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ILLINOIS MANUFACTURERS' ASSOCIATION

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MISSION STATEMENT

The Illinois Manufacturers' Association is the only state-wide association dedicated to boldly moving Illinois' makers forward. The IMA is the oldest and largest state manufacturing trade association in the United States, representing nearly 4,000 companies and facilities.

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FEATURE

MANUFACTURERS POLITICAL ACTION COMMITTEE

2025 MPAC GOLF OUTING

RICK DELAWDER, JOHN KAISER, DONOVAN GRIFFITH, MATT TOTSCH

THANK YOU TO THOSE WHO MADE THIS YEAR'S MPAC GOLF OUTING A HUGE SUCCESS. YOUR CONTINUED SUPPORT HELPS MPAC FIGHT BACK AGAINST JOB-KILLING PROPOSALS AND ADVOCATE FOR A STRONGER MANUFACTURING CLIMATE IN ILLINOIS.

The 2025 Manufacturers Political Action Committee (MPAC) Golf Outing was a tremendous success, drawing a sold-out field of golfers and a record number of sponsors. Once again, we were fortunate to enjoy beautiful weather as participants came together for a day of fun on the course and collaboration among manufacturers – all while supporting a vital cause. MPAC plays a critical role in advancing pro-business policies in Illinois. The funds raised through this event directly support our efforts to elect strong, pro-growth candidates to the state legislature from both sides of the political aisle. These leaders are instrumental in shaping policies that impact manufacturers across Illinois, from tax reform and workers' compensation to environmental regulations and employee rights, legislators bare a huge responsibility in shaping polices that then shape industry in Illinois.

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KEEP AN EYE OUT FOR DETAILS TO THE 2026 MPAC GOLF OUTING!

PRESIDENT'S REPORT

THE ENERGY BATTLE

MARK DENZLER, PRESIDENT & CEO

The battle for energy is intensifying in Illinois, across the United States, and throughout the world because those in the lead will prosper economically while strengthening geopolitical security. It's not just a race for energy supply – it's part of a new strategic goal to support growing industries like AI, data centers, manufacturing, and quantum to determine what states and nations will control and lead these advanced artificial intelligence technologies shaping the future.

In one of his first acts during his second term, President Donald Trump signed an Executive Order pledging to unleash American energy, noting that it's in the national interest to "unleash America's affordable and reliable energy and natural resources" that will help restore American prosperity. Manufacturers agree with the President's message that burdensome and costly regulations have slowed the growth and development of energy resources, leading to fewer jobs and higher costs for families and businesses. Energy is a strategic American advantage.

Illinois will play a key role in the energy battle, but our state is at its own inflection point because of growing demand for energy to power manufacturing, data centers, and the new Illinois Quantum and Microelectronics Park, while power generation is dropping in large part because of state and federal policies aimed at shutting down baseload generation like natural gas and clean coal. It's simple Econ 101 – reduced supply with high demand results in higher prices.

> ACCORDING TO CONSTELLATION, GLOBALLY, THE WORLD IS ADDING AN ENERGY USER THE SIZE OF JAPAN ANNUALLY FOR THE LAST FEW YEARS.

Across Illinois, consumers and businesses are facing sky-rocketing electric bills this summer because of the supply and demand issue, and it's not going to get any better in the immediate future. Every year, the MISO (Ameren region) and PJM (ComEd territory) conduct "capacity auctions" to procure enough power to meet the demand on the hottest days when demand peaks. In the last three years at the auction in the PJM region, the price per MW-day has jumped from $28.92 (2023) to $269.92 (2024) and finally $329.19 (2025) despite a new rate cap, meaning capacity costs will jump 22 percent for 2026 bills. The capacity cost is about a quarter of a customer's total bill. We've seen similar results in the MISO (Ameren) region with 20-fold increases, meaning an average residential home of 1,500 square feet will pay more than $45 per month in higher costs. Manufacturers are paying tens of thousands or even millions of dollars for their energy.

The IMA has been talking about this issue for several years, opposing the Climate & Equitable Jobs Act (CEJA) in 2021 because it eroded the competitive energy marketplace and forced the closure of baseload generation (clean coal and gas) before there was replacement energy. With changes federally and the loss of clean energy tax incentives, more of these renewable energy projects will wind up on the cutting room floor. And our opposition was prescient before we even saw the tremendous growth from new energy – intensive sectors that have made the supply and demand problem worse.

There is no magic bullet. The IMA has been the leading business voice for sound energy policy, serving as the only statewide business group that has been testifying at House and Senate hearings and participating in discussions with the Governor's office and lawmakers as they contemplate another energy bill this Fall.

The IMA operates with a simple philosophy – we need a competitive energy market that ensures Illinois families and businesses have access to safe, reliable, and affordable energy. Our legislative agenda included eliminating the moratorium on new nuclear construction, extending the life of current electric generating facilities, investing in interregional transmission lines, and fostering new technologies like battery storage in an affordable manner.

Manufacturers consume one-third of all energy produced in the United States, so changes to energy policy have an outsized impact on the industrial sector. The industrial sector has already reduced emissions more than any other sector since 1990, according to the U.S. Energy Information Administration. American manufacturers are leading the way forward through innovation and technological advances rather than politically-devised mandates, because it makes sense both economically and for the environment.

Manufacturers avoided a catastrophe this spring when the IMA successfully led opposition, along with labor unions and economic development professionals, to a massive energy bill that would have spiked the cost of electricity well beyond this summer's rate spikes. However, as lawmakers consider another massive energy bill during the Fall Veto Session, we encourage all IMA members to contact their lawmakers and urge great caution because further electric rate hikes will harm Illinois families and businesses. ◆

Mark Denzler is President and Chief Executive Officer of the Illinois Manufacturers' Association.
He may be reached at mdenzler@ima-net.org, or 217-718-3726.

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THE 411 ON ISO 14001 AND 50001: WHY MANUFACTURERS SHOULD IMPLEMENT THESE 'VOLUNTARY' FRAMEWORKS

ILLINOIS MANUFACTURING EXCELLENCE CENTER
DAVID BOULAY, PRESIDENT

In today's competitive manufacturing environment, keeping up with customer requirements, maintaining a safe and efficient workplace, and staying ahead of regulatory expectations are all essential. Achieving these goals consistently requires more than good intentions—it calls for a structured, proven approach.

That is why we are seeing more manufacturers adopting ISO 14001 (Environmental Management) and ISO 50001 (Energy Management), not just for compliance, but to stay competitive in an increasingly sustainability-focused market.

ISO 14001 AND 50001: WHAT THEY ARE AND WHY THEY MATTER FOR MANUFACTURERS

The International Organization for Standardization (ISO) is an independent, non-government international organization. Therefore, it is not tied to a particular country or government. ISO frameworks are wide-ranging and prolific; currently, there are 25,196 published standards. You may have heard of them: ISO 9001 for quality, ISO 31000 for risk management, and yes, ISO 14001 for environmental management, and ISO 50001 for energy management.

While other frameworks exist, ISO certifications stand out because they are globally recognized, widely adopted, and supported by decades of impact data. For manufacturers, ISO 14001 and ISO 50001 offer proven pathways to improving efficiency, meeting compliance goals, and demonstrating accountability to customers.

WHEN IT'S NOT VOLUNTARY

ISO 14001 and 50001 certifications are voluntary, but supply chain partners or buyers may require it themselves. That is why these "voluntary" certifications frequently turn into essential steps for manufacturers aiming to stay competitive. For example:

SUPPLY CHAIN DEMANDS: Many major OEMs and Tier 1 suppliers require certification from their vendors.

GOVERNMENT CONTRACTS: Procurement specifications often call for ISO 14001, and even when not explicitly required, certification serves as credible proof of your organization's capability, accountability, and quality management. The U.S. Department of Energy has also prioritized ISO 50001 implementation and has offered a no-cost 50001 Ready Program.

INTERNATIONAL CONTRACTS: In the EU, companies over a certain threshold are now required to implement ISO 50001 based on rising pressure to decarbonize. Directive (EU) 2023/1791 has been in effect since late 2023.

INDUSTRY NORMS: In sectors like automotive, aerospace, and electronics, ISO 14001 has become a standard baseline.

You may not be required to have certification today, but it's increasingly showing up as a prerequisite for future business opportunities.

IMPROVING YOUR WORKPLACE

One of the most immediate returns of ISO 14001 and 50001 is its positive impact on workplace safety and efficiency. The standards help organizations systematically identify risks, such as those from chemical handling, waste disposal, or emissions, and establish controls to minimize them. The result: fewer accidents, improved compliance with safety regulations, and reduced downtime from preventable incidents.

MAXIMIZING EMPLOYEE ENGAGEMENT

Employees won't just be safer, but they will also be more engaged. ISO 14001 and 50001 certification encourages employees to take an active role in the organization. After completing a focused training program, your staff can become certified internal auditors who monitor and improve your environmental or energy management system. This opportunity builds valuable skills, promotes ownership of workplace improvements, and fosters a culture of continuous improvement.

When you invest in your employees by helping them build new skills, they are more motivated and invested in their work—leading to higher morale, better retention, and a stronger team overall.

INCREASE YOUR PROFITS

ISO certification also drives operational efficiency. Reducing waste, whether that's material scrap, energy use, or unplanned downtime, leads directly to cost savings. Optimizing processes and reusing resources can lower disposal fees, reduce energy bills, and minimize regulatory penalties. Waste reduction doesn't just help your operation run cleaner, it makes your balance sheet healthier.

WHAT THE DATA SAYS

ISO certifications deliver measurable benefits across industries—not just in environmental and energy management. Research consistently shows that organizations implementing ISO frameworks see:

- Reduced operational costs through efficiency gains.
- Lower risk thanks to structured compliance systems.
- Increased customer confidence and stronger supply chain positioning.
- Improved employee morale due to clear processes and training opportunities.

This means the impact of ISO 14001 and ISO 50001 is not just theoretical—organizations around the world are proving the value of ISO certification every day. ◆

David Boulay is President of the Illinois Manufacturing Excellence Center. He may be reached at dboulay@imec.org, or 309-677-3766.

UNDERSTANDING WHAT INFLUENCES ELECTRICITY COST

CONSTELLATION

Electricity costs are influenced by a variety of complex factors, from fluctuating energy rates to a company's consumption patterns. Knowing how these impact businesses is crucial to make informed decisions and manage operational expenses effectively. Businesses should identify the various factors that affect electricity costs and build a strategy to help effectively manage them and optimize their cost structure.

EXAMINING ELECTRICITY PRICE COMPONENTS

The largest component of the overall cost of electricity is the energy supply. The energy portion of a monthly invoice can range from 35% to 70% of the overall cost, depending on the location and type of business. Energy pricing is influenced by usage patterns, weather, and various state and federal regulations. Additional components that make up the total cost include capacity, transmission, ancillaries, pass-through charges for renewable portfolio standards, and line losses. *Understanding these components and how they impact electricity bills can help businesses more effectively manage costs.*

ENERGY SUPPLY: The cost of energy supply, influenced by usage patterns, weather, and regulations, is the largest component of electricity costs, ranging from 35% to 70%. Effectively managing these costs can significantly reduce a businesses overall electricity expenses for businesses.

CAPACITY: Capacity prices are determined by regional transmission organizations (RTOs) to support grid reliability and ensure that there is enough generation in the region to meet demand. In this way, businesses have reliable access to electricity, even during high-demand periods. Capacity prices are not always separated from energy supply in regions without an RTO.

