

HAPPY BIRTHDAY AMERICA!

America's Semiquincentennial Birthday refers specifically to the signing of the Declaration of Independence on July 4, 1776. It marks two and a half centuries since the 13 colonies declared independence from Great Britain, setting in motion the American Revolution and the creation of the United States. It commemorates the pivotal moment when representatives of the colonies formally stated their break from British rule, affirming principles like "Life, Liberty and the pursuit of Happiness," self-government, and unalienable rights. This built on events like the Revolutionary War (1775–1783) and led to the Constitution and Bill of Rights.



Organizers describe it as a chance to pause, honor contributions from all Americans across generations, reflect on the nation's past, including achievements, challenges, and progress toward "a more perfect union", and look forward to the next 250 years.

What better way to say Happy 250th Birthday than to reflect on John F. Kennedy's Inaugural Address, January 20, 1961: In the long history of the world, only a few generations have been granted the role of defending freedom in its hour of maximum danger. I do not shrink from this responsibility — I welcome it. I do not believe that any of us would exchange places with any other people or any other generation. The energy, the faith, the devotion which we bring to this endeavor will light our country and all who serve it — and the glow from that fire can truly light the world.

And so, my fellow Americans: ask not what your country can do for you — ask what you can do for your country.

My fellow citizens of the world: ask not what America will do for you, but what together we can do for the freedom of man.

Finally, whether you are citizens of America or citizens of the world, ask of us the same high standards of strength and sacrifice which we ask of you. With a good conscience our only sure reward, with history the final judge of our deeds, let us go forth to lead the land we love, asking His blessing and His help, but knowing that here on earth God's work must truly be our own.

[John F. Kennedy - Inaugural Address](#)



For Dark Sky Friendly Post Top Luminaires click [here](#).

Illuminate in style and elegance with our endless array of post top luminaires. From classically-style lanterns to decoratively caged, acorn-and-finial post tops, our highly versatile luminaires offer unmatched performance, directional control and uniformity, while accommodating needs in the strictest of environments.

1. The Amerlux Standard Acorn Style luminaires utilize historically accurate, textured acorn lenses to provide adequate diffusion of the light sources while minimizing optical losses.
2. The Refractive Acorn style luminaires utilize injection molded optical grade acrylic or polycarbonate lenses that are designed to provide a Type III or a Type V distribution from the lens.
3. With variety of styles, the Caged Acorn Style luminaires are often used in many exterior environments including Retail and Commercial properties, campuses, downtown streets and residential roads.
4. Amerlux offers a selection of traditionally styled 4, 6, or 8 eight sided lanterns suitable for a variety of mounting heights.
5. The DPM and DPS series of downlight pendants are the perfect blend of performance and aesthetics.
6. In addition to many traditional styled luminaires, Amerlux offers some high performance Contemporary models suitable for Retail and Commercial projects as well as campus or roadway applications.
7. Traditional white globe fixtures have been used for decades in exterior environments including Retail and Commercial properties, campuses, downtown streets and community parks.

[Post Top Luminaires - Amerlux - Commercial Interior Lighting Products](#)

Market Observer

1. Electrical Wholesaling's 2026 Top 100 Ranking - This year's listing of the largest electrical distributors in North America is sponsored by LEDVANCE. Electrical Wholesaling's 2026 Top 100 electrical distributors remain quite bullish on their 2026 sales prospects despite economic uncertainty in the overall economy because of the war in Iran, the related spike in inflation, a still-slumbering residential market and sluggish new office construction in many metros. Despite these concerns, the average 2025 revenue increase for the 70-plus distributors who provided sales data was +9.3%. Data centers were by far the most common large construction projects mentioned by Top 100 execs. Leon Mowadia, COO, Facility Solutions Group (FSG), Austin, TX, said FSG has also worked on several large Manhattan office buildings, as well as Netflix's studio being built in Fort Monmouth, NJ, and other large commercial projects in Denver, Chicago and Los Angeles. [Electrical Wholesaling's 2026 Top 100 Ranking | Electrical Wholesaling](#)

