

353/14/2024 – NT
Government of India
Ministry of New and Renewable Energy
(Hydrogen Division)

Atal Akshay Urja Bhawan,
Lodhi Road, New Delhi 110003
Date: 16/03/2024

To,

The Pay & Account Officer,
Ministry of New and Renewable Energy,
New Delhi – 110003

Subject: Guidelines for scheme on skilling, up-skilling and re-skilling under the National Green Hydrogen Mission

Sir/Madam,

I am directed to convey the sanction of the President of India for the "Guidelines for scheme on skilling, up-skilling and re-skilling under the National Green Hydrogen Mission" for period from FY 2023 – 24 to FY 2029 – 30 with a total outlay of Rs. 35 crore.

2. Objectives:

- i. Undertake comprehensive skill gap analysis covering key areas of the Green Hydrogen ecosystem on a continuous basis.
- ii. Creation/updation of a registry of skills as required by the Green hydrogen value chain.
- iii. Design and develop curricular elements for use in Schools, Industrial Training Institutes (ITI), Polytechnics and HEIs at various levels and segments of the Green Hydrogen value chain.
- iv. Develop Qualification Packs (QPs), and training content including training manuals and online study resources for Green Hydrogen and allied sectors for use of STT and up-skilling courses.
- v. Encourage private sector participation, with a greater focus on training in industries and On-the-Job Training (OJT).
- vi. Enable cross utilization of available infrastructure at Schools, HEIs and government institutions for delivery of skill training.
- vii. Laydown criteria and mechanism for identification of institutions who would deliver the skilling courses.
- viii. Creation of certified pool of trainers across the Green Hydrogen value chain.



- ix. Implement learner-centric training programs to train and certify participants on approved courses on Green Hydrogen in consultation with Ministry of Skill Development and Entrepreneurship (MSDE). The training program shall include all components of training including placement tracking.
- x. Facilitate creation of one or more model CoEs for enabling higher level skilling, Training of Trainers (ToT) and support content creation on the Green Hydrogen ecosystem.

3. **Implementation Methodology:** The Scheme will be implemented as per the detailed Scheme Guidelines at **Annex**.

4. The expenditure on this scheme will be met from the budget provisions given under the Hydrogen Mission Head.

5. The implementing agency for implementation of this scheme shall be notified by MNRE in consultation with Ministry of Skill Development and Entrepreneurship (MSDE)

6. This issues in exercise of the powers conferred on this Ministry and with the concurrence of IFD vide their Diary No. 456 dated 15/03/2024.

7. This has the approval of Hon'ble Minister of Power and New and Renewable Energy.

Yours faithfully,



(Dr. Prasad Chaphekar)

Deputy Secretary

Email: prasad.chaphekar@gov.in

Enclosed: **Annex**

Copy to:

1. All Central Government Ministries and Departments
2. All Members of the Empowered Group under the Mission
3. All Members of the Advisory Group under the Mission
4. CEO, NITI Aayog, Sansad Marg, New Delhi
5. State Nodal Agencies (SNAs) of all States/UTs
6. Major Public Sector Enterprises operating in Renewable Energy/ Power Sector
7. Principal Director of Audit, Scientific Audit – II, DGCAR, I.P. Estate, Delhi – 110002
8. Director General (Local Bodies), Office of the Controller & Auditor General, Deendayal Upadhyay Marg, New Delhi
9. Solar Energy Corporation of India (SECI), 6th floor, Plate – B, NBCC office, Block tower – 2, East Kidwai Nagar, New Delhi – 110023

10. Indian Renewable Energy Development Agency Limited (IREDA), 3rd floor,
August Kranti Bhavan, Bhikaji Cama Place, New Delhi – 110066

Internal distribution

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(Dr. Prasad Chaphekar)
Deputy Secretary
Email: prasad.chaphekar@gov.in

1. Introduction

1.1 The National Green Hydrogen Mission ('Mission' henceforth) was launched in January 2023 with a budgetary outlay of Rs. 19,744 crore. The Mission envisages 5 MMT of Green Hydrogen production capacity annually by 2030. There is a potential for creation of 6,00,000 jobs across the Green Hydrogen value chain by 2030. Skilling of the workforce to meet this huge demand is an important part of the Mission. The Mission also proposes to undertake skilling/up-skilling and re-skilling of the workforce to cater to requirements of the emerging Hydrogen value chain.

