

## JUR-3619 Course content

Climate change, caused by anthropogenic greenhouse gas emissions (GHGs), is one of the greatest threats ~~for to~~ humankind. Failure to mitigate GHGs ~~emissions~~ not only compounds the effects of climate change that are already being ~~felt, but~~ felt, but it can also lead to catastrophic consequences. ~~Melting of sea ice and glaciers, ocean acidification, destruction of ecosystems and species, extreme weather events, drought, famine, diseases, forced migration, and even war are cases in point. It must be underlined that the h~~High levels of anthropogenic GHGs are inextricably linked to unsustainable patterns of energy production and consumption. Consequently, in the carbon-constrained world of climate change mitigation, serious efforts must be made in terms of energy transition. That is, it is imperative to curb the demand for energy, to use energy more efficiently, and to develop and use cleaner forms of energy. ~~Renewable energy, energy efficiency, emissions trading, and carbon capture and storage are, therefore, key topics in this context.~~ At the same time, given that energy is paramount for the socio-economic development of countries and for the welfare of their citizens, the regulation of the energy sector to meet the challenge of climate change must ~~be done sensibly. That is, it must~~ also strike a balance with sustainable development and energy security concerns.

This course provides students with a comprehensive understanding of the policy context and of the key legal framework that underpins the intricate relationship between climate change and energy transition. On the back of ~~an overview of policy concerns and of the international climate change regime (UNFCCC, Kyoto Protocol, Paris Agreement),~~ an-brief overview of the international legal framework that can both enable or pose challenges to energy transition (especially the international climate change regime, and the law of the sea), this course focuses particularly on selected energy law topics that are of particular relevance in the context of energy transition climate change: renewable energy and micro and distributed generation; energy efficiency ~~and micro and distributed generation;~~ emissions trading; and carbon capture and storage/carbon capture usage and storage. ~~These selected topics are discussed~~ Emphasis will be placed on the legal aspects of the primarily from the point of view of European Union (EU) law adopted to operate EU's energy transition energy transition within the European Union (EU). In addition, where appropriate, other relevant legal and regulatory aspects connected to the aforementioned selected topics will be discussed.

The course covers the following topics:

1. The nature and structure of the energy sector
2. The links between climate change, sustainable development, and energy

3. The Implications of key international legal framework (the climate change regime and the law of the sea) for energy transition
4. Renewable energy, micro and distributed generation
5. Energy efficiency
6. Emissions trading
7. Carbon capture and storage/-carbon capture, usage and storage

Within the context of these topics, this course also delves into the policies and key examples of the legal framework and other instruments adopted by selected Arctic and Nordic States. This course therefore provides students an understanding of the overarching international and EU/EEA legal framework for energy and climate change, and of how selected Arctic and Nordic States implement said framework.

A detailed list of the topics covered by the course is available hereunder:

#### 1. Introduction to Energy and Climate Change:

- Nature of energy markets and the structure of the energy industry;
- Energy production and consumption and GHG emissions in general;
- Energy production and consumption and GHG emissions in the Arctic;
- Energy mix of selected Arctic and Nordic States;
- The links between climate change, sustainable development, and energy.

#### 2. The Relationship between Energy and Climate Change Policies:

- Balancing energy security, competitiveness, and climate change goals;
- Energy and climate change policies of selected Arctic and Nordic States;
- Nationally determined contributions of selected Arctic and Nordic States;
- Energy and climate change policy of the EU;
- The International Energy Charter.

#### 3. The Climate Change Legal Regime and its Implications for the Energy Sector

- UNFCCC, Kyoto Protocol, Paris Agreement and their implications for the energy sector;
- Offset mechanisms: Clean Development Mechanism, Joint Implementation, and Emissions Trading;
- Nationally determined contributions of selected Arctic and Nordic States;
- Application of principles of international climate change law of relevance to selected energy related activities (sustainable development, precautionary

principle, polluter pays principle, common but differentiated responsibility and respective capabilities, sovereignty over natural resources, environmental impact assessment).

