### **ENERGY OBSERVER** A MONTHLY NEWSLETTER FROM AMERLUX®



# Shining a light on institutions

Linea Accent 1.5" pendant proves when it comes to lighting, less really is more.

#### It's back to school for many.....

Institutions turn to Amerlux for fresh performance lighting that fosters focus and inspires imagination in classrooms, lecture halls, offices and cafeterias. Outside of the classroom, institutions leverage Amerlux's classically styled post-top fixtures and Avista LED light engine to improve campus exterior lighting. The LED upgrades improve perceptions of safety on campus, while also doing double duty to rein in rising utility costs and maintain traditional campus ambience with vintage-styled pedestrian lighting. We understand light is more than mere illumination. It's an investment. If students don't feel safe on campus, they won't come back. The right light translates into positive retention. For good or for bad, lighting has a huge footprint on your organization's bottom line. Switching your campus to LED lighting delivers sizeable savings.

Amerlux - Institutional Lighting, Institutional Lighting Manufacturer-Interior Lighting-Exterior Lighting-Products

#### National LED Market Observer

1. Commentary: Clear Choices Ahead for US Energy Policy in Upcoming Election by Adam Ferrari - Each party will need to navigate the balance between energy security, economic growth, and environmental responsibility. Under a new Trump presidency, we could expect a robust focus on reliable and cost-efficient energies. Trump has campaigned on American energy independence and economic growth along with deregulation to create a more business-friendly environment. A second Trump administration would likely streamline regulatory processes, reducing bureaucratic obstacles that hinder energy projects. If a new Democratic administration were to take office, it would likely continue and expand the policies initiated by the IRA, with a strong emphasis on renewable energy. However, this could lead to increased reliance on government subsidies and stringent regulations, which may stifle innovation and burden taxpayers. The Democratic approach might prioritize the rapid expansion of renewables at the expense of a balanced energy policy, potentially leading to energy shortages and higher costs for consumers. Commentary: Clear choices ahead for US energy policy in upcoming election | Offshore (offshore-mag.com) FULL ARTICLE LAST PAGE

2. **US Recession Worries Surge Again** - An unexpectedly weak U.S. employment report, featuring a post-pandemic high in the jobless rate, has rekindled worries a recession may be in the offing that would dash the Federal Reserve's hoped-for soft landing for the economy. The historical relationship between a rise in the unemployment rate and an economic downturn is captured by the so-called Sahm rule that says a recession is underway when the three-month moving average of the unemployment rate rises half a percentage point above its low from the previous 12 months. To date, the rule has never been wrong. Claudia Sahm, the economist who defined the rule that bears her name, told Bloomberg TV on Monday she believes the economy is probably not currently in a recession, but "we are getting uncomfortably close." <u>US recession worries surge again. What is in the data? | Reuters</u>



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3. Shifting Sands: 10 States Outlaw Fluorescent Lamp Sales by Craig DiLouie - In May 2024, Minnesota became the ninth state to pass legislation banning or restricting fluorescent lamp sales. In doing so, it joined efforts by California, Colorado, Hawaii, Maine, Oregon, Rhode Island, Vermont, Washington, Canada, the European Union and the United Kingdom. Illinois is the 10th state to join the effort after the Clean Lighting Act was passed and sent to Gov. Pritzker to sign in June. Depending on the state, these rules go into effect between 2024 and 2029. The reason behind these bans is mercury, which is a strong and persistent heavy metal toxic to humans and the environment. The 2013 Minamata Convention called for a reduction in mercury use, with measures including a phase-out and reduction in mercury use in products such as fluorescent lighting. More than 135 countries signed the international treaty, which called for a phase-out of compact fluorescent lamps (CFLs) by 2025. Shifting Sands: 10 states outlaw fluorescent lamp sales - Electrical Contractor Magazine (ecmag.com)

4. **USA Lighting Legislation is Coming** - Between a federal law phasing out CFLs by 2025 and a flurry of new state restrictions, it's clear that fluorescent lamps as well as incandescent and halogen bulbs are on the way out. Energy-efficient, environmentally-friendly LEDs are the lamps of the future. See the state-by-state legislation bans by NAED code. <u>Switch Now Legislation Changes | LEDVANCE (ledvanceus.com)</u>

