An Roinn Airgeadais
Department of Finance

Climate Action and Tax Paper
Tax Strategy Group – 21/09

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Contents

1. INTRODUCTION

The threat which climate change poses to society and the economy is clear. Tackling climate change is a global issue. The role which taxation can play is recognised internationally and domestically. Significant steps have already been taken to foster a pathway to a climate resilient future as set out in the 2020 Programme for Government and 2019 Climate Action Plan (the 2021 revised Climate Action Plan is due to be published later this year). Fiscal measures which incentivise the use of greener fuels and technologies and a move away from more pollutant fossil fuels play an important role in the journey to a carbon neutral economy.

As set out in the Programme for Government, the Commission of Taxation and Welfare is being established to independently consider how best the taxation and welfare systems can support economic activity and promote increased employment and prosperity. The Commission will also "examine how the taxation system can be used to help Ireland move to a low carbon economy as part of the process of meeting its climate change commitments as set out in the Climate Action and Low Carbon Development (Amendment) Bill 2021. This will include ensuring the sustainability of environmental tax revenue resulting from decarbonisation of the economy". The Commission is due to report to the Minister for Finance in July 2022.

This paper examines energy and environmental taxation, including motor vehicle taxes, setting out the structure and current operation of taxation regimes which come under this category of tax. The paper also presents options for consideration in future Budgets.

2. ENERGY TAXES

2.1 Overview

This Chapter examines the main energy taxes – fuel excise and electricity tax. It also examines fossil fuel tax subsidies in the context of the Programme for Government commitment to phase out the reliance of the economy on heavily pollutant fossil fuels, as well as the likelihood that legislative changes at EU level may necessitate the removal of such subsidies in the near future.

EU Legislative Framework

Energy taxation in Ireland is governed by the Energy Tax Directive 2003/96/EC (ETD) which sets out excise duty rules covering all energy products in the EU used for heating and transport, as well as electricity. The Directive sets out minimum levels of taxation applicable to these energy products but also allows for exemptions and reduced rates of taxation in specific areas. The Finance Act is the means by which any changes to energy taxation policy are passed into law.

The ETD has not been updated since its implementation in 2003 and is considered outdated in some respects, particularly with regard to reflecting the current commitment to address climate change. In December 2019, the European Commission published its Communication on the European Green Deal which set out the policy and legislative agenda for a just transition to a modern, sustainable, resource-efficient and competitive economy reaching carbon neutrality by 2050. Among the key policies and measures needed to achieve the aims of the European Green Deal are the revision of the Energy Tax

Directive and a potential Carbon Border Adjustment Mechanism, proposals for which were presented in July 2021 and are included at section 2.6.

Ireland's CO2 emissions targets

The 2020 Programme for Government commits to an average 7% per annum reduction in overall greenhouse gas emissions from 2021 to 2030 (a 51% reduction over the decade) and to achieving net zero emissions by 2050. Ireland's current emissions reduction target under the EU National Energy and Climate Plan is a 30% reduction on 2005 levels. The EU Green Deal proposed increased ambition on union wide emissions reductions targets in order to reach carbon neutrality by 2050, going from 40% to 55% reduction on 1990 levels.

Table 1 sets out Ireland's Greenhouse Gas Emissions (GHG) Share by Sector for 1990 and 2019

Table 1 National GHG Emissions by Sector [1]

Sector	1990	2019
	%	%
Waste	2.9	1.48
Energy Industries	20.8	15.77
Residential	13.8	10.9
Manufacturing Combustion	7.5	7.66
Commercial Services	1.8	1.49
Public Services	2.1	1.48
Transport	9.5	20.35
Industrial Processes	6	3.77
F-gases	0.1	1.79
Agriculture	35.5	35.31

As the table shows, agriculture is the sector with the largest share of emissions. While the share of emissions represented by residential, energy and industrial processes have shown decreases, the share of transport emissions has increased significantly. While 2020 emissions data is not yet available, the impact of Covid19 restrictions on emissions for 2020 is expected to show some reductions in transport and commercial services.

[1] Source – Environmental Protection Agency : https://www.epa.ie/our-services/monitoring--assessment/climate-change/ghg/latest-emissions-data/#

2.2 Fuel Taxes – Rates, Volumes and Yields

The bulk of receipts from energy taxes comes from fuels used in road transport and to a lesser extent the heating of buildings. CSO data[2] shows that in 2019 households paid 52% of environmental taxes, services industry bore 32.1% of the environmental tax share, while environmental taxes levied on industry amounted to 14.5 % of the total share and agricultural was 1.3%.

Table 2 sets out the tax rates currently applicable on the main mineral oil products (per 1,000 litres) together with the volumes released for clearance in 2020.

Table 2: Current Fuel Tax Rates and Volumes

Product	Non Carbon Charge (per 1000 Litres)	Carbon Charge (per 1000 Litres)	Mineral Oil Tax* (per 1000 Litres)	VAT	Volumes 2020 (millions litres)
Petrol	€541.84	€77.52	€619.36	23%	773
Auto diesel	€425.72	€89.66	€515.38	23%	3,167
MGO ('green diesel')	€47.36	€90.81	€138.17	13.5%	1,134
Kerosene	€0.00	€84.84	€84.84	13.5%	1,257
Jet Kerosene[3]	Exempt	Exempt	Exempt	Exempt	Exempt

**Mineral Oil Tax comprises non carbon and carbon charge (carbon tax) components. This is the total rate of the non-carbon and carbon charge.*

In addition, the carbon tax is applied to natural gas and solid fuels at the current rate of €33.50/tCO2 while electricity tax is applied to electricity generated from fossil fuels (with households exempt from this duty) at the very low rate of €1 per Mega Watt Hour (MWh)

Table 3 details the annual yield by tax and fuel type. Excise on heavy oils, which include auto diesel, marked gas oil, kerosene and fuel oil, provide the largest yield at almost €1.4 billion in 2020.

2https://www.cso.ie/en/releasesandpublications/er/eaet/environmenttaxes2019/#:~:text=In%202019%20environment%20taxes%20levied,share%20of%20total%20environment%20taxes. Note - the CSO also includes levies such as the PSO and NORA levies as taxes for this purpose.

[3] The Energy Tax Directive 2003/96/EC mandatorily exempts fuel used in cross border aviation from taxes.

Table 3: Exchequer Receipts from Fuel Taxes 2014 – 2020 (€millions)

	2014	2015	2016	2017	2018	2019	2020
Excise - Light Oils	€800	€768	€721	€627	€598	€568	€425
Excise - Heavy Oils	€1,219	€1,346	€1,447	€1,434	€1,565	€1,596	€1390
Excise - LPG	€0.23	€0.3	€0.27	€0.23	€0.2	€0.2	€0.13
Carbon Tax	€385	€419	€430	€420	€431	€430	€494
Electricity Tax	€5.5	€4.5	€4.6	€3.6	€2.5	€2.3	€2.1

Table 4 shows cumulative figures for exchequer receipts to the end of May in 2019, 2020 and 2021. Receipts are shown for light oils (primarily petrol and aviation gasoline) and other oils (mainly diesel as well as MGO and kerosene). The impact of the 2020/2021 lockdowns can be seen in the year on year reductions. As diesel is primarily the fuel used by business and particularly heavy goods haulage, the impact was less than that of petrol.

Table 4

Exchequer Receipts to the end of May (€m)					
	2019	**2020**	**yoy %**	**2021**	**yoy %**
Light Oils	232.0	180.1	-22%	148.1	-18%
Other Oils	641.3	570.0	-11%	541.6	-5%
Total Oils	873.3	750.1	-14%	689.7	-8%

Recent Trends in Fuel Markets

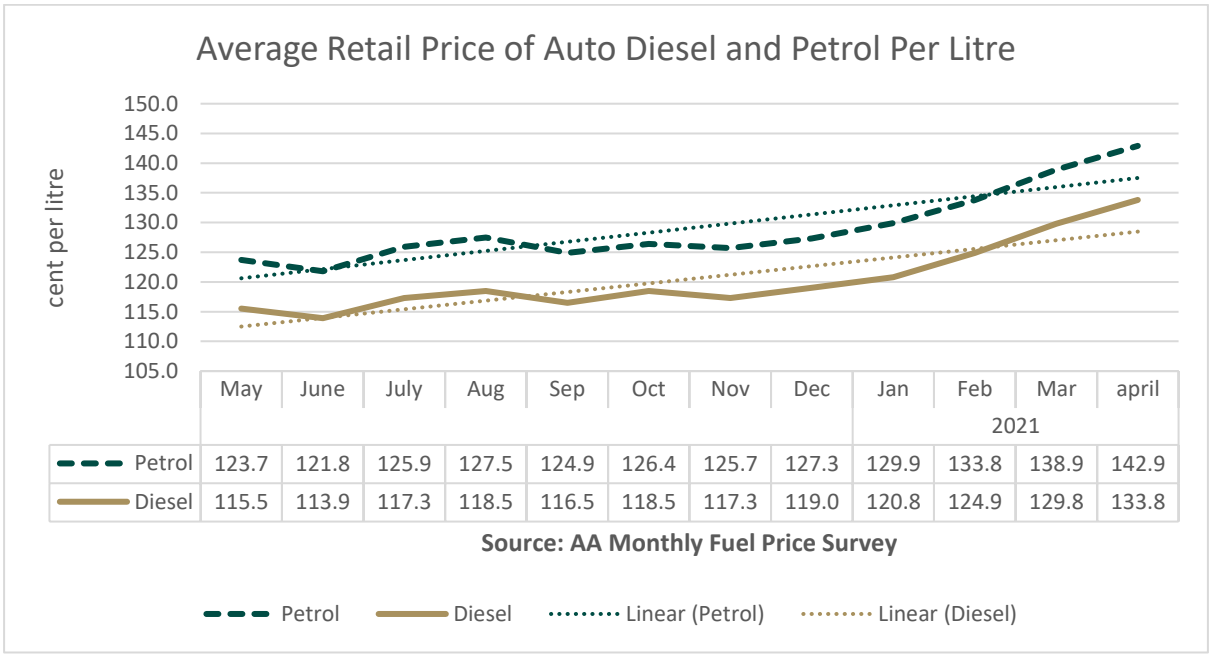
The instigation of national lockdowns globally to curb the spread of Covid19 in 2020 resulted in historic lows in oil markets. To mitigate this effect and the surplus oil supply, OPEC+ instigated a curb on production in 2020. This manoeuvre as well as optimism surrounding the successful roll out of vaccination programmes and easing of restrictions has brought forth a gradual steady increase in oil prices. Commitments to tackle climate change by implementing further carbon pricing and investment in alternative fuels and technologies by the EU, US and China while scaling back investment in fossil fuel exploration may also lead to further upward price pressure in the longer term. Graph 1 shows the price of Brent crude oil moving from approximately $34 per barrel in May 2020 to approximately $68 per barrel in May 2021.

Graph 1 Brent Crude Oil Price per Barrel May 2020 to May 2021

[4]

Graph 2 shows the average retail price of auto diesel and unleaded in petrol in Ireland between May 2020 and May 2021

Graph 2 National Average Retail Price of Diesel and Petrol



	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	april
									2021			
Petrol	123.7	121.8	125.9	127.5	124.9	126.4	125.7	127.3	129.9	133.8	138.9	142.9
Diesel	115.5	113.9	117.3	118.5	116.5	118.5	117.3	119.0	120.8	124.9	129.8	133.8

[4] https://www.macrotrends.net/2480/brent-crude-oil-prices-10-year-daily-chart

The national average retail price chart shows less volatility but also shows a general upward trend in pricing. While the carbon tax increase of 2.1 and 2.5 cents for petrol and diesel took effect in October 2020, the average retail prices fell by 0.7 and 1.2 cents respectively the following month, reflective of the fact that a number of factors such as global market prices, exchange rates, retail pricing policies and taxes all play roles in the final retail price.

