IN THE HIGH COURT OF JUSTICE **CLAIM NO: CO/1508/2016**

QUEEN'S BENCH DIVISION (ADMINISTRATIVE COURT)

BETWEEN

THE QUEEN

on the application of

CLIENTEARTH (No. 2)

Claimant

-and-

SECRETARY OF STATE FOR THE

ENVIRONMENT, FOOD AND RURAL AFFAIRS

Defendant

- and –

(1) MAYOR OF LONDON

(2) SCOTTISH MINISTERS

(3) WELSH MINISTERS

(4) SECRETARY OF STATE FOR TRANSPORT

Interested Parties

CLAIMANT'S SKELETON ARGUMENT

References to pages in the Bundles prepared for the hearing on 17-18 October 2016 are in the form **[Part/Vol No./Tab No./ Page No.]**. *References to the Disclosure Bundles are in the form* **[NS1/Vol No./Page No.]**.

Pre-Reading Estimate: **1.5 days**

Hearing Estimate: **2 days**

Suggested Pre-Reading: Should time allow it (in addition to the skeleton arguments):

Witness Statements:
Dr Claire Holman (1st **[A/2/14/405-428]** and Exhibit CH/1 **[A/2/15/429-441]**) and (2nd **[A/2/31/979-998]**);
Fiona Fletcher-Smith **[A/2/18/453-479]**);
Natasha Smith (1st **[A/2/28/841-916]** and Annex NS1 **[A/2/29/917-935]**) and (2nd **[A/2/38/pp.1-16]**); and
Roald Dickens **[A/2/30/937-977]**

Legislation:
Directive 2008/50 (Recitals (2), (3), (9), (12), (18), (26) and (30), Articles 1, 2, 13, 16, 23 and 30);

Regulations 17, 26 and 28 of the *Air Quality Standards Regulations 2010*.

Case-law:
(1) *R (on the application of ClientEarth (No.1)) v Secretary of State for the Environment, Food and Rural Affairs* [2013] UKSC 25; [2013] 2 All ER 928; (2) Case C-404/13, *ClientEarth No. 1* (19 November 2014) (ECLI:EU:C:2014:2382); (3) *R (on the application of ClientEarth (No.1)) v Secretary of State for the Environment, Food and Rural Affairs* [2015] UKSC 28; [2015] 4 All ER 724; (4) Case C-68/11 *European Commission v Italian Republic* (ECLI:EU:C:2012:815).

I. INTRODUCTION & SUMMARY

1. This claim concerns the United Kingdom's ongoing failure, since 1 January 2010, to meet the maximum concentrations fixed by law of nitrogen dioxide ("**NO_2**") in the air.

2. The relevant limits were first introduced by EU law in 1999, based on scientific assessments of the risks to human health associated with exposure to NO_2, and World Health Organization guidelines. The limits also imposed a deadline for compliance in 2010, yet the UK remains in breach in 38 out of 43 zones across the country. According to current Government projections, compliance will not be achieved in London until 2025, i.e. fifteen years after the original deadline.

3. As acknowledged by the Defendant, the Secretary of State for the Environment, Food and Rural Affairs ("**the SoS**") (Detailed Grounds, §3) **[A/1/9/114]**, the consequences of this ongoing failure are:
   3.1. A continuing, and significant, public health risk, with "*very serious impacts on health and the environment*" (see the First Witness Statement of Nicola Smith ("**NS1**"), §9 **[A/2/28/845]**). Indeed, Government estimates suggest that NO_2 pollution is associated with 23,500 premature deaths per year (see §§17-18 below);
   3.2. A related financial cost to the UK's economy, including the cost to the public health system as well as the extensive loss of life and ill-health (see §19 below); and
   3.3. A serious breach of EU law, which the Supreme Court has emphasised requires "*immediate action*" to give effect to the UK's obligations (§§25-28 below).

4. This claim follows several years of litigation (the *ClientEarth (No. 1)* proceedings), in which the SoS conceded the UK's failure to comply with the Ambient Air Quality Directive[1] ("**the Directive**") but denied that any intervention by the courts was required. The Supreme Court in 2013 identified the need for "*immediate enforcement action at national or European level'* ([2013] 2 All ER 928 (at [37]) per Lord Carnwath JSC).

5. On 29 April 2015, the Supreme Court ordered the SoS to take "*immediate action*" to perform the UK's "*essential obligation to act urgently under art 23(1), in order to remedy a real and continuing danger to public health*" ([2015] 4 All ER 724, p.732h-j at [27] per Lord Carnwath JSC). The Supreme Court ordered the SoS to prepare and publicly consult on a new "*Air Quality Plan*" ("**AQP"**) which "*ensure*[s] *compliance with any relevant limit value within the shortest possible time*", in accordance with the requirements of Article 23(1) of the Directive and its domestic equivalent: Regulations 26 and 28 of the *Air Quality Standards Regulations 2010* (the "**Regulations**").

6. This claim challenges the resulting AQP published on 17 December 2015 ("**the Decision**"). The SoS's Decision suffers from the following key flaws:

   6.1. It identifies a single 'mandatory' measure that will significantly reduce NO_2 levels, requiring only five cities other than London to introduce 'Clean Air Zones' ("**CAZs**"). Buses, coaches, taxis, lorries and (in two cities) vans will have to pay a charge in order to enter these zones, unless they comply with defined emissions standards. Although the SoS has yet to publish a detailed consultation on the proposed CAZ programme, she has emphasised that diesel cars – the primary source of emissions in urban areas – will not be affected by the mandatory CAZs;

   6.2. Although Greater London is the zone in which the air pollution problem is most severe, the AQP does not identify substantial measures additional to those already proposed by the Mayor of London (current and previous);

[1] Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (OJEU L152, 11.6.2008, pp.1–44).

6.3. It foresees a range of other local and national initiatives, some to be funded by the central Government, which are designed to improve air pollution levels. As Dr Claire Holman - a leading expert on air quality management – notes, beyond CAZs "[n]*o other additional mandatory measures, which will substantially reduce NOx emissions, have been identified in the AQP*" (First Witness Statement ("**CH1**"), §7.3)**[A/2/14/407]**; and

6.4. It relies upon modelling carried out by consultants on behalf of the SoS, which necessarily involved "*an inherently uncertain process*", i.e. "*the generation of forward-looking projections*" (Detailed Grounds, §27 **[A/1/9/121]**; First Witness Statement of Roald Dickens ("**RD1**"), §§44 and 56 **[A/2/30/950 and 954]**). The AQP is based upon a number of key assumptions: (i) projected levels of NO_2 concentrations were only examined at five-year intervals i.e. in 2020, 2025 and 2030 (ii) assumptions were made about future air quality based on the expected evolution of diesel vehicle fleets and (iii) reliance was placed upon EU-wide vehicle emissions standards, despite the fact they have historically failed to have their intended impact, and a growing body of evidence that even the latest standards do not reflect Real-world Driving Emissions ("**RDE**"). The SoS's modelling was known at the time of the Decision to be highly optimistic, as has been confirmed by more recent Department for Transport ("**DfT**") testing results.

7. The Claimant ("**ClientEarth**") relies upon two Grounds:

7.1. Ground 1: raises a narrow question of law, namely the meaning of the requirement in Article 23(1) that exceedance periods be kept "*as short as possible*". ClientEarth submits that the SoS applied the wrong test, working back from 2020 (or 2025 in the case of London) to identify the "*minimum*" steps which she viewed to be "*necessary*" to achieve compliance by that time, based on her highly optimistic modelling assumptions. Rather, the language and purpose of the Directive make clear that the UK was required to act with greater urgency, by adopting all measures which would be effective in ensuring compliance in the "*shortest possible time*".

7.2. Ground 2: In establishing the AQP, the SoS gave disproportionate and unlawful weight to cost and political sensitivity. The SoS also failed to take into account relevant considerations, namely a range of measures other than mandatory CAZs, which would significantly increase the likelihood of ensuring compliance with the Directive in "*as short as possible*" a time. Finally, the SoS did not carry out a detailed assessment of these additional measures or establish a timetable for their introduction in the AQP.

8. In light of these flaws, the AQP is unlawful and the Court is invited to require the SoS to establish a compliant plan.

II. FACTUAL BACKGROUND

9. In order to assist the Court, ClientEarth has produced a Glossary of relevant terms (Annex 1), as well as a detailed account of the relevant factual background, in light of the SoS's disclosure in these proceedings (Annex 2). These documents explain the technical terms referred to below, and the various relevant standards which have been adopted.

