and streamlining the workflow.

Overview of Qualification

NSQF Level: 5

Course Duration/Training Hours: 500 hours including 400 Hours + 100 hours of Mandatory on the Job training

Trainee Qualification: Diploma (Government recognised 3 years Diploma (Electrical/ Mechanical/Civil/ Agriculture/ Electronics & Communication / Control & Instrumentation) with 2 Years of experience in relevant field OR Graduate; BE/BTech (Agriculture/ Environmental Engineering or equivalent) OR Post Graduate (MSC Environment Science or equivalent);MTech (Agriculture/ Environmental Engineering or Equivalent) OR Certificate-NSQF (Level- 4 Technician -O&M CBG/WTE) with 3 Years of experience

Entry Age (Years): Minimum age: 20

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30 Technician – Operations and Maintenance (Compressed Biogas /Waste to Energy) SGJ/0606 v1.0 NQR Code: 2022/WSSWM/SCGJ/05146

DESCRIPTION

The Learner would support effective and efficient operation and maintenance of a CBG plant by troubleshooting, repairing and ensuring maximum up-time of the plant. S/he would also aassist in Monitoring and Handling Major Breakdown in the CBG Plant.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: Theory: 92, Practical: 168 OJT: 160; Total: 420 hours

Trainee Qualification: 12th Class (Science) with 1 Year of relevant work experience Or 10th Class + I.T.I (Electrician /Mechanical/ Fitter/Welder/ and related trades) with 1 Year of relevant work experience Or Diploma (Government recognised 3 years Diploma (Electrical / Mechanical/Civil /Agriculture/ Electronics & Communication / Control & Instrumentation or in a related discipline) Or NSQF level 3 certified in relevant job role with 2 years of relevant experience





Entry Age (Years): Minimum age: 18

32 Feedstock Manager - Procurement and Composition SGJ/Q0501 v1.0 NQR Code: 2022/WSSWM/SCGJ/05144

DESCRIPTION

The Learner would analyze and manage the feedstock supply, standard and storage. S/he mmonitor resource mobilization and waste management, perform cost optimization and ensure compliance with Applicable Statutory Laws, Policies and Procedures.

Overview of Qualification

NSQF Level: 6

Course Duration/Training Hours: 600 hours including 400 Hours of compulsory modules+ 100 hours mandatory OJT + 100 hours Recommended OJT

Trainee Qualification: Graduate with 3 Years of experience in the relevant field Or Diploma (Government recognised 3 years Diploma) with 4 Years of experience in the relevant field Or Supervisor – Operations and Maintenance(Compressed Biogas/Waste to Energy)- Level 5 with 3 years of relevant work experience

Entry Age (Years): Minimum age: 24

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Biomass Management

Potential Job role

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Agri-residue Aggregator SGJ/Q6201 v1.0 NQR Code: 2019/ES/SCGJ/3324

DESCRIPTION

The Learner would be able to appropriately collect agriculture residue from farmers, establish collection points, make assessment of quality and quantity of agriculture residues and accordingly decides price. S/He would be able to appropriately sort, densify and suitably store the low density bales. S/he would also perform sale of the bales based on end requirements.

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Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 72

Trainee Qualification: 5th Pass

Entry Age (Years): Minimum age: 18

Clean Cooking

34

Improved Cookstove Installer SGJ/Q2101 v1.0 NQR Code: 2019/ES/SCGJ/3331

DESCRIPTION

The Learner would be able to select materials, prepare appropriate mixture, construct the Cookstove as per standard mould(s), embedding non- masonry items, fire for curing, installation at the appropriate site and demonstrate functioning of the Cookstove.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 120

Trainee Qualification: 5th Pass Preferably

Entry Age (Years): Minimum age: 18

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Portable Improved Cookstove Assembler SGJ/Q2102 v1.0 35 NQR Code: 2019/ES/SCGJ/3332

DESCRIPTION

The Learner would be able to assemble and fit various parts of the cookstove to manufacture the final product which meets performance and reliability standards. He /She will be able to incorporate quality craftsmanship and comply with all applicable standards.

