



Improving Air Quality in the City of London

Low Emission Supply Chain Guide 2018

**A practical guide to help business buyers and
supply chain partners reduce their impact**



CONTENTS

INTRODUCTION

Page 1

AIR QUALITY IN CONTEXT
IMPACT OF THE SUPPLY CHAIN
THE FUTURE

FOR CITY BUSINESSES

Pages 2-3

GENERAL GUIDANCE
CITY OF LONDON BEST PRACTICE
POLICY REQUIREMENTS TO CONTRACTORS
EV CHARGING & LAST MILE LOGISTICS HUBS
CITY BUSINESS BEST PRACTICE - EV CHARGING PROVISION
GENERAL GUIDANCE FOR 'GOODS-IN' OPERATORS

CORE CATEGORY GUIDANCE:

Pages 4-8

BUSINESS TRAVEL
INTERNATIONAL
NATIONAL
CITY BUSINESS BEST PRACTICE - LOCAL TRAVEL
COURIERS & PERSONAL DELIVERIES
COURIERS - GENERAL ADVICE
CITY BUSINESS BEST PRACTICE - COURIERS IN THE SQUARE MILE
PERSONAL DELIVERIES
OFFICE SUPPLIES
GENERAL ADVICE
STATIONERY & CATERING - ZERO EMISSION LAST MILE DELIVERY
PRINT - MANAGED & SUSTAINABLE
ENERGY, WATER & WASTE MANAGEMENT
CITY BUSINESS BEST PRACTICE
SUPPLEMENTAL FACILITIES INTERVENTIONS
CONFIDENTIAL DOCUMENT DESTRUCTION (SHREDDING)
MINIMISING GENERATOR EMISSIONS
CITY BUSINESS BEST PRACTICE - GENERATOR FUEL

FOR SUPPLY CHAIN AND FLEET OPERATORS

Pages 9-10

LONDON-WIDE VEHICLE EMISSION RESTRICTIONS
CITY OF LONDON VEHICLE POLICY
LoCITY & FORS UPDATE
LoCITY - LOW EMISSION VEHICLE ONLINE SEARCH TOOL
LoCITY - DRIVER TRAINING & TELEMATICS GUIDANCE
FORS UPDATE - IMPROVING ENVIRONMENTAL PERFORMANCE

AIR QUALITY CHECKLIST - SUPPLY CHAIN

ONGOING ENGAGEMENT AND SUPPORT

WITH THANKS TO OUR AIR QUALITY CHAMPIONS

INTRODUCTION

AIR QUALITY IN CONTEXT

The City of London can experience high levels of air pollution. Air quality monitoring reveals that Nitrogen Dioxide (NO₂) can be over twice the recommended level at busy roadsides. Levels of Particulate Matter (PM) also exceed World Health Organisation guidelines. The latest City of London Air Quality Strategy¹ outlines action being taken to improve air quality in the Square Mile.

Poor Air Quality has a significant impact on human health. The Mayor of London's Report² is the most authoritative summary for the whole of London.



As with carbon, the major source of air pollution is from combustion, a direct result of some forms of transportation and heating. Carbon reduction, energy efficiency and modifying transport policies should therefore go hand-in-hand with improving air quality. With the help of City businesses, and the people that live and work in the Square Mile, we can make a difference to our health and the wellbeing of those around us.

IMPACT OF THE SUPPLY CHAIN

A third of all transport emissions in London are as a result of freight movement³. This includes the multitude of deliveries and vehicles servicing office buildings.

As a central business district the City of London typifies the challenges faced by all central urban environments. Guidance in this document is appropriate for all urban areas.



THE FUTURE

The improvement in the emission profile of new vehicles will help reduce pollution, alongside planned Ultra-Low Emission Zone interventions³, but it is imperative that all businesses and supply chain operators observe this simple mantra:

REDUCE THE NUMBER OF VEHICLES SERVICING OFFICES AND, WHERE POSSIBLE, TRANSITION TO NON-DIESEL VEHICLES

City Business Best Practice

Best practice from supporting businesses is represented in these coloured boxes throughout the document with a description of their intervention and references

The information in this document provides a short and simple toolkit with signposting to best practice, to address air pollution resulting from the supply chain.