TRANSMISSION: Primarily composed of Network Integration Transmission Service (NITS) and Transmission Enhancement (TEAC) costs, these cover the expenses associated with transporting electricity from generation stations to electrical substations near demand centers. These costs are determined by utility-set rates and governed by the Federal Energy Regulatory Commission (FERC). Efficient transmission systems can help reduce these costs, but overall transmission expenses are influenced by infrastructure and regulatory policies, impacting business costs.

ANCILLARIES Small administrative charges billed by the RTO to operate the grid safely and reliably. Ancillary services are essential for maintaining grid stability and reliability. Ancillary services charges are not always separated from energy supply in regions without an RTO.

RENEWABLE PORTFOLIO STANDARDS (RPS) Some states have RPS programs, which are mandates requiring load-serving entities to purchase a certain amount of renewable energy. Compliance with RPS can impact electricity costs, as suppliers may need to invest in renewable energy projects or purchase renewable energy certificates. This can lead to higher costs in the short term but can provide long-term benefits for businesses.

LINE LOSSES Costs included in the electricity price to compensate for the energy lost over transmission and distribution lines due to heating. These losses contribute to the overall electricity costs for businesses.

BUILDING YOUR ENERGY PURCHASING STRATEGY

As businesses build their energy purchasing strategies, it's essential to consider a variety of product types, timing, and decision-making processes. The complex process can be simplified through easy-to-use tools and a customized approach. Here are some key considerations to help develop an effective energy purchasing strategy:

CONTROL FLUCTUATION IN YOUR ENERGY PRICE: Various product solutions can help manage and stabilize energy costs, protecting businesses from volatile market conditions and ensuring more predictable costs.

FIX YOUR RATE OR SPREAD YOUR RISK: Businesses can decide to lock in energy rates at a single point in time or spread risk by making purchases over time, balancing stability and flexibility based on risk tolerance and market conditions.

MAKE INFORMED PURCHASE DECISIONS: Businesses can make purchase decisions or leverage automated algorithms, like Constellation's MVP product, to remove guesswork and emotion from the process. These automated tools can provide data-driven insights and optimize purchasing strategies for better outcomes.

CHOOSING THE RIGHT SUPPLIER

In competitive markets, one size does not fit all when it comes to developing an energy purchasing strategy. It is important for companies to consider their unique usage profile, risk tolerance, and budget goals. With the ability to choose their energy suppliers and negotiate contracts that best meet their needs, businesses have the flexibility to choose from various energy contracts, which differ in pricing models, contract length, and additional services.

Evaluating these factors and their impact on utility bills can be time-consuming, costly, and challenging. Working with a retail energy provider like Constellation, IMA's endorsed energy supplier, can simplify the process from start to finish. Constellation can provide insights, market knowledge, and tools to help you identify the right energy solutions to optimize your energy purchasing and reduce your costs. ◆

ILLINOIS: FUELLING SUSTAINABLE AVIATION

SAFII

The Prairie State can claim a variety of unique qualities as its own: Illinois grows 95% of the processed pumpkins in the U.S., it's the birthplace of the first skyscraper in 1885, and is the home of the Twinkie. While these little-known state facts may be entertaining, it is also becoming a leader in the Sustainable Aviation Fuel (SAF) industry.

In recent years, SAF has increasingly entered the conversation, not only in aviation but also in agriculture, tax policy, biofuel use mandates, the reduction of greenhouse gases, and contributing to a diverse fuel supply. Illinois has been at the forefront of many of these issues as SAF production takes shape.

There are a few obvious attributes that make Illinois the ideal hub for the SAF supply chain. Most notably, the rich agricultural economy has a natural allure in bringing SAF producers to the state. According to data from the Illinois Economic Development Corporation (*formerly Intersect Illinois*), the state is the number one producer of soybeans, the number two producer of corn, and the number three producer of ethanol — all vital components of SAF feedstock.

It goes without saying that the state's aviation infrastructure is one to be envied. O'Hare International Airport serves as the number one airport for domestic connectivity. By all accounts, Illinois' infrastructure, which includes waterways, railroads, and its highway system, contributes to its attractiveness for the entire SAF supply chain.

Economic development professionals in Illinois, coupled with the state legislature, have made it a priority to capitalize on these unique advantages and have succeeded in showcasing how the state can be a leader in becoming a comprehensive SAF ecosystem. Of note, several leaders in SAF are based within Illinois' borders. Aether Fuels, Avina Clean Hydrogen, Inc., Crysalis, CES— Compressed Energy Systems, LanzaJet, and Marquis Sustainable Aviation Fuel call Illinois home.

Legislators have also demonstrated a commitment to SAF by passing a first-in-the-nation SAF tax incentive at the state level. The SAF Purchase Credit is designed to support and drive demand from air carriers. The SAFPC is a $1.50 credit per whole gallon of purchased SAF.

All these attributes make it apparent that Illinois is an ideal place for the SAF industry, but other lesser-known facets also reinforce the expertise and resources the state has to offer.

The IRS tax code includes the Clean Fuel Production Credit, aka the 45Z credit. The value of the credit is based on a fuel's carbon intensity as compared to a baseline. Fuels with lower CI scores receive larger credits. In order to calculate the CI score, the Greenhouse gases, Regulated Emissions, and Energy use in Transportation (GREET) model is used to calculate carbon intensity scores. Illinois' own Argonne National Laboratory developed this model and serves as the expert in its calculation (*anl.gov/esia/life-cycle-analysis).*

Illinois is well known for its academic institutions, and two are top of mind when it comes to SAF research. Within the Grainger School of Engineering at the University of Illinois, the Center for Sustainable Aviation does vital research on all aspects of sustainable aviation (*csa.illinois.edu).*

Additionally, Southern Illinois University at Edwardsville is home to the National Corn-to-Ethanol Research Center (NCERC), a fully integrated research facility focused on converting corn to fuel (*siue.edu/ncerc/).*

Lesser-known SAF leaders deserve equal mention. The Sustainable Aviation Fuels Institute (SAFII) focuses on bringing together all SAF stakeholders from around the globe to stay up to date on SAF developments such as tax credits, SAF usage mandates, economic implications, and feedstock updates. Most importantly, SAFII is an Approved Training Provider through ASTM International. ASTM is committed to serving global societal needs; its international standards positively impact public health and safety, consumer confidence, and overall quality of life. Its testing methods are universal in ensuring consistent quality fuel from the producer to the wing (*astm.org).*

SAFII's team of experts has served on ASTM committees for decades and is recognized for their thought leadership and contribution to the development of industry-accepted testing methods. Every function in the jet fuel/SAF supply chain needs to know these testing standards as fuel moves along the chain of custody. Hands-on training on the testing methods includes fuel sampling on world-renowned, best-in-class testing equipment, manufactured right here in Illinois.

IMA member company Falex Corporation, falex.com, is located in Sugar Grove and is world-renowned for its industrial lubricant and fuel testing equipment. Made in Illinois, this equipment is used in research facilities, chemical companies, and refineries across the globe and contributes to the consistent and accurate assurance of quality jet fuel and SAF. Falex has been conducting this type of analysis for almost 100 years and is proud to call Illinois home for the entire time.

All these assets contribute to Illinois being the ideal center for the SAF supply chain. While policy at the national level may put in question initiatives of this nature, the economic impact on our state can be far-reaching. Agriculture, aviation, logistics, and a cleaner environment will benefit from keeping SAF production and supply chain development a priority in Illinois. The academic research, testing equipment manufacturing, and testing method expertise make Illinois second to none in continuing to develop this vital industry. ◆

Cindy Tomei is President of the SAFII. She may be reached at ctomei@safii.org — www.safii.org

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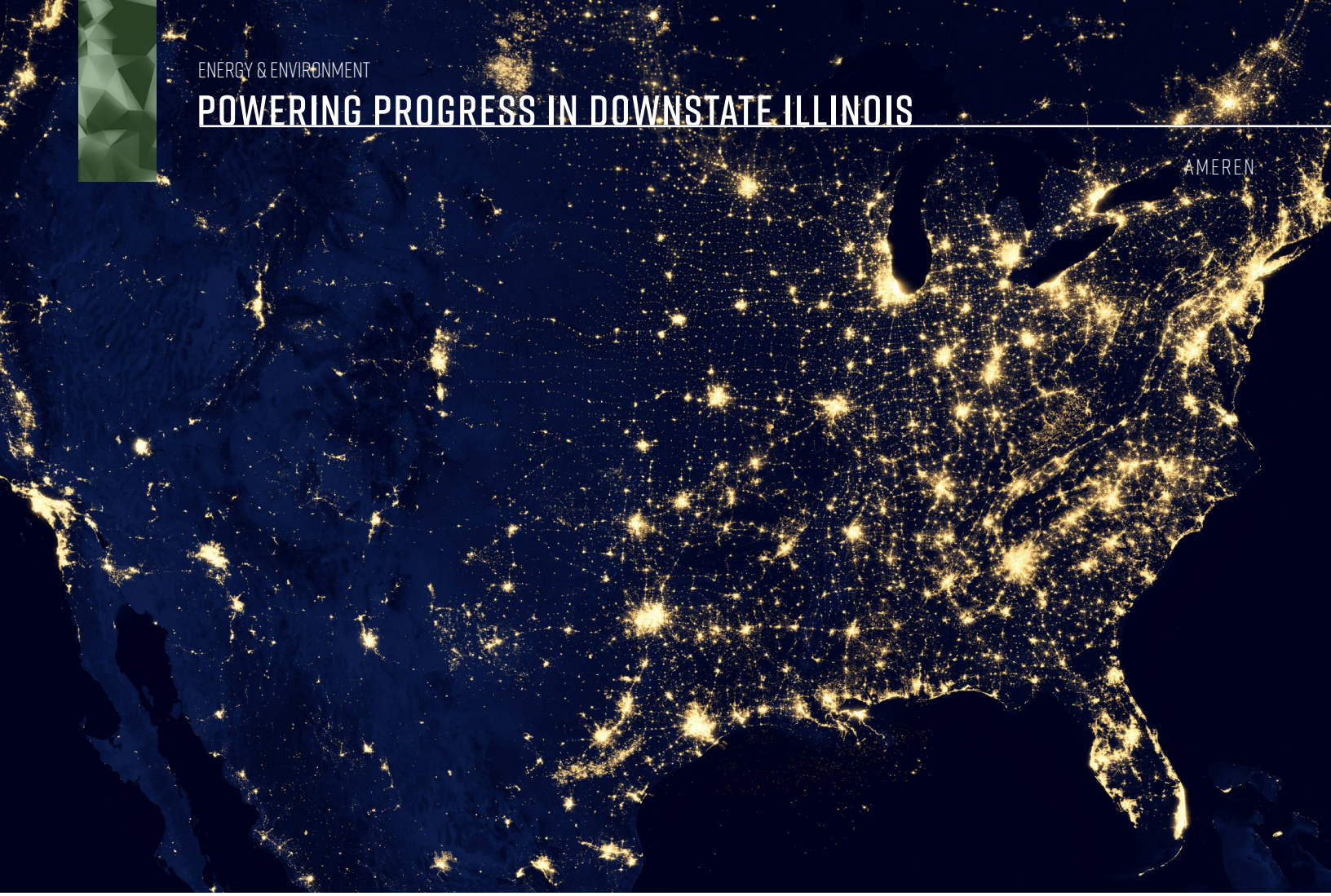
POWERING PROGRESS IN DOWNSTATE ILLINOIS



As Mark noted in his intro letter in this issue of The Illinois Manufacturer, Illinois is indeed at an energy inflection point. Over the last decade, electric demand remained relatively flat. Today, rapidly emerging technologies are driving the expansion of power-hungry sectors and unforeseen growth in electricity demand, today and into the future. This growth presents a fresh wave of opportunities for significant job creation, expanded local tax bases, and the cultivation of entirely new industries. It also poses challenges. Supply constraints and an uptick in demand have led to a spike in electric capacity prices, increasing the power bills of residential, commercial, and industrial energy users not just here in Illinois, but throughout the country.

