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Executive Summary

In the light of the existential challenge to humanity that is climate change (or as some refer to it as the climate emergency), it is urgent that, in tandem with other initiatives, that action is urgently undertaken to reduce damaging emissions.

In addition, Ireland is facing EU fines of up to €600m annually if Ireland does not reduce its Green House Gas (GHG) emissions\(^1\).

One way to do this is by taxing those emissions by means of a carbon tax, so encouraging behavioural change by residents and business. This was a strong recommendation of the Citizens Assembly on Climate Change and indeed such taxes are being implemented by many governments\(^2\).

It should be remembered that it was due to Green Party government policy that Ireland was one of the first countries in the world to introduce a carbon tax and rebate system in 2010. This tax was €15 per tonne and it has been increased just twice by a total of €11 per tonne in the last 10 years.

The Intergovernmental Panel on Climate Change (IPCC) target is for every country to have halved their climate emissions by 2030 and to be carbon neutral by 2050.

The Economic and Social Research Institute (ESRI) reports\(^3\) that carbon emissions reduce by 3.94% for a carbon tax increase of €30 per tonne, and 10.24% for an increase of €80 per tonne. Accordingly, for a 50% reduction Ireland may have to introduce a carbon tax of €400 per tonne by 2030 and eliminating emissions by 2050 will require a carbon tax of €800 per tonne.

We believe that such large tax increases will not be necessary, as Irish residents and businesses realise the urgency of the climate emergency and move away from fossil fuels and other products which are sources of greenhouse gas emissions. Cognisant of the need to allow time for industry to adapt, we propose to adjust the tax over the period, 2020 to 2030 (and then to 2050). To ensure that behavioural change does occur we propose starting with immediate increases to bring the carbon tax rate in Ireland to €200 per tonne over the next three years which will result in at least a 20% reduction.

We propose that 90% of the carbon tax collected will be redistributed equally to all residents of the same age and location. The ESRI report, referenced previously, states that 70% of residents will receive a cash benefit from the introduction of this Carbon Dividend Scheme as the dividend will be more than the extra cost of carbon tax experienced.

This concept of Carbon Dividend was included in the Green Party General Election 2020 manifesto. This policy expands on that concept and proposed a model as to how it can be achieved.

In addition, we propose that 10% of the tax collected be used to ensure that Ireland reaches its 0.7% Gross National Income (GNI) aid commitment and that this money be earmarked for climate change adaptation measures. Focusing on countries suffering from climate change to compensate them in part for Ireland’s unsustainable and GHG emissions.

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\(^{1}\) [https://www.independent.ie/irish-news/ireland-faces-annual-eu-energy-fines-of-600m-36857141.html](https://www.independent.ie/irish-news/ireland-faces-annual-eu-energy-fines-of-600m-36857141.html)

\(^{2}\) [https://www2.gov.bc.ca/gov/content/environment/ climate-change/planning-and-action/carbon-tax](https://www2.gov.bc.ca/gov/content/environment/climate-change/planning-and-action/carbon-tax)

Introduction & Discussion

Carbon and other Green House Gas (GHG) emissions from the burning of fossil fuels amount to over 39% of Ireland’s carbon footprint and the agriculture sector (i.e. mostly meat and dairy⁴) amounts to a further 33% (see EPA Breakdown of Ireland’s Carbon Footprint pie chart attached at Appendix A).

a. Climate change can be slowed by the elimination of all carbon and other GHG emissions from all fossil fuels and their reduction from other sources, and in particular from the meat industry.

b. Carbon emissions can be stopped by introducing a carbon tax⁵ The current rate of carbon tax in Ireland is €26⁶ per tonne. Sweden charges $168 (€144) per tonne. Every €1 per tonne adds approximately 1/3rd of a cent to the price of a litre of petrol/diesel/kerosene or a kg of coal or turf. It is expected a carbon tax will reduce GHG emissions and encourage less use of the services or consumption of the products that emit GHG. Due the urgency of this issue we believe that a carbon tax of €200 per tonne is appropriate⁷.

c. Because the effect of carbon tax will be to increase the price of fuel for transport and energy, each legal resident⁸ will experience a cost increase in their purchase of fuel whether for heating, light or transport. Similarly, the effect of a carbon tax on meat or on airline fuel will be to increase those prices.

d. A Carbon Dividend compensates the legal resident for those cost increases, and for 70% of legal residents in Ireland, the Carbon Dividend will exceed that extra cost⁹. (The Carbon Dividend is the amount of money which is to be given by the state to each legal resident as compensation for the climate change being caused in the state by carbon emissions. It is age dependant with older people receiving more than younger. It is paid from the amount of carbon tax gathered by the state¹⁰.)