- 1 - City of London Corporation - Air Quality Strategy - www.cityoflondon.gov.uk/air
- 2 - Mayor of London - GLA Air Quality Report (2017) - www.london.gov.uk
- 3 - Transport for London - Air Quality - <https://tfl.gov.uk/modes/driving/ultra-low-emission-zone>

FOR CITY BUSINESSES

The impact on carbon emissions of the supply chain is well documented, but the resulting emissions of NOx and PM are often not considered in procurement policy.

The City of London is leading the way in its own procurement processes and policies - not just do what we say but as we do - this should help businesses to shape their own procedures and reduce the impact of supply chain activities.

General Guidance

- **Across the entire supply chain reduce the number of journeys made to and from your office**
 - Consolidate stationery and all other deliveries with a long shelf life
 - In shared office space work with other tenants in the building to consolidate and optimise timing of deliveries
- **Reduce the emission profile of the supply chain**
 - Wherever possible insist on the use of zero emission deliveries or vehicles - see the **LOW EMISSION VEHICLE ONLINE SEARCH TOOL:**
locity.org.uk/fleet-advice-tool
- Incorporate this guidance into policy
- Sign up to the CityAir Champions Program



Improving air quality
in the City of London

City of London Best Practice - Policy Requirements to Contractors

- **All procurement policies should embrace air quality - the City of London has listed the following as a menu of options for potential suppliers - embrace them:**
 - Set ambitious targets for the reduction of NOx and PM emissions from vehicles over the life of the contract
 - Trial a zero emission (capable) vehicle with the support of the City of London Corporation
 - Set a target for a reduction in the number of vehicle trips that form part of the contract
 - Develop a plan for reducing the air quality impact on days of 'high' and 'very high' air pollution
 - Develop a logistics approach that avoids deliveries during peak congestion and pedestrian footfall times
 - Green driver training for staff used on the contract, offer safer urban driving courses
 - Retrofit and/or trial a new technology that supports air quality improvement e.g. gear shift indicators, stop-start ignition, software to monitor green driving
 - Another innovative action to support the Air Quality Strategy that City of London would reasonably deem to be an equivalent level of ambition

City of London Best Practice - EV Charging & Last Mile Logistic Hubs

- The City is leading by example in provision of EV charging facilities across their varied user-groups:
 - Two fast and two standard charge points at Walbrook Wharf for use by services for Cleansing/Waste and City of London Police
 - Fifty charge points at Baynard House, London Wall (with potential as rapid charging hub)
 - Fourteen new fast chargers in the Barbican
 - Eight new rapid chargers planned in Baynard House and one on Noble Street to be deployed in 2018 for taxi use only
- Last Mile Logistic Hubs
 - The City Corporation is seeking to support deliveries in the Square Mile by cargo cycles, on foot or by small electric vehicles
 - A study into last mile logistics hubs has taken place, and soft market testing with the industry will be undertaken in late 2018



City Business Best Practice - EV Charging Provision

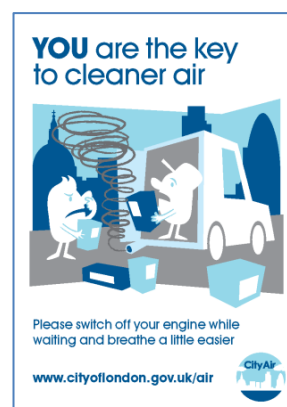
- Linklaters, as key early adopters, has installed EV charging at its 'goods-in' site to encourage M&E contractors to adopt low emission technologies in their vehicles
- The facility at Linklaters is being promoted as free of charge throughout their supply chain
- As the market develops, ensuring charging readiness is essential to support contractors making the transition in the City of London
- More businesses need to support this transition by installing EV charging facilities



Linklaters

General Guidance for 'Goods-In' Operators

- With 'goods-in' space at a premium there are a number of things that can be done to both ease vehicle flow and reduce emissions:
 - If possible utilise night-time deliveries
 - Report noticeably polluting vehicles with obviously excessive tailpipe emissions
 - Enforce no engine idling on-site
 - If a supplier seems to deliver more than once a day report to the Facilities Manager
 - Support low emission suppliers



CORE CATEGORY GUIDANCE

BUSINESS TRAVEL

The main source of emissions in the City, of both NO_x and PM₁₀, is road transport. As a result, the decisions that businesses make on travel, as well as their supply chain, can have a significant impact on improving air quality in the City.

