

SUPPLY CHAIN SUSTAINABILITY



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Plant, Tools and Equipment Minimum Standards Version 3

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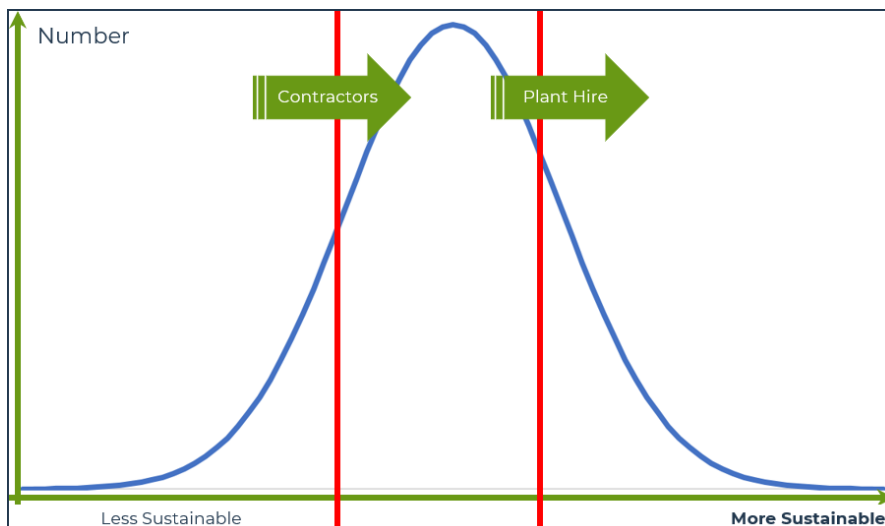
Background and purpose

This Version 3 of the Minimum Standards builds on v1.0 from 2019, and v2.1 from 2022, which are provided in the Appendices. It is useful to see the progression of the Minimum Standards, as defined by the Plant Leadership Group, and we encourage you to take a look. The Group agree that a review and update is required on a regular basis to ensure that the Minimum Standards align with a realistic industry outlook.

The Minimum Standards were built on information gained from interviews with original equipment manufacturer (OEM) businesses on current and future trends for reducing emissions from their products, covering power technologies, lifetime, and other aspects. We have continually re-engaged with OEMs over the course of the Minimum Standards lifetime so far, to inform the version updates.

In themselves they indicate the minimum emissions levels that organisations should at least be aiming for when they procure plant, tools and equipment. They are predicated on a balance between wanting to move the dial on reducing air quality and greenhouse gas emissions, but understanding the reality of their market availability, price, and fleet lifetime. But, where you can buy 'cleaner', you should.

The Standards form the core of the [Plant, Tools and Equipment Charter](#), and the two go hand in hand. The purpose of the Charter is to raise awareness in the sector of the need to drive down air quality (AQ) and greenhouse gas (GHG) emissions from the plant, tools and equipment we buy, hire and use.



Notes and Guidance

- Where a percentage is given, this should be taken as absolute numbers of plant, tools and equipment, not in terms of operational hours.
- If HVO or other biofuels are used instead of fossil diesel, they should be sustainably sourced and all carbon emissions from their supply chain and use should be accounted for. More information and guidance can be found [here](#).
- Stage III and IV engines that are fitted with after treatment – e.g. diesel particulate filter (DPF), selective catalytic reduction (SCR) – to make them Stage V compliant, are acceptable where they have been independently tested and proved to meet the emissions thresholds of Stage V.
- Appropriate advice and guidance will be provided for all equipment to the operator and site manager on fuel-efficient operation. This will be supported, where relevant, through the provision of “eco-modes”, “auto-off” functions and telematics that are pre-enabled before delivery.
- Onsite, there should be sufficient infrastructure to enable all electric equipment to be charged from sources that don’t consume diesel or other fossil fuel, i.e., from the grid or renewable power sources.
- Where generators and stationary accommodation are on a larger site, power management and distribution should be deployed.
- ‘Contractor’ is defined as an individual or company hired to perform specific tasks or services under a contract.
- ‘Hire company’ is defined as a company that rents out plant, tools and equipment, often providing maintenance as well.
- ‘Original Equipment Manufacturer (OEM)’ is defined as a company that manufactures components or products.

Minimum Standards: v3: 2024

Category	Examples	Min Std from 2024 for Contractors hiring in for use	Min Std from 2024 for Hire Companies buying new in to then hire out	Market Potential for next 5 years
Tools	Saws, whacker plates, mobile air con unit	Cord/flex or battery	<50% corded/ flex; ≥50% cordless/ battery	Cordless/battery
Lighting Towers	All LED lumieres	<75% Stage V hybrid ≥25% battery & PV	<50% Stage V hybrid ≥50% battery & PV	<20% Stage V hybrid ≥80% battery & PV
Small Plant <5t	Mini excavators, micro dumpers, mini skip loaders	Stage IIIB	Stage V Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	Stage V and increasing levels of zero emission, including but not limited to full electric, battery driven and hydrogen
Medium Plant 8t – 13t	ADTs, Excavators, wheeled loaders, dumpers, cranes, bulldozers, telehandlers	Stage IV (rest of UK) Stage V (London)	Stage V Company purchasing profile will assess the availability and client uptake of low and zero emissions plant such as electric and hybrid	Stage V and increasing levels of zero emission, including but not limited to full electric, battery driven and hydrogen; Increasing levels of hybrid plant
Large Plant >13t	ADTs, Excavators, Wheeled Loaders, dumpers, cranes, bulldozers, telehandlers	Stage IV (rest of UK) Stage V (London)	Stage V Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	Stage V and increasing levels of zero emission, including but not limited to full electric, battery driven and hydrogen Increasing levels of hybrid plant; <10 years autonomous