A NO_2 and its Impact on Human Health:

10. NO_2 is a harmful gas produced by the combustion of fuel at high temperatures in the presence of air (CH1, §8 **[A/2/14/407]**). Emissions from combustion sources such as diesel vehicles are mainly in the form of nitric oxide ("**NO**"), which is rapidly converted to NO_2 in the air (CH1, §10 **[A/2/14/407]**). Together NO and NO_2 are referred to as nitrogen oxides ("NO_x"). When considering emissions the term "NOx emissions" is normally used; when considering air quality the terms "NO_2 concentrations" or "NO_2 levels" are used (CH1, §10) **[A/2/14/407]**.

11. The main source of health-damaging NO_2 in urban areas is diesel vehicles. Petrol engines (and vehicles powered by natural gas or electricity) produce lower or no NO_x emissions. For the last decade, government policy has been to encourage the purchase, and hence use of, diesel cars as they were traditionally considered to release fewer greenhouse gas emissions (such as CO_2) than petrol cars.

12. Transport emissions of air pollutants, including NO_x, are regulated by standards established by EU legislation (so-called "***Euro standards***"**)** as part of the EU framework for the type approval of cars, vans, trucks, buses and coaches.

13. To date there have been six Euro standards (numbered 1-6 using Arabic numerals for light duty vehicles and I-VI using Roman numerals for heavy duty vehicles), which have become increasingly strict over time (CH1, §14) **[A/2/14/408]**. For cars, the latest Euro 6 standard is being introduced in several phases. The first phase applies to new type approvals from September 2014 and all new registrations from 1 September 2015.

14. To date, Euro standards have failed to have the hoped-for real world effect on reducing pollution from diesel vehicles. This failure of successive Euro standards to deliver expected emissions reductions has been well-established for several years (CH1, §15) **[A/2/14/408]**. To address this, in October 2015, EU Member States agreed to introduce a Real-world Driving Emissions (or "**RDE**") test alongside the next phase of the Euro 6 standard ("**the Euro '6c' standard**"), to ensure more accurate recording of emissions throughout the life of a vehicle.

15. Euro 6c is set to be introduced on 1 September 2017 for type approvals and 1 September 2019 for all new registrations.

16. However, Euro 6c will also allow for a margin of error known a "*conformity factor*", i.e. the ratio of RDE compared to the regulatory limit as tested in the laboratory. Car manufacturers will have to bring down the discrepancy to a maximum conformity factor of 2.1 (110% above the limit as measured in the laboratory) for new models by September 2017 (CH1, §§14-20) **[A/2/14/408-409]**. The threshold for compliance will be reduced to a conformity factor of 1.5 (50% above the limit measured in the laboratory), in January 2020 for all new models and in January 2021 for all new cars.

17. Human exposure to levels of NO_2 exceeding the limit values has grave health effects, including an increase in early mortality rates, hospital admissions, heart failure and chronic bronchitis, and results in days of restricted activity (CH1, §8 **[A/2/14/407]**) At

elevated concentrations, exposure to NO_2 can irritate the eyes, nose, throat and lungs and lead to coughing, shortness of breath, fatigue and nausea[2].

18. The Overview Document of the AQP estimates that exposure to NO_2 is responsible for the equivalent of 23,500 premature deaths annually in the UK. This was based on the findings of the UK's Committee on the Medical Effects of Air Pollutants ("**COMEAP**") (§10 **[A/1/11/163]**). In London, poor air quality is said to be one of the "*top twelve biggest health risks*" (Witness Statement of Fiona Fletcher-Smith ("**FFS1**"), §10) **[A/2/18/455]**. It follows that the longer the SoS takes to ensure compliance with the limit values, more people will suffer serious health effects including hospital admissions or early death.

19. Such public health effects also have substantial financial costs, associated with healthcare provision and the loss of life. Defra's estimates identify an annual cost of £13.3bn to the UK economy[3] – in other words the scientific and medical evidence "*demonstrates major societal benefits for continued action on air pollution, well in excess of cost*".[4] Moreover, the Economic Impact Assessment carried out for the AQP estimates the benefits of achieving compliance with the NO_2 limit value at £4.18 billion (£3.6 billion of which accounts for health benefit) (§178, Table 5.3, Technical Report) [**A/1/12/276]**. Accounting for costs, the net benefit of the current AQP is estimated at £2.9 billion. Put another way, even if meeting the limit values were not a legal requirement, implementing improvements to air quality is assessed by Defra to be very economically beneficial.

B NO_2 Exceedances in the UK

20. The previous AQP, which was the subject of the *ClientEarth 1* proceedings, dated from September 2011. It identified 40 zones in the UK in which there were exceedances of the NO_2 mean annual limit value in 2010, but anticipated that "*compliance may be achieved by 2015 in 24 zones, 15 zones are expected to achieve compliance between 2015 and*

[2] See also *ClientEarth (No.1)* [2013] UKSC 25; [2013] 2 All ER 928,p.930e-f at [2] per Lord Carnwath JSC.
[3] See Defra's report, "*Valuing impacts on air quality: Updates in valuing changes in emissions of oxides of nitrogen (NOx) and concentrations of nitrogen dioxide (NO2)*". London: Defra, 2015. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/460401/air-quality-econanalysis-nitrogen-interim-guidance.pdf Table 4, p.9 (last accessed on 21 September 2016).
[4] See "*Every breath we take: the lifelong impact of air pollution*", Report of a working party from the Royal College of Physicians (RCP) and the Royal College of Paediatrics and Child Health (RCPCH), London: RCP, 2016, §6.2.6, p.86, available at https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution (last accessed on 18 September 2016).

2020 and […] *compliance in the London zone is currently expected to be achieved before 2025*" (§1.3). In July 2014, revised projections showed that just 15 zones and agglomerations would be compliant by 2020 (i.e. 28 would be non-compliant), and that three zones (including Greater London) would not be compliant even by 2030. The new AQP identifies 35 zones which are projected to be compliant by 2020. In light of this variation, the reliability of these projections is highly doubtful (CH1, §35) **[A/2/14/412]**.

21. The AQP relies upon concentrations reported in the 'baseline' year of 2013. These record that there were exceedances in 38 of the UK's 43 zones (Overview Document, §§37 and Table 3) **[A/1/11/169 and 171-172]**.

22. The modelling of future air quality is uncertain as it is dependent upon a number of fundamental assumptions. Defra relies upon the Pollution Climate Mapping ("**PCM**") model developed by external consultants, Ricardo E&E (formerly Ricardo AEA) ("**Ricardo**") (SoS' Grounds, §22) **[A/1/9/119-120]**. This model, in turn, relies upon the so-called "COPERT emission factors". These refer to the estimates generated by the **"***Computer Program to calculate Emissions from Road Transport*" ("**COPERT**"), a software tool used to calculate air pollutant and greenhouse gas emissions from road transport. For instance, in the Decision the SoS explained that the "*significant improvement*" between the 2014 and 2015 projections were "*mainly due to the incorporation of* […] *updated information on vehicle emissions factors*" (Overview Document, §43) **[A/1/11/173]**.

23. As noted in Annex 3 to this Skeleton Argument, Dr Holman has highlighted a number of fundamental flaws in the assumptions on which Defra's projections rest (see CH1, §§35-39, 60-61 **[A/2/14/413-414, 419-420]** and the Second Witness Statement of Dr Holman ("**CH2**"), §§78-99 **[A/2/31/993-995]**). In particular, Defra's modelling underestimates emissions from diesel cars and vans, which are far higher than the official emission limit required by the Euro standards (CH1, §14) **[A/2/14/408]**. The evidence shows that the Defra officials were aware that the modelling they used was very optimistic (see also NS1, §147) **[A/2/28/884]**, and that has subsequently been proved to be the case. This is in the context of a requirement in article 23 that the Member State must "*ensure*" that the relevant values are achieved.

24. The primary source of NO_x emissions, and cause of the exceedances of the NO_2 limit value(s), is diesel vehicles (CH1, §§12, 50) **[A/2/14/408 and 416]**. Although no single measure will be sufficient to achieve the limit values in the shortest possible time, it is imperative that this source of emissions is dealt with effectively in order for there to be any significant impact on NO_2 levels (CH1, §§23-25) **[A/2/14/410]**. Outside London, diesel cars and taxis are typically the single largest contributing source of NOx in zones where the NO_2 limit value is exceeded (24% in 2013 - see Figure 2, RD1, §69 **[A/2/30/960-961]**).

C *ClientEarth 1* and Commission infraction proceedings

25. In *ClientEarth 1*, the Supreme Court made a declaration that the UK was in breach of its obligations to meet NO_2 limit values under Article 13 of the Directive[5]. The SoS maintained that despite the UK not having applied to the European Commission ("**the Commission**") to postpone its deadline for compliance (pursuant to Article 22 of the Directive), no judicial intervention was needed at the national level.

