

Committee: Special Conference on Reaching Net-Zero (SPECON)

Issue: Promoting the adoption of industrial legislation to regulate carbon emissions in response to the Net-Zero Act

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PERSONAL INTRODUCTION

Dear delegates,

My name is Stavroulaki Olga and I am currently attending 10th grade at Ekpaideftiki Anagennisi. In this year's ACGMUN I have the utmost honor to serve as one of your Deputy Presidents.

The first topic of the committee revolves around the legislative part of the Net-zero Act and more specifically, industrial legislation. During the conference, you will have to come up with new legislative measures that industries can implement in pursuit of paving the way to reaching net zero. I would like to point out that even though the study guide will provide you with a plethora of useful information, you will need to research all the topics in more depth in order to gain a better understanding of the issue.

If you face any difficulties during your preparation do not hesitate to contact me, I will be more than happy to help you. (stavroulakiolg@gmail.com)

Looking forward to meeting you all!

Stavroulaki Olga

TOPIC INTRODUCTION

The science of climate change is where the idea of net-zero carbon emissions originated. Social, political, and economic structures operationalize it. There are seven characteristics of net zero that are critical to its viability as a framework for climate action. The seven characteristics emphasize the necessity for front-loaded emission reductions and the need to cover all emission sources, especially the more challenging ones at the moment, such as cars and other polluting means of transportation, factories, etc. The qualities highlight how important social and environmental integrity

is. This means that carbon offset use must be properly regulated and carbon dioxide removals must be handled cautiously. The goals of sustainable development¹, which include achieving a fair net-zero transition, socio-ecological sustainability, and expanding economic opportunities, must be in line with net zero.

Net-zero emissions are the new focal point of climate policy. Climate ambition has historically been expressed as a stable level of atmospheric concentrations (as in the 1992 United Nations Framework Convention on Climate Change). These days, climate ambition is most often articulated as a deadline for achieving net-zero emissions, usually associated with the Paris Agreement's maximum temperature targets.² Net-zero targets already encompass over two-thirds of world emissions and a slightly higher portion of global GDP

DEFINITION OF KEY TERMS

Industrial Legislation

“A binding rule or body of rules prescribed by a government to regulate working conditions or the acquisition, processing, and disposal of materials by the aggregate of factories, companies and enterprises in one or more manufacturing or technically productive fields.”³

Carbon Emissions

“Emissions stemming from the burning of fossil fuels and the manufacture of cement”⁴

Climate Change

“Long-term shifts in temperatures and weather patterns”⁵

¹ “The 17 Goals | Sustainable Development.” *United Nations*, United Nations, sdgs.un.org/goals. Accessed 17 Nov. 2023.

² Schulz, Christopher. “What Is the 1.5 Degree Target?” *ForTomorrow*, 2 Dec. 2022, www.fortomorrow.eu/en/post/1-5-degree-target?mtm_campaign=1-5-degree&mtm_kwd=20230306&mtm_source=google-ads&mtm_medium=google-ads&mtm_content=en&gad_source=1&gclid=Cj0KCQiA3uGqBhDdARIsAFeJ5r0MeGtsa5OUi2JIAiE4x21YRoCsLSijFTC87PEBvptPyvTI_sXTMaAtGVEALw_wcB.

³ *Industrial Legislation*, www.eionet.europa.eu/gemet/en/concept/4247. Accessed 17 Nov. 2023.

