जवाहरलाल नेहरू विश्वविद्यालय JAWAHARLAL NEHRU UNIVERSITY

Energy Studies Programme

School of International Studies, JNU

Course	:	**Ph.D.**
Course No.	:	**EG 608**
Course Title	:	**Energy Security in Europe**
Course Type	:	**Optional**
Teacher In-Charge	:	**Prof Gulshan Sachdeva**
Credits	:	**2**
Semester	:	**Winter**
Contact hours	:	**Two per week**
Evaluation Method	:	**Class Performance / Assignments/ End semester Test**

Course Objectives:

Energy has been a fundamental factor in the construction of European Union (EU) project (ECSC/EURATOM). Europe as a major energy consumer faces a number of challenges. These include rising global demand and competition for energy resources from emerging economies; persistent instability in energy producing regions and growing need to shift fuels in order to address climate change policy. There are, however, serious gaps between intentions and outcomes in the energy sector in the EU. Major objectives of the course include:

- European concept of energy security
- Evolving common energy policy framework within the EU
- Conflicts and convergence of common policies with the Member States' energy policies
- Role of market-based tools as well as new technologies.
- EU's external energy relations

Learning Outcomes:

At the end of the course the, student will be able to learn the following:

- Basic concepts used in energy studies and energy security
- Climate and energy profile in Europe
- European energy and climate policy framework
- Contemporary energy policy issues in the EU
- EU-India energy cooperation

Contents

I.History and Evolution of the European Union

This section will concentrate on the factors and historical developments which led to formation and enlargement of the EU. A special emphasis would be made to demonstrate that energy has been one of the main fundamental factors behind formation of the grouping as initial integration started through the European Coal & Steel Community (ECSC) and the European Atomic Energy Community (Euratom).

II. Energy Security

Over time, the concept of energy security has become very comprehensive. The aim of this section will be to understand the European concept of energy security as described in various EU documents, individual country policy papers as well as by scholarly writings.

III. Europe's Energy Landscape

This section will focus on providing basis information and analysis on various phases of energy situation in Europe from the golden age of cheap oil and well-functioning markets to the oil crisis of the 1970s to the current situation.

IV. European Energy Policy

The aim here is to provide assessment of evolution of energy policy from the *First Guidelines towards an EC Energy Policy* in the 1960s to the EU Energy Policy under the Treaty of Lisbon rules and recent changes proposed under Energy Union, European Green Deal and REPowerEU.

V. Conflicts and Convergence

This section will focus on selected Member States' Energy policies particularly of Germany, France, Poland, UK and the Nordic Energy Technology Perspective. The aim would be to understand areas of conflict as well as convergence between EU energy policy and Member States' policies.

VI. Internal Energy Markets

Aims of Internal Energy Market (IEM), mainly liberalization of electricity and gas markets and ultimately completing single market in the area of energy will be focused.

VII. Energy Efficiency

In the last one decade, the EU has introduced many measures to increase energy efficiency. Directives and institutional mechanisms concerning energy efficiency in Europe will be discussed.

VIII. Renewable Energy

This section will focus on renewable energy (solar, wind, biomass, geothermal, hydro-electric and tidal) targets, directives and actions in Europe.

IX. Nuclear Energy

As nuclear power is an important source of energy in Europe, the main objective would be to focus on current discussions in Europe concerning nuclear energy.

X. Shale Gas

There is growing interest in potential opportunities and risks concerning shale gas in Europe. This section will focus on information and contemporary debates in Europe concerning shale gas.

XI. External Energy Relations

The geopolitics of Europe's energy relations will be the main focus of this section, particularly its energy relations with Russia. Diversification of sources away from Russia, particularly after the Ukraine war will also be discussed.

XII. India- EU Energy Cooperation

Despite different levels of development, both India and Europe are facing similar challenges related to their energy security. Existing and possible areas of cooperation will be discussed, particularly in the context of joint declaration of enhanced energy cooperation and EU-India Roadmap 2025.

Reading List

Arent, Doouglas et al. eds. (2017) *The Political Economy of Clean Energy Transitions* (Oxford University Press).

Bahgat, Gawdat, ed., (2011) *Energy Security: An Interdisciplinary Approach* (Sussex: John Wiley & Sons).

El-Agraa, Ali and Brian Ardy (2011) *The European Union :Economics and Policies,* 9th edition (Cambridge University Press).

Fredriksson, Gustav et.al. (2017) *The Impact of Brexit on EU Energy System* (Brussels: European Parliament)

Erbach, Gregor and Martin Hoflmayer (2022) *Economic Impacts of the Green Transition,* (EU Parliamentary Briefing. Towards Climate Neutrality).

European Commission (2010*) Energy 2020* (Brussels).

European Commission (2010) *Energy Infrastructure Priorities for 2020 and Beyond - A Blueprint for an Integrated European Energy Network* (Brussels).

European Commission (2011) *Energy Roadmap 2050* (Brussels).

Helflich, Aleksandra (2021) *EU Energy System Transformation: Cost to Non-Europe* (Brussels: European Parliamentary Research Service).

Hoerber, Thomas C. (2013) *The Origins of Energy and Environmental Policy in Europe* (New York: Routledge).

International Energy Agency (2016) *The Nordic Energy Technology Perspectives* (Paris).

International Energy Agency (2019) *United Kingdom 2019: Energy Policy Review* (Paris).

International Energy Agency (2020) *European Union 2020: Energy Policy Review* (Paris).

International Energy Agency (2020) *Germany 2020: Energy Policy Review* (Paris).

International Energy Agency (2021) *Net Zero by 2050: A Roadmap for the Global Energy Sector* (Paris).

International Energy Agency (2021) *France 2021: Energy Policy Review* (Paris).

International Energy Agency (2022) *Poland 2022 : Energy Policy Review* (Paris).

Jewell Jessica (2011) *The IEA Model of Short Term Energy Security,* Working Paper (Paris).

Kacper, Szulecki eds. (2018) *Energy Security in Europe: Divergent Perceptions and Policy Challenges* (Palgrave Macmillan, 2018).

Mahmoud, Marwa et.al. (2021) *The Road to Energy Efficiency* (Brussels: European Parliament)

Michele, Knodt and Kemmerzell Jorg (2022) *Handbook of Energy Governance in Europe* (Springer)

Misik, Matus and Veronika Oravcova (2021) *From Economic to Energy: Transition Three Decades of Transitions in Central and Eastern Europe (Palgrave Macmillan).*

Morris, Craig and Martin Pehnt *(2016) Energy Transition: The German Energiewende* (Berlin: Heinrich Boll Foundation).

US Congressional Research Service (2020) *European Energy Security: Options for EU Natural Gas Diversification, No.* R 42405 (Washington DC)

Welsch, Manuel (2017) *Europe's Energy Transition: Findings Informing the European Commission* (Academic Press,)

Youngs, Richard (2012) *Energy Security: Europe's New Foreign Policy Challenge* (Routledge).

The following websites will be used for current datasets and contemporary topics:

- European Commission: Energy, Climate and Environment https://ec.europa.eu/info/energy-climate-change-environment_en
- European Environment Agency https://www.eea.europa.eu
- International Energy Agency https://www.iea.org
- United States Energy Information Administration https://www.eia.gov