Generators	Mobile and stationary	Stage IIIA (rest of UK)	Stage V + battery (hybrid)	Stage V + battery (hybrid)
		Stage V (London)	Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	Increasing levels of renewable power, plus power management >10 years - Hydrogen
Accommodation	Modular	EPC rating C, PIR-sensor controlled lighting, double glazing	EPC rating C, PIR-sensor controlled lighting, double glazing,	Powered by renewables, building management system (BMS)
	Welfare	12V/24V USB charging and PIR-sensor controlled LED lighting; assisted by renewables	12V/24V USB charging and PIR-sensor controlled LED lighting; assisted by renewables; inverter-powered 230V appliances	Electrical appliances in welfare powered 100% by renewables
Access	MEWPs and van-mounted access	MEWPs used outdoors: Stage IIIB or hybrid; MEWPs used indoors: electric, bi-energy (range extender), or hybrid	MEWPs: electric, bi-energy (range extender), or hybrid. If hybrid or electric unavailable at larger end, engine to be Stage V	MEWPs: Zero emission plant
		Vehicle-mounted: Euro 5-compliant engine	Vehicle-mounted: Euro 6 engine; Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	Vehicle-mounted: hybrid engine + increasing battery/electric lift availability
Pumps	Diesel & electric suction pump	Stage IIIA (rest of UK) Stage IV (London)	Stage V	Stage V + battery (hybrid)
	Diesel & electric hydraulic submersibles		Company purchasing profile will assess the availability and client uptake of low and zero emissions plant such as electric and hybrid	Increasing levels of renewable power, plus power management
	Submersible electric			>10 years - Hydrogen
In-Use		Eco-operator training	Eco-operator training	Data and telematic training

* Where non-compliant plant and equipment but with an exemption meets the minimum standards

**Stage III and IV engines that are fitted with after treatment – e.g. diesel particulate filter (DPF), selective catalytic reduction (SCR) – to make them Stage V compliant, are acceptable where they have been independently tested and proved to meet the emissions thresholds of Stage V.

***The geographical boundary of London is defined as the 32 local authority districts that together with the City of London make up the administrative area of Greater London.

Appendix 1: Previous Minimum Standards v2.1: 2022

Plant Category	Examples	Min' Standards from 01.11.2021 for Contractors hiring plant in for use	Min' Standards from 01.11.2021 for Plant Hire Companies buying new equipment in to then hire out	Market Potential for next 5 years
Tools	Saws, whacker plates,	Cord/flex or battery	Cordless/battery	Cordless/battery
Lighting Towers	All LED lumieres	<75% Stage V hybrid ≥25% battery & PV	<50% Stage V hybrid ≥50% battery & PV	<20% Stage V hybrid ≥80% battery & PV
Small Plant <5t	Mini excavators, micro dumpers, mini skip loaders	Stage IIIB	Stage V Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	Stage V Increasing levels of zero emission plant
Medium Plant 8t – 13t	Excavators, dumpers, telehandlers	Stage IV	Stage V Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	Stage V Increasing levels of zero emission plant
Large Plant >13t	ADTs, Excavators, Wheeled Loaders	Stage IV	Stage V Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	Stage V Increasing levels of zero emission plant
Generators <20kVA	Mobile and stationary	Stage IIIA	Stage V + battery (hybrid) Company purchasing profile will assess the availability and client uptake of low and zero emissions plant Welfare: Design EPC rating C for a fixed location, or better, with sensors/timers	Stage V + battery (hybrid) Increasing levels of renewable power, plus power management, and greater use if EC ratings
Generators >20kVA	Mobile and stationary	Stage IIIA	Stage V + battery (hybrid) Welfare: Design EPC rating C or better, with sensors/timers	Stage V + battery (hybrid) Increasing levels of renewable power, plus power management
Access	MEWPs and van-mounted access	MEWPs used outdoors: Stage IIIB or hybrid; MEWPs used indoors: electric, bi-energy (range extender), or hybrid Vehicle-mounted: Euro 5-compliant engine	MEWPs: electric, bi-energy (range extender), or hybrid. If hybrid or electric unavailable at larger end, engine to be Stage V Vehicle-mounted: Euro 6 engine; Company purchasing profile will assess the availability and client uptake of low and zero emissions plant	MEWPs: Zero emission plant Vehicle-mounted: hybrid engine + increasing battery/ electric lift availability

Appendix 2: Previous Minimum Standards: v1: 2019

Plant	Examples	Minimum standard for 2019	Proposed minimum standard for 2022* / 2025 [‡]
Small Plant and Tools*	Saws, whacker plates, etc	≤50% petrol / diesel motor ≥50% cordless / battery	100% cordless / battery
Lighting Towers*		Eco-engine (≤0.55 L / hr) & LED lumieres **	≤67% Eco-engine (≤0.55 L / hr) & LED lumieres ≥33% Eco-engine (≤0.55 L / hr) & LED lumieres plus battery hybrid & / or PV **
Small Plant <3t †	Mini excavators, micro dumpers, mini skip loaders	Stage III B	Stage V or electric
Medium Plant 3t – 13t †	Excavators, dumpers	Stage III B	≤33% Stage III B ≥67% Stage V
	Telehandlers	Stage IV	Stage V
Large Plant >13t †	ADTs, Excavators, Wheel Loaders	Stage IV	≤33% Stage IV ≥67% Stage V
Generators*		Stage III A	Hybrid generator for welfare cabins / accommodation Stage III A with cleaner fuels elsewhere