2. Guiding Principles of Skilling for Transition to Green Hydrogen

2.1 Para 7.12 of the Mission document states that development and utilization of Hydrogen technologies will necessitate specific skill sets. Knowledge of advanced materials for fuel cells, electrolyzers, and storage; operational aspects of these technologies; integrated project management, etc. are some of the key areas which will require special focus. A coordinated skilling programme, that considers requirements in various segments, will be undertaken through the Mission. The programme will effectively associate institutions, skill development centres, Higher Education Institutions (HEIs), industry, and businesses. Hydrogen technologies will also be suitably incorporated in course curricula at various levels to develop a broad knowledge base. A significant part of the skilling programme would be to re-skill the workforce in sunset sectors to be absorbed into the Green Hydrogen and its auxiliary ecosystem. This will enable greater productive capacities of human capital deployed in the green industry to enable just transition.

2.2 The Scheme shall undertake the following activities for the development of the necessary skillset:

- i. Short Term Training (STT)
- ii. Up-skilling along with Recognition of Prior Learning (RPL)
- iii. Creation of Centres of Excellence (CoEs) at identified institutions
- iv. Enabling curriculum based long duration training at Schools, ITIs, Polytechnics and HEIs



2.3 The scheme funding shall cover the entire lifecycle of STT (200-600 hours) and RPL based up-skilling (30-132 hours). Funding in Public - Private Partnership (PPP) mode may be explored for CoEs to entities identified by Ministry of New and Renewable Energy (MNRE) in consultation with Ministry of Skill Development and Entrepreneurship (MSDE). Funding for long term training shall be towards development of course curriculum/qualifications, training of trainers/faculty and overall capacity building.

3. Objectives of the scheme

3.1 The scheme aims to develop the skills of youth, considering the emerging employment opportunities in the growing Green Hydrogen sector in India. The scheme shall focus on skilling / re-skilling of manpower and help develop an ecosystem for carrying out training covering key aspects of the Green hydrogen value chain along with fundamental principles of entrepreneurship. The objectives of the scheme are as follows:

- vi. Undertake comprehensive skill gap analysis covering key areas of the Green Hydrogen ecosystem on a continuous basis.
- vii. Creation/updation of a registry of skills as required by the Green hydrogen value chain.
- viii. Design and develop curricular elements for use in Schools, Industrial Training Institutes (ITI), Polytechnics and HEIs at various levels and segments of the Green Hydrogen value chain.
- ix. Develop Qualification Packs (QPs), and training content including training manuals and online study resources for Green Hydrogen and allied sectors for use of STT and up-skilling courses.
- x. Encourage private sector participation, with a greater focus on training in industries and On-the-Job Training (OJT).
- xi. Enable cross utilization of available infrastructure at Schools, HEIs and government institutions for delivery of skill training.
- xii. Laydown criteria and mechanism for identification of institutions who would deliver the skilling courses.
- xiii. Creation of certified pool of trainers across the Green Hydrogen value chain.
- xiv. Implement learner-centric training programs to train and certify participants on approved courses on Green Hydrogen in consultation with Ministry of Skill Development and



- Entrepreneurship (MSDE). The training program shall include all components of training including placement tracking.
- xv. Facilitate creation of one or more model CoEs for enabling higher level skilling, Training of Trainers (ToT) and support content creation on the Green Hydrogen ecosystem.

4. Scheme Outlay: Rs. 35 crore till FY 2029-30

Expense Item	Budgeted Expenditure (Rs. Crore)
STT and RPL based Up-skilling	28 cr
Enabling establishment of CoEs	5 cr
Course, curricula and capacity building at ITI, Polytechnics, Schools and HEIs	2 cr

The above outlay is tentative and fungible between different heads as per the directions of the Steering Committee.

