



Tithe an Oireachtais

**An Comhchoiste um Chumarsáid,
Gníomhú ar son na hAeráide agus Comhshaol**

**Tuarascáil ón gComhchoiste
maidir le hIompar Intíre a Dhícharbónú – Gluaisteáin Leictreacha**

Houses of the Oireachtas

**Joint Committee on Communications,
Climate Action and Environment**

**Report of the Joint Committee
on Decarbonising Domestic Transport – E-Cars**

32CCAE008



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BROLLACH

Ceann de mhórdhúshláin na ré ina mairimid is ea an gá atá ann dul i ngleic leis an Athrú Aeráide, agus ní foláir d'Éirinn a chinntiú go nglacfaidh sí páirt leordhóthanach chun déanamh amhlaidh. Glactar leis go coitinata nach bhfuil ach iarrachtaí teoranta, ar a mhéid, déanta ag Éirinn go dtí seo chun dul i ngleic leis an Athrú Aeráide.

Ina fhianaise sin, cuireann an Comhchoiste um Chumarsáid, Gníomhú ar son na hAeráide agus Comhshaol fáilte roimh dhá fhoilseachán, mar atá, *An Plean Naisiúnta um Maolú, 2017* agus *Bonneagar Breoslaí Malartacha le haghaidh Iompar in Éirinn - 2017 go 2030*. Ní chreideann an Comhchoiste, áfach, gur leor na bearta atá sna foilseacháin sin chun cabhrú maidir leis na spriocanna ceangailteacha atá ar Éirinn a bhaint amach roimh 2020.

Ní bhaineann aon débhrí leis an bhfianaise ina leith seo agus níl séandh uirthi. Bunaithe ar na treochoí reatha, tá Éire ag titim chun deiridh ar a macasamhla Eorpacha agus Idirnáisiúnta i leith na spriocanna a eascraíonn as Comhaontú Pháras. Faoi 2020, tá an chosúlacht ar an scéal go mbeidh Éire 14%-16% chun deiridh maidir lena sprioc astaíochta carbóin, agus thabharfadh an fhianaise le fios freisin nach mbainfidh Éire a sprioc amach ó thaobh fuinneamh inathnuaite.

De bhrí go bhfuil earnáil an iompair ar cheann de na hearnálacha is measa ó thaobh astaíochtaí carbóin de, tá grinnscrúdú géar á dhéanamh uirthi i ndlínsí eile in iarracht dul i ngleic le hastaíochtaí carbóin.

Ar an mbonn sin, thug an Comhchoiste tosaíocht do Dhícharbónú Iompair sa bhliain 2017. Mar a luadh cheana, aithníonn an Comhchoiste na hiarrachtaí atá á ndéanamh arís chun earnáil an iompair a dhícharbónú mar atá leagtha amach sna pleananna éagsúla atá foilsithe ag an Rialtas. Díríonn an tuarascáil seo ar na Gluaisteáin Leictreacha agus ar an gcion is féidir leo a dhéanamh maidir le hearnáil an iompair a dhícharbónú. Rachaidh an Comhchoiste i mbun tuilleadh plé le páirtithe leasmhara i réimsí an iompair phoiblí, an fhuinnimh cois cladaigh - d'aer agus ar muir agus díreoidh sé a aird ar chineálacha eile iompair phríobháidigh agus iompair tráchtála a dhícharbónú.

Thug an Comhchoiste faoina chuid oibre sa réimse seo d'fhonn cur leis an méid oibre atá déanta cheana, agus tá roinnt moltaí le déanamh aige ina leith seo. Is féidir na moltaí seo ar fad a fheiceáil ina n-iomláine i dtosach na tuarascála seo agus in áiteanna eile sa tuarascáil tríd síos.

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Ba mhaith liom an deis seo a thapú buíochas a ghabháil leis na daoine agus na grúpaí ar fad a chabhraigh linn agus a chuir leis an mbreithniú a rinneamar ar an ábhar seo, lena n-áirítear iad siúd a rinne aighneachtaí agus iad siúd a láithrigh os comhair an Chomchoiste. Ba mhaith liom buíochas a ghabháil freisin le comhaltaí an Chomchoiste agus le Rúnaíocht an Choiste as an tuarascáil a chur i dtoll a chéile.

Hildegarde Naughton

Hildegarde Naughton
Cathaoirleach (*Chairman*)
4 Iúil 2018



PREFACE

Tackling Climate Change is one of the major challenges of our generation, and Ireland must ensure that it plays an adequate role in doing so. To date, it is widely acknowledged that Ireland's efforts to tackle Climate Change have been limited, to say the least.

In this regard, the Joint Committee on Communications, Climate Action and Environment welcome the publication of both the *National Mitigation Plan 2017* and the *National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland - 2017 to 2030*. However, the Joint Committee does not believe that the measures contained within these publications will be sufficient to assist in achieving the binding targets that Ireland faces by 2020.

The evidence in this regard is both unambiguous and overwhelming. Based on current trends, Ireland is falling way behind its European and International counterparts in respect of the targets which emanate from the Paris Agreement. By 2020, it appears as if Ireland will be 14-16% behind on its carbon emission target, while there are also indications that there will be a shortfall in Ireland achieving its renewable energy target.

By virtue of the fact that it is one of the worst offenders in terms of carbon emissions, the transport sector is being heavily scrutinised in other jurisdictions in an attempt to tackle carbon emissions.

On this basis, the Joint Committee prioritised Decarbonising Transport in 2017. As mentioned previously, the Joint Committee appreciates the renewed efforts being put into decarbonising the transport sector as set out in the various plans which have been published by Government. This report concentrates on the topic of E-cars and the contribution that such an expansion can make towards decarbonising transport. The Joint Committee will engage further with stakeholders in the areas of public transport, shore based power – air and sea and decarbonising other forms of private and commercial transport.

The Joint Committee has undertaken its work in this area with a view to supplementing the work which has already been done, and has a number of recommendations to make in this regard. These recommendations can be viewed in their entirety at the outset of this report and intermittently throughout.

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I would like to take this opportunity to thank all the individuals and groups who assisted and contributed to our consideration of this subject, including those who made submissions as well as those who appeared before the Joint Committee. I would also like to thank the members of the Joint Committee and the Committee Secretariat for their assistance in compiling this report.

Hildegarde Naughton

Hildegarde Naughton

Cathaoirleach (*Chairman*)

4 July 2018



1. RECOMMENDATIONS

Recommendation 1

The Committee recommends that the assets and infrastructure relating to Electric Vehicles should be maintained as a strategic asset for the time being, rather than being commercialised. Any change to the ownership of assets should be undertaken in the public interest. Emphasis should instead be placed on generating policy in the area with a view to increasing the uptake of Electric Vehicles. A decision on a future plan on the public charging infrastructure for electric vehicles needs to be taken, as currently there is uncertainty as to who will put this infrastructure in place.

Recommendation 2

The Committee recommends that the Transmission System and Distribution System Operator where applicable, put in place a plan and conduct necessary infrastructure changes to make the electricity grid capable of supporting large scale charging of electric vehicles.

Recommendation 3

The Committee recommends that Transport Infrastructure Ireland should introduce a policy whereby Electric Vehicle users would not be required to pay tolls on certain roads, especially as this appears to have had a positive effect in other jurisdictions.

Recommendation 4

The Committee recommends that the Government should consider further reducing the rate of motor tax which applies to Electric Vehicles with a view to increasing uptake. Measures such as this have seen success in accelerating the uptake of Electric Vehicles in the United Kingdom, and elsewhere. That the government should also consider increasing the current SEAI grant awarded for the purchase of an electric vehicle.

Recommendation 5

The Committee recommends that Gas Networks Ireland should also focus on the development of Liquefied Natural Gas as an alternative fuel, and not exclusively concentrate on the introduction of Compressed Natural Gas into the Irish Transport Sector. Due regard should also be given to Liquefied Natural Gas so as to avoid placing unrealistic expectations on freight operators, particularly where journeys to the United Kingdom are concerned.

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Recommendation 6

The Committee recommends that direction should be provided to Local Authorities on the Government's vision for Electric Vehicles to encourage joined-up thinking.

Recommendation 7

The Committee recommends that the State should encourage and/or incentivise Industry to endeavour to be at the forefront of low-emission alternative energies.

Recommendation 8

The Committee recommends that an equalisation of excise duty on petrol and diesel should be introduced so as to dis-incentivise the uptake of vehicles with diesel engines. This would have to be implemented in conjunction with other measures such as some of the EV incentives outlined and further incentives to encourage greater shift from the private car to public transport and cycling.