In response to these systemic challenges, we have joined IMA in advocating for the adoption of a statewide resource planning process to ensure that an ample supply of energy is always available. Long-range planning can ensure that balanced solutions – including transmission, energy storage, renewables, and natural gas – are on the table to ensure that energy users have access to the most affordable and readily available energy supply to meet their daily needs.

In a deregulated state like Illinois, utilities deliver electricity, but we don't produce it. Our job is to strengthen the reliability and resiliency of the energy delivery system – including electric poles, wires, and technology, as well as natural gas distribution pipelines and storage fields – that facilitate the distribution of power to neighborhoods and industrial corridors. As the state transitions to an increasingly electrified economy, this enabling infrastructure must be prepared to handle the two-way flow of energy as customer-generated power is served onto the grid. That's why we developed a robust plan rooted in these core tenets:

SAFETY AND RELIABILITY: Sustain and strengthen grid safety and reliability through continued investment in programs, systems, and infrastructure that serve as the foundation for a more advanced, secure, and clean grid.

RESILIENCY: Better withstand grid interruptions caused by the increase in severe weather events by proactively replacing equipment, implementing advanced infrastructure hardening, and installing more intelligent, automated, flexible, and redundant systems.

CLEAN ENERGY TRANSITION: We're making it easier for customers and developers to lower their supply costs by easily connecting to distributed energy resources, such as solar, wind, and battery storage. We're also facilitating the adoption of electric vehicles (EVs) through lower off-peak charging rates and credits for public charging facilities in low-income areas.

Eric Whitfield is Director of Economic Development at Ameren. He may be reached at JWhitfield@ameren.com

A growing industry base is the foundation on which local communities thrive, and the IMA has been a key partner in our efforts to stimulate economic development and position downstate Illinois as a premier destination for advanced manufacturing expansion and relocation. In a traditional economic development project, say a manufacturer looking to expand or relocate to our region, the site selector/corporate real estate representative considers a handful of factors to determine the best location. For many years, this process started by assessing factors such as the availability of prime development sites, construction and labor costs, workforce availability, transportation infrastructure, and the quality of life and business climate of the overall region. Energy has always been a key factor in site selection . Still, regions in the country were generally on the same playing field when it came to the availability of electricity and natural gas.

Today, given the exponential growth of electric demand throughout the United States, the first call that a site selector will often make is to the local utility. Before another step can be taken, they need to know whether the power is there (or can be acquired) to meet the operational demands of the company. The regions that demonstrate that they have clean, reliable, dispatchable power will have the opportunity to compete for the investment.

With a modern and resilient energy infrastructure and a menu of flexible economic development tools, Ameren Illinois is powering business growth in downstate Illinois. Whether a company is expanding, relocating, or starting up, our team and our state and regional partners help guide business leaders throughout the development process—from community assessments and site selection to infrastructure planning and incentive review. When we meet with site selectors, we're bringing an increasingly flexible range of energy solutions to the table:

RELIABLE, RESILIENT POWER: diverse, scalable resources and ongoing investments in the grid and the natural gas distribution system provide the always-on energy businesses need for intensive operations.

RENEWABLES: for companies focused on reducing their carbon footprint, we can facilitate access to renewable energy with faster interconnections to the grid.

ENERGY EFFICIENCY: our industry-leading energy efficiency programs help companies big and small reduce energy usage, improve efficiency, and drive those savings to the bottom line.

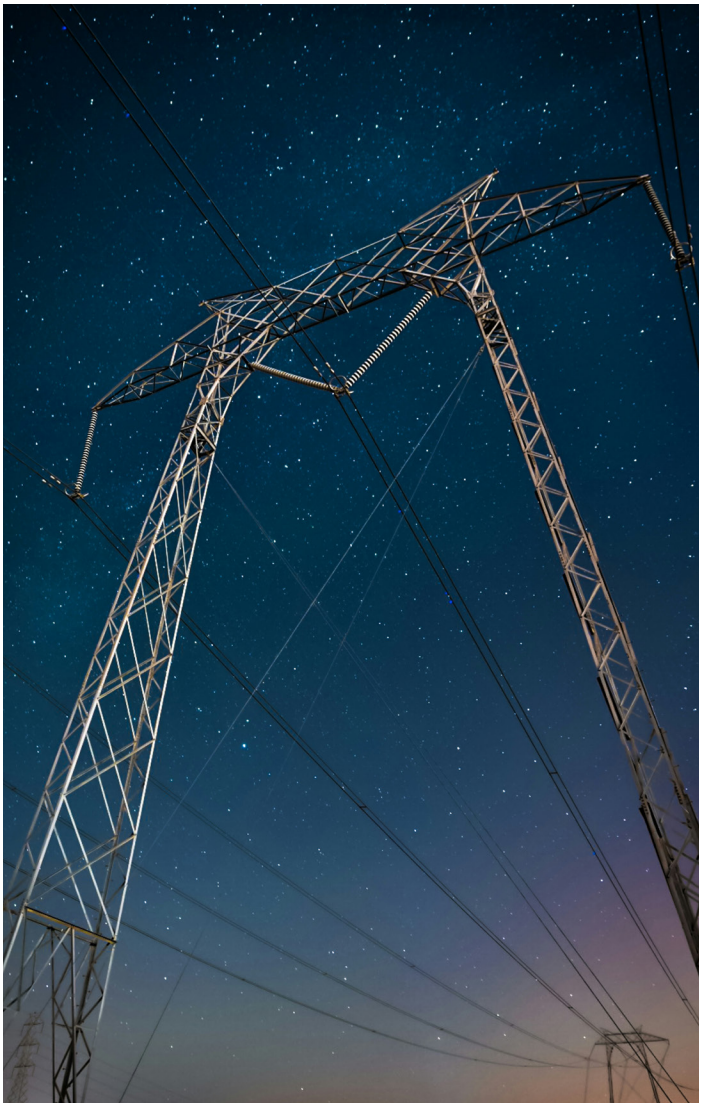
INCENTIVES: we serve as the resource to connect business leaders to eligible state and federal tax incentives and credits.

PROJECT MANAGEMENT: our experienced economic development team is with business leaders every step of the way, eliminating barriers and solving complex problems.

In Illinois today, we're fortunate to have pro-business political leaders, a nimble statewide economic development marketing organization, and highly capable regional economic development organizations who put credit aside when pursuing and winning business expansion projects. That's why it is critical that we maintain strong relationships with these organizations. They know we'll deliver a strong energy story and contribute to the overall sales package.

Site selectors and corporate leaders weigh out a lot of factors when deciding where to locate, and economics are at the top of the list for sure. But they also want to do business with people they like and trust, and they want to invest in communities with good schools, good housing, and a good national reputation. We see our jobs as not only selling Ameren's capabilities but also selling Illinois as well.

Along with partners like the IMA, we will continue to invest in creating a strong foundation to enable our state's manufacturers, and other emerging industries, to grow and thrive in Illinois. ◆



ILLINOIS UPDATES GROUNDWATER QUALITY STANDARDS WITH SWEEPING REGULATORY PACKAGE

BROWN, HAY + STEPHEN

On April 11, 2025, the Illinois Pollution Control Board ("Board") published amendments to 35 Illinois Administrative Code Part 620, Groundwater Quality, in the Illinois Register. The updated amendments took effect on March 28, 2025, and included updates across a wide range of chemicals. The amendments were first proposed by the Illinois Environmental Protection Agency ("Illinois EPA") on December 8, 2021, kicking off a rulemaking proceeding that took over three years to complete. See In the Matter of: Proposed Amendments to Groundwater Quality 35 Ill. Adm. Code 620 (R22-18).

FOREVER CHEMICAL COMPOUNDS ADDED

The issue that received the most attention throughout the rulemaking was Illinois EPA's proposal to add new standards for the following six PFAS compounds, known more commonly as the "forever chemical":

1. Perfluorooctanoic acid ("PFOA")
2. Perfluorooctanesulfonic acid ("PFOS")
3. Perfluorononanoic acid ("PFNA")
4. Perfluorohexanesulfonic acid ("PFHxS")
5. Perfluorobutanesulfonic acid ("PFBS")
6. Hexafluoropropylene oxide dimer acid ("HFPO-DA")

While Illinois is not the first state to set enforceable groundwater quality standards for PFAS compounds, its approach was one of the most sweeping since it integrates PFAS standards directly into Part 620 regulation.

WHAT ABOUT COSTS?

Section 27 of the Illinois Environmental Protection Act, 415 ILCS 5/27, requires the Board to consider the "technical feasibility and economic reasonableness" of each rulemaking before it. Testimony and evidence were presented throughout the course of the R22-18 rulemaking proceeding, highlighting the immediate compliance burden and cost that several industries would face upon the effective date of the new PFAS provisions.

Nevertheless, the Board did not respond to the impact on economic reasonableness until the Illinois General Assembly interjected. Specifically, at its March 4, 2025 meeting, the Joint Committee on Administrative Rules ("JCAR") considered the rulemaking through its normal process and recommended that the "Board assess the make-up of potentially impacted parties under each pending rulemaking and approach its obligation to consider the 'economic reasonableness' of its rulemakings by engaging substantively and specifically with the concerns raised by commenters, rather than by relying exclusively on past practice."

On April 7, 2025, the Board responded to JCAR's recommendation and agreed to take additional action to address the concern. In the final set of amendments in R22-18, the Board took a particular interest in the impact of the new regulations for added PFAS components on landfills across Illinois. As such, the Board established a regulatory exemption for certain landfills – those subject to Part 811 or Part 814 of Part 620 – would not be required to comply with the PFAS standards. The Board then opened a sub-docket to further develop the record on the economic impact of the Part 620 PFAS standards on landfills (R22-18(A)). The Board stated that the purpose of the sub-docket was to gather testimony and evidence on the potential economic impact of adding PFAS standards to Part 620 on compliance costs for Part 811 or Part 814 landfills. The Board further clarified that, absent information demonstrating the infeasibility of landfills to comply with the applicable PFAS-related monitoring or corrective action triggered by Part 620, the Board would consider removing the exemption it had just created at the close of R22-18 for Part 811 and 814 landfills.

The parties have submitted pre-filed testimony and answered questions posed by the Board in the sub-docket. It remains to be seen how the Board will decide its rather unusual approach to allow limited exemptions to groundwater quality standards. However, the exchange between the Board and JCAR in this rulemaking can provide insight into how the Board may consider the economic reasonableness of its rulemakings in the future, as well as JCAR's oversight in this regard.

WHAT OTHER CHANGES WERE MADE TO GROUNDWATER QUALITY STANDARDS BEYOND PFAS?

While PFAS dominated the rulemaking testimony and evidence, the R22-18 rulemaking also addressed issues beyond PFAS. To start, Illinois introduced numerical groundwater quality standards for the following other newly added chemicals:

- Molybdenum;
- Lithium;
- Aluminum;
- 1-methylnaphthalene; and
- Three Atrazine metabolites.