5. **DLC LUNA Guidance for Manufacturers** - Light pollution is becoming a widespread concern among the public and property owners are actively looking for solutions to comply with <u>outdoor lighting ordinances</u>. Manufacturers who want to differentiate themselves from the competition should qualify outdoor lighting products to LUNA so that customers can be sure they are purchasing solutions that are both energy efficient and dark-sky friendly. LUNA offers the most complete technical requirements for high quality exterior lighting that mitigates light pollution, taking several important steps beyond other organizations' dark sky requirements. The LUNA requirements were guided by the perspectives and recommendations of the <u>LUNA Advisory Group</u>, comprised of experienced lighting experts from the research, design, and utility sectors. Manufacturers who wish to sell outdoor lighting products for use in federal and other public buildings visit: <u>LUNA Guidance for Manufacturers - DesignLights</u>

6. **Niagara Falls Council Greenlights \$6.6M Contract for LED Streetlight Upgrade** - Niagara Falls, New York, is embarking on a transformative journey to modernize its street lighting infrastructure, a project poised to bring economic and environmental benefits. The city council recently approved a \$6.6 million contract with Wendel, a firm specializing in architecture, engineering, energy efficiency, and construction management. This contract marks a significant step toward upgrading the city's street lights to energy-efficient LED technology, furthering the city's commitment to sustainability and fiscal responsibility. The decision to upgrade Niagara Falls' street lighting infrastructure follows the council's earlier agreement with National Grid to purchase the city's street lighting operations. This move, combined with Wendel's expertise, sets the stage for a comprehensive overhaul to reduce energy consumption and operational costs. The city's decision to transition to LED street lights is expected to cut energy costs by 50%, a significant saving that underscores the financial viability of energy-efficient technologies. <u>Niagara Falls Council Greenlights \$6.6M Contract for LED Streetlight Upgrade - LEDinside</u>

7. **Smart Outdoor Lighting** - Zhaga-D4i offers a potential transformational change in the lighting world. The Zhaga Consortium, with over 600 member companies, develops specifications for standardized interfaces between luminaires and LED modules, intelligent sensors, communication modules and LED drivers. Together with the DALI Alliance, digital products certified to the Zhaga-D4i specifications by multiple vendors provide a platform supporting the needs of smart outdoor lighting systems in the circular economy. Our 24 regular member companies actively prepare the specifications, known as Books, that form the foundation of interoperability within the lighting system. Together with the associate members, more than 180 companies are eligible to certify products to the Zhaga Books. <u>Smart Outdoor Lighting - Illuminating Engineering Society % (ies.org)</u>



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8. DALI Alliance to Host Inaugural DALI North America Summit in New York City - The DALI Alliance, the global industry organization for DALI, the internationally-standardised protocol for digital communication between lighting control devices, is elated to announce the first-ever North American DALI Summit, set to take place on 30th October 2024, at the Metropolitan Pavilion in New York City. The Summit promises a dynamic agenda featuring a range of topics surrounding sustainability, smart buildings, DALI-2 certification, D4i use, and the integration of DALI with building management systems. Early bird registration is now open at a discounted rate of \$199 until 1st September , after which the fee will increase to \$249. To learn more and to register, visit <a href="https://www.dali-alliance.org/events/dali-north-america-summit-2024.html">https://www.dali-alliance.org/events/dali-north-america-summit-2024.html</a>

#### 9. ArchLIGHT Registration is Open - ArchLIGHT Summit 2024



ArchLIGHT Summit is a **new commercial and architectural lighting event** dedicated to delivering a dynamic, interactive, inclusive and collaborative experience for lighting designers and specifiers, interior designers and architects. Created and hosted by <u>Dallas Market Center</u>, ArchLIGHT Summit will showcase **new products from leading commercial brands** reflecting the **latest lighting trends and technologies**, combined with a full slate of accredited educational and hands-on experiential sessions facilitated by the sharpest minds in design and lighting.

