Written evidence from Green Alliance (MET0003)

About Green Alliance

Green Alliance is an independent think tank and charity focused on ambitious leadership for the environment. Since 1979, we have been working with the most influential leaders in business, NGOs and politics to accelerate political action and create transformative policy for a green and prosperous UK.

Summary

Methane has more than 80 times the warming power of carbon dioxide over a 20-year period and is responsible for 0.5C of the warming experienced to date. The potency and short lifespan compared to carbon dioxide mean that cutting methane emissions is the fastest way to slow the rate of global warming and avoid climate tipping points. Despite this, methane has long been overlooked in efforts to combat climate change.

Although the UK has been a climate leader in the past, this reputation relies heavily on historic emissions cuts, particularly to methane, made between 1990 and 2008, before the UK passed its flagship Climate Change Act. In 2022, the UK's Methane Memorandum celebrated past success at cutting emissions but introduced hardly any new ambition or policy to go further. With current plans, the UK will, at best, reduce its emissions by a further 19.3 per cent by 2030.

The UK has the potential to reduce methane emissions by up to 43 per cent by 2030, demonstrating global leadership under the Global Methane Pledge. Interventions to achieve this are either profitable or low cost and have numerous additional benefits to energy security, public health and the environment.

There are considerations to be made when comparing actions that cut methane emissions vs any impacts on CO2 emissions, for example in emissions trading schemes, flaring, and wetland/peatland restoration. It should be possible to design policy that, in most cases, helps to reduce both methane and CO2 emissions, and where genuine trade-offs occur, a suitable metric such as GWP100 can be used to arbitrate.

International commitments

1. **What role could methane emissions reduction play in meeting the UK's domestic and international climate change targets?**

1.1 Rapid methane reductions, alongside rapid CO2 reductions, would cool the planet and will be critical to keeping global warming within the target of 1.5C set under the 2015 Paris climate agreement. Whilst the UK cut methane emissions by 60 per cent since 1990, progress has slowed significantly since 2008. Methane still accounts for approximately 13% of the UK's net GHG emissions.

1.2 The government has some plans in place to tackle methane emissions as part of its Carbon Budget Delivery Plan. But methane is often overlooked, and greater visibility and communication about efforts to bring down methane emissions is needed.

2. **What is your assessment of the Global Methane Pledge: is the UK on track to meet it? If not, how could this be accelerated?**

2.1 The Global Methane Pledge formalises a commitment for global methane emissions to fall, from 2020 levels, by at least 30% by 2030. The UK has signed the pledge but has no plan to meet it, even though it has scope to cut its emissions now by over 40%. Few signatories to the pledge have produced goals or plans to meet the target. For those few countries that do have plans, if implemented, their methane emissions will fall by an average of 28% by 2030. Even if all the signatories achieved this, total global emissions would fall by only 15%.

2.2 To reach a total global reduction in emissions of 30 per cent, all countries signed up to the pledge (as of October 2023) as well as China would together have to reduce their methane emissions by 44 per cent by 2030. While China has not signed the pledge, it has promised to act.

2.3 Green Alliance has assessed the governments existing plans to tackle methane emissions as part of the Carbon Budget Delivery Plan. If all the intended policies were implemented in full, the UK might be expected to reduce methane emissions by 19 per cent by 2030 from 2020 levels. However, leaked documents from Defra, the department responsible for 86% of the UK's proposed methane emissions reductions, show that the government itself rated most actions to cut methane as amber or red, indicating a low likelihood of these emissions cuts being met. In any case, this is well below the 44 per cent needed, on average, from all Global Methane Pledge countries and China, for the pledge to be a success. As Green Alliance analysis shows, the UK could readily achieve a 43 per cent cut.

