

## **Course Title: People-centric Energy Transition**

Lecture – 3 /week

Credits - TBD

Case Studies: 3

Prerequisite : Nil

Max Marks: TBD

Evaluations: TBD

### **Course Outcomes**

After completion of this course, the students will be able to:

1. Understand the multidimensional aspects of people-centric energy transition, energy governance, policies, and paradigms facilitating transition.
2. Develop viable strategies for low-carbon and people-centric growth.
3. Understand viable business (and financial) models for cleaner technologies.
4. Facilitate informed energy transition choices, campaigns, debates and discourse.

### **Part-I**

#### **Unit 1: Basics of the “People-centric Energy Transition”**

- 1) Fundamentals of energy transition, evolution of people-centric energy transition, common terminologies, frameworks and concepts.
- 2) People-centric Energy Transition in India; its relationship with climate, health/ life and livelihood/ economy.
- 3) Energy transition policies – international and in India
- 4) Key stakeholders in people-centric transition, their roles, challenges and opportunities.

#### **Unit 2: Energy supply, demand and the impact of choices**

- 1) Key energy demand sectors and their significance in climate change and green growth
- 2) Key energy supply source/s and their role in climate change and economic growth
- 3) Power sector reforms – challenges and opportunities
- 4) Assessing the environmental, social, and economic impact of energy choices, and people-centric transition/s, NITI Aayog - IEES 2047.

### **Part-II**

#### **Unit 3: Financing the Energy Transition**

- 1) Energy project and infrastructure finance
- 2) Innovative financing models/ approaches –carbon finance, concessional finance, RESCO financing models
- 3) Assessment of energy efficiency financing
- 4) Case study

#### **Unit 4: Future Outlooks, Challenges and Opportunities around People-centric Energy Policies**

- 1) International climate negotiations, challenges for implementing energy transition, the country’s climate commitments.

- 2) Geopolitical factors that influence shaping of national or regional level policies, role of JETP, G7, G20, UNFCCC, WEF, CEM, etc., for futuristic policymaking for a just and people-centric energy transition
- 3) Understanding innovative policy instruments like energy markets, carbon taxes, subsidies (PAT, Ecerts, EU-ETS, REC, CBAM, CCTS, etc.) and other incentives for people-centric energy transition.
- 4) Case study

### **Recommended Readings:**

1. Sovacool, B. K. (2013). *Energy Politics*. Polity Press.
2. Mitchell, C., & Bauknecht, D. (2013). *The Political Economy of Sustainable Energy*. Palgrave Macmillan.
3. Ekins, P., Bradshaw, M., & Watson, J. (2016). *Global Energy: Issues, Potentials, and Policy Implications*. Oxford University Press.
4. Johnson, T., & Hope, C. (2012). *Policy to promote the development and deployment of low-carbon technologies*. *Energy Policy*, 51, 685-686.
5. Sorrell, S., & Dimitropoulos, J. (2008). *The rebound effect: Microeconomic definitions, limitations and extensions*. *Ecological Economics*, 65(3), 636-649.
6. Gillingham, K., Harding, M., Rapson, D., & Wolverton, A. (2016). *Energy Efficiency Standards Are More Regressive Than Energy Taxes: Theory and Evidence*. *American Economic Review*, 106(12), 3611-3630.
7. Kern, F., & Smith, A. (2008). *Restructuring energy governance in changing political economies: The case of shifting state–industry–community relations in the UK*. *Environment and Planning C: Government and Policy*, 26(1), 79-102.
8. Jaffe, A. B., & Stavins, R. N. (1994). *The energy-efficiency gap: What does it mean?* *Energy Policy*, 22(10), 804-810.