

TURTLE



THE FUTURE OF **ELECTRICAL DISTRIBUTION**

FROM VENDOR TO STRATEGIC PARTNER

Turtle Take: Industry Perspective



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The new distribution partnership model

Contractors and facility managers face mounting challenges: projects require more complex integration, skilled labor remains scarce, and infrastructure demands continue to grow. Meanwhile, aging systems need urgent modernization, energy requirements surge, and supply chains face ongoing disruption.

The solution extends beyond better products. It requires a fundamentally different distribution partnership.

Traditional distributor relationships focus on transactions: products, pricing, and delivery. Today's leading distributors focus on outcomes: project success, operational efficiency, and strategic advantage, as an extension of their product portfolio. Leading contractors and facility managers partner with distributors who bring technical expertise, project management capabilities, and value-added services.

Turtle has spent over 100 years evolving into this type of partner.

This report examines five critical trends driving this transformation and demonstrates how the right distribution partnership transforms today's challenges into competitive advantages.



Current project realities

Three universal challenges impact every electrical project today:



Labor shortage

20,000 electricians will retire in the next two years



Increased complexity

Today's projects integrate IT/OT systems, require specialized compliance, and demand expertise across multiple technologies.



Accelerated timelines

Infrastructure modernization spending increases 600% (\$50 billion to \$350 billion) in the next decade while execution windows shrink.

These challenges will impact your next project. The question becomes whether you have the right partner to navigate them successfully.

Is your infrastructure keeping pace with today's demands?



Trend #1

Aging infrastructure and modernization imperatives

The challenge

Industries take action to address urgent modernization needs, including upgrading critical infrastructure in use well beyond intended lifecycles, deploying digital tools to improve efficiency and performance, and building power infrastructure to meet scaling energy demands. Infrastructure modernization spending surges by nearly 600% over the next decade, from \$50 billion to more than \$350 billion. Successful execution requires navigating complicated supply chain, technology, regulatory, and financial challenges.

Key drivers



Industrial automation evolution

Traditional control systems transition to intelligent, data-driven platforms that provide visibility.



Power infrastructure limitations

Most facilities lack adequate capacity for modern demands, particularly EV charging and data centers.



Material and component shortages

Critical components face up to two-year lead times.



Regional economic pressures

While infrastructure modernization accelerates, high-cost regions like New York/New Jersey see manufacturing contract.

Where the opportunity lies

The complexity involved in infrastructure modernization projects creates demand for distributors with depth and breadth of experience. Contractors, engineering procurement and construction (EPC) contractors, and end-users seek partners who bring comprehensive knowledge of the customer and a network of proven partners upstream and downstream.

Turtle Take

Your distributor partner can help map modernization journeys and provide end-to-end support, including identifying and sourcing technologies and solutions, facilitating systems implementation and integration, and providing ongoing expertise and hands-on support. We cut through complexity with deep technical and project management expertise.

How is your organization addressing the growing gap between retiring experienced workers and increasing technological demands?

Workforce challenges



The challenge

Labor shortages and an aging workforce reshape operational priorities across sectors. Nearly 25% of the manufacturing workforce exceeds 55 years old. As a result of labor constraints and increasing labor costs, contractors and end-users must accomplish more with less. This fuels the need for smart technologies that enable automation and other approaches to fill the gap.

Key drivers



Aging electrician demographics

20,000 electricians retire in the next two years, creating critical labor shortages and higher labor costs while electricity demand surges.



Resource efficiency focus

Organizations focus on "doing more with fewer resources" due to labor constraints.



Operating cost inflation

Labor shortages drive significant increases in operating costs, especially for smaller projects.



Cross-industry knowledge transfer

Urgent need to apply automation expertise from traditional sectors to emerging areas.

Where the opportunity lies

Labor shortages among electricians and other skilled trade professionals intensify, creating opportunities for distributors to help mitigate workforce challenges.

Turtle Take

As workforce challenges intensify, distributors serve as an extension of your team and provide "one hand to shake." We provide on-site expertise and boots on the ground to help with installations and service, while delivering integrated automation solutions to ease workloads and improve efficiency.

How can your distributor support you with today's energy-related challenges?