3. **What are the implications of the separate Global Methane Pledge for overall UK efforts to reduce greenhouse gas emissions?**

3.1 It does not appear that the government has done anything differently because of the Global Methane Pledge. Greenhouse gas emissions reductions continue to be considered together as part of the Net Zero Strategy. Some of the quick wins available in cutting methane emissions are cheap, including an earlier ban on oil and gas venting and flaring, methane suppressing feed additives for dairy cows, and accelerated landfill bans for biodegradable waste, but even these have not been implemented. That is why a dedicated focus on methane emissions via the Global Methane Pledge is so important.

4. **Given UK progress in methane reduction in recent years (with notable reductions before 2020) what are the cost/ benefit implications of meeting the pledge?**

4.1 The UK's claim to be a leader in methane reduction rests on historic emissions cuts made between 1990 and 2008, before the UK passed its flagship Climate Change Act. In 2022, the UK's Methane Memorandum celebrated pre 2008 success at cutting emissions but introduced hardly any new ambition or policy to go further.

4.2 The Global Methane Pledge exists because urgently tackling methane emissions, alongside efforts to reduce CO2 emissions, is the only credible way to keep global temperatures in the 'well below 2 degrees, striving for 1.5C' goals of the Paris Agreement.

4.3 There are potential costs to be incurred in tackling methane emissions, but in most cases these costs are low: for example, methane suppressing feed additives are likely to cost £50-60/tCO2e, well below the roughly £250/tCO2e that government assesses as good value for money. In some areas, such as oil and gas extraction, the costs to capture wasted gas are lower than the value of captured gas, meaning that these interventions would either lower the cost of energy for consumers if the savings were passed on, or increase oil and gas industry profits.

6. **What is the UK doing to lead and facilitate international action on methane reduction? Could this be enhanced?**

6.1 There are several areas where the UK could go beyond addressing its own emissions and supporting other signatories to the Global Methane Pledge. We explore three of them below.

6.2 *Landfill methane.* Sharing the policy, technical expertise and business models the UK has pioneered for landfill methane capture with other countries, especially in Latin America, where policy for landfill gas capture is under consideration, could have significant benefits. If all Central and South American countries captured 70 per cent of their landfill gas, it would cut 4.3Mt of methane emissions, which is more than twice the UK's total methane emissions in 2020.

6.3 *Methane suppressants and alternative proteins.* The UK is well placed to compete with New Zealand, USA and Israel in the production of alternative proteins and feed additives. According to the National Food Strategy, building an alternative proteins industry could create 10,000 new food manufacturing jobs and 6,500 farming jobs in the UK. Given the UK's high food standards, there's a credible case for exporting either products or the intellectual property associated with their production. Alternative proteins can reduce demand for processed meat and dairy products and therefore reduce emissions. Methane suppressants can cut methane from the rumen of cows

and sheep, and could be especially suitable for dairy cows, which typically come indoors to be milked twice a day. One methane suppressant manufacturer, DSM, is building a production facility in Scotland which will supply farmers around the world.

6.4 *Methane from rice cultivation.* The system of rice intensification (known as SRI) could cut methane emissions by 40 to 70 per cent and has been supported by UK grants. Expanding SRI from the current ten per cent of rice paddies to the 77 per cent it could be applied to, through a combination of UK aid and preferential access via UK trade deals, would cut 100Mt of methane emissions. This is equivalent to 50 times the UK's total methane emissions in 2020.

7. **What lessons could the UK learn from abroad?**

7.1 The EU is introducing new laws around methane emissions from oil and gas production, with import standards aimed at driving down emissions. This will affect the UK regardless, because we export gas to the EU, but it could also be followed as an effective way to drive down methane emissions domestically as well as from imported gas.

7.2 The US is introducing a methane fee on wasted methane from oil and gas operations. This follows the approach that Norway took many years ago to reduce wasted methane in the North Sea.

Data, measurement and monitoring

8. **What is the status of methane accounting, monitoring and reporting in the UK at present and how does it compare internationally? Is UK accounting and reporting considered to be accurate and robust? What improvements, if any, are possible and what benefits would these deliver?**

8.1 Most studies suggest methane emissions from offshore oil and gas industry and leakage from gas pipes are systematically under reported. Reported emissions are based on modelling, estimates and outdated conversation factors. Direct measurement of onshore and offshore emissions suggest the true volume of methane leakage, referred to as 'fugitive' methane emissions, might be 5 times higher than reported.

