The Role of Public Bodies in Driving Ireland's Decarbonisation

Examination of the Mandates of the Electricity Supply Board, Gas Networks Ireland and the Commission for Regulation of Utilities

Friends of the Earth

CITIZENS FOR FINANCIAL JUSTICE

Funded by the European Union

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of Citizens for Financial Justice and Friends of the Earth and do not necessarily reflect the views of the European Union.

This report was researched and written by Jerry Mac Evilly and commissioned by Friends of the Earth. We would like to thank Aideen O Dochartaigh, Tara Connolly, Meaghan Carmody, Sadhbh O'Neill, and Kate Ruddock, for their input and comments on a draft.

September 2020

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1 Introduction

This research report examines the roles of three key public bodies in driving progress on Ireland's decarbonisation objectives and mitigation obligations. The Electricity Supply Board, Gas Networks Ireland and the Commission for Regulation of Utilities are leading state bodies with responsibilities related to infrastructure and investment in Ireland's energy sector. This report is concerned with how the mandates of these bodies can be revised in order to better enable a transition to a decarbonised society in line with the principles of climate justice and sustainable development. The "mandates" of these bodies refers to the core purpose and remit of the organisation as laid down in primary legislation (and corporate documents) which directs and circumscribes the organisations central functions.

The three bodies in question have a diverse range of functions with differing capacities, resources and organisational structures. However, the three share a broad common goal in seeking to ensure the safe, secure and cost-effective delivery of energy to Irish citizens. While the Electricity Supply Board (ESB) and Gas Networks Ireland (GNI) are state-owned companies, the Commission for Regulation of Utilities (CRU) is distinct in that it is independent state authority tasked with ensuring secure and sustainable electricity and gas supplies at a reasonable cost through economic regulation of ESB and GNI businesses and assets. Particular functions and investment decisions by the ESB and GNI are assessed and approved (or disallowed) by the CRU. In the case of the ESB and GNI, while their structure has changed considerably over the decades, the maintenance and expansion of their infrastructure have notably facilitated the development of secure electricity and gas systems in Ireland. Largely in response to obligations under EU Directives, these organisations have also played a key role in supporting the integration of increasing amounts of renewable energy.

Naturally there is a range of public bodies which are integral to delivering Ireland's decarbonisation objectives. This study does not seek to assess the roles of other bodies, or the difficulties related to the fragmentation of climate policy-making across different bodies. [1] It is limited to a focus on the mandates and functions of the Electricity Supply Board, Gas Networks Ireland and the Commission for Regulation of Utilities and examines how they should be strengthened in order to ensure these actors operate and plan in a manner consistent with climate obligations and sustainable development objectives. The extent to which these specific bodies are supporting Ireland's decarbonisation must be investigated for several reasons. The current trajectory of fossil fuel production and consumption will lead to greenhouse gas emissions far in excess of Paris Agreement temperature limits. [2] Globally oil and gas are projected to exceed carbon budgets, as countries invest in fossil fuel infrastructure that "locks in" oil and gas use.[3] Analysis has shown that at current levels of fossil fuel consumption, EU states have less than a decade before they have exhausted their Paris-aligned carbon budget.[4] In the case of fossil gas on which Ireland is highly dependent, it is extremely uncertain that technologies to decarbonise fossil gas will be feasible and sufficient to ensure Paris Agreement commitments are fulfilled.[5] Fossil gas infrastructure and systems are currently key components of the energy and heating sectors in Ireland and it is important that any updating of these bodies' mandates is not simplistically and erroneously framed as an attempt to immediately end the safe operation of fossil gas assets. Rather, it is necessary to prevent the development of unnecessary long-lasting carbon-intensive fossil gas infrastructure which may 'lock-in' high emissions and undermine investment in energy conservation and renewable generation. Fossil gas investments will also face increasing risks as carbon budgets are

further restricted, leading to substantial risks of stranded assets.[6] This report examines both investment plans and decisions of GNI and ESB, and supports for fossil fuels which continue to subsidise fossil gas investment and usage.[7]

All three bodies address decarbonisation in their strategies or mission statements in the form of "low-carbon" commitments. Their functions in certain instances have regard to climate and sustainability issues. However, their respective mandates do not specify compliance with national and international climate law or address principles of climate justice or sustainable development. A general requirement to take such areas into account is provided for under the 2015 Climate Act[8]. The CRU is also legally obliged to address climate and sustainability considerations in a number of its functions. The fact that these bodies are not mandated to ensure decarbonisation in accordance with climate and sustainability obligations is significant in that it has the potential to allow for continued and excessive investment in fossil gas-fired generation and associated infrastructure. Climate legislation in other jurisdictions, in particular Scotland, contains stronger obligations with regards to the role of public bodies.

In relation to decision-making on fossil gas infrastructure, there is a major need for state authorities to examine and critique considerations of security of energy supply which are central to the functions of three bodies in question. It is important to have independent assessments regarding for whom, at what cost and for what purposes such security is deemed necessary. Independent assessment is necessitated due to the fact that analysis of generation capacity and network infrastructure generally takes as a starting point that all long-term and additional electricity and gas demands must be met, without adequate consideration of the impact on decarbonisation objectives and related risks of stranded asset. Analyses of energy security, generation adequacy and energy demand which fail to address these issues and risks may have the effect of supporting or facilitating fossil gas-related investments and subsidies.

Both GNI and the ESB have produced reports concerning low-carbon pledges and strategies in recent years. This step may be seen as a potentially initial positive step in that both GNI and the ESB have sought to report on mitigation and sustainability issues across their respective organisations. However, it is important that such reporting amounts to more than a professionally packaged set of commitments and Corporate Social Responsibility initiatives. The use of indicators and targets that are based on efficiencies or arbitrary baselines, instead of absolute emissions reductions, national and international climate targets, as well as the Agenda 2030 framework, is at best cherry-picking and at worst a misleading approach at odds with the climate science and Ireland's obligations. The planned introduction of a common Climate Action Mandate on public bodies may allow for progress in this area. However, it appears that changes in legislation are required in order to ensure transparent reporting on absolute GHG emissions across their activities, proper assessment and disclosure of climate risks, as well as on necessary mitigation measures.

Given these various challenges and deficiencies, this study recommends that amendments should be made in particular to the 2015 Climate Act, as well as to the primary governing legislation of each three bodies - the Electricity Regulation Act 1999, the Gas Act 1976, and the Electricity (Supply) Act 1927. It also puts forward necessary changes to planning, reporting and decision-making functions of the three respective bodies. The report firstly addresses relevant national climate policy and legislation with regard to public bodies. It subsequently highlights relevant developments in other jurisdictions and examines how principles of climate justice and sustainable development have been defined and integrated in legislation. Information is also provided on the mandates and current functions of the three bodies. Investment in fossil fuel infrastructure and fossil fuel subsidies is subsequently addressed. The report also addresses obligations with regards to emissions reporting, sustainability, as well as due diligence procedures. Building on this analysis, this report makes recommendations concerning revision of relevant legislation and amendments of respective mandates and functions.

2 National Legislation and Policy

2.1 2015 Climate Act

The 2015 Climate Action and Low Carbon Development Act is the only primary legislation which places overarching obligations regarding climate action on public bodies. These provisions are relatively weak in that the Act notes that public bodies (including the ESB, GNI and CRU) must 'have regard to' the most recent approved National Mitigation Plan, the National Transition Objective, as well as state and sectoral adaptation plans, in the performance of their functions. The Minister for Climate Action may direct such bodies to prepare a report on their progress and to take measures to ensure compliance with these actions. [9] It is also noted that, as part of the preparation of climate plans and in order to meet the National Transition Objective, the Government shall '*have regard to*' climate justice, however this term is not defined in the Act.[10] The Government is also required to '*take account of…the need to promote sustainable development*' as part of the preparation of the National Mitigation Plan, as well as the adaptation framework and sectoral plans." [11]

The Government published a draft heads of a bill to amend the Climate Act in January 2020. It does not raise specific amendments concerning the provisions on public bodies or climate justice. It notes that local government will be required to prepare climate action plans in order to outline measures in line with the [Long Term] Strategy, the adaptation framework, the Climate Action Plan and the national transition objective. It retains "climate justice" as one element which the Minister must have regard to when producing relevant strategies and plans under the Act. The production of a new National Long Term Climate Strategy must take account of "the need to promote sustainable development". [12]

2.3 Climate and Energy Policy

The 2015 Paris Agreement puts an obligation on states to take rapid action to hold the global temperature increase to well below 2°C and take efforts to limit the increase to 1.5°C. In order to achieve this objective, States are obliged to produce progressively more ambitious climate pledges. Obligations on Ireland related to such pledges under the Paris Agreement are primarily given effect through EU law. The EPA and SEAI have noted that Ireland is not on track to meet its 2020 EU non-ETS emissions reduction target or its 2020 renewable energy target and 2030 targets are now at risk. [13] It should be noted that even these existing targets are not in line with Paris Agreement objectives. However, EU legislation is to be significantly enhanced in the coming years. The proposed new European Climate Law under the new EU Green Deal seeks to put in place a new binding commitment to net-zero emissions by 2050. It is expected that the EU's existing 2030 emissions target will be increased from 40% to a more ambitious 50% to 55% target with relevant climate and energy legislation revised and enhanced. This increase in ambition will likely result in increases to existing Member States emissions and renewables targets. This entails the need for even earlier and greater mitigation measures than that outlined in the 2019 Climate Action Plan. It should also be noted that the new proposed Regulation to give effect to the new Climate Law requires the Commission in setting 2050 climate neutral trajectory to take account of not only cost considerations but also the Paris Agreement, environmental effectives and latest reports of the IPCC. [14]

The EU Clean Energy Package, including the 2018 EU Renewable Energy Directive, is also pertinent in that it introduces obligations on States to ensure electricity customers have greater information and control over the electricity they use. The 2018 Governance Regulation obliges states to produce a 10-year integrated National Energy and Climate Plan (NECP) in order to meet the EU's energy and climate targets for 2030. It requires Member States to submit by the start of 2020 national long term strategies to 2050. Ireland's draft NECP was produced for consultation in December 2018. A summary of primary functions, as well as renewable and energy security initiatives, key policies and infrastructure projects are provided in the draft NECP. While information on the three bodies in question is provided, it is surprising that the ESB Networks and the CRU but not Ervia, GNI or ESB Generation and Trading are noted in the 1.*2 iv. Administrative structure of implementing national energy and climate policies*. Neither Ireland's NECP nor Long-Term Strategy has since been finalised; at the time of writing Ireland is the only EU Member State not to finalise and submit its NECP to the European Commission.

In relation to Irish policy, the 2014 National Policy Position sets out that the state will seek to achieve an aggregate reduction in CO2 emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, building and transport sectors; and in parallel, achieve carbon neutrality in the agriculture and land-use sectors. The 2015 Climate Action and Low Carbon Development Act provides for the preparation of national mitigation plans in order to specify policy measures to reduce GHG emissions. The first National Mitigation Plan produced in 2017 was superseded by the Government's Climate Action Plan of June 2019 (see Section 2.4 below) which committed to the preparation of new 5 year carbon budgets and new sectoral targets. As part of the Climate Action Plan, the Government also committed to introducing a new long-term objective based on the achievement net zero emissions by 2050.

The 2015 Energy White Paper also identified a range of actions to reduce Ireland's energy-related carbon emissions by between 80% and 95%, compared to 1990 levels, by 2050. It includes information regarding a decarbonisation pathway to reduce GHG emissions by 80-95% by 2050 with fossil fuels accounting for19-30% of final energy demand in Ireland. However, it also subscribes to the view of fossil gas as bridge fuel noting a gradual shift from peat and coal to fossil gas such it would '*remain significant elements of Ireland's energy supply between now and 2035*.' [15]

2.4 2019 Climate Action Plan and Climate Action Mandate

Building on several of the recommendations noted in the report of the Joint Oireachtas Committee on Climate Action[16], the Government's 2019 Climate Action Plan also includes a range of new actions and requirements specifically concerning public bodies. The EPA project that if this plan is fully implemented, emissions will decrease by an annual average reduction of 3% over the next 10 years. [17] The actions most pertinent to public bodies in the Plan is a new obligation on public bodies to produce a 'Climate Action Mandate' (Action 147) with requirements and timelines (to be in place by the end of 2020) which 'may include': collective mitigation and energy efficiency targets in the context of an overall 2050 carbon neutrality objective; reporting on emissions and sustainability; green procurement procedures; new carbon abatement measures and investment; environmental accreditation; employee and supplier initiatives. Two of these potential requirements as part of the Climate Action Mandate are particularly relevant to the functions of GNI, ESB and CRU:

- *'ensuring our policies and practices do not lock us into high carbon pathways and that we carbon-proof major decisions and programmes on a systematic basis, moving over time to a near-zero carbon investment strategy*

- *'Large public bodies may be required to commit to…adopting a near-zero carbon investment strategy where feasible' (to be examined in 2019 and delivered in Q1 2020)*

The Climate Action Plan also puts forward accountability measures noting that a new Climate Action Delivery Board within the Department of An Taoiseach and ultimately Government will oversee the implementation of the mandate with technical support provided by the SEAI, and that a specific framework will be developed together with NewERA to address the role of semi-states in advancing climate objectives (to be delivered in Q1 2020).