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Concept 1 – Global Warming /Climate Change

Global warming¹¹ is the long-term rise in the average temperature of the Earth’s climate system. The Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report concluded, “It is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century.” The largest human influence has been the emission of greenhouse gases such as carbon dioxide, methane, and nitrous oxide.

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⁴ http://www.epa.ie/ghg/agriculture/
⁷ The ESRI research already quoted states that a €30 euro per tonne increase will lead to a 1.94% reduction. Therefore if we are to achieve a 100% reduction we will require a carbon tax of about €800 per tonne. This we believe is not necessary as we expect when a €200 per tonne carbon tax is in place that behaviours will change and expect that only renewable alternatives will be used. However this can be adjusted upwards should behaviours not change sufficiently.
⁸ For the purposes of this policy document, a legal resident is one who has a PPSN (https://www.revenue.ie/en/jobs-and-pensions/personal-public-service-number/index.aspx) and has an address and bank account in the Republic of Ireland
¹⁰ Carbon taxes should be imposed at point of entry for fossil fuels or meat products entering the state and at the abattoir and peat production plant for meat and turf produced for resale in the state. Carbon taxes on airline fuel should be imposed at the ticket purchase point. (Meat that is exported will attract a rebate equal to all of the carbon tax once proof is provided that the meat has been delivered to a customer location which is outside of the state.)
The effects of global warming include rising sea levels, regional changes in precipitation, more frequent extreme weather events such as heat waves, and expansion of deserts.

Ireland’s Environmental Protection Agency (EPA) states; “The effects of global warming in Ireland are an increasing ferocity of storms and more water shortages in summer. Increased rainfall at other times will lead to more flooding which will have adverse effects on our water quality and puts coastal regions under severe threat of erosion. Climate change also threatens to diminish crop yields and will negatively impact our fishing industry. Changing weather patterns put our plants and animal species in danger.” 12

Elsewhere rising sea levels may flood coastal infrastructure and force the abandonment of many coastal cities. Environmental impacts include the extinction or relocation of many species as their ecosystems change, most immediately the environments of coral reefs, mountains, and the Arctic.

Possible societal responses to global warming include mitigation by emissions reduction.

Concept 2 – The Commons

The commons13 is the cultural and natural resources accessible to all members of a society, including natural materials such as air, water, and a habitable earth.

As such any damage caused by some members of the society to the commons should result in compensation for those in society who did not cause the damage.

Concept 3 – Using a pricing mechanism to encourage behavioural change

To encourage behavioural change from the use of GHG emitting products to more sustainable ones, one way to do so is to introduce a carbon tax so that the price of GHG emitting products are more expensive than their sustainable, renewable equivalents.

As the Climate Change Advisory Council wrote in its 2019 review: “The carbon tax is a key policy tool for transition [and] The Council believes that it is essential that the revenue raised by the tax is used to ensure that those on low incomes are not adversely affected by the change.”14

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It is on the basis of the above three concepts that the Green Party Carbon Dividend Scheme is formed.

Our policy mandates that the “polluter pays” principle must be invoked and the principle that those who do not pollute should be compensated.

While these principles also hold true for the planet and all its residents, this paper deals only with land which is the Irish state (the 26 counties of Ireland) and its legal residents.

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12 http://www.epa.ie/climate/communicatingclimatescience/whatisclimatechange/whatimpactwillclimatechangehaveforireland/
13 https://en.wikipedia.org/wiki/Commons
14 http://www.climatecouncil.ie/media/Climate%2Change%2Advisory%2Council%2Annual%2Review%202019.pdf
Based on the aforementioned principles, all consumption of any item which results in GHG emissions, should be taxed. Such items include; fossil fuels, meat, plastics, cement, flights and so on (see also EPA Breakdown of Ireland’s Carbon Footprint attached to this document below).