8.2 The latest Global Methane Tracker from the International Energy Agency noted that industry reporting is often well below true estimated emissions. There are no requirements on UK operators to conduct frequent leak detection and repair.

8.3 New satellites, such as the recently launched MethaneSAT, and the ongoing surveys by GHGSAT, will improve emissions measurements.

9. **What progress is being made on methane monitoring and data collection in the UK using technologies such as satellite data and drones?**

9.1 The first space-detected significant methane leak was recently discovered from a gas pipeline near Cheltenham. The recently launched MethaneSAT will help to survey major sources of concentrated methane emissions but will not be able to monitor diffuse sources such as from agricultural settings.

11. **What are the advantages and disadvantages of available metrics used to report and compare methane emissions including GWP100 and GWP*?**

11.1 The advantage of GWP100 is its simplicity and ability to convey the potency of methane emissions compared to CO2. The disadvantage is that it masks the short-lived nature of methane, and therefore the short-term gains to be achieved from reducing methane emissions.

11.2 GWP* describes the warming or cooling impact of a *change* in methane emissions, but it has not been adopted by the UNFCCC and is better placed to demonstrate how methane emissions will impact future warming or cooling. It does not account for past warming or historical impacts, and there is a risk that it could be used by certain methane emitters to avoid cuts to other greenhouse gases.

11.3 GWP* is sometimes promoted by farming groups because a small drop in methane emissions from a historically high baseline will result in a cooling effect, so a farm could then claim climate neutrality even if it continues to emit carbon dioxide. This would also ignore the historic contribution from building up to a large source of methane emissions, e.g. by growing the size of a cattle herd over time, which would have led to significant warming up until this point. In aggregate GWP* risks distracting from the fact that global temperatures are being held approximately 0.5C higher than they could be if anthropogenic methane emissions – from fossil fuels as well as farming – were eliminated.

11.4 There is also a risk of equity concerns with GWP*. Because it focuses on change in impact, countries that already have large herds would be rewarded for small reductions, while countries with small but growing herds would be penalised. GWP* should be used with caution and should not be allowed to avoid further cuts to methane or CO2 that are urgently needed.

11.5 GWP20 would be a useful additional metric that, in conjunction with GWP100, can better demonstrate the short-lived nature of methane and therefore the value in cutting emissions. There are considerations to be made when comparing actions that cut methane emissions vs any impacts on CO2 emissions, for example in emissions trading schemes, flaring, and

wetland/peatland restoration. It should be possible to design policy that, in most cases, helps to reduce both methane and CO2 emissions, and where genuine trade-offs occur, GWP100 is a suitable metric to arbitrate.

11.6 When methane is flared instead of vented, this burns the methane and produces CO2. It's definitely better to do this than not do it, as the warming impacts of the produced CO2 are lower, but this underscores the importance of trying to avoid producing methane in the first place if possible (avoid sending food waste to landfill and reduce meat and dairy consumption where possible).

11.7 Currently methane is not included in the UK ETS, but the government have said they are considering including it, at least for O&G operations. Currently, there is a disincentive to flare methane in O&G operations because operators have to pay for the CO2 they produce from flaring, whereas there are currently no fees for venting methane (although venting is regulated with permits by the NSTA). Including methane in the ETS would remove this slightly perverse incentive, but it would need to be done carefully so that an operator could not simply tackle a little bit of methane emissions and then get a free pass to emit an equivalent amount of CO2. Allowances or caps for methane would need to be managed separately, or the overall cap in CO2e would need to not be increased.

11.8 The committee heard about wetlands and peatlands in their first evidence session, but to reiterate; there is some trade off when restoring degraded peatlands or wetlands in that this can increase methane emissions in the short term. However, the benefits in terms of stemming the huge CO2 emissions from degraded wetlands and peatlands outweighs the drawbacks of the methane emissions.

