

## ClientEarth's submission to The House of Lords Industry and Regulators Committee's inquiry into Ofgem and net zero

### Introduction

We welcome the Industry and Regulators Committee's inquiry into Ofgem and net zero. Emissions reductions in the energy sector are critical to the UK reaching its net zero emissions by 2050 binding target, and the functions of all entities with energy system governance responsibilities must align with that target.

This submission addresses the following questions from the Committee's call for evidence:

- (A) What role should Ofgem play in the transition to net zero? What changes, if any, should be made to its remit, responsibilities and resources?
- (B) Are Ofgem's duties and powers appropriate and sufficiently clearly defined? Do Ofgem's objectives conflict and, if so, how should any conflicts be managed?

We outline how five legislative reform proposals could position Ofgem for decarbonisation in line with UK climate targets. These reform proposals have benefited from input provided by counsel Tim Johnston of Brick Court Chambers.

### Ofgem's role in net zero

As the regulator of the energy system, Ofgem has a crucial role in enabling the UK to reach net zero emissions by 2050. To meet its climate targets, the UK will need to accelerate its energy system decarbonisation, without causing emissions leakage outside its own borders. While the country has made considerable progress in decarbonising the electricity system over the last three decades, the majority of emissions still occur through the combustion of fossil fuels in the energy system (electricity production, transport, heat in buildings, and industry).<sup>1</sup> The Committee on Climate Change has stated that between 2019 and 2035, sectoral emissions from electricity supply and buildings need to reduce by 55% and 41% respectively.<sup>2</sup>

The manner in which Ofgem exercises its powers and carries out its functions under the Electricity Act 1989, the Gas Act 1986 (collectively referred to as the **Acts**) and other legislation,<sup>3</sup> set the regulatory dynamics for energy system governance in the UK, and send important investment signals. Ofgem should be legally required to carry out those functions in a way that is consistent with the UK meeting its climate targets. In order to achieve this, Ofgem's legislated objectives should be revised to provide a clear mandate for energy system decarbonisation (outlined further below).

In their current form, section 3A of each of the Electricity Act 1989 and section 4AA of the Gas Act 1986 set out the principal objective of both the Secretary of State of BEIS, and the Gas and Electricity Markets Authority (**GEMA**). The principal objective includes three elements: reduction of targeted greenhouse gas (**TGHG**) emissions in the interests of current and future consumers, security of supply, and fulfilment

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<sup>1</sup> Committee on Climate Change, 'The Sixth Carbon Budget' (December 2020) available at <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf> at page 60.

<sup>2</sup> Committee on Climate Change, 'The Sixth Carbon Budget' at page 28.

<sup>3</sup> Ofgem's powers and functions are also set out in the Utilities Act 2000, Competition Act 1998, Enterprise Act 2002, Energy Act 2004, Energy Act 2008 and Energy Act 2010.

of the designated regulatory objectives (**DROs**). The DROs widen the ambit of the principal objective to include establishment of a competitive energy market, and other considerations.<sup>4</sup>

These statutory objectives are considered by many to be outdated and not sufficiently supportive of decarbonisation. The National Infrastructure Commission (**NIC**) has pointed out that the current regulatory system was designed to address competition issues.<sup>5</sup> This emphasis on competition is evident in the regulatory regimes of each of the Acts, in which Ofgem and BEIS are required to carry out their functions in the manner best calculated to further the principal objective, “wherever appropriate by promoting effective competition”.<sup>6</sup> The NIC observes that under the existing legislative framework, it is hard for regulators to prioritise investments for long-term outcomes which would impose costs on consumers in the short-term.<sup>7</sup> In relation to Ofgem, the regulator “has come under criticism for not being able to prioritise decarbonisation, making it more difficult to finance long-term projects to mitigate climate change (such as providing electric vehicle charging infrastructure and decarbonising heat)”.<sup>8</sup>