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The amendment also made several other revisions to Part 620, including:

- Revised Class I and Class II standards for 47 chemical constituents, including heavy metals, acetone, benzene, radionuclides, nitrate, chloride, and fluoride;
- Added site-specific groundwater standards for designated Class III Special Resource Groundwater;
- Updated groundwater management zone ("GMZ") requirements;
- Updated exposure factors used for calculating Human Non-threshold Toxicant Advisory Concentrations (otherwise known as health-based guidance levels for carcinogens);
- Added tables listing similar-acting chemicals for assessing mixtures of contaminants in groundwater;
- Updated procedures for determining Class I groundwater; and
- Updated definitions, incorporations by reference, and analytical requirements.

WHAT DOES THIS MEAN FOR ILLINOIS MANUFACTURERS?

Manufacturers should review the new amendments to part 620 to assess both minor and significant changes they are now expected to understand for purposes of environmental compliance and remediation. Manufacturing facilities with groundwater discharges or a history of contamination will soon experience stricter regulatory requirements. In addition, manufacturers will need to review the new regulations to ensure that monitoring and reporting requirements for site-specific needs have not been revised in this rulemaking. Finally, manufacturers may see revisions to both National Pollution Discharge Elimination System ("NPDES") or groundwater permits in the near future to incorporate these regulatory provisions. ◆

WHERE CAN I FIND MORE INFORMATION?

For the Illinois EPA's update on the matter, see https://epa.illinois.gov/topics/water-quality/groundwater/620-groundwater-quality.html

THE USE OF DISPATCHABLE POWER

Manufacturing and industrial facilities face serious challenges including rising energy costs, price volatility, and power outages. State and federal policies aimed at phasing out large fossil-fueled power plants contribute to higher prices on businesses and residents across Illinois.

In terms of costs, in the PJM independent system operator (ISO) that includes the ComEd territory in northern Illinois, state-mandated electricity riders for efficiency and renewable power add over $15 to $30 MWH to the distribution cost while capacity charges have increased by a factor of nine (9). Similar price spikes are occurring in central and southern Illinois in the MISO region as well.

Businesses, including manufacturing facilities, incur approximately 70% of their power costs during peak periods. Manufacturers looking to address the rising costs of energy are exploring options which could include installing and dispatching natural gas fired standby power to avoid peak power costs. Site power can also generate revenue by providing utilities and system operators with demand response and other services.

Dispatchable power is electricity whose power output can be controlled on demand by a business or grid operator to match fluctuations in electric demand, ensuring grid stability, and reliability. Unlike intermittent, non-dispatchable sources like wind and solar, dispatchable sources can be quickly turned on or off, ramped up or down, and include sources like natural gas plants or battery storage.

New advanced lower cost natural gas generators can provide backup power and dispatch of site generation includes fast start, ultra-low emissions, and can handle up to 3,000 hours of dispatch each year.

Utilizations of modular utility parallel switchgear can integrate sight generation without impacting existing electrical infrastructure while providing spare breakers for future technology such as electric storage or solar. System controllers enable remote operations and optimize the dispatch of power to maximize savings.

Companies are always looking to enhance resiliency, reduce energy costs, lower emissions, and otherwise manage their energy portfolio which is often one of their largest expenses. Manufacturers should work with their energy teams and supplier to gather data, site generation strategies and perform a return on investment analysis to develop a strategy for success. ◆

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BATTERY ENERGY STORAGE SYSTEMS: A KEY TO ILLINOIS' ECONOMIC AND MANUFACTURING FUTURE

GOTION ILLINOIS

Illinois stands at a pivotal moment in its energy and economic evolution. As the state embraces a cleaner, more resilient energy future, one technology is quietly emerging as a game-changer: battery energy storage systems (BESS). These systems are not just about keeping the lights on—they're about powering a new era of economic development and manufacturing strength.

The technology behind these systems is advancing rapidly. From lithium-ion to flow batteries and solid-state innovations, energy storage is becoming more efficient, scalable, and affordable. Illinois' research institutions and tech hubs are contributing to these breakthroughs, positioning the state as a national leader in energy storage innovation.

The typical large BESS can store 5 MWh of power when fully charged. Each unit is about the size of a large cargo van and contains a series of rechargeable batteries connected to provide electrical power. These individual power plants can be combined for significant and stable energy.

By integrating large BESS into their operations, manufacturers can reduce energy costs, improve reliability, and support electrification and decarbonization. These systems also enable participation in demand response programs, giving Illinois manufacturers a competitive edge in a global market increasingly focused on sustainability. Here are just some of the ways that Illinois manufacturers can take advantage of this emerging technology:

CUTS ENERGY COSTS: By using stored energy during peak hours, manufacturers avoid expensive demand charges and time-of-use pricing.

BOOSTS ENERGY RESILIENCE: Acts as a backup power source during grid instability or outages, keeping production lines running smoothly

MAXIMIZES SOLAR ENERGY USE: For those companies utilizing solar, BESS stores excess solar power generated during daylight hours, allowing manufacturers to tap into clean energy even after the sun sets.

MINIMIZES MAINTENANCE: Requires significantly less mechanical upkeep than traditional gas-powered generators, lowering long-term operational costs.

FILLS ENERGY GAPS: Supplies additional electrical capacity for expanding operations or high-load equipment without needing costly grid upgrades.

SUPPORTS SUSTAINABILITY GOALS: Helps meet corporate ESG targets by integrating renewable energy and reducing carbon footprint.

But the benefits go far beyond the grid. Battery energy storage is a catalyst for economic growth. These projects create jobs in construction, installation, and maintenance. They attract clean tech companies and startups. And they offer a chance to revitalize former industrial zones by repurposing them for battery manufacturing and storage facilities.

Of course, challenges remain. Supply chain constraints, environmental concerns around battery disposal, and the need for a skilled workforce must be addressed. But these are solvable problems—and Illinois has the tools to solve them.

To fully realize the potential of BESS, we must invest in workforce development, foster public-private partnerships, encourage local manufacturing of battery components, and support regional research initiatives. These steps will ensure that Illinois not only keeps pace with the energy transition but leads it.

Battery energy storage is more than a technological solution—it's a strategic asset. It's the bridge between our energy goals and our economic ambitions. And it's a key to a resilient, prosperous, and sustainable future for Illinois. ◆

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MANUFACTURERING INNOVATION SUPPORTS CONSERVATION IN AGRICULTURE

SPRINGFIELD PLASTICS

Nutrient runoff has become a growing environmental challenge across U.S. waterways. Nitrogen and phosphorus that aren't absorbed by crops enter streams and rivers, eventually contributing to the Gulf of Mexico's seasonal hypoxia, known as the "Dead Zone." These nutrients also degrade local water quality, representing a loss of efficiency for farmers. What seems like a distant ecological issue is in fact deeply connected to manufacturing tied to the agricultural industry, farm profitability, and community health, making solutions urgent and far-reaching.

Tile drainage is a proven tool for increasing yields in corn and soybeans, which puts food on the table, but its role in nutrient transport has drawn the attention of regulators and the public. This scrutiny underscores the vital role of developing solutions that protect water quality while maintaining agricultural productivity. Farmers are under increasing pressure to meet environmental standards while maintaining their operations' viability. This is where the crucial role of collaboration with manufacturers and conservation experts comes into play.

MANUFACTURING'S ROLE

Manufacturers of agricultural drainage products are uniquely positioned to contribute to these solutions. The design and precision of drainage systems play a direct role in how well conservation practices can be integrated on the farm. By producing durable and reliable pipes and components, manufacturers enable the adoption of practices that manage water more effectively and reduce nutrient loss. Springfield Plastics, a U.S.-based pipe manufacturer, is an example of how local manufacturing is aligning product design with conservation practices to support both productivity and sustainability in agriculture.

> "AS MANUFACTURERS, WE HAVE AN OPPORTUNITY TO INFLUENCE ENVIRONMENTAL OUTCOMES BEYOND THE FACTORY," said Jennifer Furkin, President at Springfield Plastics.
>
> "THE WAY WE DESIGN AND PRODUCE DRAINAGE PRODUCTS CAN DIRECTLY SUPPORT FARMERS IN ADOPTING PRACTICES THAT PROTECT WATER WHILE IMPROVING YIELDS. IT'S PROOF THAT MANUFACTURING AND CONSERVATION DON'T HAVE TO BE SEPARATE CONVERSATIONS—THEY CAN, AND SHOULD, GO HAND IN HAND."

DRAINAGE IN ACTION

Several edge-of-field practices are making an impact when combined with tile drainage:

DRAINAGE WATER MANAGEMENT (DWM): Control structures regulate when and how much water leaves a field, reducing nitrate loss by 30-45%.

WOODCHIP BIOREACTORS: Pipe directs water through woodchips where bacteria convert nitrates to harmless nitrogen gas, removing 15-60% of nitrate loads.

SATURATED BUFFER STRIPS: Distribution pipe and control structures spread water through vegetated buffers, cutting nitrate loss by 40-60%.

CONSTRUCTED WETLANDS: Strategically designed wetlands filter tile-drained water, reducing nitrate loads by 30-70% while also benefiting wildlife.

These approaches vividly demonstrate how engineered systems, and natural processes can work in harmony to address water quality challenges. Importantly, when farmers see that conservation practices can complement rather than compete with yields, adoption becomes much more practical, but also a significant contribution to the environment.

CHANGING MINDSETS

For years, drainage and conservation were often seen as competing interests. Today, manufacturers, farmers, and conservation professionals are working together to demonstrate that these systems can serve both goals: boosting yields and protecting water quality. Education and continued innovation are essential to shifting that perception and ensuring long-term adoption. Demonstration projects, field days, and manufacturer-led training are building trust and showing that conservation is not only environmentally sound but also economically sensible.

LOOKING AHEAD

The manufacturing sector will continue to play an important role in bridging the gap between productivity and sustainability in agriculture. By designing and producing the components that make conservation drainage possible, manufacturers like Springfield Plastics help growers address regulatory pressures, protect waterways, and sustain yields for future generations. Through innovation, collaboration, and community engagement, the partnership between manufacturing and conservation can serve as a model for how industry and agriculture can work together to meet tomorrow's challenges. ◆

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MAKE THE MOST OF SMART TECH—WITHOUT GETTING BURNED

EMC INSURANCE

HOW SMALL & MIDSIZED MANUFACTURERS CAN REAP THE BENEFITS OF TECHNOLOGY WITHOUT OPENING THE DOOR TO CYBER THREATS

The rise of smart technology has brought exciting opportunities to the manufacturing world. AI, robotics, cloud platforms, and machine learning are helping businesses improve efficiency, reduce downtime, and respond faster to market needs. But with this digital shift comes a not-so-welcome guest: cybersecurity risk.

If you're like many manufacturers, you're embracing smarter tools to stay competitive—but may not have the in-house resources to tackle the growing list of cyber threats. Here's what you need to know, and where to start.

WHY ARE CYBERCRIMINALS ARE EYEING MANUFACTURING?

Manufacturers have something cybercriminals want: valuable data, proprietary designs, and production systems that can't afford downtime. It's not just banks and big tech anymore—manufacturers are now in the crosshairs. The biggest threats manufacturers face include:

- Ransomware attacks that lock down your systems and demand payment.
- Phishing emails that trick employees into giving up passwords or sensitive info.
- Intellectual property theft, especially if you create or build custom product.
- Supply chain breaches, where an attack on a vendor can ripple back to you.

Even older "legacy" equipment—common on many shop floors—can be a vulnerability if it's not designed for secure connectivity.

