



Reducing Construction Emissions

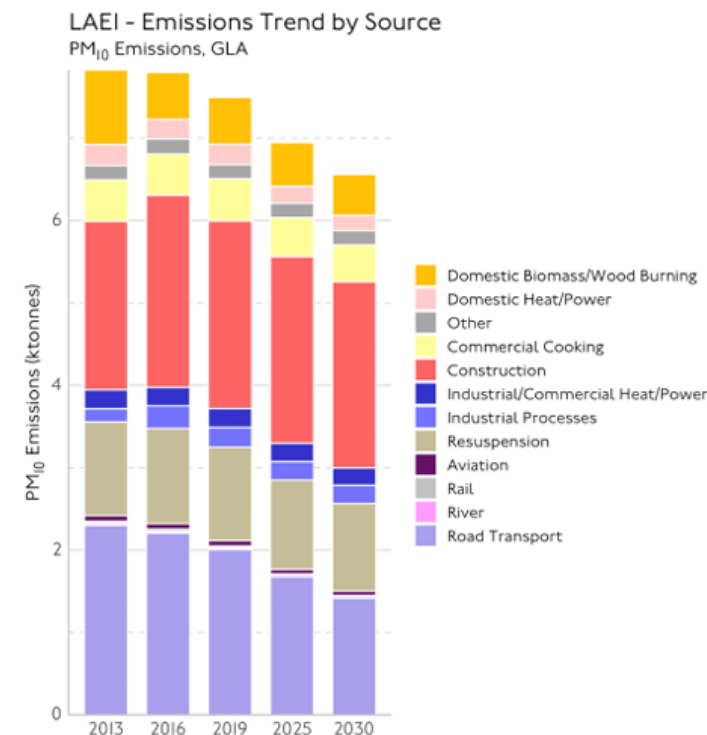


Source: [Oslo city](#)



Construction Schemes

- As road traffic emissions reduce, construction becomes more important
- Require emissions standards on construction machines operating within an area
 - 'Construction LEZ'
- Requiring cleaner machines or retrofit with diesel particulate filter
- Sometimes also requiring other dust & noise reduction





Different implementation mechanisms

- Required for planning permission – planning conditions
 - Eg [London](#)
- National law
 - Eg [Switzerland](#)
- Local regulation / law
 - Eg [Hong Kong](#)
- Required on public authority contracts
 - Eg [Berlin](#)
- Air quality management strategy



THE CONTROL OF DUST AND
EMISSIONS DURING CONSTRUCTION
AND DEMOLITION
SUPPLEMENTARY PLANNING GUIDANCE

JULY 2014

LONDON PLAN 2011
IMPLEMENTATION FRAMEWORK

MAYOR OF LONDON



London Construction Code

- Requires not only cleaner vehicles but also other dust control & safety
- Through planning law / Landuse Strategy
- The minimum standard for construction machinery operating
 - From September 2015 37kW and 560kW
 - In Central Zone & Canary Wharf: Stage IIIB
 - In the rest of London: Stage IIIA
 - From September 2020
 - In Central Zone & Canary Wharf: Stage IV
 - In the rest of London: Stage IIIB
 - From 2025 Stage IV across London (Stage V for generators)
 - From 2030 Stage V across London
 - From 2040 only zero emission machinery across London



Others

- National law

- Eg Switzerland

- All machines used in Switzerland must have diesel particulate filter / be Stage V



- Local regulation

- Eg Hong Kong

- all NRMM sold or leased for use must be approved or exempted with label

Fuel & Power	Standards
Diesel $37 \leq P \leq 560$ kW	EU Stage IIIA /US Tier 3
Diesel $19 < P < 37$ kW	EU Stage IIIA /US Tier 3
Petrol $19 < P \leq 560$ kW	US Tier 2

- Required on public authority contracts

- Eg Berlin

- Stickers for enforcement

- Stage IV or retrofit diesel particulate filter





In Latin America

- NRMM standards often recent
 - Straight to Stage IIIB or Stage V
 - Not got previous standards as in Europe
- Use age and filter retrofit as standard
 - Diesel Particulate Filters reduce all PM emissions 95-98%
- Perhaps also emissions testing
- Control of the building sites
 - Without enforcement only a piece of paper
 - High penalties for non-compliance





UVAR Resources

- Free online UVAR Training course
 - www.urbanmobilitycourses.eu/courses/urban-vehicle-access-regulations
- ReVeAL Toolkit to help design UVAR
 - www.civitas-reveal.eu
 - <https://civitas-reveal.eu/resources-overview/publications/guidance/>
- UVAR Box – digitising UVARs
 - www.uvarbox.eu
- UVARs in Europe
 - www.urbanaccessregulations.eu
 - www.urbanaccessregulations.eu/public-authorities

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- Lucy Sadler over 25 years in UVARs
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