Recommendation 9

The Committee recommends that an investigation into the viability of a ban on Combustion engines should be undertaken. As there are very few, if any, automobiles manufactured in the State, and due to the fact that Irish consumers mainly drive automobiles that are manufactured elsewhere, there is a risk that Ireland will unwillingly be subjected to a ban of this nature in any event.

Recommendation 10

The Committee recommends that the Government should consider introducing mandatory quotas for zero/low-emission vehicles for car manufacturers from 2019 onwards.

2. INTRODUCTION

As evidenced by the “*Current Policy Context*” section of this Report (see below), it is apparent that there is a lot that needs to be done in order to accelerate Ireland’s progress towards achieving its various European Union targets. In particular, the progress in relation to Ireland’s Renewable Energy Target and Ireland’s Non-Emissions Trading System Target are of particular concern, with the transport sector being one of the areas which requires greater attention.

While the Joint Committee welcomes the publication of both the *National Mitigation Plan 2017* and the *National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland - 2017 to 2030*, it also feels that more can be done to accelerate Ireland’s progress towards a decarbonised transport sector.

The Joint Committee sets out its various recommendations in full at the beginning of this Report and also intermittently throughout.

In the following sections, this Report will examine the evidence specifically in relation to decarbonising domestic transport - E-Cars, which has been provided to the Joint Committee over the course of the relevant Committee engagements.

This Report will also explore the opportunities in respect of possible future policy initiatives on the basis of submissions received by the Joint Committee, recent publications and research studies.

3. CURRENT POLICY CONTEXT

3.1. PARIS AGREEMENT, 2015

Ireland's attitude towards Climate Action is largely dictated by several international agreements to which the European Union, and as a consequence of its membership of the European Union, Ireland, is a party. The commitments that have been made mainly revolve around the reduction of Greenhouse Gas emissions. The European Union, of which Ireland is a Member, in its capacity as a party to the United Nations Framework Convention on Climate Change (UNFCCC), ratified the Paris Agreement of the 21st Conference of the Parties (COP21) of the UNFCCC in 2016. This Agreement came into force in November 2016. The main aims of the Agreement are illustrated in **Table 1** below.

Table 1	Aims of the Paris Agreement of the COP21¹
	<ul style="list-style-type: none">• To hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.• To increase the ability to adapt to the adverse impacts of climate change and foster climate resilience and low Green House Gas emissions development, in a manner that does not threaten food production.• To make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

The Commission's European Strategy for Low-Emission mobility², published in July 2016, sets an ambitious target that by 2050 greenhouse gas (GHG) emissions from transport will need to be at least 60% lower than in 1990 and firmly on the path towards zero. It is imperative that air pollutant emissions from transport be drastically reduced without delay. The Strategy also made clear that the deployment of low and zero-emission vehicles would need to increase in order to gain significant market share by 2030 and set the EU firmly on the long-term trajectory towards zero-emission mobility. The EU aims for the best low-emission, connected and automated mobility solutions, equipment and vehicles to be developed, offered and manufactured in Europe and to have in place the most modern infrastructure to support them.

¹Paris Agreement, United Nations Framework Convention on Climate Change, 2015, Article 2, p. 3.

² COM(2016) 501 final- Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions A European Strategy for Low-Emission Mobility.

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3.2. RENEWABLE ENERGY TARGET

As a means of achieving the aims of the Paris Agreement, EU Directive 2009/28/EC created a common framework for the use of renewable energy in the EU so as to limit GHG emissions and promote cleaner transport. The Directive sets targets for all EU Member States with the overall aim of making renewable energy sources account for 20% of EU energy and 10% of energy specifically in the transport sector by 2020. Ireland's overall target is to achieve a 16% share of energy from renewable sources in gross final consumption of energy by 2020. Three sectors are affected by renewable energy requirements:

- electricity;
- heating and cooling; and
- transport.

As of 2015, 9.1% of Ireland's energy came from renewable sources, whereas the target for 2020 is for 16% of Ireland's energy to come from renewable sources.³ Officials from the Department of Communications, Climate Action and Environment informed the Joint Committee that Ireland stands to be required to pay €100,000,000-€150,000,000 in fines for each percentage point it falls short of that target.⁴

Officials from the Department of Communications, Climate Action and Environment informed the Joint Committee that they understand that it will be 2021 before Ireland becomes liable for the payment of possible fines, as Members States are permitted to continue their efforts for the full calendar year in 2020.⁵

Ireland's progress in relation to its renewable energy targets by sector, as of 2015, is outlined in **Table 2** below.

Table 2	Energy from Renewable Sources	
Sector	2015 (Actual)	2020 Target
Electricity	25.3%	40%
Heating and Cooling	6.8%	12%
Transport	5.7%	10%
Overall Target (Gross Final Consumption of Energy)	9.1%	16%

³ [Joint Committee on Communications, Climate Action and Environment, Debate: Tuesday, 14 February 2017.](#)

⁴ *ibid*

⁵ *ibid*

3.3. NON – EMISSIONS TRADING SYSTEM (NON-ETS) TARGET

EU Decision No. 406/2009/EC of the European Parliament and of the Council of 23 April 2009 requires that Ireland reduce its greenhouse gas emissions in 2020 to more than 20% below 2005 levels.⁶ Ireland's 2020 target is to achieve a 20% reduction of non-Emissions Trading Scheme (non-ETS) sector emissions. The areas defined as non-ETS are:

- agriculture;
- transport;
- residential;
- commercial;
- non-energy intensive industry;
- waste.

The Environmental Protection Agency (EPA) 2015 report, *Ireland's Greenhouse Gas Emission Projections 2014-2035*, projected Ireland's carbon emissions profile out until the year 2035.⁷ Given that the current period for emissions reductions, as referred to in EU Decision No. 406/2009/EC, extends to the year 2020, that period is heavily covered in the EPA's paper.

In its approach, the EPA projected Greenhouse gas emissions to 2035 using two scenarios:

- *With Existing Measures* scenario: a scenario which assumes that no additional policies and measures, beyond those already in place by the end of 2015 (latest national greenhouse gas emission inventory), are implemented.
- *With Additional Measures* scenario: a scenario which assumes implementation of the With Existing Measures scenario in addition to, based on current progress, further implementation of Government renewable and energy efficiency targets for 2020, as set out in the National Renewable Energy Action Plan (NREAP)⁸ and the National Energy Efficiency Action Plan (NEEAP).⁹

⁶ Decision No. 406/2009/EC of the European Parliament and of the Council of 23 April 2009, Annex II.

⁷ Environmental Protection Agency, *Ireland's Greenhouse Gas Emission Projections 2014-2035*, 18 May 2015.

⁸ [https://www.dccae.gov.ie/en-ie/energy/topics/Renewable-Energy/irelands-national-renewable-energy-action-plan-\(nreap\)/Pages/Action-Plan.aspx](https://www.dccae.gov.ie/en-ie/energy/topics/Renewable-Energy/irelands-national-renewable-energy-action-plan-(nreap)/Pages/Action-Plan.aspx)

⁹ [https://www.dccae.gov.ie/en-ie/energy/publications/Pages/National-Energy-Efficiency-Action-Plan-3-\(NEEAP\).aspx](https://www.dccae.gov.ie/en-ie/energy/publications/Pages/National-Energy-Efficiency-Action-Plan-3-(NEEAP).aspx)

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Where the transport sector is concerned, the EPA found, based on the projections published in its report, the following:

- Ireland’s non-ETS sector (which includes transport) emissions are projected to be 4% - 6% below 2005 levels by 2020, depending on whether the “with existing measures” scenario or the “with additional measures” scenario is used. This would represent a shortfall of 14% - 16% in achieving Ireland’s 2020 target. These projections are illustrated in **Table 3** below.
- Agriculture and transport dominate non-ETS sector emissions accounting for approximately 74% of emissions in 2020 under the With Additional Measures scenario. Emission trends from these sectors will be key determinants in terms of meeting targets.
- Transport emissions are projected to show strong growth over the period to 2020 with 10% to 12% increase on 2015 levels. This reflects the strong economic growth forecasted over the next period.

Table 3		Carbon Emissions – Projected % Reduction on 2005 Levels		
Sector	Projections (2020) <i>Without</i> Additional Measures	Projections (2020) <i>With</i> Additional Measures	2020 Target	2030 Target
Non-ETS Emissions	4%	6%	20%	30%

The European Commission adopted a [Proposal](#)¹⁰ in November 2017, for a regulation on reducing CO2 emissions from new passenger cars and light commercial vehicles (vans).