**The Model**

The current carbon tax in Ireland is €26 per tonne\(^{15}\). As there is no time to waste because of the climate emergency, it is proposed, once the database of legal residents\(^{16}\) is available, to increase this as soon as possible but hopefully in year 1 of the administration to €100 per tonne, to €150 per tonne in year 2 and to €200 per tonne in year 3. This will give industry and affected interests some time to make necessary changes.

All carbon tax should, when collected, be redistributed to the legal residents.

All carbon tax should, where possible, be collected at the point of entry to the market, and the price increase which is imposed by that tax passed on to the consumer to bear.

We propose;

- That Carbon Dividend is defined as the amount of money which is to be given by the state to each legal resident as compensation for the climate change being caused in the state by carbon emissions by any party within the state against whom a carbon tax is levied.

- That such a distribution will be done on the basis of age – with the youngest residents receiving the least amount and older residents receiving a larger amount in a ratio which mirrors the current differential between contributory old age pension and employment benefit.

- That it is on the basis of carbon footprint of children being less than adults and therefore are given a smaller dividend than adults [In Ireland the number of children per family household is 1.38\(^{17}\) and children represent an increase of 25% in the carbon footprint of a household\(^{18}\). On this basis each child represents about half the carbon footprint of an adult.] The ratio of dividend therefore is proposed as follows 1:2:2.4

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Children under 18 years old</td>
<td>1</td>
</tr>
<tr>
<td>Adults over 18 years old and under 67 years old</td>
<td>2</td>
</tr>
<tr>
<td>Adults over 67</td>
<td>2.4</td>
</tr>
</tbody>
</table>

- That rural\(^{19}\) residents receive more than urban. [Noting the costs of a carbon tax on rural houses is about 1.50 times that of urban houses and 37% of houses in Ireland are rural and 63% are urban according to the CSO.\(^{20}\)]

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\(^{16}\) For the purposes of this policy document, a legal resident is one who has a PPSN ([https://www.revenue.ie/en/jobs-and-pensions/personal-public-service-number/index.aspx](https://www.revenue.ie/en/jobs-and-pensions/personal-public-service-number/index.aspx)) and has an address and bank account in the Republic of Ireland.


\(^{18}\) [https://www.sciencedaily.com/releases/2020/04/200415152921.htm](https://www.sciencedaily.com/releases/2020/04/200415152921.htm)

\(^{19}\) the CSO definition of rural as being a dwelling in a settlement of less than 1,500 population: [https://www.cso.ie/en/releasesandpublications/ep/p-cp1hi/cp1hi/bgn/](https://www.cso.ie/en/releasesandpublications/ep/p-cp1hi/cp1hi/bgn/)


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In which case the children, adult and pensioner carbon dividends in rural and urban areas, when the carbon tax is €200 per tonne, will be:

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children under 18 years old</strong></td>
<td>1</td>
<td>1,372,000</td>
<td>864,360</td>
<td>€386</td>
<td>€579</td>
<td>€457</td>
<td>€627,566,520</td>
</tr>
<tr>
<td><strong>Adults over 18 years old and under 67 years old</strong></td>
<td>2</td>
<td>2,940,000</td>
<td>1,852,200</td>
<td>€772</td>
<td>€1,158</td>
<td>€915</td>
<td>€2,689,570,800</td>
</tr>
<tr>
<td><strong>Adults over 67</strong></td>
<td>2.4</td>
<td>566,000</td>
<td>356,580</td>
<td>€926</td>
<td>€1,390</td>
<td>€1,098</td>
<td>€621,345,744</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>4,878,000</td>
<td>3,073,140</td>
<td>1,804,860</td>
<td></td>
<td></td>
<td></td>
<td>€3,938,483,064</td>
</tr>
</tbody>
</table>

- it is paid from the amounts of Carbon Tax gathered by the state\(^{21}\).
- it is paid by means of a bank transfer and spread across the year in a frequency whereby no payment should be less than €100.
- to receive Carbon Dividend every resident should register their name, address, PPS number and the bank account where they require their Carbon Dividend be paid.
- Under 18s can be registered by their parents and their Carbon Dividend be paid to the parent/guardian who receives the child’s Children’s Allowance.