2. NAED, IDEA Launch ProjectNexus From 'Where's My Stuff?' - NAED has selected the joint venture of IDEA and Pull Logic to build ProjectNexus, the first industry-owned middleware solution giving the electrical channel real-time visibility into order status, from manufacturer to job site. Tracking material across the electrical supply chain still means phone calls, emails, and endless spreadsheets. Frontline teams spend their days fire-fighting instead of moving projects forward. A first-of-its-kind, industry-owned middleware solution that lets manufacturers, reps, and distributors share trusted order and shipment information directly between systems. [ProjectNexus - IDEA](#)

- Real-time PO Status - Every order, every line. Confirmed, in production, shipped, or delayed.
- Proactive ESD alerts - Slips flagged before the call comes in. From reactive to proactive.
- Secure and role-based - You decide what to share and with whom. Role-based controls give every partner access to exactly what they need, and nothing more.

3. Walmart Enters the Facility Services Industry by Elaina Myers - Walmart is stepping into the facility services arena. Known for running one of the largest retail operations in the world, the company is turning the maintenance experience behind its thousands of stores into a commercial service for businesses nationwide. Upstream Facility Services was launched in April 2026 and will use the same systems and technician network Walmart uses to maintain its stores and Sam's Club locations. Upstream will offer HVAC, refrigeration, plumbing, electrical and general maintenance services combined with urgent repair responses and preventive and predictive strategies. The goal is to reduce downtime, extend asset life and improve operational consistency, according to the company. Because of the high volume of Walmart locations, they will be able to deploy technicians close to customer locations nationwide. This density could offer faster response times than other regional vendors. [Walmart Enters the Facility Services Industry - Facility Management Maintenance & Operations Quick Read](#)

4. **TSMC Says It Can't Meet Chip Demand** - Taiwan Semiconductor Manufacturing Company (TSMC), the world's largest semiconductor manufacturing company, says it will take "a very long time" to meet the current computer chip demand due to AI. CEO C.C. Wei says the ongoing demand for advanced computing and cutting-edge semiconductors will not slow down due to the growth of AI. TSMC recently invested nearly \$165 billion to increase manufacturing at its U.S. location in Arizona. The investment is expected to play a significant role in supporting U.S. customers over the long term. But, Wei admitted that fully meeting domestic demand through American production alone will take a "very long time." [Business News Today – tEDmag](#)

5. **DOE Issues Request for AI Information** - (DOE) The U.S. Department of Energy (DOE) is helping ensure America leads the world in Artificial Intelligence (AI) while helping to lower energy costs by co-locating data centers and new energy infrastructure on DOE lands. To support this effort, DOE's Office of Policy released a Request for Information (RFI) the full PDF RFI to inform possible use of DOE land for artificial intelligence (AI) infrastructure development to support growing demand for data centers. DOE has identified 16 potential sites uniquely positioned for rapid data center construction, including in-place energy infrastructure with the ability to fast-track permitting for new energy generation such as nuclear. The Department is seeking input from data center developers, energy developers, and the broader public to further advance this partnership. [DOE Issues Request for AI Information](#)

6. **Successfully Incorporating AI Into Building by Gretchen Catlin** – Operations Artificial Intelligence (AI) is emerging as one of the most practical tools: not as a replacement for skilled staff, but as a workforce multiplier that captures knowledge, sharpens decisions and extends the capacity of the teams we have. **Key Takeaways:**

- With a large portion of the facilities workforce nearing retirement, AI can help preserve critical institutional knowledge before it is lost.
- AI can improve facility operations by supporting predictive maintenance, analyzing data and streamlining everyday tasks such as communications, documentation and capital planning.
- Organizations can successfully adopt AI by starting with small, practical applications while addressing cybersecurity, cost and workforce training considerations.