The International Energy Agency Global Energy Review[5] notes that coal and natural gas prices also fell in 2020 in light of restrictions reducing demand for coal and gas as inputs, as well as use of renewables in many markets. Both have seen price recoveries in 2021, to a lesser extent with coal due to fuel switching in light of lower gas prices in the global market. With regard to domestic consumer prices, the July 2021 SEAI Domestic Fuel Comparison shows y-o-y increases in the order of 7%, 5% 36% and 16% coal, gas, kerosene and peat respectively. While the 2021 carbon tax increase applied from May 2021, increases on the previous quarter (April 2021) were in the order of 2%, 10% and 16% for coal, kerosene and peat respectively showing that the majority of the price fluctuation is caused by other factors.

2.3 Cross border fuel price comparison of rates and prices

Price differentials in fuels arising from lower rates of taxation and exchange rate fluctuations in an area with an easily traversable land border can lead to "fuel tourism", whereby products are bought at a cheaper rate in one jurisdiction and consumed elsewhere. Fuel tourism in particular arises with regard to diesel due to lower rate of excise on diesel in the South.

Taxes on solid fuels are higher in the South (lower VAT rate and no carbon tax in the North) and this, together with different environmental standards, incentivises the illegal sale of coal from North to South. Table 5 below shows the different rates of taxation and the retail prices of auto fuels in Northern Ireland and the State.

Table 5 Fuel Excise and Prices in N.I. and R.O.I.

Fuel	Excise per litre		Ave. Retail Price per litre	
	N.I.	R.O.I.	N.I	R.O.I.
Diesel	€0.6675	€0.5153	€1.434	€1.338
Petrol	€0.6675	€0.6193	€1.405	€1.429

Prices sourced from AA Fuel Survey April 2021
Exchange rate GBP:1.1519 Euro (ECB Eurosystem Policy and Exchange Rates 08.05.2021)

The increases in the rate of carbon taxes in Ireland since 2019 have served to narrow the excise gap between the UK and Irish rates and future increases as set out in Finance Act 2020 will assist further. While the retail price of petrol is more expensive in the South, diesel remains nearly 10 cents cheaper than in the North.

[5] IEA Global Energy Review 2021 :
https://www.iea.org/reports/global-energy-review-2021?mode=overview
SEAI July 2021 Domestic Fuel Cost Comparison :
https://www.seai.ie/publications/Domestic-Fuel-Cost-Comparison.pdf

A study published by the ESRI in 2018 estimated that fuel tourism contributed tax receipts to the Irish Exchequer of about €28 million from petrol and €202 million from diesel at 2015 rates, taking VAT into account along with excise and carbon taxes. According to the CSO, fuel tourism of petroleum products amounted to 232 kilotonnes of oil equivalent in 2019.[6] Diesel represents 98% of fuel tourism which, in turn, contributes to Irish emissions as emissions are recorded based on where the fuel is sold rather than where it is used.

Measures to Combat Fuel Smuggling

Revenue and An Garda Síochána collaborate closely in acting against illegal cross-border activity including fuel laundering, and also cooperate with their counterparts in Northern Ireland under the framework of the North-South Joint Agency Task Force.

Steps taken by Revenue to combat mineral oil fraud, including home heating oils, include the introduction of stringent supply chain controls and reporting requirements, a rigorous programme of risk focused enforcement action and the application of robust legislation. In addition, Revenue and the UK Revenue and Customs undertook a joint initiative to introduce a new marker for use in marked fuels, which came into operation in April 2015. The industry view is that the actions taken have been successful in curtailing fuel fraud.

Following risk and supply chain analysis, Revenue initiated a National Mineral Oils Project in 2019 with 224 traders identified for a Revenue intervention. In addition, a Solid Fuel Carbon Tax Compliance module was added where 25 oil traders who also trade in solid fuels were selected for intervention as part of this project.

In 2020 Revenue participated in a number of joint operations within Low Smoke Zones in conjunction with the Department of Environment, Climate and Communications (DECC) and the local authority solid fuel inspection teams, with a view to checking for compliance across several tax headings, including Solid Fuel Carbon Tax. No breaches of Air Pollution or Waste or detections were noted during the joint operations. This issue is kept under review.

2.4 Auto fuels and environmental health

Air pollution is the single largest environmental health risk in Europe. It is estimated that approximately 1,300 premature deaths a year occur in Ireland due to poor Air Quality[7]. Both short and long-term exposure to air pollution can lead to a wide range of illnesses including cardiovascular diseases, reduced lung function, respiratory infections and aggravated asthma. Research also shows a causal link between

[6] https://data.cso.ie/ Energy Balance Statistics, SEI06 Fuel Consumption

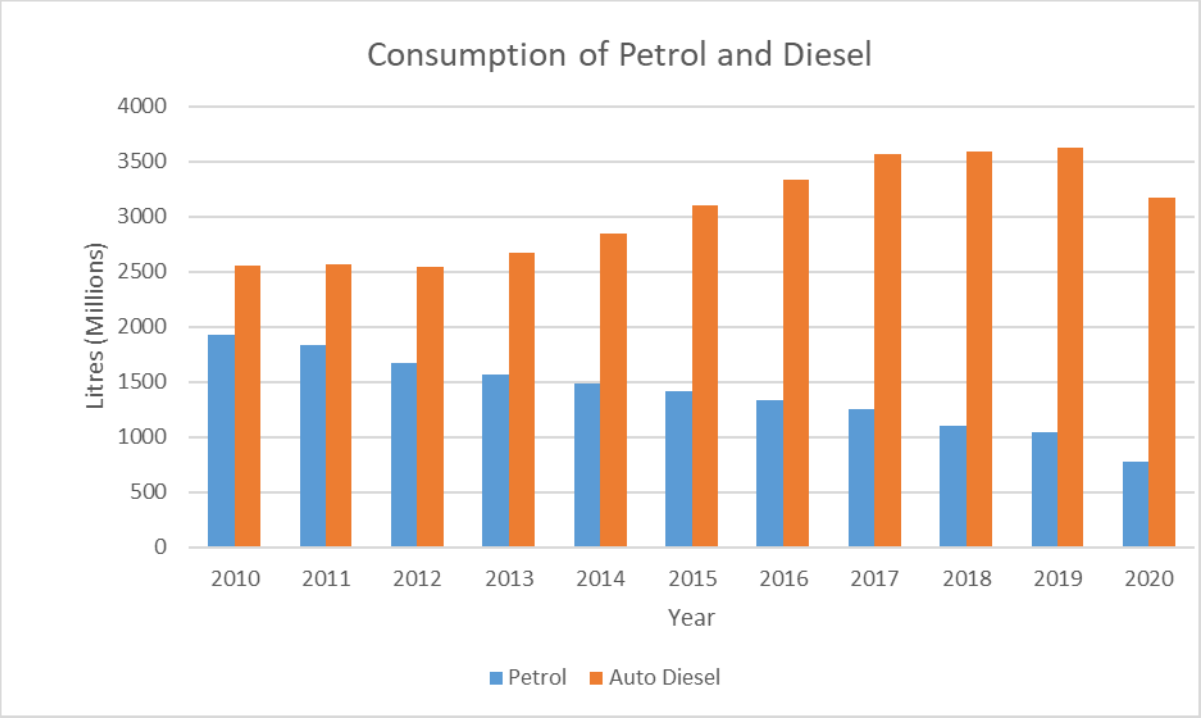
[7] Ireland's Air Pollutant Emissions 1990 – 2030, Environmental Protection Agency (published June 2021) https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/EPA-Irelands-Air-Pollutant-Emissions-report_2021Final.pdf

exposure to air pollutants and other health issues such as type 2 diabetes, obesity, systemic inflammation, Alzheimer's disease and dementia. [8]

The EPA 2019 Report on Air Quality finds that air quality in Ireland was generally good but there are localised issues in some of our cities, towns and villages. Transport is responsible for the second largest share of GHG emissions in Ireland. Based on 2019 figures, private cars represent the biggest contribution to overall transport emissions at 48%[9]. Of particular concern with regard to public health, is the release of Nitrogen Dioxide (NO_2). The main driver behind this in built up areas is Nitrogen Dioxide emissions from transport. Diesel engines in particular produce more NO_2 than petrol engine vehicles.

Chart 1 shows the volume of diesel and petrol consumed in Ireland between 2010 and 2020. As is clear from the chart, diesel is the predominant fuel. Diesel is generally the fuel used in business and therefore business consumption is responsible for a large share of the volume. The lower rate of excise applied to diesel reflects a policy designed to protect the competitiveness of businesses reliant on diesel as a fuel input. However, Chart 2 shows the trend towards the purchase of private diesel engine vehicles in recent years.

Chart 1 Consumption of Petrol and Diesel in Ireland 2010 – 2020[10]

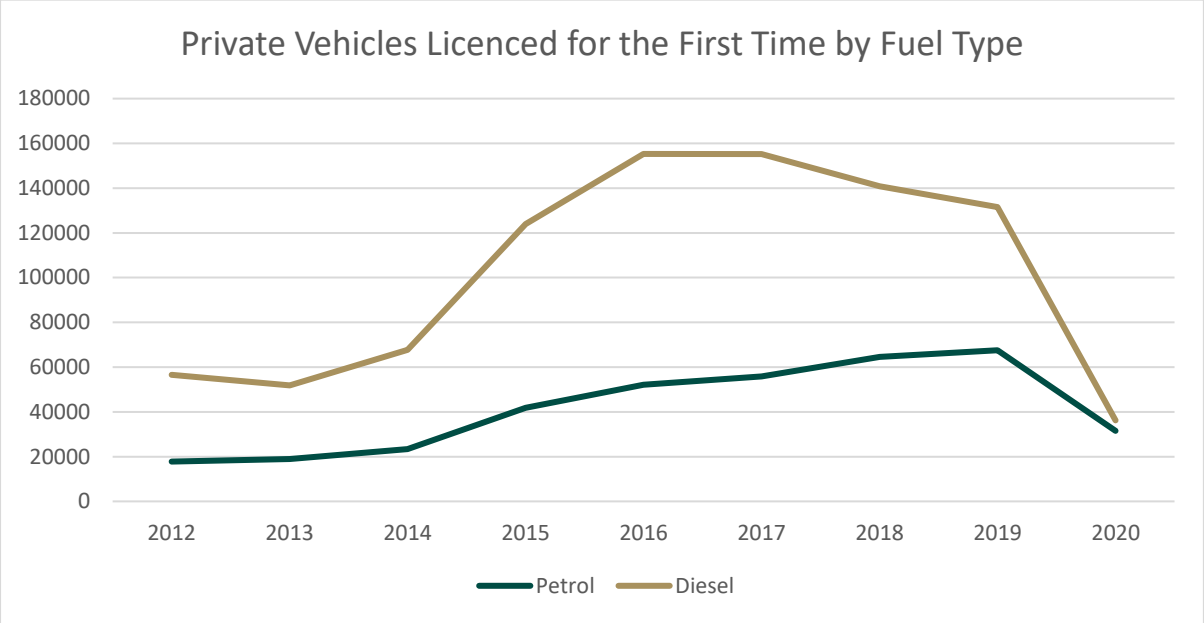


[8] https://www.eea.europa.eu/themes/air/health-impacts-of-air-pollution, European Environmental Agency, *Health Impacts of Air Pollution*

[9] https://www.epa.ie/pubs/reports/indicators/EPA_Irelands_Environment_2020.pdf

[10] Source – Revenue excise volumes by commodity : https://www.revenue.ie/en/corporate/information-about-revenue/statistics/excise/receipts-volume-and-price/excise-volumes-commodity.aspx

Chart 2 Private Vehicles Licenced for the First Time by Fuel Type



[11]

As can be seen from the chart, between 2013 and 2017 in particular, there has been an increase in registration of diesel engine vehicles. Budget 2019 introduced the diesel surcharge which applied to all newly registered diesel engine vehicles. In 2020 this was replaced by a new VRT Environmental Health surcharge to apply to all cars that emit nitrogen oxides. The measure was introduced in recognition of the health and environmental risks posed by non-CO2 emissions, which are harmful to the environment and to public health. The measure was commenced on 1 January 2020 and Budget 2021 provided for an upward adjustment in this surcharge.