Transportation decisions by businesses need to be put in context with what the Mayor of London and City of London are doing. Only then can businesses make informed choices on how employees travel, control deliveries and consolidate the supply chain. Each can have a massive impact - **think air quality**

International

- Emissions from outside the City of London are a contributing factor to poor local air quality
- Looking at the entire transport emission profile is also sustainable best practice
- The travel plan should recognise the increased environmental impact of aviation compared to other forms of transport and introduce policies to avoid unnecessary flights
- Where possible, use audio and video conferencing
- Employees should be encouraged to take public transport to the airport or by zero-emission taxi



National

- Use the train for national travel as it both reduces emissions and allows for work and rest points to be balanced and embraced - and avoids airport queues!
- If the train is not appropriate, provide low emission pool cars or join a car sharing scheme
- Ensure that if a number of staff are going to the same destination that they travel together



City Business Best Practice - Local Travel

- Simmons & Simmons were a pioneer CityAir Champion supporting employees in adapting their travel choices to be more sustainable
- Most destinations in the City of London can be reached more quickly on foot or by bicycle
 - Provide accessible and clear local mapping
 - Discourage short taxi journeys
 - Demand an ultra-low emission taxi supplier
- Launch campaigns to support sustainable travel choices and embrace the Cycle to Work Scheme



Simmons & Simmons

COURIERS & PERSONAL DELIVERIES

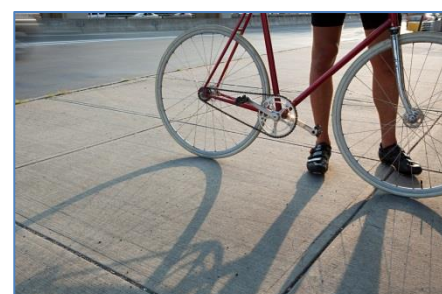
Couriers - General Advice

- For deliveries within the City of London use pedal bike couriers - cargo-bikes and electric assist bicycles make the capacity, speed and range practical for all City businesses
- For irregular deliveries of larger items consider using a car or van share scheme
- Across the courier portfolio, where vehicle delivery is the only option insist on a zero or low emission supplier



City Business Best Practice - Couriers in the Square Mile

- Nomura has proactively rationalised courier deliveries to be more efficient leading to reduced impact to local air quality
- From a dedicated fleet of motorbikes a decade ago the situation is now very different
- Small packages for delivery throughout the City of London are now triaged to be delivered by pushbike as the fastest and lowest emission option
- For slightly heavier packages their supply chain provide electric-assisted cargo bikes
- The above interventions resolve practical 'goods-in' restrictions as well as saving courier cost



NOMURA

Personal Deliveries

- When working long hours in the City employers do not expect employees to have to queue at the Post Office on a Saturday morning to collect the parcel sent home
- The availability of 'order in an hour' services causes an additional problem with more vehicles servicing demand, previously unrequired
- Promote collections for staff at sites close to their home destination station or nearby convenient collect point to reduce deliveries to the City



OFFICE SUPPLIES

General Advice

- Go beyond accepting a 'low emission' vehicle - defined as producing less than 75g/km of CO₂
- Demand that deliveries are made by ultra-low emission vehicles (Electric or Petrol Hybrid)
- This feeds directly into CSR policy and in developing a competitive advantage
- In a large organisation develop cross-functional project teams to work to minimise the number of daily deliveries made
- In multi-let environments share services with fellow tenants to save money and consolidate deliveries
- Centralising deliveries builds trust in the overall objective of improving air quality
- Only by working with suppliers can innovative solutions be found to mitigate the impact of activities on air quality
- Every supply chain decision is different but in every situation - think air quality



