Taxes and Subsidies in EU Energy Policy – Fit for 55?

2172785 Tsen-Yun Hung

2162836 Claire O'Connor

Business Faculty

Prof. Jens Horbach

14.07.2023

1. Introduction

The EU is in the process of an energy transition to effectively reduce its greenhouse gas(GHG) emissions and achieve climate neutrality. They have policies in place to help them become more energy efficient, some of which need revision or have recently been revised. In particular, the EU has introduced the Fit for 55 Package, aiming to use less energy and use renewable energy instead. (Kettner, C., Wretschitsch, E., 2023)

Using less energy has a direct benefits to the environment, including:

- Fewer greenhouse gas emissions,
- Less pollution,
- More affordable energy for citizens,
- Reduced dependency on imported fossil fuels

2. Fit for 55

The “Fit for 55” package is a package of legislative proposals, as part of the European Green Deal, founded on the 14th of July in 2021. It is a revision of the increase of the tax rates on fossil fuels that contribute to achieving the EUs 2030 target for reducing emissions. The European climate law has made this a legal obligation, and all EU countries are working on this new legislation. (European Commission, 2022)

In July 2021, the EU committed to reducing their greenhouse gas (GHG) emissions by 55% by 2030, in comparison to 1990. They also are aiming to achieve complete greenhouse gas neutrality by 2050. (European Commission, 2022)

The policy involves:

- Ending fossil fuel subsidies
- Creating favourable conditions for energy efficiency and renewable sources of energy
- Taking the need of vulnerable customers into account during the transition
- The revision of the Energy Taxation Directive
- Modernising existing legislation in line with the EU’s 2030 climate targets
- Strengthening the EU’s current position as global climate leader
- Increasing the tax rates on fossil fuel

(European Commission, 2022)

3. Taxes

Taxation plays a direct role in the green transition for the EU. They can apply taxes to incentivise sustainable consumption and production. The removal of incentives for the consumption of fossil fuels are also crucial for the EU to reach their goals of reducing emissions by 55% by 2030, in comparison to 1990, and to have greenhouse gas neutrality by 2050.

The Energy Taxation Directive (ETD)

The Energy Taxation Directive ensures taxation of motor and heating fuels reflect the impacts they have on the environment, rather than being measured by volume used. This can be achieved by removing disincentives for using clean technologies and introducing higher taxation rates for unsustainable and polluting fuels. (Kettner, C., Wretschitsch, E., 2023) It can aid in the clean transition from fossil fuels to clean sustainable energy to help reach the EU's goals of climate neutrality.

The European Taxation Directive was revised in 2019. They concluded that taxation on energy has an important role in incentivising the clean energy transition. Some changes made include:

- Switching from volume to energy content based taxation
- Eliminating fossil fuel use
- Ranking of rates according to environmental performance
- Grouping energy products into different tax brackets
- Aim to provide incentives for producers, users, and consumers to adopt sustainable practices
- The most polluting fuels will be taxed the highest
- Minimum tax rates will be based on real energy content and environmental performance

(Kettner, C., Wretschitsch, E., 2023)

The Ranking of Energy Products

Energy products will now be categorised into four groups, based on what the minimum taxed rate will be, spanning from the highest tax rate to the lowest tax rate.

The first category, which will be taxed the highest, includes conventional fossil fuels, gas, oils, and petrol. These will be taxed at two thirds of the reference rate due to their negative environmental impact. The next category, the second highest tax rate, are fossil based fuels that are less harmful and have potential to contribute to decarbonisation. This includes natural gas, and liquid petroleum gas. Two thirds of the reference rate apply to this category for a period of ten years, the rate will then

increase to the full reference rate. The third category includes sustainable but not advanced biofuels. Half of the reference rate applies, as a reflection of their contribution to decarbonisation. The category with the lowest tax rate includes energies such as, electricity, advanced biofuels, bioliquids, biogases, and renewable hydrogen. The tax rate for this category is significantly below the reference rate as these fuels can help the EU achieve their climate goals. (Kettner, C., Wretschitsch, E., 2023)

Aviation and Maritime Industry

The aviation and maritime industry rely mostly on fossil fuels. The aviation industry accounts for 14.4% of EU transport emissions, and the maritime industry accounts for 13.5% of EU transport emissions. ReFuelEU aviation initiative, which are the regulations on ensuring a level playing field for sustainable air transport, and the FuelEU Maritime, the use of renewable and low-carbon fuels in maritime transport, both aim to increase the use of sustainable fuels by aircraft and ships to reduce their emissions and carbon footprint. They have also set targets to create infrastructure to provide energy to ships, inland waterway vessels and aircrafts while they are stationary. (European Council, 2023)

Energy sources used to produce electricity in the aviation and maritime industry were generally exempt from any energy taxes, despite heavily relying on fossil fuels.However, according to the commission's proposal, these exemptions are to be abolished and kerosene is to be raised to the tax levels of other fossil fuels over a period of ten years. There will be no taxation on sustainable fuels used in aviation or maritime during this period. (Kettner, C., Wretschitsch, E., 2023)

