

U.S. Electric Construction Equipment Market - Strategic Assessment & Forecast 2025-2030

Market Report | 2025-04-16 | 161 pages | Arizton Advisory & Intelligence

AVAILABLE LICENSES:

- Single User License \$3500.00
- Team License \$3650.00
- Enterprisewide \$4999.00

Report description:

The U.S. electric construction equipment market is expected to grow at a CAGR of 28.06% from 2024 to 2030.

Recent Developments in the U.S. Electric Construction Equipment Market

- In 2024, Case Construction Equipment launched its new compact electric wheel loader 12EV in the North American market, including the United States. The machine offers a 23kWh cobalt-free, lithium-ion battery with a payload of 1.15 tons.
- Case Construction also launched an electric backhoe loader, Case 580EV, in the North American market in 2024.
- Volvo Construction Equipment expanded its electric lineup in North America with a new mid-size electric wheel loader L 120 & excavator & new generation EC230 electric excavator in 2024.
- Caterpillar signed a strategic agreement with CRH, a leading building material solution provider in the U.S., for electric trucks and charging solutions in 2024.
- Bobcat introduced a new electric compact track loader at Equip Expo 2024 in Louisville, Kentucky, in the United States.

KEY HIGHLIGHTS

- Electric excavators accounted for the largest market share in the U.S. electric construction equipment market in 2024. This equipment is extremely flexible and can operate in urban construction & mining sites.
- The demand for compact & small-segment excavators is more prominent as compared to medium and large ones. The electrification of large excavators requires a high-capacity battery that will push up the overall price of excavators.
- Backhoe loaders and dump trucks have witnessed low electrification rates as these types of equipment have complex structures and are required for special purposes at construction and mining sites. So, contractors don't prefer electric dump trucks & backhoe loaders due to their lower utilization rate.
- The U.S. electric construction equipment market witnessed strong growth in the low battery capacity segment as it is

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

cost-efficient and is used in compact equipment.

-□Favorable government policies and an increasing focus on carbon neutrality goals are driving the U.S. electric construction equipment market growth. The government of major cities in the U.S., such as New York, California & others, planned to completely phase out the use of diesel power equipment for many construction projects initiated from 2025.

-□The U.S. electric construction equipment market is severely impacted by the high cost of electric construction equipment. In 2024, the U.S. government increased the tariff rate to 100% for imported electric construction equipment from the Chinese market. The government also increased the tariff rate to 25% on lithium batteries imported from China that are used in construction equipment.

-□High tariff rates on imported electric construction equipment from China negatively impact demand for this equipment in the U.S. market as China is one of the leading manufacturers of electric equipment in the world.

SEGMENTTION ANALYSIS

Segmentation By Equipment

- Excavators
- Wheel Loaders
- Backhoe Loader
- Telehandlers
- Aerial Platform
- Others

Segmentation By Battery Capacity

- Below 50 KWH
- 50 KWH -200 KWH
- 201 KWH- 500 KWH
- Above 500 KWH

Segmentation By Battery Chemistry

- Nickle Manganese Cobalt (NMC)
- Lithium Ferro Phosphate (LFP)
- Others

Segmentation By End User

- Construction
- Warehouse & Logistics
- Mining
- Others

MARKET TRENDS & DRIVERS

High Electrification Rate in Compact Construction Equipment

-□The U.S. market witnessed significant growth in demand for electric construction equipment in 2024, with the compact construction equipment segment leading the electrification trend. The increasing demand for compact machinery, such as mini excavators, compact wheel loaders, and track loaders, has further accelerated the adoption of electric models. As a result, the electric compact construction equipment segment is experiencing notable growth in the U.S. electric construction equipment market.

-□The reason for high electrification in the compact segment is due to its less complex structure, which makes the electrification of this equipment simpler compared to larger equipment, which has a complex structure. Compact equipment requires modest power demands, making it easier to develop electric alternatives as compared with their larger counterparts. Additionally, due to

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

their compact size, these machines can operate indoors, whether in basements or during demolition, which helps reduce emissions and improve health conditions.