2.5 Fossil Fuel Tax Subsidies

Introduction

While there is no globally accepted definition of Fossil Fuel Subsidies, the OECD defines a subsidy as the result of a government action that confers an advantage on consumers or producers, in order to supplement their income or lower their costs. This definition includes tax expenditures such as tax rebates, tax repayments and reduced tax rates, as well as direct subsidies. Tax expenditures are estimated using the revenue foregone method; the revenue lost which would otherwise have been raised were there no indirect subsidy in the form of a rebate, refund or reduced rate of taxation.

A subsidy is a fossil fuel subsidy if it is likely to incentivise fossil fuel activities. The origin of the subsidy is usually for broader social reasons, such as to prevent fuel poverty by ensuring that everyone can afford to heat their home. However, these reduced rates fail to properly account for the externalities caused by the combustion of fossil fuels.

[11] Source – CSO, TEA12 Vehicles Licenced for the First Time

The CSO Fossil Fuel Subsidies 2019[12] publication estimates total fossil fuel subsidies amounted to €2.4 billion in 2019. Direct fossil fuel subsidies accounted for 11% of total fossil fuel subsidies in 2019, while indirect subsidies arising from revenue foregone due to tax abatements accounted for 89%. The lower excise duty on auto diesel accounted for 19% of total indirect subsidies and the VAT refund on auto diesel available to businesses amounted to 13%. Revenue foregone due to a lower excise duty on marked gas oil represented 14% of total indirect subsidies. The exemption on jet kerosene amounted to 30% of indirect subsidies. The ETS sector was also included in this exercise with free permits for aircraft operators were amounting to 6%, and ETS permits for stationary installations a further 6%.

The CSO also examined the amount of revenue raised in energy taxes with expenditure on fossil fuel subsidies and expenditure on environmental subsidies aimed at protecting the air and climate, and reducing fossil fuel use. In 2019, €3.0 billion was raised in energy taxes, €0.4 billion was spent on environmental subsidies related to energy and emissions, and fossil fuel subsidies were €2.4 billion.

A 2019 ESRI research paper[13] examining the impact of removing fossil fuel subsidies and increasing the carbon tax in Ireland analysed the environmental and economic impact of removing eight[14] different fossil fuel subsidies. The paper found that the removal of seven of the subsidies would have negligible impacts on overall economic activity and households' welfare, the exception being the removal of household energy allowances (different allowances for electricity, gas, and fuel) which would impact poorest households hardest. The research found that among various scenarios of subsidy removal, removing the subsidies for auto diesel and marked gas oil would result in the largest emissions reductions overall (with most emission reductions coming from the transport, agricultural and construction sectors).

This section will examine two indirect fossil fuel subsidies; the reduced rate on auto diesel, 'the diesel excise gap', and the Diesel Rebate Scheme.

The Diesel Excise Gap

As referenced above, auto diesel is the predominant road transport fuel in use in Ireland. Mineral Oil Tax (MOT) which is applied to liquid fuels comprises a carbon charge and a non-carbon charge, also referred to as excise or duty. The overall rates currently applying to diesel and petrol are shown below in Table 6.

Table 6 Mineral Oil Tax Rates

	Fuel Duty	Carbon Charge	**MOT**
		Cents per litre*	
Petrol	54.2	7.7	61.9
Auto diesel	42.6	8.9	51.5

[12] https://www.cso.ie/en/releasesandpublications/er/ffes/fossilfuelsubsidies2019/

[13] https://www.esri.ie/publications/the-impacts-of-removing-fossil-fuel-subsidies-and-increasing-carbon-tax-in-ireland

[14] Subsidies covered :1) Household energy allowances 2) Public Services Obligation Levy (PSO) 3/4/5) Lower rates of excise on Auto Diesel, Marked Gas Oil and Fuel Oil (unleaded petrol as baseline) 6)Non carbon excise exemption on home heat Kerosene 7) Diesel Rebate Scheme 8) Excise Exemption on Aviation Fuel

*Rounded to nearest decimal

The diesel excise gap is 11.6 cents. The difference in the rate of overall MOT is 10.4 cents, the carbon tax increases have lessened this gap given that diesel attracts a higher carbon charge than petrol. While the lower excise on diesel was originally conceived as a support to businesses reliant on diesel as fuel, it also contributed to an uptake of private diesel vehicles. Of the 2,215,127 private passenger vehicles on the roads in 2020, diesel engines comprised 58%, petrol 38% and the remaining 4% were electric/hybrid/petrol/bioethanol[15].

Excise on diesel and petrol in the UK are levied at the same rate and there have been many calls for equalisation of the diesel and petrol excise rates in Ireland on environmental and public health grounds. The Climate Change Advisory Council, the Joint Committee on Climate Action and the European Commission have all advocated for equalisation in recent years. The Government's 2019 Climate Action Plan committed to the equalisation of diesel and petrol excise rates 'over an appropriate period of time'. The 2021 OECD Environmental Performance Review on Ireland also recommended that Ireland increase the diesel tax rate gradually so that it at least reaches the petrol tax rate in the medium term. The European Commission proposal for restructuring the Energy Tax Directive, published in July 2021, also mandates the gradual removal of the use of schemes such as the Diesel Rebate Scheme which differentiate between commercial and non-commercial use of diesel.

In light of the trend toward diesel engines and the associated negative impacts on public health and environmental standards, consideration of the gradual removal of the excise gap has been examined in previous Tax Strategy Papers by setting out a pathway for achieving this equalisation of rates notably by increasing diesel excise by some 2.32 cent/litre per annum over 5 years. The 2020 TSG paper also examined the possibility to bridge the gap over a ten year period by annual increments of 1.16 cent/litre. These remain valid options for a gradual removal of the diesel excise gap.

Increasing diesel by approximately 2 cent/litre is estimated to raise an additional €9 million in 2021 and €65m in a full year. Increasing diesel by approximately 1 cent/litre would raise an estimated additional €4 million in 2021 and €33 million in a full year, respectively. These options would equalise the non-carbon component of Mineral Oil Tax. As the carbon tax results in a higher charge on diesel the overall rate of Mineral Oil Tax would be higher on diesel by the end of the timeframe concerned (5/10).

The Diesel Rebate Scheme

The Diesel Rebate Scheme was introduced in 2013 in recognition of the prevailing high price of auto fuels at that time. The scheme was implemented at a time when diesel was around €1.50 per litre as a measure to protect the competitiveness of the haulage and passenger transport sectors. As the scheme currently operates, it offers a partial excise refund to qualifying hauliers and bus operators when the retail price of auto diesel exceeds €1.00 per litre (€1.23 incl VAT). The rebate amount increases gradually to a maximum rebate of 7.5 cent per litre.

[15] Source - Department of Transport

Between 2013 and 2019 the scheme provided a marginal rate of compensation, to qualifying transport operators, of 30% of the excise paid when the average retail price of auto diesel was over €1.00 per litre (VAT exclusive) up to a maximum rate of compensation of 7.5 cents per litre when the price of auto diesel was €1.25 or over. Budget 2020 enhanced the Diesel Rebate Scheme as a temporary support measure in light of challenges facing the road haulage sector due to Brexit uncertainty. The marginal repayment increased from 30% to 60% when the retail price is over €1.07 (VAT exclusive) up to a maximum repayment rate of 7.5 cents when the retail price of auto diesel is €1.16 (VAT exclusive) or higher.

As a fossil fuel subsidy, the scheme has been subject to criticism from an environmental perspective. Previous TSG papers have cited research from the ESRI which stating that the DRS has been responsible for significant additional emissions of carbon dioxide, nitrogen dioxide and particulate matter, pollutants which are damaging to the environment and public health. Both the CSO and the Environmental Protection Agency refer to the DRS as a potentially environmentally damaging fossil fuel subsidy. As part of recommended greening of the taxation system, the 2021 OECD Environmental Performance Review calls for phasing out the Diesel Rebate Scheme as soon as possible.

Budget Options

Both the 2020 Programme for Government and the Climate Action Plan look to a future that is less reliant on fossil fuel consumption. A gradual phase out of fossil fuel subsidies like the DRS which support heavy consumption of such fossil fuels is necessary in the transition to a more sustainable future.

Amending the DRS involves changing one or more of the main components of the DRS; 1) price floor 2) the rebate rate and 3) maximum rebate payment. Possible options are:

1. Increasing the price floor. The Price Floor is the point at which the diesel rebate scheme kicks in, currently €1.00 (VAT exclusive).
2. Amending the rebate rate. The rebate rate offers a marginal rebate of compensation of 30% at prices over €1.00 up to €1.07 (VAT exclusive) and 60% between €1.07 and €1.16.
3. Decreasing the maximum rebate amount which is currently 7.5 cents per litre.

Pursuing option 1 could take the form of gradual annual increases to the price floor which means that refunds at the lower spectrum of prices are initially phased out leading to removal of repayments overall in subsequent years. This has the benefit of ensuring a level of support to essential users of the DRS at higher prices and allowing for their transition to alternative fuels as investment and advancement in that area evolves. The rebate amount at higher levels could be retained at the current rates or gradually reduced in tandem with the price floor increases.

Option 2 may initially involve a return to the operation of the scheme was it was before 2020 (i.e. removing the 60% marginal rate of compensation) followed by gradual reductions of the 30% marginal rate of compensation.

Option 3 would involve gradual reduction of the maximum repayment amount of 7.5 cents.

2.6 European Climate Action and Tax Related Proposals

The EU has adopted ambitious legislation across multiple policy areas to implement its international commitments on climate change. Recognising that further substantial reform is needed to achieve emissions reductions targets, the European Green Deal aims to decouple economic growth from emissions in a fair, just and sustainable manner. Three recently published proposals in this area are the revision of the Energy Tax Directive, the Carbon Border Adjustment Mechanism and the Revision of the EU ETS.

Energy Tax Directive (ETD)

The ETD sets out excise duty rules covering all energy products used for heating and transport, as well as electricity. The 2003 Directive sets out minimum levels of taxation applicable to energy products but also allows exemptions and reduced rates of taxation in specific areas. The 2003 Directive is considered outdated in many respects, in particular with regard to the EU's climate action goals; minimum rates are based on volume rather than energy efficiency, there are mandatory exemptions for commercial uses of fuel in the marine and aviation sectors as well as scope to apply reduced rates and exemptions in other areas.

The proposed revision of the Directive addresses the need to reflect the current energy market inclusive of new and emerging fuels and to foster uptake of cleaner fuels by taxing on the basis of the energy content and environmental performance rather than by volume. The main points of the revision are:

- Minimum rates are to be based on energy content and environmental performance rather than volume
- Fossil fuel subsidies are to be phased out over a ten year period from 2023 - 2033
- The tax base will be broadened by the inclusion of new fuels such as biofuels and hydrogen

Ireland currently taxes above the minimum for most of the fuels concerned. Due to a commitment given in 2016 by the then Minister for Finance, Michael Noonan, to keep the rate of tax applied to Natural Gas used as a propellant for a period of 8 years from 2017 to 2025, the rate has remained at the current ETD minimum rate of €2.6 per Gigajoule. The revised ETD proposes an increase in this rate from €7.17 in 2023 up to €10.75 in 2033.