The proposed measures and targets are aligned with the 2030 climate and energy framework and with the Energy Union Strategy, which envisages a reduction in transport emissions and energy consumption. The Proposal states that:

“Until now, the CO₂ emission reduction standards for cars and vans in place in Europe have represented a fundamental tool to push for innovation and investments in low carbon technologies. But today, in the absence of tighter standards for the period beyond 2020, the EU risks losing its technological leadership in particular with respect to zero/low emission vehicles, with the US, Japan, South Korea and China moving ahead very quickly.”

¹⁰ [Proposal for a Regulation of the European Parliament and of the Council setting emission performance standards for new passenger cars and new light commercial vehicles as part of the Union's integrated approach to reduce CO2 emissions from light-duty vehicles and amending Regulation \(EC\) No 715/2007 \(recast\)](#)

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In September 2017, China introduced mandatory quotas for zero/low-emission vehicles for car manufacturers from 2019 onwards¹¹.

In the US, California and nine other States has successfully established a regulatory instrument to enhance the uptake of zero/low-emission vehicles. The strategic importance of zero/low emission vehicles for car manufacturers is underpinned by numerous recent announcements that the share of electrified powertrains in their global sales will significantly increase in the coming years. The EU automotive industry must become a global leader in these new technologies, as is currently the case with conventional car technologies.

The Commission sets new targets for the EU fleet-wide average CO₂ emissions of new passenger cars and vans. Average CO₂ emissions from new passenger cars and vans registered in the EU would need to be 15 % lower in 2025, and 30 % lower in 2030, compared to their respective limits in 2021. The proposal includes a dedicated incentive mechanism for zero and low-emission vehicles, in order to accelerate their market uptake. In the European Parliament, responsibility has been assigned to the Environment, Public Health and Food Safety (ENVI) Committee.¹²

The Briefing on the EU Legislation in Progress¹³ gives an overview of the legislation relating to CO₂ emissions:

- Regulation (EC) No.443/2009
- Regulation EU No 333/2014
- Regulation (EU) No 510/2011
- Regulation (EU) No 253/2014
- Directive 1999/94/EC
- Fuel Quality Directive (EU) 2015/1513 (amended in 2015)

Existing Situation

CO₂ standards for passenger cars

Mandatory CO₂ standards for all new passenger cars in the EU were introduced in 2009 because other agreements failed to deliver expected emission reductions (140g/km average CO₂ emission for all new cars by 2008): Regulation (EC) No.443/2009 established a CO₂ target of 130 g/km for 2015 for the fleet average of all manufacturers combined. Regulation EU No 333/2014 which sets a CO₂ emissions standard at 95g/km,

¹¹ [http://www.europarl.europa.eu/cmsdata/147264/AUTO_CLEANED_COM_COM\(2017\)0676\(COR1\)_EN.pdf](http://www.europarl.europa.eu/cmsdata/147264/AUTO_CLEANED_COM_COM(2017)0676(COR1)_EN.pdf)

¹² [http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI\(2018\)614689](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2018)614689)

¹³ [http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614689/EPRS_BRI\(2018\)614689_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614689/EPRS_BRI(2018)614689_EN.pdf)

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phased in for 95% of vehicles in 2020, with 100% compliance in 2021 strengthened these targets.

The changes this proposal will bring stipulate the EU Fleet-wide CO₂ emission targets applicable to new passenger cars and vans for 2020, 2025 and 2030. This proposal includes a technology-neutral incentive mechanism for zero and low-emission vehicles, in order to accelerate their market uptake. Zero-emission vehicles will also include battery electric or fuel cell vehicles.

Scrutiny of this proposal by National Parliaments is currently in progress.

3.3.1. SUMMARY

According to the EU Renewable Energy Directive - Directive 2009/28/EC¹⁴, Ireland is required to achieve a minimum share of 16% of overall energy use (16% RES) by 2020.

In summary, the following observations can be made with regard to the transport sector in Ireland:

- As of 2015, Ireland had achieved 9.1% of its 16% renewable energy target, and stands to be required to pay an estimated €100,000,000-€150,000,000 in fines for each percentage point it falls short of that target.
- As of 2015, 5.7% of Ireland's energy in the transport sector came from renewable sources, whereas the target for 2020 is that 10% of Ireland's energy in the transport sector comes from renewable sources.
- Ireland's non-ETS sector (which includes transport) emissions are projected to be 4% - 6% below 2005 emissions levels by 2020, which would represent a shortfall of 14% - 16% in achieving its required target.
- In a best case scenario and based on current trends, agriculture and transport will dominate non-ETS sector emissions accounting for approximately 74% of emissions in 2020.
- Transport emissions are projected to show strong growth over the period to 2020 with 10% to 12% increase on 2015 levels. This projection reflects the strong economic growth forecasted over the next period.

Regarding renewable transport energy, the biofuels obligation scheme is successfully increasing the share of renewable transport energy according to [Energy Ireland](#) there are concerns that need to be addressed including - "*The target for electric vehicles (i.e. to*

¹⁴ [Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC](#)

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achieve 10% share of the vehicle fleet) – which would require over 200,000 electric vehicles (EVs) on Irish roads by 2020 – has recently been reduced to a target of 50,000 EVs by 2020. This remains a very ambitious target compared with the current numbers of less than 1,723 (by the year 2016, or 2,109 if we include plug in hybrid EVs). There are two issues with this: i) we are clearly not on track to achieve the 50,000 EV target by 2020; and ii) even if we did, the impact on the RES target would be small with EVs contributing less than 0.5% RES.

There are, however, technology options for renewable energy in transport that are available in addition to increasing the blending of biofuels. While electric vehicles have been a significant focus of policy debate (including a target for 2020, grant support, reduced tax and roll-out of infrastructure), the role of compressed natural gas (CNG) vehicles has received less attention. Energy Cork, an industry lead cluster in Cork has prioritised CNG vehicles for freight and public transport in conjunction with supporting the upgrading of biogas to biomethane for injection into the gas network. This builds on collaborative work between Gas Networks Ireland who are rolling out CNG refuelling facilities, University College Cork who are researching biomethane, Cork City Council and customers (including Bus Éireann and Celtic Linen) who have used CNG vehicles. "

4. EVIDENCE FROM COMMITTEE MEETINGS

4.1. HEARINGS AND SUBMISSIONS

4.1.1. STAKEHOLDERS

The Joint Committee held one meeting specifically on this topic on 20 June 2017. The following stakeholders were present:

- Department of Communications, Climate Action and Environment (DCCA);
- Department of Transport, Tourism and Sport (DTTS);
- Sustainable Energy Authority of Ireland (SEAI);
- Commission for Energy Regulation (CER);
- Electricity Supply Board (ESB);
- Gas Networks Ireland (GNI);
- Society of the Irish Motor Industry (SIMI);
- Irish Road Haulage Association (IRHA); and
- Irish EV Owners Association (IEVOA).

The Joint Committee also held a number of other engagements that relate to this topic generally, and material from these engagements has also been used to inform this report. The dates of these engagements and the stakeholders that were present are listed below.

- 09 May 2017: Review of Ireland's Electricity Grid Development Strategy 2017 and the proposed Celtic Interconnector (Ireland - France) in the context of Brexit.
 - Eirgrid.
- 28 February 2017: Clean Energy for all Europeans package and the effect of the proposed withdrawal of the United Kingdom from the European Union (Brexit) on the energy market in Ireland.
 - Commission for Energy Regulation (CER);
 - Sustainable Energy Authority of Ireland (SEAI);
 - Eirgrid; and
 - Electricity Supply Board (ESB).
- 14 February 2017: Clean Energy for all Europeans package and the effect of the proposed withdrawal of the United Kingdom from the European Union (Brexit) on the energy market in Ireland.
 - Department of Communications, Climate Action and Environment.

4.1.2. TRANSCRIPTS

The transcripts of the relevant meetings of the Joint Committee are available [here](#).

The submissions made by stakeholders to the Joint Committee for the relevant meetings are available [here](#).

4.2. MEETING OF THE JOINT COMMITTEE ON COMMUNICATIONS, CLIMATE ACTION AND ENVIRONMENT, 20 JUNE 2017

According to the [National Mitigation Plan 2017](#):

*"Based on current information, a full electrification of the car fleet could represent a feasible option for Ireland, where supporting grid infrastructure is developed. While there are no certainties in predicting future technologies, there are strong indications from car manufacturers and energy market analysts that mass market adoption will happen for electric vehicles. Advances in battery technology, increasing competition in the market and lower vehicle costs would suggest that electrification will be the predominant low carbon choice for transport, particularly for the private car, taxis and commercial vans. We can expect freight to be fuelled by a range of fuel types or combinations of such types as biogas, biofuels, electricity, hydrogen, CNG and LNG. The level of contribution from biofuels is expected to have limits over the long term due to various resource constraints, demand/supply and land use issues."*¹⁵

The Joint Committee agrees that a full electricification of the car fleet could represent a feasible option for Ireland, and has a number of observations, based on the evidence presented to it during this engagement, to make in that regard.