[Successfully Incorporating AI Into Building Operations - Facilities Management Insights](#)

7. **Amazon Announces Agreement with Corning to Boost U.S. Fiber Optics Manufacturing** - Amazon announced a multibillion-dollar agreement with Corning Incorporated, a leading manufacturer of advanced glass and fiber optic technology, to supply the optical fiber, cable, and connectivity solutions that power Amazon's expanding data center infrastructure across the United States. The investment will create 1,000 new, highly skilled jobs at Corning's manufacturing facilities across North Carolina, and support hundreds of additional construction jobs to expand Corning's facilities. Through the agreement, Amazon will work with Corning on a new program that will expand its Fiber Optic Technician Training Program with Catawba Valley Community College to train students for careers in fiber optic manufacturing and related technical roles. https://www.ledinside.com/news/2026/6/2026_06_10_03

8. **President Signs AI Executive Order** - President Trump signed an executive order on June 2 establishing a voluntary federal framework to address cybersecurity risks posed by advanced artificial intelligence systems. The final order asks developers of the most advanced AI models to voluntarily submit their systems for government review 30 days before public release, down from a previously proposed 90-day review period. The goal is to give federal agencies time to assess potential threats to financial systems, critical infrastructure, and national security networks. As AI-driven technologies are adopted across the economy, cybersecurity requirements throughout the electrical supply chain are likely to expand. The order signals growing federal attention to AI-related cyber risks, which could lead to new security expectations for distributors supporting energy infrastructure, industrial automation, smart buildings, data centers, and grid modernization projects. [Washington Wire: Trade, Energy, Labor, and AI Policy Updates – tEDmag](#)

9. **Jeff Bezos Just Raised \$12 Billion By Eric Bleeker** - Jeff Bezos is back in an operating seat for the first time since stepping down from Amazon, pointing a \$12 billion war chest at what he calls the engine of civilizational wealth: invention itself. The thesis is direct. Compress the loop from idea to manufactured product, and you mint the next Henry Ford or Elon Musk on a repeatable basis. Prometheus is a startup using AI to accelerate engineering and invention across the physical economy, with a roughly 150-person team based in San Francisco, London, and Zurich. The product description is ambitious: tools that function as “artificial general engineers,” treating design, simulation, and production as end-to-end machine learning problems. The marquee example Bezos used is jet engines. “What if instead of a team of 1000 people working for ten plus years to build a next generation of jet engine, what if they could do that in five years or two years or one year. Bezos summarized the underlying philosophy bluntly: “What drives civilizational wealth? And the answer is invention. Somebody invented the plow and we all got wealthier. Somebody invented the steam engine and we all got wealthier. Our goal at Prometheus is building a set of tools that accelerate that invention loop.” [Jeff Bezos just raised \\$12 billion. He's betting his newest business will create the next Elon Musk or Henry Ford](#)

10. **Report: Global Data Center Capex Projection Passes \$1 Trillion** - According to a recently published report by [Dell'Oro Group](#), the worldwide data center capex outlook for 2026 was raised as hyperscale AI deployments accelerated, complemented by continued investments in general-purpose infrastructure and rising component costs. Dell'Oro Group's Data Center IT Capex Quarterly Report details the data center infrastructure capital expenditures of each of the ten largest Cloud service providers. Additional highlights from the 1Q 2026 [Data Center IT Capex Quarterly Report](#):

- The global data center capex outlook was raised to more than \$1 trillion for 2026.
- The Top 4 US cloud providers—Amazon, Google, Meta, and Microsoft—increased data center capex by 78 percent.
- Dell led server OEM revenue in the quarter, followed by Supermicro and Lenovo, while white-box vendors serving the hyperscale market accounted for the majority of server revenue. Nearly all server vendors benefited from higher memory-driven system pricing.

