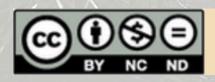
INTERNATIONAL ENVIRONMENTAL LAW

Academic Course: 2020-2021

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1. Supplying clean, affordable and secure energy

Access to energy is today an indispensable condition for our subsistence and the maintenance of our way of life. Europeans require a constant energy supply at an affordable price which allows the competitiveness of European companies that make use of this energy for the generation of products and services to be maintained. BUT:

- 1. The production and use of energy across economic sectors account for more than 75% of the EU's greenhouse gas emissions, so...
- 2. ... A power sector must be developed that is based largely on **renewable sources** (wind, oceans, solar...) complemented by the rapid phasing out of coal and **decarbonising gas.**
- 3. The EU's energy supply needs to be **secure** and **affordable** for consumers and businesses.

The environmental objectives of the EU are directly addressed towards the decarbonization of its Member States and in line with the main commitments established by the Paris Agreement

The EU has to face some problems related to energy supply inter alia:

- The increase in energy demand;
- The high economic dependence of certain EU Member States as energy suppliers of gas;
- The scarce diversification of supply sources;
- The price of energy and its fluctuations...

SCOPE: EU globally not only internal markets TOWARDS: common energy policy

1.1. Legal basis

Article 194 of the Treaty of Functioning of the European Union (TFEU):

"In the context of the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment, Union policy on energy shall aim, in a spirit of solidarity between Member States, to a) ensure the functioning of the energy market; b) ensure security of energy supply in the Union; c) promote energy efficiency and energy saving and the development of new and renewable forms of energy; and d) promote the interconnection of energy networks".

1.2. Specific provisions:

- Security of supply: Article 122 of the TFEU;
- Energy networks: Articles 170-172 of the TFEU;
- Coal: Protocol 37 clarifies the financial consequences resulting from the expiry of the Treaty establishing the European Coal and Steel Community (ECSC) in 2002;
- Nuclear energy: the Treaty establishing the European Atomic Energy Community (Euratom Treaty) serves as the legal basis for most EU actions in the field of nuclear energy.

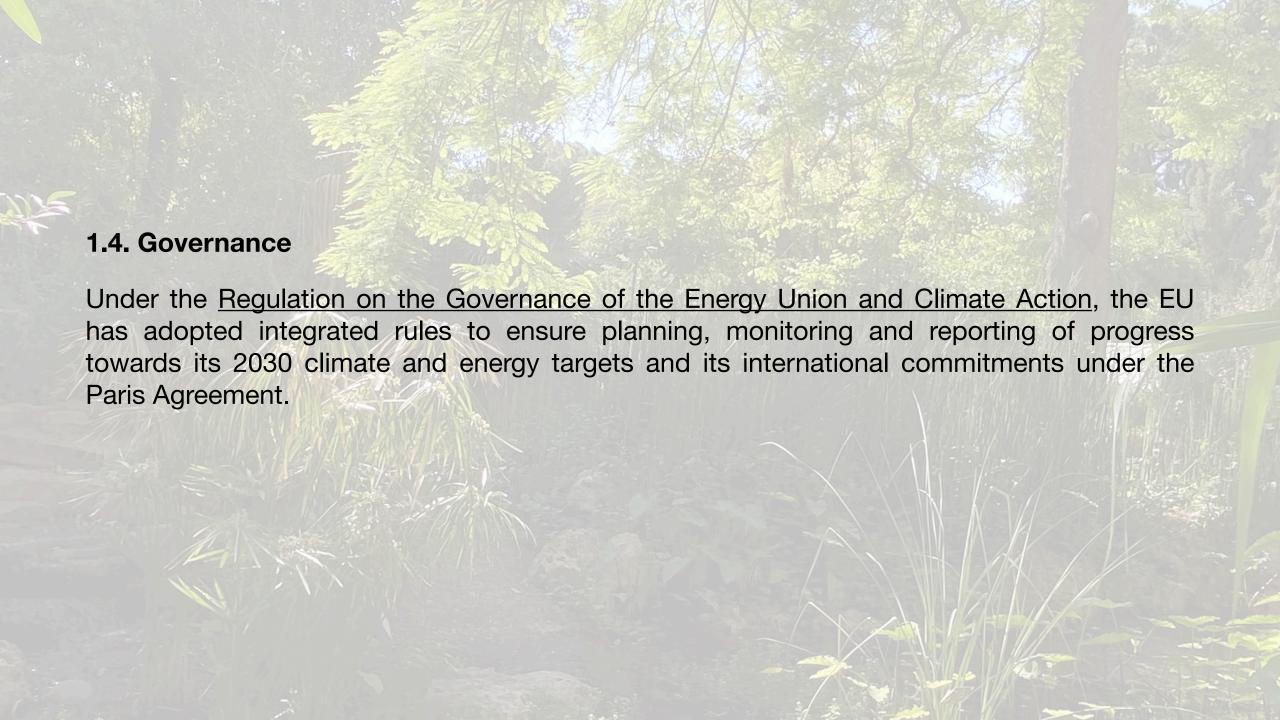
1.3. Current Political Framework of Energy Policy