UK Methane emissions and sectors

12. **What progress has the UK made on reducing methane emissions and where is there room for improvement?**

12.1 A large part of the UK's 60 per cent drop in emissions since 1990 can be attributed to the transition away from coal mining and coal power generation which accounted for 40% of the UK's power generation in 2012, dropping to just 1.8% in 2020.

12.2 Today methane emissions mainly come from three sectors: agriculture, forestry and land use, energy and waste. Agriculture is the UK's biggest source of methane and cows in particular are responsible for 77% of the UK's agricultural emissions. This sector has seen the smallest reduction in emissions, falling just 15% since 1990 despite technological improvements becoming available. We outline below some of the areas with the most room for improvement.

13. **Which sectors are most promising for achieving further methane emissions reductions? And which are likely to be at least relative cost?**

13.1 *Agriculture:* Changes to food and farming could cut total UK methane emissions by 15% by 2030, mainly in ways that increase the productivity of the food system. This includes the use of methane suppressing feed additives, better slurry management and a small dietary shift towards more alternative proteins, fruit and vegetables.

13.2 *Energy:* The oil and gas sector could cut down on methane leaks, venting and flaring. This would cut total UK methane emissions by 9% and support UK energy security, and most measures would save money.

13.3 *Waste:* The UK waste sector, despite being a global leader in methane reduction, could cut a further 19% from total UK emissions by 2030, with an urgent ban on organic waste going to landfill and better landfill biogas capture rates.

13.4 These interventions are either profitable or low cost, have numerous additional benefits to energy security, health and the environment and are in line with wider government goals.

14. **Are there sources that could be mitigated quickly and easily in the short term, and which would take longer or be more complex?**

14.1 Agriculture: Methane suppressing feed additives could be rolled out cheaply to suitable dairy farms (where the cows are fed indoors twice a day). Longer term efforts to reduce methane from cows are things like selective breeding, methane vaccines, and dietary shifts. A change in slurry management techniques can draw on lessons from other countries that have experience of these (like Denmark).

14.2 Energy: Most measures to reduce methane emissions in the oil and gas sector would pay back very quickly through the sale of more fossil gas on the market. It may take a couple of years to retrofit flare gas recovery systems to offshore oil and gas platforms, but frequent leak detection and repair programs could be implemented now, with immediate results.

14.3 Waste: Banning biodegradable waste from entering landfills should be done as soon as possible, but alternative waste management processes (e.g. anaerobic digestion, or composting) need to be in place first.

15. **To what extent is there existing regulation in each emitting sector to mitigate methane emissions, and how well is this working?**

15.1 Agriculture: None

15.2 Energy: Oil and gas operators have to apply for permits for flaring and venting from the North Sea Transition Authority.

15.3 Waste: Landfill operators are required to capture and dispose of landfill gas (primarily methane and CO2) and cannot release it to the atmosphere. Historic renewable energy subsidies mean that often this gas is burnt to generate electricity. However, those subsidies are closed to new projects, and will stop altogether in 2027. At this point, operators may cease maintaining their gas turbines/engines for electricity generation and move towards simply flaring the gas instead. Therefore, there will be less incentive for landfill operators to optimise their landfill management for the maximum capture of landfill gas, and it is possible that more landfill gas will be released/leaked.

Agriculture

16. **Are there emerging technologies, such as methane suppressant feed products or approaches to slurry management, that could aid with methane emissions reduction in agriculture? What impact could they deliver?**

16.1 Methane suppressing feed additives are a critical option to reduce the climate impact of dairy cows and help to mitigate the UK's overall methane emissions. Manufacturer DSM's feed additive Bovaer/3-NOP, approved by the Food Standards Authority (FSA) in December 2023, could cut methane emissions from dairy cows by 30 per cent, if fed to cows regularly. A 30 per cent effective Bovaer/3 NOP deployed across 40 per cent of the UK's dairy farms would reduce agricultural emissions by five per cent, only costing the equivalent of an extra 10 pence per milk consumer per year. In response to the government's consultation on methane suppressing feed products, most farmers agreed that introducing these products would result in either no major changes or only some changes to feeding regimes.