[Report: Global Data Center Capex Projection Passes \\$1 Trillion](#)

10. **EV Adoption Accelerates In New Regions, Expanding Opportunities for Electrical Contractors** - Electric vehicle adoption continues to gain momentum across the United States, but the latest data shows that the market is no longer driven solely by traditional EV strongholds on the West Coast. According to a recent analysis from [StorageCafe](#), western states still dominate overall EV readiness and ownership, yet emerging markets in the South and Midwest are rapidly closing the gap. For electrical contractors, the findings highlight a continuing expansion of opportunities beyond established EV markets. As adoption spreads into new regions, demand is increasing for residential Level 2 charger installations, commercial charging projects, fleet electrification infrastructure, and utility upgrades. [EV Adoption Accelerates in New Regions, Expanding Opportunities for Electrical Contractors | EC&M](#)

11. **NEMA Celebrates Make It American™ Program's First Anniversary with Landmark Schneider Electric Certification Milestone** - In a first for American manufacturing, the National Electrical Manufacturers Association (NEMA) today announced that Schneider Electric has earned Make It American™ certification for each of its 20-plus U.S. manufacturing facilities – the first company in the program's history to certify its entire domestic manufacturing footprint. The milestone coincides with the one-year anniversary of the Make It American program's launch and underscores the growing momentum among American manufacturers to demonstrate and validate their commitment to domestic production. [NEMA Celebrates Make It American™ Program's First Anniversary with Landmark Schneider Electric Certification Milestone - NEMA](#)

12. **DOE Is Dedicating \$17.5 Billion in Loans to the Nuclear Supply Chain by Catherine Boudreau** - The low-interest loans are aimed at supporting the Trump's administration's push to build 10 large nuclear plants by 2030. DOE's Office of Energy Dominance Financing plans to provide \$17.5 billion in low-interest loans to five projects so they can procure components like pressure vessels, steam generators, and main coolant pumps. All five intend to build Westinghouse AP1000s — the nation's flagship nuclear reactor. EDF Director Gregory Beard told reporters that the office hasn't selected the projects yet, but at least seven utilities and energy companies have formally expressed interest in the program. To further support the U.S. nuclear build-out, the Trump administration is also trying to build up a domestic supply of nuclear fuel — another major bottleneck in bringing new plants online. [DOE is dedicating \\$17.5 billion in loans to the nuclear supply chain | Latitude Media](#)

13. **Facility Management Market Expected to Nearly Double by 2035 by Elaina Myers** - As commercial and institutional buildings become smarter and business operations more interconnected, facility management is emerging as a powerful force behind efficiency, sustainability and long-term organizational success. The global facility management market is on a strong growth trajectory, with new research from [Global Market Insights](#) projecting the industry will expand from more than \$2.45 trillion today to over \$4.70 trillion by 2035. Several factors are driving this growth. Rapid urbanization, continued investment in smart infrastructure and rising demand for efficient building operations are reshaping the landscape. Facility management is no longer viewed solely as a maintenance function. [Facility Management Market Expected to Nearly Double by 2035 - Facility Management Facilities Management Quick Read](#)

Industry Resources

14. **6 Power Moves for Electrical Distributors** - This whitepaper explores the six forces reshaping electrical distribution and the strategic moves required to stay ahead.

Readers will learn how to:

1. **strengthen digital capabilities**
2. **build profitable services**
3. **enhance supply chain resilience**
4. **capitalize on electrification opportunities**
5. **elevate customer experience**
6. **tackle the workforce challenge.**

[The guide](#) offers practical, actionable insights designed to help distributors boost competitiveness and futureproof their business. [6 Power Moves for Electrical Distributors | Electrical Wholesaling](#)

15. **Dallas, Texas Ranked No. 1 Primary Data Market in the World** - Driven by accelerating AI adoption, cloud computing demand and digital infrastructure investment, global capacity under construction approached 31.7 gigawatts (GW) in 2025, more than doubling from 12.5GW reported in the prior edition of the report. At the same time, developers, occupiers and investors are facing intensifying constraints tied to power availability, land use, permitting timelines and growing regulatory scrutiny. The report analyzes 107 global markets across 24 variables tied to commercial real estate fundamentals, power infrastructure, development activity, regulation and operational risk and provides a more forward looking approach to evaluate market dynamics than previous editions. [Cushman & Wakefield - Dallas, Texas Ranked No. 1 Primary Data Market in the World as AI Demand, Power Constraints and Regulation Reshape CRE Strategy](#)