4.2.1. DECISION ON OWNERSHIP OF ASSETS RELATING TO ESB NETWORKS ELECTRIC VEHICLE PILOT SCHEME

In March 2014, the Commission for Energy Regulation (CER) made the decision to allow ESB Networks to proceed with *"its proposed pilot project on Electric Vehicles (EVs) and to recover the associated costs of the pilot project through Distribution Use of System charges."*¹⁶

¹⁵ [Department of Communications, Climate Action and Environment, National Mitigation Plan, July 2017, p. 101.](#)

¹⁶ [Commission for Energy Regulation, ESBN Electric Vehicle Pilot & Associated Assets: Consultation Paper, 14 October 2016, p. \(i\).](#)

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The CER also specified, as part of its decision, that a determination on the ownership of the assets and infrastructure accruing from the pilot scheme would be made following the conclusion of the pilot scheme.¹⁷

Following the conclusion of the pilot scheme, ESB eCars, who conducted the scheme on behalf of ESB Networks, submitted a proposal to the CER on the ownership of the assets and infrastructure. ESB eCars proposed four possible options for the ownership of these assets and infrastructure, and these are as follows:

1. *"Assets become part of the Regulated Asset Base (RAB): in this case future Operating Expenditure would be covered from Distribution Use of System charges¹⁸ and arrangements made for users of the system to purchase electricity from a supplier(s). In addition, the CER may opt to support additional Capital Expenditure to support future expansion;*
2. *Sale of Assets via public tender in a Single Lot to a third party: with potential for a covenant to prevent disaggregation (splitting up into subsequent lots);*
3. *Sales of Assets via public tender in Multiple Lots to third parties: with assets sold to multiple owners; and*
4. *ESB eCars ownership: with no future regulation of user cost recovery tariff and no additional regulatory support. As part of this arrangement, ESB eCars would operate the system on a commercial basis.*¹⁹

The Joint Committee notes that ESB eCars proposes option 4, where ESB eCars takes ownership of the infrastructure and operates it on a commercial basis²⁰ and the Joint Committee agrees that any change to the ownership of assets should be undertaken in the public interest.

This is the sum of options that were proposed to the CER following the conclusion of the pilot scheme. On this basis, it would appear that these options are the most preferred ones in relation to the ownership of the assets and infrastructure.

At the meeting of the Joint Committee on 20 June 2017, a number of witnesses and Members of the Joint Committee alluded to the imminent decision that the CER would be making in relation to the ownership of assets and infrastructure relating to electric vehicles.

17 [Commission for Energy Regulation, Decision on ESB Networks Electric Vehicle Pilot, 05 March 2014, p. 11.](#)

18 [Distribution Use of System charges: a charge which is levied by the Distribution System Operator, i.e. ESB Networks.](#)

19 [Commission for Energy Regulation, ESBN Electric Vehicle Pilot & Associated Assets: Consultation Paper, 14 October 2016, p. \(i\).](#)

20 *ibid*, p.(i).

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A Commissioner from the CER informed the Joint Committee that there is an Article within the proposed recast of the Directive on common rules for the internal market in electricity from the European Commission which suggests that the European Commission, in encouraging the "*Integration of electro-mobility into the electricity network*",²¹ does not envisage that the assets and infrastructure would fit within the Regulated Assets Base, i.e. option 1 as outlined above.²² This assertion is based on Article 33 of this proposal, which states the following:

"Member States may allow distribution system operators [ESB Networks] to own, develop, manage or operate recharging points for electric vehicles only if the following conditions are fulfilled:

(a) other parties, following an open and transparent tendering procedure, have not expressed their interest to own, develop, manage or operate recharging points for electric vehicles;

(b) the regulatory authority has granted its approval."²³

The Head of Smart Energy Technologies in the ESB informed the Joint Committee that since the conclusion of the pilot project on Electric Vehicles, the ESB has been funding the network's operation and maintenance from its own resources. The ESB also informed the Joint Committee that at the request of the CER in late 2015, the ESB suspended the introduction of driver fees for use of the infrastructure and it remains free for users.²⁴ ESB eCars has also written to the CER requesting recovery of the €6,100,000 which has been provided by ESB Group, as the project exceeded the cost of €25,000,000 as foreseen in the original CER decision which allowed ESB Networks to proceed with the pilot project.

The Secretary of the Irish Electric Vehicles Owners' Association (IVEOA) informed the Joint Committee that the Association that he represents does not approve of the unregulated transfer of the public charging network to the ESB. It accepts that the ESB is a competent body to manage the charging network but it does not agree with any unregulated transfer.

The IVEOA also informed the Joint Committee that it believes that the time will come when the commercialisation of the network is appropriate, but that this decision should be made at a future date, especially seeing as there are just over 2,000 battery electric vehicles on Irish roads at present.

21 [European Commission, COM \(2017\)864: Directive of the European Parliament and the Council on common rules for the internal market in electricity \(recast\), Article 33.](#)

22 [Joint Committee on Communications, Climate Action and Environment, Debate: Tuesday, 20 June 2017](#)

23 *Ibid*, Article 33.

24 *Ibid*

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Ultimately, the IVEOA wishes for the State to encourage the growth of electric vehicles usage and to generate policy around that area, and to regard the charger network as a strategic asset for the time being.²⁵

4.2.1.1. OBSERVATIONS

The Joint Committee notes that the CER, now formally known as the Commission for Regulation of Utilities (CRU), recently made a decision in this regard.

The Joint Committee notes that in a Decision Paper published on 06 October 2017, the Commission for Regulation of Utilities decided that:

*"...the infrastructure should not be added to the ESN RAB and the assets should either be sold or maintained by ESN on a commercial basis. Given the current financial value of the EV assets is likely minimal, the CRU considers that, at the current time, the assets should remain in ESN's ownership for a transitional period."*²⁶

The Joint Committee understands this decision to be a realisation of option 4 (listed above), and that the system will operate on a commercial basis under the guise of ESB eCars once the transitional period has ended.

With regard to this decision, the Joint Committee broadly agrees with the views of the IVEOA, as discussed at the meeting of the Joint Committee on 20 June 2017, in that the infrastructure should be regarded as a strategic asset for the time being and that there should be no unregulated transfer of the assets and infrastructure.

Ultimately, while the decision rests with the CRU in this regard, the Joint Committee believes that the prevailing viewpoint is that any changes to ownership of the assets and infrastructure relating to the EV network should be undertaken for the public good.

The Joint Committee believes that the commercialisation of the EV network would not be in the public interest at present, as the Electric Vehicles landscape is still in its infancy. A system whereby consumers are required to pay for charging their vehicles could have a negative effect on the uptake of Electric Vehicles, especially when one considers that the progress in increasing the uptake of Electric Vehicles has been limited to date. For example, 622 of 131,335 newly registered vehicles in 2017 were electric.²⁷

²⁵ *Ibid*

²⁶ [Commission for Regulation of Utilities, Decision Paper: ESN Electric Vehicle Pilot & Associated Assets, 06 October 2017, p. 1.](#)

²⁷ Society of the Irish Motor Industry, Motorstats. Accessed on: 11 January 2017.

4.2.1.2. RECOMMENDATIONS

1. The assets and infrastructure relating to Electric Vehicles should be maintained as a strategic asset for the time being, rather than being commercialised. Any change to the ownership of assets should be undertaken in the public interest. Emphasis should instead be placed on generating policy in the area with a view to increasing the uptake of Electric Vehicles.

2. The Transmission System and Distribution System Operator where applicable, put in place a plan and conduct necessary infrastructure changes to make the electricity grid capable of supporting large scale charging of electric vehicles.

4.2.2. FURTHER MEASURES TO INCENTIVISE THE UPTAKE OF ELECTRIC VEHICLES

The Joint Committee welcomes the recent publication in 2017 of both *the National Mitigation Plan* and *National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland - 2017 to 2030*. The Joint Committee also notes that there are a number of current and proposed measures contained within those two documents which will assist in incentivising the uptake of electric vehicles.

However, it became apparent to the Joint Committee at its meeting on 20 June 2017 that stakeholders feel that more can be done in this regard.

The Head of Smart Energy Technologies in the ESB informed the Joint Committee that adequate infrastructure is necessary but not sufficient condition to drive electric vehicle uptake, and referred to the wider range of policy incentives available in Norway, the United Kingdom and the Netherlands as being responsible for the considerable uptake of electric vehicles in those countries.