10. **DALI Alliance Lighting Awards Officially Open with New Categories for 2024** - The DALI Alliance, the global industry organization for DALI, the internationally-standardised protocol for digital communication between lighting control devices, is pleased to announce the prestigious annual DALI Alliance Lighting Awards are officially open for 2024, including a number of exciting new categories. This is part of a refresh of the renowned awards to better recognise diverse innovations and applications from across the lighting industry. The awards opened on 22nd August 2024 for entries, with interested participants having until 7thOctober 2024 to make their submissions. For more information and to enter the awards, visit <u>https://www.dali-alliance.org/awards2024/</u>

11. **Germicidal Ultraviolet Light** - There is a great deal of interest in the use of ultraviolet light to mitigate germs and viruses. Ultraviolet germicidal devices are rapidly entering the consumer market due to increased demand for sanitizing and germicidal capabilities in the face of COVID-19. But are they all safe? Such UV germicidal products may not be effective and when used improperly can cause damage to eyes and skin as well as to pets, plants, and home furnishings. To explain the potential health risks, the American Lighting Association (ALA), National Electrical Manufacturers Association (NEMA) and UL worked together to provide important safety information about UV-emitting lighting. The new document, <u>"Ultraviolet-C (UVC) germicidal devices:</u> what consumers need to know," is one of the first official guidelines for the lighting industry. Information on this site is compiled to help promote the safe and effective use of GUV in residential settings. <u>Ultraviolet-C (UVC) Germicidal Devices: Potential Health Risks in Residential Settings (alalighting.com)</u>



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12. BriteSwitch Rebate Databases & Tools - BriteSwitch can identify, maximize, and capture rebates for your energy efficiency projects across North America. Use rebate data to increase your sales, enhance your marketing initiatives, or help find rebates for your projects. Commercial Lighting & Controls Rebate Tools: BriteSwitch's proprietary tools lets you easily find virtually all rebates and incentives available for commercial lighting across North America. EV Charger Rebate Tools: EV Charger rebates are rapidly growing across the US. Use our dedicated EV charger tools to find incentives for residential and commercial EV charger installations. BriteSwitch - Making Rebates Simple

13. **10 Ways loT Improves Quality Control in Manufacturing** - The Internet of Things (IoT) could become a fundamental aspect of manufacturing quality control. However, it is still in the early adoption stage. Manufacturers that use IoT for quality control could minimize defects, reduce waste, and improve customer satisfaction. Implementing AI into these systems could reduce labor expenses and substantially improve efficiency.

6. Automates Corrective Action

- 1. Increases Testing Frequency
- 2. Enables Preventive Maintenance
- 3. Improves Inspection Accuracy
- 4. Detects Defects
- 5. Enhances Decision-Making
- 7. Identifies Human Error
  8. Strengthens Defect Traceability
  9. Makes Tests Exhaustive
  10. Proactively Prevents Faults

10 Ways IoT Improves Quality Control in Manufacturing (iotforall.com)

14. **No Excuses: Manufacturers Must Digitize Now. Here's How** - Manufacturing stands at a pivotal point. Despite the groundswell of public awareness around AI, many manufacturers — who represent a substantial portion of global GDP — have been slow to transition from analog to digital operations, even though the overwhelming majority have long known they need to do so. This hesitancy now threatens their very existence. As innovators and disruptors leverage AI to optimize every aspect of manufacturing, from suppliers to end consumers, those who fail to transform risk becoming obsolete, potentially at a pace far faster than they anticipate. According to a recent report from the Financial Times, Big Tech companies including Microsoft, Alphabet, Amazon and Meta have boosted their capital spending by 50 percent to more than \$100 billion in the first half of 2024 alone, as they race to build the infrastructure supporting AI. The stakes couldn't be higher – AI-powered manufacturing is poised to unleash unprecedented efficiency, agility, customization and innovation. Early adopters will seize market share while laggards may fall behind. No Excuses: Manufacturers Must Digitize Now. Here's How. (chiefexecutive.net)

15. A.I. Model Helps Electric Grid Prevent Outages by Lori Lovely - An artificial intelligence (A.I.) model developed by researchers at the University of Texas at Dallas, in collaboration with engineers at the University at Buffalo in New York, may be able to prevent power outages by automatically rerouting electricity at the grid in milliseconds, according to a study published in June 2024 in Nature Communications. This early example of "self-healing grid" technology uses A.I. to identify and repair problems without human intervention, which could be beneficial in addressing power lines damaged by storms. Researchers leveraged reinforcement learning that chooses the options that achieve the best results. They demonstrated that their system can identify alternative routes that transfer electricity to users even before an outage happens—and it's done in milliseconds by A.I. instead of the minutes to hours it would take for humans to decide which alternate paths to use. After focusing on preventing outages, researchers hope to develop technology to repair and restore the grid after a power disruption. A.I. Model Helps Electric Grid Prevent Outages - Electrical Contractor Magazine (ecmag.com)