Under our proposal the Carbon Dividend compensates the legal resident for those cost increases, and for 70% of legal residents, the Carbon Dividend will exceed that extra cost\(^{22}\).

We estimate that a Carbon Tax of €200 per tonne will collect approximately €4bn\(^{23}\) which when distributed as per the above will mean a per annum payment to every resident as follows:

While the above will be the amount distributed to each legal resident of the state, the approximate cost / prices of fuel (as at June 2019) should Carbon Taxes be €200 per tonne can be calculated using the table provided in the government consultation document\(^{24}\):

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Typical Volume Sold</th>
<th>Average Retail Price (incl €20 Carbon Tax)(^{1})</th>
<th>Price with Carbon Tax @€40(^{2})</th>
<th>Price with Carbon Tax @€80(^{2})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel</td>
<td>60 litres</td>
<td>€82.20</td>
<td>€86.13</td>
<td>€94.00</td>
</tr>
<tr>
<td>Petrol</td>
<td>60 litres</td>
<td>€85.38</td>
<td>€88.77</td>
<td>€95.54</td>
</tr>
<tr>
<td>Kerosene (Home Heat)</td>
<td>900 litres</td>
<td>€693.00</td>
<td>€744.82</td>
<td>€848.46</td>
</tr>
<tr>
<td>Coal (Standard)</td>
<td>40 kg</td>
<td>€18.66</td>
<td>€21.05</td>
<td>€25.83</td>
</tr>
<tr>
<td>Peat Briquettes</td>
<td>12.5 kg</td>
<td>€4.50</td>
<td>€5.02</td>
<td>€6.06</td>
</tr>
</tbody>
</table>

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\(^{21}\) We expect that carbon taxes will be imposed at point of entry for fossil fuels or meat products entering the state and at the abattoir and peat production plant for meat and turf produced for resale in the state. We expect that the distributors and retail sales chain will pass on these taxes to the consumer.

\(^{22}\) https://www.esri.ie/publications/carbon-taxation-in-ireland-distributional-effects-of-revenue-recycling-policies

\(^{23}\) As stated on page 3 of the document [https://assets.gov.ie/9384/b078dcb6c7614c748b897ba01b481532.pdf](https://assets.gov.ie/9384/b078dcb6c7614c748b897ba01b481532.pdf) ‘receipts of €440m are forecast in 2019’ when current carbon tax rate is €20 per tonne. Therefore should the rate be €200 per tonne the income should be 10 times this or €4400m, but allowing for the ODA 10% we have taken €3960m.

When calculated, the price of each of the above should Carbon Tax be €200 per tonne will be:

- **Petrol** - €117.57 for 60 litres or €1.96 per litre
- **Diesel** - €115.89 for 60 litres or €1.93 per litre
- **Kerosene** - €1159.38 for 900 litres or €1.29 per litre
- **Coal** - €40.17 for 40kg or €1 per kg
- **Turf** - €9.18 for 12.5kg or 73c per kg

And for electricity, the average household bill is €1035\(^25\) which is the current price for 4,200kwh.

Therefore, the increase if the carbon tax is applied to this will depend on the fuel being used. If natural gas is used to generate the electricity then each kW will produce .2kg, if peat then .4kg. So the average electricity bill will increase by 4.2 X .4 X €200 = €336p.a. if peat used, and if natural gas is use the increase p.a. will be €168 p.a., but if renewables such as wood, miscanthus, willow, hemp are used then no increase will occur.\(^26\)

**Conclusion**

Carbon tax is a way to change consumer and business behaviour in order to reach our targets of 50% reduction by 2030 and net zero by 2050\(^27\).

Those who are negatively affected by carbon emission and who are not big polluters will be compensated by the Carbon Dividend.

Green Party policies for sectors such as Agriculture, Energy and Transport, will provide the alternative mechanisms for those who wish to stop polluting such as rewards for environmentally sound land use, cheaper and more available renewable energy and better cheaper public transport an availability of electric scooters cars and bikes.