The ESB also informed the Joint Committee that it does not believe that the additional policy incentives would need to be in place long-term. The Head of Smart Energy Technologies in the ESB told the Joint Committee that:

"...these measures do not necessarily have to be particularly expensive or in place for a long time. A three-year period with free parking while charging and free or reduced tolls coupled with an information campaign on the

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*benefits of electric vehicles could potentially have a dramatic impact on EV sales. These policy changes, coupled with the rapid advancement in battery and car technology, could drive a major shift in consumer behaviour.*²⁸

The ESB, as part of its submission and as part of the discussion at the meeting of the Joint Committee on 20 June 2017, advised that there a number of further incentives in particular that it feels would incentivise the uptake of electric vehicles.

The ESB believes that free tolls should be introduced for Electric Vehicle users on roads such as the M50, port tunnel and East Link in Dublin, either for a period of three years or until there is an electric vehicle fleet of more than 30,000 cars in Ireland.

The ESB is currently committed to providing free home charging points to those who purchase a new electric vehicle through the Supply of Home Charging Point Grant Scheme.²⁹ However, the Joint Committee notes that this applies to the first 2,000 new electric vehicles purchased.³⁰

As a means of incentivising the uptake of electric vehicles following the conclusion of the provision of free charging points, the Joint Committee notes that the ESB believes that a grant scheme for the provision of home charging points, similar to the Electric Vehicle Homecharge Scheme (EVHS) in the United Kingdom, should be implemented here. This Scheme aims:

*"To help private plug-in vehicle owners offset some of the upfront cost of the purchase and installation of a dedicated domestic recharging unit...Customers who are the registered keeper, lessee or have primary use of an eligible electric vehicle may receive up to 75% (capped at £500, inc VAT) off the total capital costs of the chargepoint and associated installation costs."*³¹

The ESB also informed the Joint Committee that it believes that a measure whereby vehicles with zero carbon emissions would pay zero motor tax should be introduced.

The ESB acknowledged that there is currently reduced motor tax of €120 per annum for Electric Vehicles, but that could this could be further reduced.³²

²⁸ [Joint Committee on Communications, Climate Action and Environment, Debate: Tuesday, 20 June 2017](#)

²⁹ ESB, Terms and Conditions: Pre-qualification Approval for Supply of Home Charge Point.

³⁰ <https://www.esb.ie/our-businesses/ecars/how-to-charge-your-ecar>

³¹ Office for Low Emission Vehicles, Electric Vehicle Homecharge Scheme: Guidance for Customers, November 2016, p. 3.

³² Joint Committee on Communications, Climate Action and Environment, Debate: Tuesday, 20 June 2017

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The ESB also informed the Joint Committee that it believes that a carbon dioxide benefit-in-kind taxation scheme for company vehicles with a reduced rate for electric vehicles should be introduced in Ireland.

In the Netherlands, where nearly 45,000 new plug-in vehicles were registered in 2015,³³ there is a taxation scheme in place whereby income tax has to be paid on the private use of a company car. This is done by imposing a surcharge of 4-25% of the catalogue value on the taxable income. For zero emission cars this percentage is 4%.³⁴

4.2.2.1. OBSERVATIONS

The Joint Committee notes the following incentives which have been introduced following its engagement with stakeholders in June 2017:

1. The introduction of free tolls for electric vehicle users on regional roads in Spain may have contributed to a further uptake of electric vehicles there, with new registrations of both battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV) collectively rising from 1,452 in 2014 to 3,662 in 2016, and this upward trend looks set to continue in 2017.³⁵ On this basis, the Joint Committee believes that the introduction of free or reduced tolls for EV users on certain roads warrants consideration.
2. While the original Supply of Home Charging Point Grant Scheme has ended³⁶ the Joint Committee notes that a grant (up to the value of €600) to support the installation of home charger points for buyers of new and second-hand EVs has been introduced from 1 January, 2018, as part of Budget 2018.³⁷
3. That there is a reduced motor tax of €120 per annum for Electric Vehicles in place at present, but agrees with the ESB that this could possibly be reduced further. In the United Kingdom, where nearly 40,000 new plug-in vehicles (PEV) were registered in 2016,³⁸ zero-emission cars owners are exempt from paying vehicle excise duty, which covers emissions from vehicles.³⁹

33 European Alternative Fuels Observatory, PEV (M1) new registrations in Netherlands, accessed on: 09 October 2017, 13.40.

34 European Alternative Fuels Observatory, Country incentives Netherlands, accessed on: 09 October 2017, 13.45.

35 European Alternative Fuels Observatory, PEV (M1) new registrations in Spain, accessed on: 09 October 2017, 11.50.

36 ESB, Terms and Conditions: Pre-qualification Approval for Supply of Home Charge Point, p.3.

37 <https://www.dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/New-Electric-Vehicle-Home-Charger-Grant-announced-by-Minister-Naughten-comes-into-effect-from-today.aspx>

38 European Alternative Fuels Observatory, PEV (M1) new registrations in United Kingdom, accessed on: 09 October 2017, 12.49.

39 Her Majesty's Revenue and Customs, Policy paper: Vehicle Excise Duty, 08 July 2015.

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4. A new benefit in kind rate of 0% for battery electric vehicles for a minimum of three years has been introduced.⁴⁰
5. The launch of the new Electric SPSV Grant Scheme by the Minister for Transport, Tourism and Sport, Shane Ross, TD. in February 2018. The scheme will support the increased uptake of electric vehicles in the SPSV (Taxi/Hackney/Limousine) sector.

Minister Denis Naughten stated:

"My colleague Minister Ross and I continue to work together to ensure that all new passenger cars sold in Ireland from 2030 onwards will be zero emission vehicles. The Electric SPSV Grant is one of a range of support measures announced by Government last year, aimed at promoting a low-carbon electric vehicle future."

Grants of up to €7000 will be available for battery electric vehicles (BEVs) and up to €3500 for plug-in hybrid vehicles (PHEVs). The Electric SPSV Grant can also be used alongside other EV incentives including the EV Home Charger Grant, which was launched by Minister Naughten on 1 January 2018. The EV Home Charger Grant scheme provides a grant of up to €600 towards the purchase and installation of a home charger unit for eligible EV drivers.

The Minister added: *"It is important that the public is aware of the benefits of EVs and the supports that are available. For this reason, government is funding a Public Engagement Programme which will include the opportunity for people to test drive EVs at roadshows nationwide and public sector and commercial fleet trials. This programme will be rolled out throughout 2018."*⁴¹

6. On 14 May, 2018, the EU Council adopted a revised [Directive 2016/765/EU](#)⁴² on the energy performance of building. One of the most significant implications of the revised Directive includes a revised Article in relation to Electric Vehicle (EV) Charging:

Article 8 is updated to take into account the revised definition of technical building systems. A new paragraph introduces requirements as regards:

(a) infrastructure for electro-mobility; new non-residential buildings with more than ten parking spaces, and non-residential buildings with more than ten parking spaces undergoing major renovation will have to equip one parking space per ten for electro-mobility. This will apply to all non-residential with more than ten

40 ibid

41 <https://www.dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/Minister-Naughten-welcomes-launch-of-Electric-SPSV-Grant-Scheme.aspx>

42 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2016:765:FIN>

parking spaces buildings as of 2025, including buildings where the installation of recharging points are sought under public procurement. New residential buildings with over ten parking spaces, and those undergoing major renovation, will have to put in place the pre-cabling for electric recharging. Member States will be able to choose to exempt buildings owned and occupied by SMEs, as well as public buildings covered by the Alternative Fuels Infrastructure Directive ⁴³ ; ...

4.2.2.2. RECOMMENDATIONS

3. Transport Infrastructure Ireland should introduce an incentive whereby Electric Vehicle users would not be required to pay tolls on certain roads, especially seeing as this appears to have had a positive effect in other jurisdictions.

4. The Government should consider further reducing the rate of motor tax which applies to Electric Vehicles with a view to increasing uptake. Measures such as this have seen success in accelerating uptake of Electric Vehicles in the United Kingdom, and elsewhere. That the government should also consider increasing the current SEAI grant awarded for the purchase of an electric vehicle.

4.2.3. ROLE OF ALTERNATIVE FUELS

During the meeting of the Joint Committee on 20 June 2017, Gas Networks Ireland informed the Joint Committee of the work that it is doing to decarbonise Ireland's transport sector, in particular in the area of commercial transport and public service vehicles.