5. Salient Features of the Scheme

5.1 The Scheme will be implemented by MNRE through Implementation Agency/Agencies -IA(s) as may be notified by MNRE, in consultation with MSDE with due weightage for previous experience and credentials of handling Government skill programs. The IA(s) will also provide secretarial, managerial and implementation support and carry out other responsibilities as assigned by MNRE from time to time. The responsibilities of IA(s) inter alia shall include:

- i. Coordinate the creation and uptake of relevant short term training Qualifications for Schools, ITIs, Polytechnics and HEIs through the network of Sector Skill Councils and other entities such as National Council of Educational Research and Training (NCERT), Directorate General of Training (DGT) and All India Council for Technical Education (AICTE).
- ii. Oversee the procedure for empanelment of institutions for providing training and for conducting assessments.
- iii. Receipt of applications, examination, and appraisal of applications for setting up training infrastructure in institutions, for different components of the Green Hydrogen value chain.

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- iv. Empanelment of Assessment Agencies for STT and RPL.
- v. Certification of trainers and assessors for all levels of skilling through Awarding Bodies (ABs) including SSCs, Universities, School Boards, etc.
- vi. Review and monitoring of training facilities and procedures to ensure quality training.
- vii. Setting up the procedure for assessment of training programs and training outcomes.
- viii. Updating the curriculum, as per requirement and assessment of training needs on a regular basis.
- ix. Post training tracking.
- x. Monitoring and Evaluation.

5.2. The whole training life cycle including monitoring and evaluation shall be captured through the MSDE Skill India Digital (SID) platform. The candidates would be tracked for one year after the training.

5.3 Components of the scheme

- i. Short Term Training (STT): The STT skill courses are National Skills Qualification Framework (NSQF) aligned modular courses of 200-600 hours duration. Training will be delivered through accredited and affiliated training centres. On-Job Training (OJT) will be an inherent component under STT as mandated by National Council for Vocational Education and Training (NCVET). The duration of OJT will depend on the job role.
- ii. RPL based up-skilling: The RPL component of the scheme with duration ranging from 30-132 hours is targeted at candidates, part of the existing workforce, with prior experience or skills who will be certified with due assessment. Emphasis will be on upskilling and interested candidates will have to undergo coursework for certification at a higher level based on assessment.

5.4 **Eligibility of Participants:** This scheme will be available to any candidate of Indian nationality who:

- i. Fulfils education related and other eligibility criteria for the respective job role as may be laid down.
- ii. Is aged between 18-45 years.
- iii. Possesses a valid identity proof and an Aadhar linked bank account.



- iv. For RPL based up-skilling, the participant should have prior experience in the job role for which formal skill certification is desired.

5.5 Selection of Training Provider for STT and up-skilling

5.5.1 Any organization, legally established as a society, trust, proprietorship, Company/ Limited Liability Partnership (LLP) /Government Institute/ Organization, etc., can be a training provider under the scheme. Preference may be given to Government Institutions and those with permanent vocational infrastructure.

i. Selection of Training Provider for STT and Up-skilling

- a. A transparent selection process should be followed by IA(s) while selecting the Training Centres for delivery of skill training. These centres may include Pradhan Mantri Kaushal Kendras (PMKKs), Government and Private (ITIs), Polytechnics, institutions owned by the Central or State Governments, HEIs, Schools, etc.
- b. For RPL based up-skilling, industrial enterprises, including PSUs, autonomous bodies, industry associations, etc. may also be included as Training Centres.
- c. Project Appraisal Committee (PAC) may approve the target allocation methodology under the Scheme. A concurrent monitoring mechanism shall be put in place to periodically monitor the progress of these centres.
- d. Sub-contracting, sub-letting, franchisee arrangement of any kind for the targets allocated is not allowed for any Training Provider. Also, key staff such as Centre managers and Trainers should be on the payrolls of the Training Provider.

5.6 Centre Accreditation and Affiliation for STT and Up-skilling

- i. Training Provider shall be empanelled through Skill India Digital (SID) platform of MSDE. Verification of availability of premises and trainers would be carried out through the process as defined in the Centre Accreditation and Affiliation Guidelines notified by MSDE, as amended from time to time. Quarterly progress report, geo-tagging, audit, etc. will be carried out. Penalties including

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blacklisting, may be imposed against the Training Provider in case of discrepancy and non-compliance to guidelines.