Concern over the lack of a clear decarbonisation mandate fits into a broader criticism that Ofgem generally lacks clarity of statutory remit. The 2007 House of Lords Select Committee on Regulators’ First Report noted concerns about a lack of clarity of regulatory mandates, citing concerns among energy market stakeholders of governments expanding a regulator’s remit to avoid making politically-sensitive decisions themselves.<sup>9</sup>

## **Reform of Ofgem’s duties, powers and statutory objectives**

### **(1) The principal objective set out in the Acts (which governs the decision-making of Ofgem as well as BEIS), should be narrowed to focus purely on decarbonisation and security of supply**

The principal objective is evidently very broad, and makes the regulator’s role unnecessarily ambiguous. It does not provide Ofgem with a sufficiently clear statutory remit in relation to decarbonisation. In this context, Ofgem has been accused of sending negative pricing and other signals to the market in relation to decarbonisation by failing to prioritise climate targets when it sets rules.<sup>10</sup> Further, the existing legislative framework is ill-equipped to address medium- and long-term priorities in terms of infrastructure, particularly those priorities that would impose costs on consumers, or require government subsidisation, in the short-term.

We urge the Committee to therefore consider the merits of amending the objectives of the Acts by:

- (a) Narrowing the principal objective to encompass only security of supply and reduction of TGHGs; and
- (b) Adding a requirement that all powers be exercised, and functions carried out, in accordance with the principal objective, such that it takes priority over other objectives.

As the DROs are derived from EU law, it would be appropriate for updated objectives to be issued which reflect the UK Government’s commitment to a binding net zero target and ambitious, accelerated

<sup>4</sup> S3A(5B) of CCA 2008 provide that the DROs are those set out at Article 36(a) to (h) of Directive 2009/72/EC concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC

<sup>5</sup> National Infrastructure Commission, ‘Strategic Investment and Public Confidence’ (October 2019) available at <https://nic.org.uk/app/uploads/NIC-Strategic-Investment-Public-Confidence-October-2019.pdf> at page 36.

<sup>6</sup> Electricity Act 1989 section 3A(1B), Gas Act 1986 4AA(1B).

<sup>7</sup> See generally National Infrastructure Commission, ‘Strategic Investment and Public Confidence’ (October 2019) available at <https://nic.org.uk/app/uploads/NIC-Strategic-Investment-Public-Confidence-October-2019.pdf>.

<sup>8</sup> National Infrastructure Commission, ‘Strategic Investment and Public Confidence’ at page 36.

<sup>9</sup> Regulators Committee Publications, Session 2006-07, available at <https://publications.parliament.uk/pa/ld200607/ldselect/ldrgltrs/189/18902.htm> at paragraphs 3.5 and 3.10.

<sup>10</sup> See, for example, analysis from Baringa (commissioned by RenewablesUK and Scottish Renewables) on the impacts of Ofgem’s Targeted Charging Review on clean energy generation: Baringa, “Grid charging reforms: Qualitative impact assessment of selected options” (11 March 2020).

decarbonisation. Also, given the UK energy market is highly liberalised, it is no longer necessary to give such weight to the DROs.

**(2) Impose a specific carbon budget in relation to the UK energy sector (as a proportion of the wider carbon budget for the UK as a whole)**

A substantial legislative amendment to ensure Ofgem (and other entities responsible for energy system governance) delivers on climate targets in accordance with the Climate Change Act 2008 would be to place into statute a specific target for decarbonisation within the electricity sector (and similar obligations for other major emitting sectors). This could involve assigning specific allocations of the UK carbon budget to the energy sector and then imposing a bespoke statutory target for the sector.

**(3) Impose an obligation on BEIS to publish periodically a Strategy and Policy Statement to guide Ofgem's functions and decision-making**

The regulatory framework in the Acts does not explain the division of responsibility between Ofgem (acting on behalf of GEMA) and BEIS, nor how policy should be set and implemented between those entities. Under current legislation, this policy-setting gap could be filled through BEIS issuing a Strategy and Policy Statement under section 131 of the Energy Act 2013. That Act provides that, when carrying out its functions, Ofgem must have regard to any strategic priorities set out in such a statement.<sup>11</sup> Successive governments have opted not to provide such a statement, but the current Government has committed to doing so.<sup>12</sup>

The power in section 131 of the Energy Act 2013 for BEIS to issue a Strategy and Policy Statement should be amended to provide a duty to publish a such a document with renewals every three years. This would ensure that the strategic leadership in terms of decarbonisation comes from BEIS as the responsible government department.