The ETD proposal to move from a volumetric to an energy content basis of taxation should not pose any significant issues but the administrative and IT system development would require a significant lead-in time for Revenue.

Government policy supports the removal of fossil fuel subsidies, though the phasing out of the exemption for aviation and maritime sectors as well as the gradual removal of the Diesel Rebate Scheme will have sector specific impacts which could affect competitiveness and lead to increased consumer costs. Though it is recognised that these sectors need to decarbonise, the specific impacts on these sectors must be considered, particularly in light of our geographical location.

Carbon Border Adjustment Mechanism (CBAM)

In order to address the risk of carbon leakage, the European Commission has proposed a CBAM which will put a price on third country imports of certain high-polluting goods based on their carbon content.

The Commission has said the proposal for a CBAM ensures that the same carbon price will be paid by domestic and imported products and it will be non-discriminatory and compatible with WTO rules and other international obligations of the EU. The CBAM proposal states that each Member State will have a national authority to administer and manage the CBAM scheme. The CBAM will be gradually introduced and initially apply to imports of cement, iron and steel, aluminium, fertilisers and electricity as these sectors have a high risk of carbon leakage and high carbon emissions. Products which do not have meaningful emissions like ferrous scrap, ferroalloys and certain fertilisers are exempted. It will mainly apply to imports from non-EU countries but countries that have participated in the ETS or have an emission trading system linked to the Union's will be excluded from the mechanism. This is the case for members of the European Economic Area and Switzerland.

For CBAM sectors, free ETS allowances will gradually be phased out from 2026. The CBAM will be based on a system of certificates to cover the embedded emissions in imported products. The CBAM certificate price will be based on the EU ETS allowance price (currently over €50). As a potential EU own resource, revenues from CBAM will contribute to the EU's budget. A transitional period will apply during the period 2023 until 2025 without financial adjustment to facilitate a smooth roll out of the mechanism and reduce the risk of disruptive impacts on trade.

From an Irish perspective, a comprehensive impact assessment is needed to examine the potential trade and competitiveness impacts both at EU, international and national levels. Given the highly globally integrated nature of Ireland’s economy, the likely trade and competitiveness implications of this proposal could be significant.

It is not clear if the CBAM proposals in relation to electricity will have any impact on importation into the State of electricity from Great Britain via the interconnector. The CBAM proposal does provide for an exemption to imported electricity from third country electricity markets which are already integrated with the Union internal market through market coupling if no technical solution has been found to apply the CBAM. This is subject to certain qualifying criteria being met, largely that the third country meets environmental standards regarding carbon pricing, carbon neutrality commitments and renewable energy commitments on a legislative basis equivalent to those of the EU.

Revision of the EU ETS

The Commission has proposed to revise the EU ETS which currently covers around 40% of the EUs total Greenhouse Gas (GHG) emissions (notably the power sector and heavy industry), through its extension to the maritime sector over the period 2023-2025. In addition, greater efforts will also be required from aviation operators to reduce their emissions, through the phasing out of free emissions allowances this sector currently receives. The proposal for aviation is to phase out the free allowances completely by 2027.

In addition, while road transport and buildings are to remain under the scope of the Effort Sharing Regulation, the Commission has also proposed to apply emissions trading to both these sectors by 2026. This would be done in a separate system focused on upstream fuel suppliers, putting the responsibility on fuel producers to comply with the system, rather than requiring individual households or road transport users to take part directly.

To address potential impacts of energy poverty and mobility poverty, the Commission is also introducing a proposal for a new Social Climate Fund to be financed by the EU budget, using an amount equivalent to 25% of the expected revenues of emissions trading for building and road transport fuels. It will provide €72.2 billion of funding to Member States, for the period 2025-2032. The current indication is that the national allocation to Ireland should be a maximum of approximately €737 million between 2025-2032.

The proposal to apply a separate trading system to road transport and buildings is of significant importance to Ireland. The expansion of emissions trading sectors to those sectors could impose a double taxation on the emissions associated with energy use in the transport and buildings sector, given these emissions are also subject to the domestic carbon tax. The full year yield from carbon tax last year was approximately €494 million. Any consequential changes to the existing carbon tax would affect the expected revenue from the schedule of carbon tax increase set out in the 2020 Finance Act. As per the Programme for Government commitment, significant additional revenue has been allocated for expenditure measures which will ensure a Just Transition through targeted social welfare measures which protect vulnerable households against fuel poverty, fund socially progressive retrofitting schemes and partially fund a REPS-2 (Rural Environment Protection Scheme) programme encouraging uptake of greener and more sustainable farming methods.

2.7 Electricity Tax

Background

Electricity Tax is an excise duty that is charged on supplies of electricity. The tax is charged on the final supply of electricity to the consumer and the liability arises at the time the electricity is supplied. There is a full relief from electricity tax for electricity used by households. The revised Energy Tax Directive proposes a gradual removal of this exemption, however it does provide for a continued ten year exemption until 2033 for households classed as vulnerable and a provision for reduced rates (not below the minima) thereafter.

The current minimum rates for electricity tax under the ETD are €1.00 per megawatt hour (MWh) for non-business usage and €0.50 for business usage. The revised ETD proposes equalising the minimum rates resulting in a reduction for the non-business rate and an increase in the business rate. Currently the rates in Ireland are €1.00 for both categories of usage. Aside from the relief for households, there is also relief from taxation for electricity generated:

- from renewable sources
- from environmentally friendly heat and power cogeneration
- on board a craft
- and relief from taxation for electricity used:
    - for chemical reduction or in electrolytic or metallurgical processes
    - for combined heat and power generation
    - for, or in connection with, the production of electricity.

The revised Directive seeks to promote the use of alternative and renewable energy sources, as such combined heat and power generation may continue to qualify for preferential treatment. Electricity

produced on board a craft as well as electricity used in chemical, electrolytic and metallurgical processes can also continue to benefit from exemption under the revised Directive.

Electricity tax receipts contribute little to the Exchequer as can be seen from Table 7 below, the annual yields in the last six years have been consistently below €6 million. This is due to low rates of taxation applied and the wide range of reliefs available. As the share of electricity generated by renewables increases, so does the quantum of reliefs available, reducing the overall yield.

Table 7 Electricity Tax Annual Receipts

	2014	2015	2016	2017	2018	2019	**2020**
Electricity Tax	€5.5	€4.5	€4.6	€3.6	€2.5	€2.3	€2.1

Electricity Tax Rates and Prices across the EU

The rate of electricity tax charged in Ireland is amongst the lowest in the EU as shown in Table 8. Several Member States are similar to Ireland in charging close to or at the minimum rates, while a minority charge rates far in excess of the minimum rates (e.g. Netherlands levies €124.28 per MWh). As a result of this, the average rates of €8.72 and €15.65 for business and non-business use are not reflective of the overall situation in most Member States.

Table 8

Electricity Tax Rates in the EU 27 &UK				
Business			Non Business	
	€ per Mwh			€ per Mwh
Croatia	0.4958	1	Bulgaria	0.0000
Luxembourg	0.5000	2	Croatia	0.9917
Lithuania	0.5200	3	Ireland	1.0000
Romania	0.5335	4	Luxembourg	1.0000
Denmark	0.5375	5	Portugal	1.0000
Sweden	0.5722	6	Estonia	1.0000
Finland	0.6300	7	Lithuania	1.0100
Ireland	1.0000	8	Latvia	1.0100
Portugal	1.0000	9	Czech Rep	1.0513
Estonia	1.0000	10	Romania	1.0730
Latvia	1.0100	11	Poland	1.1127
Bulgaria	1.0226	12	Slovakia	1.3200
Czech Rep	1.0513	13	Malta	1.5000
Poland	1.1127	14	Hungary	3.3357
Slovakia	1.3200	15	Slovenia	3.8500
Malta	1.5000	16	Greece	5.0000
Hungary	3.3357	17	Belgium	5.0689
Slovenia	3.8500	18	Spain	6.0200
Spain	4.0200	19	UK*	8.9272
Greece	5.0000	20	Cyprus	10.0000
Belgium	5.0689	21	Austria	15.0000
UK*	8.9272	22	Germany	20.5000

Cyprus	10.0000	23	France	22.5000
Italy	12.5000	24	Finland	22.5300
Austria	15.0000	25	Italy	22.7000
Germany	15.3700	26	Sweden	33.9523
France	22.5000	27	Denmark	120.9336
Netherlands	124.2800	28	Netherlands	124.2800
Average	8.7037		Average	15.6325

EU Member States Source – Taxes in Europe Database 26.05.2021

****UK rate source as of April 2021 - https://www.gov.uk/guidance/climate-change-levy-rates***

(Exchange rate GBP:1.1519 Euro (ECB Eurosystem Policy and Exchange Rates 08.05.2021)

The average price for household electricity including taxes in the second half of 2020 in the EU was €0.2134 per kilowatt hour (kWh). Despite the relief from electricity tax for household usage, Ireland is among the Member States with higher electricity prices at €0.2616 kWh. Germany, Denmark and Belgium have the highest prices at €0.3006, €0.2819 and €0.2702 respectively. [16]

Both the Climate Action Plan and the Programme for Government aim for carbon neutrality by 2050. The pathway to this target involves a gradual phasing out of fossil fuels from the economy and a greater reliance on electricity supplied as a renewable energy. In the long term this change will result in a loss to the exchequer as tax revenue from fossil fuels fall. Given the very low levels of revenue generated from electricity tax, if the shortfall is to be met in some way through electricity tax revenue, a change to the current reliefs and rates would be necessary. Tables 9 and 10 below set out options for rate changes as well as removal of reliefs and the estimated revenue arising.

Table 9 Estimated Additional Yield Arising from Electricity Rate Increases

	Estimated Additional Annual Yield
Increasing Rates to €2 per MWh	€5m
Increasing Rates to €5 per MWh	€25m
Increasing Rates to €10 per MWh	€50m

Table 10 Revenue Arising from Removing the Household relief at Current and Increased Rates

	Estimated Additional Annual Yield
Current Rate	€3.5m
Increasing Rates to €2 per MWh	€7m
Increasing Rates to €5 per MWh	€17.5m
Increasing Rates to €10 per MWh	€35m

The Commission for Regulation of Utilities (CRU) estimates that the average annual household usage of electricity is 4,200 kWh[17]. Based on this figure, the estimated impact on the average annual

[16] Eurostat - Electricity prices for household consumers, bi-annual date since 2007 https://ec.europa.eu/eurostat/databrowser/view/nrg_pc_204/default/table?lang=en

[17] Review of Typical Domestic Consumption Values for Electricity and Gas Customers https://www.cru.ie/wp-content/uploads/2017/07/CER17042-Review-of-Typical-Consumption-Figures-Decision-Paper-1.pdf

household bill of removing the household relief at current and increased rates is set out below in Table 11.

Table 11 – Estimated Impact of Removing Household Relief at Current and Increased Rates.

	Estimated Impact (VAT Inclusive)*
Current Rate	€4.77
Increasing Rate to €2 per MWh	€9.53
Increasing Rate to €5 per MWh	€23.84
Increasing Rate to €10 per MWh	€47.67

*Rounded to nearest cent

While households do not pay electricity tax, household electricity is subject to the Public Service Obligation (PSO) Levy. The PSO Levy is operated by the Department of the Environment, Climate and Communications. It is a subsidy charged to all electricity customers in Ireland and was originally designed to support national policy objectives related to renewable energy, indigenous fuels (for example, peat) and security of supply. The proceeds are used to pay for the relevant costs incurred by supported electricity generators which are not covered by the market.