4. **Vulnerable households**

As taxation is increasing, the rising prices of fuel and electricity are strongly affecting low and lower middle income households. In October 2021, wholesale electricity prices in the EU were almost three times as high as the average price in 2019 (Kettner, C., Wretschitsch, E., 2023), a time where over 34 million people are considered to be energy poor in the EU. Compensation measures have been adopted by numerous member states, with a budget of up to 65 billion EUR of funding for the years 2026-2032. (European Council, 2023)

These compensation measures include, the increase in existing social transfers, reductions in existing taxes, introduce new subsidies, and direct price regulation. (Kettner, C., Wretschitsch, E., 2023)

5. Further Exemptions from Energy Taxation

The energy taxation directive allows member states to apply various exemptions or reduced tax rates:

- Households and/or charitable organisations
- Energy-intensive business
- Renewable energy or energy products used in combined heat and power plants, public transport or inland shipping
- Energy generated from renewable energy sources or in highly efficient combined heat and power plants (CHP)

Member states must define any reduced tax rates. These tax rates must not fall below the minimum tax rates specified. For any sectors that are currently exempt from energy taxation, will face a transition period of ten years to mitigate the economic and social costs of introducing taxation. There is a possibility that vulnerable households will benefit from an exemption of taxation of heating fuels for a ten year period. Member states can grant tax reductions below the minima to heating fuels for all households. (European Commission, 2022)

6. Today

Today, energy tax rates applied differ between all member states, and are above the minimum tax rates specified in the directive in many cases. According to the “Fit for 55%” proposal for a revision of the energy taxation directive, minimum excise duty should be based on the energy content and environmental performance of the energy sources. There are three categories for these energy sources:

1. General Fuels
2. Fuels used in agriculture and forestry, in stationary engines, construction vehicles, and off-road vehicles
3. Heating Fuels

Over a ten year period, for the first category, minimum tax rates will be increased to 10.75 EUR per gigajoule. The tax rate for the next two categories is to be raised to 0.9 EUR per gigajoule. (European Commission, 2022)

7. Subsidies

A significant, although slightly decreasing, number of subsidies was spent on fossil fuel energy in recent years. The EU and member states must improve their efforts to meet their climate commitments on fossil fuel subsidies and achieve their goal of climate neutrality by 2050.

In 2020, overall energy subsidies in the EU reached EUR 173 billion. This was an increase of 7%, or EUR 14 billion, between the years 2015 and 2020. Subsidies for renewables increased by 15%m reaching EUR 81 billion in 2020, and energy efficiency subsidies increased by 20%, EUR 15 billion, in the same 2015 to 2020 period. This is a favorable development in the EU's mission to attain its objectives for a clean energy transition. (European Commission, 2022)

In 2021, total subsidies for all types of energy (fossil fuels, nuclear, and renewables) continued to rise. (total energy subsidies rose by EUR 11 billion in 2021 compared to 2020, reaching EUR 184 billion.) This was due to the increasing demand for energy as the economic recovery continued following 2020, a year characterized by COVID-19-related restrictions.

Reduce the fuel demand by subsidizing public transport fees and changes in existing schemes for commuter allowances.

- **The Deutschland Ticket**

The Deutschland ticket was introduced in May 2023 after the success of the 9-euro train ticket in the summer of 2022. The 9 euro train ticket was a train ticket subsidized by the government that covered all regional trains in Germany. It was originally introduced to lift the burden off residents during the cost of living, and electricity and heating crisis. It encouraged people to use public transport and in doing so greatly benefited the environment. 52 million tickets were sold during the summer of 2022. (Edgar Meza, 2022)

The VDV (the leading public transport organization in Germany), says the 9 euro ticket saved approximately 1.8 million tonnes of C02 in the months it was available during the summer, by people switching from cars to public transport.

A study on the effect of a public transport subsidy on air quality documented their key finding to be that a state-of-the-art air pollution index showed pollution levels fall in response to the introduction of the ticket. The air pollution index decreases by approximately 6-7%, which is in line with the research from the University of Potsdam. (Niklas Gohl & Philipp Schrauth, 2022)

- **Luxembourg free transportation**

In 2020, Luxembourg had the highest car density in the EU: 696 per 1,000 people versus the average 560. In February 2020, Luxembourg became the first country in the world to make all forms of public transportation free of charge. (Angela Symons, 2023)

The aim of this initiative was to reduce traffic congestion, promote the use of public transport, and address environmental concerns. Since 29 February 2020, all forms of public transport - including buses, trains and trams - have been free for residents and tourists alike.

8. Motor Industry - not only to public transportation, but the EU also works on individual vehicles

The Fit for 55% package has emission reduction targets for new cars and commercial vehicles to speed up the transition to zero and low-emission mobility. Cars and vans are responsible for around 15% of total EU emissions of C02. 12% cars, 2.5% vans. (European Council, 2023)

They have recently introduced a new target of 100% reduction for 2035. In other words, all new cars or vans sold in the EU from 2035 will be zero-emission vehicles.