16. **A.I. Can Lower Building Energy Use and Emissions by Katie Kuehner-Hebert** - Leveraging A.I. during and after commercial building construction could markedly reduce energy consumption and carbon emissions, and when combined with energy policy measures and the use of low-carbon power generation, the reductions could be substantial, according to <u>a study pub-</u> <u>lished in July in Nature Communications</u> A.I. Can Lower Building Energy Use and Emissions - Electrical Contractor Magazine (ecmag.com)



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#### Global LED Market Observer

17. Is Indoor Farming Making a Comeback? - Indoor farming faced significant challenges during 2022-2023, marked by a sharp decline in venture capital (VC) investments. According to a May 2023 Pitchbook report, VC investments in indoor farms plummeted by over 90% year-over-year. Several key factors contributed to this downturn, including soaring energy costs, particularly in Europe, rising interest rates, and a generally unfavorable funding environment for startups. In contrast to the previous year's downturn, recent months have witnessed a resurgence in funding and project finance within the sector. Various companies have secured significant investments. Notable funding achievements at: Is Indoor Farming Making A Comeback? (indoor-verticalfarm.com)

18. **Introducing a New Smart LED Driver IC for Ambient Lighting** - With enhancing the end-user experience becoming an ever more important focus for automotive manufacturers, ambient LED lighting has become a key design feature. Well-known OEMs now utilise ambient lighting extensively across their latest models to provide striking visual distinction, and maintaining a reliable supply chain is paramount. LED driver manufacturer Melexis has extended its LIN RGB family with a new third-generation smart LED driver IC, the MLX81123. Built on the success of its predecessor, the MLX8113, the

controller is designed to deliver cost-effective performance and reliability in small package. <u>Introducing a new smart LED driver</u> <u>IC for ambient lighting - LEDinside</u>

19. **Can LED Grow Lights Extend the Growing Season in Greenhouses?** - Greenhouse growers face the problem of extending the rising season to satisfy the rising demand for recent produce year-round. One efficient resolution is using Greenhouse Develop Lights, significantly Greenhouse LED Develop Lights. These superior lighting methods present the required gentle spectrum to reinforce plant development, making it doable to domesticate crops even throughout much less sunny intervals. Greenhouse Develop Lights are essential in managed setting agriculture. In contrast to conventional lighting methods, Greenhouse LED Lights provide a number of benefits, akin to spectrum tunability, vitality effectivity, and a protracted lifespan. These options make them perfect for greenhouse settings, the place exact management over gentle circumstances is crucial. <u>Can</u> <u>LED grow lights extend the growing season in greenhouses? - LEDinside</u>

20. **Introducing the Enhanced ICEL Product Certification Scheme** - Developed by the Industry Committee for Emergency Lighting (ICEL), this updated scheme marks a crucial shift from an endorsed model to a certified one, offering even greater assurance of quality and safety in emergency lighting products. The new scheme is designed to provide independent verification of emergency lighting products, offering a trusted mark of quality that end users can rely on. Products certified under the scheme, and bearing the ICEL Certification mark, have undergone a rigorous review process to ensure they meet the required standards. This process includes a thorough evaluation of products and supporting technical documentation to verify the claims made by manufacturers. This updated scheme covers a wide range of emergency lighting products, including luminaires, control gears, and batteries. Introducing the Enhanced ICEL Product Certification Scheme - A1 Lighting Magazine





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#### **Monthly Feature:**

#### Commentary: Clear Choices Ahead for US Energy Policy in Upcoming Election by Adam Ferrari

Each party will need to navigate the balance between energy security, economic growth, and environmental responsibility. Energy policies in the US shape the entire nation's economic future and global climate impact. The stark contrast between Donald Trump's and Joe Biden's approaches to this critical issue reflects broader political divides.

Under President Trump, the oil and gas sector thrived through expansion and deregulation. His "America First" energy strategy focused on boosting domestic production and reducing regulatory barriers, benefiting the industry with streamlined permitting processes and relaxed safety regulations.