The Head of Commercial in Gas Networks Ireland informed the Joint Committee that

"...natural gas is the cleanest of fossil fuels. In the context of transport, a CNG vehicle produces 22% less CO₂, 70% less nitrogen oxide, 80% less sulphur dioxide and 99% less particulate matter and operates much more quietly than the diesel equivalent. Natural gas is used in over 2 million vehicles in Europe, comprising mainly commercial vehicles. The fuel is used in the form of compressed natural gas or CNG as it is more commonly known. While Ireland does not have an established history of using CNG, this technology is well established around the world."⁴⁴

⁴³ OJ L 307, 28.10.2014, p. 1

⁴⁴ *Ibid*

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Gas Networks Ireland also informed the Joint Committee that it is focusing its efforts, where Compressed Natural Gas (CNG) is concerned, on larger vehicles such as light and heavy goods vehicles and public transport. These vehicles generally operate for long periods, carry heavy loads and have a high operating range, making them particularly suited to CNG. According to Gas Networks Ireland, these vehicles make up just 3% of the total number of vehicles on the road. However, these vehicles also account for 20% of emissions.

The Irish Road Haulage Association (IRHA), however, informed the Joint Committee that it was not in full agreement with Gas Networks Ireland on the issue of the use of natural gases in vehicles. The IRHA informed the Committee that:

*"Some 70% of CO2 emissions are from cars and light vans, and not from trucks. There is a huge difference between what can be achieved in the case of urban trucks as distinct from long-distance trucks. Long-distance trucks are responsible for 90% of Ireland's exports and it is extremely important that nothing is done to increase the cost base for them by adding in unrealistic options. I am not a technician but I have an issue with the difference between LNG and compressed natural gas, CNG, which has a much shorter range in a truck than LNG. Refuelling stations for gas in the UK are LNG so, while CNG would work extremely well in the local urban environment and over some longer distances within Ireland, it will not work on other longer distances."*⁴⁵

4.2.3.1. OBSERVATIONS

The Joint Committee welcomes the efforts on behalf of Gas Networks Ireland to address the high level of emissions from larger vehicles such as light and heavy goods vehicles and public transport vehicles. However, the Joint Committee also agrees with the Irish Road Haulage Association in that CNG may be appropriate for journeys in the local urban environment but that it may not be appropriate for longer distance journeys, such as to the United Kingdom where both CNG and LNG are in use.⁴⁶

The Joint Committee also notes that, as far as it is aware, most, if not all public service buses in Ireland are fuelled by diesel at present and, as such, more efforts need to be made on the part of the operators to avail of the assistance which is being provided by Gas Network Ireland.⁴⁷

⁴⁵ *Ibid*

⁴⁶ <http://www.ngvnetwork.co.uk/about/cng-lng-filling-sites/>

⁴⁷ <https://www.gasnetworks.ie/business/natural-gas-in-transport/vehicle-fund/>

4.2.3.2. RECOMMENDATIONS

5. Gas Networks Ireland should also focus on the development of Liquefied Natural Gas as an alternative fuel, and not exclusively concentrate on the introduction of Compressed Natural Gas into the Irish Transport Sector. Due regard should also be given to Liquefied Natural Gas so as to avoid placing unrealistic expectations on freight operators, particularly where journeys to the United Kingdom are concerned.

4.2.4. ROLE OF LOCAL AUTHORITIES

In its submission to the Joint Committee for its meeting on 20 June 2017, the Society of the Irish Motor Industry (SIMI) stressed to the Joint Committee that the importance of the role of supportive Local Authorities in improving the value proposition for EVs cannot be overstated.

As evidence of this, the SIMI pointed to the fact that Norway has been the most successful country in relation to delivering a significant portion of the new car market for fully electric cars, totalling 23.5% of new car sales in 2016 and reaching 37% for the month of January 2017.

The SIMI claims that:

"...the role of supportive Local Authorities cannot be overstated for without their support in relation to free parking, free tolls, access to restricted traffic areas and to use bus lanes EVs would not have seen the rate of growth that they have experienced. In Ireland, while other local Authorities such as Waterford, Cork, Kilkenny and Limerick have been very active in this regard, Dublin City Council has not been an active, strong supporter of the EV project to the degree that will be needed if we are to replicate the success of the Norwegian experience."⁴⁸

The Joint Committee notes that the use of bus lanes for EV's in Norway had to be abandoned after 3 years due to complaints from public transport users about delays from clogged bus lanes. During peak times on one road in Oslo EV's made up 85% of traffic in the bus lane.

48 Joint Committee on Communications, Climate Action and Environment, Debate: Tuesday, 20 June 2017

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The IVEOA also gave its views on the role of Local Authorities in this context at the meeting of the Joint Committee on 20 June 2017. The Chairman of the IVEOA informed the Joint Committee that:

"We were told by the ESB on occasion that some local authorities wanted money before they would allow chargers to be installed in their area. They saw this on a completely different basis from everybody else. There is a huge resistance in some Councils, particularly in Dublin, to give over parking spaces for EVs because of the revenue they will lose if these bays are unoccupied some of the time. The joined-up thinking is not there but it needs to be there."⁴⁹

4.2.4.1. OBSERVATIONS

The Joint Committee believes that more effort could be made by Local Authorities to assist in accelerating the uptake of Electric Vehicles. The Joint Committee is of view that Local Authorities have not been sufficiently included in the efforts to date, and that more direction should be given to the Authorities in this regard.

4.2.4.2. RECOMMENDATIONS

6. Direction should be provided to Local Authorities on the Government's vision for Electric Vehicles so as to encourage joined-up thinking.

⁴⁹ Ibid

5. OPPORTUNITIES

The Joint Committee, through its exploration of this topic, has become aware of various opportunities which should perhaps be given due consideration by the relevant authorities. The Joint Committee believes that these opportunities may go some way towards assisting in decarbonising the transport sector. These opportunities are discussed in detail below.

5.1 OBSERVATIONS

The Joint Committee does not believe that sufficient efforts are being made by industry to engage in a move away from fossil-fuelled vehicles.

While the Joint Committee believes that Public Transport Service Operators are performing well with regard to efficient uses of energy due to the numbers of passengers that they transport each day, the Committee also believes that more efforts should be made to reduce Operators' dependence on fossil fuels.

The EU Commission, in its *European Strategy for Low-Emission Mobility*, says the following with regard to public procurement:

"Public procurement is a powerful instrument to create markets for innovative products and it should be used to support take up of such vehicles. Since a significant part of public procurement is undertaken by municipal and local authorities, there is particular potential for public transport vehicles, such as buses, using low-emission alternative energies."⁵⁰

On this basis, the Joint Committee believes that more emphasis should be placed on low-emission alternative energies in public procurement processes, particularly when these processes are concerned with the procurement of Public Transport vehicles.

5.2 RECOMMENDATIONS

7. The State should encourage/incentivise Industry to endeavour to be at the forefront of low-emission alternative energies.

⁵⁰ EU Commission, A European Strategy for Low-Emission Mobility, 20 July 2016, p. 9.

5.1. DIESEL

According to a Taxation Working Paper published by the OECD in 2014:

"Diesel vehicles are widely acknowledged to be more fuel efficient than gasoline vehicles, which is a key reason for the use of diesel fuel by heavy vehicles. Diesel fuel contains approximately 10% more energy per litre than gasoline fuel, with around 35.9 megajoules per litre of diesel and 32.6 megajoules per litre of gasoline. Diesel engines are more efficient at converting this energy into motion than their gasoline counterparts, in part because diesel engines are more efficient in matching air to fuel and can operate efficiently on a wider range of air-to-fuel ratios.

...

A litre of diesel also produces about 18% more CO₂ emissions than a litre of gasoline. As a result, if the per litre tax rates are converted to rates on the basis of energy content or carbon emissions, diesel is taxed more lightly than gasoline on an energy or carbon basis in all OECD countries other than the United States.⁵¹

The information presented above led the OECD to conclude that in order to ensure that the taxation of both fuels is neutral from an environmental perspective; taxes per litre of diesel should be at least equal to the rate applied to a litre of gasoline.⁵²

The European Commission, in a Country Report on Ireland published in 2017, echoed the sentiments above in that the Commission is of the opinion that the differences in the taxation of diesel and gasoline for road use are environmentally unjustified. According to the European Commission:

"In Ireland, diesel is taxed at a lower rate, although it emits more air pollutants. The tax advantage in favour of diesel currently stands at 11 cents per litre. An equal treatment of transport fuels would lead to environmental improvements."⁵³

The Tax Strategy Group, an interdepartmental committee chaired by the Department of Finance, also made reference to the current excise arrangements with regard to petrol and diesel in a paper that it published in July 2017. According to the Tax Strategy Group:

⁵¹ Harding, M. (2014), "The Diesel Differential: Differences in the Tax Treatment of Gasoline and Diesel for Road Use", OECD Taxation Working Papers, No. 21, OECD Publishing, Paris, pp. 12-13

⁵² *Ibid*, p. 29.

⁵³ European Commission, 2017 European Semester: Country Report Ireland, February 2017, pp. 24-25.