BUT TECHNOLOGY BRINGS BIG REWARDS—IF YOU SECURE IT

There's no question that smart tech is worth the investment. AI and real-time analytics can flag inefficiencies you'd never spot manually. Predictive maintenance helps you fix machines before they fail. Automation reduces human error. And cloud platforms keep teams connected across shifts and sites.

But like any new tool, even the smartest tech needs to be used wisely. If your systems are connected—but not protected—you could be opening the door to serious problems. "Cybersecurity doesn't mean halting innovation. It means making sure your investments are built on a solid foundation."

GETTING STARTED

You don't need an in-house IT department or a million-dollar budget to improve your cybersecurity. Start with a few foundational steps:

CONDUCT A CYBERSECURITY AUDIT: This helps you identify where you're most at risk, especially if you're using older equipment alongside newer systems.

PROTECT YOUR MOST CRITICAL ASSETS: Make sure the systems that run your production—and the data that drives it—are secured with strong protocols like multifactor authentication and encrypted backups.

TRAIN YOUR TEAM: Employees are often the first line of defense. A quick click on the wrong email can cause major damage. Short, regular training sessions can go a long way.

CREATE AN INCIDENT RESPONSE PLAN: Know what to do if something goes wrong—who to call, how to contain it, and how to recover quickly.

And if this feels overwhelming, there's help available.

LEAN ON TRUSTED PARTNERS

You don't have to go it alone. Some carriers, including EMC Insurance, offer complimentary cyber safety services to policyholders, such as tools and resources designed to help manufacturers reduce cyber risk. That includes risk assessments, expert guidance, and help developing an action plan that fits your operation—no matter your size.

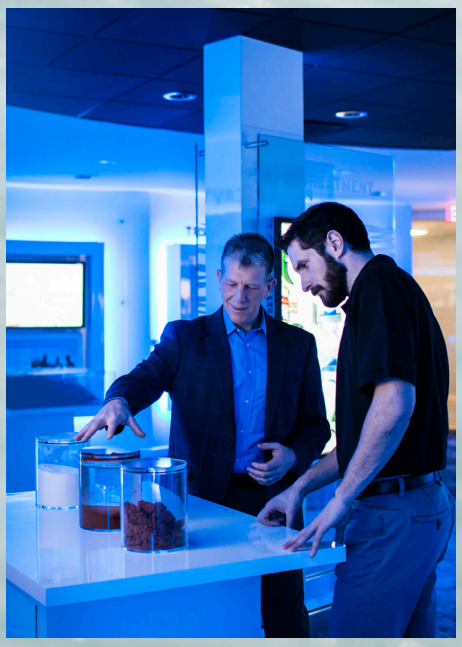
By taking a proactive approach to cybersecurity, you're not just protecting your equipment or data. You're protecting your reputation, your customers, and your ability to keep things running when it matters most. That's how small and midsized manufacturers stay competitive, resilient, and ready for whatever comes next. ◆

Doug Biere, CPCU, MBA, serves as an Underwriting Product Director and writes about emerging cyber threats and risk management in manufacturing.

DRIVING CHANGE THROUGH INNOVATION

For over a century, Ecolab has been guided by a mission that blends science, service, and sustainability. Founded in 1923 as Economics Laboratory in St. Paul, Minnesota, the company began with a single product—a carpet cleaner called Absorbit—and a bold vision to improve hygiene and operational efficiency. Ecolab steadily expanded its product line and entered new markets, always focused on real-world challenges for its customers. Today, the company serves customers in more than 40 industries across 170 countries, reflecting its broader commitment to water, hygiene, and infection prevention solutions worldwide.

Josh Magnuson, Executive Vice President and General Manager of Global Water Solutions, emphasized, "For more than 100 years, Ecolab has been driven by a relentless pursuit of science-led innovation, unmatched service, and an enduring commitment to protect people and the resources vital to life." Ecolab works on the ground at millions of customer locations to demonstrate that sustainability and growth can work in harmony. In 2024 alone, its technologies helped conserve over 226 billion gallons of water, delivering billions in cumulative value since 2019.



FROM ILLINOIS TO THE WORLD: INNOVATION IN ACTION

Illinois is home to some of Ecolab's most important innovation hubs. At its Naperville campus—known as the "Home of Water"—the company integrates research, manufacturing, and training through Water University, a high-tech learning center powered by the knowledge of more than 1,100 scientists, engineers, and technical specialists worldwide. With wet labs, digital collaboration spaces, and auditorium-style classrooms, the facility gives engineers and plant managers the tools they need to implement circular water management strategies while meeting compliance and sustainability goals.

"Many of our customers face a paradox," Magnuson explains. "On one hand, consumer demand for technology and manufactured goods continues to grow. On the other hand, water stress is a complex and often limiting reality. If the world continues on its current path, freshwater demand could exceed supply by as much as 56% by 2030. Through the expertise offered at Water University, we give our customers practical methods to help them implement smart water management in their operations, so they can prioritize and address sustainability and compliance while still growing their bottom line."

That commitment to measurable outcomes extends beyond training. "By combining innovative products, technology, and expertise at our North American manufacturing facilities, we helped one customer, a major food processor based in Chicago, achieve significant annual savings of 51 million gallons (193,000 cubic meters) of water, 1.3 billion BTUs of energy, and 170 metric tons of greenhouse gases. Overall, our efforts delivered $1.2 million in value through reduced costs and improved efficiency."

The Naperville campus is also a hub for product innovations, including 3D TRASAR™ Technology for Advanced Water Performance Management, which provides real-time monitoring of industrial water systems. Paired with Water Track IQ™, which maps water usage across assets and plants, these solutions empower manufacturers to identify inefficiencies, take corrective action, and continuously improve performance. Beyond training and data, Ecolab's Illinois facilities also serve advanced manufacturing sectors. Its Clearing plant in Bedford Park produces water treatment and colloidal silica solutions used in applications ranging from LED lights to smartphone screens and nanotechnology—critical components in the fast-growing microelectronics industry.

DRIVING SUSTAINABILITY IN HIGH-TECH INDUSTRIES

With AI, data centers, and microelectronics fueling new demand, Ecolab is helping manufacturers tackle one of their greatest challenges: how to grow responsibly while addressing resource use. A recent pilot with Digital Realty, a global cloud and data center provider, is projected to reduce water use by 15% across 35 U.S. facilities—saving 126 million gallons of potable water annually and extending the life of critical equipment.

"Water-smart business is smart business," Magnuson says. With expertise in circular water management, Ecolab ensures that manufacturers—including those in high-tech industries—can meet the rising demands of consumers and technology without compromising sustainability. Looking ahead, Ecolab is expanding its capabilities even further. Its planned acquisition of Ovivo's Electronics business will strengthen ultra-pure water solutions for semiconductor manufacturing, enabling chipmakers to maximize output while significantly reducing freshwater consumption.

A CENTURY OF IMPACT, A FUTURE OF INNOVATION

From its first product in 1923 to its global network of research, manufacturing, and training today, Ecolab has demonstrated that sustainability, efficiency, and innovation can move forward together. "Ecolab helps Illinois manufacturers succeed by making sustainability a competitive advantage," Magnuson notes. "At the end of the day, it's about protecting people and the resources vital to life while helping businesses thrive."

RUST BELT REVIVAL: HOW CLEAN TECH IS PUTTING MIDWEST MANUFACTURERS BACK IN GEAR

JLL

When 1,000 employees punched out for the last time at Mitsubishi's Normal, Illinois, plant in 2015, Mike O'Grady from the Bloomington Normal Economic Development Council told CNN that he was worried. How would stopping the clock on the production line for Mitsubishi's SUVs — a '90s stalwart on Midwest roads — impact families in Normal? What bottom-line experts didn't know at the time is that O'Grady had nothing to fear.

The Illinois auto industry would make one of the biggest pivots in car manufacturing history in 2017. While declining Mitsubishi U.S. sales and focusing on its Asian market were cited as reasons for the plant closure in Normal after nearly 30 years, the fall of what was once Japan's largest industrial group paved the way for a company at the forefront of the clean technology movement to enter the Illinois manufacturing scene.

EVS: THE NEW KIDS ON THE BLOCK

Rivian, a California-based innovator of "electric vehicles designed for adventure" valued at $16 billion as of August 2025, picked the former Mitsubishi plant in Normal for its production line in 2017, and put a paycheck in the bank accounts of more than 8,000 Illinoisans.

With Rivian's R2 mid-size SUV slated to hit roads in 2026, the Amazon-backed company has invested another $1.5 billion, including the creation of 500 jobs and 2.6 million additional square feet in its factory. Across the road, Adient, a leading automotive seat maker, is poised to support R2 production with an $8 million plant to assemble front and rear seat systems. It's a strategic move to scale up R2 by increasing efficiency and cutting costs, said Carlo Materazzo, Rivian's Vice President of Manufacturing.

Rivian, along with Dearborn, Michigan-based Ford Motors, now tops the list of what is today a $92 billion and 720,000-person-strong manufacturing industry in the Midwest, fueling a revival in the Rust Belt.

LOCATION, LOCATION, LOCATION: THE MIDWEST'S LOGISTICAL LEG UP

It took about 100 years for iron oxide to turn the "Steel Belt" into the "Rust Belt." That deterioration of shuttered factories may have spread across industries from western New York to Illinois to Wisconsin. Still, the Midwest's logistical advantage never tarnished — in fact, it only grew brighter. It's one reason why the region is well-positioned as a green tech player today.

In the 1800s, it was the Midwest's central location, water systems, iron and coal reserves, railroads, and skilled labor force that enabled it to deliver furniture, stoves, and Fords to cities across America. Today, Illinois' high marks for U.S. electric grid reliability and Chicago's air cargo hub make the Land of Lincoln ideal for clean technology manufacturers.

FROM SMOKESTACKS TO SOLAR PANELS: PRIORITIZING CLEAN TECH AND DECARBONIZATION

Over the last 25 years, the Midwest's manufacturing industry has shifted from coal and oil to embracing clean technology and decarbonization. EV startups such as Slate Auto, another Amazon-backed venture, are continuing the legacy of Detroit's Big Three by retooling factories and joining what state leaders have called a "clean energy ecosystem."

Sustainability is now ingrained in manufacturing decisions. New factories are targeting low-carbon operations with access to wind and solar power as key factors in site selection. As more companies commit to ESG plans, demand for green energy and cleaner processes is on the rise.

Even steelmakers are shifting from blast to electric arc furnaces, which significantly reduces emissions as part of a competitive strategy. A decade ago, many Midwestern communities may have feared that "green" policies would mean shuttered factories. Instead, investing in clean tech is increasing the workforce. In central Illinois, the electric vehicle boom is not only replacing lost jobs but also providing a foundation for future growth, especially for early-career workers who may be more inclined to clock in for companies committed to sustainability.

A MINDSET SHIFT: HOW PUBLIC POLICY IS SPARKING CHANGE

Change isn't only happening on the factory floor; state and national policies are leading the way for the Midwest's manufacturing rebirth. The Inflation Reduction Act (IRA) of 2022, a U.S. federal law that aimed to reduce climate change, lower energy costs, and reduce the federal deficit, injected clean energy and climate initiatives (such as tax credits for renewable energy and clean vehicles) into the manufacturing industry across the country. In Illinois, the REV (Reimagining Energy and Vehicles) program, which was signed into law in 2021, includes comprehensive tax credits, exemptions, and training incentives to attract manufacturers of EVs and their components.