26. On 20 February 2014, the Commission launched infraction proceedings against the UK. The UK responded in April 2014, and committed to producing a revised AQP by the end of 2015 (NS1, §21) **[A/2/28/847-848]** (see also **[NS1/1/258]**).

27. Following a reference to the Court of Justice of the European Union ("**CJEU**"), which led to a preliminary ruling of its Second Chamber[6], on 29 April 2015 the Supreme Court concluded that the UK's 2011 AQP should be quashed, noting the "*seriousness of the breach*" and the fact that "*the prospects of early compliance ha*[d] *become worse, not better*" since their publication (*ClientEarth 1*, p. 733c-h at [29]-[30]). Lord Carnwath concluded that the "*failure to apply* [for a postponement under Article 22], *far from strengthening the position of the state, rather reinforces its essential obligation to act urgently under article 23(1)*" (p.732h-j at [27]).

28. The Court granted a mandatory order requiring a compliant plan to be produced by 31 December 2015, in order to leave the "*new Government* […] *in no doubt as to the need for immediate action to address this issue*" (p.733j at [31]). Moreover, the Court granted both

[5] [2013] 2 All ER 928, pp.930a-c and 939a-c at [1] and [37] per Lord Carnwath JSC.
[6] Case C-404/13, *ClientEarth* (19 November 2014) (ECLI:EU:C:2014:2382).

parties "*liberty to apply*", including specifically if there were a dispute over the UK's requirement to comply with the Directive in "*as short as possible*" a time (pp.733h-734e at [31]-[33]).

D Development of the AQP & Consultation

29. A detailed account of the development of the AQP is set out in Annex 2 to this Skeleton Argument. However, a number of key facts emerge from the SoS's disclosure.

Development of the AQP

30. First, the SoS's approach to the identification of measures for the AQP was to emphasise the "*minimum*" steps which needed to be taken in order to avoid enforcement by the Commission and to comply with the Directive by 2020. In their initial advice to the SoS and the Parliamentary Under-Secretary of State with responsibility for air quality, Rory Stewart MP, Defra officials noted that they had "*used projected exceedances in 2020 as the basis for defining the worst areas* […] *based on our understanding that 2020 is likely to be the earliest the EU will move to fines*" (emphasis added) **[NS1/1/536]**. Indeed, it was noted at the second meeting of the Inter Ministerial Group for Clean Growth ("**IMG**") that "[t]*here is a short term problem to deal with – in developing a plan that would place us on a credible pathway to compliance on air quality targets, which would satisfy the supreme court and Commission. In agreeing this plan HMG would need to consider carefully what the* "shortest possible time" *is in terms of when the UK would need to become compliant (the EU's stipulation), i.e. whether this is 2020 or sometime after, given the significant challenges*" **[NS1/3/140]** (emphasis added). HM Treasury ("**HMT**"), in particular, emphasised that the proper approach was to set out the "*minimum required to meet compliance*" (§22) **[NS1/4/70]**. By 2 September 2015, Defra's view was that "*the current plan represented the back stop option to tackle air quality which has already been pared back considerably*" **[NS1/3/168]**.

31. Second, Defra's analysis of the measures required to comply with the Directive began robustly, in light of the significant uncertainty surrounding future NO_2 concentrations (see, e.g. the Report "*Cleaner Air for all*" for internal circulation in June 2015) **[NS1/2/85-99])**. However, it selected an optimistic scenario of the likely future levels of emissions and therefore narrowed its proposed plans to the minimum it considered necessary to achieve compliance with the Directive by 2020. Thus:

31.1. In May 2015, Defra officials considered that a "*'most likely' scenario would include wider LEZ use in around 16 cities around London rather than 6, and a package of wider national measures to tackle issues outside city centres* […such as] *scrappage or tax measures*" **[NS1/1/537]**;

31.2. In May-June 2015, Defra's consultants (Ricardo) carried out a sensitivity analysis, which assumed that Euro 6 diesel cars emit five times the legal emission limit under real-world driving conditions. The effect of this would be that real world emissions would be significantly higher than the COPERT emission factor integral to Defra's central modelling scenario **[NS1/2/17-21]**. Such an alteration increased by 22 the number of zones with exceedances in 2020, to a total of 30 of the UK's 43 zones (CH2, §94) **[A/2/28/996]**;

31.3. In September 2015, Defra produced an 'Options Paper,' which identified a number of scenarios. It concluded that the introduction of 7 CAZs (although on a voluntary, not mandatory basis) was the "*Minimum*" option, which was "*extremely unlikely to deliver compliance by 2020*" **[NS1/3/335-337]**;

31.4. In October 2015, Defra commissioned Ricardo to analyse how many CAZs would be required under various scenarios for the emission performance of Euro 6 diesel cars. This was in anticipation of the EU agreement on the "Euro 6c" standard, which would introduce new RDE testing. While Defra did not model the exact scenario eventually agreed at the EU level, Defra's projections show that far more CAZs would be required if emissions were higher than the COPERT emission factor in Defra's central scenario and the new Euro 6c allowed for high conformity factors. In reality, as set out in Annex 3 and later tests have shown, the most realistic scenario would lie somewhere between scenarios 11 and 12 (real world emissions from Euro 6 diesel cars are on average over 6 times higher than the emission limit and the initial conformity factor agreed for Euro 6c was 2.1), requiring the introduction of CAZs in 14-18 zones to ensure compliance by 2020 **[NS1/4/81 and 84]**.

32. Ultimately, Defra – supported by DfT - recommended a plan to other Ministers (including HMT) which consisted of CAZs in only five cities other than London, as

well as endorsing the Ultra-Low Emission Zone ("**ULEZ**") proposed by the Mayor of London for introduction in the city in 2020 (see letter of 3 September 2015 **[NS1/3/190-191a])**. Defra's proposal did not include any "*mandatory measures*" to be implemented by central government – rather it was hoped that local authorities would voluntarily introduce CAZs.

33. Third, following an inter-departmental review of Defra's proposed plan, and the Spending Review carried out by HMT in October-November 2015, Defra's recommendations were not accepted by HMT. From early September 2015, HMT had made clear that "*gaining agreement to spend in this area will be very difficult*" **[NS1/3/267]**. Further:

33.1. HMT ruled out the inclusion of cars in CAZs (§3) **[NS1/4/442-443]**.

33.2. HMT rejected a proposal that fiscal reforms be introduced in relation to Vehicle Excise Duty ("**VED**") to discourage the use of diesel fuel in cars and vans (§§13-15) **[NS1/3/226-227]**;

33.3. The Chancellor's stance was "*very clear*": He favoured the introduction of mandatory CAZs and "*nothing more*" **[NS1/4/112-116]**.

33.4. It also placed substantial financial restrictions on Defra's budget, stating that there was "*no room for further negotiation on funding*" **[NS1/4/440]**;

33.5. In its analysis during the Spending Review (see Note dated 16 October 2015), HMT noted that Defra's preferred option "*provides a package we would be confident would meet the 'credibility' criteria and at the least cost to business,* [but] *it comes at high cost to HMG at a time of significant affordability constraints* […and] *is not the minimum needed to secure compliance*" (emphasis added) **[NS1/4/70]**.

34. Fourth, although Defra's early recommendations had included a range of measures, by the time the public consultation on the plans took place, these had been whittled down to a single measure likely to have significant effects on NO_2 concentrations, voluntary CAZs (CH2, §9) **[A/2/28/981].**

35. Fifth, despite the initial recognition of the importance of diesel cars as a source of NO_x emissions requiring specific measures, the final AQP included no measures specifically to address pollution from diesel cars. At least in the early period, Defra was considering and recommending that cars be included in CAZs for the most serious areas in exceedance (e.g. "*Birmingham, Leeds and London*" – see, e.g. the email of 8 June 2015 **[NS1/2/43]**). DfT also recognised that given the uncertainties in projected future emissions, "[i]*n the absence of evidence of a step change in NO_X reduction* [after Euro 6, there] *may be a case for excluding all diesels from LEZs* [later called CAZs]" **[NS1/3/153]**. Even during the consultation, as Defra received new data, it identified "*a larger compliance gap than the streamlined model used to assess compliance in* [the] *consultation*", which meant that certain CAZs may "*need to include more vehicle types, including in some cases cars*" **[NS1/4/59]**. Officials continued to stress the importance of cars as a source of NO_2 and the fact that within a CAZ framework "*the infrastructure would already be in place* [to include them…which] *would be fairly certain to achieve or bring forward compliance by 2020*" **[NS1/4/316]**.