The PSO levy for 2020/21 is now entirely dedicated to renewable electricity supports and is a key factor in enabling Ireland to meet its national targets in terms of the generation of electricity from renewables.

Government policy determines the level of subsidy provided to generators supported under the PSO. In accordance with Government policy, the Commission for Regulation of Utilities (CRU) calculates the PSO levy annually based on support rates that are set by Government.

The CRU calculated that a PSO levy of €393.13 million would be required for the 2020/21 PSO year[18]. This represented an increase of €216.66 million (123%) on the 2019/20 levy of €176.46 million. This amounts to a monthly charge of €6.52 and €21.41 for domestic and small commercial customers respectively. In comparison to the previous 2019/20 PSO levy, this was a monthly increase of €3.68 and €11.06 for domestic and small commercial customers respectively. The current PSO levy rates apply for usage from 1st October 2020 to 30th September 2021.

Given the correlation between the increase in the PSO levy and the decrease in the wholesale market prices, at the time of publication of the 2020/21 PSO Levy, the CRU noted that although an increase in the PSO levy increases one fixed charge element on electricity bills, variable charges (e.g. the unit rate) should in fact decrease. It was expected that this projected decrease in wholesale electricity prices in the 2020/21 would be passed on to consumers by electricity suppliers. However, the CSO Consumer Price Index reports a 4.9% increase in the category of *Housing, Electricity, Water, Gas and Other Fuels*[19].

The Programme for Government commitment to meet renewable energy targets through increased offshore capacity as well as the commitment to complete the celtic interconnector should contribute to greater security of supply and reduced costs in the long term but may lead to increased prices in

[18] https://www.cru.ie/cru-publishes-proposed-2020-21-public-service-obligation-levy/
[19] https://www.cso.ie/en/releasesandpublications/er/cpi/consumerpriceindexjune2021/

the short to medium term as the some of the costs involved in supporting both the offshore capacity building and the celtic interconnector may be met by PSO and network tariffs passed on to consumers. This will need to be borne in mind with regard to any proposed changes to the application of electricity tax.

3. CARBON TAX

3.1 Background

The 2009 Commission on Taxation report called for phasing in fiscal measures to lower carbon emissions including the introduction of a carbon tax. The report recommended the introduction of a carbon tax to apply to fossil fuels, based on tonnes of carbon dioxide (CO2) emitted by each fuel and that it should help ensure that behavioural change aspects are maximised and it is not seen as "just another tax."

Carbon tax was introduced in Ireland in 2009 on a phased basis. Initially it was applied to motor fuels at a rate of €15 per tonne of CO2 emitted. It was extended to other liquid fuels and natural gas in 2010 and to solid fuels in 2013. The rate was increased in 2012, 2020 and in 2021 to the current rate of €33.50 per tonne of carbon dioxide emitted. The tax is levied on suppliers of fossil fuels to Irish consumers, private individuals and businesses, and covers around 50% of all economy wide CO2 emissions. The tax is not applied to other greenhouse gases like methane or nitrous oxide nor does it apply to the Emissions Trading System (ETS) sector, where greenhouse gas emissions are already subject to a European-wide carbon price. Since its introduction Carbon Tax has generated revenues of over €4 billion for the Exchequer. Annual yields by fuel type are shown in table 12 below.

Table 12 Annual Carbon Tax Yield by Fuel Type

Year	Auto Diesel	Petrol	Kerosene	Marked Gas Oil	Natural Gas	Solid Fuel	Other Fuels	Total Net Receipts
2010	€98m	€65m	€17m	€27m	€11m	-	€4m	€222m
2011	€98m	€60m	€41m	€49m	€43m	-	€8m	€299m
2012	€131m	€75m	€40m	€55m	€45m	-	€9m	€355m
2013	€137m	€70m	€47m	€60m	€57m	€7m	€10m	€388m
2014	€145m	€66m	€42m	€54m	€52m	€17m	€9m	€385m
2015	€158m	€62m	€53m	€55m	€57m	€23m	€11m	€419m
2016	€171m	€59m	€53m	€56m	€56m	€24m	€11m	€430m
2017	€180m	€54m	€52m	€49m	€54m	€19m	€12m	€420m

2018	€183m	€48m	€59m	€54m	€50m	€25m	€12m	€431m
2019	€193m	€48m	€54m	€54m	€50m	€20m	€12m	€431m
2020	€213m	€46m	€68m	€65m	€65m	€24m	€13m	€494m

Figures are rounded to the nearest million

3.2 Application of Carbon Tax Rate on Fuels

As the Carbon Tax is applied on the basis of the carbon dioxide emission produced when a fuel is combusted, the rate per tonne of emission translates to higher charges on more carbon pollutant fuels and a lower charge on fuels which release lower levels of carbon dioxide when combusted. The impact of the application of the current rate of €33.50 on the most commonly used fuels is set out in the table below.

Table 13 Carbon Tax Rate Impact on Fuels (VAT exclusive)

Fuel	Unitary Rate	Volume
Petrol	€77.52	1,000 litres
Diesel	€89.66	1,000 litres
Kerosene	€84.84	1,000 litres
Marked Gas Oil	€90.81	1,000 litres
Peat Briquettes	€61.42	1,000 KG
Coal	€88.23	1,000 KG
Natural Gas	€6.06	Gross Calorific Value per MWh

3.3 Carbon Tax Policy

Budget 2021 announced a trajectory of annual carbon tax rate increases leading to a rate of €100 in 2030. Finance Act 2020 set this trajectory on a legislative basis, sending a clear signal of the Government commitment to carbon pricing.

In line with the policy approach set out in the 2020 Programme for Government, all new revenue raised through carbon tax rate increases is hypothecated for expenditure which will :

- Ensure that the increases in the carbon tax are progressive through targeted social welfare and other initiatives to prevent fuel poverty and ensure a just transition;
- Fund a socially progressive national retrofitting programme targeting all homes but with a particular emphasis on the Midlands region and on social and low-income tenancies;
- Allocate funding to a REPS-2 programme to encourage and incentivise farmers to farm in a greener and more sustainable way.

3.4 Budget 2022 Fuel Price Impacts

Finance Act 2020 legislated for annual increases in the rate of carbon tax out to 2030. The increase in 2022 will be €7.50 bringing the overall rate to €41 per tonne of carbon dioxide emission. The increase

will apply from 13th October 2021 for diesel and petrol and from 1st May 2022 for all other fuels to allow for the winter heating season. The impact of the tax on specific fuel bundles is set out in table 14.

Table 14: Current Carbon Tax and 2022 Rate Increase Impact for Fuel Bundles*

Fuel Type	Typical Fuel Bundle	Carbon Tax at €33.50 (incl VAT)	Carbon Tax at €41 (incl VAT)**	Impact of €7.50 Increase (VAT incl)
Petrol	60 litre fill	€5.72	€7.00	€1.28
Diesel	60 litre fill	€6.62	€8.10	€1.48
Kerosene	900 litre tank	€86.67	€106.07	€19.40
Peat	12.5kg bale	€0.87	€1.07	€0.20
Coal	40 kg bag	€4.01	€4.90	€0.89
Natural Gas	11,000 kWh***	€75.67	€92.62	€16.95

*Rounded to nearest cent
**VAT is applied at the standard rate of 23% for diesel and petrol and the reduced rate of 13.5% for heating fuels
***CRU estimates the average household usage at 11,000 kWh per annum

The estimated additional yield from a €7.50 increase in the carbon tax is €108 million in 2022 and €147 million in 2023. This estimate is based on clearances in a normal year.

3.5 Mitigation measures

There are a number of support measures in place which help to mitigate the impact of the carbon tax for those vulnerable to fuel poverty. There are also relief schemes in place to support business sectors which are heavily reliant on fuel as a business input.

Residential Energy Support Schemes and Fuel Poverty Prevention

The Fuel Allowance and the Household Benefits Package are welfare payments specifically aimed at providing financial assistance for the cost of heating homes. The Fuel Allowance is a means-tested payment to help with the cost of home heating during the winter months. The Fuel Allowance payments begin in October of each year and end in April. Currently the rate of payment is €28.00 per week from October to April each year. The Household Benefits Package is paid to people over 70 and to people under 70 in some circumstances. The package includes a daily allowance of €1.15 paid monthly to contribute towards the cost of gas or electricity bills.

In line with the Programme for Government commitment to ensure carbon tax increases are implemented in a progressive manner, ESRI research identified targeted social welfare measures

which would achieve this aim. Arising from this, Budget 2021 announced the measures below which were found to counteract the impact of the tax for those vulnerable to fuel poverty:

- An increase to the Fuel Allowance of €3.50 - this compensates a broad range of lower income households (since the allowance is means-tested) for the additional energy costs they may incur due to the increase in the carbon tax.
- An increase to the Qualifying Child Payment of €2 per week for children under 12 and €5 per week for children over 12. – this protects low income families and will reduce child poverty.
- An increase to the Living Alone Allowance of €5 per week - people living alone are often the elderly most at risk of poverty or people living with a disability. These groups are likely to have higher energy needs.

In addition to targeted welfare support measures, there are also a number of schemes in operation which assist in improving the energy efficiency of homes. Budget 2021 committed to an unprecedented level of funding for residential and community energy efficiency. An additional €100m in capital funding was allocated from estimated carbon tax revenue. This was an 82% increase in the funding available for energy efficiency in 2021.

Energy poverty upgrade schemes benefitted from an additional allocation of €26 million between 2020 and 2021 arising from the decision to hypothecate revenue raised from carbon tax rate increases for measures to combat fuel poverty. 2021 also saw an additional €20 million allocated for an aggregated housing upgrade scheme.

The Better Energy Homes Scheme was launched in 2009 and, from that date up to the end of 2020, has provided funding for energy efficiency improvements to approximately 262,000 homes at a cost of €293 million. The Sustainable Energy Authority of Ireland (SEAI) also operates the Better Energy Warmer Homes scheme which provides grants for the full costs of energy efficiency improvements in the homes of the elderly and those most vulnerable to fuel poverty. Over 144,000 households have received free energy efficiency upgrades to improve energy efficiency in their homes at a cost of over €315 million since 2000 under this scheme.

Business Mitigation Measures

Schemes which offer tax relief or reduced rates of taxation may also counteract or lessen the impact of the carbon tax for businesses which are heavily reliant on fossil fuels as a business input. Examples of such measures are the Diesel Rebate Scheme, the reduced rate of taxation on Marked Gas Oil, the Diesel Excise Gap, the VAT refund scheme, income tax/corporation tax deductions for fuel excise and the double income tax relief scheme for farmers.

The Diesel Excise Gap and the Diesel Rebate Scheme as detailed above are considered fossil fuel subsidies and while the carbon tax will continue to apply a higher carbon charge to diesel as a fuel, the fact that diesel already benefits from a lower rate of excise relative to petrol means that the impact

of the carbon tax is lessened. Those who can avail of the DRS are further protected from the impact at higher retail price points.

Marked Gas Oil (MGO) is currently subject to a rate of overall fuel excise of 13.8 cent per litre. This compares favourably to the current full rate of fuel excise for auto diesel which is 51.5 cent per litre. As such, those sectors which are entitled to use MGO as a fuel input already benefit from a much lower rate of overall excise compared to auto diesel and the impact of the carbon tax is reduced by this.

Farmers are entitled to a double income tax relief under section 664A of the Taxes Consolidation Act 1997. This section provides that a farmer may take an income tax or corporation tax deduction for farm diesel (including any carbon tax charged in respect of diesel) and then a further deduction for farm diesel which is equal to the difference between the carbon tax charged and the carbon tax that would have been charged had it been calculated at the rate of €41.30 per 1,000 litres of farm diesel (the 2012 baseline).

