

Utility And Energy Analytics - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

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Report description:

Utility And Energy Analytics Market Analysis

The utility and energy analytics market size stands at USD 5.1 billion in 2025 and is forecast to reach USD 11.48 billion by 2030, registering a 17.68% CAGR. Growth is fuelled by rising electrification, sharper decarbonisation targets and the need to optimise increasingly complex grids. More than 55% of utilities now apply near-real-time analytics to monitor grid assets and customer usage, while a projected five-fold jump in electricity load-from 23 GW in 2025 to 128 GW in 2030-keeps pressure on operators to modernise data infrastructure and decision-making processes. Intensifying wholesale-price volatility accelerated smart-meter rollouts and widening cloud adoption further widen the addressable space for advanced solutions. Competitive intensity is rising as hyperscale cloud firms court utilities with industry-specific AI services, even as traditional operational-technology vendors deepen their analytics portfolios through acquisitions and partnerships.

Global Utility And Energy Analytics Market Trends and Insights

Mandatory Renewable Mandates & Decarbonisation Spend

Global commitments to cut carbon emissions are accelerating investment in sophisticated forecasting and optimisation tools. Renewables are projected to generate one-third of global electricity by early 2025, placing unprecedented variability on grids. Government incentives amplify the trend; the U.S. Department of Energy estimates that aggregated virtual power plants could supply 10-20% of peak demand by 2030, provided utilities can orchestrate distributed resources in real time. These developments

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compel operators to deploy analytics platforms capable of processing high-frequency telemetry, modelling weather-driven output swings and optimising bid strategies across day-ahead and intra-day markets.

AMI 2.0 Roll-out & Edge Analytics Adoption

Next-generation smart-meter projects create continuous data streams that outstrip legacy processing tools. Global smart-meter revenues are projected to climb from USD 26.65 billion in 2024 to USD 29.29 billion in 2025, producing granular interval data that utilities can analyse at the edge. Thames Water's network already detects more than 80,000 leaks daily and avoids 57 million litres of water losses by embedding analytics inside meters. Running algorithms locally minimises latency, reduces back-haul bandwidth and enables distribution operators to trigger rapid voltage or pressure adjustments, reinforcing grid resilience while containing costs.

Legacy OT-IT Integration Costs & Data Silos

Many utilities still run decades-old SCADA, outage and billing systems that were never designed to interconnect. Integrating these assets with cloud gateways and modern data-lakes often doubles or triples the original analytics budget, delaying project timelines. Forward-thinking operators are standardising data models, deploying API gateways and sequencing upgrades to contain spend while laying an open architecture foundation for future analytics layers.

Other drivers and restraints analyzed in the detailed report include:

Wholesale-Price Volatility Driving Load-Forecast Accuracy / Cloud-Native Utility-Analytics Frameworks / Data-Science Talent Shortage in Power Domain /

For complete list of drivers and restraints, kindly check the Table Of Contents.

Segment Analysis

Cloud platforms captured 41% of incremental spend in 2025, yet the on-premises model retained 59% utility and energy analytics market share due to strict compliance requirements. Operators historically kept mission-critical apps within firewalls; however, elastic compute, managed AI services and pay-as-you-go economics are shifting cost-benefit equations. The utility and energy analytics market size for cloud deployments is expected to grow at 24.10% CAGR to 2030, driven by greenfield AMI, demand-response and DERMS rollouts that need horizontally scalable architectures. IBM's sector-focused Software-as-a-Service suite illustrates rising vendor emphasis on hardened, audit-ready environments with grid-specific templates. Hybrid strategies are common: sensitive operational datasets remain in data centres while prediction pipelines and customer-facing dashboards run in the cloud, allowing utilities to stage migration while mitigating sovereignty concerns.