36. Sixth, Defra has tried to emphasise that its modelling was considered "*fit for purpose*" (RD1, §33) **[A/2/30/947]**. However, it is clear from the materials disclosed that Defra officials, as well as experts whom they have consulted, have consistently raised concerns about the limitations of the model used, including its reliance on COPERT emission factors. Since 2014, Defra's expert consultants have been emphasising that there is "*emerging real world testing evidence* […] *show*[ing] *large conformity factors for Euro 6*" **[NS1/5/364]**. By late September 2015, however, the SoS was proceeding on the basis that "*tighter EU vehicle emission regulations will bring most of zones* [sic] *into compliance by 2020*" **[NS1/3/364]**. Recent testing of diesel vehicles by DfT has shown that even the worst-case scenario modelled during the preparation of the plans was too optimistic, with both Euro 5 and Euro 6 cars emitting on average six times their respective emission limits when tested on the roads (see CH2, §99 **[A/2/31/997]**).

Consultation

37. Defra's draft AQP was published for consultation on 12 September 2015. It was centred around a proposal for voluntary CAZs in five cities outside London. The draft AQP set out very limited detail about the measures which Defra had considered, the reasons for their rejection, or about the proposed CAZs, in particular the timelines for

their implementation, their size, the level of charge or anticipated effects (CH2, §§11, 97) **[A/2/31/981 and 996]**. ClientEarth, like many other respondents, noted the lack of detail and emphasised the need for greater measures to ensure compliance with the Directive in "*as short as possible*" a period.

38. However, the Decision ultimately made few changes to the draft consultation AQP, notably providing for mandatory as opposed to the voluntary CAZs proposed in the draft AQP.

E The new AQP

39. The Decision consists of a collection of lengthy documents: (1) an 'Overview Document' **[A/1/11/155]** (2) a Technical Report **[A/1/12/225]** (3) a List of UK and national measures **[A/1/13/343]** and (4) individual plans for each UK zone or agglomeration which was in exceedance of one or more of the NO_2 limit values in 2013.

40. The Decision records that in 2013, 38 of the 43 zones in the UK (i.e. 88%) were in breach of the NO_2 annual mean limit value of 40 μ/m^3. The breaches are both widespread and severe. For example in London, the highest concentrations were estimated to be 126 μ/m^3, over three times the legal limit. Breaches in other cities, while not as severe as London, are still far in excess of the limit value. For example in Birmingham, the highest modelled concentration was 70 μ/m^3.

41. Even using the highly optimistic modelling assumptions, the Decision does not project compliance in London until 2025[7], i.e. 26 years after the timetable for compliance was first laid down in EU legislation and 15 years after the original deadline for compliance.

42. The Economic Impact Assessment carried out for the AQP emphasises the benefits of reducing NO_2 concentrations for both public health and the UK economy. It concludes (at §178, Table 5.3, Technical Report) **[A/1/12/276]** that there will be a net financial benefit from introducing the measures for the reduction of NO_x emissions in the AQP

[7] Overview document, at §37 and Table 3 (pp.11-12) **[A/1/11/169]**.

of approximately £3 billion. This means that even the unambitious measures proposed in the AQP will have a very large net economic benefit.

43. The main focus of the AQP is on the introduction of mandatory CAZs, which restrict access to geographic zones to categories of vehicle which meet specific emission standards. The proposed CAZs are of varying strictness and will be mandatory only in five cities across all of the UK[8]. Very little detail was made public by the SoS in the AQP. Despite the commitment that "[i]*n 2016,* [Defra] *will consult on the detail of the proposal for* [CAZs] *and set out the approach through which we will impose duties on the five cities*" (Overview, 3.5, §83) **[A/1/11/20]**, Defra has yet to publish these detailed proposals and has given no firm indication of when it will do so. It is clear that local authorities will not be required to charge cars from entering a CAZ (Overview, §§76 and 84) **[A/1/11/180-181]**. As Dr Holman notes, no further details have been provided to date, making analysis of the likely effectiveness of CAZs difficult (CH2, §11) **[A/2/31/981]**.

44. Based on the limited information included in the AQP, Dr Holman has identified that the proposals suffer from a number of key deficiencies (CH1, §§7, 23-39) **[A/2/14/406-407 and 410-414]**, in particular:

    44.1. The AQP has been designed around an arbitrary and lengthy period of compliance (2020 or 2025) when earlier compliance is feasible, desirable and necessary;

    44.2. None of these measures – except for "*the Ultra Low Emission Zone*" to be introduced in London in September 2020 – deal with the primary source of NO_2 pollution: diesel cars;

    44.3. No other mandatory measures to substantially reduce NO_2 concentrations have been included in the Decision.

45. Other measures included in the AQP are either measures which:

[8] See, Overview, in particular, §§3.5-3.8 **[REF]**.

45.1. have already been implemented and so will not have any effect in bringing forward the compliance date (CH1, §26) **[A/2/14/410]**;

45.2. are aimed at other policy objectives (e.g. climate change mitigation) and so are not targeted at areas of non-compliance and so are unlikely to be effective at reducing NO_2 concentrations (CH1, §27) **[A/2/14/411]**;

45.3. are long-term policy objectives that will have no discernible impact on air quality before 2020 (CH1, §28) **[A/2/14/411]**;

45.4. are voluntary measures lacking mandatory legal provisions, a timetable for implementation or any assessment of their likely contribution to ensuring compliance with the limit value (CH1, §§72-78) **[A/2/14/422-424]**;

45.5. are reliant on largely discretionary decisions by local authorities, rather than national or devolved governments, to implement the Directive, despite the fact that Defra remains ultimately responsible for such implementation. For example, the AQP refers to a minimum "expectation" that local authorities are to "*consider putting in place a Low Emission Strategy*" (Overview, 3.8, §133) **[A/1/11/189]**.

III. LEGAL FRAMEWORK

A EU Air Quality Legislation

46. The current EU legislative framework governing air quality has its origins in the first Air Quality Framework Directive of September 1996[9], which was adopted "*in order to protect the environment as a whole and human health,* [such that] *concentrations of harmful air pollutants should be avoided, prevented or reduced and limit values and/or alert thresholds set for ambient air pollution levels*" (Recital 2). The first 'daughter Directive' passed under this legislation was Directive 1999/30/EC[10], adopted in 1999. This identified the specific limit values for NO_2, and set the deadline for achieving them at 1 January 2010. EU Member States therefore had over a decade in which to implement policies to ensure compliance with those limit values.

47. Annex II of the daughter Directive provided for two limit values for NO_2:

[9] Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management (OJEC L 296, 21.11.1996, pp. 55–63).

[10] Council Directive 1999/30/EC of 22 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air **(**OJEC L163, 29.6.1999, pp. 41–60).

47.1. The hourly limit value imposes a maximum of 18 hours in a calendar year in which mean concentrations of nitrogen dioxide can exceed 200 micrograms per cubic metre ($\mu g/m^3$).

47.2. The annual mean limit value requires that mean concentrations of nitrogen dioxide must not exceed 40 $\mu g/m^3$ over a calendar year.

48. In *Dieter Janecek v Freistaat Bayern* [2008] ECR I-6221 (ECLI:EU:C:2008:447); [2009] Env. LR 12 ("***Janecek***"), the CJEU concluded that a predecessor directive (96/62) to the Directive confers rights on individuals to require Member States to draw up an action plan to address risks to human health. It also held that the previous directive required Member States "*only to take such measures* […] *as are capable of* […] *ensuring a gradual return to a level below those values or thresholds, taking into account the factual circumstances and all opposing interests*" (p.195 at [47]). However, the Court emphasised that "*while the Member States thus have a discretion,* […the] *Directive* […]*includes limits on the exercise of that discretion which may be relied upon before the national courts*"(p.194 at [46]).

B The Air Quality Directive

49. The Directive, which came into force on 11 June 2008 with a deadline for transposition by Member States of 10 June 2010, was a consolidating and amending measure. As noted by its recital (3), the earlier directives:

> "*need*[ed] *to be substantially revised in order to incorporate the latest health and scientific developments and the experience of the Member States. In the interests of clarity, simplification and administrative efficiency it is therefore appropriate that those five acts be replaced by a single Directive and, where appropriate, by implementing measures*".