16.2 The delayed approval of Bovaer/3-NOP has already left the UK behind European counterparts, and government commitments to introduce methane suppressants in 2025 lack urgency and detail.

16.3 The Sustainable Farming Incentive within the Environmental Land Management Schemes (ELMS) is the obvious place for the government to pay farmers to use methane suppressants. Bovaer/3-NOP has an abatement cost of around £50-60/tCO2e, and is therefore a very cost effective measure, meeting the ELMS requirement that rural payments should be "public money for public (environmental) goods".

16.4 Methane can also be captured from slurry stores and converted to biogas, which can be used for energy on the farm or sold for additional revenue.

Cornish company Bennamann has begun to scale up this technology in the UK.

16.5 Alternatively, methane emissions from slurry can be dramatically reduced by mixing in an acid. This generates better fertiliser and cuts emissions of ammonia. This is common practice in Denmark and is beginning to be explored through Defra's "Farming Transformation Fund".

16.6 Assuming a 65 per cent uptake rate and a conservative 70 per cent reduction in methane across both interventions, these practices could cut UK agricultural methane emissions by at least 4%. It can also reduce nitrogen pollution in rivers.

17. **How effective are existing policies and incentives, such as Slurry Infrastructure Grants, in driving methane reduction?**

17.1 The primary motivation of the Slurry Infrastructure Grants is to reduce ammonia emissions and reduce nitrogen pollution. It will not currently pay for acidification systems, nor will it pay for methane recovery systems, so the grants are unlikely to have any meaningful impact on methane emissions. In 2022 the farming minister stated an intention to adapt the Slurry Infrastructure Grants to include some methane mitigation activity, but this has not been progressed.

17.2 The Farming Transformation Fund has previously paid for some slurry acidification projects, but this was discontinued in 2022.

18. **What other policy tools, frameworks or incentives could be employed in agriculture to drive methane reduction?**

18.1 Technological fixes like methane suppressants and better manure management are key interventions, but more will be needed to further reduce methane emissions. Although it is less politically appealing, dietary change must also be supported where it is easy and accepted by the public.

18.2 *Replace processed meat with alternative proteins and encourage consumers to eat more veg.* The UK buys a 1/3 of all the plant-based proteins in Europe. With investment, it could be an industry leader in alterative protein production, an industry which is increasingly cost competitive: in the Netherlands, alternative proteins became cheaper to buy than processed meat in 2022. Beef consumption has declined 5% since 2010 but UK diets still contain 40-50% more protein and less than half the fruit and veg needed for good health. Replacing processed meat and dairy with alternative proteins or unprocessed plant foods, as recommended in the National Food Strategy would cut agricultural methane emissions by 8%.

19. **How can efforts to mitigate methane emissions in agriculture be integrated into broader approaches to facilitate and incentivise climate and nature-friendly farming practices?**

19.1 Methane should be a focus in the Environmental Land Management Scheme (ELMS) and respective policies in devolved nations. Often actions to reduce methane have co-benefits. For example, better slurry management will both reduce methane emissions whilst reducing air and water pollution. Improving livestock health is important both to reduce methane emissions (because fewer animals are lost to disease), and for animal welfare.

20. **How can efforts to reduce methane reduction be balanced against other important considerations in the agricultural sector, including food security?**

20.1 There's no reason the mitigation efforts outlined above should have any impact on food security or animal health. There is some limited evidence that selective breeding for lower methane ruminants and using methane suppressing feed additives increases animals' feed conversion ratios, which very modestly increases food production.

20.2 More significantly, a small dietary shift away from meat and dairy and towards alternative proteins, fruit and vegetables grown in the UK would improve food security. Meat and dairy farming uses much more land per calorie than arable farming. A forthcoming Green Alliance report estimates that alternative proteins could increase the UK's self sufficiency by a third. This is much greater than the increase that could be achieved by focusing all land on food production, without diet change.