- ii. Simplified onboarding as Training Provider may be provisioned for the following entities:
 - a. ITIs with grading 4 and above as per latest grading mechanism.
 - b. National Skill Training Institutes (NSTIs)
 - c. National Institute for Entrepreneurship and Small Business Development (NIESBUD) and Indian Institute of Entrepreneurship (IIE) Centres
- iii. Active participation of Schools and HEIs shall be encouraged. Reputed industrial establishments and Community Based Organizations (CBOs) having a long-standing track record of quality training program implementation may also be on-boarded for providing training.
- iv. A multi-layered information / counselling eco-system where relevant information regarding the job roles / sectors, livelihood opportunities post training, career progression profiles, information on Training Centres including the rating of the centres and options for registration shall be made available through the SID platform.

5.7 Assessment and Certification

- i. To ensure quality, skill training shall be delivered through certified trainers only. The trainers and assessors must be certified by Awarding Bodies (including SSCs, Universities, School Boards etc.) through a training and assessment program outlined in the Training of Trainer (TOT) and Training of Assessor (TOA) guidelines notified by MSDE, as amended from time to time.
- ii. Use of digital content to supplement classroom training shall be encouraged, as specified by guidelines of NCVET.
- iii. 70% attendance is necessary to be eligible to appear in the assessments.
- iv. The skill assessment is the prime responsibility of the IA(s) and is to be conducted by empanelled Assessment Agencies (AAs).
- v. School Boards, HEIs, and other dual Awarding Bodies can conduct the assessment through their in-house resources for curricular courses.



- vi. It shall be the responsibility of the Training Partner to make sure that the equipment specified by the Awarding Body is available for assessment, and the assessor should check the same.
- vii. Candidate Feedback Form available in regional languages will be collected towards the end of the final assessment
- viii. Assessment fee shall be funded under the scheme. Certificate shall be made available to the candidates in physical and digital form, along with corresponding 'credits' as per National Credit Framework (NCrF) of MSDE.
- ix. Every candidate will be offered one chance of re-assessment (free of cost), under STT component, to be borne from the scheme.
- x. All certified candidates shall be on-boarded onto SID portal.
- xi. Apprenticeship shall be promoted for the certified candidates. Training linked to captive placements (training and placement within the same industry) will be promoted under the scheme.
- xii. Rozgar Melas will be organized on regular interval for placement and apprenticeship. Post training linkages with apprenticeship for certified candidates shall be provided.

5.8 Placement and Post Training Support

- i. Post placement verification shall be done by the Implementing Agencies (IAs) of the scheme. IA shall also be responsible for concurrent and continuous monitoring and supervision of the training.
- ii. A grievance redressal mechanism for applicant, Training Provider and Assessors shall be set up with MNRE/ MSDE for a time bound resolution of grievances.
- iii. IA(s) shall play the key role in building the capacity of the participating stakeholders through training sessions, webinars, refresher course, regional / zonal review meetings, ideas exchange and knowledge exchange.

6. Funding and Disbursement

6.1 The fund disbursement for STT and RPL will be as per the Common Cost Norms for Government Skilling schemes as notified by MSDE, as amended from time to time.

6.2 Skilling as part of curriculums at ITIs, Polytechnics, Schools, and

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higher skilling courses at HEIs shall be in the form of fee-based programs.

6.3 Five percent (5%) of the total scheme budget will be earmarked towards administrative expenditure as per the following breakup:

S.No.	Details	% of scheme outlay
a.	Administrative charges of IA	4%
b.	Administrative charges of MNRE	1%

The 1% outlay for MNRE shall be used for conducting independent evaluations, seminars on specialized topics, field visits and such other supportive actions

6.4 Fund Flow Mechanism

Funds under the scheme will be transacted under Public Financial Management System (PFMS) platform. Direct monetary benefits to candidates, if any, shall be undertaken through the PFMS linked with Direct Benefit Transfer (DBT) Bharat Portal. For institutions seeking reimbursement of skilling expenses, the following documents shall be submitted:

- i. Utilization Certificate (UC) in GFR 12A,
- ii. Statement of Expenditure (SoE),
- iii. Attendance Sheet,
- iv. Group Photo,
- v. Assessment & Certification receipt,
- vi. Feedback Forms,
- vii. Placement Information,
- viii. Details of participants in the specified format (Aadhar number of participants is mandatory), and
- ix. Any other information required by MNRE/ MSDE/ IA.