Stationery & Catering - Zero Emission Last Mile Delivery

- Light Goods Vehicles (LGVs) are responsible for 18% of PM₁₀ emissions in the City.
- The solution is simple – to improve air quality and our health, in the congested City, we need zero emission 'last mile' delivery of as many goods and services as possible
- A perfect example is Gnewt Cargo - they worked with Office Depot to trial a system of bulk consolidation and 'last mile' delivery by EV
- The system has realised zero emissions and reduced kerbside occupancy by 50%



Print - Managed & Sustainable

- Reduce print cost, increase efficiency and achieve better environmental performance - less paper used = fewer deliveries:
 - Move to a managed print service with accredited environmental credentials
 - Implement 'secure' printing
 - Reduce printer numbers and share facilities
 - Make Duplex printing the default setting
 - Hold a stock of toner and paper to reduce deliveries
 - Ask for servicing by pedal bike



ENERGY, WATER & WASTE MANAGEMENT

Energy use in buildings, alongside waste disposal and deliveries, has a direct impact on carbon and local air pollution.

By 2020 emissions of NO_x from combustion plant will exceed that from traffic in the City. The choice of renewable technologies needs to be considered carefully against the impact on local air quality. The more journeys required to collect waste and delivery goods, the greater the negative impact on air quality.

City Business Best Practice - courtesy of Investec

Energy

- Although there is an emission factor associated with remote electricity generation, those emissions are effectively abated and strictly controlled
- Reducing energy usage includes swapping to low energy lighting, the use of movement detectors and introducing lighting control corridors at all hours
- The Investec Energy Management System is certified to ISO50001 across 23 offices and they have green electricity tariffs where possible
- When boilers are due for an upgrade insist on the lowest possible NO_x rating for the new plant
- No matter the incentives given DO NOT turn back-up generators on to supply the National Grid



Water

- Water is included in Environment Management Systems and Environment Policy Statement
- Drinking water bottling systems are in place to help reduce water bottle deliveries
- Swapping over to low-flush toilet systems across the entire office will reduce water usage significantly



Waste & Recycling

- Investec operates a 'zero to landfill' policy utilising a 'Recovery to Energy' system for general waste
- Working with suppliers to remove/replace packaging
- Swapping under desk bins for centralised recycling
- Organising better collection regimes, coordinated with other building occupants
- Introduced disposable free canteen taking a vast amount of waste from the chain
- Certified to Carbon Trust Waste Standard since 2012
- Signatory of City of London Plastic Free City



 **Investec**

SUPPLEMENTAL FACILITIES INTERVENTIONS

Confidential Document Destruction (Shredding)

- The need for the shredding of confidential waste has reduced over the last decade due to the increase in electronic transfer of documentation
- In the last ten years the suppliers of confidential waste destruction services have seen a shift from the mobile units that sit at an office and shred on-site towards more efficient, cheaper, less noisy and equally secure off-site service provision
- Off-site shredding is to be encouraged as diesel generators are not used to process the waste on-site
- Certification is the same if you ensure the off-site shredding provider complies with the following:
 - Fully compliant to BS EN15713:2009
 - Staff are security vetted to BS7858 standard
 - Vehicles are satellite tracked
 - A Certificate of Destruction is issued to confirm destruction with all paper recycled
- Emissions of Euro VI larger diesel supply chain vehicles are significantly better to the Euro V standard they replace and their timely movement through the City is eminently preferable to idling to shred on-site - until a fully EV option is available
- Out of hours collection should also be encouraged



Minimising Generator Emissions

- Although back-up generators are standard best practice in terms of business resilience in the case of grid outage, they are a local source of combustion therefore adding to the air pollution we all breathe
- It is recommended that they should only be used in these instances, where battery back-up is unviable, and certainly NOT to be turned on to feed the grid



