



National Productivity Council

Online Training Programme on

**"Energy Transition - Marching Towards Industry 5.0 for
Sustainability"**

PROGRAMME CODE: T2627CHN03



10th - 11th August 2026
(AIP-NPC-Chennai)



1. INTRODUCTION

The energy transition is crucial for delivering on economic, social and environmental priorities. The transition towards Industry 5.0 (I 5.0) marks a critical evolution in the global energy landscape, shifting from the efficiency-driven automation of Industry 4.0 to a human-centric, sustainable, and resilient model. This new phase harmonizes advanced technological capabilities—such as AI, digital twins, and collaborative robots (cobots)—with human creativity to drive decarbonization, optimize energy consumption, and advance circular economy principles.

Industry 5.0 is not merely an upgrade in technology but a paradigm shift in values, balancing economic competitiveness with environmental responsibility. I 5.0 is anchored in the principle of integrating human intelligence and creativity with advanced technological systems to drive innovation, customization, and sustainability in manufacturing, where robots and humans work side by side, customizing products to individual preferences while optimizing efficiency and safety.

With this backdrop, National Productivity Council, Chennai has designed a 2-day online training program on “Energy Transition—Marching Towards Industry 5.0 for Sustainability” to impart the knowledge and skills, which shifts the focus from purely digital efficiency to human-centric, eco-friendly, and resilient operational frameworks.

2. ABOUT NPC

National Productivity Council (NPC), an autonomous organization established in the year 1958, under the Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry, Government of India, is a pioneering institution providing consultancy, training and audit services in various disciplines to promote productivity culture in the country.

Dr. Ambedkar Institute of Productivity (AIP), a training wing of NPC is engaged in training Consultants for in-house needs and Executives from Industry, Government, PSU's and Private Organizations on a sponsored or self- financing basis. Further AIP, NPC, Chennai is the Nodal Agency for organizing and conducting the National Certification Examination for Energy Managers and Energy Auditors on behalf of the Bureau of Energy Efficiency, whereby about 20,000 Certified Energy Auditors/Managers serve the Indian economy today.

NPC has set up the Centre of Excellence for Training in Energy Efficiency Training (CETEE) at AIP, Ambattur, Chennai. The CETEE facility is the culmination of Indo-Japanese Governmental cooperation and has been implemented with the help of Bureau of Energy Efficiency (BEE), Government of India, and New Energy Development Organization (NEDO) and Sumikin Management Company, an associate of Sumitomo Steels, Japan.

CETEE is equipped with various industrial energy utility equipment designed to demonstrate practically, various aspects of energy efficiency practices and conservation techniques as applicable

in industries and installed with renewable energy applications. CETEE has been providing world class training to public sector companies (ONGC, IOCL, GAIL, PCRA, BHEL, IRIEEN, Power Grid etc.), corporate companies in private sector as well as international organizations (UNEP, APO, UNIDO, GIZ, ITEC, WRI, WWF) since its inception.

3. LEARNING OBJECTIVES

The main objective of this training programme is:

- To serve as a capacity building for the industrial manufacturing sectors and budding engineers in the energy transition towards I 5.0 and greener cleaner energy.
- To train on advanced concepts applicable to industries, merging digital transformation with ecological responsibility.
- To provide the participants with practical knowledge and skills needed to focus on various issues of concern to achieve critical energy transition and sustainability objectives.

4. PROGRAMME COVERAGE

The key topics to be covered in energy transition towards I 5.0 are:

1. Energy Transition Roadmap for India
 - Policy direction, net-zero targets, and sector-wise transition pathways
 - Role of industries in achieving sustainability goals
2. Industry 5.0: Human-Centric & Sustainable Manufacturing
 - Difference between Industry 4.0 and 5.0
 - Integration of human intelligence with smart technologies
3. Renewable Energy Integration in Industrial Systems
 - Solar, wind, hybrid systems for industries
 - Challenges in grid integration and reliability
4. Energy Efficiency & Digitalization in Industries
 - Smart metering, IoT, AI-driven energy management
 - Case studies on energy savings
5. Green Hydrogen & Future Fuels
 - Hydrogen economy, fuel cells, industrial applications
 - Opportunities and challenges in India
6. Decarbonization of Hard-to-Abate Sectors
 - Steel, cement, chemicals
 - Carbon capture, utilization, and storage (CCUS)
7. Circular Economy & Resource Efficiency
 - Waste-to-energy, recycling, industrial symbiosis

- Minimizing energy and material losses
8. Energy Storage & Smart Grids
 - Battery technologies, thermal storage
 - Role in renewable integration and grid stability
 9. ESG, Sustainability Metrics & Corporate Responsibility
 - Environmental, Social, Governance (ESG) frameworks
 - Sustainability reporting and compliance
 10. Workforce Transformation & Skills for Industry 5.0
 - Reskilling engineers and operators
 - Human-machine collaboration and safety

5. METHODOLOGY

Online lectures and sessions will be handled during virtual training with power point presentations followed by case studies / exercises / discussions.

6. PARTICIPANTS' PROFILE

This workshop is intended for engineers and technologists from industrial / manufacturing sectors, for those who are working in energy and sustainability field from Central / State Government Departments, Academic Institutions, Public / Private Sectors.

It is designed for the professionals in energy management, industrial engineering, environmental and climate action groups, corporate sustainability planning and who are aspiring to learn on revolutionization in clean energy technologies and advancements.

7. FACULTY

Senior NPC Consultants and Industrial Experts who are possessing extensive experience and expertise in the field of energy and sustainability.

8. PROGRAMME FEE & VENUE

Programme Code	T2627CHN03
Program Venue	Centre of Excellence for Training in Energy Efficiency, National Productivity Council, Dr. Ambedkar Institute of Productivity, Chennai.
Programme Fee	Rs. 7,500 /- + Applicable GST @ 18%

9. PAYMENT DETAILS

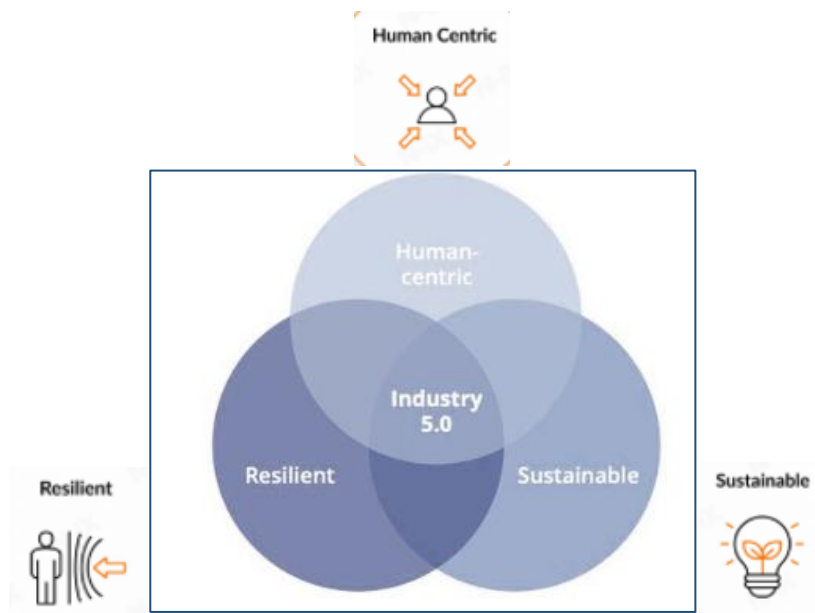
Programme fee inclusive of GST to be paid in advance and proof of payment to be attached along with application form.
Account Name: National Productivity Council Bank Name: State Bank of India

Branch: 1324-F, East Avenue, Korattur, Chennai-80.
Nature of Account: Savings
IFSC Code: SBIN0017247
Bank A/c No.: 39783959115
MICR: 600002266 / Pan: AAATN0402F / GSTIN: 33AAATN0402F1ZD

(Please mention “EM 15.0-AIP26” in NEFT remarks column)

As per GOI notification No. 9/2017-Integrated Tax (Rate) dated 28.06.17, Sr. No. 75, Heading 9992 (at page no. 19 of the notification) No GST is applicable where Services provided to the Central Government, State Government, UT Administration under any training programme for which total expenditure is borne by the Central Government, State Government, UT Administration.

