Course title: Energy Markets and Trading			
Course code: DSE 114	**No. of credits:** 3	**L-T-P:** 40-05-00	**Learning hours:** 45
Pre-requisite course code and title (if any): N.A.			
Department: Sustainable Engineering			
Course coordinator: Dr. Sapan Thapar	**Course instructor(s):** Dr. Sapan Thapar		
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Course type: Core	**Course offered in:** Semester 2		

Course description

Energy is at crossroads of being transitioned from a public merit good to a commodity. Energy markets are platforms for buying and selling of energy, in different formats

The course offers students an understanding of the energy market structure and the governing principles, focusing on India. It encompasses evolution of the Indian energy sector, key regulations, sectoral stakeholders, pricing mechanisms and procurement modes. Discussions will include electricity as well as non-electric formats (oil, gas, coal), crisscrossing conventional (coal, oil, gas) and renewables (solar, wind, biomass, hydro). A significant part of the syllabus encompasses energy security dimensions, besides providing overview on evolving market products and services.

Course objectives

The course provides an in-depth understanding on various dimensions of the energy markets in India.

Key objectives are -

- Overview on the Indian energy / power Sector
- Understand planning & operational Aspects of Indian Power System
- Understand working of a Power Exchange
- Understanding sourcing and Pricing of Coal, Oil and Gas
- Exposure to energy diplomacy
- Awareness on evolving market products

Evaluation criteria

- Test 1: 20% (in form of assignment –power sector assessment)
- Test 2: 20% (in form of assignment –coal, oil and gas sector assessment)
- Case Study 20% (Global best practices/ business models)
- Test 3 40% (after completion of all modules)

Learning outcomes

- Broad understanding of Indian power markets
- Working of a power exchange
- Pricing of coal, oil and gas
- Role of energy diplomacy in energy security and access
- Exposure to evolving energy market products and services