⁴ “DataBank.” *DataBank | The World Bank*, [www.databank.worldbank.org/metadataglossary/millennium-development-goals/series/EN.ATM.CO2E.KT#:~:text=Long%20definition,Emissions%20\(1990%2D2020\)](https://www.databank.worldbank.org/metadataglossary/millennium-development-goals/series/EN.ATM.CO2E.KT#:~:text=Long%20definition,Emissions%20(1990%2D2020))

⁵ United Nations. “What Is Climate Change?” *United Nations*, www.un.org/en/climatechange/what-is-climate-

The Sustainable Development Goals

“The United Nations Sustainable Development Goals (SDGs) are a collection of 17 global goals adopted by all UN member states in 2015 as a universal call to action to end poverty, protect the planet, and ensure prosperity for all by 2030.”⁶

Socio-Ecological Sustainability

“Socio-ecological sustainability, also known as socio-ecological resilience, refers to a holistic approach that integrates social and ecological systems to ensure the long-term well-being of both human societies and the natural environment they depend on. It emphasizes the interdependence and coexistence of social, economic, and ecological elements in achieving sustainability.”⁷

BACKGROUND INFORMATION

The Net Zero concept

The "net-zero" concept is a critical element in global efforts to combat climate change. It refers to achieving a balance between the greenhouse gasses (GHGs) emitted into the atmosphere and the GHGs removed from the atmosphere. In simpler terms, net zero means that the amount of greenhouse gasses added to the atmosphere is no more than the amount removed, resulting in no net increase in atmospheric GHG concentrations. This is essential to limit global warming and its associated impacts.

[change#:~:text=Climate%20change%20refers%20to%20long,activity%20or%20large%20volcanic%20eruptions](#)

⁶ “The 17 Goals | Sustainable Development.” *United Nations*, United Nations, sdgs.un.org/goals. Accessed 18 Nov. 2023.

⁷ Andersson, Erik, et al. “What Are the Traits of a Social-Ecological System: Towards a Framework in Support of Urban Sustainability.” *Nature News*, Nature Publishing Group, 25 Mar. 2021, www.nature.com/articles/s42949-020-00008-4.

Key Aspects

In order to understand the net-zero concept better, there are six key aspects that characterize it. First of all, net zero primarily relates to reducing carbon dioxide (CO₂) emissions, which is the most prevalent greenhouse gas. It may also include other GHGs like methane and nitrous oxide (N₂O). Secondly, removing such gasses from the atmosphere, such as through afforestation, reforestation or removal activities, and soil sequestration. The third aspect refers to carbon offsets. In some cases, organizations or individuals may achieve net-zero emissions by purchasing carbon offsets. These offsets represent GHG reduction or removal activities elsewhere to compensate for their own emissions. However, offsetting should be a supplementary measure, with primary efforts focused on reducing emissions at the source. The fourth aspect is the time frame. Net-zero goals typically have a specific timeframe, such as reaching net-zero emissions by 2050 or earlier. In addition, the fifth aspect is climate targets. Achieving net zero is closely tied to international climate targets, such as those outlined in the Paris Agreement which seeks to limit global warming below 2 degrees Celsius. Lastly, the last aspect is Climate Resilience. Achieving net-zero emissions is not only about mitigating climate change but also about building resilience to its impacts. This includes addressing adaptation and ensuring that societies are prepared for the changes that are already underway.

Creating Industrial Legislation

Creating industrial legislation to achieve net-zero emissions is a complex and multifaceted process that involves the development and implementation of regulations, standards, and policies aimed at reducing industrial carbon emissions. It requires the commitment of governments, industries, and society at large. It involves a balance between regulatory measures and incentives to drive emissions reductions while stably fostering economic growth and innovation. In addition, industrial legislation can help to ensure consistent and sustained efforts to reduce emissions such as the focus on the use of “cleaner” technologies like solar and wind energy

MAJOR COUNTRIES AND ORGANIZATIONS INVOLVED

China

China has announced its intention to achieve carbon neutrality, or net zero carbon emissions, by the year 2060. This announcement was made by Chinese President Xi Jinping during his speech at the United Nations General Assembly in September 2020. China's commitment to achieving carbon neutrality is a significant development in the global effort to combat climate change, as China is the world's largest emitter of greenhouse gasses. The specific details of how China plans to reach this goal, including the policies, measures, and technologies it will employ, were expected to be developed in the years following the announcement.