**(4) Ofgem should be required to verify information that it relies on in relation to TGHG emissions (in particular methane and sulphur hexafluoride (SF6) emissions)**

Ofgem and BEIS have chiefly focussed on abatement of carbon dioxide emissions in the electricity sector, but ClientEarth is concerned that both Ofgem and BEIS are failing to address other greenhouse gases in the electricity and gas industries, particularly methane and SF6. These gases are extremely greenhouse-damaging, and have been shown to be leaking (and deliberately released) throughout energy systems and gas supply chains. Ofgem and BEIS appear to be relying on self-reporting of these emissions by market participants, and in many contexts self-reporting has been shown to lead to serious underestimation of emissions (see further Annex I).

The paucity of regulation of non-carbon dioxide greenhouse gases could mean that Ofgem's energy system modelling might not account for the real impact of certain system planning decisions. Ofgem's decisions have an important bearing on the incentive environment for competing energy market participants and investments. The emissions modelling used to inform those decisions is therefore integral to decarbonisation efforts. Through an environmental information request to BEIS, ClientEarth found evidence of Ofgem failing to even comply with BEIS's system modelling guidance for greenhouse gas emissions (see further Annex I, 'Modelling').

<sup>11</sup> Section 132 of the Energy Act 2013.

<sup>12</sup> Section 131 of the Energy Act 2013 provides that the Secretary of State may publish a strategy and policy statement. Commitment to issue a statement was included in the December 2020 Energy White Paper.

The most straightforward statutory amendment to remedy this would be to add to Part 1 of each of the Acts a provision that one of the functions of Ofgem is to gather and verify data in relation to emissions of TGHGs.

### **(5) Public entities should account for all emissions caused by UK consumption**

Ofgem and BEIS should be given clear statutory direction to take into account, and reduce, emissions outside the UK's borders which are caused by the UK's consumption of imported electricity and energy fuel, when exercising their powers and fulfilling their duties. There is precedent for such a consumption-based approach to emissions accounting in New York State's climate legislation, which accounts for "emissions of greenhouse gases produced within the state from anthropogenic sources and greenhouse gases produced outside of the state that are associated with the generation of electricity imported into the state and the extraction and transmission of fossil fuels imported into the state".<sup>13</sup>

Emissions reporting under the UNFCCC/Paris Agreement is focused on the emissions within a country's physical territory, which can create distorted incentives for countries to increase their extraterritorial energy emissions through, for example, increased reliance on imported fossil/natural gas, imported gas-based hydrogen, imported biomass, as well as electricity imports from carbon intensive exporters.

- For fossil gas, independent scientific studies show that lifecycle supply chains emissions of methane can be so significant that the overall climate impact of gas-derived energy is worse than coal.<sup>14</sup> Most of these emissions occur well beyond the UK's borders, at the point of extraction, processing and transport in exporting and transmitting countries.
- For gas-based hydrogen, a recent study has shown that even with carbon capture applied at the point of combustion, supply chain emissions would make this a more polluting form of energy than fossil/natural gas, even if supply chain emissions were a very conservative 1.54%.<sup>15</sup>
- For biomass, the Climate Change Committee has noted that net imports of bioenergy have increased more than threefold from 2008 to 2017, driven by wood pellet imports from North America for use in Drax power plant. This means the UK now imports over one-quarter of its bioenergy feedstocks.<sup>16</sup>

In terms of interconnection, National Grid ESO's Network Options Assessment of this year estimates that interconnection with Europe is set to triple over the next six years. There are concerns that the regulatory regime set by Ofgem disincentivises the production of clean, local energy, and incentivises high levels of interconnection. Analysis from the Renewable Infrastructure Development Group, commissioned by RenewablesUK, shows that the UK's current transmission network charging regime looks set to