50. It maintained the same limit values and deadline for NO_2 as its predecessor. However, Article 13 reformulated and reinforced the obligations on Member States to achieve the limit values in stronger terms than the predecessor legislation:

> "*In respect of nitrogen dioxide* […] *the limit values specified in Annex XI may not be exceeded from the dates specified therein*". (emphasis added)

The date "*specified*" for compliance with these values was 1 January 2010 (Annex XI (B))[11]. As the Supreme Court noted in ClientEarth (No. 1), "[t]*he absolute terms of the obligation under art 13 may be contrasted, for example, with art 16 which requires 'all necessary measures not entailing disproportionate costs' to achieve the 'target value' set for concentrations of* $PM_{2.5}$" ([2013] 2 All ER 932f-g at [11] per Lord Carnwath JSC).

51. In its ClientEarth No. 1 judgment, the CJEU emphasised that Article 13 is "*an obligation to achieve a certain result*" (at [30]) and accordingly the discretion of Member States as to the "*appropriate*" measures which can be adopted to ensure exceedances are brought to an end pursuant to Article 23(1) is limited (at [57]).

52. These rules are reflected in reg.17 of the Regulations, which requires the SoS to ensure that (i) "*levels of* […] *nitrogen dioxide,* […] *do not exceed the limit values set out in Schedule 2*" and (ii) "*levels are maintained below those limit values and* [the Secretary of State] *must endeavour to maintain the best ambient air quality compatible with sustainable development*".

53. No exception is made – as in the case of other pollutants such as "$PM_{2.5}$*, ozone, arsenic, cadmium, nickel and benzo(a)pyrene*" – for measures which entail "*disproportionate cost*" (reg.18(1)). The limit values for NO_2 are simply levels which must be complied with.

54. Article 23 of the Directive provides for the establishment of an AQP for all zones and agglomerations where the levels of pollutants in ambient air exceed any limit value, in order to achieve that limit value. It provides as follows:

> *Article 23*
> **Air quality plans**
>
> 1. Where, in given zones or agglomerations, the levels of pollutants in ambient air exceed any limit value or target value, plus any relevant margin of tolerance in each case, Member States shall ensure that air quality plans are established for those zones and agglomerations in order to achieve the related limit value or target value specified in Annexes XI and XIV.
>
> In the event of exceedances of those limit values for which the attainment deadline is already expired, the air quality plans shall set out appropriate

[11] Schedule 2 to the Regulations corresponds to Annex XI of the Directive and the deadline for the SoS to achieve the limit values is set out at reg.19 of the Regulations by reference to (i) the "*date specified for each limit value*" in Schedule 2 (r.19(a)) or (ii) the date from which the Regulations came into force (reg.19(b)). Schedule 2 does not specify a date for compliance with NO_2 limit values, such that the relevant date for compliance was 11 June 2010, when the Regulations entered into force.

measures, so that the exceedance period can be kept as short as possible. The air quality plans may additionally include specific measures aiming at the protection of sensitive population groups, including children.

Those air quality plans shall incorporate at least the information listed in Section A of Annex XV and may include measures pursuant to Article 24. Those plans shall be communicated to the Commission without delay, but no later than two years after the end of the year the first exceedance was observed.

Where air quality plans must be prepared or implemented in respect of several pollutants, Member States shall, where appropriate, prepare and implement integrated air quality plans covering all pollutants concerned.

2. Member States shall, to the extent feasible, ensure consistency with other plans required under Directive 2001/80/EC, Directive 2001/81/EC or Directive 2002/49/EC in order to achieve the relevant environmental objectives. " (emphasis added)

This is reflected in reg.26 of the Regulations, which provides that: "[t]*he air quality plan must include measures intended to ensure compliance with any relevant limit value within the shortest possible time*" (r.26(2)).

55. In construing Article 23 of the Directive, the Court should note that there are two key differences from the other provisions of the Directive. First, the duty to achieve the limit values for NO_2 under Article 13 is not limited to merely taking measures "*not entailing disproportionate cost*", as is the case in Articles 15, 16 and 17 concerning the targets for $PM_{2.5}$ (particulate matter) and ozone. Second, Article 23 (and r.26(2)) requires the Member State to "*ensure*" compliance, whereas Article 15 refers to "*a view to attaining*" the requisite reduction.

56. Section A of Annex XV to the Directive identifies a number of items of information that must be included in AQP. Paragraph 8 requires inclusion of:

> "Details of those measures or projects adopted with a view to reducing pollution following the entry into force of this Directive:
>
> (a) listing and description of all the measures set out in the project;
>
> (b) timetable for implementation;
>
> (c) estimate of the improvement of air quality planned and of the expected time required to attain these objectives."

57. Paragraph 3 of Section B of Annex XV to the Directive includes further measures which must in practice be considered when preparing AQP:

> "Information on all air pollution abatement measures that have been considered at appropriate local, regional or national level for implementation in connection with the attainment of air quality objectives, including:
> […]
>
> (b) reduction of emissions from vehicles through retrofitting with emission control equipment. The use of economic incentives to accelerate take-up should be considered;
>
> […]
>
> (d) measures to limit transport emissions through traffic planning and management (including congestion pricing, differentiated parking fees or other economic incentives; establishing low emission zones);
>
> (e) measures to encourage a shift of transport towards less polluting modes;
> (f) ensuring that low emission fuels are used in small, medium and large scale stationary sources and in mobile sources;
>
> […]
>
> (h) where appropriate, measures to protect the health of children or other sensitive groups."

58. In *ClientEarth (No. 1)*, the Supreme Court noted and endorsed the submissions of the Commission before the CJEU as to the effect of Article 23(1). In particular, it stressed that "*the requirements of art 23(1) are no less onerous, but may be more specific than those under art 22*" ([2015] 4 All ER 732c-e, at [25] per Lord Carnwath JSC). The Court agreed with ClientEarth's submission that AQP prepared under Article 23 would need to demonstrate consideration of the measures at §3 of Part B of Annex XV (which formally only applied to Article 22).

59. Regulation 27 (or Article 24 of the Directive) gives the Secretary of State the power to draw up a 'short-term action plan' where there is a risk of limit values being exceeded. The Secretary of State has not drawn up such a plan for part or all of the UK.

60. Finally, Article 30 of the Directive makes explicit that "*Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to th*[e] *Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive*". The UK's

transposition note for Article 30 explained that transposition of this provision was not necessary because "*the Regulations rely on public law remedies in relation to breach by the Secretary of State*".

61. A breach of a limit value therefore triggers an obligation on the Secretary of State to produce an AQP containing measures to ensure achievement of that limit value in the shortest possible time. A failure to produce such a compliant AQP requires an effective public law remedy to ensure proper and urgent implementation of the Directive.

IV. GROUNDS OF JUDICIAL REVIEW

62. As set out above (§7), ClientEarth's claim relies on two grounds:

62.1. Ground 1: The SoS's approach to the critical temporal requirement of Article 23 (or r.26(2) of the Regulations) - keeping periods of exceedance "*as short as possible*" – is wrong in law;

62.2. Ground 2: The SoS failed to take into account relevant considerations and gave undue weight to other considerations when identifying the measures necessary to comply with the Directive.

A. Ground 1- Failure to establish an air quality plan ensuring exceedance periods are kept "*as short as possible*" per Article 23(1)

63. The SoS has failed properly to construe the Directive's requirement that exceedance periods be kept "*as short as possible*".

Construction of Article 23(1)

64. The principles of interpretation in EU law are well-established, and consist of an analysis of (i) the literal meaning of the words; (ii) any judicial interpretation of the relevant provisions; and (iii) the purposive construction of the words, in the light of the admissible sources by which the legislative aim may be considered[12].

65. The language of Article 23(1) is explicit and does not give rise to any ambiguity – a period that is "*as short as possible*" is designed to be brief, subject only to consideration

[12] See, e.g. R *(Data Broadcasting International Ltd) v. Ofcom* [2010] EWHC (Admin) 1243, at [69] per Cranston J; Case C-282/10 *Maribel Dominguez* (24 January 2012) (ECLI:EU:C:2012:33) at [24].

of what is "*possible*". Indeed, the Supreme Court characterised the obligation in Article 23(1) as one requiring the UK "*to act urgently* […] *in order to remedy a real and continuing danger to public health*" (emphasis added)[13].

66. As a provision derogating from the ordinary rule in Article 13, Article 23(1) must – in accordance with well-established principles of EU law – be interpreted strictly (see, e.g. Case C-304/15 *Commission v United Kingdom* (ECLI:EU:C:2016:706) (21 September 2016) at [47]).

67. Such an approach is consistent with the purposes of the Directive, namely the protection of human health and the environment:

67.1. Recital (2) of the Directive emphasises the importance of protecting human health by combatting "*emissions of pollutants at source and to identify and implementthe most effective emission reduction measures at local, national and Community level*". Faced with widespread exceedances of limit values, the public health context is one in which there is a need for "*immediate action*", as recognised by the Supreme Court (see §28 above). The grave consequences of breaching limit values are set out at §§17-19 above.