Overview of Qualification

NSQF Level: 3

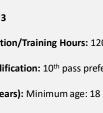
Course Duration/Training Hours: 120

Trainee Qualification: 10th pass preferred

Entry Age (Years): Minimum age: 18

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36 Portable Improved Cookstove Sales and Maintenance Executive SGJ/Q2104 v1.0 NQR Code: 2019/ES/SCGJ/3333

DESCRIPTION

The Learner would be able to identify equipment used for waste collection, identify source of waste generation in local area including the streets, bins, landfills, material recovery facilities, processing and waste disposal facilities. S/he recognize different color codes used in waste management. As per type of refuse, s/he would suitably modify the collected waste, possibly for a better value.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 80

Trainee Qualification: 8th pass

Entry Age (Years): Minimum age: 18



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37 Portable Improved Cookstove Distributor SGJ/Q2105 v1.0 NQR Code: 2019/ES/SCGJ/3334

DESCRIPTION

The Learner would be able to increase market share of portable improved cookstoves through vendor selection, warehouse development, logistics and aftersales service support. S/He would develop a portfolio of products, undertake targeted promotion, and ensure availability of the products to potential customers. S/he would ensure statutory compliances and safety in operations.

Overview of Qualification

NSQF Level: 6

Course Duration/Training Hours: 80

Trainee Qualification: 12th Pass + 2 years of experience in any distribution or similar operations

Entry Age (Years): Minimum age: 21

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Waste water Management

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38

Wastewater treatment plant technician SGJ/Q6601 v2.0 NQR Code: 2021/WSSWM/SCGJ/04274

DESCRIPTION

The Learner would be able to operate Wastewater Treatment Plant and other related equipment. S/He would be able to perform the operation and cleaning of different screens, valves in a Wastewater Treatment Plant and charge the slurry tank. S/He would be able to do add desired quantity of chemicals and microbes to treat water. S/He would also facilitate the calibration of process control equipment as needed.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 200

Trainee Qualification: 12th Pass, 10th Pass + ITI/Diploma, 8th pass + 4 years of experience as Wastewater Treatment Plant Helper

Entry Age (Years): Minimum age: 18

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39 Wastewater treatment plant Helper SGJ/Q6602 v2.0 NQR Code: 2021/WSSWM/SCGJ/04275

DESCRIPTION

Learner would be able to help in operation of Wastewater Treatment Plant and other related equipment. S/He would be able to measure and record all meter and gauge readings, perform maintenance on filters and valves, Cleaning of Tanks, cleaning of work area and equipment.

Overview of Qualification

NSQF Level: 3

Course Duration/Training Hours: 160

Trainee Qualification: 8th pass

Entry Age (Years): Minimum age: 18

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40 Septic Tank Technician SGJ/Q6402 v1.0 NQR Code: 2019/ES/SCGJ/3328

DESCRIPTION

The Learner would be able to excavate, fabricate and install fixed septic tanks as per as per Central Public Health and Environmental Engineering Organization(CPHEEO) norms. S/he also able to install prefabricated septic tanks at the site(commercial/institutional/residential). He/ She also undertake the work of repair and maintenance of existing septic tanks.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 80

Trainee Qualification: 5th Pass, Minimum experience of 3 year in masonry work

Entry Age (Years): Minimum age: 19



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41 Faecal Sludge Treatment Plant O&M Technician SGJ/Q6404 v1.0 NQR Code: 2019/ES/SCGJ/3330

DESCRIPTION

The Learner would carry out day-to-day operations of the FSTP. He /She would be able to identify repair and maintenance tools and equipment at FSTP and responsible for routine maintenance of pumps, engines, motors, filters, bar screens, valves, pipes, and any other equipment used in FSTP.

Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 200

Trainee Qualification: ITI or Equivalent

Entry Age (Years): Minimum age: 18

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Waste water Management Potential Job role

42

Desludging Operator SGJ/Q6403 v1.0 NQR Code: 2019/ES/SCGJ/3329

DESCRIPTION

The Learner would be able to empty, transport and dispose faecal sludge from the septic tank to desludging site / Faecal Sludge Treatment Plant. He /She would demonstrate preventive maintenance and operate pumps, suction hoses and other machinery/equipment to empty the septic tank and appropriately dispose the sludge. As an entrepreneur he/she would venture into desludging services for managing Faecal Sludge. Scan QR Code to access related content





Overview of Qualification

NSQF Level: 4

Course Duration/Training Hours: 120

Trainee Qualification: 5th Pass

Entry Age (Years): Minimum age: 18

Sustainable Practices

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43

Technician-Paper Bag Manufacturing SGJ/Q8701 v1.0 NQR Code: <u>2020/PPP/SCGJ/03879</u>

DESCRIPTION

The Learner would make eyelets and fix the handle or paste paper twisted rope handle to manufacture the final product and suitably pack the finished product for dispatch to the customer. S/he would follow applicable safety standards and improve soft skills.

Overview of Qualification

NSQF Level: 3

Course Duration/Training Hours: 225

Trainee Qualification: Ability to read and write

Entry Age (Years): Minimum age: 18





44 Paper Bag Maker SGJ/Q8702 v1 NQR Code: <u>2020/PPP/SCGJ/038803324</u>

DESCRIPTION

The Learner would source and use different kind of papers as per client requirement and sell paper bags through different channels. S/he ensures compliance with statutory requirements for setting up of the production unit. S/he develop Entrepreneurship skills to acquire requisite infrastructure/land. S/he is also responsible for overall management, recruitment and sustenance of the business.

Overview of Qualification

NSQF Level: 5

Course Duration/Training Hours: 130

Trainee Qualification: 8th Pass with 2 Years ITI program or 10th Class or Certified Paper Bag Technician with 3-5 Years of experience

Entry Age (Years): Minimum age: 18

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SCGJ e-learning Management System (SEMS) | www.sems.training

An initiative of Skill Council for Green Jobs to facilitate online skill activities in the Green Jobs sector by aggregating all its partners on a single digital platform and then making learning activities accessible to all candidates across India.

Build skills with online training & certificates from experts in green energy sector.

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Key Highlights



02

03

04

05

Online Trainings

Dedicated portal to put information about your online trainings supported by SCGJ. TPs can spread awareness about innovative e-learning initiatives (webinars etc.)

Candidate Mobilization

Option for candidates to register in your e-learning activities from SEMS portal. Candidates can view Training partner details (website) before registering.

MCQ Tests

Feature for TPs to create online MCQ test for each e-learning activity. Option for candidates to attempt assessment test and view their result.

Online Training Certificate

Instant certification generation for candidates who clear assessment. Study resources related to etraining can be made accessible to students.

Communication Interface

Interface to interact with SCGJ for all TOT programs conducted online. Personalized TP Dashboard to monitor self performance.

SCGJ Rozgar Portal | www.scgjrozgar.in

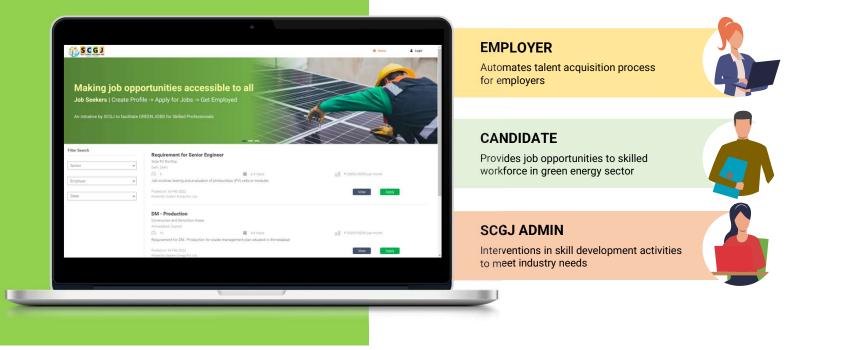
Skill Council for Green Job's Rozgar Portal is a unique technology intervention which makes job opportunities for skilled professional in green energy sector accessible by connecting them with coveted employers across India.

This technologically advanced solution is the brainchild of Skill Council for Green Jobs, which automates the entire talent acquisition process for employers, provides job opportunities to skilled workforce and help SCGJ make necessary interventions in Skill development activities to meet industry needs.

Rozgar Portal will support SCGJ mission to provide **10 Lakhs Jobs by 2030**









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