

# ALL- ELECTRIC CONSTRUCTION EQUIPMENT THE BENEFITS AND THE DRAWBACKS



## BENEFITS OF ELECTRIC CONSTRUCTION EQUIPMENT

Electric construction equipment is a growing trend towards sustainability in the construction industry. Government entities as well as corporations are exploring ways for the use of traditional gas-powered equipment to be reduced. Just like an electric car, these machines operate with the use of batteries, rather than relying on traditional gas or diesel engines. Unlike cars, construction equipment produces significant noise pollution and requires large quantities of fuel producing sizable emissions. They are also typically operated for many hours per day. For these reasons, the use of electric construction equipment can have many benefits.

## BATTERY ADVANCEMENTS

Companies such as Volvo have started to expand into this space and have entire product lines of electric construction equipment. The electric construction equipment market is growing rapidly, with manufacturers investing in research and development to improve the efficiency, power, and affordability of these machines. As battery technology improves and becomes more cost-effective, electric machines are likely to become even more widespread on job sites.

### Benefits

#### Environmentally friendly

- Zero direct emissions from operations, decreasing carbon footprint
- No concerns regarding idling

#### Reduced noise pollution

- Electric equipment is much quieter than diesel powered equipment, allowing for decreased construction disturbance and potentially allowing for overnight work

#### Reduced air pollution

- Produces no exhaust fumes, improving air quality

#### Lower fuel costs

- Charging the batteries of the equipment is more cost effective than procuring gas

#### Lower maintenance

- Electrical equipment has fewer moving parts and therefore requires less maintenance

### Drawbacks

#### High upfront investment

- Electric construction equipment tends to have higher upfront costs
- Charging infrastructure can be an added cost

#### Battery life

- May have shorter operating times than traditional equipment as batteries need to recharge
- Charging time and range can be impacted by the ambient temperature
- Jobsite infrastructure is not at a place where fleets of electric equipment can be supported

#### Limited availability

- There are fewer options on the market
- Not all tasks can be completed using electric equipment

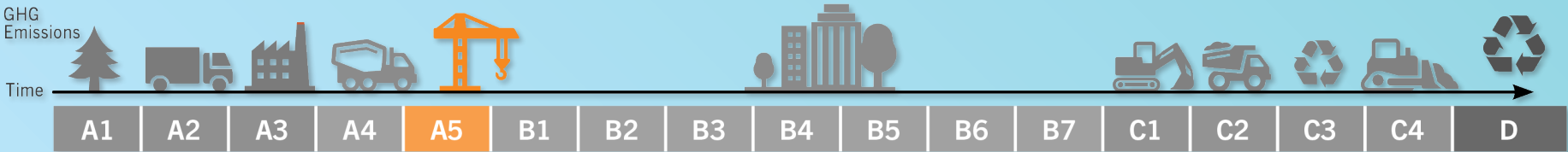
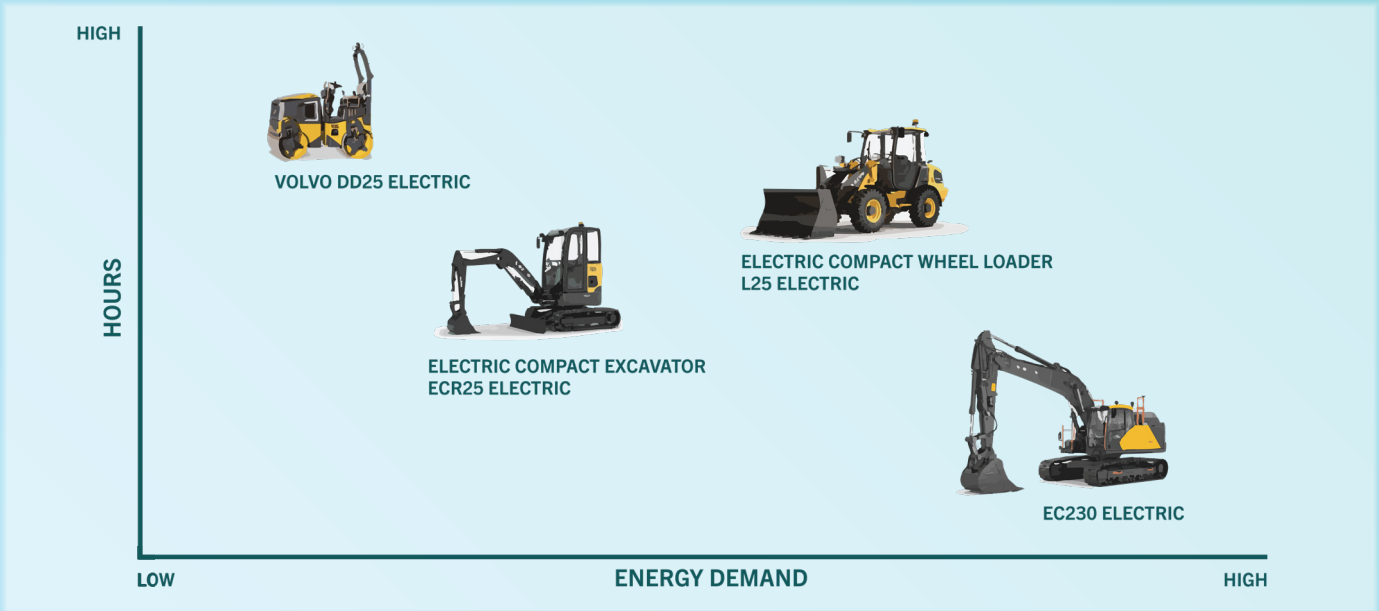
#### Battery disposal

- Batteries must be properly disposed

## FUTURE PROMISE

In addition to reducing environmental impacts, electric equipment aligns with the global trend toward renewable energy and cleaner technologies. The future holds the promise of more advanced, longer-lasting, and cost-efficient electric machinery, which may eventually replace traditional equipment in many sectors of the construction industry.

**VOLVO**



\*colorized section of the carbon lifecycle analysis are relevant to the content on this poster

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