67.2. The purpose of the Directive is also to promote "*a high level of environmental protection and the improvement of the quality of the environment*" in accordance with Article 37 of the Charter of Fundamental Rights ("**CFR**") (recital (30)). This also reflects Article 191(2) of the Treaty on the Functioning of the European Union ("**TFEU**") and is one of the "*essential objectives*" of the European Union (e.g. C-28/09 *Commission v Austria* [2011] ECR, I-13525 (ECLI:EU:C:2011:854), at [120]-[121]). Article 191(2) makes clear that Union policy "*shall be based on the precautionary principle and on the principle that preventive action should be taken*". Accordingly, the UK is required to take action that is likely to guarantee the protection of the environment on a proactive basis, without waiting for precise evidence of harm.

68. Such a construction is also consistent with the well-established principle of effectiveness, according to which "*where a provision of* [Union] *law is open to several*

[13] [2015] 4 All ER 724, p.732h-j at [27] per Lord Carnwath JSC.

interpretations, only one of which can ensure that the provision retains its effectiveness, preference must be given to that interpretation"[14]. As noted above, if Member States were able to allow exceedances for a period equivalent to that in the specific postponement procedure, and beyond its latest date, that would significantly undermine the Directive.

69. Indeed, Article 4(3) of the Treaty on European Union ("**TEU**") sets out the duty of "*sincere cooperation*" incumbent on Member States, which includes a duty to (a) "*take any appropriate measure, general or particular, to ensure fulfilment of the obligations arising out of the Treaties or resulting from the acts of the institutions of the Union*" (§2) and (b) to "*facilitate the achievement of the Union's tasks and refrain from any measure which could jeopardise the attainment of the Union's objectives*" (§3). If the concept of "*as short as possible*" was widely construed, this would not be consistent with the duty of sincere cooperation owed by Member States to the EU (and other Member States).

70. Finally, the Court's case-law has made clear that while certain considerations are relevant to a Member State's identification of "*appropriate*" measures, others are not:

70.1. Irrelevant considerations:

70.1.1. Cost/expense and administrative difficulties: The implementation of environmental Directives necessarily involves significant expenditure and State action. Despite this, the CJEU has consistently held (e.g. in Case C-42/89 *Commission v Belgium* [1990] ECR I-02821 (ECLI:EU:C:1990:285), at [24] and Case C 390/07 *Commission v. UK* [2009] ECR I-00214 (ECLI:EU:C:2009:765), at [121]) that:

> "a Member State cannot plead practical or administrative difficulties in order to justify non-compliance with the obligations and time-limits laid down in [Union] directives. The same holds true of financial difficulties, which it is for the Member States to overcome by adopting appropriate measures."

In the case of NO_2, this is reinforced by the absence of any reference to "*disproportionate cost*" in Article 13 or 23 (in contrast to Article 16). In a recent case concerning a power plant which had exceeded the limits of

[14] Case C-223/98 *Adidas* [1999] ECR I-7081 (ECLI:EU:C:1999:500), at [24].

permitted NO_2 emissions from large combustion plants (Case C-304/15 Commission v United Kingdom (ECLI:EU:C:2016:706) (21 September 2016)), the CJEU rejected the UK's reliance upon "*economic constraints such that arrangements have not been made to improve the environmental performance of that plant*" , holding (at [52]) that:

> "[i]t is clear from the Court's case-law that the United Kingdom cannot validly invoke, in the present case, reasons of a purely economic nature in order to dispute the failure of which it is accused […]"

70.1.2. Political sensitivity: In Case C-68/11 *European Commission v Italian Republic* (ECLI:EU:C:2012:815) (19 December 2012), the CJEU considered infraction proceedings brought against Italy by the Commission for failure to meet the air quality limit values for PM_{10} (another harmful pollutant regulated by the Directive). The Italian Government asserted that compliance with the relevant limit values would have involved "*the adoption of drastic economic and social measures and the infringement of fundamental rights and freedoms such as the free movement of goods and persons, private economic initiative and the right of citizens to public utility services*" (at [40]). The Court dismissed these reasons as "*too general and vague to be able to constitute a case of force majeure justifying non-compliance*" (at [65]).

70.1.3. Other insufficient justifications: In the same case, the Italian Government pointed to a number of other reasons for its non-compliance, including (i) the complexity of the process of PM_{10} formation, and insufficient technical knowledge of it (ii) the impact of the weather on relevant concentrations (iii) the fact that "*the various European Union policies to reduce PM_{10} precursors did not produce the results expected*" and (iv) "*the absence of a link between European Union policy concerning air quality and, inter alia, that aiming at reducing greenhouse gas emissions*" (at [41]). The Court also rejected these (at [65]). In comparable fashion, Articles 13 and 23(1) impose an obligation of result. It is therefore immaterial whether the reason for the exceedances was

caused by the Member State in question, natural causes or the conduct or regulations of a third party.

70.2. Relevant considerations: However, the concept of what is "*possible*" in Article 23(1) connotes an assessment of what is feasible at the relevant time. ClientEarth does not argue that Article 23 "*oblige*[s] *Member States to introduce disproportionate measures*" (Detailed Grounds §19 **[A/1/9/118-119]**), irrespective of the circumstances. Rather, measures which would be *effective* to ensure compliance with the Directive's requirements must be introduced (ClientEarth's Reply, §6.3) **[A/1/10/147].** These may include consideration of (i) the technical feasibility of certain measures (ii) objective administrative limitations (which must be more than merely administrative "difficulties" – see *Commission v Italy*) (iii) the relative cost-effectiveness of an effective measure as against others and (iv) the differential impacts of a measure (specifically identified in Article 23(1), §2).

Approach of the European Commission and other national courts

71. ClientEarth's construction of the Directive is shared by the European Commission as well as courts in Germany which have faced similar cases. As to the Commission, it set out its view in its Observations to the CJEU, on which the SoS relies (Grounds, §18), that where a Member State is in breach of the relevant limit values, its margin of discretion in selecting measures to ensure compliance with the Directive is "*heavily circumscribed*". In other words "*a Member State does not have the full discretion to take into account and balance economic social or political considerations in its choice of the measures to be foreseen*" (see Commission's observations, §§63, 82 and 97).

72. Moreover, in a recent Reasoned Opinion which it has directed at the Belgian Government[15], the Commission found that a number of Belgian AQPs had failed to comply with the requirements of Article 23. That provision required 'rapid' and 'effective' action to bring zones into compliance. Accordingly, a 5-year non-compliance period is "*of itself*" a breach of the requirement to keep the period 'as short as possible' (§4.4). Similarly, 2018 and *a fortiori* 2022 were determined to be unacceptable dates for compliance (§4.4.1(c)). It rejected the Belgian Government's reliance on the failure of

[15] Available at http://bral.brussels/sites/default/files/bijlagen/inbreuk_no2_brussel_2016_highlights.pdf.

the Euro standards (§4.4.2.3(a) at p.22), pointing to other means of encouraging a shift away from polluting cars, such as fiscal measures and LEZs (§4.4.2.3(b) at pp.22-23) and the fact that the shortcomings of the Euro standards have been known for years. Finally, it also places weight on the use of mandatory, rather than voluntary measures (in the context of a regional plan to change traffic levels through the use of public transport etc.) (see §4.4.2.5). In summary, the Commission requires a Member State to '*at least guarantee any current trends, if not* improve *them, to ensure that periods of exceedance are as short as possible*'.

73. As to the German courts, in a series of three judgments over the past year, administrative courts have found that local AQP did not comply with the requirement of achieving compliance "*as soon as possible*" where they failed to identify a timeframe for compliance (*DUH v. Land of Hesse* – Judgment of the Administrative Court of Wiesbaden (4 K 1178/13.WI(V)) or selected targets in 2018, 2020 and 2025/2030 (*DUH and VCD v. Land of Bavaria* – Judgment of the Administrative Court of Munich dated 29 June 2016[16]). Where compliance had not been achieved, the relevant courts have ordered the consideration and/or implementation of drastic measures, such as bans of all diesel vehicles in the city of Düsseldorf from January 2018 (*DUH v. Land of North Rhine-Westphalia* - Judgment of the Administrative Court of Düsseldorf dated 13 September 2016 **)**. Courts of similar jurisdiction in a Member State faced with similar challenges have therefore recognised the need for urgent and significant measures, particularly to address pollution from diesel cars, in order to achieve prompt compliance with the Directive.