#### 4. Renewable Energy:

- Sources of renewable energy (including the nuclear power dilemma);
- The role of renewable energy in energy transition towards a decarbonized economy;
- Integration of renewable energy into the energy market;
- Legal and regulatory aspects related to the development of renewable energy;
- Barriers to the development of renewable energy;
- Financial support schemes and cooperation mechanisms for the promotion and development of renewable energy (with examples of support schemes used by selected Arctic and Nordic States);
- Relationship between support schemes for renewables and competition law;
- Regulation of renewable energy under EU/EEA law and implementation by Nordic States;
- Renewable energy related disputes under the Energy Charter Treaty and the WTO;
- The role of the International Renewable Energy Agency (IRENA).

#### 5. Energy Efficiency and Micro and Distributed Generation:

- The role of energy efficiency and micro and distributed generation in energy transition towards a decarbonized economy;
- Incentives for the adoption of energy savings;
- Regulation of energy efficiency under EU/EEA law;
- Energy efficiency rules of selected Arctic and Nordic states;
- Regulation of energy efficiency under the Energy Charter Treaty – Protocol on Energy Efficiency and Related Environmental Aspects;
- Microgrids, smart grids and meters, and energy "prosumers".

#### 6. Emissions Trading:

- The role of emissions trading for the reduction of emissions;
- The design of emissions trading schemes ('cap and trade', emission permits, management of allowances, monitoring and reporting of emissions, verification and accreditation, and enforcement);
- EU emissions trading scheme (the largest and first cross-border greenhouse gas emissions trading system);
- Emission trading schemes of selected Arctic and Nordic States;
- International emission trading schemes and possible conflicts with WTO law.

## 7. Carbon Capture and Storage/Carbon Capture Usage and Storage:

- The role of carbon capture and storage (CCS) and carbon capture usage and storage (CCUS) for the reduction of emissions;
- The role of CCS in negative emissions scenarios (e.g. BECCS, bio-energy with CCS)
- Public perceptions of CCS
- Legal and regulatory aspects related to carbon capture and storage (property, regulatory, and liability rules and GHG accounting);
- EU Directive on carbon capture and storage;
- Treatment of CCS in EU emissions trading directive;
- Experience of selected Arctic and Nordic States with carbon capture and storage.

## Objectives of the course

### *Knowledge:*

A student who successfully completes the course shall have acquired:

- knowledge of the nature and structure of the energy sector
- advanced knowledge of the interdependence between climate change and energy;
- advanced knowledge of the implications of selected international legal framework (the climate change regime and the law of the sea) as relevant for the energy sector/transition
- knowledge of the climate change and energy policies of the EU and selected States
- advanced knowledge of the international climate change legal regime and its implications for the energy sector; and of the legal and regulatory regimes for renewable energy, energy efficiency, emissions trading, and carbon capture and storage/carbon capture usage and storage;
- knowledge of Nordic States' implementation of relevant international and EU/EEA climate change and energy legal framework, as well as of main instruments used in the Nordic States for the purposes of energy transition;
- knowledge of climate change and energy policies of selected Arctic and Nordic States and of the EU;
- knowledge in relation to other aspects of the course.

### *Skills:*

A student who successfully completes the course is able to:

- identify and analyze legal problems of both a theoretical and practical character related to the energy transition and climate change, ~~both in international and specific Arctic and Nordic contexts;~~
- apply knowledge ~~gained~~ of energy law, and climate change law, and regulatory concepts in a critical and independent way;
- ~~Evaluate~~ identify and critically discuss the adequacy or limitations of the applicable ~~the current~~ law in enabling energy transition and climate change mitigation;
- identify legal solutions fostering the energy transition from fossil-based into a sustainable, low carbon, and resource efficient economy;
- construct and communicate legal reasoning, orally and in writing, in a clear and precise manner;
- apply legal methodology to analyze energy and climate change questions
- ~~have some appreciation for comparative method as a means for examining the legal regulation of a particular industrial sector.~~

*General competence:*

A student who successfully completes the course will be able to:

- aApply the knowledge and skills obtained in the field of eEnergy and cClimate cChange law individually and in cooperation with others;
- cCommunicate reasoning within the field of eEnergy and cClimate cChange law in a clear and precise manner, both orally and in writing ~~to the academic community and the general public;~~
- aApply knowledge and skills acquired within-on eEnergy and cClimate cChange law globally and in different practical settings; ~~in all jurisdictions and for all tasks and projects where relevant;~~
- identify and reflect on ethical dilemmas that may arise within the eEnergy and cClimate cChange law, area in particular and deal with these in a responsible manner.