The Climate Action Plan addresses mitigation measures across the energy sector. It introduces a commitment to 70% renewable generation by 2030 and includes a large range of actions to be delivered by the ESB, GNI and the CRU. This study does not seek to provide an overview of all such actions. It is worth noting that, outside the Climate Action Mandate, the 2019 Plan does not provide for substantive changes to their overarching mandates. However, it includes several other actions (with deadlines), to be progressed by the three bodies in question, which are aimed at furthering the state's decarbonisation objectives. [18]

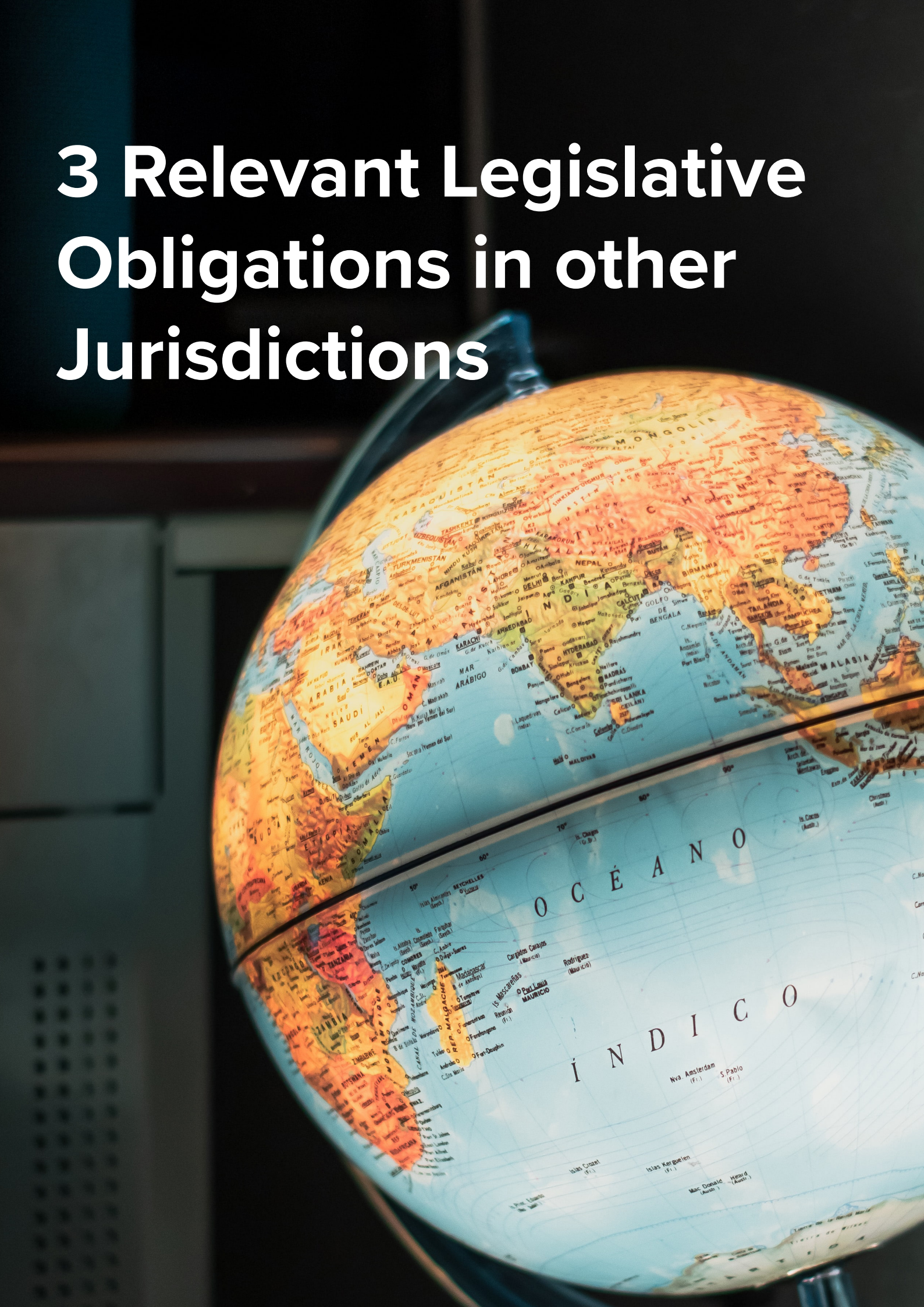
2.5 Governance of Semi-State Bodies

The Department of Public Expenditure and Reform's *Code of Practice for the Governance of State Bodies* sets out accountability requirements and procedures for state bodies. [19] It is noted that accountability is underpinned by an oversight agreement between the relevant Minister/parent Department and the State body, which in the case of commercial State bodies (such as the ESB) is the Shareholder Letter of Expectation. For other State bodies the oversight agreement is a written statement which addresses the terms of the parent Departments relationship with the state body. The Code of Practice sets out the contents of oversight agreements which should include 'arrangements for oversight, monitoring and reporting on conformity with Government policy'. The Chairperson of a State body is also obliged to submit a report to the relevant Minister in the form of a confidential letter which is to address compliance with relevant Government policy. It should be noted that the 2019 Climate Action Plan states with regards to oversight of Climate Action Mandates for semi-state bodies, that '*we will examine the potential role of the Shareholder Letter of Expectation as the appropriate way to frame the necessary mandate*'. It seems appropriate that the commitment is strengthened such that the Letter of Expectation to the ESB is amended to reflect obligation(s) in accordance with Ireland's climate obligations.

2.6 2020 Programme for Government

At the time of writing, a new coalition Government between Fianna Fáil, Fine Gael and the Green Party has just been formed. The agreed Programme for Government between the three parties commits the Government to 'a*n average 7% per annum reduction in overall greenhouse gas emissions from 2021 to 2030 (a 51% reduction over the decade) and to achieving net zero emissions by 2050'*, as well as to the introduction new amending climate legislation within the first one hundred days of office. The new Programme specific includes commitments relating to greater prioritisation of climate action across Government bodies. These commitments do not specify changes to the mandates of the bodies in question (although changes to mandates of Bord na Móna and Coillte are noted). The Programme for Government re-states important provisions of the Climate Action Plan, including adoption of a climate mandate. It notes a public sector decarbonisation target of at least 50%, the production of a Public Sector Decarbonisation strategy for 2030 (which is to address energy efficiency and performance in the sector), and a review of structure and operations of state agencies responsible for delivery of increased targets. It also contains several relevant commitments relating to decarbonisation which are of direct relevance to our three public bodies. [20]

3 Relevant Legislative Obligations in other Jurisdictions



3.1 Scotland

The Climate Change (Scotland) Act 2009 is considerably stronger than its Irish equivalent with regard to obligations on public bodies. It specifies that they must in exercising their functions act "*in the way best calculated to contribute to the delivery of the targets…*" and "*in the way best calculated to help deliver any programme"*. It also confers power on Ministers to impose climate change duties on public body/ies through an order by way of statutory instrument. [21] With regard to these duties, the Minister must give guidance to relevant public bodies on their duties and may also bodies to prepare reports on compliance (Articles 45 and 46). Under the Act the Minister may designate a monitoring body with extensive powers, including to undertake investigations into compliance and acquire any information necessary from the relevant public body (Articles 47 to 51).

3.2 New Zealand

The New Zealand 2019 Climate Amendment Act introduces a 2050 net zero emissions reduction target (with a separate target for biogenic methane) and establishes a new independent Climate Change Commission to recommend 5-yearly carbon budgets. [22] The Act provides that public bodies may take into account the 2050 target, as well as emissions budgets and plans but it is noted that these are 'permissive considerations' and there is no express obligation on public bodies to carry out their functions in accordance with these elements.

3.3 Spain

Spain's proposed new Climate Change and Energy Transition Law published in May 2020[23] aims to cut emissions to net zero by 2050. It contains several positive elements with regard to decarbonisation, including:

- A ban new coal, oil and gas extraction projects
- To end direct fossil fuel subsidies
- New fossil fuel subsidies in form of tax benefits must be justified for reasons of social, economic interest or due to the absence of technological alternatives
- A proposed timeframe for the state to dispose of assets in companies or entities that include the extraction, refining or processing of fossil energy products
- A Just Transition Strategy to be prepared by Government every 5 years in conjunction with relevant regional authorities and social partners
- Financial institutions to publish decarbonisation objectives for loan and investment portfolios from 2023.

4 Climate Justice and Sustainable Development

The following section raises different conceptions of the principles of climate justice and sustainable development and highlights their application in legislation. It is important to recall that while the 2015 Climate Act includes obligations on Government to have regard to 'climate justice' and "sustainable development", it does not define these terms. It should also be noted that this report raises the use of climate justice and sustainable development in primary legislation. However, relevant legal protections pertaining to these principles may be found in several sources across international human rights law and environmental law, constitutional rights and in judicial proceedings. For example, the UN Environmental Programme noted in 2016 that a right to a healthy environmental is enshrined in over 100 constitutions, and has been enforced in courts of at least 44 nations. [24]

4.1 Climate Justice – Definitions and Application

The principle of climate justice expands discussions of climate change from purely a technical perspective of responding to rising GHG emissions and environmental impacts to a human rights-based approach which recognises the need for accountability, equality and protection of the most vulnerable. An overview of definitions of climate justice is provided in the subsequent paragraphs:

- The Mary Robinson Foundation - Climate Justice has developed a set of "*Principles of Climate Justice". It also defines climate justice as a principle which 'links human rights and development to achieve a human-centred approach, safeguarding the rights of the most vulnerable people and sharing the burdens and benefits of climate change and its impacts equitably and fairly*.' [25]

- The Office of the UN High Commissioner for Human Rights: '*Climate justice requires climate solutions grounded in human rights, equality and non-discrimination; the participation of those most affected; the equitable sharing of costs burdens and benefits; accountability; and rule of law. This must include accountability for polluters, redress for victims, and protection of the vulnerable in all prevention, response, mitigation and remedial measures.' [26] It also notes that: 'Climate justice requires that climate action is consistent with existing human rights agreements, obligations, standards and principles. Those who have contributed the least to climate change unjustly and disproportionately suffer its harms. They must be meaningful participants in and primary beneficiaries of climate action, and they must have access to effective remedies.*' [27]

- International Bar Association Climate Change Justice and Human Rights Task Force: ''*To ensure communities, individuals and governments have substantive legal and procedural rights relating to the enjoyment of a safe, clean, healthy and sustainable environment and the means to take or cause measures to be taken within their national legislative and judicial systems and, where necessary, at regional and international levels, to mitigate sources of climate change and provide for adaptation to its effects in a manner that respects human rights*.'' [28]

It is important to note that there may be considerable room for manoeuvre even where such a definition is applied in national legislation. A requirement to merely have to take this definition into account may not ensure respect for the principle in a meaningful fashion. General references may make such an obligation difficult to enforce in courts in a meaningful sense. Taking such limitations into account, this report briefly summarises how the principle of climate justice may be addressed in legislation in different ways, even

where the specific term is not used. The principle may be supported in legislation by integrating other policies, rights and principles, such as workers' rights and support for a just transition for relevant industries; international development and aid and support for vulnerable communities, and/or with national equality legislation. With regards to human rights law, the principle of climate justice may be usefully addressed through references to specific obligations/treaties under international human rights law, such as the European Convention on Human Rights, the International Convention on Civil and Political Rights and the International Covenant on Economic Social and Cultural Rights (and associated protocols). There is a considerable body of analysis on the links between obligations in these treaties and climate change. [29] A variety of approaches are evident in proposed and current legislation, as outlined below.

Green Party 2018 Just Transition Bill

The Green Party's 2018 Just Transition (Worker and Community Environmental Rights) Bill, which was not the subject of detailed examined by the Oireachtas addresses several principals pertaining to climate action and biodiversity protection. It seeks to establish a new Just Transition Commission to support workers impacted by the phase out of fossil fuels. [30]

It notes that "The functions of the Commission shall be implemented having regard to the following principles: [inter alia]

- the principle of just transition which "means the bringing together of workers, communities, employers and government in social dialogue to drive the concrete plans, policies and investments needed for a fast and fair transformation to a low carbon economy and to ensure that employment jobs in the new economy are as decent and as well-paid as those left behind"

- climate justice, which is defined as "a human-centred approach to climate change, safeguarding the rights of the most vulnerable and sharing the burdens and benefits of climate change and its resolution equitably and fairly"

- inter-generational equity which "means that the present generation should maintain or enhance the healthy diversity and productivity of the environment for the benefit of future generations"; and

- The precautionary principle which means that "a decision should not rely on a lack of full scientific certainty as a reason to postpone appropriate measures to prevent serious or irreversible loss or damage as a result of climate change"

Scotland

Under Scotland's Climate Change (Emissions Reduction Targets) (Scotland) Act 2019[31] , in preparing 5 year plans to reach a net zero emissions target (by 2045) Scottish Ministers 'must have regard to' the climate justice principle and just transition principles (see below). Article 35(4). The climate justice principle is defined as "*the importance of taking action to reduce global emissions of greenhouse gases and to adapt to the effects of climate change in ways which— (a) support the people who are most affected by climate change but who have done the least to cause it and are the least equipped to adapt to its effects, and (b) help to address inequality*" (Article 35 (23)).

USA

The Democratic Party's 2019 Green New Deal resolution[32] does not specify the principle of climate justice. However, it roots Government action on climate change in the context of issues of social justice and inequality. It underlines that climate change is exacerbated by 'systemic racial, regional, social, environmental, and economic injustices'. It highlights that the duty of the Federal Government in creating a Green New Deal is 'to *promote justice and equity by stopping current, preventing future, and repairing historic oppression*' against marginalised communities and peoples. It also notes that in achieving Green New Deal goals, obtaining the free, prior, and informed consent of indigenous peoples, and honouring their rights, are essential

Denmark

In December 2019, Denmark agreed a new Climate Act which introduces an emissions reduction target of 70 percent by 2030 and net zero by 2050 and strengthens the powers of their national climate advisory council. The Act does not refer to climate justice however it integrates climate action into international development and trade policy. The Act includes an obligation to deliver on climate finance commitments. It also requires the production of a report on the international impacts of Denmark's climate action, including the effects of Danish imports and consumption, as well as a strategy on how foreign, development and trade policy is supporting international climate action. [33]

Wales

In relation to intra-generational equity, Wales which has established a Commissioner for Future Generations and has in place a Well-being of Future Generations Act which requires public bodies to consider long-term social, economic, environmental and cultural impacts of their decisions on people and communities in Wales. [34]

Bolivia

Bolivia's Rights of Mother Earth Law 2010 recognizes 'Mother Earth' as a political subject enshrined with the rights. The 2012 the Mother Earth Law and Integral Development to Live Well, Law includes the concept 'climate justice' and is defined by the ability of Bolivian citizens to 'Live Well', especially those who are most vulnerable to climate change. [35]

4.2 Sustainable Development – Definitions and Application

The principle of sustainable development comprises social, environmental, cultural and economic dimensions. It is widely invoked by states, particularly in the context of public policies relating to climate and the environment. It is has been the focus of considerable focus and debate at UN level, leading to the global framework for international cooperation, the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs), which were agreed by states in 2015. [36] However, Agenda 2030 does not set out a definition of the principle and it is not defined in international law. The most frequently quoted definition is from the 1987 World Commission on Environment and Development 'Bruntland Commission' Report: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." UNESCO notes that 'sustainability is a paradigm … in which environmental, societal and economic considerations are balanced in the pursuit of an improved quality of life.' Sustainable development refers to the many processes and pathways to achieve these interlinked objectives. [37]