Errors of law

74. The principles of EU law examined above demonstrate that the SoS's approach to Article 23(1) is flawed.

75. The SoS first identified a "*timeframe for achieving compliance*" (Grounds, §9(b) **[A/1/9/4]**). She then worked back from this timeframe to identify the "*minimum*" steps required to

[16] This judgment followed an earlier judgment in 2012 (*DUH v. Land of Bavaria* - Judgment of the Administrative Court of Munich dated 9 October 2012 (M 1 K 12.1046)), in which the Court concluded that dates of compliance in 2015 and 2020 were not compatible with Article 23.

"*achieve compliance*" by the date that she had arbitrarily picked. However, Article 23(1) requires steps to be taken urgently to ensure compliance in as brief a period after 2010 as possible. The period of compliance is undefined but must be as short as possible in duration.

76. The SoS asserts that the timeframe adopted in the AQP constituted her "*realistic assessment of what was achievable*" (Grounds, §75(a)(i) **[A/1/9/136]**). However, the evidence shows that Defra officials based their planning around a five-year modelling format and the assumption that no enforcement action would be taken against the UK before 2020 (see §30 above), rather than on an assessment of the actual earliest possible compliance date. This was an error of law. The analysis started by aiming to achieve compliance by 2020, five years after the plan was prepared in accordance with the Supreme Court's order and a decade after the original compliance deadline. In the case of London it aimed for a date five years later. It then worked back to see what measures would achieve compliance by these arbitrary deadlines. The SoS has therefore misinterpreted (or simply failed to comply with) Article 23.

77. In selecting 2020 and 2025 as the relevant 'timeframe', the SoS also arbitrarily relied upon a modelling approach which examines only five-year snapshots. Indeed, Ms Smith emphasises that the measures considered by Defra would all "*achieve compliance* […] *in the same timeframe*" (NS2, §5) **[A/2/37a/p.2]** As noted on behalf of the Mayor of London, however, this does not provide a granular picture of the likely future NO_2 concentrations, nor is it justified by practical considerations (FFS1, §§83 and 85) **[A/2/18/477]**. A more detailed series of models would identify the reasons for projected emissions levels and identify the measures needed to achieve the earliest possible compliance (CH2, §84) **[A/2/31/994]**.

78. The SoS claims that "*it is not possible to demonstrate in the projections when within that 5-year period a measure would take effect*" (NS1, §62) **[A/2/28/858]**. However, it is clear that the modelling of an additional year between 2015 and 2020 (2018) was contemplated by Defra and its consultants (see (CH2, §87) **[A/2/31/994]** and **[NS1/1/226]**) but this was not pursued, as officials believed it would "*not* [be] *useful to the analysis* […,] *would add extra complexity and would jeopardise meeting the deadline*" **[NS1/1/249]**. Mr Dickens, in contrast, emphasises the cost of procuring this additional analysis (RD1, §44) **[A/2/30/950]**. However, as Dr Holman points out, the full costs estimated by Mr

Dickens of modelling each year between 2015 and 2030 would be unnecessary and in fact the likely cost of modelling one or two years between 2015 and 2020 would be limited (CH2, §85) **[A/2/31/994]**.

79. Further, the SoS excluded a number of additional air quality improvement measures going beyond the "*minimum*" identified, which would have increased the speed and likelihood of compliance. In particular, HMT refused to contemplate introducing any fiscal measures to disincentivise the use of diesel cars and vans in highly polluted cities. Similarly, the key measure – the introduction of CAZs – is insufficient to keep the period of exceedance "*as short as possible*".

80. In particular:

80.1. The AQP is incomplete: In relation to the limited number of proposed mandatory CAZs, the AQP has not set out crucial details, such as "[t]*he class and extent of any Zone ultimately required*" (Overview Document, §107), the exact date of implementation and the level of the anticipated charges for entering the CAZs ((CH1, §40)**[A/2/14/414]** and (CH2, §11) **[A/2/31/981]**);

80.2. The efficacy of the AQP relies upon doubtful assumptions: As the Decision has accepted (CH1, §§36 and 60) **[A/2/14/413 and 419]**, the AQP is based on the assumption that the Euro VI/6 standards will have the impact on emissions reduction anticipated by COPERT. If such assumptions are incorrect, which is highly likely to be the case ((CH1, §§36-39) **[A/2/14/413-414]** and (CH2, §§89-99) **[A/2/31/995-997]**), the number of zones that will exceed NO_2 limit values in 2020 will increase significantly and the AQP will have failed;

80.3. The mandatory CAZs are limited to an insufficient number of zones: Mandatory CAZs are only envisaged for five zones outside London which, based on the SoS's highly optimistic projections, will not comply by 2020 without further action. However, if the AQP had been based on more realistic modelling assumptions, this would show that many more zones would still be in breach after 2020 and so would require mandatory CAZs to bring forward compliance. Dr Holman notes a more plausible 'Alternative Scenario' modelled by Defra,

which has been borne out by recent testing, requiring the introduction of at least between 14-18 CAZs **[NS1/4/84]**;

80.4. The CAZs have a fundamentally flawed scope: As noted above, the mandatory CAZs will not apply to diesel cars at all, even though these are identified as the most significant source of NO_x emissions ((CH1, §§50-53) **[A/2/14/416-417]** and (CH2, §§15-21) **[A/2/31/982-983]**). Mr Dickens accepts that extending CAZs to diesel cars would be more cost-effective than extending it to vans on a £m per $\mu g/m^3$ (RD1, §80) **[A/2/30/965]**, but vans, not cars, have been included in the CAZs for Birmingham and Leeds. Ms Smith claims that the "*overall cost of including cars in the CAZs would have been substantial* […] *because a higher number of vehicles are affected*" (NS2§12b) **[A/2/38/p.5]**. Moreover, she states that such an inclusion would go "*beyond what is required to meet the UK's obligations*", based on Defra's assessments (§12(a)) **[A/2/38/pp.4-5]**. This analysis is inconsistent with the evidence – which shows that the inclusion of cars was recommended by officials but rejected by HMT – and does not address the effect on the timing and likelihood of compliance that such a measure would undoubtedly have (see §29 above);

80.5. The CAZs will not be introduced "*within the shortest possible time*": The AQP does not give a certain date for implementation of CAZs, only that this will be "by 2020". The Claimant assumes that this means 'by the *end* of 2020'. No convincing explanation is given for this lengthy period of design and implementation of the CAZs, in circumstances where the policy has been considered for many years ((CH1, §§54-59) **[A/1/14/417-419]** and (CH2, §§22-26) **[A/2/31/983-984]**). Indeed, no consultation in relation to the detail of CAZs has been published at the time of writing. However, there are practical ways in which CAZs could be introduced more quickly – as noted by the Mayor of London (FFS1, §§69-70) **[A/2/18/473]**. Indeed, Birmingham and Nottingham have announced their intention to introduce a CAZ in 2018/19 (CH2, §23) **[A/2/31/984]**;

80.6. No additional measures for London are included: The Decision relies upon the ULEZ which had already been announced in October 2014 and planned for introduction in September 2020. That zone is drawn too narrowly (it is proposed to cover the congestion charge area in central London, but will not apply to other

areas of poor air quality in greater London) and its introduction is delayed for a substantial period, without any explanation why earlier implementation is not possible, particularly in light of the seriousness of the exceedances in the London zone (CH1, §§64-71) **[A/2/14/421-422]**. Aside from a few minor points, the new Mayor of London agrees with Dr Holman's criticisms (FFS1, §§76 and 86) **[A/2/18/475 and 477]**; and

80.7. Displacement: The limited CAZ framework proposed for five cities does not address the problem of the displacement which it may cause (CH2, §14.1) **[A/2/31/982]**. The risk is that a limited number of CAZs will simply lead to the most polluting vehicles being moved to other cities, preventing prompt compliance in those areas. Ms Smith's evidence provides no response to this issue, except to claim that the introduction of mandated CAZs across the UK to avoid the displacement effect would be disproportionate. However, it is clear that Defra has not in fact modelled this effect to determine its significance (NS2, §§8-9) **[A/2/37a/p.3].**

81. Moreover, Defra appears not to have considered more stringent rules for the CAZ for the most polluted areas, e.g. a "Class E" which would ban certain classes of diesel vehicles (CH1, §§62-63) **[A/2/14/420-421]**. Although the Mayor identifies a number of practical difficulties which he sees with the proposal for a more stringent 'Class E' CAZ in London, in reality his new proposals mirror this approach (CH2, §28) **[A/2/31/984]**.

82. In light of the features above, the SoS has unlawfully failed to draw up an AQP complying with Article 23(1) and Regulation 26.

