LONDON FIRE BRIGADE

Part 1: Equality Impact Assessment – submitter to complete

Before carrying out an Equality Impact Assessment (EIA), you should familiarise yourself with the guidance notes (see Appendix) and our other resources located within the EIA section on Hotwire

An EIA should be carried out whenever you are starting (or reviewing) any major new activity/programme/policy/project/strategy/campaign *, or where you propose changes or a review of the previous one.

*In this document, any kind of activity/programme/policy/project will be called an ACTIVITY for an easy read, while you specify the type of your event from your end.

The purpose of an EIA is to meet and justify the legal obligation required under the Public Sector Equality Duty (PSED), namely, the 'DUE REGARD' that documents that your activity/programme/policy will:

- **1. eliminate discrimination, harassment, and victimisation**
- **2. advance equality of opportunity**
- **3. foster good relations between people who share a relevant protected characteristic and people who do not share it.**

In the EIA, you need to show that your activity meets the 3 conditions of the due regard, as listed above, and provide any relevant information showing that your activity caters for people with protected characteristics (where applicable), but also that it promotes equality and eliminates potential discrimination and offers additional opportunities to advance equality.

Where you identified any possible negative impacts on individuals and groups with protected characteristics, you need to complete a mitigating action plan (Section H below). After your mitigating action plan has been implemented, you need to inform the EAI Team by sending the same form again with the notification of the date when the mitigation action plan was completed.

A. Name, goal and the expected outcomes of the programme/ activity

The GLA/Mayor have set a target of becoming carbon net zero by 2030 and an essential enabler to achieve this is providing sufficient electrical capacity at fire stations and support premises. The

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London Fire Brigade currently operates from 103 fire stations located throughout greater London.

The Brigade have a carbon set strategy, which encompasses opening the infrastructure (upgrading power supply across the estate), alternative fuels and offsetting, and fleet decarbonization. HVO is an alternative fuel, which will help reduce fleet carbon emissions, as an interim solution while the Brigade works towards obtaining a fully electric fleet.

HVO is a paraffinic, synthetic diesel and is a drop-in replacement for conventional mineral diesel. Unlike first generation biodiesel, hydrogen is used as a catalyst in the creation process instead of methanol. This makes it more clean burning than other renewable diesel alternatives.

HVO is created from vegetable fats and oils and putting them through a hydrogenation and isomerisation process which removes impurities. The process breaks down existing molecules and builds them up again, leaving a final product with consistent carbon chains but without the impurities that are common in mineral diesel and biodiesel. Hydrogenation removes all the oxygen from the oils, meaning it has a much longer shelf life than mineral diesel.

HVO's chemical structure is nearly identical to that of mineral diesel, this means it can be used as a drop-in alternative with no modifications or changes necessary to the existing fleet, making it a complete replacement for mineral diesel. Drop-in fuels such as HVO are widely supported by commercial vehicle manufacturers under standard servicing and warranty regimes. European Standard EN 15940 covers HVO and similar fuels. There is no adverse impact on performance, servicing, or warranties by using HVO instead of, or alongside mineral diesel– this has been confirmed by Scania and Mercedes for our heavy fleet. Babcock are in the process of providing a full list of vehicles which are unable to use HVO fuel.

HVO can be stored in the same bulk tank and used in the same way as mineral diesel fuel; HVO is more stable than mineral diesel, with a low water content and has up to a ten-year shelf life, compared to the one-year shelf life of mineral diesel.

B. Reason for Equality Impact Assessment

Please delete as applicable:

- A new activity

C. Names of the team responsible for the programme/ activity

Responsibility for the EIA:

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Name: Paul Cook
Job title: Head of Energy and Carbon Reduction
Department: Property and TSS

Responsibility for the whole activity:

Name: Laura Birnbaum
Job title: Assistant Director for Property and TSS
Department: Property and TSS

D. Who is this activity for, who is impacted by it (all LFB staff, specific department, external communities)

HVO is a drop in replacement fuel for mineral diesel. Crews can order this from POMS in the same way they would order mineral diesel. Fuel is ordered by station personnel at each station that has a bulk fuel tank (37 across the estate). This change will therefore only impact operational personnel who are responsible for ordering bulk fuel to stations. From a wider perspective, reducing the Brigade's carbon emissions through using a biodiesel will help to reduce the Brigade's impact on climate change and pollution. This will have a positive impact on the communities LFB serve across London.

E. What other policies/documents are relevant to this EIA?

Carbon Net Zero Strategy

F. Equality and diversity considerations

Describe the ways how your activity meets the conditions of the due regard of the PSED and how LFB employees and communities of London may be affected by your activity, especially those ones with protected characteristics. Explain whether your programme/ activity may disproportionately affect any group named below?