As a country, Ireland, has committed to the UN global plan to address the climate emergency, to do any less is irresponsible, and by the Carbon Dividend Scheme we are demonstrating that addressing climate change does not need to be any more expensive on business and consumer, but responsible choices must be made to do so. By contributing 0.7% GNI aid to the rest of the world for climate adaptation measures we are providing the industrialised world with an example to be followed to help developing countries mitigate the effects of climate change.

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\(^{26}\) [https://www.volker-quaschning.de/datenserv/CO2-spez/index_e.php](https://www.volker-quaschning.de/datenserv/CO2-spez/index_e.php)

\(^{27}\) One of the motions passed at Green Party Policy Council Meeting 18th April 2020 was “That the party will target the reduction of greenhouse gas emissions to net-zero by 2030 in all of its policy efforts.” The model supplied here enables government to increase or decrease the carbon tax per tonne to achieve this target.
Appendix A: EPA Breakdown of Ireland’s Carbon Footprint

2017

- Energy Industries 19.3%
- Residential 9.5%
- Manufacturing Combustion 7.7%
- Commercial Services 1.8%
- Public Services 1.5%
- Transport 19.8%
- Industrial Processes 3.7%
- F-Gases 2.0%
- Agriculture 33.3%
- Waste 1.5%

Source:
http://www.epa.ie/climate/communicatingclimatescience/whatisclimatechange/whatareirelandsgreenhousegasemissionslike/
Appendix B: Notes to the model:

1. Air Travel

The above does not include the Carbon Tax collectable from flights where the airline fuel used is a fossil fuel.

There are about 13 million people flying from Ireland and 80% of these are on short haul flights. A short haul flight using fossil fuels emits about 0.2 tonnes of CO2 and a long haul flight about 2 tonnes.

A simple carbon tax at these levels will be eventually:

- €40 Carbon Tax flight charge to all EU destinations (to include Turkey, Norway, Belarus, Russia (Western), Ukraine, Countries of former Yugoslavia, Morocco, Tunisia, Egypt, Israel, Algeria, Syria, Lebanon, Jordan, Switzerland) from Ireland
- €400 Carbon Tax flight charge for any other destination.

This will raise a further €1.45 billion in redistributable tax revenue not included in the €4 billion above.

While the above is what should be charged, we propose initially to use the offset figures as given by the company www.atmosfair.de. These are about €20 for short haul and €120 for long haul.

2. Food

Neither does the above include the Carbon Tax collectable from food production especially in high greenhouse gas emitting sectors such as beef, mutton, chicken, fish and dairy.

Sweden, Denmark and Norway are considering taxes of €1.5 per kg on meat.

This sector will have to be examined in more detail as part of the model – however it is our intention to bring food into the model also.

For example, to produce a kg of beef necessitates the 10kg of carbon emissions and to produce a kg of butter necessitates about the same. Therefore, the Carbon Tax on these items will be approximately €2 per kg.

3. 0.7% GNI aid commitment

In the 1970’s, the UN set the goal of 0.7% of national income as a target for spending on international development aid. Until 2013, only five countries had reached this target when the UK became the first G7 country to meet the target in 2013.

Ireland’s current contribution stands at around 0.4% of GNI or €700m. To reach 0.7% Ireland needs to increase their aid contribution by about €500m equivalent to about 10% of the tax collected under the model above where carbon tax is €200 per tonne.

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30 These are per COVID numbers which it is expected will not be achieved in the near future and could be up to 90% smaller.
35 https://www.globalcitizen.org/en/content/ireland-campaigning-for-spot-on-unsc/
Appendix C: Frequently Asked Questions

Question 1: What about those who are already in fuel poverty and will remain so even if the amount of the increase in fuel costs will be mitigated by the distribution of the carbon tax collected – for example travellers.

Answer 1: “The average spend on energy [by the sample traveller communities studied] was 26.1% (median) and 28.0% (mean); this is around five to six times higher than the corresponding figure of 4.6% for the population as a whole according to official statistics.”

These and other marginalised communities or low income households in the same situation who are in receipt of the Fuel Allowance should be contacted and surveyed to establish the effect of the carbon tax and where necessary offered a supplementary allowance or retrofitting of their heating energy requirements or both.

Question 2: Why not fund sustainable transport including cycling infrastructure and public transport?