Germany

Germany, a global leader in climate action, has embarked on an ambitious journey towards achieving net-zero emissions. Guided by the Energiewende, the country's comprehensive energy transition policy, Germany is committed to phasing out fossil fuels and increasing the share of renewable energy in its energy mix. The government has set a goal to reach net-zero emissions by 2045, five years earlier than the European Union's target. Germany emphasizes a just transition, ensuring that the shift to a low-carbon economy is socially equitable. The country is investing heavily in renewable technologies, energy efficiency measures, and sustainable mobility. Moreover, Germany actively engages in international climate diplomacy, advocating for stringent emission reduction targets and supporting global initiatives. Despite challenges, Germany's commitment to innovation, policy integration, and international collaboration positions it as a driving force in the global effort to combat climate change and achieve a sustainable, net-zero future.

India

India's approach to addressing climate change was based on the principle of "common but differentiated responsibilities" which recognizes that developed and developing countries have different historical contributions to emissions and varied capacities to address climate change. While India had not announced a net-zero target, it had set other climate-related goals and commitments. Firstly, India has set ambitious targets for expanding its renewable energy capacity, including a goal to achieve 450 gigawatts of renewable energy capacity by 2030. Additionally, India has undertaken afforestation and reforestation initiatives to enhance carbon

sequestration and combat deforestation. Lastly, India has shown an interest in promoting electric vehicles and is working on infrastructure development. It is important to note that India has actively engaged in international negotiations, and discussions, such as the United Nations Convention on Climate Change.

United Arab Emirates

The United Arab Emirates (UAE) is committed to addressing climate change and has adopted a multifaceted approach to achieve net-zero emissions. As a major player in the global energy landscape, the UAE recognizes the urgency of transitioning to a sustainable future. The country is investing heavily in renewable energy sources, such as solar and wind power, to diversify its energy mix and reduce reliance on fossil fuels. Additionally, the UAE is implementing stringent regulations and adopting green technologies to enhance energy efficiency across various sectors. Through proactive policies, research, and international collaborations, the UAE aims to play a pivotal role in mitigating climate change and realizing a carbon-neutral future.

United States of America

Shortly after taking office, President Biden signed an executive order to rejoin the Paris Agreement, essentially a commitment to work toward achieving net zero emissions. Additionally, the Biden administration introduced the American Jobs Plan, which is a proposal for significant infrastructure including clean energy initiatives. The plan includes funding for electric vehicles, renewable energy projects, and improvements to the energy grid. In terms of the environmental goals of the USA, the government has set a target of reducing its greenhouse gas emissions by 50-52% below 2005 levels by 2030 archiving a carbon-free power sector by 2035, and promoting the development of renewable energy sources such as wind and solar power.

United Kingdom

United Kingdom's target is to reduce its greenhouse gas emissions to net zero by 2050. This means that the UK aims to balance the amount of greenhouse gases it emits with the amount it removes from the atmosphere, primarily through activities such as reforestation and carbon capture. Generally, the UK has established a series of legally binding carbon budgets, which set limits on the total amount of greenhouse

gasses the country can emit over five-year periods. These budgets are designed to ensure progress toward the 2050 net-zero goal. The government of the United Kingdom has outlined its Clean Growth Strategy which focuses on reducing emissions across various measures to improve energy efficiency, transition to low-carbon transportation, and support the generalized use of renewable energy sources.

European Union

The European Union has also set several targets in order to achieve net zero emissions. Setting up a legal framework that supports the development of the manufacturing of net zero energy technologies in the Union, to support the Union’s 2030 decarbonization target and to ensure the security of supply for the net-zero tech needed to safeguard the resilience of the Union’s energy system. This general objective translates into the specific objectives of facilitating investments for net-zero technologies, reducing CO2 emissions, and supporting innovation. For all of these targets to be achieved, the Union has created what we call “the climate law” which legally binds the EU to the goal of achieving climate neutrality by 2050 and sets the pathway for raising this target, including intermediate goals for emissions reductions by 2030. Another notable initiative taken by the European Union is the NextGenerationEU which is a significant recovery plan launched by the EU in response to the economic and social impact of the Covid-10 pandemic. It is designed not only as a recovery initiative but also as a tool to drive Europe towards a more sustainable and resilient future, aligning the EU’s long-term goals, including achieving climate neutrality by 2050

TIMELINE OF EVENTS

Date	Description of event
2011	The Critical Raw Material act regulates access to and sustainable use of Germany's mineral resources.
12 December 2015	The Paris Agreement is a global pact aiming to limit global warming by reducing greenhouse gas emissions and fostering sustainability.

