3794 CLIMATE CHANGE AND ELECTRICITY TRADE 3794

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THE PERSPECTIVE

Addressing climate change and the green energy transition belong to the biggest challenges of humankind.

In the EU, we use regulation, technology and business models to increase energy efficiency and energy generation from renewable sources. In practice, this means increased reliance on electrification.

Such aspects are connected on this commercial law course. We will try to understand this particular part of the economy through the lens of commercial law.

On the one hand, the course discusses regulation designed to address climate change. On the other hand, the course tries to understand the impact of regulation on firms and their new business opportunities. This also means that the course has a connection to business strategy.

Since the green energy transition largely means electrification, the course will discuss various forms of electricity generation, trade and use.

You can find the rough syllabus on the next page. I tend to revise this course twice a year due to the the fast development of technology, regulation and business.

ROUGH SYLLABUS

Lecture 1 Setting the scene. 1 The anthropocentric point of view. 2 Climate change. 3 Firms. 4 Electrification. 5 Digitalisation. 6 Problems are interconnected. 7 Legal and political risk. 8 About the course. 9 Questions**. Lecture 2 The Paris Agreement, the Goals of the EU, COP.** 1 The big picture. 2 The Paris Agreement. 3 The regulation of electricity and climate goals in the European Union. 4 COP26, the "Glasgow Climate Pact", COP27, Sharm el-Sheikh, COP28, UAE, COP29, Azerbaijan, COP 30, Belém. 5 Communication from the Commission, Securing our future. 6 Population growth, societal change. 7 Legal battles. 8 Trump. 9 Questions. **Lecture 3 The EU ETS, Carbon tax, Carbon offset markets.** 1 The big picture. 2 The EU ETS. 3 How has the EU ETS worked? 4 EU ETS2. 5 Carbon tax. 6 Carbon offset markets. 7 Marginal cost of carbon abatement. 8 What works? 9 Questions. **Lecture 4 Electricity and electricity markets.** 1 The big picture. 2 Electricity. 3 The wholesale market. 4 Participants in the physical wholesale market. 5 Participants in the financial wholesale market. 6 Characteristic objectives of wholesale market participants. 7 Introduction to the regulation of electricity markets in the EU. 7.1 Introduction. 7.2 Treaty provisions on electricity. 7.3 The Third Electricity Directive. 7.4 A couple of exercises. 7.5 The independence of national regulatory authorities, public interest. 7.6 Electricity Regulation (EU) 2019/943, Electricity Directive (EU) 2019/944 and electricity market design. 7.7 Physical markets and financial markets. 7.8 EU competition law. 7.9 Questions on electricity price. 7.10 The preferential treatment of RES-E. 7.11 The Fifth Energy Package. 8 Questions. **Lecture 5 Electricity Generation and supply: strategies, business models and long-term supply contracts.**1 The big picture. 2 Traditional strategies. 3 Traditional business models and contracts. 4 New business models. 5 New strategies of former utilities. **Lecture 6 Introduction to spot markets, the balancing market and the allocation of transmission capacity.** 1. The big picture. 2. The spot market. 3. Allocation of transmission capacity. 4. The balancing market. 5. Questions. **Lecture 7 Financial electricity contracts: Introduction to financial exchanges.**1 The big picture. 2 The operator. 3 The central counterparty / clearing house. 4 Products. 5 Margins and collateral. 6 Settlement. 7 Excursion: Contracts for Difference under the 2024 electricity market design. **Lecture 8 Energy efficiency and decarbonisation: general remarks and electricity generation.** 1 The big picture on energy efficiency and energy efficiency targets.1.1 Carbon abatement and energy efficiency.1.2 Global policy: doubling the progress. 1.3 EU targets and goals. 1.4 Application: The 2024 electricity market design. 2 Core legal principles relating to energy efficiency. 2.1 The principle of "technology neutrality". 2.2 The "energy-efficiency-first" principle. 3 Energy efficiency in electricity generation: general remarks. 3.1 The notion of energy efficiency. 3.2 Legal and political risk. 3.3 Commercial opportunities. 4 Energy efficiency in electricity generation: the most important legal drivers of change. 5 Authorisation of generation installations. 6 Best available technology. 7 Cogeneration. 8 Waste. 9 Micro-generation. 10 Priority dispatch. **Lecture 9 Energy storage, hydrogen.** 1 The big picture. 2 Storage technology and business. 3 Problems with earlier storage regulation in electricity markets. 4 Existing storage regulation in electricity markets. 5 Hydrogen. **Lecture 10 Buildings, nature restoration.**1 The big picture. 2 Energy Efficiency Directive (recast) and Directive on the energy performance of buildings (recast). 3 Cement. 4 Net Zero Buildings. 5 District heating and heat pumps. 6 Renovation. 7 Land use, planning, nature restoration. 8 Deforestration Regulation. **Lecture 11 Electric mobility, shipping.** 1 The big picture. 2 A European Strategy for Low-Emission Mobility. 3 Technology neutrality. 4 Biofuels. 5 Electric vehicles in road transport. 6 Mobility as a service (MaaS). 7 International aviation and international maritime emissions.

HOW DOES IT WORK?

All materials will be in Moodle.

I will upload two or three written lectures per week after the start of the course. My goal is to have roughly 11 big written lectures about the biggest things. Have a look at the rough syllabus!

Due to the fast development of the area, the main text is the lectures. There is no textbook, because a textbook in this area would be outdated before it is published, unless it focuses on historical things. I'd rather understand what is happening now. The updated lectures replace the textbook.

Moreover, since this is a really complex area, it would be impossible to understand it in any meaningful way without doing some reading and studying the context. This and my intention to focus on updating the lectures during the course explain why there have been no traditional spoken lectures in the classroom.

In each written lecture, you will find links to legal and other materials. You don't really need to read the linked materials unless given instructions to do so, but feel free to have a look at the ones you find interesting. Links may have a short life-span and it is to be expected that some of them do not work.

In each lecture, you will also find some simple questions. The simple questions are just a test for yourself to improve your learning. Feel free to discuss them with yourself or your fellow students.

TERM PAPER

You learn by reading the lectures, by having a look at the linked materials you find interesting, by trying to answer the simple questions on the basis of the materials, and by writing a term paper.

When all lectures are in place, you will write a term paper. I will assign the topics randomly based on a digit in your student number.

It is my intention to ensure that you will have a couple of weeks to write the term paper. Since there will be enough time and you will have a chance to write the term paper in any location, you will not need to worry about whether you will be in Vaasa, Helsinki or somewhere else.

The term paper will be the one and only method of assessment. Please write a good one.

I will tell you more about the term paper in Moodle when all lectures are in place. Remember to read the instructions carefully!