Answer 2: The purpose is to change behaviours and ensure that those who suffer most from the cost (those on low incomes) are compensated. And so, the Carbon Dividend scheme should return all funds collected as carbon taxes to the residents. But at the same time there will be investment in public transport and cycling infrastructure, taking the money from for example the budget for roads building and using the savings achieved as less fossil fuels will need to be imported.

Question 3: Why not fund the Climate Action Fund or similar from the carbon taxes raised?

Answer 3: The purpose is to change behaviour and ensure that those who suffer most from the cost (those on low incomes) are compensated. And so, the Carbon Dividend scheme should return all funds collected as carbon taxes to the residents. The Climate Action Fund must therefore be funded from central funding such as other taxation or savings (national cost reductions as fossil fuels will no longer be required to be imported) can be used to fund. Note: that since Ireland does not have to import €6bn per annum of fossil fuels; the exchequer will be at a loss since there is no fossil fuel to tax. This loss of tax revenue is approximately €5bn. However since fossil fuel related subsidies from the exchequer amount to €4.2bn, the net loss to the exchequer is about €.8bn.

Question 4: Why not set aside the carbon taxes raised to meet any fines the State is liable to pay arising from failure by government to meet our climate targets;

Answer 4: The purpose is to change behaviour and ensure that those who suffer most from the cost (those on low incomes) are compensated. And so, the Carbon Dividend scheme should return all funds collected as carbon taxes to the residents. Therefore using the carbon taxes raised to fund the fines the State is liable to pay due to the government failing to meet our climate targets (to which they signed up to) takes away from the ability to compensate those who are hurt most by Carbon tax. The fines must therefore be funded from central funding such as other taxation or savings (national cost reductions as fossil fuels will no longer be required to be imported) can be used to fund.

Question 5: Why not use the carbon taxes raised to act as a buffer against increasing the cost of doing business for businesses for whom fossil fuels constitute a large amount of overall business expenditures?

Answer 5: The intended effect of the tax is to change behaviour. When business sees that it is more expensive to use energy from fossil fuel it will change to renewable – it does not a grant or subsidy to do so.

Question 6: Why not incentivise business moving away from the use of fossil fuels to more sustainable production methods.

Answer 6: Yes, such measures should be taken – but they must be funded by revenue which is not part of the carbon taxes collected, as such a measure would not be equitable.

Question 7: Why increase the carbon tax to €200 per tonne so quickly over the next 3 years when the government target is reach just €80 by 2030?

Answer 7: We are in an emergency and the faster we move the better chance we have of saving the planet from becoming lifeless and our species from possible extinction. According to ESRI figures we need to increase the carbon tax to €400 per tonne in order to get a 50% reduction in carbon emissions by 2030 to meet Ireland’s IPCC agreed targets. We believe that such an increase will be unnecessary assuming there will be an overwhelmingly responsible attitude of legal residents in Ireland to the climate emergency.

Question 8: Surely the introduction of such a tax will affect industry and those on low incomes

Answer 8: There are different groups of people who will be most affected by this carbon tax:

1. Those on low incomes: their rebate will more than compensate them for the increase in the tax. According to the ESRI this Carbon Dividend model will positively affect 70% of the population.40

2. Those negatively affected in their working lives will include those working in industries/businesses which
   - sell and distribute fossil fuels
   - operate airlines
   - are logistics operators
   - involved in vehicle sales
   - produce and sell meat, fish and dairy
   - produce electricity

3. Those positively affected in their working lives will include those working in industries / businesses which:
   - Sell renewable energy generation and storage products
   - Build renewable energy generation systems
   - Sell and Distribute charging points
   - Supply and manage public transport
   - Sell and distribute bicycles and electric vehicles

40 https://www.esri.ie/publications/carbon-taxation-in-ireland-distributional-effects-of-revenue-recycling-policies (also referenced earlier in the paper)
- Supply and fit retrofitting to buildings
- Produce and sell vegetables, fruit, nuts, biofuels
- Operate in a local capacity producing locally and selling the produce locally

There must be a transition period to allow these industries to react to the new reality, but no more than a year, during which time the database of legal residents who will be due the carbon tax dividend can be set up.

Question 9: Why not use the carbon tax raised for adaptation measures?