SDG implementation has not been integrated into Irish law. However, in 2018 the Government produced a National Implementation Plan on the Sustainable Development Goals. This includes a definition of sustainable development in line with that provided by UN bodies. The National Implementation Plan refers to commitments to include relevant SDG targets in all new Departmental Statements of Strategy and to consider options for Departments to tag items of departmental expenditure which support specific SDGs. It notes the future preparation of a new overarching Sustainable Development Strategy and also provides an overview of legislation and policies relevant to the target of ensuring effective, accountable and transparent institutions at all levels (SDG target 16.6).[38] In July 2020, it was agreed that Select Oireachtas Committees will address progress on SDG implementation as part of their work programme. [39]

The Covid-19 pandemic has shown that Agenda 2030 and SDGs are now more relevant than ever. Although Covid has made achievement of the SDGs even more challenging, implementation and integration of the SDG framework offers a means of increasing resilience. The climate and biodiversity emergencies necessitate the same urgent action, commitment and cooperation across state actors that have been evident in the Government's response to the Covid-19 health crisis. As noted recently by NESC, 'urgent environmental sustainability measures require action, but they can also drive the recovery'. They emphasise that investments to mitigate impacts of the pandemic should be aligned with climate and sustainability goals. [40]

The following paragraphs address legislation in other jurisdictions which incorporate the principle of sustainable development. An important consideration in reflecting on the strength of references is to what extent and in what manner the state/relevant authority may be held accountable for respecting this principle. Sustainable development is a broad term which may make compliance with this principle more challenging. Equally, requirements which merely provide for states to promote and support the principle may have limited effect on enhancing the functions of public bodies. However the 17 Sustainable Development Goals include several sub-targets with associated indicators which states are required to report on. Strengthening this link between SDG indicators (and climate targets) and review/reporting processes of public bodies may

constitute a useful avenue for further consideration. It is also important that indicators are incorporated and tailored in order to assess the true extent of impacts on biodiversity, as current monitoring of environmental SDGs may be inadequate in certain cases.[41]

EU Law

At EU level, sustainable development is a core element of EU policy-making. It is an important objective in the 2012 Treaty on European Union (Articles 3 and 21). The Treaty on the Functioning of the EU provides that environmental protection requirements must be integrated into EU policy, '*in particular with a view to promoting sustainable development'*. Several relevant strategies and communications have been produced with regards to mainstreaming the SDGs into the EU's policy framework, in particular on international development. In 2019 the European Court of Auditors found that the European Commission does not adequately report or monitor how the EU budget and policies contribute to sustainable development and achievement of the SDGs. [42] The SDGs have since been integrated into the European Semester review process as part of the Annual Sustainable Growth Strategy. Starting in 2020, the Commission's proposals for Country-Specific Recommendations highlight progress towards delivering certain SDGs. [43] However EU Directives or Regulations have not been produced which introduce substantive obligations regarding SDG implementation at Member State level. All EU Member States have some form of national strategy or policy framework in place related to sustainable development. [44]

Scotland

Scotland's Climate Change (Emissions Reduction Targets) (Scotland) Act 2019[45] notes that climate change plans must explain its contribution to achievement of sustainable development and the SDGs. It provides that target-setting criteria must be put in place as part of any modification of mitigation targets. These criteria include impacts on sustainable development and the SDGs, as well as environmental and biodiversity impacts.

Belgium

Belgium's 1997 Act on Co-ordination of Federal Policy on Sustainable Development (amended on several occasions, most recently in 2014) calls for the development of a long-term vision for Sustainable Development, including 2050 goals and a new Interdepartmental Commission on Sustainable Development. It defines sustainable development as (translated from French) 'development that meets the needs of present generations without compromising the ability of future generations to meet their own. Its realization requires a process of change which adapts the use of resources, the allocation of investments, the targeting of technological development and institutional structures to both current and future needs.'[46]

Spain

Spain's draft new climate law, published in 2020, does not define 'sustainable development', however it raises implementation of, and align with the 2030 Agenda for Sustainable Development in a number of provisions. [47]

Denmark

The Danish Government has committed to assessing the impact of new laws and major initiatives against the SDGs. [48]

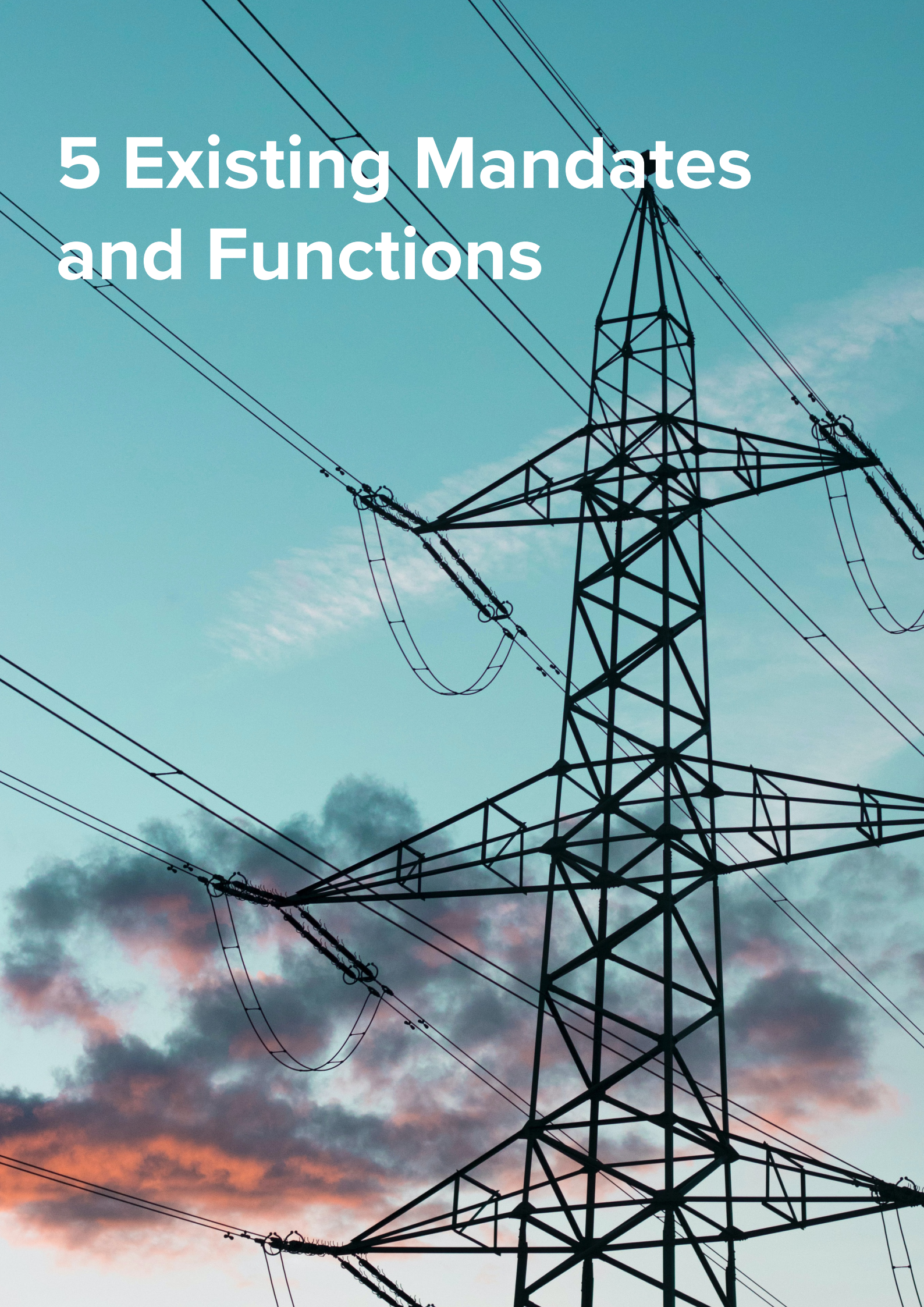
UK

The UK International Development Act 2002 include a specific definition of "sustainable development" which refers to "the likelihood of [...] generating lasting benefits for the population of the country or countries in relation to which it is provided". However, the definition suffers from a significant weakness in that it circumscribes its application to "the opinion of the Minister" and therefore leaves open the possibility for the term to be ignored. [49] The UK Climate Change Act 2008 also includes a number of references to sustainable development. It is noted that 'The proposals and policies, taken as a whole, must be such as to contribute to sustainable development.' [50]

Morocco

Morocco's 2009 Framework Law 99-12 on the National Charter for the Environment and Sustainable Development sets out duties of the State, local authorities, public institutions with regards to environmental protection and sustainable use of resource. It defines sustainable development (translated from French) as '*an approach to development that supports in its implementation the inseparable nature of economic, social, cultural dimensions and environmental activities and which seek to respond to the needs of the present without compromising the ability of future generations in this field*' (Article 9) and '*Sustainable development represents a core value that all parts of society are called to integrate into their activities. It constitutes a course of action required of all stakeholders in the country's economic, social, cultural and environmental processes.*' (Article 10) [51]

5 Existing Mandates and Functions



5.1 Ervia and Gas Networks Ireland

Gas Network Ireland (formerly Bord Gais Networks) is a regulated business which owns and operates the Ireland's national gas transmission and distribution networks in Ireland. It is a subsidiary company of Ervia, formerly Bord Gais Eireann, which is a commercial semi-state company, established in 2014. In addition to GNI, Irish Water and Aurora Telecom are also Ervia subsidiary companies.

Under the Gas Act 1976 (as amended) Bord Gais Eireann is mandated to 'to develop and maintain a system for the supply of fossil gas being a system which is both economical and efficient and which appears to the Board to be requisite for the time being.' Responsibilities and conditions regarding the transmission of fossil gas and asset ownership are also governed the Energy (Miscellaneous Provisions) Act, 1995 (and relevant amending legislation). Bord Gais Eireann's functions were revised under the Gas (Interim) (Regulation) Act, 2002 (and relevant amending legislation). The 2002 Act also provides for the regulation of the gas market by CRU and addresses licensing for the supply, storage, transmission and distribution of fossil gas. [52]

In accordance with EU legislation concerning unbundling of gas networks (Directive 2009/73/EC), GNI, as owner and operator of gas network, is not permitted to carry out gas-fired electricity generation. This reorganisation of Bord Gáis Éireann's transmission and distribution operations and energy business, and establishment of Gas Networks Ireland as a subsidiary, is provided under the Gas Regulation Act 2013 (which amends the Gas Act 1976). [53] The 2013 Regulation requires the production of a memorandum of association, and sets out the areas to be covered 'which may be approved by the Minister [for Energy] with the consent of the Minister for Public Expenditure and Reform'

Under the new Memorandum of Association produced in 2016, it is noted that the objects of GNI include promotion of fossil gas usage and extension of the gas network [emphasis added] :

> *3.2 To carry on the business of transportation of natural and other gases and to act and carry on business as an owner and operator of transmission and distribution networks.*
>
> *3.4 To engage in all such activities in connection with gas...including:*
>
> *(a) engaging in, encouraging and promoting initiatives of all kinds to promote the use of gas including participating in, operating and providing support (including research and development facilities) in respect of gas initiatives, infrastructure and technologies (including the development of biogas, gas from biomass, fossil gas used for vehicles or other transportation, metering, storage, liquefied fossil gas and other gas initiatives) other than any matters in respect of production of supply of gas.*
>
> *...(c) procuring, providing, operating and participating in any infrastructure systems, platforms and exchanges) which may be requested for or in connection with, or which may extend, encourage or result in use of, or which would other benefit or be completely to, gas transportation networks.*
>
> Ervia advocates for fossil gas and for new connections to the GNI system (see further re GNI infrastructure expansion in section 6.4). A key aim for GNI is ensure that their network is utilised

to its full extent. In the context of the current policy in support of a low-carbon transition, GNI have prioritised new technologies to support such network usage, including development of compressed fossil gas refuelling stations, anaerobic digestion plants and Carbon Capture and Storage. [54] In addition to current allowed revenues of over €2billion approved by the CRU for 2017 to 2022 (see section 6.4), the Government approved in 2019 up to €8.5million funding through the Climate Action Fund for GNI's GRAZE project to support injection of renewable. [55] In December 2018, GNI also received a €100 million loan from the EIB to upgrade and extend its gas network and facilitate investment in renewable gas and compressed gas infrastructure. [56]

5.2 The Electricity Supply Board

The Electricity Supply Board (ESB) was established in 1927 as a statutory body under the Electricity (Supply) Act 1927. ESB is majority owned by the Irish Government (95% share-holding) with the remainder held by employees. [57] Its functions relating to generation, distribution and transmission of electricity are addressed in the Electricity Supply Acts 1927 – 2001. ESB's functions have been updated on several occasions through amendments to this Act. [58] The ESB Group comprises various separate, ring-fenced, regulated businesses covering generation, supply, electricity networks infrastructure and international engineering consultancy activities. This research report does not seek to provide a comprehensive overview of all elements and activities of the ESB Group and associated legislative amendments. It rather focuses on functions and plans which are of particular relevance to decarbonisation in Ireland.

ESB Networks

The electricity transmission and distribution systems are owned by the ESB pursuant to Section 14 of the Electricity Regulation Act 1999 (as amended). An independent ring-fenced subsidiary company of the ESB, ESB Networks Designated Activity Company (ESBN) is the operator of the distribution network, and is the only body licensed to do so by the CRU under the 1999 Act. [59] ESB Networks (ESBN) also finances, builds and maintains the distribution and transmission systems. The transmission system is separately operated by the independent state company, EirGrid. ESBN is responsible for (inter alia) the rollout of the national smart metering programme, connection of renewable generation, and electric vehicle infrastructure (see section 6.5). The relationship between ESB's network and generation operations and assets has also been updated in accordance with EU unbundling requirements which have been transposed into Irish law.