20.3 For the UK's exports to remain globally competitive, we must reduce their carbon footprints. Unless UK farmers are given the same support, exports could become uncompetitive against those with lower carbon footprints from elsewhere.

Waste and waste management

21. **What further progress could be made in the waste and waste management sector on reducing methane emissions? Are there interventions and/or technologies that could bring emissions down?**

21.1 The landfill tax, introduced in 1996, and support for landfill gas capture from the mid-2000s, have led into rapidly declining methane emissions from waste: down 68 per cent since 1990. However, methane emissions from waste are still contributing over 30 per cent of the UK total and the rate of gas capture from landfill has fallen.

21.2 To prevent methane from landfill sites there is a need to ban biodegradable waste from landfills. The Landfill Tax has reduced the total volume of waste sent to landfill however, some organic waste, especially from non-household sources, is still landfilled or otherwise incinerated, which releases CO2 emissions. Scotland will ban the landfilling of organic waste by 2025. DEFRA has proposed a similar ban in England for 2028. Because of the time lag between waste arriving in landfill and the production of methane, a ban in 2028 would only cut an extra one per cent of landfill methane emissions by 2030. A 2025 ban, with complementary policy designed to avoid incineration, would cut emissions an extra 13 per cent by 2030.

21.3 In addition, landfill gas capture rates peaked at 74 per cent in 2016, but they decreased to around 70 per cent in 2020 as biogas incentives waned. Landfill operators should be required to capture 80 per cent by 2030 (90 per cent has been observed). This would cut landfill methane emissions by an additional 24 per cent and high gas prices make this profitable. Our analysis indicates that combining a ban on organic waste entering landfill in 2025, and tighter requirements on capturing landfill gas, will lead to a 62 per cent drop in methane emissions from the waste sector, compared to 2020. This would result in a 19 per cent reduction in overall UK methane emissions.

21.4 Finally, the government should not continue to incentivise the burning of waste and release of biogenic CO2 in incinerators. Advances in Material Recovery and Biological Treatment (MRBT), based on biological stabilisation and mechanical sorting systems, may offer solutions for sorting mixed wastes that mean there is no need to invest in more incineration facilities. MRBT is more scalable than incineration and, being modular, can increase the autonomy of local districts over their residual waste management.

22. **Given the regulations already in place for methane reduction in the waste sector, why are emissions from the waste sector static over recent years? Are existing regulations monitored and enforced?**

22.1 In the case of the landfill tax, a lack of enforcement has incentivised waste crime and waste is illegally disposed of to evade the charge. According to the ESA, the cost to the economy of illegal waste sites increased by £138 million from 2015 to 2018, after which the landfill tax was extended to include illegal sites. The extent to which this extension is enforced is unclear.

22.2 Any regulations to divert biodegradable waste from landfill should be accompanied by adequate enforcement and a penalty regime to ensure regulation is upheld. More effective, however, are incentives to reduce waste in the first place, which will reduce pressure across the board.

23. **Is the UK on track to meet the Government's deadline of all local authorities collecting food waste separately from landfill by March 2026?**

23.1 It is not clear, but we do not think so. Any local authorities who are stuck in a long term PFI contract with a waste management company can be exempted from the requirement to collect food waste separately.

24. **To what extent will improved methane captured at landfill sites, remain necessary to reduce methane emissions after this date?**

24.1 Methane capture at landfill sites will remain necessary for some years, as methane will continue to be produced even by landfills which are closed or which are not accepting biodegradable waste. There is a long tail (a couple of decades) of methane production from organic waste.

24.2 In addition, unless the Government expands the intention of "near elimination" of municipal biodegradable waste going to landfill to encompass all waste streams (i.e., to include commercial and industrial waste), then some biodegradable waste may still go to landfill.

