+357 96 030922
info@marketpublishers.com

Blockchain in Power Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

https://marketpublishers.com/r/B77FC78D6A75EN.html
Date: April 2025
Pages: 124
Price: US$ 4,850.00 (Single User License)
ID: B77FC78D6A75EN

Abstracts

The Global Blockchain In Power Market was valued at USD 2.1 billion in 2024 and is estimated to grow at a CAGR of 41.5% to reach USD 61.7 billion by 2034. This market is witnessing a rapid surge in interest as blockchain emerges as a critical solution for enhancing efficiency, security, and transparency in the energy sector. As global power infrastructure becomes more decentralized, traditional centralized energy systems are struggling to keep up with the demands for real-time data processing, efficient billing, and secure transactions. Blockchain technology is uniquely positioned to solve these challenges by offering a transparent and immutable ledger that simplifies the tracking of power generation, distribution, and consumption. The increasing integration of distributed energy resources, including solar and wind, further amplifies the need for systems that can manage diverse energy flows across microgrids. Additionally, the growing push for sustainability and the need for smart energy management tools have led utilities and private players to adopt blockchain-based platforms to improve operational agility and ensure regulatory compliance. As energy markets evolve and digitization accelerates, blockchain is set to play a central role in transforming power management worldwide.

A major growth driver is the rising demand for transparency in the power sector. Blockchain provides a secure and decentralized way to record and verify energy transactions, making it ideal for managing the growing complexities of power systems. From power generation and distribution to final consumption, blockchain allows seamless tracking and verification of every kilowatt exchanged. With microgrids gaining popularity, especially in urban and remote areas, blockchain enables efficient local energy management, ensuring real-time visibility and control. It also facilitates automated billing, reduces administrative overhead, and allows the smooth integration

+357 96 030922
info@marketpublishers.com

of renewable energy sources into existing grids.

The rise of peer-to-peer (P2P) energy trading is another transformative trend pushing the market forward, with its value expected to reach USD 21 billion by 2034. Blockchain enables direct transactions between energy producers and consumers, eliminating intermediaries and reducing transaction costs. This decentralization simplifies billing and makes energy trading more efficient and transparent. Increasing investments in blockchain platforms by utilities and energy startups are accelerating the growth of P2P trading and encouraging the development of community-based energy ecosystems.

The private sector is expected to play a vital role in market expansion, with projections showing it could reach USD 32.3 billion by 2034. Energy companies are embracing blockchain to improve wholesale and P2P energy transactions through smart contracts and real-time grid monitoring. This enables better demand-response programs and optimized grid performance.

North America held a 15.8% market share in 2024, with the U.S. market alone valued at USD 260 million. Federal support for clean tech innovation and favorable regulations are expected to propel adoption, particularly in states rich in renewable energy production.

Key players in the market include IBM, Power Ledger, SAP, Greeneum, LO3 Energy, ConsenSys, SunContract, Electron, ACCIONA, and Infosys Limited. These companies are investing heavily in R&D, building strategic alliances, and enhancing blockchain-based smart energy solutions to strengthen their global footprint and drive market penetration.

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

CHAPTER 8 COMPANY PROFILES

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Blockchain in Power Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

Product link: https://marketpublishers.com/r/B77FC78D6A75EN.html

Price: US$ 4,850.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/B77FC78D6A75EN.html