16. Enbridge and Meta Announce 1.6 GWh Wyoming Solar and Energy Storage Facility to Serve Data Center Needs

Independent power producer and renewable energy developer Enbridge has announced that Meta will purchase power delivered by the first phase of its Cowboy Project utility-scale solar and energy storage facility. The plan for the \$1.2 billion site located near Cheyenne, Wyoming includes 365 MW of solar generation capacity and a 200 MW, 1,600 MWh battery energy storage system (BESS) supplied and serviced by Tesla. The Cowboy Project expands the existing renewable energy partnership between Enbridge and Meta, which now totals approximately 1.6 GW of contracted capacity across North America, and includes [a 600 MW solar project](#) and two wind projects in Texas.



[Enbridge and Meta announce 1.6 GWh Wyoming solar and energy storage facility to serve data center needs - Energy Storage](#)

17. BriteSwitch: Commercial Lighting Rebates Are Still Widely Available – As energy demand continues to rise, driven in part by new data centers built to support the growth of artificial intelligence, both homes and businesses are feeling the pressure of higher utility bills. For commercial customers, those increases are bringing renewed attention to energy-saving projects. One of the most familiar options, lighting upgrades, is once again becoming a way for businesses to help offset rising operating costs. Support for commercial lighting rebates remains strong and help make an even stronger case for lighting upgrades. Currently, **75% of the U.S.** has access to an active commercial lighting rebate program. [Rising Electric Rates Make Lighting Upgrades Worth Another Look](#)

2026 Average Rebate Amounts in North America

Type of LED Solution	2026	% Change vs 2025	Type of LED Solution	2026	% Change vs 2025
Replacement Bulbs (A19, PAR, MR)	\$12	14%	Accent / Track Lighting	\$57	2%
Linear Tube	\$5	14%	Screw-in HID (corn cob)	\$79	38%
Pin-Based (cfl-ni replacement)	\$6	9%	Outdoor Wall Mount	\$150	37%
Downlights	\$26	6%	Parking Garage Fixtures	\$152	36%
Troffers / Panels	\$32	-2%	Outdoor Pole/Arm Mount	\$154	32%
Retrofit Kits (1x4, 2x2, 2x4)	\$38	-1%	High Bay Fixtures	\$146	16%

*Based on prescriptive and midstream rebates as reported in BriteSwitch RebatePro for Lighting 2/26

18. LCA Publishes Education Video Covering Occupancy and Vacancy Sensors - The Lighting Controls Academy has published a video version of EE102A: Occupancy and Vacancy Sensors, a free course available at YouTube. Occupancy and vacancy sensors are devices that detect when a space is unoccupied and accordingly automatically turn Off (or dim) the lights, thereby saving energy. Due to their relative simplicity and high energy-savings potential, these sensors are a staple in new construction and a feature of many retrofit projects. By the end of this course, you will be able to: 1) select an appropriate sensor technology based on a given application's characteristics, 2) select appropriate features for the sensor to optimize performance in the given application, and 3) apply sensors to spaces based on their characteristics. [Lighting Controls Academy Publishes Education Video Covering Occupancy and Vacancy Sensors](#)

19. Meta, ABC Launch Construction Training Academy – Meta Platforms Inc. and Associated Builders and Contractors (ABC) announced a partnership to educate and provide construction-ready career pathways for thousands of data center construction technicians, kicking off in Indiana, Louisiana, Ohio, and Texas as a meaningful step toward meeting the growing demand for data center workers nationwide. America's Workforce Academy is a \$115 million investment in the next generation of construction professionals, including a five-week training program and a job offer from contractors working on Meta projects at the conclusion of the program. Once an online application process is complete, scholarships, travel, housing, and stipends for living expenses are granted to qualified job seekers. They will then participate in career readiness and safety training, followed by five weeks of hands-on education, which includes core training and craft training. [apply to America's Workforce Academy](#)