Manufacturing practices in place for more than a century can't be rebuilt overnight. Workforce shortages and infrastructure bottlenecks are part of the shift from non-renewable to green energy. However, training grants for both new and longtime employees, with higher incentives for projects in priority areas, such as those at Rivian in Normal, are all working to position the state as an EV manufacturing hub.

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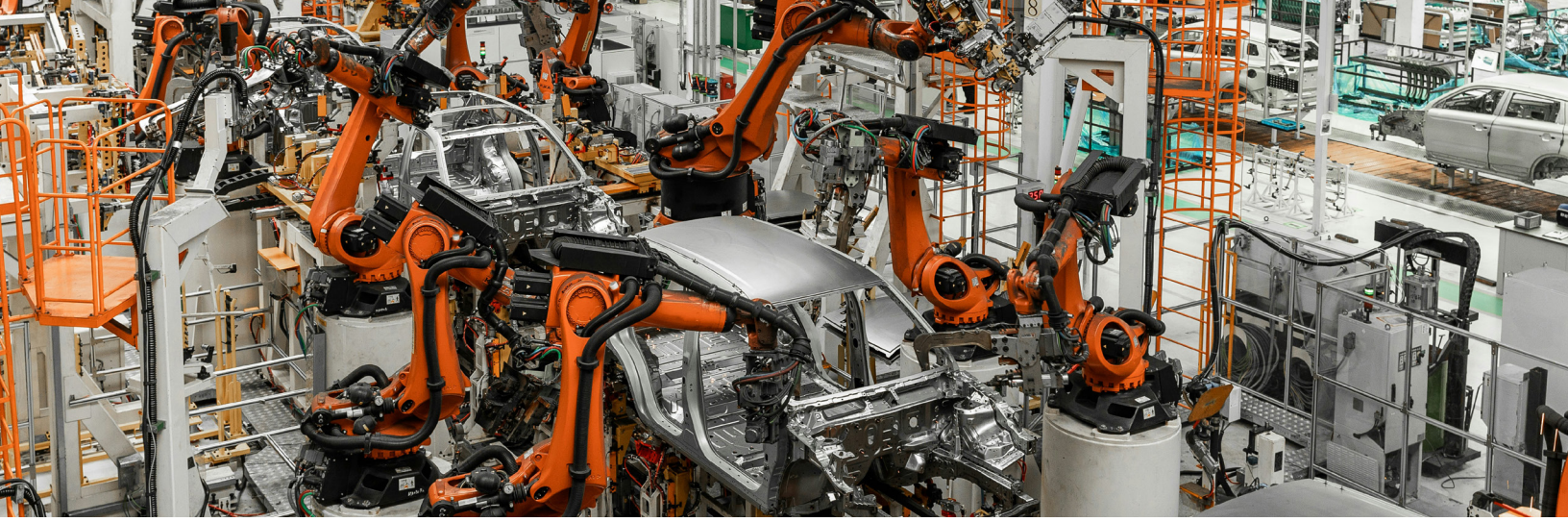

A GREEN MANUFACTURING INSTRUCTION MANUAL

As companies navigate this new era of manufacturing, industry experts point to a few strategies:

PRIORITIZE WORKFORCE DEVELOPMENT: Investing in local training partnerships and apprenticeships will ensure a pipeline of workers adept in modern manufacturing. Companies that cultivate and retain talent will have a competitive edge.

INVEST IN CLEAN ENERGY INFRASTRUCTURE: When evaluating sites, consider the power grid capacity and the availability of renewable energy sources. Securing renewable power (through utility deals or on-site generation) can lower long-term costs and help meet sustainability targets.

BUILD INCENTIVES AND PARTNERSHIPS: Beyond tax breaks, many states offer grants, infrastructure support, and multi-year tax credits for new jobs. Partnerships with economic development organizations for research and innovation in the public and private sectors can serve as strategic partners.

FOCUS ON SPEED AND AGILITY: Speed-to-market is increasingly critical as manufacturing jobs enter the world of tech. Locations with streamlined permitting and "shovel-ready" industrial sites are needed to get ahead. Plants with the flexibility to adapt to product changes or to scale up quickly will have the agility to shift with market trends.

By embracing clean tech, investing in people, and partnering with the public sector, manufacturers can help to write a new green chapter in America's manufacturing story. ◆

Top 3 demand drivers

1. **Illinois** is home to almost 13 million people driving significant consumer demand.
2. **Unparalleled Transportation:** Network of air, rail, water and truck allows the seamless flow of good to and from the state, connecting all three coats.
3. **Location, location, location:** Illinois is in the center of the United States and has reach of 43% of the U.S. in a twelve-hour truck drive.

$46.1B+

Advanced manufacturing contributed to economic output

#2 The Chicago metro area boast the 2nd largest industrial inventory in the U.S. **JLL Research 2025**	*574.7K* Total jobs in the manufacturing industry **FRED, 2025**	*43%* of U.S. population accessible within a one-day drive **One Columbus, 2024**
30+ Fortune 500 headquarters **Intersect IL**	*#4* Highest manufacturing GRP in the U.S. **Intersect IL**	*4.4%* Nuclear power generation **US Energy Information**

WEATHERING THE STORM
USING AI AND DIGITAL STRATEGY TO OFFSET TARIFFS

A TIME OF CHALLENGE AND OPPORTUNITY

Illinois manufacturers are navigating a perfect storm. Tariff pressures, rising material costs, supply chain unpredictability, and labor shortages have created an environment where doing business as usual is no longer viable. For many, these challenges are compressing margins and straining resources across all departments.

Yet in adversity lies opportunity. Manufacturers willing to adopt a forward-looking mindset can not only weather the storm but also come out stronger. At the heart of this transformation is digital strategy, enhanced today by the accessibility of artificial intelligence (AI).

WSI has worked closely with B2B industrial companies for 30 years, observing firsthand how companies of all sizes are leveraging digital tools and AI to unlock efficiency, reduce waste, and drive growth. This article outlines how manufacturing leaders can begin applying these strategies, one step at a time.

WHAT IS DIGITAL STRATEGY—AND WHY IT'S EVOLVING

Digital strategy refers to a comprehensive, cross-functional approach to using technology and data to improve performance. It is not limited to websites, marketing campaigns, or IT infrastructure. Rather, it integrates all areas of the business—sales, operations, HR, finance, and customer service—into a unified strategy for growth and efficiency.

The digital landscape is rapidly evolving thanks to AI, which supercharges existing tools with automation, machine learning, and predictive insights. This evolution means digital strategy is no longer just a cost center or support function; it's a critical driver of profitability and resilience. AI can:

- Automate repetitive tasks
- Analyze large datasets quickly
- Generate predictive models
- Personalize experiences
- Make smarter, faster decisions

Crucially, digital strategy is a mindset. It's about consistently identifying where the business is losing time, money, or opportunity, and then using the right digital tools to close those gaps.

WHY IT MATTERS NOW: TARIFFS, LABOR GAPS, AND CUSTOMER EXPECTATIONS

Today's manufacturers are contending with multiple pressures:

Tariffs: Tariff fluctuations introduce cost unpredictability. Without better forecasting and cost modeling, it's nearly impossible to maintain consistent pricing or protect margins.

Labor Shortages: Skilled labor is increasingly difficult to find and retain. According to the Illinois Manufacturing Excellence Center (IMEC), 75% of manufacturers cite talent shortages as a top concern.

Customer Expectations: Buyers now expect quick responses, digital catalogs, transparent order tracking, and seamless communication. This is especially important for Original Equipment Manufacturers (OEMs) and engineers involved in sourcing components or services, regardless of whether they sell online.

Digital tools, powered by AI, help address all three. They increase internal efficiency, reduce dependency on manual labor, and improve external responsiveness. More importantly, they give manufacturers the agility to pivot during uncertainty.

THE REAL COST OF DOING NOTHING

One of the biggest misconceptions is that staying the course costs nothing. In truth, the cost of inaction is steep:

- Missed Opportunities: Delayed quotes and unqualified leads waste both time and revenue.
- Manual Errors: Disconnected systems and spreadsheet-based processes increase error rates and rework.
- Low Morale: Repetitive tasks and inefficiencies frustrate teams, contributing to turnover.
- Slow adaptation: Companies that fail to digitize fall behind competitors that embrace continuous improvement.

CASE EXAMPLES

1. One Illinois-based industrial fastener manufacturer lost several key accounts when competitors began offering instant digital quotes and automated order updates. Within six months, they adopted a CRM-integrated quoting tool and cut average quote time by 65%, regaining lost business and increasing close rates.

2. A regional metal fabrication company experienced high employee turnover in its customer service department due to repetitive tasks. After implementing a customer portal and automating FAQs with AI, call volume dropped 40%, and employee satisfaction scores rose by 28%.

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WHERE DIGITAL STRATEGY AND AI CREATE ROI ACROSS THE BUSINESS

Digital transformation is not confined to the marketing department. Here's how AI and digital strategy deliver value across the entire organization:

SALES & MARKETING Lead Scoring: AI analyzes historical data to prioritize high-converting leads. Email Automation: Intelligent workflows nurture prospects automatically Quote Automation: Integrated systems cut quoting time from days to minutes.

» *Example: A Chicagoland plastics manufacturer implemented AI-powered lead scoring and reduced sales cycle time by 30% — the result: faster pipeline development and fewer wasted sales hours.*

CUSTOMER SERVICE Portals and Chatbots: Customers' self-serve documentation, order status, and FAQs. Predictive Service Needs: AI flags when maintenance or reordering is due.

» *Example: A process equipment distributor saved over 400 hours annually by automating document requests through a customer portal.*

HR & TALENT RECRUITMENT AUTOMATION AI filters resumes, schedules interviews, and tracks onboarding. Retention Analytics: Identifies turnover risk by analyzing engagement data.

» *Example: A mid-size CNC shop reduced time-to-hire by 50% and improved retention using AI-driven applicant tracking and engagement scoring tools.*

FINANCE & ACCOUNTING Budgeting and Forecasting: Real-time visibility into margins, costs, and variances. Cash Flow Modeling: AI helps predict dips and spikes, enabling better planning.

OPERATIONS & SUPPLY CHAIN Inventory Optimization: Predict demand and auto-replenish stock. Supplier Risk Analysis: AI flags delays or disruptions before they impact production

» *Example: A downstate machine parts manufacturer saved $50K/year in rush shipping by using AI to adjust reorder points and plan proactively.*

THE ROI IS REAL—OFTEN 5-10X

These aren't theoretical benefits. When implemented strategically, digital initiatives deliver measurable return on investment. Real-world outcomes include:

- 60% reduction in quoting time
- 70% improvement in onboarding efficiency
- 20% reduction in customer churn
- $50K+ in annual shipping cost savings
- Improved sales win rates by 15–20%'

And because improvements stack across departments, overall business agility and profitability increase exponentially.

GETTING STARTED: A SIMPLE ROADMAP FOR MANUFACTURERS

You don't need to digitize everything at once. Here's a phased approach:

- Assess Your Current State: Map where delays, inefficiencies, or frustrations occur. Common Pitfall: Many manufacturers underestimate time lost to legacy processes like email-driven quoting or paper-based approval workflows.
- Prioritize a High-Impact Use Case: Quoting, hiring, onboarding, or customer communication are great places to start. Tactical Tip: Pick a pain point that's visible, measurable, and can be solved with off-the-shelf tools.
- Involve the Right People: Include leadership and frontline users. Buy-in is critical. Common Pitfall: Lack of cross-functional alignment can stall even the most promising projects.
- Define Success: Choose metrics: Time saved? Revenue increased? Error rates lowered?
- Start Small, Then Scale: Prove value with a quick-win pilot project. Build momentum from there.
- Choose the Right Partner: Work with vendors or consultants who understand both manufacturing processes and digital technology. Tactical Tip: Ask for case studies and implementation timelines during the selection process.