Agricultural contractors are not entitled to this relief as they are not carrying on a trade of farming as per the definition in section 654 of the Taxes Consolidation Act 1997 which requires the occupation of farm land and agricultural contracting does not involve the occupation of farm land. However, agricultural contractors who incur expenses in relation to farm diesel in the course of their trade of agricultural contracting may claim an income tax or corporation tax deduction for those expenses, including any carbon tax charged in respect of the diesel.

There is also a VAT refund scheme for business diesel expenditure. The effect of this is that businesses pay for their auto fuel at 81% (1/1.23) of the rate that private motorists do. As VAT is applied to the carbon tax, business are able to secure a refund on the VAT on any additional carbon tax.

The above measures are in place in recognition of the important role which sectors like haulage and agriculture, among others, play in the economy. While this remains an important consideration, particularly as we emerge from the economic crisis arising from the Covid-19 pandemic, the overarching national and EU policies place a strong emphasis on climate action and the gradual removal of fossil fuels from the economy. Phasing out fossil fuels subsidies such as those mentioned above, in tandem with support measures which incentivise the use of greener fuels and technology will be necessary in the journey to a carbon resilient future.

4. MOTOR VEHICLE TAXES

4.1 Overview

BACKGROUND

In Ireland motor vehicle taxes, in the form of VRT and motor tax, are principally paid by owners of private passenger cars, reflecting a policy objective not to increase the costs associated with the movement of goods and services in the economy as well as a reality that, overall, private motorists have more scope to reduce their CO2 emissions than transport operators.

In 2018 Ireland's transport emissions per capita were the fourth highest in the EU-27 and well above the average. The country has historically experienced low-density and sprawl patterns of spatial development, as well as an infrastructure investment priority on road development and mobility dominated by private cars. These factors are associated with higher levels of greenhouse gas emissions (GHGs) and increased road congestion. EPA data shows that transport is Ireland's second largest emitter behind agriculture, at 20.3% of the total national emissions, or 12.2 million tonnes of carbon dioxide equivalent in 2019. As the private car remains the dominant mode of transport in the state (accounting for 73.7% in 2020), [20] motor vehicle taxes are principally paid by their owners through VRT and motor tax. Irish passenger vehicles are travelling more kilometres annually and the national fleet continues to grow.

Ireland is committed to mitigating climate change. The 2019 Climate Action Plan (a 2021 revision is expected later this year) and an ambitious Programme for Government commits the government to a radical reduction in its emissions, and motor vehicle taxation will be central to this process. Finance Act 2020 brought in sweeping reforms to VRT and motor tax, further greening the systems and enhancing the principle of 'polluter pays'.

GOVERNMENT POLICY

The Programme for Government 2020 outlines a commitment to an average 7% per annum reduction in overall greenhouse gas emissions from 2021 to 2030 (a 51% reduction over the decade) and to achieving net zero emissions by 2050. The CAP commits Ireland to a radical reduction in its transport emissions, and this was codified with the Climate Action and Low Carbon Development (Amendment) Bill 2021 which "Places on a statutory basis a 'national climate objective', which commits to pursue and achieve no later than 2050, the transition to a climate resilient, biodiversity-rich, environmentally-sustainable and climate-neutral economy". [21]

EPA projections from 2019 forecast that emissions from transport-related activities will reach an estimated 11.3m tonnes of CO2 equivalent by 2030 in a With Existing Measures (WEM) scenario. If, however, the emissions reduction target outlined in the PfG of an average of 7% emissions per year 2021-2030 was achieved, then emissions would fall to 6.2Mt. [22]

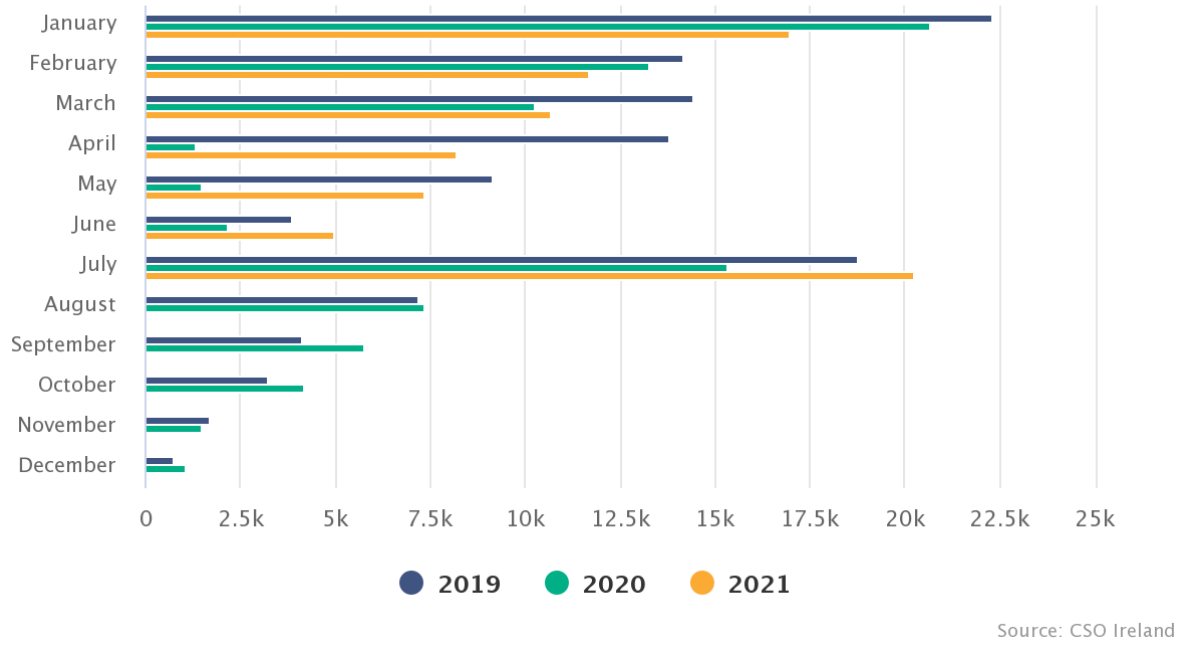
These targets are fundamental to Ireland's policy around VRT and Motor Tax; the systems are designed to facilitate the uptake of electric vehicles (EVs) and to address the increasingly harmful environmental and public health effects of vehicle emissions. Budget 2021 saw a significant overhaul of VRT and Motor Tax and this paper will provide analysis of these changes, as well as policy options to continue this progress.

[20] DDTAS – *Transport Trends 2020: An Overview of Ireland's Transport Sector*

[21] DECC - https://www.gov.ie/en/publication/984d2-climate-action-and-low-carbon-development-amendment-bill-2020/

[22] Transport Trends 2020

Graph 3: Number of new private cars licensed



Source: CSO Ireland

[23]

4.2 Vehicle Registration Tax (VRT)

OVERVIEW

VRT is a tax chargeable on the registration of vehicles in the State and is levied as a percentage of the open market selling price (OMSP) of the vehicle. Since 1 July 2008, both VRT and Motor Tax on private motor cars have been calculated on the basis of CO2 emissions, so that cars with higher CO2 emissions attracted a higher tax liability.

VRT is a highly pro-cyclical tax based on a one-off transaction on a commodity whose sales volume tends to track the economic cycle. The vast majority of VRT receipts are raised from the registration of private passenger cars, with light commercial vehicles - charged at a fixed rate of 13.3% of the OMSP - contributing a small amount to receipts.

RECENT RATES CHANGES

From 1/1/2021 a new VRT table was introduced that;

(a) Uses the CO2 values from the new, more accurate EU emissions test for passenger cars, the Worldwide Harmonized Light Vehicles Test Procedure (*WLTP);* and

(b) Strengthened the environmental rationale of the VRT regime in line with Government commitments as set out in the Program for Government and Climate Action Plan

The new 20-band table replacing the existing 11 band version allows for a more graduated approach to VRT distribution, which is more in line with the polluter-pays principle. The VRT rates range was changed from 14%-36% to 7%-37%; this significant widening of the rates gap provides a strong

[23] https://www.cso.ie/en/releasesandpublications/ep/p-tb/transportbulletinaugust2021/fuelvehiclesandsafety/

environmental rationale to the system and rewards ultra-low emission vehicles (ULEV) with reduced VRT.

Table 15: VRT Rates Table

	CO2 g/km (WLTP)		OMSP x
BAND	**FROM**	**TO**	**Rate**
1	0	50	7.00%
2	51	80	9.00%
3	81	85	9.75%
4	86	90	10.50%
5	91	95	11.25%
6	96	100	12.00%
7	101	105	12.75%
8	106	110	13.50%
9	111	115	14.25%
10	116	120	15.00%
11	121	125	15.75%
12	126	130	16.50%
13	131	135	17.25%
14	136	140	18.00%
15	141	145	19.50%
16	146	150	21.00%
17	151	155	23.50%
18	156	170	26.00%
19	171	190	31.00%
20	191	-	37.00%

The above structure legislated for in the Finance Bill 2020 broadly reflected recommendations in TSG 2020. Options around VRT rates for 2022 are outlined at the end of the paper.

The WLTP test became mandatory for all new car registrations from September 2018 and produces higher CO2 ratings on average than the old and discredited New European Driving Cycle (NEDC) emissions test. However, until the end of 2020 it was possible to use an NEDC equivalent CO2 value for WLTP tested cars and Ireland used this mechanism. In order to address the level playing field issue arising between VRT charges on new cars and used imports tested under NEDC, Budget 2021 provided a multiplier that is deployed on NEDC-tested cars to generate a WLTP-equivalent value, following European Commission methodology. The multiplier is set out below where the NEDC CO2 value is *x* and, applied according to whether the fuel type is petrol of diesel:

Petrol: y = x(0.9227)+34.554

Diesel: y = x(1.1405)+12.858

To illustrate:

A NEDC tested petrol car has a CO2 value of 110 g/km on the vehicle registration documentation which would attract a rate of 13.5%. Revenue uplifts this CO2 value to a WLTP equivalent value as follows: *y = **110**(0.9227) + 34.554 y = 136*

This car is then subject to an 18% VRT rate.

From 1/1/2021 it is mandatory to transition to WLTP for the purposes of motor vehicle taxation.

RELIEFS FOR EVS

The tapering measure for battery electric vehicles (BEVs) and electric vans outlined in the 2020 TSG paper was carried through in Section 34 of the Finance Act 2020, [24] and begins to taper off after OMSP €40,000, ending at €50,000. Reliefs for hybrid electrics were allowed lapse at end 2020, in tandem with the revised VRT structure that reduced rates for lower-emitting vehicles. This allows for a fairer VRT system in-keeping with the polluter pays policy that also ensures that the relief is focussed on the lower more affordable price end of the market.

Table 16: Illustration of effect of tapering BEV €5,000 VRT relief

BEV VRT Regime with lowest rate of 7% and tapered VRT relief mechanism					
OMSP €	30,000	40,000	45,000	75,000	100,000
Rate	7%	7%	7%	7%	7%
Gross VRT Charge €	**2,100**	**2,800**	**3,150**	**5,250**	**7,000**
Less: VRT Relief €	5,000	5,000	2,500	0	0
Net VRT Charge €	**0**	**0**	**650**	**5,250**	**7,000**
Effective VRT Rate	*0.00%*	*0.00%*	*1.44%*	*7.00%*	*7.00%*

Trends in electric and hybrid cars in the national car fleet are set out below, with data from the CSO. [25] The combined number of new electric and hybrid cars registered between January and May 2021 was 32.7% of the total new vehicles licensed in the state; compared with 19% over the same period in 2020. [26] Stripping out hybrids, the overall share of EVs and plug-in hybrid electric vehicles (PHEVs) alone increased by 8.1% in the first seven months of 2021 compared with 2020, from 6.2% up to 14.3%.