20. Leviton's Contractor Connect Training - The **#MoreWithLeviton** Contractor Advantage, Future Ready, and NextGen learning experiences give contractors a powerful edge by helping them **Learn More, Do More, and Sell More** through deeper knowledge, modern installation skills, and forward looking insight across residential, commercial, and industrial applications. These programs combine expert led instruction, demonstrations of the latest electrical infrastructure technology, and practical guidance spanning applications, codes, customer motivations, whole home optimization, smart technologies, EV readiness, and energy management. Contractors walk away with enhanced expertise, stronger project outcomes, and new opportunities to grow their business and meet evolving customer expectations. [Register](#) for in-person events at Leviton LIVE experience centers in Lake Nona, FL or Chicago, IL to connect with contractors across the country. [Contractor Connect Training](#)

Articles of Interest

21. Too Much Work to Do? Have Your Digital Twin Handle It by Joann S. Lublin - Ever wish you had a twin to share your workload? A small but growing number of executives have done just that, creating AI versions of themselves that offer a glimpse of future workplaces where one person's output is no longer limited to one person. Here is how it works: An AI system analyzes how an executive writes, speaks and thinks, by studying everything from work emails the person has written to his or her speeches and interviews. Then, the AI double takes on various jobs for the executive—like answering questions from subordinates—that use the human's knowledge and communication style. Sometimes, with a video-based version, these AI twins even speak at conferences or make presentations. Advocates and users say the digital twins have the potential to free executives from routine tasks and leave them available for higher-level work. Digital work twins could become the most significant productivity multiplier since the personal computer. [Employ an AI Twin to Handle Your Piles of Busy Work - WSJ](#)

22. AI Is Enabling the Next Generation of Distributor Workflows by Michael Delgado - Customer expectations have never been greater, and distributors must respond to growing volumes of requests quickly and accurately, often across fragmented inputs and constantly changing information. Highly manual workflows can't keep up with this new reality. AI represents a practical solution. Not as a bolt-on tool, but as a way to change how work gets done — handling the translation between how requests come in and how orders need to be processed. That shift removes the bottleneck at the center of quoting and order entry, allowing teams to respond faster, reduce errors and operate more consistently despite the rising pressure. AI has moved from a competitive advantage to a baseline requirement to keep pace. Distributors that embed it into their core workflows will operate more efficiently, compete more effectively for customers and build an operation that holds up as the industry continues to evolve. Those that don't will find themselves poorly positioned to keep up with a world that isn't slowing down. [NAED Selects IDEA & Pull Logic for ProjectNexus E-Commerce Initiative | Electrical Wholesaling](#)

23. Jensen Huang Says AI Will Reshape Work Like the Industrial Revolution and the US 'Should Absolutely Lead' - Nvidia CEO Jensen Huang thinks artificial intelligence will transform the workforce much like the Industrial Revolution did, creating new jobs and reshaping how Americans work. Speaking Thursday on "The Will Cain Show," Huang urged young people to embrace AI rather than fear it, arguing that the technology will become a tool that enhances workers' abilities across nearly every field. The Nvidia co-founder said the rapid expansion of AI infrastructure is already fueling demand for skilled labor, including electricians, welders and construction workers, as companies build chip manufacturing facilities, computer plants and data centers across the country. "AI is going to last a long time, and there's no end," he said. [Jensen Huang says AI will reshape work like the Industrial Revolution and the US 'should absolutely lead'](#)