ESB Generation and Trading

ESB Generation and Trading (formerly ESB Generation and Wholesale Markets) is responsible for electricity generation assets and international investment. The business operates power stations and offshore and onshore wind farms in Ireland, Northern Ireland and Britain. Its two peat generation stations will cease generating in December 2020 and the Moneypoint power station is to ceases burning of coal by 2025. It has put in place partnerships with Coillte (in relation to onshore wind development on Coillte land), Harmony Solar (to develop solar projects over the next 10 years) and Equinor (to identify offshore wind sites). [60]

ESB International

ESB International, a wholly owned subsidiary of the ESB, is an unregulated engineering consultancy firm. It provides consultancy services and has joint ventures and renewables projects in several different countries. [61] In 2017, ESB International signed a contract to operate and manage a coal-fired plant in the Philippines on behalf of Meralco PowerGen Corporation. [62]

5.3 Commission for Regulation of Utilities

Objectives and Functions:

The Commission for Regulation of Utilities (CRU) is Ireland's statutory independent regulator. Established in 1999 under the Electricity Regulation Act, it was originally responsible for protecting consumers and promoting competition in the electricity market. The Gas (Interim) (Regulation) Act, 2002 expanded the CRU's role to include regulation of the fossil gas market. Its functions have expanded further since then and they now also include regulation of electricity and gas safety, security of supply as well as regulation of water services.

The CRU is responsible for facilitating competition in the generation and supply of electricity by authorising the construction of new generating plant and licensing companies to generate and supply electricity. In the gas sector, the CRU carries out this function by issuing consents for construction of gas pipelines and licensing gas suppliers into the market. [63] The CRU is funded by means of a levy on all electricity and gas undertakings, as well as income from licensing fees. It is the CRU which assesses, revises and approves revenues for gas and electricity project network projects, as well as regarding proposed infrastructure and market rules in order to ensure energy security. It therefore plays a significant role in facilitating decarbonisation of the energy, notwithstanding the respective mandates of the semi-state bodies.

The CRU is also jointly responsible, together with the Northern Ireland Utility Regulator for designing and regulating the all-island wholesale market for electricity – the Single Electricity Market. As noted by Torney the CRU does not have regard to the carbon content of fossil fuels. It ensures that the marginal cost of carbon via the EU ETS is included in electricity prices. It does not intervene in the market in relation to the use of coal, peat and gas, however it oversees capacity auction mechanism in the electricity generation market (see section 6.3). The CRU promotes the integration of renewable energy through its grid connection process, priority dispatch for renewable generation, incentivising more flexible conventional generation, demand-side procedures and greater electricity interconnection. [64]

The CRU's vision contains a commitment to protect public interests by ensuring (inter alia) that "*there is a secure, low carbon future*." [65] CRU's latest strategic plan includes objectives relating to low-carbon pathways and delivery of climate and renewable targets. The CRU is also responsible for ensuring both ESBN and GNI earn a fair return on their activities in order to make necessary investments in their respective networks. The CRU sets a 5 year revenue allowance through Price Control of the gas network and a price review of the electricity network (see sections 6.4 and 6.5 below), as part of which the CRU examines proposed

infrastructure and spending, as well as previous expenditure and performance. Following public consultation, the CRU sets allowed revenues, as well as incentives and performance indicators over the next five years. [66] However, the CRU's current revenue review process does not integrate Paris-aligned decarbonisation objectives and scenarios for Ireland or make provision for future write down of certain (unnecessary) elements of fossil gas assets.

Decarbonisation and Environmental Obligations under the Electricity Regulation Act of 1999

The Electricity Regulation Act 1999 has been subject to a significant number of amendments over the past two decades as the CRU's mandate has been revised and expanded. The Department has helpfully produced a consolidated version of the Act which presents all amendments up to 2018. It is worth noting that without this consolidation an analysis of the CRU's functions would be extremely challenging. Unfortunately such an exercise does not appear to have been carried out for the key legislative acts relating to the functions of the ESB and GNI respectively. [67]

It is noted in the Act that one of the functions of the Commission (as well as the Minister and SEM Committee) with regards to the Single Electricity Market is '*to secure a diverse, viable and environmentally sustainable long-term energy supply in the State and Northern Ireland Section*' (9BC 4 (b)) (emphasis added). However, the meaning of '*environmentally sustainable*' in the Act is vague and limited with the definition merely noting that it 'includes the need to guard against climate change' (9BC(7))

The CRU can also support decarbonisation through the public service obligation levy on energy customers. Pursuant to the Act, it is the role of the Minister to direct the CRU to impose '*public service obligations*' upon the ESB and electricity licence holders which may be imposed on a variety of grounds including *'environmental protection, including energy efficiency and climate protection*'. (39(1)(c)) It is worth noting that this climate reference is also noticeably vague.

The Commission has several other functions and duties under the 1999 Act which serve decarbonisation objectives, renewables development and environmental protection. It is worth noting that these provisions are generally not substantive obligations and rather include such objectives as additional issues to be considered. They include:

> *-'to advise the Minister on the impact of electricity generation in relation to sustainability, and international agreements on the environment to which the State is or becomes a part' (9.(1) (c)).*
>
> *-'to facilitate access to the network for electricity generation and for gas production, in particular removing barriers that could prevent access for new market entrants and of electricity and gas from renewable energy sources'; (9 4b(v))*
>
> *-In carrying out its duties, it must "have regard to" – "the need to promote the use of renewable, sustainable or alternative forms of energy.". ([F78]9(4) (vi); see also 9BC 5(b))*
>
> *-'to take account of the protection of the environment' (9 5(c))*

-to have regard to the use of energy storage technologies in participating in the balancing of electricity demand and supply, and to have regard to the need to ensure that grid connection policy takes account of renewable energy policy, including any such policy in relation to community energy projects.(9 F60 (r) and 9s))

-...the Commission and the SEM Committee shall have regard to— (a) the effect on the environment in the State and Northern Ireland of the activities of authorised persons 9BC(5)(a)

-It is also "the duty of the Commission: (a) to take account of the protection of the environment;...(d) to encourage research and development into—

--methods of generating electricity using renewable, sustainable and alternative forms of energy and combined heat and power, and

--methods of increasing efficiency in the use and production of electricity;

and (e) to require that the system operator gives priority to generating stations using renewable, sustainable or alternative energy sources when selecting generating stations.(Section 9(5))

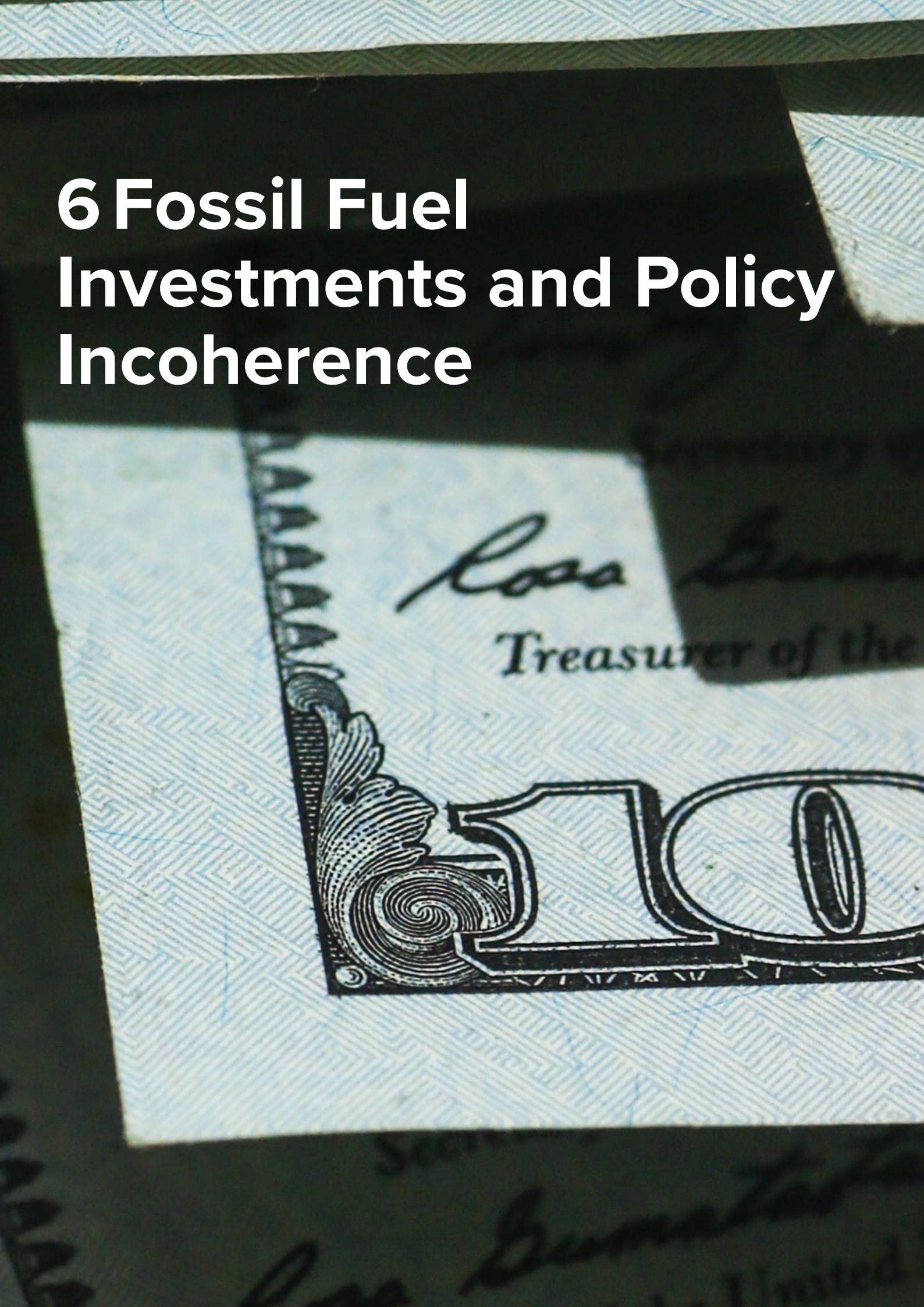
Risks and UK approach

A particular risk in delivering greater decarbonisation is the disconnection between climate commitments and economic regulatory functions which are focused on market processes, security of existing assets, and ensuring least cost to consumers. It is not clear that the CRU's regulatory functions transparently address risks of carbon lock-in through fossil gas investments, potential stranding of fossil fuel assets or barriers to small and large-scale renewables and energy storage developments.

By way of comparison, it is useful to note the response of the GB energy regulator Ofgem to concerns that its statutory functions are not aligned with climate obligations. Ofgem published a dedicated climate plan in February 2020 focused on renewables expansion and electrification of heat and transport in line with a net zero emissions by 2050. In the plan Ofgem outline how they intend to update their operations and plans and commit to working with government and industry to decarbonise heating and support increasing numbers of electric vehicles. In relation to the fossil gas phase out, Ofgem significantly commit to carrying out a strategic review of gas network asset depreciation in line with the net zero target. Network companies will also be able to seek changes in their allowed spending during (as opposed to before) price control periods, in order to better adapt investment in clean energy. They will also be required to produce adaptation strategies in view of mounting climate impacts. Net zero investment and innovation funding mechanisms will also be introduced. [68]

The UK Committee on Climate Change has also underlined the particularly important role for regulators such as the UK energy regulator Ofgem in ensuring that '*climate objectives are prioritised equally alongside other objectives such as consumer protection, and economic efficiency*'. They recommend that economic regulators should have climate change as part of their core objectives and that Ofgem provide '*ambitious requirements for reductions in leakage of methane from the gas grid*'. The Committee also point to the for a significant increase in heat pump installation in order to replace the majority of current gas boiler demand by the early 2030s and for a dedicated plan to upgrade networks in the 2020s in order to accommodate electrification of heat and transport. [69]

6 Fossil Fuel Investments and Policy Incoherence



6.1 Fossil Fuel Subsidies in Ireland

Friends of the Earth has already produced research in 2020 on fossil fuel subsidies, including distortions and risks caused by them, with case studies in the Irish context. [70] The paragraphs below provide further information on current levels of fossil fuel subsidies in Ireland and briefly summarises relevant reporting and research on the state's approach.

Monitoring of State Subsidies of Fossil Fuels

In 2019 the Central Statistics Office (CSO) produced an analysis of environmentally damaging subsidies from 2012 to 2016. One of the grounds for the CSO's analysis is the Sustainable Development Goal target 12.c to '*rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption…including by…phasing out those harmful subsidies….to reflect their environmental impacts…'*. The relevant indicator of this target requires monitoring of '*the amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels*' (12.c.1). [71]

The CSO classifies a subsidy as '*potentially environmentally damaging subsidy if it is likely to incentivise behaviour that could be damaging to the environment* ***irrespective of its importance for other policy purposes'*** [emphasis added]. In light of this definition, it is important to underline at the outset that subsidies can in certain instances provide social and economic benefits, notwithstanding environmental impacts. It is important to assess any such potential positive contributions as part of any examination of specific fossil fuel subsidies.

CSO analysis indicates that the total amount of potentially environmentally damaging fossil fuel and similar subsidies in 2016 was €4.1 billion, comprising €2.5 billion of fossil fuel supports and €1.6 billion of other supports including in the agricultural sector. Fossil fuel supports amounted to over 60% of this total, comprising €534 million of direct subsidies and almost €2 billion in indirect supports. Of this €534million, four elements, the PSO for peat-fired generation and security of electricity supply (both of which have now terminated – see below), as well as the electricity allowance and gas allowance are of direct relevance to GNI and ESB operations. [72] The majority of supports for fossil fuels took place through tax exemptions.

It may be useful to engage with the CSO on its data collection in order to highlight and assess the range of supports relating to semi-state companies, including GNI and the ESB Group. An important element of this engagement would be to highlight best practice approaches in other jurisdictions and to interrogate whether other payment schemes and market schemes related to ESB and GNI functions may constitute direct or indirect subsidisation of fossil fuels.