November 2019	The EU Green Deal is a comprehensive plan to make the European Union climate-neutral by 2050, emphasizing sustainability and innovation
16 March 2023	The Net-Zero Act sets targets for achieving carbon neutrality, focusing on reducing and offsetting greenhouse gas emissions for sustainability.

RELEVANT UN RESOLUTIONS, TREATIES, AND EVENTS

The Paris Agreement

The Paris Agreement, adopted in 2015, is a global initiative aimed at combating climate change. It seeks to limit global warming to well below 2 degrees Celsius above pre-industrial levels. This accord promotes industrial legislation by encouraging countries to set and achieve emission reduction targets, fostering innovation in clean technologies, and promoting sustainable practices. By creating a framework for international cooperation and commitment, it encourages industries worldwide to adopt eco-friendly practices, invest in renewable energy, and adhere to environmentally responsible regulations.⁸

The Global Race to Net-Zero

The goal of the global initiative Race To Zero is to mobilize investors, businesses, and local and regional governments in favor of a robust, healthy, carbon-free recovery that fends off dangers in the future, generates good jobs, and opens the door to inclusive, sustainable growth. As of September 2022, it brings together a coalition of leading net-zero initiatives that represent 11,309 non-state players, comprising 1,136 cities, 52 states and regions, 1,125 educational institutions, 65 healthcare institutions, and 8,307 corporations.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

EU Green Deal

The goal of the European Green Deal, which was unveiled by the Commission on December 11, 2019, is to make Europe the first continent to be carbon neutral by 2050. The European Climate Law makes legally binding the EU's commitment to

⁸ *The Paris Agreement - UNFCCC*, unfccc.int/sites/default/files/resource/parisagreement_publication.pdf. Accessed 18 Nov. 2023.

climate neutrality and the intermediate target of lowering net greenhouse gas emissions by at least 55% by 2030, relative to 1990 levels. The European Green Deal's legislative package, which includes the REPowerEU Plan to expedite the shift away from Russian fossil fuel imports, offers a strategy to set the European economy firmly on track to meet its climate goals. This establishes the foundation for reforming the EU's industry for the net-zero era, in conjunction with the Circular Economy Action Plan. The European Commission launched the European Green Deal on December 11, 2019, intending to make Europe the first carbon-neutral continent by 2050. The EU's commitment to climate neutrality and the intermediate goal of reducing net greenhouse gas emissions by at least 55% by 2030, relative to 1990 levels, are made legally enforceable by the European Climate Law. The legislative package of the European Green Deal offers a method to put the European economy firmly on track to fulfill its climate targets. One such plan is the REPowerEU Plan, which aims to accelerate the shift away from Russian fossil fuel imports. This lays the groundwork for the EU's industry to undergo a net-zero transformation in tandem with the Circular Economy Action Plan.