Protected characteristics Equality Act 2010:

- Age
- Disability/Barrier
- Gender and gender reassignment
- Marriage and civil partnership
- Pregnancy and maternity
- Race including ethnicity and nationality
- Religion or belief

- Sexual orientation

Also considering:
- Caring responsibilities
- Socio-economic backgrounds

At the end of your explanation, please, list the sources you have used.

Age

Climate change has been identified as the biggest health threat of the 21st century, with the potential to reverse years of improvements in global health and increase the pressure on health systems. Climate change is linked to human health through multiple and complex pathways.

Climate change increases the frequency, magnitude and duration of extreme climate and weather events such as heatwaves and heavy rainfall. Excess heat places additional pressure on the heart, brain and lungs, increasing the death rate from cardiovascular, cerebrovascular and respiratory diseases, particularly for those with pre-existing health conditions. Elderly people are particularly vulnerable to heat-related illnesses and children under 1 to the health risks of heat and dehydration. In the last 20 years climate-related heat mortality in elderly people is estimated to have increased by 54 per cent (London School of Economics).

A review commissioned by the GLA provides the most up-to-date summary of the significant body of scientific evidence showing that air pollution poses a serious risk to people's health at every stage of life, including prior to birth. The latest evidence shows that adverse health effects are seen even in relatively low air pollution environments, below those experienced in London Find. The review also confirms that air pollution caused by traffic is a major issue in London, and that schoolchildren are especially vulnerable to developing health complications as a result. Children living in London are particularly at risk of developing lifelong, chronic conditions, including poorly developed lungs, asthma, high blood pressure, inattention and hyperactivity, and mental illness (GLA).

Use of HVO will reduce the Brigade's carbon emissions, helping to limit climate change and improve air quality. Older and younger people can be more susceptible to heat and poor air quality, so the work to reduce the Brigade's emissions may impact the very young and old in a more positive way.

Disability/Barrier

Extreme heat and drought due to climate change are also linked to increasing risk and spread of wildfires. Wildfire smoke and ash increase illness and death related to air pollution through the release of harmful ground-level ozone and particulate matter pollutants, which can damage the heart and lungs. Fires can also reduce opportunities for exercising outdoors (LSE).

Air pollution has a negative effect on a number of different aspects of human health. In London, 9,400 premature deaths are attributed to poor air quality and a cost of between £1.4 and £3.7 billion a year to the health service (London Councils data).

Gender and gender reassignment

Air pollution and climate change impact all genders, increasing the risk of respiratory disease for example.

The London School of Economics (LSE) note that climate impacts are reversing gains in gender equality. Women and girls are disproportionately impacted by the climate crisis, which amplifies existing inequalities and builds on societal expectations related to gender roles. They face greater hurdles to climate adaptation, significant economic repercussions, increased unpaid care and domestic work, and a higher risk of violence due to the crisis's compounding impacts.

While women and girls experience disproportionate impacts from climate change at the global level, the effects are not uniform. Looking at climate change through the lens of intersectional feminism, the way in which various forms of inequality often operate together and exacerbate each other, it is clear that climate change risks are acute for indigenous and Afro-descendent women and girls, older women, LGBTIQ+ people, women and girls with disabilities, migrant women, and those living in rural, remote, conflict and disaster-prone areas (UN Women).

The use of HVO will not negatively or positively impact more on men, women or non-binary people. However, the United Nations report that the climate crisis is not "gender neutral". Women and girls experience the greatest impacts of climate change, which amplifies existing gender inequalities and poses unique threats to their livelihoods, health, and safety. Reducing the Brigade's impact on climate change will support lessening of the impacts of climate change on Women and Girls across the world.

This project does not use any gendered language.

Pregnancy and maternity

This project does not exclude pregnant people, the benefits from moving to low carbon technologies will be for everyone. HR data team don't capture data on numbers of pregnancies.

A review commissioned by the GLA provides the most up-to-date summary of the significant body of scientific evidence showing that air pollution poses a serious risk to people's health at every stage of life, including prior to birth. Poor air quality can also increase the risk of premature birth and low birth weight. The work proposed in the opening the infrastructure workstream will positively impact staff regardless of their protected characteristics. The works will increase the number of low carbon technologies across the Brigade. This includes electric cookers, air source heat pumps and electric vehicle chargers and an electric fleer.. Using low carbon technologies will reduce the Brigade's carbon emissions, helping to limit climate change and improve air quality. Older and younger people can be more susceptible to heat and poor air quality, so the work to reduce the Brigade's emissions may impact the very young and old in a more positive way.