Fossil fuels

25. **Are there further methane reductions that could be made in the UK fossil fuels sector (e.g., oil, gas or other fossil fuels), or at a faster pace?**

25.1 The gas industry's methane action plan targets a 50 per cent reduction in emissions by 2030, but in its 2024 methane tracker the International Energy Agency (IEA) estimates that 69 per cent of current methane emissions from the UK's oil and gas sector could be abated with existing technologies and practices. 61 per cent of emissions could be avoided at no net cost – i.e. the cost of the interventions is lower than the value of the gas saved and sold to market.

25.2 Norway heavily taxes methane from fossil fuel operations, to prevent routine venting, and, in 1971, it banned routine flaring.

25.3 One of the most effective interventions would be to mandate monthly leak detection and repair (LDAR) activities. This is a proposal the EU is discussing and is normal practice in Norway. Better leak detection would also help to quantify the true volumes of fugitive methane.

25.4 By reining in wasteful practices in the energy sector, total UK methane emissions could be reduced by almost nine per cent. Additional benefits include improved air quality and better energy security. The North Sea Transition Authority encouraged gas companies to reduce venting and flaring, leading to cuts of a fifth between 2020 and 2021, showing that it can be done quickly.

26. **How can we ensure that reducing methane emissions in the oil and gas sector are not at the expense of reducing CO_2 emissions?**

26.1 The most effective way to reduce both methane and CO2 emissions in the oil and gas sector is to extract less oil and gas.

26.2 Currently, with CO2 emissions from flaring counted in the UK ETS, there is actually a perverse incentive not to flare methane but instead to vent it, as methane is not covered in the ETS. The Government is considering including methane in the ETS but should proceed with caution and ensure that if methane is included, methane credits are either capped, tracked and traded separately from CO2 credits, or the overall cap for CO2e credits is not increased to account for the introduction of methane. Otherwise, there is a risk that operators could cut a little bit of methane to "pay" for an increase in CO2 emissions.

27. **What impact would bringing forward the ban on flaring and venting have on both emissions and the industry?**

27.1 Phasing out venting and flaring by 2030 falls short of the ambition seen elsewhere and is five years later than recommended by the CCC. There are 14 sites in the North Sea producing negligible amounts of oil and gas while still polluting the air and damaging the climate. Green Alliance analysis found that in 2021, these produced just 13 per cent of the UK's North Sea oil and only 0.2 per cent of its gas but they accounted for a third of all flaring and two thirds of all venting.

27.2 All of these sites are due to close by the end of 2030, with most expected to end production sooner. Due to the pollution caused and the low economic reward of these fields, they should all be closed down as soon as possible and capped to prevent further methane release. If all these sites were closed in 2024, it would prevent over 700 million cubic metres of natural gas from being vented and flared in coming years.

27.3 There are 18 sites which produce higher volumes of oil and gas but which still vent and flare considerable amounts of methane. In 2021, they were responsible for 26 per cent of all venting and 40 per cent of all flaring. As these sites will operate beyond 2030, they will need to introduce measures to stop routine flaring and venting to comply with the North Sea Transition Authority's programme. As they sell gas to market, they are already connected to gas transport pipelines so have no excuse not to capture the methane being discharged now.

27.4 If the government brought forward the ban on routine venting and flaring to 2025, it would prevent 150 million cubic metres of gas being flared and vented from these sites each year to 2030. This quantity of gas could supply almost 140,000 homes, enough for a city the size of Aberdeen.

27.5 The government fears a ban would force some oil and gas fields to close earlier than planned, reducing domestic production, and increasing imports from countries with higher emissions. Green Alliance analysis of data from the North Sea Transition Authority shows that this fear is ungrounded. Forcing companies to clean up their act sooner would bring 2.5 times more gas to market than might be lost by closing down the most polluting sites.

27.6 There are a further eight fields which are due to close before the end of 2030. They produce eight per cent of the North Sea's oil and gas. If it is not feasible or economic to upgrade technology within the site's expected lifespan, they could be exempted on a case by case basis. However, if they apply to extend production beyond the current decommissioning date, they should be required to pay large fines for avoiding the flaring and venting ban.