# Volvo CE leads push to electrify London’s construction machinery amid rising air pollution crisis



During London Climate Action Week 2025, the Swedish Embassy, the Swedish Chamber of Commerce, and Volvo Construction Equipment (Volvo CE) hosted a pivotal roundtable discussion aimed at accelerating the shift to zero-emission construction machinery. The gathering brought together industry experts, policy leaders, and air quality advocates to address the urgent public health crises caused by urban air pollution. Diesel-powered compact construction machines, widely used in cities, were highlighted as major contributors to harmful emissions yet remain largely exempt from low-emission zone regulations—a gap that threatens efforts to improve urban air quality.

The event, held at the Swedish Embassy, underscored the pressing need for collaborative action to promote zero-emission alternatives. London, where construction equipment has recently surpassed cars as a dominant source of black carbon emissions, illustrates the critical stakes. Mete Coban MBE, deputy mayor for environment and energy, emphasised that reducing emissions from construction machinery is a key strategy within the city’s plan to achieve zero emissions in construction by 2040. He framed clean air as a social justice issue and called for continuous innovation and partnership to protect public health and build a greener urban environment.

Rosamund Adoo-Kissi-Debrah CBE, founder of the Ella Roberta Foundation, reinforced this urgency by calling air pollution a public health emergency. She stressed adherence to WHO air quality standards as a minimum benchmark and referenced “Ella’s Law,” advocating for legal recognition of the right to clean air—especially to safeguard future generations. Such calls come amid alarming data: London’s approximately 5,000 diesel compact excavators emit NOx and particulate matter at levels comparable to over 100,000 diesel cars, yet these machines remain outside Ultra Low Emission Zone (ULEZ) restrictions. Globally, air pollution linked to 8.1 million premature deaths in 2021 underlines the universal urgency of tackling emissions in all urban sectors.

Zero-emission electric construction equipment presents a clear solution. These machines produce no tailpipe emissions, lower vibration, reduce noise, and improve urban living conditions. However, challenges around infrastructure, such as reliable on-site charging, remain barriers to adoption. Volvo CE has been pioneering ways to overcome these hurdles, including trials with Transport for London (TfL) and contractor FM Conway. A nearly 12-week trial substituting diesel machines with electric alternatives in London removed close to 8kg of NOx and non-methane hydrocarbons—equivalent to avoiding emissions from a diesel car travelling nearly 63,000 kilometres. This demonstrates the significant potential to cut pollution by scaling zero-emission technology in compact machinery, which, despite being smaller, disproportionately contributes over half of NOx emissions in the European construction sector.

The trial at Redcliffe Gardens also showed early environmental benefits with electric excavators and wheel loaders supporting safer, cleaner urban construction, contributing to London’s net-zero ambitions for 2030. Early findings noted a saving of over 100kg of CO2 in just two weeks from the electric excavator alone, comparable to removing a car journey of 600 kilometres. Addressing practical issues such as charging infrastructure, Volvo CE and its partners have introduced mobile power units and reliable solutions for urban worksites, pushing the boundaries of what electric construction technology can achieve.

Volvo CE’s commitment extends beyond trials, showcased at Bauma 2025 with the launch of a zero-emission-only product lineup including electric wheel loaders, excavators, and material handlers. This move signals a broader industry shift toward sustainable innovation, supported by flexible charging infrastructures like the PU40 mobile power unit. These developments align with the wider Volvo Group portfolio, which features an array of fossil-free powered equipment and comprehensive solutions aimed at helping customers transition to net-zero emissions while improving urban air quality.

The roundtable concluded with a call for cities worldwide to integrate construction machinery into their clean air policies, including extending low-emission zones to cover diesel compact equipment. Stakeholders were urged to foster cross-industry cooperation and embed sustainability criteria in public projects to create healthier urban environments. With construction emissions rising in prominence as a public health threat, coordinated actions like those led by Volvo CE, government bodies, and advocacy groups represent vital steps toward cleaner, breathable cities for all.