<sup>13</sup> Climate Leadership and Community Protection Act (2019), State of New York Article 75-0101(13) available at: <https://legislation.nysenate.gov/pdf/bills/2019/S6599>. For an explanation of the legislative rationale and process, see Robert W. Howarth, "Methane emissions from fossil fuels: exploring recent changes in greenhouse-gas reporting requirements for the State of New York" (25 August 2020) *Journal of Integrative Environmental Sciences* available at <https://www.tandfonline.com/doi/full/10.1080/1943815X.2020.1789666>.

<sup>14</sup> See International Energy Agency, *The Role of Gas in Today's Energy Transitions* (2019) available at <https://webstore.iea.org/download/direct/2819?filename=theroleofgas.pdf> at p. 41; Oil Change International, *Burning the Gas 'Bridge Fuel' Myth: Why Gas is not Clean, Cheap or Necessary* (2019) available at <http://priceofoil.org/2019/05/30/gas-is-not-a-bridge-fuel/> at p. 4; Ramon Alvarez et al., 'Greater focus needed on methane leakage from natural gas infrastructure', (2012)109(17) *PNAS* 6435, 6437 available at: <https://www.pnas.org/content/pnas/109/17/6435.full.pdf>. The latter research suggests that for gas to have net climate benefits compared to coal in electricity generation over a 20-year period, methane leakage rates associated with the gas supplied must be kept below a threshold of around 3.2%.

<sup>15</sup> Robert W. Howarth and Mark Z. Jacobson "How green is blue hydrogen?" (12 August 2021) *Energy Science & Engineering* available at: <https://onlinelibrary.wiley.com/doi/full/10.1002/ese3.956>.

<sup>16</sup> Committee on Climate Change, "Biomass in a low-carbon economy" (November 2018) page 33.

increasingly disadvantage the UK and particularly Scotland (which hosts 25% of Europe's wind resource), and encourage investment in less efficient projects across other regions of the continent.<sup>17</sup>

The Climate Change Committee has highlighted some of the benefits of the UK taking a consumption-based approach to emissions accounting:<sup>18</sup>

*“Regardless of choices over where the UK gets its fossil fuels at the margin, the UK should adopt a policy to limit the greenhouse gas emissions from the production/supply of fossil fuels consumed in the UK, irrespective of where the emissions occur. This could be achieved through implementation of minimum standards or border carbon tariffs on imports. Such a framework would help deliver around 10% of the economy-wide emissions reduction required to meet the NDC for 2030 and drive the 75% reduction in UK fossil fuel supply emissions from 2018 to 2035 that we have recommended in our Sixth Carbon Budget advice, without biasing consumption towards imports with a higher emissions footprint.”*

Importantly, such policies would also likely improve competition, by factoring in some of the environmental externalities caused by unsustainable energy imports. Only by requiring Ofgem (and other entities overseeing the energy market) to fully account for supply-chain emissions of all greenhouse gases from gas, hydrogen, biomass and electricity interconnection, will the UK Government be able to genuinely reduce the emissions it causes.

## Annex I

### Non-carbon dioxide emissions accounting

#### (a) Significance of methane and SF6

Methane is the main component of fossil or ‘natural’ gas, and is a highly potent greenhouse gas. Methane is leaked in ‘fugitive emissions’ throughout the fossil gas supply chain. It is shorter-lived than carbon dioxide but traps more heat in the atmosphere, accelerating global warming at a faster rate. The climate impact of methane emissions depends on the timeframe: on a 100-year time frame, methane emissions have around 30 times the global warming impact than carbon dioxide emissions; over 20 years, methane emissions are around 83 times worse.<sup>19</sup>

SF6 is an extremely long-lasting greenhouse pollutant that is used in electrical switchgear throughout distribution and transmission networks. On a 100-year timeframe SF6 is 23,500 times more greenhouse damaging than carbon dioxide; over 20 years, it is 17,500 times worse.<sup>20</sup>

#### (b) Regulatory regime

The UK lacks rigorous reporting, verification and enforcement frameworks for methane and SF6 emissions.