Other Studies:

- Analysis in 2020 by the NGO Global Witness concludes that member companies of the European Network of Transmission System Operators for Gas (which includes GNI) have received over €4bn in EU subsidies as result of their advisory role under the EU TEN-E Regulation and overestimations of EU gas demand. [73]

- The OECD's 2019 Inventory of Support Measures for Fossil Fuels provides comprehensive data on all relevant financial supports in Ireland. It notes a total of approx. €0.85billion in 2017 across all fuel types through both budgetary transfers and tax expenditures. [74]

- Investigate Europe estimate Ireland's fossil subsidies at c.€1.5billion each year based on OECD data. [75]
- The European Commission's 2019 report on energy prices and costs refers to estimate on Ireland's fossil fuels subsidies, carried out by the consultancy Trinomics, of approx. €1billion (the ODA's 2019 study refers to a €1.23 billion noted by the European Commission (an annual average 2014–2016). [76]

- In 2017 the European Parliament produced analysis on fossil fuel subsidies which, based on 2015 IMF data, indicate that Ireland's post-tax subsidies amounted to $0.62billion for coal and $0.6billion in the case of fossil gas. [77]

Assessments of Ireland's Approach

EU Member States are required to report on fossil fuel subsidies and phase out plans in their National Energy and Climate Plans (NECPs). Ireland's response in its draft NECP on the issue energy subsidy phase out outlines measures related to carbon taxation, as well as the introduction of the Renewable Electricity Support Scheme and Support Scheme for Renewable Heat. [78] It also summarises relevant CSO reporting, including on environmentally damaging subsidies noted above. It is noted that a number of consultation responses called for a strategy to remove fossil fuel use and subsidies. The European Commission stated in its assessment of Ireland's draft that it is important that '*national policies, timelines and measures planned to phase out energy subsidies, in particular fossil fuel subsidies'* should be included in the final plan. In other words, the state's approach to eliminating subsidies should be provided, in addition to necessary reporting on the level and range of such subsidies. [79]

This weakness regarding state response was also noted by the independent think tank, the ODI, in its 2019 analysis of fossil fuel subsidies in Member State draft NECPs. [80] Given the lack of detail on this issue by both Ireland and several other Member States, the ODI recommends the use of a shared definition for reporting on fossil fuel subsidies which covers all significant financial flows and calls for states to include plans on ending fossil fuel subsidies, as well as a commitment to continue to monitor and report on progress.

Most recently, the ESRI has produced research on the economic and emissions impacts of removing certain fossil fuel subsidies related to energy production, taxation and allowances. Based on their analysis of both these subsidies and increasing carbon tax, they conclude that removing seven of these subsidies would have a minor effect on real GDP and on household income but would produce sizeable emissions savings. [81]

6.2 The Public Service Obligation Levy

One of the principal subsidies, the Public Service Obligation Levy, has undergone considerable changes in recent years in terms of the types of fuels supported. The Public Service Obligation (PSO) levy is charged to all electricity final customers in Ireland and is calculated each year by the CRU. Until 2016, the PSO levy supported security of supply policy objectives but now also supports other goals, including climate protection. Until 2019 it supported peat-fired electricity generation but for the year 2020/21 the levy is entirely related to renewable electricity supports. It also supports research and pilot projects, including electric vehicle charging infrastructure and compressed fossil gas in vehicles. [82] In 2019 Minister Bruton noted that the Government was seeking EU state aid approval to utilise €20million from the PSO levy to also support just transition projects in the Midlands area. [83] It should be noted that the CRU's initial calculation is that a levy of €480 million will be required for the 2020/21 year, which represents an increase of €303million on the previous year. [84]

6.3 Capacity Remuneration Mechanisms

It is worth taking into account other forms of direct supports available to electricity generators. In 2017, the ODI and CAN Europe produced an analysis of fossil fuel subsidies in the EU which includes comprehensive overview and data on various forms of financial supports. This list includes not only direct investment in fossil fuel infrastructure and also capacity remuneration mechanisms for energy production.[85] Capacity remuneration mechanisms, which are present across most EU Member States, are paid to generators with the stated objective of ensuring generators are available to meet electricity demand in times of expected stress to the system. They require EU state aid approval and are structured in Ireland through an auction system with the main capacity auctions running 4 years ahead. The stated purpose of the capacity auction for the all-island Single Electricity Market, run by SONI, is '*to deliver a reliable electricity supply at the least possible cost*' taking into account changes in electricity demand, as well as wind variability. [86] In June 2020 SONI published the results of its capacity auction for the all-island Single Electricity Market. Of the total €363million (funded by suppliers through a capacity charge) 72% of capacity payments have been allocated to fossil gas-fired generation (€261million). [87] This is in addition to €342 million approved capacity payments for the period October 2022 to September 2023, with 66% of capacity awarded to gas-fired generators.[88]

EPA research on fossil fuel lock-in risks indicates that new capacity payments to support security of supply may be required, however it warns such payments may prop up inefficient assets that are likely to be stranded delaying the necessary speed of decarbonisation. The authors conclude that '*From a policy perspective, it is important that the market model and payments for energy, capacity and flexibility are designed to expedite the transition to zero carbon and are not sunk costs in fossil fuel generation and infrastructure*.' [89] In 2018 Greenpeace produced analysis on capacity payments systems across EU Member States. They highlighted a considerable lack of transparency regarding such payments to fossil fuel (and nuclear) generators and emphasised that the mechanism is undermining the development of renewable energy by diverting "public money to keep unprofitable, polluting plants alive". They note that over €6billion was paid through capacity mechanisms in Ireland between 2008 and 2018 with over 80% directed at fossil fuel generators. [90]

At EU level, the European Commission has noted that some of the largest capacity payments by Member States have been observed in Ireland, Spain and Greece. [91] In 2018 at the Conclusion of Clean Energy Package the then EU Commissioner for Climate Action and Energy, Aris Cañete, underlined that '*capacity mechanisms will not be used as a backdoor subsidy of high-polluting fossil fuels as that would go against our climate objectives*'. [92] The 2019 EU Regulation on the internal market for electricity introduces new limits for fossil fuel plants to receive capacity payments based on their CO2 emissions, however these limits are only designed to filter out generators with high carbon intensity. This Regulation also provides for an examination of the necessity for capacity remuneration mechanisms. The European Network of Transmission System Operators for Electricity (ENTSO-E) is to carry out a European-wide resource adequacy assessment, which will provide a more comprehensive analysis of adequacy challenges, including scenarios without existing or planned capacity mechanisms.[93] It should also be noted that in 2019 a legal challenge to the UK's capacity mechanism was made on environmental grounds by the energy company Tempus Energy at the General Court of the EU Court of Justice, which led to the suspension of GB's auctions and capacity payments. [94]

6.4 Gas Networks Ireland

Gas Investment Risks

A range of analysis has been produced in recent years which point to significant risks in fossil fuel investments based on decarbonisation scenarios and the falling costs of renewables and energy storage technologies. In the case of fossil gas investments, the think tank Oil Change International highlight that all eight scenarios developed by the European Commission for its new long-term strategy for decarbonisation predict a reduced role for gas in final energy demand in 2050. [95] They also note that there is very limited potential for new gas infrastructure to be fully decarbonised through measures such conversion to renewable gas. A recent report by the think tank E3G examined the role of fossil gas in the EU's decarbonized future. They underline that '*none of the Paris-compliant scenarios with renewable or decarbonised gas show increasing gas demand, and most of them show a sharp decline in gas volumes compared to today. This suggests there is no justification for the expansion of the gas networks, in particular not for imports'*. [96] In the US, the states of California, New York and Massachusetts are already producing plans relating to a managed phase-out of natural gas. [97]

In light of energy system modelling in Ireland, the UCC MaREI research centre has noted that "early transition into a low carbon economy requires phasing out of fossil fuel based technologies before the end of their lifetime, creating stranded assets' such as gas-fired power station, as well as other economic losses."[98] MaREI modelling also indicates that fossil fuel generation without any associated carbon capture and storage technologies is to be almost entirely phased out by 2050.[99] A UCC study on the future of Ireland's gas network notes that '[*a]dhering to the existing [low] near-term emission target may raise risks of "lock-in" to an energy system configuration that meets the near-term target but is unsuitable for a long-term 1.5 °C roadmap'*. [100] Separate UCC research on stranded asset risks notes '*a potentially significant level of disconnections from the gas distribution network from 2030 to 2050, caused by fuel switching and energy efficiency, resulting in less system throughput. It is stated that 'the levels of disconnections could lead to the decommissioning of sections of the network, which presents a risk to the network operator*'. Investment in gas infrastructure with long payback periods '*carries a significant investment risk in terms of "carbon lock-in" and increasing investment in gas network assets 'puts a greater value at risk in the long term*'. This research also highlight that the customer base for fossil gas will decrease resulting in higher fees and investment needs of gas-fired generators may results in increases in transmission tariffs. [101]

Gas Networks Ireland Proposals and Plans

GNI is responsible for both assessing gas system and supply, while at the same time promoting expansion of the gas network, as well as biogas and hydrogen development. GNI's continued gas network expansion, and new connections in particular, are based on projected gas demand scenarios which are also produced by GNI, and analysed and approved by the CRU.[102] It is evident that GNI's current role and functions do not align with a fossil gas phase-out which is necessitated by Ireland's mitigation commitments under the Paris Agreement and do not take account significant risks of carbon lock-in associated with gas investment, as highlighted by the UCC and the EPA. A summary of the specific GNI functions and plans which risk carbon lock-in are outlined in the paras below:

1. GNI is continuing to seek connections of domestic customers to the gas network, particularly c.300,000 homes close to the gas network which currently use oil for heating. Notwithstanding a prioritisation of the heating sector by national and international authorities, GNI contends that '*full electrification of heat is expensive, disruptive and requires significant investment in the electricity network*'. GNI modelling in 2018 assumes a minimum 10,000 new gas connections per year to 2027 .[103] They also note that they expect to connect 125,000 new domestic customers to the network by 2040. GNI published plans to date do not appear to take account of wider energy system decarbonisation and longer-term reductions in gas supplies through electrification and demand-side measures.[104] GNI modelling is also based on the IEA's New Policies Scenario which are not aligned with Paris Agreement objectives. [105] In their submission to the NECP consultation, Ervia also contend note measures should be put in place to transition to gas those homes in urban setting which are currently using oil and are located close to the gas network. They reject deep retrofits as a viable and economic solution to heat decarbonisation. It is not surprising that Ervia seek to promote use of their assets, however this rejection of retrofitting fails to take account of significant co-benefits such as reducing energy use. [106]

2. GNI's approach appears to run counter to the Government's Climate Action Plan commitment to ban the installation of gas boilers from 2025 in all new dwellings and the finding that '*The most cost-effective abatement measure for the built environment identified in the MACC is to retrofit existing dwellings that use oil boilers to a B2 equivalent BER. While gas may be the cheapest heating source over the period to 2030, opting for such carbon-intensive investments would result in 'carbon lock-in'. It is also unclear how the position of Ervia and GNI aligns with IEA recommendations for the Government 'develop a time-bound roadmap for decarbonising the heating sector through energy efficiency and fuel switching. The roadmap should establish clear scenarios and milestones for phasing out fossil fuels*'. [107] It should also be noted that to date the public has not received comprehensive information on the need to move away from fossil gas heating.[108]

3. Gas Networks Ireland's 2050 objective is for half of the gas in Ireland's network to be comprised of biogas and hydrogen. Considerable questions arise as to the viability of each of these proposed mitigation measures.[109] GNI plan to achieve 20% biogas on the gas network by 2030. They are also targeting at least 5% penetration of CNG or biogas for heavy commercial transport and 10% of the bus market in Ireland by 2025. GNI is seeking to support biogas production through development of anaerobic digesters and by partnering with agri-industry and commercial waste companies. While the SEAI have outlined that the rollout of anaerobic digestors could provide significant volumes of biogas by

2050, their 2017 analysis[110] notes a wide range of challenges that would need to be overcome in order to allow for biogas deployment. McMullin et al[111] and the Irish Academy of Engineers have also raised several risks and obstacles regarding proposed biogas use to decarbonise a substantial portion the gas system, including regarding methane leakage and nitrogen fertiliser use [112] In 2020 Earthjustice and Sierra Club produced an in-depth study which rejects that fossil gas alternatives, such as biogas, are capable of decarbonising the building sector in the USA. The report underlines that electrification is the lowest-risk and lowest-cost method to reduce emissions from buildings. It also outlines the significant negative health impacts associated with burning fossil gas indoors and provides information on gas industry incumbents' activities to prevent electrification efforts through campaigns, lobbying and other underhand methods.[113]

4. GNI also plan for half of their network to be made up of 'abated gas' whereby CO2 has been removed through the process of Carbon Capture and Storage (CCS).[114] Ervia have recommended that the carbon tax placed on fossil gas should be used to decarbonise gas to facilitate these developments. GNI have undertaken analysis of abatement costs and potential developments at Cork power stations[115] and have called for a dedicated price support to be offered for CCS.[116] Ervia contend that there is no credible alternative to Combined Cycle Gas Turbines combined CCS technology in order to provide low emission, dispatch-able and secure power at scale. They reject the viability of alternative technologies, including biomass, batteries and electrical interconnectors: [117] The development of CCS has been raised by a number of different authorities in Ireland and the EU in order to support a net-zero transition (particularly for certain industrial emissions). [118] However, a range of significant risks associated with both introduction and reliance on largely unproven and costly CCS technology have been raised by a range of experts. [119] It is important that these obstacles are transparently assessed by CRU. Even where negative emissions technologies are transparently and independently deemed necessary to achieve decarbonisation commitments (for example in certain industrial processes), it is also important that such technologies do not facilitate expansion of fossil fuels and equally that they are developed in a manner that does not prevent or delay the implementation of already available and proven mitigation measures in relevant sectors.