Conversely, President Biden's energy policies introduced uncertainties for the oil and gas sector, emphasizing environmental sustainability and climate change mitigation. Stricter regulatory frameworks, including a temporary pause on new federal oil and gas leases and strengthened regulations on emissions and offshore drilling, have raised concerns about potential constraints on future exploration and production.

In contrast to Trump's limited federal support for renewable energy, Biden has prioritized substantial investments in renewable infrastructure, particularly offshore wind, aiming to accelerate renewable energy deployment, stimulate job creation, and foster technological innovation. The administration's goal of achieving 25 gigawatts of offshore wind energy by 2025 highlights its commitment to expanding renewable energy capacities and diversifying the nation's energy portfolio. However, with Biden pulling out of the race, the continuity of these policies remains uncertain, although it is likely they will persist

However, with Biden pulling out of the race, the continuity of these policies remains uncertain, although it is likely they will persist under a new Democratic administration.

#### The IRA and offshore energy

The Inflation Reduction Act (IRA) has made some contributions to offshore energy, particularly in the offshore wind sector, but the benefits primarily favor companies receiving subsidies rather than consumers. While the IRA has facilitated the establishment of domestic manufacturing for key components, its long-term economic sustainability and efficiency remain questionable.

#### A second Trump presidency

Under a new Trump presidency, we could expect a robust focus on reliable and cost-efficient energies. Trump has campaigned on American energy independence and economic growth along with deregulation to create a more business-friendly environment. A second Trump administration would likely streamline regulatory processes, reducing bureaucratic obstacles that hinder energy projects. By promoting private investment and reducing dependence on government subsidies, another Trump presidency could lead to more efficient energy production and potentially lower costs for consumers. This balance would ensure that both fossil fuels and renewable energy sources contribute to a stable energy grid.

#### A new Democratic administration

If a new Democratic administration were to take office, it would likely continue and expand the policies initiated by the IRA, with a strong emphasis on renewable energy. However, this could lead to increased reliance on government subsidies and stringent regulations, which may stifle innovation and burden taxpayers. The Democratic approach might prioritize the rapid expansion of renewables at the expense of a balanced energy policy, potentially leading to energy shortages and higher costs for consumers. Moreover, the focus on stringent environmental regulations could slow down project approvals and increase operational costs, making it challenging for the industry to remain competitive.



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#### Five-year plans

The Biden administration's new five-year oil and gas leasing plan for the Bureau of Ocean Energy Management (BOEM) has left many industry analysts disappointed due to its minimal offerings. Consequentially, the industry sees this plan as restrictive and one likely to undergo significant revisions under a second Trump administration.

A second Trump administration would likely increase the number of lease offerings, as he has historically supported expanding oil and gas production to boost US energy independence and economic growth. This would involve making more areas available for leasing, including previously restricted or underutilized regions, with a focus on reducing bureaucratic red tape that currently delays lease approvals and project commencements. Streamlined regulatory processes would make it easier for companies to obtain leases and begin exploration and production activities more quickly. A new Trump administration would likely introduce incentives to encourage private investment in the oil and gas sector, such as tax breaks, subsidies for infrastructure development, and reduced fees for leaseholders. Such incentives would aim to stimulate economic activity and job creation within the industry.

While promoting fossil fuels, Trump would likely maintain a balanced energy policy that includes support for renewables, but not at the expense of traditional energy sources. This would ensure a stable and diverse energy supply, reducing the risk of energy shortages and keeping consumer costs in check. To combat delays caused by potential lawsuits, his second administration would likely implement legal reforms to limit frivolous litigation, speed up project approvals, and reduce the uncertainties faced by energy companies.

#### Balancing energy, the environment

The future of US energy policy remains a critical factor in shaping the nation's economic trajectory and its impact on global climate initiatives. The stark contrast between Trump's fossil fuel-driven approach and Biden's clean energy focus reflects broader political divisions, influencing everything from job creation and regulatory landscapes to investment in traditional and renewable energy sectors.

As the US navigates these complex issues, the balance between energy security, economic growth, and environmental responsibility will be paramount. The policies enacted under different administrations will continue to shape the energy industry, driving the nation's efforts to meet both domestic and global energy challenges. The ultimate direction of US energy policy will significantly impact not just the industry but also the broader goals of sustainability and climate resilience.

Commentary: Clear choices ahead for US energy policy in upcoming election | Offshore (offshore-mag.com)