The numbers of newly registered EVs and PHEVs are compared with other European countries in the paragraph below, to provide context for where Ireland is relatively in the drive towards electrification. In the first two months of 2021 the share of EVs and PHEVs was 10% of the total market. Compared with other European countries (figures from February 2021): Norway (80%), with two-thirds being battery electric vehicles. Following Norway were Iceland (56%) and Sweden (34%), while the average in the EU27 (plus the UK) was 14%. Ireland is performing better than countries like Italy (5%), Spain (5%), and Poland (3%), but remains below the average. [27] This frames the context for the level of

[24] https://data.oireachtas.ie/ie/oireachtas/act/2020/26/eng/enacted/a2620.pdf
[25] https://www.cso.ie/en/releasesandpublications/er/vlftm/vehicleslicensedforthefirsttimejuly2021/
[26] https://www.cso.ie/en/releasesandpublications/er/vlftm/vehicleslicensedforthefirsttimejuly2020/
[27] https://theicct.org/sites/default/files/publications/market-monitor-eu-mar2021.pdf

ambition necessary to achieve commitments in the CAP and Programme for Government around the electrification of the national fleet.

VRT NOX SURCHARGE

A VRT surcharge based on nitrogen oxide (NOx) emissions levels was introduced in Budget 2020 in recognition of the negative externalities these emissions have on public health and the environment. The NOx pollutant is generally emitted in greater quantities by diesel cars which comprise a majority of the national car fleet. Budget 2021 saw an adjustment to the surcharge structure so as to underpin its environmental rationale and incentivise the uptake of cleaner cars.

Table 17: VRT NOx Surcharge

Thresholds (NOx mg/km)	Rate per mg/km
0-40	€5.00
41-80	€15.00
81+	€25.00

Data from Revenue seems to suggest a move towards cleaner, newer cars since the introduction of the NOx surcharge. It must be noted, however, that the impacts of Covid on the motor industry are difficult to gauge and any analysis must factor this in. Since 2019 the overall share of diesel cars in the Irish market has been decreasing; from 58.53% in 2019, to 52.35% in 2020, to 42.07% for 2021. This decrease is more pronounced in the used car market; from 35.53% in 2019, to 30.1% in 2020, to 18.15% in 2021.

To control for Covid somewhat the following analysis of the NOx change compares used import sales for diesel-engine cars in January and February of 2020 with those of 2019:
Used imports dropped considerably across all age profiles for diesels. For 1 year old cars, registrations dropped 24.4%. For imports of 2 / 3 year old cars this decrease was 21.2%. 4-7 year old imports fell 36.5% and used cars 8 years or older imported into the state dropped by 68%.

While the effect of the NOx surcharge seems to have had a relatively straightforward effect on used imports after its introduction in 2020, data for the first two months of 2021 after the implementation of the rates adjustment are less clear-cut.
For 1 year old cars, registrations dropped by 66.1% from 2020 to 2021. For 2-3 year olds car the decrease year-on-year was 44%. There was *increase* in the importation of used diesels between 4 and 7 years old, up 6.1%. 8 year old diesel imports dropped by 24%.

Despite the increased costs associated with importing used cars from the UK through the NOx increase in Budget 2021, and the introduction of customs charges (where appropriate) and VAT on imports, the importation of used cars from the UK remains high reflecting the deficiency of the domestic used car market. While some of these vehicles were likely imported before end December 2020 and not registered until 2021, thus avoiding the customs and VAT charges, this is unlikely to account for the continued significant number of used cars being registered on an average of almost 6,000 per month to end June.

4.3 Motor Tax

Motor tax is an annual charge on motor vehicles registered in the state. While HGVs, LCVs, motorcycles, tractors, campervans, etc., are subject to motor tax, the focus of this analysis is solely private passenger cars, which constitute by far the largest volume of motor vehicles registered in the State at some 2.215million (77.4%) in the national car fleet as of 31/12/2020. The Motor Tax system was also reformed in Budget 2021, in line with Government commitments to radically reduce emissions from road transport and in the context of transitioning to the new WLTP emissions testing regime.

Pre-2008 cars are taxed according to engine size, and those rates were not changed in Budget 2021. The NEDC motor tax table was adjusted to reflect climate action priorities and to ensure a level playing field with the introduction of the new WTLP table. As per the table below, the WLTP and NEDC equivalents are aligned. Cars first registered in the State up to end 2020 (or cars registered from January 2021 which only have a NEDC figure) are included in the left side of the motor tax table below. A **third** table was introduced in Budget 2021 that covers WLTP cars registered from 1/1/2021 (right side of the table below).

Table 18: Motor Tax Rates

Cars registered from July 2018 to end 2020 **(NEDC value taken)**			Cars registered from 1/1/21 **(WLTP)**		
CO2g/km		**Option**	**CO2g/km**		**Option**
From	To	Rate	From	To	Rate
0	**0**	120	**0**	**0**	120
1	**80**	170	**1**	**50**	140
81	**100**	180	**51**	**80**	150
101	**110**	190	**81**	**90**	160
111	**120**	200	**91**	**100**	170
121	**130**	270	**101**	**110**	180
131	**140**	280	**111**	**120**	190
141	**155**	400	**121**	**130**	200
156	**170**	600	**131**	**140**	210
171	**190**	790	**141**	**150**	270
191	**225**	1250	**151**	**160**	280
>225		2400	**161**	**170**	420
			171	**190**	600
			191	**200**	790
			201	**225**	1250
			>225		2400

To illustrate

A WLTP-tested car with CO2 110 g/km is roughly equivalent to 90 g/km under the NEDC test. Therefore a NEDC-tested 90g/km, and a WLTP tested 110g/km, pay the same €180. Where there are divergences,

for the most part they are likely to be of the order of €10 per annum (the rates gap between a single CO2 band where most of the volume lies).
A stronger CO2 emissions basis for motor tax provides a closer link for the regime to the principle of polluter pays while also incentivising the take up of EVs, as their motor tax remains low.

4.4 Emissions-based Rates for Commercial Vehicles

The Climate Action Plan calls for consideration to be given to "the introduction of an emissions-based motor tax for Light Goods Vehicles (LGVs)".

The original policy objective behind the introduction of rates for Category B light commercial vehicles (LCVs) was to ensure that vans could be purchased by tradespeople and other small business owners for commercial purposes at the preferential flat VRT rate of 13.3%. Category B vehicles are defined as those designed and constructed for the carriage of goods and weighing 3.5 tonnes or less and their proportion of VRT receipts tend to be a small fraction of the overall total. For the first four months of 2021, VRT receipts from New Category B Vehicles accounted for 3.6% of the total. For Used they accounted for 5.5%.

In 2020 there were 377,890 goods vehicles under licence in the state (of a total 2,860,984 mechanically propelled vehicles), up from 366,760 in 2019 and 355,273 in 2018. In 2020, 90% of LCV in Ireland were vans and 96.3% were diesel. 3.35% were electric. In Q1 2021 the market share is 96.6% diesel, 2.95% electric. For comparison, Q1 2020 saw a market share of 99% diesel and only 0.74% electric. [28]

There may be scope for adding emissions-based criteria to VRT rates for commercial vehicles that provides an environmental rationale and ties the system to the policy of polluter pays. Regimes in other jurisdictions are outlined below and policy options are presented for consideration in 4.7.
The tariff for delivery vans and camper vans in the Netherlands is made up of a percentage of the net list price together with a deductible or additional amount, depending on the fuel type. The base rate is 37.7% net list price; if the vehicle is diesel a surcharge of €273 is added, while any other engine type has €1,283 deducted from the amount payable. This is clearly a much more rigorous system than that currently in place in Ireland. The high base rate discounted / surcharged based on fuel type is reflective of the anti-diesel policies pursued in the Netherlands.

There is a graduated VRT charge on passenger cars and LCVs in Norway, with Zero exhaust emission vehicles (ZEVs) fully exempt. LCVs are subject to Norwegian motor vehicle taxes but at a rate of 25% than that applied to passenger vehicles. Norway also has a subsidy scheme in place for zero-emission LCVs. [29]

4.5 Benefit-In-Kind (BIK) and Company Cars

With an estimated 89,000 company cars travelling an estimated 2 billion kilometres per annum[30], taxation relating to company cars has a role to play in helping to curb CO2 emissions. Company cars tend to travel higher volumes than the average passenger vehicle; in 2019 the average annual KMs travelled for company cars was 22,319, compared to the 16,088 average of private cars– company vehicles thus travelling on average 39% more. [31]

[28] SIMI https://stats.beepbeep.ie/light-commercial-vehicles
[29] Fridstrøm, L. The Norwegian Vehicle Electrification Policy and Its Implicit Price of Carbon. Sustainability 2021, 13, 1346. https://doi.org/10.3390/su13031346
30 See Table 5.7 https://www.cso.ie/en/releasesandpublications/ep/p-tranom/transportomnibus2019/roadtrafficvolumes/
[31] https://www.cso.ie/en/releasesandpublications/ep/p-tranom/transportomnibus2019/roadtrafficvolumes/

Table 19: Current BIK structure

Kilometres Driven	(% of OMV)
24,000 and below	30%
24,001 to 32,000	24%
32,001 to 40,000	18%
40,001 to 48,000	12%
48,001 and over	6%

Policy has been focused on strengthening the environmental rationale behind company car taxation for some years. Until the Finance Act 2019 Ireland's vehicle BIK regime was unusual in two respects: there was no overall CO2 rationale in the regime, despite a CO2 based vehicle BIK regime being legislated for as far back as 2008 (but never having been commenced); and the existence of 'mileage bands', whereby the greater the number of business kilometres travelled in a year, the lower the applicable BIK rate. Section 6 of the Finance Act 2019 legislated for a fundamental overhaul of the regime which brought in discounts and surcharges based on a car's emissions profile, and is due to commence from 1/1/2023.

Table 20: New rates structure from January 2023:

Business mileage		Vehicle Categories				
lower limit (1)	upper limit (2)	A (3)	B (4)	C (5)	D (6)	E (7)
kilometres	kilometres	per cent	per cent	per cent	per cent	per cent
--	26,000	22.5	26.25	30	33.75	37.5
26,001	39,000	18	21	24	27	30
39,001	52,000	13.5	15.75	18	20.25	22.5
52,001	--	9	10.5	12	13.5	15

Vehicle Category (1)	CO_2 Emissions (CO_2 g/km) (2)
A	0g/km up to and including 59g/km
B	More than 59g/km up to and including 99g/km
C	More than 99g/km up to and including 139g/km
D	More than 139g/km up to and including 179g/km
E	More than 179g/km

From 1/1/2023 the amount taxable as BIK remains determined by the car's original market value (OMV) and the annual business kilometres driven, while new CO2 emissions-based bands will determine whether a standard, discounted, or surcharged rate is taxable.

Some have argued against the mileage bands in the BIK structure as they can be perceived as incentivising higher mileage to avail of lower rates, leading to higher levels of emissions. The rationale behind the retention of mileage bands is that the greater the business mileage, the more the car is a benefit to the company rather than its employee (on average); and the more the car depreciates in value, the less of a benefit it is to the employee (in years 2 and 3) as the asset from which the benefit is derived is depreciating faster. Mileage bands also ensure that cars more integral to the conduct of business receive preferential tax treatment.