"Policy changes to VRT and motor tax in 2008 and 2013 as well as widening the excise gap between petrol and diesel have had the unintended consequence of increasing the up-take of diesel cars by private motorists. In 2016, diesel cars outsold petrol at a rate of more than 2.5 to one. Larger transport vehicles such as heavy goods vehicles, up until recently, had no viable alternative and therefore, enjoyed a reduced rate. During the economic recession the gap between the excise on petrol and diesel increased further offering a further incentive for private motorists to switch to diesel.

The resulting increase in the number of diesel vehicles, particularly in cities, is giving rise to health concerns due to health implications of higher NOX (nitric oxide and nitrogen dioxide), sulphur oxide and particulate matter emissions associated with these vehicles."⁵⁴

5.1.1. OBSERVATIONS

The Joint Committee agrees with views of the Tax Strategy Group that:

"Dieselisation continues to be a growing issue and, if left unaddressed, will result in negative environmental and health outcomes."⁵⁵

The Joint Committee also agrees with the European Commission in that the differences in the taxation of diesel and gasoline for road use is environmentally unjustified, given that diesel emits more air pollutants. It should be noted, that equalisation of excise duty on petrol and diesel would reduce air quality and health impact of diesel pollutants by making that fuel less cost attractive but may result in shift towards petrol powered vehicles again with an increase in CO2 contributions.

5.1.2. RECOMMENDATIONS

8. An equalisation of excise duty on petrol and diesel should be introduced so as to disincentivise the uptake of vehicles with diesel engines. This would have to be implemented in conjunction with other measures such as some of the EV incentives outlined and further incentives to encourage greater shift from the private car to public transport and cycling.

⁵⁴ Tax Strategy Group, Energy and Environmental Taxes – TSG 17/08, July 2017, p. 13.

⁵⁵ *Ibid*, p. 9.

5.2. COMBUSTION ENGINES

The Joint Committee is aware that the authorities in other jurisdictions are currently considering whether to ban combustion engines, with some jurisdictions, such as the United Kingdom⁵⁶ and France,⁵⁷ having already made the decision to do so.

For instance, the authorities in China are currently considering a ban of petrol and diesel cars, citing a rise in urban pollution, climate change and its dependence on imported foreign oil supplies as its concerns with regard to the manufacturing of these vehicles.⁵⁸

China also has the world's largest automobile manufacturing base, producing c. 28,000,000 vehicles overall in 2016, according to the International Organization of Motor Vehicle Manufacturers. This figure includes commercial vehicles as well as cars and represents nearly 30 per cent of the world total of 95,000,000 in 2016.⁵⁹

Norway has also recently taken the decision to disincentivise the uptake of both petrol and diesel cars. According to the Norwegian EV Policy website:

"The Norwegian Parliament have decided on a goal that all new cars sold by 2025 should be zero (electric or hydrogen) or low (plug-in hybrids) emission. This is a very ambitious but feasible goal with the right policy measures. The Parliament will reach this goal with a strengthened green tax system based on the polluter pays principle, not a ban."⁶⁰

The Joint Committee notes that the examples listed above are just a sample of those jurisdictions which have, or intend to, limit or ban diesel and petrol cars in those jurisdictions.

In December 2017, Toyota announced⁶¹ that Toyota's electrified vehicle strategy centers on a significant acceleration in the development and launch plans of hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), battery electric vehicles (BEVs), and fuel cell electric vehicles (FCEVs).

⁵⁶ <https://www.theguardian.com/politics/2017/jul/25/britain-to-ban-sale-of-all-diesel-and-petrol-cars-and-vans-from-2040>

⁵⁷ <https://www.theguardian.com/business/2017/jul/06/france-ban-petrol-diesel-cars-2040-emmanuel-macron-volvo>

⁵⁸ <https://www.ft.com/content/d3bcc6f2-95f0-11e7-a652-cde3f882dd7b>

⁵⁹ <http://www.oica.net/category/production-statistics/2016-statistics/>

⁶⁰ <http://elbil.no/english/norwegian-ev-policy/>

⁶¹ <https://newsroom.toyota.eu/toyota-aims-for-sales-of-more-than-55-million-electrified-vehicles-including-1-million-zero-emission-vehicles-per-year-by-2030/>

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Toyota Europe made a major announcement on 5 March, 2018⁶² at a press conference in Geneva ahead of the Geneva Motor Show regarding Toyota phasing out diesel engines from all its passenger cars (Excluding Land Cruiser, Hilux and Proace. This announcement does not include commercial vehicles where Toyota will continue to offer diesel technology to meet business needs.) in 2018, also indicating that they will focus on more environmentally sustainable vehicles, led by self-charging hybrid electric cars.

Toyota is the first mainstream car brand to take immediate action away from diesel, which includes all current and future generation passenger cars. According to Toyota⁶³, there is a 50% Hybrid mix of Toyota's total passenger car sales indicating that Hybrid is the best technology in the market today to meet customers' needs for more environmentally friendly and better driving experiences. Diesel is now accounting for only 21% of Toyota's car sales."

In a letter to the Joint Committee in March 2018, Toyota's Strategy, Innovation & Corporate Affairs Director, informed the Committee that

"The decision was made due to the success of our hybrid electric cars and the continued high demand being experienced for these cleaner vehicles. In Ireland, diesel passenger car sales have seen a 17% decline year on year between January 2017 and January 2018, and Toyota Ireland's diesel car sales are now at only 20% of our overall mix, compared to 60% just two short years ago. In contrast, hybrid electric cars now represent almost 50% of Toyota Ireland's car sales mix, helping us achieve the No. 1 market position for retail car sales in Ireland for the first two months of 2018."

He also made reference to an announcement by Toyota in March, 2018:-

"Similar to the Irish Government, Toyota too has a vision for a zero emissions society, which we believe can be a reality by 2050. To help achieve this, Toyota's self-charging Hybrid cars, which are in electric mode for up to 55% of the time, should be viewed as a stepping stone for consumers into full electrification. In the end, it's the customer who will decide and they've decided that Hybrid is the start of their journey into electrification, which gives society most of the environmental and health benefits of full electrification but without the compromise".⁶⁴

62 <https://newsroom.toyota.eu/toyota-enters-the-next-phase-of-its-european-powertrain-strategy/>

63 <https://www.toyota.ie/world-of-toyota/articles-news-events/2018/hybrid-sales-Toyota-no-1-in-market.json>

64 *Ibid*

5.2.1.1. OBSERVATIONS

The Joint Committee is cognisant of the fact that many jurisdictions have made, or are in the process of making, the decision to ban combustion engines.

In China, authorities are citing rising urban pollution, climate change and the country's dependence on imported foreign oil supplies as their reasons for doing so. The Joint Committee believes that the situation in China is broadly comparable to the situation in Ireland. However, as well as this, China has the world's largest automobile manufacturing base and, on this basis, China's decision has the potential to greatly impact the automobile market. As stated above, China has just introduced mandatory quotas for zero/low-emission vehicles for car manufacturers from 2019 onwards.

5.2.1.2. RECOMMENDATIONS

9. An investigation into the viability of a ban on combustion engines should be undertaken. As there are very few, if any, automobiles manufactured in the State, and due to the fact Irish consumers mainly drive automobiles that are manufactured elsewhere, there is a risk that Ireland will be affected by bans on other jurisdictions in any event.

10. The Government should consider introducing mandatory quotas for zero/low-emission vehicles for car manufacturers from 2019 onwards.

6. CONCLUSION

Ireland must step up the pace in tackling Climate Change and reducing emissions, not only to avoid large EU fines for not meeting the legally-binding targets agreed under the Paris Agreement 2015⁶⁵, but also to deliver a cleaner environment for all citizens.

The measures contained in the National Mitigation Plan 2017 and the National Policy Framework on Alternative Fuels Infrastructure for Transport in Ireland - 2017 to 2030 will not be sufficient to assist in achieving the binding targets that Ireland faces by 2020. The Irish Government has a vision for a zero emissions society, which can be a reality by 2050, however, a vision without a plan is just a vision.

Implementation of the recommendations of the Joint Committee must be at the forefront of the Minister's agenda in 2018. Introducing mandatory quotas for zero/low-emission vehicles for car manufacturers from 2019 onwards, similar to China would be a good step forward. Implementing an accelerated deployment of electric vehicles between 2025 and 2030 will assist the Government in meeting some emissions targets.

Ireland agreed to its first climate pollution target 20 years ago and a recent EPA report⁶⁶ using "With Existing Measures scenario", states that "transport emissions are projected to **increase** by 18% over the period 2017 – 2020 to 14.55 Mt CO₂eq and 20% over the period 2017-2030 to 14.75 Mt CO₂eq".