10. HOW TO APPLY



- Please apply in prescribed application format enclosed with this brochure. Nominations may be sent to the following address and email-ids.

The Director & Head,
National Productivity Council,
(Under DPIIT, Ministry of Commerce and Industry, GoI)
Dr. Ambedkar Institute of Productivity,
6, Aavin Dairy Road, Ambattur Industrial Estate (North),
Chennai - 600 050. Tamil Nadu. Phone: +91 7200208675
Visit us at <http://www.npcindia.gov.in>

(The scan or photo copy of the application form and payment details may be sent to the email-ids: chennai@npcindia.gov.in by marking a copy to p.chitra@npcindia.gov.in)

- Last date for Receiving of nominations: **03.08.2026**



NATIONAL PRODUCTIVITY COUNCIL
5-6 Institutional Area, Lodhi Road, New Delhi – 110 003.

APPLICATION FORM FOR NOMINATIONS

Title of Programme: “Energy Transition - Marching Towards Industry 5.0 for Sustainability”

Programme Code: **T2627CHN03**

Programme Duration: **10th – 11th August 2026**

Venue: Online (CISCO Webex)

Details of Nominated Participants:

S.No.	Name of Delegate	Designation	Mobile No.	Email ID	Participant Organisation Address (kindly provide full address of correspondence)
1					
2					
3					
4					
5					

Details of Nominating Authority:

S. No	Name of Nominating Authority	Designation	Mobile No.	Email ID	Nominating Authority Organization Address (kindly provide full address of correspondence)
1					

Select, if Organization is GST Exempted **OR** Select, if Organization is Not GST Exempted

SELF DECLARATION ON GST EXEMPTION (OPTIONAL)

As per GST notification No. 9/2017-Integrated Tax (Rate) dated 28.06.17, Sr. No. 75, Heading 9992 (at page no. 19 of the notification) No GST is applicable where Services provided to the Central Government, State Government, UT Administration under any training programme for which total expenditure is borne by the Central Government, State Government, UT Administration.

- I/We hereby declare that we meet all the conditions stipulated in the aforementioned GST notifications and qualify for exemption from GST payment for the training program mentioned above.
- I/We acknowledge that any breaches or non-compliance with the specified conditions may result in the collection of GST, interest, and penalty amounts by NPC on behalf of the GST department at a later stage whenever the GST department raises the same to NPC.
- I/We also declare that it is the responsibility of the participant organization to verify their eligibility to avail the benefit, and NPC is not responsible for checking the eligibility. *I certify that the above information is correct

Signature: _____ Date: _____ and Place: _____

For Organisation who are Not Exempted and having GST registration GST No. (Mandatory) _____
 (Kindly provide the GST number of organisation on which GST Invoice to be raised)
 Organisation PAN No. (Optional) _____
 Organisation TAN No. (Mandatory on TDS deduction)) _____

DECLARATION

*I certify that the above information is correct

Signature: _____ Date: _____ and Place: _____

11. GENERAL INSTRUCTIONS

- ❖ It is recommended to send the nominations as per attached format at the earliest and receipt of programme fee latest by the last date for nominations.
- ❖ The fee once deposited is non-refundable, however, substitutions are allowed.
- ❖ The participants shall be awarded Certificate of Participation on successful completion of programme.
- ❖ Any other terms and conditions apply as may be notified by NPC at any point of time.
- ❖ Referring to GST guidelines, you are requested to confirm the applicability of GST payment for your department.