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6.5 The funds for STT program will be released to the IA(s) for disbursal to the training institute as per the following schedule:

S.No.	Tranches	Release (in %)	Milestones
1	Tranche 1	30%	On commencement of training
2	Tranche 2	30%	On batch achieving 70% Aadhaar Enabled Biometric Attendance System (AEBAS) attendance once and 50% of the training is over
3	Tranche 3	40%	On completion of Assessment and uploading of results
	Total	100%	

6.6 The funds for RPL program will be released to the IA(s) for disbursal to the training institute as per the following schedule:

S.No.	Tranches	Release (in %)	Milestones
1	Tranche 1	80%	On assessment results uploaded by empanelled Assessment Agency
2	Tranche 2	20%	Submission/uploading of Monthly Performance Report (MPR) and submission of proof for certificate handover, with or without the distribution ceremony
	Total	100%	

7. General Information

7.1 The Training Centre must provide Facilitator Guide (for Trainers) and the Course Handbook/ study material (for learners) as part of the

Handbook

training cost at the start of the skilling program.

- 7.2 The modes of training shall be 100% classroom-based approach where both theory and practical shall be conducted physically at the affiliated Training Centre or a blended approach where the theory portion of course may be delivered through digital/online mode and the practical portion and OJT may be delivered at the affiliated Training Centre and industry premises.
- 7.3 All the Training Centres need to brand their respective centres with collaterals for promotional activities in accordance with the branding guidelines issued.
- 7.4 All certificates shall have the Skill India and MNRE logo.
- 7.5 The application with incomplete documents/ information will be outrightly rejected and no correspondence for that will be entertained.
- 7.6 Court of jurisdiction for any dispute will be Delhi High Court, New Delhi.
- 7.7 The decision of MNRE shall be final in all matters relating to eligibility, acceptance or rejection of application, mode of selection.

8. Timelines and Penalty Provisions

- 8.1 If the IA / Training Provider fails to utilize the grant for the purpose for which it has been sanctioned or fails to complete the project, the IA will refund the entire amount, with interest as per General Financial Rules (GFR) to MNRE.
- 8.2 The call for proposals should indicate a suitable timeline for completion of the project. Extension of up to six months may be granted for completion of the project with the approval of the Steering Committee.
- 8.3 MNRE reserves the right to retract sanction or cancel or short-close projects in consultation with the Steering Committee in cases where the project(s) face unreasonable delays or fail to comply with the objectives/ provisions of this Scheme or the Mission.

8.4 Project Completion



8.4.1 The IAs shall submit the Project Completion Report (PCR) to the Project Appraisal Committee (PAC) within one month from the completion of project. PCR shall include the following:

- i. Technical aspects of the training, including the equipment, software, and other training aids used.
- ii. Challenges encountered during the Training, and how these were overcome.
- iii. Outcome of the training comprising of technical knowhow generated along with the data collected during the execution of the training program.
- iv. Recommendations for future trainings, based on the lessons learned from previous training programs.

9. Governance

9.1 Steering committee

A Steering committee, co-chaired by Secretary, MNRE and Secretary, MSDE and suitable representation from DGT, National Skill Development Corporation (NSDC), school ecosystem and higher education ecosystem including University Grants Commission (UGC) and AICTE will monitor the execution of this scheme and provide directions from time to time regarding broad policy, allocation of funds among various component heads of the scheme.

9.2 Project Appraisal Committee (PAC)

A PAC, co-chaired by Mission Director, NGHM and Additional/Joint Secretary, MSDE and any other members as nominated by MNRE and MSDE, shall be constituted for overseeing the regular functioning of the scheme, making recommendations to the Steering Committee for any policy or operational corrections for improving the implementation of the scheme, reviewing and approving of proposals in accordance with the guidelines or any other functions as deemed fit by the Steering Committee.

10. Power to amend Scheme Guidelines

MNRE, in consultation with MSDE, may make necessary amendments in the Scheme Guidelines, as and when required, with the approval of the Hon'ble Minister of New & Renewable Energy.