Trend #3

Electrification and the changing energy landscape

The challenge

Demand for electricity in the U.S. grows 50% by 2050. Businesses and utilities continue to look for ways to diversify their energy sources to meet growing energy needs and build resilience. Agility and energy source integration become key: combining traditional and renewable generation in complementary ways to ensure energy readiness.

Key drivers



Electrification requirements

Rapid adoption of electric vehicles fuels demand for more comprehensive solutions and deep expertise, particularly in multi-unit residential buildings.



Rebate-driven opportunities

Utility rebates can significantly offset installation costs of electrification solutions, but they often come with limited windows and deadlines.



Regional implementation differences

The West Coast leads environmental initiatives, with varying approaches across regions and an uncertain federal regulatory landscape.



Energy efficiency priorities

LED lighting upgrades, energy management systems, and optimization technologies gain traction.



Specialized environmental applications

Port environments require ruggedized equipment due to harsh conditions.

Where the opportunity lies

The growing energy transition creates demand for distributors who can help electrical contractors and end-users adapt to meet their growing energy needs and navigate a changing federal regulatory landscape.

Turtle Take

Distributors play an instrumental role in helping customers solve energy challenges by delivering energy-efficient technologies and solutions, enabling EV adoption, delivering products and services to support alternative energy projects, providing energy audits and energy efficiency analysis tools, and tracking and navigating regulatory developments and incentive opportunities.

Project Spotlight

East Coast utility fleet electrification



The challenge

A renewable utility company needed to transition its entire fleet from internal combustion to electric vehicles across multiple independent sites, each with different charging requirements.

Our approach

- **Single point of contact**
Managed relationships with ChargePoint and multiple site contractors.
- **Simplified ordering**
Created custom processes for sites handling EVSE procurement initially.
- **Streamlined procurement**
Consolidated shipments from our warehouse, eliminating material loss risk.
- **End-to-end management**
Handled product selection through final installation.

Results

Complete fleet electrification delivered on schedule, establishing the foundation for ongoing sustainability goals.

Are you working with a distributor who helps you map out a clear path to digital integration?

Trend #4

Digital transformation and industry integration



The challenge

Technology convergence brings both opportunities and challenges. With growing demand for integrated digital solutions to optimize performance and build resilience, contractors and operators seek partners who can break down digital transformation into manageable pieces. This means identifying and implementing practical intelligent systems tailored to specific operational needs that deliver measurable value.

Key drivers



IT/OT Integration

IT networks increasingly integrate with previously isolated OT systems.



IoT device networks

Sensors and connected devices provide visibility into operations.



AI-enhanced predictive systems

Advanced analytics optimize maintenance and improve operations.



Process optimization potential

AI reduces time for engineering approvals, spec reviews, and planning.



Cybersecurity risks

Rising cyber threats drive demand for end-to-end protection across IT/OT to ensure compliance and build resilience.

Where the opportunity lies

Contractors and end-users want to work with distributors who make it easier to identify, map out, and implement practical digital solutions, whether connected products or higher-level integrated systems.

Turtle Take

With deep customer knowledge, top-tier tech partners, and technical expertise, distributors ensure seamless integration and reliable service—helping customers troubleshoot quickly and maximize data and investment value.



Project Spotlight

Northeast commuter rail transformation

The challenge

A major Northeast commuter rail authority transformed its rider experience through a comprehensive Customer Service Initiative (CSI). The complex project required managing equipment logistics, coordinating contractors, and adapting to frequent customized design changes. Turtle was chosen as the design-build partner to deliver services, materials, and advanced equipment.

Project requirements

- **Meeting** strict safety and operational standards
- **Adapting** to evolving custom design requirements
- **Managing** 2,000 project drawings through review and approval
- **Coordinating** contractors, integrators, and technical teams
- **Integrating** systems across 16 train stations

What we delivered

Turtle delivered full systems integration, custom software, and expert project management across all 16 stations. We engineered PA, security, and network systems; deployed Wi-Fi; developed proprietary monitoring tools; and managed 2,000 technical drawings. As a single point of contact, we oversaw Cisco deployments and navigated shifting requirements across stakeholders.

Results

Enhanced connectivity and information systems now serve millions of commuters daily. The project was delivered on time and within budget, establishing new standards for transportation infrastructure modernization.

Does your distributor provide insights to help you assess the business risks of regulatory changes?