The Alternative Fuels infrastructure regulation (AFIR) sets targets for the deployment of recharging and hydrogen refuelling infrastructure for cars, vans, trucks and buses. This means they want to bring charging and fuel infrastructure for zero-emission cars into action effectively and rapidly.

In relation to this target for the motor industry, global car sales in the first half of 2022 were lower than in those of 2021.Sales of more efficient cars, particularly electric vehicles, were performing relatively strongly in comparison to less efficient petrol and diesel cars.

9. RePowerEu

The RePowerEU plan of May 2022 from the European Commission, was a plan made to reduce the dependency on Russian gas, including a ramp-up on investments in energy efficiency and renewable energy sources, and diversification of gas supplies. This plan did not include any short-term compensation measures but

put emphasis on adopting the revised Energy Taxation Directive. And it would contribute to increasing the resilience of the EU against supply disruptions. (Kettner, C., Wretschitsch, E., 2023)

According to the EU Commission, the measures against the energy crisis should support the reduction in energy demand, foster the increase in energy and protect vulnerable groups from rising energy costs simultaneously. (for instance, A VAT reduction on high-efficiency heating systems was discussed.) (Kettner, C., Wretschitsch, E., 2023)

The EU emergency intervention emphasized the need to reduce electricity consumption.
Numerous countries have implemented different measures. For example:

- Greece, Latvia, and Finland comprise different investment subsidies for more efficient energy appliances or households.
- The Netherlands launched a programme for subsidising the energy saving measures that is directed towards low-income households.
- Other subsidy programmes have been established for firms. In Lithuania, there are subsidies for the use of renewable energy in the renovations of buildings.

10. Conclusion

Increased taxation on fossil fuels and subsidies for renewable energies are essential in reaching the EU's target of reducing emissions by 55% by 2030 in comparison to 1990, and reaching net zero emissions by 2050

Member state must enforce the policies set out by the EU to reach their goals and continue to be the global climate leader

References

Angela Symons (2023): The world's richest country made public transport free: Here's what happened next
https://www.euronews.com/green/2023/03/22/the-worlds-richest-country-made-public-transport-free-heres-what-happened-next

European Commission (2021): Proposal for a COUNCIL DIRECTIVE restructuring the Union framework for the taxation of energy products and electricity (recast)
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0563

European Commission (2022): Report on Energy Subsidies in the EU
https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0642

European Commission (2022) REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL 2022 Report on Energy Subsidies in the EU [Preprint].
https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52022DC0642

European Council (2023): Infographic - Fit for 55: a fund to support the most affected citizens and businesses
https://www.consilium.europa.eu/en/infographics/fit-for-55-social-climate-fund/

European Council (2023): Infographic - Fit for 55: increasing the uptake of greener fuels in the aviation and maritime sectors
https://www.consilium.europa.eu/en/infographics/fit-for-55-refueleu-and-fueleu/

European Council (2023): Infographic - Fit for 55: how the EU plans to revise energy taxation
https://www.consilium.europa.eu/en/infographics/fit-for-55-energy-taxation/

European Council (2023): Infographic - Fit for 55: how the EU will become more energy-efficient
https://www.consilium.europa.eu/en/infographics/fit-for-55-how-the-eu-will-become-more-energy-efficient/

European Council (2023): Infographic - Fit for 55: why the EU is toughening CO2 emission standards for cars and vans
https://www.consilium.europa.eu/en/infographics/fit-for-55-emissions-cars-and-vans/

Edgar Meza (2022): Germany's popular 9-euro public transport ticket a boon for climate action - market analysis
https://www.cleanenergywire.org/news/germanys-popular-9-euro-public-transport-ticket-boon-climate-action-market-analysis#:~:text=Clean%20Energy%20Wire,-The%2

0popularity%20of&text=Based%20on%20trips%20that%20shifted,VDV%20managing%20director%20Oliver%20Wolff.

International Energy Agency (2022): Energy Efficiency
https://iea.blob.core.windows.net/assets/7741739e-8e7f-4afa-a77f-49dadd51cb52/EnergyEfficiency2022.pdf

Kettner, C., Wretschitsch, E. (2023): Taxes and Subsidies in EU Energy Policy - Fit for 55? WIFO Working Papers 656
https://www.wifo.ac.at/jart/prj3/wifo/resources/person_dokument/person_dokument.jart?publikationsid=70570&mime_type=application/PDF

Rebekka Popp & Namita Kambli (2021): Fit for society, benchmarks for a social "Fit for 55" package
https://www.euki.de/wp-content/uploads/2021/07/E3G-Briefing-A-social-Fit-for-55-package.pdf

Niklas Gohl & Philipp Schrauth (2022): Ticket to Paradise? The Effect of a Public Transport Subsidy on Air Quality
https://www.uni-potsdam.de/fileadmin/projects/lsfiwi/docs/Publikationen/Ticket_to_Paradise.pdf