The Joint Committee urges the Minister to take immediate action in relation to decarbonising domestic transport: E-cars and implement the recommendations of the Joint Committee contained in this report.

⁶⁵ Paris Agreement, United Nations Framework Convention on Climate Change, 2015

⁶⁶ [EPA, Ireland's Greenhouse Gas Emissions Projections, 2017-2035, May 2018](#)

APPENDIX 1: ORDERS OF REFERENCE

a. Functions of the Committee – (as derived from Standing Orders) [DSO 84A; SSO 70A]

(1) The Dáil may appoint a Select Committee to consider and report to the Dáil on—

(a) such aspects of the expenditure, administration and policy of a Government Department or Departments and associated public bodies as the Committee may select, and

(b) European Union matters within the remit of the relevant Department or Departments.

(2) A Select Committee appointed pursuant to this Standing Order may be joined with a Select Committee appointed by Seanad Éireann for the purposes of the functions set out in this Standing Order, other than at paragraph (3), and to report thereon to both Houses of the Oireachtas.

(3) Without prejudice to the generality of paragraph (1), a Select Committee appointed pursuant to this Standing Order shall consider, in respect of the relevant Department or Departments, such—

(a) Bills,

(b) proposals contained in any motion, including any motion within the meaning of Standing Order 187,

(c) Estimates for Public Services, and

(d) other matters

as shall be referred to the Select Committee by the Dáil, and

(e) Annual Output Statements including performance, efficiency and effectiveness in the use of public moneys, and

(f) such Value for Money and Policy Reviews as the Select Committee may select.

(4) Without prejudice to the generality of paragraph (1), a Select Committee appointed pursuant to this Standing Order may consider the following matters in respect of the relevant Department or Departments and associated public bodies:

(a) matters of policy and governance for which the Minister is officially responsible,

(b) public affairs administered by the Department,

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(c) policy issues arising from Value for Money and Policy Reviews conducted or commissioned by the Department,

(d) Government policy and governance in respect of bodies under the aegis of the Department,

(e) policy and governance issues concerning bodies which are partly or wholly funded by the State or which are established or appointed by a member of the Government or the Oireachtas,

(f) the general scheme or draft heads of any Bill,

(g) any post-enactment report laid before either House or both Houses by a member of the Government or Minister of State on any Bill enacted by the Houses of the Oireachtas,

(h) statutory instruments, including those laid or laid in draft before either House or both Houses and those made under the European Communities Acts 1972 to 2009,

(i) strategy statements laid before either or both Houses of the Oireachtas pursuant to the Public Service Management Act 1997,

(j) annual reports or annual reports and accounts, required by law, and laid before either or both Houses of the Oireachtas, of the Department or bodies referred to in subparagraphs (d) and (e) and the overall performance and operational results, statements of strategy and corporate plans of such bodies, and

(k) such other matters as may be referred to it by the Dáil from time to time.

(5) Without prejudice to the generality of paragraph (1), a Select Committee appointed pursuant to this Standing Order shall consider, in respect of the relevant Department or Departments—

(a) EU draft legislative acts standing referred to the Select Committee under Standing Order 114, including the compliance of such acts with the principle of subsidiarity,

(b) other proposals for EU legislation and related policy issues, including programmes and guidelines prepared by the European Commission as a basis of possible legislative action,

(c) non-legislative documents published by any EU institution in relation to EU policy matters, and

(d) matters listed for consideration on the agenda for meetings of the relevant EU Council of Ministers and the outcome of such meetings.

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(6) Where a Select Committee appointed pursuant to this Standing Order has been joined with a Select Committee appointed by Seanad Éireann, the Chairman of the Dáil Select Committee shall also be the Chairman of the Joint Committee.

(7) The following may attend meetings of a Select or Joint Committee appointed pursuant to this Standing Order, for the purposes of the functions set out in paragraph (5) and may take part in proceedings without having a right to vote or to move motions and amendments:

(a) members of the European Parliament elected from constituencies in Ireland, including Northern Ireland,

(b) members of the Irish delegation to the Parliamentary Assembly of the Council of Europe, and

(c) at the invitation of the Committee, other members of the European Parliament.

(8) A Select Committee appointed pursuant to this Standing Order may, in respect of any Ombudsman charged with oversight of public services within the policy remit of the relevant Department or Departments, consider—

(a) such motions relating to the appointment of an Ombudsman as may be referred to the Committee, and

(b) such Ombudsman reports laid before either or both Houses of the Oireachtas as the Committee may select: Provided that the provisions of Standing Order 111F apply where the Select Committee has not considered the Ombudsman report, or a portion or portions thereof, within two months (excluding Christmas, Easter or summer recess periods) of the report being laid before either or both Houses of the Oireachtas.

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b. Scope and Context of Activities of Committees (as derived from Standing Orders) [DSO 84; SSO 70]

- 1) The Joint Committee may only consider such matters, engage in such activities, exercise such powers and discharge such functions as are specifically authorised under its orders of reference and under Standing Orders.
- 2) Such matters, activities, powers and functions shall be relevant to, and shall arise only in the context of, the preparation of a report to the Dáil and/or Seanad.
- 3) The Joint Committee shall not consider any matter which is being considered, or of which notice has been given of a proposal to consider, by the Committee of Public Accounts pursuant to Standing Order 186 and/or the Comptroller and Auditor General (Amendment) Act 1993.
- 4) The Joint Committee shall refrain from inquiring into in public session or publishing confidential information regarding any matter if so requested, for stated reasons given in writing, by—
 - a) a member of the Government or a Minister of State, or
 - b) the principal office-holder of a body under the aegis of a Department or which is partly or wholly funded by the State or established or appointed by a member of the Government or by the Oireachtas:

Provided that the Chairman may appeal any such request made to the Ceann Comhairle / Cathaoirleach whose decision shall be final.
- 5) It shall be an instruction to all Select Committees to which Bills are referred that they shall ensure that not more than two Select Committees shall meet to consider a Bill on any given day, unless the Dáil, after due notice given by the Chairman of the Select Committee, waives this instruction on motion made by the Taoiseach pursuant to Dáil Standing Order 28. The Chairmen of Select Committees shall have responsibility for compliance with this instruction.

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**APPENDIX 2: MEMBERSHIP OF THE JOINT COMMITTEE ON
COMMUNICATIONS, CLIMATE ACTION AND ENVIRONMENT**

Member	Party
Deputies:	
Hildegarde Naughton [Chairman]	<i>Fine Gael</i>
James Lawless [Vice Chairman]	<i>Fianna Fáil</i>
Timmy Dooley	<i>Fianna Fáil</i>
Michael Lowry	<i>Rural Independent Group</i>
Eamon Ryan	<i>Social Democrats - Green Party Group</i>
Bríd Smith	<i>Solidarity - People Before Profit</i>
Brian Stanley	<i>Sinn Féin</i>
Senators:	
Terry Leyden	<i>Fianna Fáil</i>
Tim Lombard	<i>Fine Gael</i>
Michael McDowell	<i>Independent Group</i>
Joe O'Reilly	<i>Fine Gael</i>

- The Dáil Committee of Selection nominated the members of the Dáil Select committee on 15 June 2016 and the report nominating Deputy Hildegarde Naughton to be chairman of the committee was agreed by the Dáil on Thursday 16 June 2016.
- The Seanad Committee of Selection report on membership of the Seanad select committee was agreed by the Seanad on 21 July 2016.
- This committee's name was changed from the Joint Committee on Communications, Climate Change and Natural Resources on Thursday 29 September 2016.
- Deputy James Lawless was elected vice chairman of the joint committee on Tuesday 28 February 2017.

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Dáil Select Committee on Communications, Climate Action and Environment

 <p><u>Deputy Timmy Dooley</u> <i>Fianna Fáil</i></p>		 <p><u>Deputy James Lawless</u> <i>Fianna Fáil</i> [Vice Chairman]</p>
 <p><u>Deputy Michael Lowry</u> <i>Rural Independent Group</i></p>	 <p><u>Deputy Hildegarde Naughton</u> <i>Fine Gael</i> [Chairman]</p>	 <p><u>Deputy Eamon Ryan</u> <i>Social Democrats</i> - <i>Green Party Group</i></p>
 <p><u>Deputy Bríd Smith</u> <i>Solidarity - People Before Profit</i></p>		 <p><u>Deputy Brian Stanley</u> <i>Sinn Féin</i></p>

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Seanad Select Committee on Communications, Climate Action and Environment



[Senator Terry Leyden](#)
Fianna Fáil



[Senator Tim Lombard](#)
Fine Gael



[Senator Michael McDowell](#)
Independent Group



[Senator Joe O'Reilly](#)
Fine Gael