Trend #5

Geopolitical supply chain concerns

The challenge

International tensions such as trade policies, tariffs, and material shortages disrupt supply chains and reduce business visibility. In this climate, it's more important than ever for businesses to stay agile, act quickly, and monitor evolving regulations and risks.

Key drivers



Tariff considerations

Regulatory shifts demand both immediate response and long-term strategy.



Domestic manufacturing growth

Major investments in U.S. manufacturing facilities are driven by policy initiatives and security concerns.



Build America, Buy America (BABA) compliance

Interest is rising in Buy America compliance and domestic alternatives.



Extended payment terms

Industry norm shifts toward 120-day payment terms, requiring distributors to finance customer inventory.



Geo-dependencies

Certain areas of the design-build and enterprise ecosystem face greater risk from global trade tensions.

Where the opportunity lies

Distributors who help contractors and end-users navigate trade regulations and assess policy changes are critical in managing volatility and business impact.

Turtle Take

Distributors with deep customer and sector knowledge and trusted partner networks help organizations build risk mitigation strategies and move quickly and nimbly to identify new solutions, including alternative providers. We track regulatory changes and assess their business impact so you can focus on execution.

What would it mean for your business to have a distribution partner with over 100 years of experience solving these exact challenges?

Why traditional partnerships fall short

The industry faces an inflection point with projects navigating many interconnected challenges that demand a new approach. Traditional distributor relationships focus on transactions: products, pricing, and delivery.

Next-generation partnerships focus on outcomes.



Turtle's approach: 100+ years of applied expertise

Turtle delivers comprehensive solutions that extend beyond traditional distribution through proven capabilities across multiple sectors.



We solve cross-sector problems

Our expertise spans ports, industrial and commercial construction, municipalities, and data centers, enabling us to handle the most complex project challenges.



We extend your team capabilities

Our technical advisors and field support specialists provide on-site expertise and hands-on assistance to ensure labor shortages don't impact your projects.



We navigate complexity

From regulatory compliance to supply chain disruptions, we track changes that could impact your business and help you stay current.

WHAT THIS MEANS FOR YOUR NEXT PROJECT

For electrical contractors

The projects you bid require technical expertise, project management capabilities, and reliable execution. The right distribution partner differentiates profitable growth from costly overruns.

- Does your current distributor provide technical support during installations?
- Can they help you navigate supply chain challenges before they impact your timeline?
- Do they bring cross-industry expertise to solve specific problems?

For facility managers

Your operational demands intensify while internal resources remain constrained. You need partners who understand your business, can extend your capabilities, and deliver solutions that work.

- When did your distributor last provide strategic recommendations that improved your operations?
- Can they help navigate regulatory requirements and utility rebates?
- Do they provide ongoing support rather than one-time transactions?



Partnership that delivers results

The electrical industry changes rapidly. Infrastructure demands surge, skilled labor remains scarce, technology advances quickly, and supply chains face ongoing uncertainty.

These challenges create opportunities for contractors and facility managers who partner with distributors capable of delivering comprehensive solutions.

TURTLE TAKES AWAY



Workforce challenges and skilled labor shortages



Distribution complexity and supply chain uncertainty



Regulatory compliance headaches



Unreliable service and delivery delays



Digital solutions uncertainty and implementation challenges



Energy efficiency planning complexity

TURTLE DELIVERS



Technical expertise across multiple sectors



Customized, turnkey solutions that fit your specific needs



Industry-leading partnerships



On-site support to extend your capabilities



Project management experience for modernization complexity



Strategic material management with real-time availability tracking

TURTLE



Ready to get started?



For contractors

Contact us to discuss how we support your next complex project with technical expertise and reliable execution.



For facility managers

Schedule a consultation to explore how we extend your team's capabilities and optimize your operations.

Founded in New York City in 1923, Turtle is a global leader in electrical and industrial distribution, logistics, supply chain solutions, and resilient energy management. Recognized as a top 10 U.S. electrical distributor by Modern Distribution Management (MDM) and holding a Silver Ecovadis Sustainability rating, our company prioritizes both industry expertise and environmental stewardship. As a fourth-generation, family-owned Certified Women's Business Enterprise (WBE), we are proud of our legacy of over 100 years, driven by radical collaboration and innovative solutions that have consistently earned us an excellent Net Promoter Score (NPS) from our customers.

Learn more at
www.turtle.com