EU Critical Raw Material Act

With the goal of being the first carbon-neutral continent by 2050, the European Commission unveiled the European Green Deal on December 11, 2019. The European Climate Law establishes the legal enforceability of the EU's commitment to climate neutrality and the intermediate target of lowering net greenhouse gas emissions by at least 55% by 2030, relative to 1990 levels. The European Green Deal's legislative package provides a way to ensure that the continent's economy is firmly on track to meet its climate goals. The REPowerEU Plan is one such initiative that seeks to quicken the transition away from the importation of Russian fossil fuels. This creates the foundation for the industry in the EU to transition to net zero in concert with the Circular Economy Action Plan. On December 11, 2019, the European Commission launched the European Green Deal, which aims to make Europe the first carbon-neutral continent by 2050. The EU's commitment to climate neutrality and the intermediate goal of reducing net greenhouse gas emissions by at least 55% by 2030, relative to 1990 levels, are made legally enforceable by the European Climate Law. The legislative package known as the European Green Deal offers a means of guaranteeing that the continent's economy remains firmly on course to accomplish its climate targets. One such program that aims to accelerate the shift away from the importation of Russian fossil fuels is the REPowerEU Plan. This lays the groundwork for the EU industry to move towards net-zero emissions in tandem with the Circular Economy Action. On December 11, 2019, the European Commission launched the

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EU Net-zero Act

The EU's Net Zero Act, formally known as the European Climate Law, is a landmark legislation aimed at combating climate change by setting a legally binding target for the European Union to achieve net-zero greenhouse gas emissions by 2050. This means that the total amount of greenhouse gases emitted by the EU will be balanced by removing an equivalent amount from the atmosphere. The law enshrines the EU's commitment to becoming climate-neutral, aligning with the goals of the Paris Agreement. It requires member states to take actions to reduce emissions, transition to renewable energy sources, improve energy efficiency, and implement measures to address climate change impacts. Additionally, the Act includes an intermediate target to cut greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. This more ambitious short-term goal is crucial in accelerating efforts to reach the ultimate net-zero target. The legislation emphasizes the importance of science-based policymaking, regular monitoring, and reporting progress to ensure transparency and accountability in achieving climate goals. It also establishes a framework for EU member states to work collectively towards a sustainable and resilient future, encouraging investment in clean technologies and fostering innovation across various sectors to achieve a carbon-neutral economy by 2050. The EU's Net Zero Act, formally known as the European Climate Law, is a landmark legislation aimed at combating climate change by setting a legally binding target for the European Union to achieve net-zero greenhouse gas emissions by 2050. This means that the total amount of greenhouse gases emitted by the EU will be balanced by removing an equivalent amount from the atmosphere.

POSSIBLE SOLUTIONS

Collection and Use of Expertise

Long-standing and regular contacts with industry stakeholders, Member States, trade associations, and user associations enabled the collection of a fair amount of information and feedback relevant to the proposal. Many studies and reports have been published in the last years on the net-zero technology manufacturing sector describing trends and providing facts and figures, and served to inform the proposal, including the European Commission's Progress on competitiveness of clean energy technologies. Hence, this sort of information may be encouraged to be used by the government and henceforth create and adopt the equivalent industrial legislation, tackling the issue in the most effective way.

Impact Assessment

Considering the urgency to act for the reasons explained above, an impact assessment could not have been delivered in the timeframe available prior to the adoption of the proposal. The analysis and all supporting evidence will be set out in a staff working document published at the latest within three months of the proposal's publication. Assessments can help identify high-impact emissions sources allowing for targeted to mitigate or eliminate them. They provide data-driven insights to policymakers, aiding in the formulation of effective policies and regulations. Also, assessments can help in setting realistic and achievable targets for emissions reduction. Once again, adjusting government legislation in such a way, action is targeted and helps improve the issue efficiently.

Regulatory fitness simplification

For companies manufacturing clean energy technology increase legal certainty, facilitate the set-up of new manufacturing facilities through simplified and quicker permitting procedures, as well as facilitate access to finance by de-risking projects and provide for a trained labor force in the Union. For providers of net-zero technology solutions, it will secure a stable source of demand for highly sustainable clean energy equipment, products, and components. For national public administrations, it will increase the uptake of net-zero technologies in the Union and strengthen coordination (by introducing a Net-Zero Europe Platform). Moreover, the framework will envisage specific measures supporting innovation, including regulatory sandboxes and dedicated support for small-scale users and providers of high-quality sustainable net-zero technologies to find output markets in Europe and to match their needs with other market actors in order to create entire value chains.

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