



Cologne International Summer University (CISU) Session 2: August 19 - 29, 2013

European Energy Policies and Energy Economics (1559)

Lecturer:	Dr. Nies, Susanne EURELECTRIC, Belgium
Dates:	August 19 - 29, 2013
Location:	Main Campus (<i>Seminargebäude</i>)
Grading:	25% Class participation 25% Individual exposé 50% Research project

Course outline

Credit Points:	6	Workload:	180 h
Attendance:	30 h	Independent Studies:	150 h

Course objectives

Energy issues of all kinds appear every day in the media as highly relevant. These issues include the energy mix: electricity, gas, oil, coal, nuclear, renewables, the energy prices; geopolitical issues and security of supply, transit countries; climate change and CO₂ markets; the highly complex electricity governance; innovation and energy transitions; and finally the regional scope: Europe.

This course intends to familiarize students with “energy basics”: the history of energy policies and energy in our societies, the political economy of energy, energy supply and demand, European energy policy, and the governance and economics of electricity.

EU policies in the field include the three liberalization packages, the “job sharing” between member states and Brussels in the field of energy; the rise of environmental and climate policies and their impact on energy.

European energy policies shall be put into perspective in the context of other regions’ energy policies: US, Japan, but also China.

Course description

Session	Content	Preparatory Lecture
1	Introduction: Energy, Energy Concepts, What is Electricity. Presentation of the course, methodology, assignments	



2	The Energy Mix in Europe and its transition.	
3	The Electricity Mix in Europe: perspectives for Renewables	
4	Infrastructure for gas, storage and electricity: challenges, perspectives, and the status quo.	
5	Europe versus member states in Energy Policies: who decides what? Overview on EU energy legislation	
6	Environment and Climate objectives: how to deliver on these objectives in energy policies, which dilemmas?	
7	Innovation: overview on innovations driving change in the energy- and electricity sector: from electric vehicles to power to gas, new storage, energy efficiency, smart cities, smart meters...	
8	Investments in European Electricity: a lost decade in Europe? Generation Adequacy sufficient? Market Design... SIMULATION GAME	
9	The cost of generating electricity and it's price: too expensive? Which trends? What about the customer?	
10	Images of the future: Centralized or decentralized generation? Sustainable energy for all? Desertec? Europe in a global context... General conclusion of the course.	

Course prerequisites

None.

Teaching methods

The seminary maintains an interdisciplinary style throughout. Case studies on selected issues will illustrate the themes of the classes. Each class is divided in three parts: In the beginning of each session, a student will present in 5 minutes current energy events. The second part is then held in a traditional 'lecture environment', while the last aims to foster interactive participation of student. A simulation game is part of the programme.



Personal and interpersonal competences

- A thorough understanding of current and future energy trends in Europe.
- Familiarization with major publications and organizations/institutions.
- Team work skills during simulation game.

Pre-course assignment

To be announced in June.

Readings

Please note that the readings of this course will be announced in June.