While companies report to the Government on SF6 and methane emissions to some extent, this reporting is generally not linked to binding targets, incentives or penalties in the energy market regulated by Ofgem and BEIS.

<sup>17</sup> Marc Smeed, “Charging the Wrong Way” (24 May 2021) *Renewable Infrastructure Development Group*.

<sup>18</sup> Letter from Lord Deben, Climate Change Committee, to The Rt Hon Kwasi Kwarteng MP (31 March 2021) available at <https://www.theccc.org.uk/publication/letter-advice-to-the-uk-government-on-compatibility-of-onshore-petroleum-with-uk-carbon-budgets/>.

<sup>19</sup> IPCC Sixth Assessment Report, “Climate Change 2021: The Physical Science Basis”, Table 7.15 7-125.

<sup>20</sup> IPCC, ‘Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change’ available at [https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_Chapter08\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf) at Table 8.A.1 at page 733.

An exception is that Ofgem sets targets for SF6 emissions from electricity transmission networks, monitors company reporting on compliance with those targets and links performance against those targets to network price controls for transmission network operators.<sup>21</sup> However companies self-report under the regime, and ClientEarth understands that neither BEIS nor Ofgem conducts systematic regular verification of that reporting, and that no similar reporting requirements apply to distribution systems.

A study published in August 2018 on SF6 emissions in the UK found that while the rate of reported leaks across the UK distribution network was 0.46% of the total SF6 installed inventory, modern distribution equipment should have a leakage rate of 0.1%.<sup>22</sup> That study also found that in the year 2015-2016, 1,105.35 kg of SF6 of SF6 leaked from the distribution network,<sup>23</sup> and 10,215 kg leaked from the transmission network.<sup>24</sup>

Academics and the electricity industry have raised concerns that these could be underestimates, as atmospheric concentrations of SF6 indicate leakage is occurring globally at a higher rate than is being reported, and industry studies in the UK have shown that leakage from switchgear could be as high as 15%.<sup>25</sup>

In relation to methane emissions from the energy system, ClientEarth understands that Ofgem and BEIS do not have emissions reductions targets. This is concerning in light of evidence that methane emissions at the downstream level (that is, where gas is used for electricity and heat), including cities, are higher than reported levels. For example, a study published in August 2020 from Utrecht University suggested that leaky gas pipelines could be releasing thousands of tonnes of methane across Europe each year.<sup>26</sup> The study discovered increased methane concentrations at 145 points in the Hamburg city area, 50 of which are due to gas utility leaks, and only 20% of which were detected by the local gas utility.<sup>27</sup> The researchers found that in total, the Hamburg gas network released about 286 tonnes of methane emissions into the atmosphere.<sup>28</sup>

The lack of rigorous data collection on gas sector methane leaks is also evident in BEIS's emissions reporting. In its 2018 report on greenhouse gas emissions (that is, the report used as the basis for UK Government reporting to the UNFCCC), BEIS noted:<sup>29</sup>

*Three short studies into fugitive emissions from the energy sector were conducted in 2019. None of these studies have led to any notable recalculation of emission estimates in any year except 2012. Key outcomes from the studies are as follows:*

<sup>21</sup> Ofgem, 'Energy Network Indicators' available at <https://www.ofgem.gov.uk/data-portal/network-indicators>; Ofgem, 'Sulphur Hexafluoride (SF6) emissions: Electricity transmission (RIIO-T1)' available at <https://www.ofgem.gov.uk/data-portal/sulphur-hexafluoride-sf6-emissions-electricity-transmission-riio-t1>.