Race including ethnicity and nationality

Research shows that those exposed to the worst air pollution are more likely to be deprived Londoners and from Black, Asian and Other Underrepresented Ethnic Groups.
Areas where white Londoners were most likely to live had also shown some improvement but still had the lowest average concentrations. For nitrogen dioxide this varied across the non-white ethnic groups, with concentrations on average 16 – 27 per cent higher in areas where Black, Asian and Other Underrepresented Ethnic Group Londoners were most likely to live compared to white Londoners. Similarly, in 2013, annual average nitrogen dioxide was between 4.8 - 10.6 µg/m3 higher in areas where Black, Asian and Other Underrepresented Ethnic Group Londoners were more likely to live (GLA data). The works carried out to open the infrastructure will allow the Brigade to reduce carbon (and therefore air emissions), impacting positively on Black Asian and Minority Ethnic communities.

https://www.lse.ac.uk/granthaminstitute/explainers/how-does-climate-change-impact-health/

https://www.london.gov.uk/sites/default/files/london_health_burden_of_current_air_pollution_and_future_health_benefits_of_mayoral_air_quality_policies_january2020.pdf

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GLA Datastore.

G. Evidencing Impact
Please answer the following four questions:

G1.
a. List all the internal/external stakeholders and organisations you have consulted or contacted regarding your activity, along with the insights gained from these interactions?

b. Explain how you have gained and evaluated your insights and whether you intend to conduct a follow-up or seek post-activity feedback from those stakeholders?

Operational personnel have been consulted by working with a group commander for central operations as well as the staff officer to AC fire stations. A trial was carried out at Croydon and Lewisham fire stations, feedback will be collated via an online form. The trial started in August 2023 and completed in February 2024. Feedback forms have been sent to stations in March 2024.

Babcock Engineering- the Brigade's Fleet provider have been involved in the 6-month trial and have been monitoring the impact of using HVO in Brigade vehicles. No negative impacts have been reported.

Discussions with the Sustainable Development (SD) team have taken place, an SDIA was completed and signed off in July 2023. The SD team consider Workstream 2 of the CNZ strategy will have a positive impact on sustainability as it will allow the Brigade to stop using fossil fuels and reduce carbon emissions. Agreed that sustainability questions will be included in all tender documents, these will be reviewed by the SD team during the tender process. The SD team require no further action.

The procurement department have been part of the trial and are currently carrying out a tender exercise to sustainably source HVO for all 37 strategic bulk fuel tanks. The tender exercise is expected to be completed by May 2024.

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G2. Have you faced any gaps in evidence for assessing your activity's impact, and if so, can you justify proceeding with the EIA without addressing them or are you considering a mitigation action plan?
N/A
G3. What adjustments have you considered for people with protected characteristics, and how does your activity promote equality of opportunity and caters for equity for them?
Switching from mineral diesel to HVO has a positive impact on several protected characteristics (see section F): - Age - Disability - Gender - Pregnancy - Race All of these protected characteristics are disproportionately impacted by climate change and air pollution. Use of HVO will reduce the Brigade's carbon emissions, consequently having a positive impact on air pollution and climate change.
G4. How do you communicate the activity to those involved, especially with protected characteristics, and have you considered diverse formats such as audio, large print, easy read, and other accessibility options in various materials?
Communications are due to go out to stations regarding changing to using HVO as an alternative to mineral diesel. To ensure the comms are accessible to all they will align with the Accessible Communication guidance document. The language and structure will be kept simple, if images are used they will not contain text, and will serve as an extra for people who can see them, there will be no information included in an image that isn't included in the text.

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H. Mitigating action plan (where an adverse impact has been identified, please record the steps that are being taken to mitigate or justify it?)

Protected characteristic and potential adverse impact	Action being taken to mitigate or justify	Lead person/department responsible for the mitigating action
1.		
2.		
3.		
4.		

I. Signed by the Submitter

Name: Milly Osborne

Rank/Grade: FRS D

Date: 08/03/2024

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Part 2: Inclusion team to complete - feedback and recommendations

J. EIA Outcomes Select one of the four options below to indicate next steps:
Recommendation 1: No change required – the assessment showed that the activity is/will be robust.
K. Feedback Please specify the actions required to implement the findings of this EIA and how the programme/ activity's equality impact will be monitored in the future. It may be helpful to complete the table.
Recommendation 1: No change required – the assessment is that the activity is robust. HVO fuel strategy, the EIA led to Recommendation 1, indicating that no changes are necessary due to the anticipated robustness of the activity. The strategy stands out for its extensive list of positive consideration of diverse colleagues, reflecting a commitment to operational effectiveness. For future EIA submission: Utilise HotWire resources library for Equality, Diversity, and Inclusion updates. This repository provides valuable information on data and supporting charities. Link: Equality, Diversity and Inclusion Resources
L. Sign off by EIA Inclusion team
Date: 26/03/2024