Alongside resilience, utilities value the cloud's rapid innovation cycle. New features-geospatial visualisation, what-if dispatch simulators or customer self-service portals-can be deployed without lengthy hardware refreshes. Providers publish utilities-specific compliance roadmaps, helping risk officers secure board approvals. As confidence rises, transmission operators are piloting cloud-native historian replacements, targeting 50% lower total cost of ownership over a five-year horizon.

Software licences still accounted for 69% of 2024 revenues, reflecting entrenched reliance on vendor-supplied meter-data management, outage analytics and forecasting tools. Yet services revenue is accelerating at 20.80% CAGR, signalling utilities' need for integration support, data-quality remediation and continuous model tuning. Field evidence shows professional-services outlays can equal software spend during multiyear deployments, especially where legacy supervisory control and data acquisition platforms require middleware adaptors. Cognizant's 6.8% year-over-year revenue uptick in Q4 2024, partly propelled by utility

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analytics mandates, underlines the shift toward value-added engagements.

Edge-hardware uptake is also climbing as utilities deploy substation phasor-measurement units and feeder-level sensors. These devices preprocess high-volume waveforms, forwarding only event-based summaries to central repositories. Edge enables near-instant fault localisation and voltage-control actions, extending equipment life and improving power quality.

Utility and Energy Analytics Market Segmented by Deployment (On-Premises, Cloud and Hybrid), Component (Software, Services and More), Application (Meter Operations and Data Management, Load and Generation Forecasting and More), End-User (Generation Utilities, Transmission and Distribution Operators and More) Utility Type (Electric, Gas and More), and Geography. The Market Forecasts are Provided in Terms of Value (USD).

Geography Analysis

North America retained a 38% revenue share in 2024, backed by mature digital infrastructure, AMI penetration above 70% and supportive regulatory constructs that reward performance-based ratemaking. State-level resilience programmes channel funds toward outage analytics, vegetation-encroachment modelling and wildfire-risk scoring. Texas exemplifies demand growth, with flexible-load consumption set to reach 54 billion kWh in 2025, forcing utilities to refine load-forecast accuracy and bolster grid automation. Cloud deployments outpace on-premises adds as utilities capitalise on elastic compute to process high-frequency meter reads and substation waveforms.

Asia-Pacific represents the fastest expanding pocket with a 21.30% CAGR for 2025-2030. China's rapid solar and storage build-out and India's rural electrification projects create large-scale data challenges that analytics can unlock. Established players in Japan and Australia emphasise customer engagement and DER orchestration, whereas emerging economies leapfrog legacy dispatch systems, installing smart-grid technologies from the outset. Government-backed smart-city initiatives pile on additional data streams-traffic, environmental sensors and microgrids-that converge with utility datasets, increasing analytics platform scope.

Europe sustains significant spend as ambitious decarbonisation obligations drive utilities to optimise variable renewable integration and electrified demand such as heat pumps and EVs. Tight cyber-security rules and GDPR compliance elevate data-sovereignty requirements, shaping architecture choices toward regional cloud zones and localised data-lakes. The European Commission's push for cross-border market coupling stimulates demand for analytics that align scheduling, congestion management and energy imbalance settlements across member states. Nordic operators showcase advanced flexibility markets where distribution-level capacity trades in near-real time, necessitating high-resolution telemetry and AI-based dispatch engines.

List of Companies Covered in this Report:

Oracle Corporation / IBM Corporation / Siemens AG / Schneider Electric SE / ABB Ltd / General Electric Company / SAS Institute Inc. / SAP SE / Capgemini SE / Teradata Corporation / Hitachi Energy Ltd. / Landis+Gyr AG / Itron Inc. / AutoGrid Systems Inc. / Wipro Ltd. / Accenture plc / Amazon Web Services (AWS) Utilities / Microsoft Azure Energy / Enel X / Nexant Inc. / OSIsoft (AVEVA) / Uptake Technologies / Bidgely Inc. / Smarter Grid Solutions /

Additional Benefits:

 The market estimate (ME) sheet in Excel format /
3 months of analyst support /

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