Surge in Demand for Electric Equipment in Mining Activities

- The U.S. government has encouraged sustainable practices in mining to minimize and mitigate the environmental impact associated with mining projects.
- The government has introduced several policies to regulate mining and ensure sustainable mining practices, including the Mining Law of 1872 and the Surface Mining Control and Reclamation Act of 1977. Currently, electric equipment is used in drills, conveyor belts, and pulley systems in mining operations. With increasing government focus on adopting sustainable mining practices, there is growing use of electric construction equipment such as electric excavators & loaders.
- The country is witnessing a rise in the trend of the use of electric construction equipment in surface and underground mining projects.

Demand for Sustainable Projects & Net-Zero Buildings

- The growing demand for sustainable and net-zero buildings is supporting the growth of the U.S. electric construction equipment market. This shift toward electric alternatives is significantly reducing overall emissions during construction activities.
- In 2025, the U.S. government will increase its focus on developing zero-energy buildings across the country. Several government projects are under progress for the construction of zero-energy buildings. 22 programs of zero-energy-ready buildings include 14 residential and 8 commercial structures under progress in 2025. A zero-energy building generates energy that is required for a year through solar panels. The government allocated USD 110 billion for various zero-energy buildings in 2024.
- As part of this program, over 5,000 family homes, nearly 25,000 new apartments & 222 new commercial buildings will be completed by the end of 2024. To construct these buildings, electric construction equipment is used. For instance, the Volvo EC230 Electric excavator is being used in a zero-energy building project at Los Angeles Metro's Purple Line extension transit project.

Rise of Fossil Fuel-Free Construction Sites

There is a growing demand for construction sites free of fossil fuel in the U.S., which is aligned with the sustainability goals of the government. Also, the U.S. Department of Energy has planned to phase out fossil fuel use in the construction of new buildings and the renovation of existing building structures in 2024. Such initiatives are projected to support the United States electric construction equipment market growth. Moreover, the government's new regulation mandates that fossil fuel usage at construction sites for new federal buildings and major renovations must be reduced by 90% compared to 2003 levels for all projects initiated between 2025 and 2029. Furthermore, starting in 2030, the use of fossil fuels in any new construction projects must be eliminated.

Favorable Government Initiatives and Policies

The government is actively supporting the U.S. electric construction equipment market through various funding programs, tax credits, & other incentives. Several funding programs are presently under progress in the US market. In 2024, the government officials of some of the major cities such as New York City, San Diego, Los Angeles, Montreal, Boulder County, Philadelphia & Austin, launched the North America Electric Construction Coalition. Also, the government has introduced the Bipartisan Infrastructure law for funding new charging stations across the country. This program includes USD 5 billion in funding for the National Electric Vehicle Infrastructure & USD 2.5 billion in funding for the Discretionary Grant Program for charging & fueling infrastructure.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

INDUSTRY RESTRAINTS

Lack of Charging Infrastructure

The U.S. electric construction equipment market growth is expected to be hampered due to the low availability of battery charging centers across the country. Several infrastructure development projects take place in the outer parts of cities. Thus, it can be costly to establish charging infrastructure due to the need for extensive electrical and network enhancements, limited availability of electricity, and high installation expenses. Also, the absence of this infrastructure can delay the overall construction schedules and budgets, necessitating greater use of electric construction machinery to fill in while others are recharging.

High Cost of Electric Construction Equipment

The U.S. electric construction equipment market provides potential benefits to the environment and construction industry due to its zero-carbon emission feature. However, the high initial cost of acquiring electric construction equipment is one of the major factors restricting the demand for it in the U.S. market. Furthermore, as per estimates from Volvo CE, a leading manufacturer of construction machines, the average cost of an electric mini excavator is around (~\$66,000), whereas its diesel counterpart costs only (\$26,000). Conventional machinery is priced at less than half that of electric models based on these average price points. The ownership cost of electric construction equipment is higher than that of diesel counterparts.

COMPETITIVE LANDSCAPE

- Bobcat is one of the leading electric construction equipment manufacturers in the U.S. electric construction equipment market. Bobcat provides a comprehensive range of compact machinery, encompassing loaders, excavators, compact tractors, utility products, telehandlers, mowers, attachments, and implements. The company has a manufacturing plant in the North Dakota & Minnesota region in the U.S. market.

- In 2024, Caterpillar showcased its electric machines at the Consumer Electronics Show in Las Vegas. The exhibit featured a zero-emission underground loader, a mini excavator, and other electric equipment. Caterpillar plans to continue innovating and investing in electrification, connectivity, alternative fuels, and digital solutions to achieve its sustainability goals.