### 📌 Reference Map:

* Paragraph 1 – [[1]](https://www.recyclingproductnews.com/article/43451/volvo-ce-attends-talks-focused-on-reducing-emissions-from-construction-equipment), [[2]](https://www.volvoce.com/europe/en/about-us/news/2025/compact-electric-machines-air-quality/)
* Paragraph 2 – [[1]](https://www.recyclingproductnews.com/article/43451/volvo-ce-attends-talks-focused-on-reducing-emissions-from-construction-equipment)
* Paragraph 3 – [[1]](https://www.recyclingproductnews.com/article/43451/volvo-ce-attends-talks-focused-on-reducing-emissions-from-construction-equipment)
* Paragraph 4 – [[1]](https://www.recyclingproductnews.com/article/43451/volvo-ce-attends-talks-focused-on-reducing-emissions-from-construction-equipment), [[2]](https://www.volvoce.com/europe/en/about-us/news/2025/compact-electric-machines-air-quality/)
* Paragraph 5 – [[1]](https://www.recyclingproductnews.com/article/43451/volvo-ce-attends-talks-focused-on-reducing-emissions-from-construction-equipment), [[3]](https://www.heavyquipmag.com/2025/03/10/volvo-to-provide-a-zero-emission-worksite-in-london/)
* Paragraph 6 – [[3]](https://www.heavyquipmag.com/2025/03/10/volvo-to-provide-a-zero-emission-worksite-in-london/), [[5]](https://www.scc.org.uk/resources/chamber-news/volvo-ce-laying-the-groundwork-for-sustainable-urban-construction)
* Paragraph 7 – [[6]](https://www.constructionhq.world/issue-sections/events/events-review/volvo-ce-unveils-first-ever-zero-emission-lineup-at-bauma-2025/), [[7]](https://www.volvogroup.com/en/sustainable-transportation/sustainable-solutions/climate-week.html)
* Paragraph 8 – [[1]](https://www.recyclingproductnews.com/article/43451/volvo-ce-attends-talks-focused-on-reducing-emissions-from-construction-equipment)

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## Bibliography

1. <https://www.recyclingproductnews.com/article/43451/volvo-ce-attends-talks-focused-on-reducing-emissions-from-construction-equipment> - Please view link - unable to able to access data
2. <https://www.volvoce.com/europe/en/about-us/news/2025/compact-electric-machines-air-quality/> - Volvo Construction Equipment (Volvo CE) highlights the significant impact of diesel compact machines on urban air quality. These machines emit more harmful pollutants than larger counterparts, worsening air pollution in cities and affecting public health. The article advocates for the adoption of electric compact machines, which produce zero tailpipe emissions, to improve urban air quality and public health. It also discusses the challenges of electrifying urban construction sites, such as reliable access to charging power, and presents solutions like mobile charging units to address these issues.
3. <https://www.heavyquipmag.com/2025/03/10/volvo-to-provide-a-zero-emission-worksite-in-london/> - Volvo CE, in partnership with Transport for London (TfL) and contractor FM Conway, is trialling zero-emission construction vehicles in London. The project aims to improve pedestrian safety at Redcliffe Gardens by creating raised road sections using electric excavators and wheel loaders. The initiative supports London's goal to achieve net-zero carbon emissions by 2030. Early data from the trial indicates that the electric excavator saved over 100kg of CO₂ in a two-week period, equivalent to driving a car 600 kilometers.
4. <https://www.volvogroup.com/en/news-and-media/news/2018/nov/news-3128073.html> - Volvo CE and Skanska have achieved a 98% reduction in carbon emissions through their Electric Site research project at Skanska’s Vikan Kross quarry in Sweden. The project also resulted in a 70% reduction in energy costs and a 40% reduction in operator costs. These results demonstrate the potential of electric construction equipment to significantly reduce environmental impact and operational expenses, supporting Volvo CE's vision for more efficient and sustainable work sites.
5. <https://www.scc.org.uk/resources/chamber-news/volvo-ce-laying-the-groundwork-for-sustainable-urban-construction> - Volvo CE is leading a collaboration in London to electrify urban construction worksites using mobile power sources. Partnering with Charge Fairy, Transport for London (TfL), and FM Conway, the initiative addresses the challenge of providing reliable on-site charging for electric construction equipment. The project aims to reduce emissions from urban construction sites and supports London's goal to achieve net-zero carbon emissions by 2030. The trial at Redcliffe Gardens features Volvo CE’s electric machinery, including the EC18 Electric compact excavator and the L25 Electric compact wheel loader.
6. <https://www.constructionhq.world/issue-sections/events/events-review/volvo-ce-unveils-first-ever-zero-emission-lineup-at-bauma-2025/> - At Bauma 2025, Volvo CE unveiled its first-ever zero-emission-only lineup, marking a significant milestone in the company's commitment to sustainable innovation. The showcase featured an exclusive all-electric range, including the L120 Electric and L90 Electric wheel loaders, the EWR150 Electric wheeled excavator, and the EW240 Electric Material Handler. The event also highlighted advancements in Volvo CE’s compact electric range and versatile charging solutions, such as the PU40 mobile power unit and an upgraded version of the PU500, ensuring efficient and flexible charging infrastructure for customers.
7. <https://www.volvogroup.com/en/sustainable-transportation/sustainable-solutions/climate-week.html> - Volvo Group offers a broad range of fossil-free powered construction equipment, transport, and mobility solutions to help customers accelerate the transition to net-zero emissions. Their portfolio includes battery electric excavators, loaders, power units, and heavy- and medium-duty trucks, along with services and total solutions to achieve zero-emission climate goals. The company emphasizes the importance of sustainable construction methods, such as using renewable and recyclable materials, and highlights the role of electric equipment in reducing environmental impact and improving air quality in urban areas.