FIVE STRATEGIC DIGITAL PLAYS FOR ILLINOIS MANUFACTURERS

1. Digitally Empower the Sales Team: Equip your sales reps with mobile access to real-time inventory, quoting tools, and customer history. This not only shortens sales cycles but gives smaller teams enterprise-level speed.
2. Automate the Quote-to-Cash Cycle: Implement digital quoting platforms that integrate with your ERP and CRM. Automating this cycle reduces delays and eliminates costly manual errors.
3. Leverage AI for Demand Forecasting: Use historical data and external market signals to anticipate changes in customer demand. Predictive analytics helps optimize inventory and reduce stockouts.
4. Streamline Job Candidate Evaluation: Use AI to screen applications, reduce time-to-hire, and improve onboarding quality.
5. Digitize Post-Sale Support: Create knowledge bases, video tutorials, and service portals. Customers get faster answers; your team saves time.

Each play delivers measurable ROI and allows incremental progress toward modernization.

DIGITAL TRENDS SHAPING ILLINOIS MANUFACTURING

WORKFORCE AUGMENTATION

AI is enhancing—not replacing—skilled labor.

RESHORING SUPPORT

Predictive tools help manage U.S.-based production profitably.

SMART MAINTENANCE:

IoT sensors and AI reduce unplanned downtime.

CYBERSECURITY FOCUS:

More digital systems = greater need for security investment.

Manufacturers that align with these trends are best positioned to compete, grow, and attract future talent.

Final Thoughts – AI as a Resilience Strategy

The manufacturing sector has never stood still. From lean production to CNC automation, innovation is part of its DNA. AI and digital strategy are simply the next chapter—and a powerful one.

In an era of tariffs, global instability, and workforce pressures, manufacturers can't afford to be reactive. Those who embrace digital transformation now will build a foundation for future growth, flexibility, and profitability.

In other words, digital strategy isn't about technology. It's about survival. And ultimately, about thriving in a world where resilience is the true competitive edge. ◆

IS YOUR SITE PREPARED FOR THE RAPID RISE OF MOBILITY IN SMART MANUFACTURING?

ERICSSON

In today's smart factory, mobile technologies are at the forefront of many upgrade projects that aim for manufacturing agility and high ROI. These advanced technologies are expected to improve efficiency, reduce costs, and enhance productivity — and they're very capable of achieving these goals.

But before implementing these technologies, a company needs to be able to answer this question: Does my manufacturing plant's network infrastructure support mobility with enough reliability, performance, and throughput? If not, these advanced projects simply won't work.

KEY TECHNOLOGIES DRIVING SMART MANUFACTURING

Many different technologies are part of the manufacturing's industry's mobility revolution — technologies that enable smarter, faster, and safer operations, but also demand robust connectivity solutions capable of supporting their unique requirements.

AUTONOMOUS MOBILE ROBOTS (AMRS) are revolutionizing material handling by autonomously, picking, packing, sorting, and transporting goods — and significantly reducing manual labor.

COBOTS, or collaborative robots, can perform complex assembly tasks with precision, increasing production efficiency and reducing errors.

AUTOMATED GUIDED VEHICLES (AGVS)

DRONES are increasingly used for inspections, offering superior access and imaging capabilities to detect maintenance needs or safety hazards.

SENSOR DEVICES collect vast amounts of data to track inventory, monitor processes, and improve quality control. For deeper control, companies use utilize asset tracking and predictive maintenance applications to protect their investments.

WEARABLES can monitor workers' location and safety conditions, providing alerts when hazards arise.

SCANNERS AND HANDHELD DEVICES connect personnel and machines, enabling seamless coordination throughout the manufacturing ecosystem. Mobility comes into play whether workers are walking around with scanners or using them while driving vehicles throughout the site.

AUGMENTED REALITY AND AI-POWERED TRAINING SIMULATIONS provide workers with real-time instructions and support during complex tasks. Creating a digital twin of the factory floor can help educate new operators about equipment operation and procedures.

These technologies bring substantial benefits, such as reduced training time, better maintenance, improved worker safety, and enhanced quality and throughput.

So, what stands in the way of widespread mobility and rapidly evolving the rapid evolution of digital tools? Wires prevent it entirely, and Wi-Fi isn't ideal.

THE LIMITATIONS OF WI-FI FOR MOBILE INDUSTRIAL APPLICATIONS

While Wi-Fi has been a staple wireless connectivity solution in many factories, it falls short in meeting the demanding needs of these advanced technologies, primarily because it was not designed for high-mobility and low-latency environments.

MOBILITY CHALLENGES: Wi-Fi struggles to maintain seamless connectivity when devices move at speed or cover large areas. For instance, AMRs and AGVs transitioning between coverage zones often experience signal drops or interference that can disrupt operations.

LATENCY ISSUES: Many smart factory applications require real-time data transmission and immediate response times to coordinate complex tasks and prevent bottlenecks. Wi-Fi networks tend to exhibit less consistent latency because it use they uses unlicensed spectrum, which is detrimental to these time-sensitive applications.

COVERAGE AND SCALABILITY: Traditional Wi-Fi access points have limited range and capacity, often requiring dense infrastructure that is both costly and complicated to deploy, especially in expansive manufacturing plants. Additionally, Also, interference from machinery, metal structures, and other encumbrances makes coverage much more challenging in uncarpeted spaces like such as factories and sorting hubs.

Because of these constraints, relying on Wi-Fi alone risks undermining the efficiency gains achievable from autonomous and mobile technologies.

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WHY PRIVATE 5G NETWORKS ARE AN IDEAL ALTERNATIVE

Private 5G cellular networks represent a powerful alternative connectivity solution tailored specifically for the needs of modern manufacturing.

SEAMLESS MOBILITY: Private 5G small cells are designed to require far fewer handoffs than Wi-Fi. Unlike Wi-Fi, the cellular network determines which devices connect to which radios at which times and in which spots. This capability gives devices continuous high-quality connectivity while moving throughout the factory, eliminating the signal drop issues common with Wi-Fi.

EXPANSIVE WIRELESS COVERAGE: A private 5G network can blanket a large indoor facility with less infrastructure compared to Wi-Fi, — providing reliable, pervasive wireless coverage that supports uninterrupted operation of fleets of AMRs and other autonomous machines.

EXTREMELY PREDICTABLE LATENCY: Private 5G networks deliver real-time data transmission with minimal delay — critical for synchronizing tasks across multiple robots and machinery, and for avoiding operational bottlenecks.

HIGH SCALABILITY AND FLEXIBILITY: 5G networks can easily accommodate a growing number of connected devices and sensors, future-proofing the factory for new technologies and expanded workloads.

ENHANCED SECURITY: Operating on dedicated spectrum with advanced encryption, private 5G networks provide superior security compared to shared Wi-Fi environments — an essential consideration in safeguarding sensitive industrial data.

DETERMINING IF YOUR ENTERPRISE IS READY FOR MOBILITY IN 'SMART MANUFACTURING'

Smart manufacturing can help drive streamlined processes, increase productivity, and prepare for the future. So, where is your organization positioned in its smart manufacturing journey? There are several key factors to evaluate:

ORGANIZATIONAL MATURITY: A smart manufacturing strategy must begin with unwavering leadership commitment, embracing digital transformation as a conduit for innovation and operational optimization.

FACTORY MATURITY: Optimize production efficiency with smart manufacturing technology, automating processes and digitizing operations to reduce production times and enhance overall efficiency.

SUPPLY CHAIN AND WAREHOUSE MANAGEMENT MATURITY: Improving supply chain efficiency is crucial to smart manufacturing. Automating routine tasks helps boost productivity, quality, and safety.

WORKER MATURITY: Leadership plays a crucial role in aligning talent development with business strategy, culture, and values, while ensuring workers possess the necessary skills to perform daily tasks. This involves providing clear guidelines on how to utilize operational solutions and ensuring worker safety.

IT AND OT READINESS: It's important to work with your IT and OT teams to answer key questions regarding coverage areas; application requirements, including throughput and latency needs,; and device counts and capabilities. For instance, how many of your company's devices are cellular-ready? What applications or devices will still use "best effort" Wi-Fi connectivity vs. those that have more business-critical requirements?

Ericsson's Smart Manufacturing Maturity Assessment *(https://www.ericsson.com/en/industries/manufacturing/smart-manufacturing-maturity-assessment#/)* helps manufacturers analyze and benchmark their smart manufacturing readiness and maturity. Take the brief assessment, then receive a detailed report that includes your results and recommendations.

There are many challenges to address as manufacturers navigate the many needs for mobility across their manufacturing sites. Analyzing your readiness is one of the first steps to moving past those challenges. ◆

MASTERING ADVANCED PCB MANUFACTURING: WHAT U.S. MANUFACTURERS NEED TO KNOW TO STAY COMPETITIVE

AMERICAN STANDARD CIRCUITS

WHY ADVANCED PCB MANUFACTURING MATTERS NOW

Walk into any electronics lab or high-tech manufacturing floor, and you'll see engineers and technicians bent over dazzling displays of silicon wafers, microprocessors, and sensors. But beneath it all—quietly holding the system together—is a layer that rarely gets the spotlight: the printed circuit board (PCB).

Whether it's the guidance system of a next-generation fighter jet or a wearable medical sensor that can alert a doctor in real time, the PCB is the backbone of modern electronics. It connects, powers, and protects the flow of information in every device we use.

Today, manufacturers face a challenging landscape defined by the need for miniaturization, as devices must be smaller, lighter, and more portable while delivering greater capabilities than ever before. At the same time, speed to market has become critical, with product launch cycles now measured in weeks rather than months. Adding to the pressure is growing complexity, as increasing integration demands call for advanced materials, tighter tolerances, and flawless reliability.

For U.S. manufacturers, this presents not just an engineering challenge but also a competitive opportunity. Mastering advanced PCB capabilities can:

- Boost product performance
- Accelerate time-to-market
- Increase customer confidence
- Ensure long-term scalability

One technology is redefining what's possible in the broader context of advanced PCB manufacturing: Ultra High-Density Interconnect (Ultra HDI). It's not just a standalone solution, but a key player in the evolution of PCB manufacturing.

WHAT IS ULTRA HDI?

Ultra HDI (High-Density Interconnector) represents the leading edge of PCB miniaturization and performance. It utilizes:

- 50 micron and less lines and spaces for extreme density
- Stacked laser-drilled microvias for reliable interlayer connections
- Ultra-thin packages with 6 or more layers

The result? Electronic assemblies that pack extraordinary capability into impossibly small footprints—ideal for markets where size, weight, and performance are make-or-break. Ultra HDI enables manufacturers to build smaller, faster, and more complex devices that not only meet but also exceed growing performance demands in confined spaces.