<sup>22</sup> Phillip Widger and Abderrahmane (Manu) Haddad, 'Evaluation of SF6 Leakage from Gas Insulated Equipment on Electricity Networks in Great Britain' (2018) *Energies* available at [https://www.researchgate.net/publication/326875432\\_Evaluation\\_of\\_SF6\\_Leakage\\_from\\_Gas\\_Insulated\\_Equipment\\_on\\_Electricity\\_Networks\\_in\\_Great\\_Britain](https://www.researchgate.net/publication/326875432_Evaluation_of_SF6_Leakage_from_Gas_Insulated_Equipment_on_Electricity_Networks_in_Great_Britain).

<sup>23</sup> *Ibid* at page 4.

<sup>24</sup> *Ibid* at page 7.

<sup>25</sup> Matt McGrath, 'Climate change: Electrical industry's 'dirty secret' boosts warming' *BBC* (13 September 2019) <https://www.bbc.co.uk/news/science-environment-49567197>.

<sup>26</sup> Hossein Maazallahi et al, 'Methane mapping, emission quantification and attribution in two European cities; Utrecht, NL and Hamburg, DE' (August 2020) *Atmospheric Chemistry and Physics* available at [https://www.researchgate.net/publication/343529277\\_Methane\\_mapping\\_emission\\_quantification\\_and\\_attribution\\_in\\_two\\_European\\_cities\\_Utrecht\\_NL\\_and\\_Hamburg\\_DE](https://www.researchgate.net/publication/343529277_Methane_mapping_emission_quantification_and_attribution_in_two_European_cities_Utrecht_NL_and_Hamburg_DE)

<sup>27</sup> *Ibid* at page 13.

<sup>28</sup> Robert Hodgson, 'Study suggests significant climate impact of gas leaks in cities' (7 December 2020) *ENDS Europe* available at <https://www.endsurope.com/article/1702109/study-suggests-significant-climate-impact-gas-leaks-cities>.

<sup>29</sup> BEIS, '2018 UK Greenhouse Gas Emissions, Final figures' (4 February 2020) available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/862887/2018\\_Final\\_greenhouse\\_gas\\_emissions\\_statistical\\_release.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/862887/2018_Final_greenhouse_gas_emissions_statistical_release.pdf) at page 30.

- *Downstream gas fugitives: there are no data recalculations this year; however, two studies are ongoing to address potential small gaps in the inventory;*
- *Upstream oil and gas fugitives: access to new data sources but further analysis is required before any changes are implemented in the inventory so no data recalculations have occurred as a result this year;*
- *Emission estimate from the Elgin field gas leak in the North Sea in 201229: a new emission estimate for methane (64 ktCO<sub>2</sub>e) has been estimated based on a research publication and added to the 2012 dataset.*

Following an access to information request, BEIS provided to ClientEarth the three short studies referred to, and noted the studies were conducted by Ricardo Energy & Environment. The studies revealed a serious lack of information about the extent of methane leaks from energy-related activities. The first study is in a report titled 'NAEI 2019-2020 Improvement Item: Energy Sector Fugitives (E1)' (**Report E1**) and the second and third are combined in the report titled 'NAEI 2019-2020 Improvement Item: Energy Sector Fugitives (E4, E6)' (**Report E4 and E6**).

Report E1 notes ('XXXXX' indicating redactions):<sup>30</sup>

*'There is no information currently on the fugitive releases from Independent Gas Transporter (IGT) networks; there are 7 companies that are all represented by the XXXXX. The XXXXX is commissioning XXXXX to do a study on leakage from their networks. This is being specified currently, no date has been fixed for reporting. XXXXX confirmed that they expect the leakage from IGTs to be extremely small as the networks are "99% plastic pipes" and regarded to have almost negligible emissions.*

- *→ There are no data on leakage from IGTs currently, but we should go back to XXXXX, suggest in early summer 2020, to see if there is any progress on the research. In the meantime, we have industry confirmation that the emissions are expected to be minimal due to new plastic pipework being used throughout.'*

Report E4 and E6 includes the following, in relation to data collection on upstream oil and gas:<sup>31</sup>

*'Research to progress inventory quality (completeness, accuracy) across several areas of emerging interest in the energy sector (fugitives). Consultation and data gathering / analysis for the following.*