24. A.I. Doesn't Have to Mean Layoffs by Patricia Cohen - A French multinational, Schneider Electric, decided to use artificial intelligence in manufacturing to make workers more productive, rather than to replace them. Here's how that's going. For many chief executives, success in adopting artificial intelligence is measured by the number of jobs they can eliminate. But such views reflect "a very narrow understanding" of A.I.'s potential, said Erik Brynjolfsson, who directs the [Digital Economy Lab](#) at Stanford University. It's a message that Schneider Electric, a global energy technology company based in France, has taken to heart. Before the company started using A.I., customer service agents received thousands of questions from callers and engaged in a grand hunt through millions of pages of information to track down the answer. Now A.I. does the hunting and details how the information was selected and the source. The agent then reviews and if necessary, modifies and refines the answer with the caller. In the last three months of 2025, call centers fielded 150,000 questions. Three-quarters of the time, A.I. was able to provide the right answer to straightforward questions. [A.I. Doesn't Have to Mean Layoffs - The New York Times](#)

25. You Know Robots But What About Cobots? by David Shiller - Collaborative robots, or cobots, are moving from factory novelty to practical production tools, and the lighting industry is well positioned to benefit from that shift. For lighting manufacturers, the biggest implication is not replacement of people, but a rebalancing of labor: cobots can take on repetitive, precise, or ergonomically difficult tasks while skilled workers focus on assembly, testing, engineering support, quality control, and process improvements. Lighting manufacturing has several operations that match cobot strengths: bin picking, screwdriving, machine tending, packaging, label application, inspection support, and repetitive subassembly work. Cobots are designed to work safely alongside people in shared spaces, which makes them attractive for plants that cannot justify a full fenced robot cell or that need to keep production layouts flexible. Their easier programming and faster deployment also matter for lighting companies that run many product variants and short production cycles. More information is available [here](#) and [here](#). [You Know Robots But What About Cobots? | LightNOW](#)

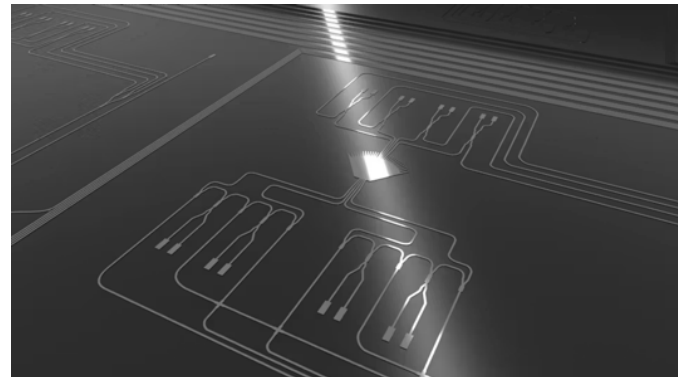


Monthly Feature

Can Light Solve AI's Energy Bottleneck? by Nick New - Artificial intelligence (AI) infrastructure investment has gone through the roof since the arrival of generative AI language models such as ChatGPT in 2022. With hyperscalers driving investment in AI infrastructure to record highs in 2025, International Data Corp. tallies global investment at a staggering \$318B, and it appears poised to continue rising year after year.

Against a backdrop of skyrocketing capital injections, the industry is approaching a physical "scaling wall." Traditional infrastructure is beginning to creak under the load of data center capacity constraints and surging energy demands.

The increasing energy requirements to power AI is unsustainable, with concerns also growing about the environmental damage that supplying such energy could cause.



We are now at an inflection point. Traditional electrical data transfer methods are reaching their limits, with NVIDIA showing its hand by recently investing \$4 billion in two photonics companies, Coherent Corp. and Lumentum. NVIDIA is betting on a future where data is transmitted via light (photons) rather than electricity. Photonics can be integrated directly onto silicon chips to enable scalability and efficiency improvements over electricity. The crux of photonics' efficiency gain is simple: Light travels faster and carries more information, while producing less heat than electrons. This results in dramatically higher compute density, lower power consumption, and superior thermal performance to overcome the limits imposed by the rise of dark silicon on conventional chips. Early industry estimates indicate using light to transfer data delivers roughly 5x the power efficiency and 10x the network resilience of conventional electronics. Photonics represents a new horizon of opportunity. [Can light solve AI's energy bottleneck? | Laser Focus World](#)