The current policy agenda is driven by the comprehensive integrated climate and energy policy adopted by the European Council on 24 October 2014 and revised in December 2018, which sets out to achieve the following targets by 2030, it is the so-called (Climate and Energy Framework):

- A reduction of at least 40% in greenhouse gas emissions compared to 1990 levels;
- An increase to 32% of the share of renewable energies in energy consumption;
- An improvement of 32.5% in energy efficiency;
- The interconnection of at least 15% of the EU's electricity systems.



It is expected that in 2020, emissions produced by the sectors subject to the regime — carbon dioxide produced in the generation of heat and electricity, sectors of intensive energy consumption including oil refineries, steel mills and production plants for iron, aluminum and other metals, concrete, lime, glass, ceramics, paper pulp, cardboard, acids and raw organic chemicals and commercial aviation, as well as nitrous oxide and perfluorocarbons from aluminum production – will be 21% less than in 2005, and in 2030 will be 43% lower.



1.5. Thoughts on Hydrogen?

Hydrogen seems to be a solution to replace fossil fuels and decarbonise national economies in order to reach the ambitious carbon emission targets required to slow and eventually halt global warming.

Hydrogen can play a role in all of the sectors of the economy in which most of the carbon emissions are generated and where emissions need to be reduced or eliminated for a zero-emission economy by 2050: the energy sector, the transportation sector and industrial processes and heat-intensive industries such as steel or cement production.

If hydrogen is produced from water by electrolysis with the power coming from renewable energy sources without carbon emissions (wind, solar, hydro - such hydrogen is often called green hydrogen), this hydrogen can be stored and made available again as power generated without carbon emissions whenever power is needed. This would allow hydrogen to replace fossil fuels for consistent, predictable and manageable power generation.

The European Green Deal combines the twin effort of reducing our greenhouse gas emissions and preparing Europe's industry for a climate-neutral economy. Within this framework, hydrogen has been singled out as central for addressing both issues and for evolving our energy systems.

2. Mobilising industry for a clean and circular economy

2.1. Changes in the EU industry policy

Achieving a climate neutral and circular economy requires the full mobilisation of industry.

The European Commission updated its industrial strategy in May 5th, 2021 to ensure our industrial ambition takes account of the new circumstances following the COVID-19 crisis, while ensuring European industry can lead the way in transitioning to a green, digital and resilient economy.

—> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery.