Answer 9:

1. As a state we import some €6bn p.a.\textsuperscript{41} of fossil fuel from abroad. We should instead use this €6bn to invest in renewable power sources i.e. we need to borrow now to build renewable energy sources (and take other climate adaptation measures) and repay that money from the savings we make not having to pay the Arabs, Scots, Russians and Americans etc. for their fossil fuel supplies.
2. Those on low incomes suffer the most because of the effects of this carbon tax as they spend a greater proportion of their take home pay on heat, light and transport. They must be compensated and see a benefit in the introduction of this tax. By only giving them half of what was collected will mean that it will negatively affect them.

Question 10: Why do those who are well off benefit as much from the dividend as those on low incomes?

Answer 10: Actually, they do not. The distribution of the dividend will be issued and counted as a taxable income and therefore those on lower wages paying no or a lower tax rate will benefit more than those on higher rates of tax.

Question 11: What is the cost of the bureaucratic effort involved?

Answer 11: We believe this is quite limited as

- The systems are already in place to collect the taxes on fossil fuels, meat and dairy products or aviation.
- The Revenue Commissioners can identify the quantity of taxes collected as part of their regular work.
- But the system of distribution will have to be built and we suggest it could be done via a communication from Department of Social Welfare to all those with PPSNs requesting that application be made online or on paper identifying whether a cheque or bank transfer be the preferred receipt.

Question 12: Some houses are already almost carbon neutral – and therefore will not be penalised by the increase in the tax and will benefit hugely from the dividend. Is this not a waste of money?

Answer 12: The more houses which are carbon neutral the better and the SEAI will be encouraged to use this Carbon Dividend scheme to point out to homeowners they too can be carbon neutral and the benefit which accrues. As part of this Carbon Dividend scheme the SEAI will be encouraged to make contact with suppliers and homeowners and provide retrofitting and generation grant.

\textsuperscript{41} https://en.wikipedia.org/wiki/Energy_in_Ireland
schemes which are linked to the payment of the carbon dividend (i.e. to encourage homeowners to fund home retrofitting use the carbon dividend payment to fund such retrofitting).

Question 13: Will imported products and services not benefit competitively if the carbon tax imposed in their domicile is less than that imposed on similar products and services in Ireland?

Answer 13: The carbon taxation policy affects indirectly any product or service that is part of the pie chart in Appendix A including those that are imported.

It is not intended however that products and services which are imported should be at a competitive advantage to Irish products and services.

The purpose of a carbon tax is to change consumer behaviour and the success of the measure is evident when the total tax amount collected decreases.

Therefore, and principally to change behaviour, the carbon tax will be imposed only on products used in Ireland which are fossil fuels or meat based and the tax will be imposed at the point of sale to the consumer.

Question 14: Irish power generating stations using fossil fuels and large industrial users are subject to the ETS. Surely a carbon tax is a form therefore of double taxation.

Answer 14: The European Union’s Emissions Trading System (ETS) is the world’s biggest scheme for trading carbon credits and affects the biggest industrial emitters of greenhouse gases\[42\]. The companies on this list are awarded enough carbon credits to keep emitting greenhouse gases at historical levels, and encouraged, by a reducing free carbon credit allocation by a very small % per annum (though not in the case of all organisations), to also reduce the greenhouse gases they emit. Should a company need for any reason to emit more greenhouse gas than it has free carbon credits then it must go to the carbon credit market and buy what it requires. The price of these carbon credits varies with the market, if there are many available the price is low, and if scarce the price is high.

Therefore as described above, the European ETS scheme, which emanates from the United Nations ETS scheme, is not a taxation system and only imposes a cost where a company has not succeeded in reducing its greenhouse gas emission in line with internationally agreed targets.

(For interest, the companies in Ireland who are affected by the European ETS are as per footnote below.\[43\])

Question 15: Why not just tax the big companies?

Answer 15: They would simply pass on the extra cost as the price increases to their customers.

\[42\] http://www.epa.ie/pubs/advice/air/climatechange/phase/Prelim_NIMs_Publication_Jan_2012.pdf
\[43\] http://www.epa.ie/pubs/advice/air/climatechange/phase/Prelim_NIMs_Publication_Jan_2012.pdf