*The [Expert Review Team] in the 2017 review asked specifically about fugitives in upstream oil and gas, which we report using [Environmental Emissions Monitoring System (EEMS)] data from well testing, but we need to follow-up with BEIS [Offshore Petroleum Regulator for Environment and Decommissioning (OPRED)] and the industry to check completeness there. There were several discussions with BEIS OPRED during the review and in other meetings. This seems to be a grey area to the regulators too.*

- *"Well testing". The OPRED team weren't able to definitively describe the scope of the emissions reported within EEMS for well testing, which includes a notable amount of methane, as well as CO<sub>2</sub>, so the working assumption has been that it isn't entirely combustion nor entirely fugitive. There seems to be a lack of technical knowledge within BEIS to answer the questions.'*

As the entities responsibly for governance and regulation of the energy market, Ofgem and BEIS could reasonably be given greater oversight of greenhouse gas reporting and enforcement in the energy system, and the resources to address these important issues. However it is also understandable that

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<sup>30</sup> Page 2.

<sup>31</sup> Pages 2 and 3.

without a clear mandate to monitor and address the issues (by for example, setting targets that are linked to the UK's binding climate target), they are failing to do so.

(c) Modelling

The paucity of regulation of non-carbon dioxide greenhouse gases could mean that Ofgem's energy system modelling might not account for the real impact of certain system planning decisions. As outlined above in relation to the TCR, Ofgem's decisions have an important bearing on the incentive environment for competing energy market participants. The emissions modelling used to inform those decisions is therefore integral to decarbonisation efforts.

Through an environmental information request to BEIS, ClientEarth found evidence of Ofgem failing to even comply with BEIS's system modelling guidance for greenhouse gas emissions. In correspondence between Ofgem and ClientEarth, Ofgem noted that 'documentation from BEIS on the valuation of energy use and greenhouse gas highlights that non-marginal policies (such as the [Targeted Charging Review]) should be appraised using bespoke analysis.'<sup>32</sup> Ofgem included a footnote for this statement, to BEIS's 'Valuation of Energy Use and Greenhouse Gas: Background Documentation' (**Valuation Guidance**).<sup>33</sup> The Valuation Guidance provides that such analysis should be done in consultation with the relevant experts in BEIS, and be consistent with certain other guidance documents.<sup>34</sup> In BEIS's response to a request from ClientEarth for information regarding Ofgem's consultation of BEIS's experts, it noted "BEIS was not involved in Ofgem's analysis for the Targeted Charging Review, and therefore holds no information for this part of your request."<sup>35</sup>

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ClientEarth is an environmental law charity, a company limited by guarantee, registered in England and Wales, company number 02863827, registered charity number 1053988, registered office 10 Queen Street Place, London EC4R 1BE, a registered international non-profit organisation in Belgium, ClientEarth AISBL, enterprise number 0714.925.038, a registered company in Germany, ClientEarth gGmbH, HRB 202487 B, a registered non-profit organisation in Luxembourg, ClientEarth ASBL, registered number F11366, a registered foundation in Poland, Fundacja ClientEarth Poland, KRS 0000364218, NIP 701025 4208, a registered 501(c)(3) organisation in the US, ClientEarth US, EIN 81-0722756, a registered subsidiary in China, ClientEarth Beijing Representative Office, Registration No. G1110000MA0095H836. ClientEarth is registered on the EU Transparency register number: 96645517357-19. Our goal is to use the power of the law to develop legal strategies and tools to address environmental issues.

<sup>32</sup> See Annex 1.

<sup>33</sup> BEIS, 'Valuation of Energy Use and Greenhouse Gas: Background Documentation' (April 2019) available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/794738/background-documentation-guidance-on-valuation-of-energy-use-and-greenhouse-gas-emissions.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/794738/background-documentation-guidance-on-valuation-of-energy-use-and-greenhouse-gas-emissions.pdf).

<sup>34</sup> BEIS, 'Valuation of Energy Use and Greenhouse Gas' at page 4.

<sup>35</sup> See Annex H at page 3.