City Business Best Practice - Generator Fuel

- The diesel that is normally used is duty exempt 'red diesel' that has a low petroleum content and burns less efficiently started cold
- Moor House has upgraded the fuel used in their generators to GREEND+ bio fuel
- The plant derived oil has been recently installed and will reduce Particulate emissions by a predicted 50% with additional NOx reductions
- The incremental cost of this fuel type is only 10%
- Initial results will be available from December 2018



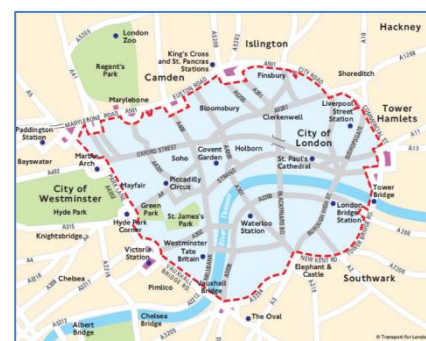
FOR SUPPLY CHAIN AND FLEET OPERATORS

Change is happening at an increased pace to encourage the adoption of ultra-low emission vehicles in Central London. At the time of writing there is still some uncertainty on very local emission reduction zones but more will follow - the best source of information is www.tfl.gov.uk. As important the highly regarded Fleet Operator Recognition Scheme (FORS) is launching policy at the end of 2018 to move beyond safety to embrace air quality targets www.fors-online.org.uk.

The guidance below shows a state of affairs, known plans and recommendations for adaptation strategies to future-proof all businesses from change. They are all designed to improve air quality.

London-Wide Vehicle Emission Restrictions

- TfL are introducing an Ultra Low Emission Zone (ULEZ) from the 8th April 2019 to improve air quality
- The area will cover the present Congestion Charge Zone (CCZ) but will be extended (north to south circular) in 2021
- In summary the ULEZ standards (to avoid additional CCZ charges) are:
 - Euro 3 for motorcycles, mopeds and tricycles
 - Euro 4 for petrol cars, vans and minibuses
 - Euro 6 for diesel cars, vans and minibuses
 - Euro VI for lorries, buses and coaches and other specialist heavy vehicles
- The charges, over and above CCZ levies, equate to:
 - For motorcycles, mopeds, cars and 4x4s, vans and minibuses - daily charge £12.50
 - For Lorries, refuse collection vehicles, concrete mixers, tippers, removals lorries, coaches etc - daily charge £100.00
- Details at <https://tfl.gov.uk/modes/driving/ultra-low-emission-zone/complying-with-ulez>



Current CCZ Area (2018)



City of London Vehicle Policy

- The City of London is embracing the challenge with the following vehicle specifications - together we can drive the market to provide cost-effective low-emissions vehicles applicable to an urban cycle
 - From January 2016, any individual procuring a vehicle on behalf of the City of London has been required to investigate alternative fuel options, especially full electric and petrol-hybrid vehicles
 - From January 2016, officers cannot purchase/lease diesel vehicles unless there is an absolute operational necessity



LoCITY & FORS UPDATE

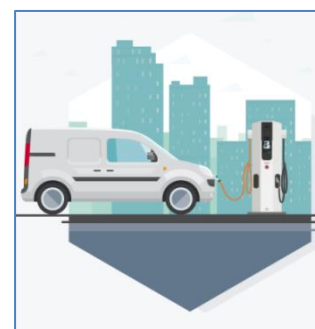
LoCITY - Low Emission Vehicle Online Search Tool

- LoCITY has an open access tool which uses driving patterns to forecast the whole life economic cost of an alternatively fuelled vehicle relative to diesel - locity.org.uk/fleet-advice-tool
- It then passes key information across to their commercial vehicle finder to explore what market options are currently available for the fuel of your choice
- The LoCITY website also contains a number of resources which explore what practical factors you should consider alongside the upfront price, running cost and environmental impact of a cleaner fleet
- Easy to use it is as relevant to supply chain operators as to businesses looking to drive change in this high impact space