5. The CRU has noted that: '*Due to the expected growth in demand from large energy users, the electricity demand in Ireland could grow by up to 57% in the next 10 years. EirGrid analysis shows that demand from data centres could soon become the largest electricity users, accounting for 31% of all demand by 2027*'. [120] GNI have that they are *'focused on developing a combined offering of Natural gas, Biogas and Combined Heat and Power (CHP), as the primary source of energy for the Data Centre sector*' [emphasis added]. The network operator seeking to actively ensure that fossil gas is adopted as the primary energy supply to meet data centre requirements raises questions of potential 'fossil gas lock in' which may run counter to decarbonisation objectives.[121]

Gas Network Ireland Revenue and Price Control

GNI is a regulated business earning an allowed return on its Regulated Asset Base. GNI charges gas customers for the operation, maintenance and development of network assets through gas customers' bills. The CRU reviews GNI proposals for revenues needed to fulfil these functions over the next five year through a *'Price Control'* process. This process involves a detailed examination of forecast gas demand,

infrastructure, cost of capital and other economic indicators. The CRU's most recent GNI Price Control ('PC4') runs over the period 2017 to 2022. For this period, the CRU allowed GNI a total revenue of almost €2billion (transmission and distribution), taking into account '*a least cost transformation to a low carbon economy*'. The CRU did not require targets/information on what emission savings should be made by GNI over the period or set out how a 'low carbon' goal aligns with the state's Paris Agreement commitments. Although CRU's analysis for PC4 recognised decarbonisation objectives, it did not focus on risks and challenges of continued investment in fossil gas infrastructure. It rather accepted the view of fossil gas as a transitional fuel for electricity generation, in light of the 2015 Energy White Paper. It also allowed GNI €17.5m for '*innovation*' projects, including the introduction of renewable gas into the network. It is worth noting that PC4 allowed for increased utilisation and investment in the gas network in light of already significant investment challenges. GNI noted that more than 40% of the gas network was more than 20 years old which would present a maintenance and capital investment challenge during PC4.'[122]

In its 2017 decision the CRU noted that modelling had highlighted that gas demand could reduce by 40% - 60% or more by 2050 due to climate change policies and technological developments. Subsequent EPA research has concluded that '*in future scenarios with a tight top-down carbon constraint, difficult-to-reach projects with high capital costs, along with carbon-intensive reserves, face a high stranding risk'* . They note that stranding risk may call into question the regulated return model for gas network as customers face progressively higher network charges under decarbonisation scenarios with reduced gas use, potentially causing a "*snowball effect*" where increasing prices create an incentive to get off the gas network. [123]

It is concerning that CRU did not address stranded asset or emissions risks in 2017, rather noting that 'If GNI is able to increase utilisation of its network without increasing costs, this will help keep tariffs competitive'. It is assumed that the next price control for the gas network, 'PC5', will be decided upon by the CRU in 2022. From 2020 to 2022, GNI will submit a range of gas infrastructure related data and proposals; the CRU will commence a comprehensive public consultation process in late 2021/early 2022.

It is essential that there is significant engagement in the consultation process from relevant climate and environmental authorities and stakeholders, so that learnings from the previous price control, particularly carbon lock-in challenges and risks of stranded assets, are taken into account in a comprehensive and transparent fashion.

6.5 ESB

ESB Strategy

The strategy of the ESB Group is focused '*on creating a brighter future is anchored in our ambition to lead the transition to a low-carbon energy future based on clean, reliable, affordable electricity.*' [124] The ESB's Brighter Future Strategy - Leading the Transition to Reliable, Affordable, Low-Carbon Energy includes the commitments to:

- *Reduce carbon intensity by 50% by 2030*
- *Increase renewables to 50% of generation capacity (generating 40% electricity) by 2030*
- *Meet customers' energy needs through diverse businesses across the energy value chain*[125]

The ESB contend that the 'Strategy is fully aligned with Government of Ireland [Climate Action Plan] in that it supports their targets of - 70% of electricity from renewable sources by 2030; c. 1 million EV's by 2030; and 600k heat pumps to be installed by 2030. However, they note a '*challenging period for thermal generation*' (see further below). [126]

The Strategy itself only provides high level information on steps being taken to meet these targets. The latest detailed decarbonisation roadmap was produced the ESB in 2017. '*Ireland's low carbon future-dimensions of a solution*' addresses investment and policy changes in line with the 2014 National Policy Position, which committed Ireland to an 80% aggregate reduction in CO2 (on 1990 levels) in the energy sector by 2050. This analysis does not reflect the higher ambition of the current net zero target. The roadmap focuses on necessary changes in both electricity generation (ETS) sector and transport and heating (non ETS) sectors. It underlines that more efficient systems and technologies in these sectors will not be sufficient and emphasises that early action and radical changes in energy systems (particularly in heat and transport), consumption and investment are required to meet this objective. [127]

The roadmap is positive in its comprehensive examination of climate policy at EU and UN level, including the evidence base provided by the IPCC 5th Assessment Report. It notes that the climate science and the Paris Agreement obligations result in a need to accelerate the rate of decarbonisation in Ireland still further. The report focuses on the electrification of heat and transport as key response. In contrast with GNI's vision report, it is clear that fossil fuel heating systems will have to be replaced and that new housing and workplaces must not burn fossil fuels. However certain conclusions merit further investigation. For example it is repeatedly stated that the decarbonisation will be primarily achieved through greater renewable generation and greater use of gas plants, with CSS playing a major role '*given the limited options available to complement intermittent renewable sources*'. It also emphasises that fossil gas is likely to continue to be a major heating fuel to 2050. It is also important to note that the final recommendations primarily address necessary policy changes and steps at government, regulatory and public levels. It does not challenge assumptions or seek to respond to challenges within ESB GT or ESBN in delivering such mitigation measures. For example it does not address the proposed increase in data centres, challenges associated with large-scale heat pump installation, or longstanding weaknesses in its support for micro-electricity generation.

Generation Adequacy and Gas-fired Generation

Analysis by EirGrid and SONI of required generation notes that although there is currently a surplus of plant, electricity demand is increasing 'and is forecast to increase significantly, largely due to the expected expansion of large energy users such as data centres.' It is also impacted by a number of plant closures. The result is that additional generation capacity may be required, particularly when Moneypoint closes at the end of 2025. [128] In EirGrid's 2019 Tomorrow's Energy Scenarios analysis, it is assumed that the vast majority of capacity is provided by gas-fired generation involving a 'heightened dependency on the ongoing resilience of Ireland's gas supply'. [129] Barry McMullin et al (2018) highlight that such dependency may constitute an energy security risk in that it may constrain the necessary scale and speed of energy system decarbonisation.[130] EirGrid state that 'the decarbonisation of gas supply is a key assumption in us assuming that gas continues to have a strong role in maintaining the demand and supply balance in our scenarios out to 2040.' It is noted that a '*carbon-neutral power system can be achieved through new Combined Cycle*

Gas Turbines together with Carbon Capture and Storage'. However, they note that if investment decisions in capital intensive CCGTs are made "***without a strong incentive"*** for CCS development, ***"large volumes of carbon will be locked into the electricity system for another 30 years"***.[131] This presents evident risks that new gas-fired generating stations may be deemed necessary in the medium term but may prevent zero-carbon generation and storage in the longer-term. It also underlines the need for assessment of the risks and benefits of data centre development, including the introduction of robust obligations for new centres to meet as much of their energy requirements as possible through on-site renewable generation.

The ESB has already produced plans for a 75 megawatt gas-fired generating station in Corduff, Dublin in order to better manage peak demand in the Dublin area. It also affirmed that this approach is aligned with the ESB Brighter Future strategy in supporting the transition to low carbon electricity.[132] The ESB also plan to build new gas-fired plants in Ringsend, Poolbeg, and North Wall by 2023 at a total cost €700 million in order to meet high electricity demand particularly resulting from data centres.[133] The ESB coal-fired generating station at Moneypoint in County Clare is due to come to the end of its operating life in its current configuration in 2025. In recent year its running regime has been drastically reduced due to both technical issues and carbon price shifts. ESB noted in 2019 that it had written down €142m of the value of Moneypoint power station '*based on the estimated impact on projected revenues from the introduction of the new Integrated Single Electricity Market in May*'.[134] GNI contend that '*a modern CCGT gas plant offers by far the most efficient and cost effective solution for the Moneypoint site in the long term, connecting to the ring-main transmission system via a new spur transmission pipeline to Moneypoint*'. [135] However, it is not clear whether this proposal has examined in terms of potential stranded risks and whether other uses, such as a renewables hub and hydrogen plant, have been considered.

ESB Network's Revenue and Price Review

ESB's latest Sustainability Report notes that capital expenditure of over €1billion was spent on ESB's asset base. This included capital investment of €761 in the networks infrastructure on the island of Ireland and expenditure in Generation & Trading in 2018 amounted to €299 million which was primarily related to investment in windfarms. Like GNI, ESBN is a regulated business earning an allowed return on its Regulated Asset Base. Every five years ESBN submits an estimate to the CRU of its required revenue for its network assets over the subsequent five year period. Electricity customers are charged for the operation maintenance and development of the electricity network through gas customers' bills. The CRU reviews EirGrid and ESB Networks proposals for monies needed to fulfil these functions in the transmission and distribution networks respectively through a price review process carried out every 5-years. The CRU is currently undertaking analysis for the next price review period (PR5) which will run for the period 2021 to 2025. It has consulted on its approach, noting the aim to align its regulatory framework with the '*delivery of a sustainable, low-carbon electricity system*'. The CRU has proposed that one of its strategic priorities in reaching its decision on PR5 will be to '*deliver sustainable low-carbon solutions with well-regulated markets and networks*'. It has also noted that a major transformation of the network will be required in order to fulfil the state's 2030 targets under the Climate Action Plan and the EU Clean Energy Package. A further proposed objective is to transform the role of ESB Networks in order to support the electrification of heat and transport, smart meters and demand side response. These aims and objectives, as well as the recognition of national and EU climate policy, are welcome developments. The published responses to the CRU's consultation also offer insightful recommendations on the necessary approach to grid development. [136]

It's important for relevant climate authorities and stakeholders to engage with price review process prior to final decisions in order to ensure the CRU's approach aligns with Paris Agreement commitments and takes account of gas lock-in risks.[137] As part of this price review, it is equally essential that the CRU and the ESB (and EirGrid) in considering further investment in gas-fired power plants transparently address the risk of a potential overreliance of the electricity system on fossil gas, as well as the potential for emissions lock-in. [138] In 2019 UCC on behalf of the EPA produced an in-depth study[139] on how decarbonisation of the power system may undermine investment in energy generation and infrastructure. The authors note that an 80% reduction pathway indicated that the financial viability of gas generation and network assets is not guaranteed. They concluded that '*84% of a leading Irish utility's existing fossil fuel-based power generation assets may be incompatible with a 1.5°C budget and 27% with a 2°C budget*'. Two major implications are highlighted: the investment case for fossil gas infrastructure is likely to be undermined (by 2030); and security of supply may be impacted in the short term where necessary fossil fuel generators which provide back-up and system balancing are impacted.

7 Transparency and Sustainability Reporting

In relation to decarbonisation responses in the semi-state and private sector, there is an increasing focus on the need for greater transparency across business operations. Although the priority should be for mandates and functions to align with climate objectives, legal obligations which require companies to report on their emissions, as well climate and environmental impacts, can act as significant means of promoting and strengthening mitigation and adaptation responses. This issue is related to necessary reform of company law and corporate procedures in order to align these areas with climate and sustainability objectives. Such reforms, particularly those relating to transparency, are relevant to the mandates and the functions of ESB and GNI, as regulated businesses. The following section provides a summary of steps taken by ESB and GNI in this area to date.

7.1 Emissions Reporting and Climate-Related Disclosures

Ireland does not have in place legislation which requires standard emissions reporting by private sector companies across their operations. The largest emitting companies, including ESB generating stations, routinely provide information on emissions to the likes of the EPA and EU authorities under (e.g) the EU Emissions Trading Scheme. However it is important to differentiate between data related to specific fossil fuel burning installations and the disclosure of climate-related information across companies full supply chain (i.e. Scope 1, Scope 2 and Scope 3 emissions). Legislative changes to ensure such climate disclosures, combined with reporting on performance against set criteria, are particularly required.

There is an increasing focus on the need to integrate climate-associated financial risks in to risk management assessments. The UK has relatively strong legislation in place under its 2013 Companies Act Regulations which goes beyond Corporate Social Responsibility and general sustainability reporting and requires incorporated and listed companies to provide information on emissions produced across their operations in their annual reports.[140] Since 2016 France also has comprehensive emission reporting requirements in place as part of mandatory Corporate Social Responsibility reporting.[141] The EU's 2014 Non-financial Reporting Directive requires large companies to disclose certain information on their operations and response to social and environmental challenges. However, it only applies to large public interest companies over 500 employees and a considerable amount of discretion is provided to Member States in terms of the types of information to be provided in companies' annual reports. [142]

The reporting system provided by the Taskforce on Climate-related Financial Disclosure (TCFD) framework, as well as equivalent systems to be established regarding biodiversity/nature-related financial disclosures, should be utilised in order to improve reporting on transition and physical climate risks and shift investments away from fossil fuel infrastructure. [143] In 2017 the European Commission published non-binding guidelines for companies on how to report non-financial information. In 2019, as part of the Sustainable Finance Action Plan, the Commission published additional guidelines on reporting climate-related information, which integrate TCFD recommendations. The European Commission has published a new consultation in order to review the Directive and address climate-related disclosures. [144] There is increasing focus within the private sector on the need to integrate climate risks into financial accounts given concerns that their omission is obscuring or deliberately misleading company performance, investment and decision-making, especially regarding capital allocation and valuations of assets.[145] Recent research has also addressed other forms

of necessary company disclosures, including the need for accounting of un-burnable carbon and fossil fuel resources as part of company reports based on compliance with carbon budgets. [146]

In June 2020, PwC produced its 2nd annual report on the Business in the Community Ireland (BITCI) Low Carbon Pledge which was signed by both the ESB and GNI. The report addresses the performance of 55 participating companies against this Pledge which is to reduce emissions intensity by 50% by 2030 in the context of Scope 1 GHG emissions (from sources owned by the company) and Scope 2 (energy-related) emissions. It also provides information on absolute emissions reductions and features 6 companies in the energy and utilities sector, including the ESB and GNI. The report highlights considerable issues with the reliability of the data provided. [147] It also states that '*CO2 emissions from the combustion of fossil gas represents the most significant source of stationary emissions amongst the 45 original pledge companies, with 43 companies reporting the use of fossil gas for heating in both 2018 and 2019*.' [148] It is a particular weakness that the Low-Carbon Pledge is not based on climate obligations or the latest IPCC scientific evidence; it is not based on absolute emissions and excludes Scope 3 indirect emissions (from e.g. travel and waste). However, it is noted that for the first time, 29 of the companies provided information on Scope 3 emissions. It also calls on businesses to begin assessment of indirect and supply chain emissions and to work towards setting science-based emission reduction targets by 2024. The international Science Based Targets initiative offers a new platform to improve such reporting and overcome barriers to adoption. [149]

7.2 Due Diligences Obligations

In addition to transparency around emissions, it is important that states have access to all relevant information on the social, environmental and human rights impacts of company operations and meet their duty to protect citizens from such abuses. It is essential that such information is made available, participatory rights are respected, preventative measures are developed and that there is access to remedy when human rights are violated. Human rights and environmental due diligence by companies is an important part of integrating the climate justice principle into company operations. [150]