The reduction in mileage bands from five to four serves to weaken any perverse incentives of increasing mileage to reduce tax liability, while still seeking to apply the tax in proportion to the quantum of benefit derived from the car. Electric vehicles will benefit from a preferential rate of BIK, ranging from 9 – 22.5% depending on mileage. This new structure with CO2-based discounts and surcharges provides a broad structure which will incentivise employers to provide employees with low-emission cars. This will bring the taxation system around company cars into step with other CO2-based motor taxes as well as the long-established CO2-based vehicle BIK regimes in other member states. Ireland currently has a 0% BIK relief for EVs with an OMV up to €50,000, and this is due to cease at the end of 2022.

Ireland's BIK regime regarding company vans is a fixed 5% now, rising to 8% from 1/1/2023. Comparison with the UK suggests that the 8% is still relatively generous. The UK applies a fixed assessable amount of £3,430 (approx €3,900) to the private use of vans under its BIK regime. Given the average OMSP of an LCV registered in Ireland in 2018 was €33,000, a 8% BIK rate (33,000 x .08 = 2,640 assessable for tax purposes) reflects a relatively low liability.

SIMI and the Vehicle Leasing Association of Ireland (VLAI) have called for the extension of the zero rate of BIK for BEVs. The VLAI estimate that most company EVs will do relatively low mileage and will fall into the 22.5% category for BIK, which they argue is a disincentive to the uptake of EVs (despite being a reduction from the existing rate of 30%).

The VLAI have also outlined a proposal for a flat 8% BIK rate for BEVs. It is difficult to estimate the cost associated with the proposal as Revenue do not have any usable data around the BIK scheme. From a supply perspective, SIMI state that there are still significant supply issues around EVs. Further state intervention for the business sector may only result in pushing up prices here based on state financial supports and limited supply. In addition, sustainability pledges by larger corporations should also play a part in the uptake of BEVs for business purposes.

Options around BIK are explored in 4.7.

4.6 Future Vehicle Taxes

Ireland wants to move towards alternative ways of transporting the population – be this through improvements in spatial planning, access to public transport, etc. Infrastructure for modal shift entails capital costs that must be considered. This requires the identification of funding streams to support new infrastructure development and deliver the many synergies and benefits it offers. [32]

The scale of the proposed 'electrification' of the national car fleet will entail significant Exchequer revenue risk. The State relies on the purchase/acquisition and fuel usage of internal combustion engine (ICE) vehicles to raise substantial revenues every year. The 2019 DPER spending review paper on EVs estimated that if the Climate Action Plan 2030 EV target is achieved, the Exchequer will lose approximately €1.5 billion worth of revenue annually from motor tax, VAT, fuel excise.

[32] https://www.epa.ie/media/EPA-Ireland's-Environment-2020-Chapter11.pdf

When considering alternative vehicle taxes for the future maintenance of our road infrastructure, one must bear in mind the differences in public transport availability and subsequent reliance on cars. CSO data for 2019 shows that in *thinly populated areas*, 83.8% relied on private passenger cars for transport, while this figure was 61.7% in *densely populated areas*. In densely populated areas, the choice of public transport (bus/rail/DART/Luas) was substantially greater than in intermediate density and thinly populated areas. In densely populated areas, 12% of journeys taken were by public transport. By comparison, in thinly populated areas, only 1.7% of journeys were by bus and 0.2% by rail. 19.2% of journeys in densely populated areas were where the respondent chose to walk to their chosen destination, compared to just 7.8% of journeys taken by residents in thinly populated areas. For persons residing in intermediate density areas, just 14.2% journeys involved walking as a mode of travel. [33]

As set out for in the Programme for Government, the Commission of Taxation and Welfare has been established to independently consider how the taxation and welfare systems can be used to support economic activity, stimulate employment and prosperity, and provide for the costs of public services and supports. The Commission's terms of references specify that it will "examine how the taxation system can be used to help Ireland move to a low carbon economy as part of the process of meeting its climate change commitments as set out in the Climate Action and Low Carbon Development (Amendment) Bill 2021. This will include ensuring the sustainability of environmental tax revenue resulting from decarbonisation of the economy." The report will be submitted to the Minister for Finance no later than 1/7/22 and its findings will inform any policy considerations on the future of vehicle tax policy.

4.7 Budget Options

VRT

Engagement with the motor industry has shown resistance to further changes to the system of VRT. The Society of the Irish Motor Industry (SIMI) have argued that maintaining current rates will create stability and certainty for both the industry and for motorists, and this encourages car buyers to trade-up to a new car which will reduce emissions and speed up the process of electrification. The Irish Car Carbon Reduction Alliance take the view that an overall decrease in VRT rates will incentivise uptake of new cars and reduce the overall emissions of the fleet.

The Department of Transport have provided an option to fund the retention / expansion of EV supports by trending VRT rates on ICE vehicles upwards. This option is detailed below and suggests a +2% increase in bands 7-10, +3% in bands 11-14, and +5% thereafter, thus ending in a 42% VRT charge for cars emitting 191gCO2/km and above.

Table 21: Revised VRT Rates Table suggested by D/Transport

	CO2 g/km (WLTP)		OMSP x
BAND	**FROM**	**TO**	**Rate**
1	0	50	7.00%
2	51	80	9.00%
3	81	85	9.75%

[33] See Figure 2.2 https://www.cso.ie/en/releasesandpublications/ep/p-nts/nationaltravelsurvey2019/howwetravelled/

4	86	90	10.50%
5	91	95	11.25%
6	96	100	12.00%
7	101	105	14.75%
8	106	110	15.50%
9	111	115	16.25%
10	116	120	17.00%
11	121	125	18.75%
12	126	130	19.50%
13	131	135	20.25%
14	136	140	21.00%
15	141	145	24.50%
16	146	150	26.00%
17	151	155	28.50%
18	156	170	31.00%
19	171	190	36.00%
20	191	-	42.00%

The VRT relief for BEVs is due to expire at the end of 2021; consideration could be given to extending this out further while reducing the threshold down from the €40,000 to €30,000 for 2022. This would ensure value for money in terms of BEV tax expenditure and would still allow for very generous VRT relief while not exempting very high value BEVs (which will still be subject to the low rate of 7%).

Table 22

BEV VRT Regime with lowest rate of 7% and tapered VRT relief mechanism					
OMSP €	30,000	35,000	37,750	45,000	75,000
Rate	7%	7%	7%	7%	7%
Gross VRT Charge €	**2,100**	**2,450**	**2,625**	**3,150**	**5,250**
Less: VRT Relief €	5,000	2,500	1,250	0	0
Net VRT Charge €	**0**	**0**	**1,375**	**3,150**	**5,250**
Effective VRT Rate	*0.00%*	*0.00%*	*3.66%*	*7.00%*	*7.00%*

EMISSIONS-BASED OPTIONS FOR COMMERCIAL VEHICLES

Option 1 – Create banded system

This option would allow for the creation of a rates table that determines a vehicle's VRT based on CO2-emissions, as is in place for Category A vehicles. This could be as simple as three bands - anything over 150g/km pays 15%, mid-range of 120-149 is 13.3%, discounted rate of 11% for anything lower. This creates an environmental rationale and incentivises purchase of lower-emitting vehicles.

SIMI have called for no increase in VRT rates for LCVs in Budget 2022, citing the difficult business environment in which many SMEs are currently operating, and a lack of viable large-scale alternatives to diesel commercial vehicles. They argue that tax policy in this area should focus on facilitating

businesses to trade out older, higher-emitting LCVs for newer, cleaner vehicles that meet Euro 6 emissions standards.

Table 23

	CO2 g/km (WLTP)		OMSP x
BAND	**FROM**	**TO**	**Rate**
1	0	100	11.00%
2	101	140	13.30%
3	141+		16.00%

Option 2 – Discounting only

A potential option, in recognition of the few alternatives to larger vans to meet business needs, is to 'discount' VRT rates for low emission vans. Currently EV relief provides this for electric vans, but there is potential for a structural incentive which could also benefit low-emission vans. This option would see the 13.3% rate on OMSP retained, but as a discount, align rates with the passenger car (Category A) regime from band 7 down (where 13.5% and 13.3% are close). Thus, a van with 98 g/km CO2 would pay, say, 11% OMSP. All vans with CO2 emissions above 105 g/km would pay the standard 13.3%. This option may be more preferable to businesses as it incentivises the uptake of low- and zero-emitting vehicles, and cannot be perceived as harmful to commercial activity as the surcharge system of option one may be.

Table 24

	CO2 g/km (WLTP)		OMSP x
BAND	**FROM**	**TO**	**Rate**
1	0	50	7.00%
2	51	80	9.00%
3	81	85	9.75%
4	86	90	10.50%
5	91	95	11.25%
6	96	100	12.00%
7	101	105	12.75%
8	106+		13.30%

In the case of both of these options, introducing emissions bands would raise level playing field issues around WLTP / NEDC testing regime disparities as with passenger car VRT. These issues may need to be addressed with a level-playing field mechanism, which would require significant lead-in times and administrative reconfiguration of the VRT system.

Providing costings for the policy options outlined above is difficult as Revenue do not collect emissions data for commercial vehicles.

BIK

Consideration might be given to the BIK rates table due to commence in 2023. An option would be to weight the rates more heavily towards discounting and surcharging based on a car's emissions profile to incentivise the uptake of EV/ULEV company cars. At 52,000 KMs there is just a 6% difference between lowest- and highest-emitters. The ability for EVs to take on high mileage may also be factored into any policy considerations, given that the current charging infrastructure in Ireland may act as a disincentive in their uptake.

Table 25: Potential BIK rates table

	From	To	Standard Rates (CO_2 value 100-139)	33% Discount < 60	15% Discount CO_2 60-99	15% Surcharge CO_2 140-179	33% Surcharge CO_2 180+
Band A	0	26,000	30%	19.75%	25.5%	34.5%	40.00%
Band B	26,001	39,000	24%	16.00%	21.00%	27.75%	32.00%
Band C	39,001	52,000	18%	12.00%	15.75%	20.75%	26.00%
Band D	52,001	-	12%	8.00%	10.25%	14.75%	16.00%

Ireland has a generous BIK regime when compared with other jurisdictions in Europe. Effective BIK rates are higher in the UK, for example. The primary variable in the UK is the level of CO2 emissions, with no consideration given to mileage. If a company car has CO2 emissions of 1 to 50g/km, the value of the car is based on its zero emission mileage figure, or 'electric range'. This is the distance the car can go on electric power before its batteries need recharging. Pure EVs have 0% BIK for financial year 2020/2021, 1% for 21/22, and 2% for 22/23. A 'typical' PHEV can do around 25 miles on battery power alone and will have 49gCO2/km, and would be liable for a BIK of just 12-14%. From 2022, the BIK rate will range from 2% in EVs and ULEVs, up to 37% for the highest-emitting (plus 4% for Diesels not certified with the EU's Real Driving Emissions test). [34] The UK BIK rate is, therefore, much stricter than the Irish one due to be brought in from 2023, and with a broader range to reward/punish vehicles according to their emissions.

The Dept. Transport have supported an extension of the 0% BIK rate for three further years. This is in an effort to support sales in the leasing sector, which are considered important to providing EVs to the second hand market after typical lease cycles (approx 3 years). The zero BIK rate for EVs was always intended as a temporary measure to kick start their uptake and is due to expire at end 2022. In the context of an extension, consideration should be given to the €50,000 value threshold from an equity and value for money perspective. Any extension of the 0% rate each year could be coupled with a

[34] https://www.autoexpress.co.uk/car-news/consumer-news/90125/company-car-tax-guide

down-scaling of the threshold, e.g. down to €40,000 for the first year, €30,000 for the second year, €20,000 for the third year, before expiring in at end 2025. From 2026 on, EVs would be taxed per the emission-based table legislated for in Finance Act 2020.

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