LoCITY - Driver Training & Telematics Guidance

- LoCITY also offer a range of support services and guidance notes, all funded and free at point of use for businesses operating vehicles in the urban realm:
 - Environmental Awareness
 - Journey Planning
 - Vehicle Walk Around Checks
 - Fuel Efficient Driving
 - Engine Idling
- locity.org.uk



FORS Update - Improving Environmental Performance

- FORS is a voluntary accreditation scheme encompassing all aspects of safety, fuel efficiency, vehicle emissions and improved operations
- It is open to operators of all fleet and freight vehicles, and to the organisations that award contracts to those operators
- FORS operators are required to pass an annual audit and demonstrate they have adopted processes and procedures above the legal minimum
- Specific environmental requirements NOW include:
 - Anti-idling policy
 - Fuel efficient e-learning for drivers
 - Fuel efficient driver training
 - Monitor and manage fuel and emissions
- fors-online.org.uk
- The City of London are fully accredited through the scheme across all of its own fleet operations



AIR QUALITY CHECKLIST - SUPPLY CHAIN

General Guidance

Implement a sustainable supply chain policy	<input type="checkbox"/>
Reduce the frequency of deliveries	<input type="checkbox"/>
Demand zero-emissions from the supply chain	<input type="checkbox"/>
Install EV charging facilities on-site	<input type="checkbox"/>
Brief goods-in operators on issues such as engine idling	<input type="checkbox"/>
Join the CityAir Champions programme	<input type="checkbox"/>

Staff Travel

International - embrace video conferencing	<input type="checkbox"/>
National - promote public transport	<input type="checkbox"/>
Local - promote walking and cycling	<input type="checkbox"/>

Couriers & Personal Deliveries

For local couriers use pedal bicycle only	<input type="checkbox"/>
Discourage personal deliveries to the workplace	<input type="checkbox"/>

Office Supplies

Reduce delivery frequency	<input type="checkbox"/>
Share services with neighbours	<input type="checkbox"/>
Reduce the delivery burden on print and servicing	<input type="checkbox"/>

Energy, Water & Waste

Energy - avoid adopting CHP or biomass systems in the urban realm	<input type="checkbox"/>
Water - switch to mains filtered over bottled water delivery	<input type="checkbox"/>
Waste & Recycling - ensure single streams on-site to rationalise collections	<input type="checkbox"/>

Supplemental Facilities Interventions

Transition to off-site document destruction (shredding)	<input type="checkbox"/>
Avoid signing up to the STOR programme	<input type="checkbox"/>
Use low emission diesel fuel in the generator	<input type="checkbox"/>

For Supply & Fleet Operators

Adapt in time for new low emission vehicle zones and charging regimes	<input type="checkbox"/>
Upgrade the fleet to be ZEC	<input type="checkbox"/>
Use the LoCITY toolkit to reduce cost and showcase progress	<input type="checkbox"/>



ONGOING ENGAGEMENT AND SUPPORT

Through the CityAir program the City of London Corporation has been proactively briefing businesses on what they can do to improve the health and wellbeing of staff by reducing their air pollution impact since 2010.

Dozens of City businesses, from asset owners, facilities management companies and individual organisations have already signed up to be CityAir Champions to do their bit to reduce their impact on air quality.

These actions normally dovetail with satisfying sustainability targets as poor air quality in the City of London is mostly the result of local combustion, namely from:

- **Communications (raising the profile of poor air quality)**
- **Transport (cars, taxis and buses)**
- **Buildings (gas boilers and generators)**
- **Supply chain (LGV and rigid HGV)**

So, to reduce your impact and celebrate your efforts...



Sign up to the CityAir Pledge Scheme by contacting:

CityAir@cityoflondon.gov.uk



WITH THANKS TO OUR AIR QUALITY CHAMPIONS

The support of the organisations below has been vital in making this document be as complete as it is, some with City Business Best Practice interventions and others in their ongoing support improving air quality:

Linklaters

 **Investec**



NOMURA

Simmons & Simmons

SKANSKA