Human rights due diligence was recommended as part of the landmark 2011 UN Guiding Principles on Business and Human Rights. However, Ireland's 2016 National Plan on Business and Human Rights which seeks to give effect to the Guiding Principles, failed to introduce any obligations with regards to due diligence procedures. The Irish Coalition on Business and Human Rights is currently undertaking research on the introduction of legislation relating to human rights and environmental due diligence in Ireland. Trócaire also note that such legislation is already in place for larger companies in France and is being considered in Germany and at EU level. [151]

7.3 ESB and GNI Sustainability Reports

Gas Networks Ireland

In 2019 Gas Networks Ireland published its first sustainability report which "*highlights…progress in implementing sustainable development across all aspects of GNI operations*". The report includes a non-financial statement in compliance with the EU Non-Financial Reporting Directive.[152] In the context of climate action and emissions monitoring, the sustainably report is a positive step however it suffers from certain inconsistencies and weaknesses. It reports on emissions savings made in its operations, including compressor stations, as well as to its office energy use and transport. It also notes a considerable emissions reduction over 7 years, although with an emissions increase from 2017 to 2018. It refers to an emissions allowance for CO2 emissions under the EU ETS. It is particularly notable that GNI highlight that '*methane emissions have increased generally due to demand issues and gas coming from Corrib*'. However, there are a number of concerning elements in the report. The only emissions target referenced is the BITCI Low Carbon (emissions intensity) Pledge which GNI signed in 2018. The report underlines that 'growth in new domestic and commercial connections to the network will continue to be our priority.' Under the section 'Risks and Uncertainties', the 'increased frequency and intensity of climate change events' is highlighted as a particular risk. The report does not specifically mention risk of stranded assets , however it is noted that '*EU and Irish energy policies are targeting the long term reduction in fossil fuels, including natural gas (which is the cleanest fossil fuel) resulting in a risk of under-utilisation of the gas network and tariff increases'*. It is emphasised that the report is 'aligned with the UN Sustainable Developments Goals' yet other than basic headings, none of the UN sub-targets and related indicators are incorporated. It refers to information being provided in the context of 'non-financial performance indicators' and raises efforts under a number of different headings including due diligence, the environment and human rights. However, these sections are generally light on detail with no specific indicators included under these headings and no information on human rights/environmental impact assessments or remedies/responses.

ESB

The ESB's sustainability report[153] is considerably more comprehensive than that of GNI as it uses the Global Reporting Initiative sustainable reporting standards. It notes that the report has been independently assessed by the quality assurance and risk management company, DNV GL. In relation to mitigation commitments, it notes its support for the BITCI Low Carbon Pledge and that it is seeking to reduce the carbon intensity of its generation portfolio by two thirds to 200gco2/kwh by 2030. As is evident in GNI's report, the adoption of an emissions intensity pledge and the failure to report against specific SDG targets and indicators are particular weaknesses.

In relation to emissions monitoring, the sustainability report sets out information on Scope 1, 2 and 3 emissions. It notes that CO2 output from ESB Generation and Trading's plants in the SEM '*remains lower than 2005 baseline by approximately 43%, and the carbon intensity of generation reduced by 32% to 454 g/kWh*'. The ESB reports on its emissions through the organisation CDP, a Not for Profit focused on measuring companies' environmental impact. ESB's 2018 disclosure scored B- on the CDP scoring methodology, however it is worth noting that CDP gave the ESB a C rating for categories relating to emissions, energy, and emission reduction initiatives respectively.[154]

Other positive initiatives are noted such as the Dingle Project which has deployed battery storage, solar PV and smart network devices across the Dingle peninsula. The report sets out information relating to biodiversity including habitat and species protection in the context of Special Areas of Conservation. Notably the report sets out the extent of ESB Group assets within designated sites and highlights measures undertaken to assess and respond to environmental impacts. It is also includes a section on environmental compliance which briefly addresses a major pollution incident in 2018. In relation to human rights, it highlights its own Code of Ethics Group and investigations of breaches by its own internal auditors. However, it only notes an expectation on suppliers/contractors to respect human rights; human rights due diligence procedures or impact assessments do not feature. The importance of ensuring sustainability across its supply chain is highlighted; this is to be assured through the application of ESB's Supplier Charter and Requirements for Third Parties Document, however instances of non-compliance or violations of such requirements are not mentioned. Information is also provided on sustainability and energy usage and modern slavery policy in ESB's Annual Report. It is also notable that the positive step of producing a Statement on Modern Slavery was taken in order to ensure compliance with the UK Modern Slavery Act 2015 which does not have an equivalent in Irish law.

8 Recommendations

8.1 2015 Climate Act

The above sections have highlighted that none of three public bodies in question have mandates which are fully aligned with Paris Agreement obligations and that their mandates do not properly address principles of climate justice and sustainable development. To a certain extent, this finding is unsurprising given that no amending legislation with regard to climate action and public bodies has been produced since 2015. However, as a result of this gap, there are substantive risks that investments and subsidies in fossil gas assets, may serve undermine the state's delivery of net zero emissions by 2050. The challenge is that investments in fossil gas made now will likely lock-in higher gas usage (and resulting emissions) for decades to come. As noted by Torney (2018), the scale of Ireland's decarbonisation necessitates '*early and sustained action to avoid costly lock-in of high-carbon assets*'. Although this may involve a greater role for fossil gas in the medium term (as coal and peat are phased out), '*in the longer term, even lower carbon intensity fossil fuels will need to be eliminated from electricity generation.*' [155]

It is important to note that EU law does not impose specific obligations on the state regarding public body mandates in the context of EU climate objectives or the Sustainable Development Goals. More ambitious targets under the EU Green Deal, as well as green stimulus packages, may serve to expedite decarbonisation decisions in the Irish context, particularly changes to the ETS and greater funds available to energy efficiency and just transition measures. However it is not clear that associated EU legislation will alter obligations on state regulators and utilities and prevent carbon lock-in. It is in this context that the planned amendment of the 2015 Climate Act offers an opportunity to enhance the role and response public bodies with regard to climate targets and to improve related transparency and reporting obligations.

The following amendments to the 2015 Act should be considered:

- Public bodies should be required not merely to have regard to 2050 and interim targets, but to perform their functions in a manner consistent with such targets and associated carbon budgets.
- Public bodies should be required to perform their functions in a manner that respects national and international commitments for the conservation and sustainable use of biodiversity.
- Ensure a future Oireachtas standing committee on climate change is tasked with holding not only Government Departments, but also public bodies, to account for their operations and response to targets.
- Introduce transparent reporting requirements on public bodies in line with relevant Scottish legislation, including a remit for the Minister to assess and issue directions regarding such reports, and that public bodies must comply with such Ministerial directions. These reports should also demonstrate how governance and management arrangements deliver on climate responsibilities.
- Provide a legislative basis for the planned Climate Action Mandate for all public bodies and introduce a requirement for such bodies to carry out climate stress tests and climate-related financial disclosures.
- Ensure climate actions plans are produced not only by local government (as currently drafted in the General Scheme) but all public bodies.

- Ensure ‘climate justice’ and ‘sustainable development’ are incorporated not merely as elements to be considered by the Minister but that state responses and plans must be in compliance with such principles. It is also necessary to ensure principles of climate justice and sustainable development are defined in the Act and are incorporated in the form of separate deliverables/initiatives such as (inter alia):
    - the establishment of a Commissioner for Future Generations (as instituted in Wales),
    - just transition plans for affected industries,
    - enhanced functions for the Just Transition Commissioner to engage directly and independently with relevant industries,
    - transparent and early consultation with local communities and affected workers and trade unions,
    - human rights and environmental due diligence mechanisms,
    - implementation and integration of national plans and indicators in the Sustainable Development Goals.
- When setting a net zero target and sectoral targets, the Minister should act in accordance with (and not merely take account of) -
    - the need to ensure a just and socially fair transition;
    - the long-term objectives of the Paris Agreement
    - the best available and most recent scientific evidence, including the latest reports of the IPCC. 156

8.2GNI and ESB

The primary objectives of Irish and EU energy policy have evolved substantially in recent decades. Where once questions of energy security, competition and regulation dominated the agenda, climate commitments are now of equal, if not paramount, importance. It is evident that the decarbonisation of the energy and heating sectors presents major challenges for both GNI and ESB. This situation is complicated by the introduction of significant renewable generation, storage technologies and possibility of new fuels such as hydrogen in the coming years. The mandates of both bodies allow for continued and potentially increasing investment in fossil gas infrastructure which is not in line with the state’s Paris Agreement commitment. State subsidies, including the PSO levy and capacity remuneration mechanisms, allow for such continued investment and appear grounded in limited and potentially misleading energy security considerations.

In the case of GNI (and Ervia), proposed gas network expansion, demand assessments and proposals to expand connections are not in accordance with the state’s decarbonisation commitments.[157] Gas infrastructure is also planned largely separately from electricity and demand-side infrastructure, despite the interactions between two systems. Where GNI’s functions remain focused on expansion of pipeline infrastructure and where CRU’s regulatory framework does not adequately respond to these challenges,

it is open to question whether GNI activities and investment may serve to actively undermine the ESB's decarbonisation strategy which prioritises electrification of heat and transport. Both GNI and ESB employ gas and electricity demand and supply scenarios and strategies which are highly dependent on the development of Carbon Capture and Storage facilities, notwithstanding the major risks and potential moral hazards associated with such developments. ESB Generation and Trading also continue to plan for new gas-fired generation, notwithstanding increased investments in renewables and storage technologies. It also remains unclear to what extent ESB Networks has the capacity to expedite and facilitate increased levels of microgeneration and demand-side responses at domestic level. In relation to transparency and reporting, indicators such as the BITCI pledge have provided a useful starting point for companies to highlight emissions performance as part of corporate procedures. However, reports to date are inadequate in the context of state decarbonisation objectives and deficiencies noted in this report should be taken into account as part of obligations on Climate Action Mandates.

The Government should develop a strategy for the managed phase out of investment in, and support for, fossil fuels (including natural gas production, supply and GNI assets) in accordance with 2050 climate commitments, with state bodies taking the lead. The starting point in this regard should be to ensure that the mandates of the CRU, ESB and GNI, as detailed in Electricity Regulation Act 1999, the Gas Act 1976, and the Electricity (Supply) Act 1927, are amended and at a minimum incorporate commitments to:

- Act in accordance with national and international climate law
- Take account of and respond to the latest scientific evidence as produced by the IPCC.
- Ensure meaningful engagement and early consultation with citizens and local communities.
- Produce stress tests consistent with the Paris Agreement temperature objectives, taking into account the financial impact of changes in the useful life of assets.
- Report and monitor progress against relevant SDG indicators in their annual/sustainability reports.
- Report on GHG emissions across all business, assets and their entire value chain (Scope 1,2 and 3 emissions), including information on actions being taken to reduce absolute emissions in the context of sectoral targets (and carbon budgets).
- Produce climate stress tests and set out human rights and environmental due diligence procedures and report on environmental and social impacts.

These recommendations should be reflected in Shareholder Letters of Expectation, where appropriate. The Government should also revise the relevant Memorandum of Association for both bodies, incorporating relevant elements of these recommendations. The object of GNI to promote gas usage and network extensions should be removed. It is also essential that the Government ensures executive boards include members with expertise in climate science/biodiversity protection/sustainable development.

The Government should also review mandates of other relevant state agencies (e.g. EPA, SEAI, CCAC, Teagasc and Coillte) to ensure they have the resources to assist, monitor and/or ensure progress on climate

and SDG commitments, as appropriate. The recent agreement for SDG implementation to be addressed in relevant Select Oireachtas Committees may constitute a useful forum for such reviews to be expedited.

In relation to subsidies, the Department of Communications, Climate Action and the Environment should set out policies, timelines and measures to phase out all fossil fuels subsidies (which are currently in the region of €1billion annually). The Department of Finance and the Department of Public Expenditure should also carry out an analysis of fossil fuel subsidies in order to inform further revisions to the Climate Action Plan. These Departments and the CSO should also ensure all direct and indirect financial flows to GNI and the ESB, including relevant regulatory incentives, revenues and market-based supports, are taken into account in their respective analyses. Annual reports on the levels of such subsidies and supports should also be produced.

In relation to the functions of the two bodies, the ESB and GNI should -

- Produce strategies (including mitigation pledges) and revenue proposals that are demonstrably consistent with the state's net zero 2050 and interim targets and which prevent carbon lock-in and delayed mitigation
- Produce scenarios as part of such strategies which are not dependent on negative emissions technologies such as CCS. Where such technologies are raised, the strategies should set out how delayed mitigation, carbon lock-in and/or stranded asset risks will be prevented.
- Produce assessments (in conjunction with CRU and/or EirGrid) of gas and electricity demand, and associated infrastructure planning, based on scenarios that seek to meet both security of supply and state climate targets without new technologies such as CCS and biogas. It is important in the case of fossil fuel infrastructure and assets that GNI and ESB differentiate between capital expenditure needed to maintain existing supply and that needed to grow supply.
- As part of annual reports and financial statements, ensure transparent reporting on current and proposed emissions (Scope 1 to 3), climate risks including regarding potential stranded asset, compliance with/progress on state mitigation and adaptation commitments, as well as SDG targets and relevant environmental indicators, particularly biodiversity protection.
- Executive board meetings should have climate commitments and relevant SDG targets as standing items on their agendas with minutes of such meetings published online.
- Develop and implement a just transition strategy as part of plans to phase out fossil fuel-based operations/assets. This strategy should build upon the recommendations of the Just Transition Commissioner, NESC and the Joint Oireachtas Committee on Climate Action, involve immediate engagement and support for workers most at risk, address re-training and social protection needs, and ensure social dialogue between workers and their unions, employers, government and communities.
- Introduce a comprehensive training plan for staff on climate action, and SDG monitoring and reporting, across both bodies' respective operations.
- Ensure climate impact assessments are included in revenue and infrastructure proposals to the CRU.

GNI

- Remove goals which relate to the promotion of fossil gas use and expanding gas infrastructure and ensure gas demand scenarios correlate with state decarbonisation commitments and a net zero 2050 target (and interim targets).[158]
- Produce a strategy which addresses both a phase out of new domestic and small business connections and reduced gas demand from such customers (in light of energy efficiency commitments).
- Put forward a medium-term role for fossil gas for electricity generation and address both stranded asset risks and decommissioning of gas infrastructure. This strategy should be reviewed and approved by the CRU in accordance with climate targets.