Access: https://ec.europa.eu/info/sites/default/files/communication-industrial-strategy-update-2020 en.pdf

"Europe has a lot to build on and a lot to learn from the testing time it continues to go through. Over the last year, we have seen the resilience of our Single Market and the best of industry. Drawing on the pool of excellence in life sciences, it has been at the forefront of global COVID19 vaccine development and production, notably thanks to the EU Vaccine Strategy and the EU support to ramp up industrial capacity. We have seen companies switch production to help meet urgent needs, whether for personal protective equipment, hand sanitisers or vaccine production. Other companies made the shift to e-commerce overnight or used digital tools to find new suppliers or supply chains. Despite a significant fall in energy demand and impacts on critical energy operators, the internal energy market adjusted well, with no interruptions in energy supply

However, this was not feasible for all. As lockdown forced many businesses to a halt, borders closed, supply chains were interrupted, demand was disrupted and workers and service providers found themselves unable to move across Europe"

Main Objectives:

- 1. **Essential need to uphold** the free movement of persons, goods, services, and capital in the **Single Market** and the need to work together to strengthen its resistance to disruptions. The free movement of services was also affected strongly, including by forced temporary closures of non-essential businesses, travel restrictions, and a lack of clarity on applicable rules on movement across borders;
- 2. The need to analyse and address strategic dependencies, both technological and industrial.
- 3. This unprecedented year showed that the business case for the green and **digital transition** is stronger than ever. In the medium-term, all business activity will need to become sustainable and the disruption of many traditional patterns caused by COVID-19 will shake up old habits and therefore will accelerate the green transition. Digitalisation has assumed a strategic role for the continuation of economic activities and has well and truly changed the way business is conducted

2.2. What is the circular economy about?

A circular economy aims to maintain the value of products, materials and resources for as long as possible by returning them into the product cycle at the end of their use, while minimising the generation of waste. The fewer products we discard, the less materials we extract, the better for our environment.

The European Commission adopted the new circular economy action plan (CEAP) in March 2020. The EU's transition to a circular economy will reduce pressure on natural resources and will create sustainable growth and jobs. It is also a prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss.

Access: https://eur-lex.europa.eu/legal-content/EN/TXT/?
qid=1583933814386&uri=COM:2020:98:FIN

The new action plan announces initiatives along the entire life cycle of products. It targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented and the resources used are kept in the EU economy for as long as possible.

AVOIDANCE of "take-make-use-dispose" concept.

Main Objectives:

- make sustainable products the norm in the EU;
- empower consumers and public buyers;
- focus on the sectors that use most resources and where the potential for circularity is high such as: electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, food, water and nutrients;
- ensure less waste;
- make circularity work for people, regions and cities;
- lead global efforts on circular economy.

3. Accelerating the shift to sustainable and smart mobility

3.1. GHG emissions within the transport sector

Transport accounts for a quarter of the EU's greenhouse gas emissions, and still growing.

Road, rail, aviation, and waterborne transport will all have to contribute to the reduction. BUT, How? putting users first and providing them with more affordable, accessible, healthier and cleaner alternatives to their current mobility habits

—> Multimodal transport needs a strong boost.

Mobility in Europe should be based on an efficient and interconnected multimodal transport system, for both passengers and freight, enhanced by an affordable high-speed rail network, by abundant recharging and refuelling infrastructure for zero-emission vehicles 3 and supply of renewable and low-carbon fuels, by cleaner and more active mobility in greener cities that contribute to the good health and wellbeing of their citizens.

3.3. Milestones (I)

Various milestones are set out to show the European transport system's path towards achieving our objectives of a sustainable, smart and resilient mobility, thereby indicating the necessary ambition for our future policies, such as:

By 2030:

- at least 30 million zero-emission vehicles will be in operation on European roads.
- 100 European cities will be climate neutral.
- high-speed rail traffic will double.
- · scheduled collective travel of under 500 km should be carbon neutral within the EU.
- automated mobility will be deployed at large scale.
- zero-emission vessels will become ready for market.

3.1. Milestones (II)

By 2035:

zero-emission large aircraft will become ready for market.

By 2050:

- · nearly all cars, vans, buses as well as new heavy-duty vehicles will be zero-emission.
- · rail freight traffic will double.
- high-speed rail traffic will triple.
- the multimodal Trans-European Transport Network (TEN-T) equipped for sustainable and smart transport with high speed connectivity will be operational for the comprehensive network.