B. Second ground - Failure to take into account all relevant considerations

83. The first basic obligation on the part of a decision-maker is properly to obtain the facts and evidence necessary to take a lawful decision (see, e.g. *Secretary of State for Education and Science v Tameside MBC* [1977] AC 1014). Thereafter, the decision-maker must take into account all relevant considerations, and exclude from consideration all that are irrelevant.

84. In establishing the AQP, the SoS's approach was flawed in a number of respects.

85. First, while it is clear that in the preparation of the AQP the SoS considered a range of measures, in identifying "*appropriate*" measures in accordance with Article 23(1), the SoS gave disproportionate weight to considerations which are specifically of secondary importance to the Directive's primary purpose of protecting human health through the achievement of limit values. In particular, this related to:

85.1. Cost: As is clear from the factual background set out above and in Annex 2, the approach taken by the SoS – guided by the decisions of HMT - was to identify the "*minimum*" package of measures required – or the "*least cost path to compliance*" **[NS1/3/363]**. The key consideration for HMT was the upfront cost to the Government (see §25.4 above). For instance, the recommendation of Treasury officials to the Chancellor in the Spending Review in October 2015 was a measure without mandatory CAZs but with less funding than was sought by Defra and DfT (§§23-27) **[NS1/4/70-71]**. The option ultimately selected was described as being a way "*to reduce HMG costs further*" and a "*lower cost solution*", requiring the implementation of mandatory CAZs (§28) **[NS1/4/72]** (see also NS1, §§203 and 206) **[A/2/28/898-899]**;

85.2. Political sensitivity: The final AQP reflected political concerns about the nature of action required in order to avoid Commission enforcement or sanction by the Supreme Court. As noted by officials, "[t]*he scale of the package agreed turns on what we think the commission will accept to halt infraction proceedings – and so wider political considerations will play a role*" (§23) **[NS1/3/368]**. One example of this was the exclusion of diesel cars from the proposals for CAZs, despite the support of both DfT and Defra. As noted above, officials had noted the importance of cars as a source of NO_2 and the fact that within a CAZ framework "*the infrastructure would already be in place* [to include them…which] *would be fairly certain to achieve or bring forward compliance by 2020*" **[NS1/4/316]**. However, including them "*would be politically very difficult, especially given the impacts on motorists*" **[NS1/3/140]** and the Treasury Ministers ruled out this possibility **[NS1/4/443]**.

85.3. Administrative difficulties: Similarly, reliance was placed on the administrative obstacles to the introduction of a number of measures. For instance, the use of

Vehicle Excise Duty or other fiscal measures to incentivise motorists to use low-emission vehicles was recommended by Defra and DfT (see (CH2, §§54-56) **[A/2/31/988]**). However, HMT refused to contemplate such changes (NS1, §178) **[A/2/28/891]**.

86. Second, the SoS did not carry out a proper assessment of a range of measures other than mandatory CAZs, which are likely to be effective in ensuring compliance with the Directive in "*as short as possible*" a time. As the Supreme Court made clear in *ClientEarth 1*, the Directive requires that at the very least in preparing a plan pursuant to Article 23, the Secretary of State should demonstrate that consideration has been given to all available measures such as those within the 'checklist' of measures at Section B, §3 of Annex XV to the Directive (p.732d-e at [25]). These are all measures which would potentially reduce the time period in which compliance could be achieved, or at the very least increase the likelihood of ensuring its achievement by the date projected in the AQP.

87. There were a number of other significant and feasible measures (CH1, §§72-77) **[A/2/14/422-424]**, which were likely to be effective at ensuring compliance with the Directive. These included:

87.1. Locally targeted scrappage schemes: As noted by Dr Holman (CH1, §74) **[A/2/14/423]**, such a measure is supported by a number of stakeholders, including the Mayor of London (FFS1, §66) **[A/2/18/471]** and was identified as one of Defra's top three measures for the AQP, designed to support voluntary CAZs until as late as November 2015 (CH2, §37) **[A/2/31/986]**. Although the SoS identifies a number of practical implementation concerns with such a scheme and suggests that it would not accelerate compliance ((NS1, §§114-116) **[A/2/28/877]** and (NS2, §14) **[A/2/37a/p.8]**), a scrappage scheme could be implemented more rapidly than a mandatory CAZ and administrative arrangements would overcome the concerns around potential fraud, etc. (CH2, §§38—46) **[A/2/31/986-987]**.

87.2. A targeted vehicle retrofitting scheme: This is specifically foreseen by §3(b) of Annex XV to the Directive. It is possible to reduce NO_x emissions by retrofitting pollution abatement equipment to vehicles. Retrofitting is currently taking place

in London to improve the emissions of the bus fleet. Although consideration was given to this measure, no detailed investigation was undertaken and the final scheme foreseen in the AQP was much smaller in scale than originally envisaged by Defra. This was despite the recognised benefits and efficacy of such schemes (CH2, §§47-53) **[A/2/31/987-988]** and the fact that such a scheme would provide a number of operators with a cheaper option than vehicle replacement or the payment of CAZ charges (CH2, §49).

87.3. Fiscal incentives: As noted above, Defra and DfT recommended the use of the fiscal regime to encourage the purchase of low NO_x-emitting vehicles, akin to the CO_2 car duty. This is required to provide motorists with clear signals about the importance of addressing emissions from vehicles (CH1, §75) **[A/2/14/423-424]** and (CH2, §§54-62) **[A/2/31/988-990]**;

87.4. Measures specifically targeting diesel cars: no sound reasons have been identified for the failure to consider in detail a number of other measures, such as consumer labelling or increased vehicle testing (CH2, §§55-61) **[A/2/31/987-988]**. Indeed, Ms Smith supports the introduction of consumer labelling schemes, but suggests that these are and should be voluntary, introduced by non-governmental bodies (NS2, §30) **[A/2/37a/p.10]** She also appears to support the introduction of more stringent vehicle testing **[A/2/38/p.13]** but does not explain when this will be introduced or why it was not included in the AQP.

88. The SoS's primary response is to argue that the introduction of other measures would have made no difference to the time for compliance with the Directive (see, e.g. Grounds, §§75(e), 77(c) and (f), 81(a) [**A/1/9/138-140 and 142]**; (NS1, §214) **[A/2/28/900]**; (RD1, §82) **[A/2/30/967]**). However:

88.1. This approach ignores the possibility to introduce complementary measures prior to mandatory CAZs (see CH2, §§32-35) **[A/2/31/985]**;

88.2. It is inconsistent with the view of Defra's external consultants (CH2, §29) **[A/2/31/985]** as well as its officials, that other measures which were seen as complementary and would have a "*cumulative impact*" in increasing the

likelihood of speedy compliance with the Directive (see, e.g. (§10) **[NS1/1/193]** and **[NS1/1/370 and 387]**; and

88.3. It ignores the SoS's duty to "*ensure*" compliance and therefore to have to take steps which increase the probability of compliance. This is particularly the case where, as explained above, the modelling relied on was known to be highly optimistic.

89. Third, and finally, the SoS did not carry out a detailed assessment of these additional measures or include a timetable for their introduction or estimated impact on air quality in the AQP, as required by §8 of Part A of Annex XV (§48 above)(CH2, §36) **[A/2/31/986]**.

90. By failing to take into account these relevant matters, the Secretary of State has unlawfully failed to draw up AQP complying with Art. 23(1) and Regulation 26.

V. CONCLUSION & RELIEF

91. For the reasons set out above, ClientEarth submits that the Court should quash the AQP and require the SoS to produce compliant plans, applying the proper legal test and taking account of all relevant considerations. Moreover, consistent with the approach of the Supreme Court in *ClientEarth (No.1)*, it is imperative that a new compliant AQP is consulted on, finalised and implemented according to a specified, urgent timetable. This would ensure compliance with Article 23(1) and bring to an end the serious risks to public health and the environment, which the UK's current breaches are creating.

22 September 2016

NATHALIE LIEVEN QC

Landmark Chambers

BEN JAFFEY

RAVI MEHTA

Blackstone Chambers

Claim No: 1508/2016

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION (ADMINISTRATIVE COURT)

BETWEEN

THE QUEEN
on the application of
CLIENTEARTH (No. 2)

Claimant

- and -

SECRETARY OF STATE FOR THE ENVIRONMENT, FOOD AND RURAL AFFAIRS

Defendant

- and -

(1) MAYOR OF LONDON
(2) SCOTTISH MINISTERS
(3) WELSH MINISTERS
(4) SECRETARY OF STATE FOR TRANSPORT

Interested Parties

CLAIMANT'S SKELETON ARGUMENT

Alan Andrews
ClientEarth,
The Hothouse,
274 Richmond Road,
LONDON EB 3QW
aandrews@clientearth.org

Solicitors to the Claimant