ESB

- Produce a strategy which addresses the development of microgeneration and community-owned renewable energy in line with the state's objective of 70% renewable generation by 2030.
- Report on current and projected future emissions of all its existing and planned fossil fuel generating stations in its annual reports and as part of submissions to the CRU.
- As part of proposed investments in generation assets, including submissions to the CRU, assess the degree to which emissions associated with such stations can be meaningfully and substantially abated

8.3 Commission for Regulation of Utilities

- As raised D. Torney et al (2018), the CRU's mandate should be revised in order to give greater emphasis to decarbonisation objectives. This does not entail that existing market, consumer or safety functions should be removed. However in its regulatory analysis the CRU should provide for a wider definition of "cost effectiveness"/"least cost" which accounts for climate impacts and risks.[159]
- The CRU should follow the approach taken by its GB counterpart, Ofgem and produce a decarbonisation action plan focused on renewables expansion, electrification of heat and transport and electricity network upgrades in line with a net zero emissions target by 2050 and 70% RE by 2030.[160] This plan should also review of gas network asset depreciation in line with the net zero target.
- Decisions on 5-year revenue reviews for GNI and ESB should be subject to a climate change impact assessment produced by the CRU with input from relevant state authorities, such as the Climate Change Advisory Council. Investments approved by the CRU as part of such decisions should be demonstrably consistent with the state's latest Climate Action Plan, approved carbon budgets and sectoral targets.

- As part of revenue reviews, the CRU should assess and report on the risk of carbon lock-in and stranded assets, particularly in the context of the gas distribution network which is projected to see significantly less throughput from 2030 due to improved domestic energy efficiency and electrification of heat. [161] The CRU should also develop proposals for new indicators and benchmarks in upcoming price controls which would link allowed revenues to progress on mitigation actions and carbon budgets (in order to reduce absolute emissions and not mere efficiencies).

- The CRU should examine whether it is appropriate to allow remuneration for fossil gas-related assets, which must be significantly decreased over the next three decades and whose security of supply benefits may be partially or substantially replaced by other technologies. The CRU should plan for a long-term phase-out of fossil gas and write-down of appropriate elements of gas network assets, as is currently being undertaken by Ofgem, as well as by the California Public Utilities Commission. [162] In reaching a decision on whether additional gas infrastructure should continue to be underwritten by gas consumers as part of GNI's next price control in 2022, it is essential that associated costs and risks for both energy security and decarbonisation are fully considered and consulted upon at the earliest stage.

- The CRU should take steps to support heat pump installation in order to replace the majority of gas boiler demand over the next decade and address phase-out of fossil gas boilers for new domestic and commercial premises as part of its decisions on new gas connections and associated revenues in the next GNI price control. The CRU should take steps to ensure that zero-emissions technology and improved energy efficiency are prioritised wherever possible.

- The CRU should examine a full range of non-fossil based options to address future production gaps in the short, medium and long-term. The CRU should adopt a transparent approach to examining and responding to this challenge, and ensure structured engagement not only with network operators but also other state authorities such as the SEAI and the Climate Change Advisory Council.

- The CRU should ensure GNI and ESB assumptions of future gas demand, as well as projected abatement scenarios, are in accordance decarbonisation commitments and are assessed before system modelling is undertaken and published. The CRU should also ensure energy system modelling incorporates a range of perspectives through wider forms of deliberation and consultation.[163]

- The CRU should integrate climate compliance into its licencing procedures and require information on projected emissions and mitigation measures as part of applications for both authorisations to construct and licences to generate. [164]

- The CRU (in conjunction with the EPA and SEAI as appropriate) should publish annual reports on current and projected future GHG emissions from all upstream and downstream fossil gas activities, including exploration, production, prospective LNG projects, as well as from transmission, electricity generation and heating (from both semi-states and industry). This should also include an examination of methane leakage associated with Corrib production, offshore exploration and GNI assets.

End notes

1 This issue of fragmentation is addressed in
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6 Celine McInerney, Conor Hickey, Paul Deane, Joseph Curtin and Brian Ó Gallachóir on behalf of the EPA, 'Fossil Fuel Lock-in in Ireland: How Much Value Is at Risk?' (2015-CCRP-MS.27) Research Report No 302, 2019.

7 See also regarding state subsidies, Clodagh Daly on behalf of Friends of the Earth Ireland, Citizens for financial justice; the case for ending fossil fuel subsidies in Ireland, 2020

8 2015 Climate Action and Low Carbon Development Act

9 Article 15(1) 2015 Climate Action and Low Carbon Development Act

10 Article 3(2) (2) 2015 Climate Action and Low Carbon Development Act http://www.irishstatutebook.ie/eli/2015/act/46/enacted/en/print.html

11 See Articles 4.7(b) and 7.1 (c)

12 Draft General Scheme of the Climate Action (Amendment) Bill 2019 in January 2020. https://www.dccae.gov.ie/en-ie/climate-action/legislation/Documents/5/Heads_of_Climate_Amendment_Bill.pdf

13 The EPA has stated that Ireland will likely only achieve c.5% emissions reduction in the non-ETS sector compared to its target of 20%. The SEAI have indicated that while zero-carbon renewable energy generated 33% of all electricity in 2018 and overall energy-related CO2 emissions declined slightly, emissions from energy use for transport and heating are increasing and Ireland is not on track to meet long term decarbonisation goals. SEAI, Energy- Related CO_2 Emissions in Ireland 2005-2018, 5 March 2020 https://www.seai.ie/publications/Energy-Emissions-Re-

port-2020.pdf Their analysis shows that Ireland is also not on track to meet 2020 renewable energy targets and has made the second lowest progress to meeting the overall RES target of all EU Member States. SEAI, Renewable Energy In Ireland, 2020 Update, April 2020 https://www.seai.ie/publications/2020-Renewable-Energy-in-Ireland-Report.pdf

14 Article 3(3) of the EU proposed Regulation 'establishing the framework for achieving climate neutrality' (European Climate Law) COM(2020) 80 final 2020/0036 (COD)

15 DCCAE, Energy White Paper, 2015

16 The 2019 report of the Joint Oireachtas Committee on Climate Action made recommendations relating to public bodies, climate governance, fossil fuel phase-out and renewables developments. Several of these have been partially or fully adopted in the Government's 2019 Climate Action Plan and the 2020 Programme for Government. In the context of this study, it is useful to note that the Committee called for - A target for the renewable share of electricity generation of at least 70% by 2030; Legislation to amend the Climate Action to strengthen 'the statutory obligation on public bodies to require that they perform their functions in a manner consistent with the 2050 target and interim targets'; A new Standing Oireachtas Committee with responsibility for (inter alia) holding relevant public bodies to account; The 'active use of Moneypoint be kept to a minimum'; ESB should report quarterly on options to phase out coal and peat burning for electricity generation.

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18 These Actions include no. 16 to 20, 25, 30, 33 and 71. DCCAE, Climate Action 2019 Annex of Actions https://www.dccae.gov.ie/en-ie/climate-action/publications/Documents/16/Climate_%20Action_Plan_2019_Annex_of_Actions.pdf

19 DPER, Code of Practice for the Governance of State Bodies, 2016

20 Relevant commitments include: to increase the carbon tax to 100 euro per tonne by 2030 and consider implementation of a carbon price floor in the ETS; to put in place new stress tests for financial institutions regarding climate risks and fossil fuel use; to review implementation of the Business and Human Rights Action, including mandatory due diligence; a new plan to reach 70% renewable electricity by 2030 which will address necessary legislation and infrastructure; new solar energy strategy and review of planning exemptions relating to solar panels; strengthened policy framework to incentivise electricity storage and interconnection; a new long-term plan on expanding offshore renewable energy and maritime infrastructure; prioritisation of microgeneration, such that excess power can be sold by June 2021; a national energy efficiency action plan with higher targets for all sectors; efficiency standards for equipment and processes, including data centres; ending new licences for offshore gas exploration, supporting sustainability rules relating to EU Projects of Common Interest, removing Shannon LNG from the PCI list and rejecting the importation of fracked gas.

21 See Article 44 http://www.legislation.gov.uk/asp/2009/12/data.pdf

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https://www.irishtimes.com/business/energy-and-resources/esb-and-harmony-solar-to-spend-30m-building-power-plants-1.4249759
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https://www.ofgem.gov.uk/system/files/docs/2020/02/ofg1190_decarbonisation_action_plan_revised.pdf

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73 The analysis found that almost 90 per cent of all EU money for fossil gas went to projects of the 44 companies that are members of ENTSO-G and EU gas demand has been overestimated by between 6 and 17 per cent. They recommend ENTSOG's forecasting and infrastructure development responsibilities should be transferred to an independent public body and that all fossil

fuel projects should be excluded from future Project of Common Interest lists and funding under the Connecting Europe Facility. See https://www.globalwitness.org/en/campaigns/oil-gas-and-mining/pipe-down/

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3) McMullin also points out that potentially limited capacity for geological carbon storage within Ireland. McMullin et al, 2018. Is Fossil gas "Essential for Ireland's Future Energy Security"? Independent academic review commissioned on behalf of Stop Climate Ireland. https://tinyurl.com/sjutvfm
4) EPA research refers to international studies which show that negative emissions technologies including bioenergy with CCS may only extend the 2050 carbon budget by modest amounts and that they are subject to significant uncertainty. See Caldecott, B., Lomax, G. and Workman, M., 2015. Stranded Carbon Assets and Negative Emissions Technologies. Smith School of Enterprise and the Environment, University of Oxford, Oxford as noted in https://www.epa.ie/researchandeducation/research/researchpublications/researchreports/Research_Report_302.pdf
5) E3G have highlighted the production of fossil gas is characterised by significant methane emissions along the supply chain and as a result, CCS alone is unlikely to bring emissions down to zero. E3G Renewable and Decarbonised Gas Options for a Zero-Emissions Society, Lisa Fischer June 2018

120 CRU, Electricity Security of Supply Report 2018

121 GNI Ten year Network Development Plan 2018

122 CER, Decision on October 2017 to September 2022 Transmission Revenue for Gas Networks Ireland CER/17/ 260 https://www.cru.ie/wp-content/uploads/2017/06/CER17260-PC4-CER-Transmission-Decision-Paper.pdf. See also CER Decision on October 2017 to September 2022 Distribution Revenue for Gas Networks Ireland CER/17/259

123 EPA Research Report No 302, Fossil Fuel Lock-in in Ireland: How Much Value Is at Risk?

(2015-CCRP-MS.27) Prepared by University College Cork (Authors: Celine McInerney, Conor Hickey, Paul Deane, Joseph Curtin and Brian Ó Gallachóir)

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128 EirGrid SONI All-Island Generation Capacity Statement 2019-2028

129 EPA Research Report No 302, Fossil Fuel Lock-in in Ireland: How Much Value Is at Risk? (2015-CCRP-MS.27) Prepared by University College Cork (Authors: Celine McInerney, Conor Hickey, Paul Deane, Joseph Curtin and Brian Ó Gallachóir)

130 See Barry McMullin Security of Supply] McMullin et al, 2018. Is Fossil gas "Essential for Ireland's Future Energy Security"? Independent academic review commissioned on behalf of Stop Climate Ireland. https://tinyurl.com/sjutvfm

131 EirGrid Tomorrow's Energy Scenarios 2019 Ireland Planning our Energy Future

132 See https://www.independent.ie/business/irish/esb-lodges-plans-for-75mw-dublin peaker-plant-39174692.html

133 See https://www.irishtimes.com/business/energy-and-resources/esb-could-spend-700m-on-plan-to-meet-surging-electricity-demand-1.3849983

134 https://www.independent.ie/business/irish/12bn-esb-coal-power-station-now-worthless-36722840.html

135 Gas Networks Ireland, Network Development Plan 2018

136 The joint response from the DBEI IDA and Enterprise Ireland highlights that grid investment will need to facilitate a significant decentralisation of electricity generation. They also notes that the CRU must ensure businesses deploy on-site renewables, and that significant grid costs as a result of a single new development should not be cross-subsidised by other businesses or electricity customers. Joint response from DBEI IDA and Enterprise Ireland Submission to the Commission for Regulation of Utilities regarding Electricity Networks Price Review 2021 - 2025 (PR5) CRU/19/152. In their response IWEA recommend that incentives on network companies to address local security of supply issues 'should be linked to achieving low carbon outcomes'. They note the risk that Dublin-based datacentres may install conventional generation plant on site, which would run the risk of 'removing space for renewables, driving up curtailment and making it extremely difficult to reach a 70% RES-E level.' They therefore recommend that 'any conventional generators connecting with data centres should only be incentivised to operate as peaking plant and not to provide baseload power'. IWEA Response to the CRU's Discussion Paper on the Approach for Transmission & Distribution Price Review Five Submitted on 30 January 2020 By contrast, Bord Gáis Energy appear to deprioritise decarbonisation objectives. recommending that the CRU in its objectives should provide that ESBN ensures that 'the ongoing security

of supply of the system is not compromised in the interest of the longer-term low carbon goal.' Bord Gáis Energy Response Discussion Paper on the Approach for Transmission and Distribution Price Review Five (CRU/19/152) 30 January 2020

137 CRU, PR5: Electricity Networks Price Review Five 2021 – 2025 Discussion Paper on the Approach for Transmission & Distribution Price Review Five CRU/191/52

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See also https://www.researchgate.net/publication/332786028_The_European_Union's_2014_Non-Financial_Reporting_Directive_Mandatory_Ex_Post_Disclosure_-_But_Does_It_Need_Improvement ;
https://www.linkedin.com/pulse/second-time-lucky-how-make-eu-non-financial-reporting-mardi-mcbrien ;
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143 See https://www.fsb-tcfd.org/

144 See https://ec.europa.eu/info/sites/info/files/business_economy_euro/company_reporting_and_auditing/documents/2020-non-financial-reporting-directive-consultation-document_en.pdf

145 See https://amp.ft.com/content/09444686-e4da-4360-98ba-51fc670c3826

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147 BITCI report that 47% of signatories did not receive an external audit of reported emissions data and 17% of companies had no internal verification procedures in place.

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https://www.bitc.ie/wp-content/uploads/2020/06/Low-Carbon-Pledge-Report-2020_FINAL_v3.pdf

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