- Komatsu offers construction equipment catering to the requirements of the construction and mining sectors. It offers various models, ranging from mini excavators to ultra-class dump trucks. The company launched lithium battery-powered mini excavators in the US electric construction equipment market in 2024. Komatsu partnered with U.S. battery manufacturer Proterra to develop electric construction equipment in the U.S. market.

Key Company Profiles

- Bobcat
- Caterpillar
- Volvo Construction Equipment
- Komatsu
- Hitachi Construction Machinery
- Liebherr
- CB
- Kobelco
- HD Hyundai Construction Equipment
- Kubota
- Wacker Neuson
- John Deere

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

-[]SANY

Other Prominent Vendors

-[]Xuzhou Construction Machinery Group (XCMG)

-[]Kramer

-[]CASE Construction Equipment

-[]Manitou

-[]MECALAC

-[]Yanmar

-[]Takeuchi Manufacturing Co., Ltd.

-[]DEVELON

-[]LiuGong

-[]HEVI

Component Suppliers

-[]ABB

-[]Eaton

-[]American Battery Solutions

-[]Ecovolta

KEY QUESTIONS ANSWERED:

1.[]How big is the U.S. electric construction equipment market?

2.[]What is the growth rate of the U.S. electric construction equipment market?

3.[]Who are the key players in the U.S. electric construction equipment market?

4.[]Which are the major component suppliers in the U.S. electric construction equipment market?

5.[]What are the trends in the U.S. electric construction equipment market?

Table of Contents:

1. Research Methodology

2. Research Objective

3. Research Process

4. Introduction

4.1. Market Coverage

4.2. Report Scope

5. Market at A Glance

5.1. Recent Development in Electric Construction Equipment

5.2. Market Snapshot

6. Executive Summary

7. Market Landscape

7.1. PESTEL Analysis

7.2. Economic Scenario

7.3. Key Projects

7.4. Market Dynamic

7.5. Value Chain Analysis

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 8. Segmentation
 - 8.1 By Equipment Type (Volume & Value)
 - 8.1.1 Equipment Definition
 - 8.1.1.1 Excavators
 - 8.1.1.2 Wheel Loaders
 - 8.1.1.3 Backhoe Loaders
 - 8.1.1.4 Telehandlers
 - 8.1.1.5 Aerial Platforms
 - 8.1.1.6 Other Electric Equipment (Skid Loaders, Track Loaders, Crane, Dump Truck & Bulldozers)
 - 8.1.2 Battery Capacity Definition
 - 8.1.2.1 Below 50 kWh
 - 8.1.2.2 50 kWh - 200 kWh
 - 8.1.2.3 201 kWh - 500 kWh
 - 8.1.2.4 ABOVE 500 kWh
 - 8.1.3 Battery Type Definition
 - 8.1.3.1 Nickel Magnesium Cobalt
 - 8.1.3.2 Lithium Ferro Phosphate
 - 8.1.3.3 Others (Sodium Ion, Lead Acid, & Nickle Cobalt Aluminium)
 - 8.2 By End-users
 - 8.2.1 End-user Definition
 - 8.2.2 Construction
 - 8.2.3 Mining
 - 8.2.5 Warehouse & Logistics
 - 8.2.5 Others (Waste Management, Agriculture, Utilities, & Maintenance Work)
- 9 Geographical Analysis
- 10 Technology Development
- 11 Competitive Landscape
 - 11.1 Competitive Overview
 - 11.2 Prominent Vendors
 - 11.3 Other Prominent Vendors
 - 11.4 Component Supplier
- 12 Report Summary
 - 12.1 Key Insights
 - 12.2 Abbreviation
 - 12.3 Exhibits
 - 12.4 Related Reports
 - 12.5 Database
 - 12.6 Global Reach
 - 12.7 Offerings

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

U.S. Electric Construction Equipment Market - Strategic Assessment & Forecast 2025-2030

Market Report | 2025-04-16 | 161 pages | Arizton Advisory & Intelligence

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
<input type="checkbox"/>	Single User License	\$3500.00
<input type="checkbox"/>	Team License	\$3650.00
<input type="checkbox"/>	Enterprisewide	\$4999.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

☐ ** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2025-05-05"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com
www.scotts-international.com