MANUFACTURER-FOCUSED BENEFITS OF ULTRA HDI

Ultra HDI offers significant performance advantages, including improved signal integrity, higher component density, and reduced electrical loss, all of which are crucial for high-speed data transmission and reliability. By simplifying design, manufacturers can speed up iteration, prototype development, and transition to volume production with fewer delays. This efficiency fosters customer confidence, as OEMs rely on suppliers to consistently meet challenging design targets without sacrificing reliability. Furthermore, Ultra HDI prepares manufacturers for future demands in AI hardware, advanced medical devices, and next-generation communications, ensuring long-term scalability and growth. Example Applications:

MEDICAL: Pacemakers, neurostimulators, and implantable drug pumps

DEFENSE: Missile guidance, encrypted comms, radar modules

IOT: Wearables, secure tracking devices, environmental sensors

TRAINING THE WORKFORCE FOR ADVANCED PCB PRODUCTION

No investment in Ultra HDI equipment matters if the workforce can't run it to spec. Advanced PCB manufacturing demands high-skill operators, engineers, and quality technicians who understand both the theory and practice of microelectronics fabrication. Key Strategies:

OEM & EQUIPMENT VENDOR TRAINING: Most capital equipment suppliers offer on-site and classroom training specific to Ultra HDI processes.

INDUSTRY CERTIFICATIONS: IPC certifications (IPC-A-600, IPC-6012, IPC-6018 for RF, and CID/CID+ for designers) are essential for maintaining quality standards.

COMMUNITY COLLEGE & UNIVERSITY PARTNERSHIPS: Programs in electronics manufacturing technology can be tailored to employer needs.

WORKFORCE DEVELOPMENT GRANTS: State and federal programs, such as the U.S. Department of Labor's Apprenticeship USA or DoD's Industrial Base Analysis and Sustainment (IBAS) program, can offset training costs.

CROSS-TRAINING: Encourage operators to learn multiple process steps to increase flexibility and resilience.

MENTORSHIP PROGRAMS: Pair senior technicians with newer employees to transfer tacit, experience-based knowledge.

The bottom line is building an Ultra HDI-capable workforce is an ongoing investment, but it's one that pays for itself in higher yields, faster problem resolution, and stronger customer confidence. Yet even the most skilled teams require access to the right tools and infrastructure. That's where the financial realities of Ultra HDI adoption come into play.

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COST IMPLICATIONS OF IMPLEMENTING ULTRA HDI

Modern PCB manufacturing leadership depends on automation and robotics to improve precision and reduce defects, alongside digital thread integration for closed-loop feedback from design to production and lean manufacturing principles that eliminate waste while accelerating output. In West Chicago, American Standard Circuits (ASC) has applied this approach for decades, focusing on high-reliability, high-complexity boards for aerospace, defense, medical, and advanced industrial customers. Their investments in Laser Direct Imaging (LDI) for sub-50 µm accuracy, precision laser drilling for stacked microvias, and cleanroom manufacturing illustrate how U.S. firms can maintain critical know-how domestically while meeting the performance requirements of global OEMs.

CAPITAL EQUIPMENT: Significant investments are often needed for equipment such as laser direct imaging systems, advanced drilling machines, plasma etching units, and high-precision lamination presses.

FACILITY UPGRADES: Ultra HDI benefits from Class 10,000 or better cleanroom environments to minimize contamination risks. Retrofitting existing plants can cost hundreds of thousands to millions, depending on the scope of the project.

PROCESS DEVELOPMENT & PROTOTYPING: Establishing stable yields with sub-50 µm features requires significant R&D, often extending from 6 to 18 months before profitable production begins.

ONGOING OPERATING COSTS

The need for tighter process control leads to increased expenses on inspection, metrology, and consumables. ROI Timeline — Many manufacturers see payback within 3 to 5 years when targeting high-value sectors like aerospace, defense, and medical devices, where profit margins justify the initial investment. In summary, while Ultra HDI is capital-intensive, the revenue generated per square inch of PCB can more than compensate for the upfront costs.

BEYOND ULTRA HDI – THE BROADER ADVANCED PCB LANDSCAPE

While Ultra HDI is a key technology, competitive U.S. manufacturers can also gain an advantage by excelling in RF and microwave PCBs for 5G and satellite communications, thermal management solutions using heavy copper and metal-core substrates, and flexible, rigid-flex, and hybrid designs for space-constrained applications. These capabilities often overlap, as many Ultra HDI applications require expertise in both RF performance and thermal engineering.

HOW SMALLER MANUFACTURERS CAN COMPETE WITH LARGER COMPANIES

Established smaller manufacturers can absolutely win in the advanced PCB market—but not by trying to outspend or outproduce Tier 1 giants. Instead, can leverage agility, specialization, and relationships:

1. Focus on Niche Markets: Target customers needing low-volume, high-mix, high-complexity builds (e.g., aerospace prototypes, custom medical devices, defense modules).
2. Develop Ultra-Reliable Expertise: Position as the go-to shop for mission-critical reliability rather than commodity runs.
3. Offer Concierge-Level Service: Larger competitors can't match rapid quoting, engineer-to-engineer collaboration, and same-day DFM feedback.
4. Strategic Partnerships: Collaborate with other small or mid-tier firms to share expensive processes like sequential lamination or advanced testing.
5. Selective Automation: Automate the most labor-intensive or error-prone processes first (e.g., AOI, laser drilling) before scaling to full automation.
6. Certifications as Differentiators: Achieve ITAR, AS9100, and ISO 13485 to access high-value customers who require compliance.

In short, small manufacturers should play a precision game, not a volume game—winning where speed, customization, and deep technical support matter more than price per panel.

THE COMPETITIVE IMPERATIVE

For U.S. manufacturers, advanced PCB capability is no longer optional—it's a strategic necessity. Mastering Ultra HDI and related technologies delivers:

- Performance leadership in high-demand sectors
- Faster time-to-market for complex products
- Increased customer confidence through capability and reliability
- Long-term scalability for future tech demands

THE FORMULA IS SIMPLE: TECHNOLOGY + EXECUTION + SKILLED PEOPLE = STRATEGIC ADVANTAGE

Manufacturers who invest now—both in capability and workforce—will not only secure their own growth but also reinforce U.S. leadership in the global electronics ecosystem. ◆

BEWARE OF REMOTE EMPLOYEES HOLDING MULTIPLE JOBS

BARNES & THORNBURG LLP

Since the global pandemic and the rise of fully remote positions, individuals —more so in certain industries than others—have taken advantage of no longer being required to report to work in person. You may be thinking that these individuals no longer need to seek childcare or are now able to run errands during the business day. While that may occur, and this certainly needs to be addressed, there is another concerning trend that Companies should also be wary of individuals being over-employed — employed by two or more companies in full-time, fully remote positions at the same time.

HOW REMOTE WORKERS MAINTAIN MULTIPLE POSITIONS

CALENDAR MANAGEMENT: Remote workers who hold multiple jobs at the same time are masters at calendar management. They are required to block their calendars at each employer to avoid overlapping meetings, prioritize various meetings that are mandatory or high visibility, and skip or delegate less critical ones. Additionally, they should choose positions in different time zones to their advantage, allowing them to spread out their workday over the morning, afternoon, or evening.

USE OF AUTOMATION: Automation is critical for those attempting to maintain two or more positions. Automated processes allow for more efficiency. They use AI or other software like Zapier, IFTTT, or custom scripts to automate repetitive tasks—such as data entry, report generation, or email sorting. They also use templated communications and reports to reduce the amount of time spent on repetitive tasks. When possible, they delegate tasks to colleagues, freelancers, or virtual assistants, especially for non-essential or time-consuming work. Their most crucial tool is project management. To ensure deadlines are met and tasks don't fall through the cracks, highly productive individuals use tools like Asana, Trello, or Notion to track deliverables and deadlines across multiple jobs.

HOW TO COMBAT FAKE REMOTE WORKERS

As remote work expands, so do the risks of hiring fraudulent workers. The consequences are significant and multifaceted: unauthorized access to sensitive data and intellectual property, data breaches and theft of confidential information, extortion and financial losses (including inadvertent payments to sanctioned individuals), regulatory investigations that can lead to penalties and class action lawsuits, and long-term reputational harm with potential national security implications.

THE RISKS OF EMPLOYING OVEREMPLOYED

These individuals do not see that their decisions may lead to various risks jeopardizing their future employment. First, due to reduced engagement or diverted attention, managers and colleagues may lose trust in the individual's integrity and reliability. Managers and colleagues may slowly recognize the individual's avoidance of collaborative tasks, team-building activities, and atypical behavior, which may result in underperformance and

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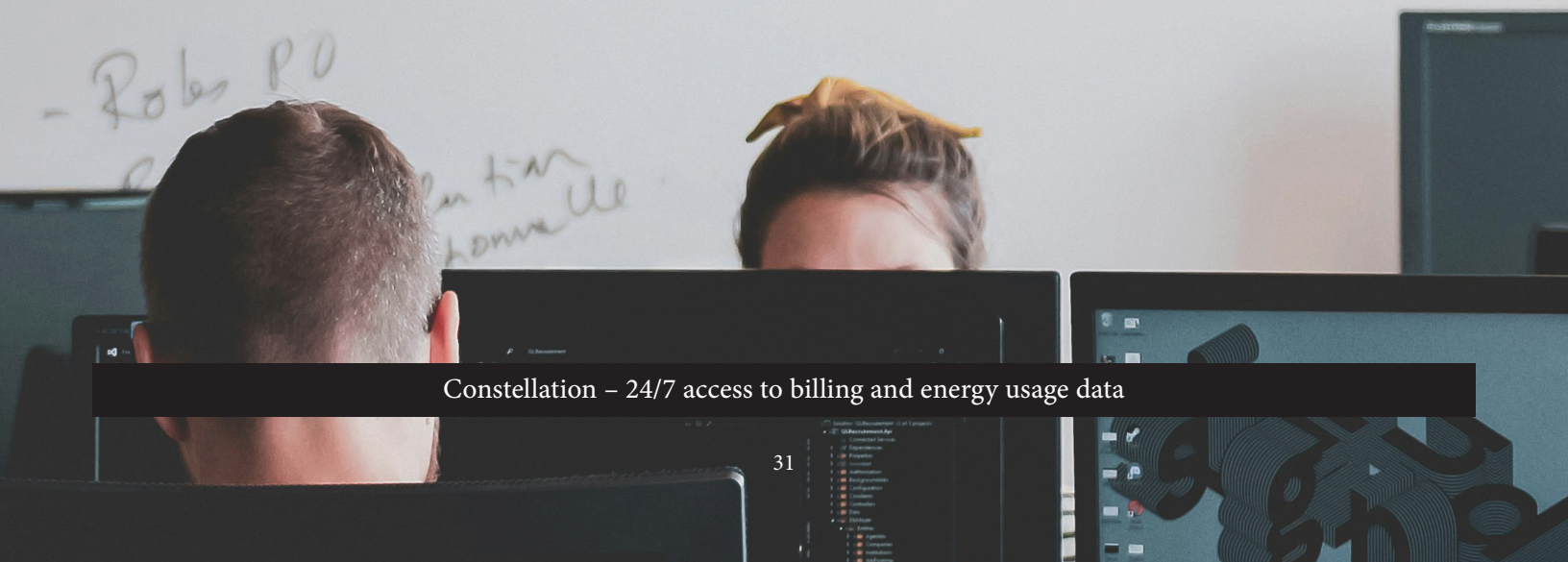
potentially lead to termination. If this occurs in one or more jobs and terminations ensue, the individual may find him or herself in a problematic position explaining their employment history.

Organizations should strengthen screening during hiring and onboarding by implementing regular identity verification, document validation, and careful scrutiny of digital footprints, including professional history, references, and public presence. It is also essential to continuously monitor access behavior, such as login locations, session times, privilege escalations, download volumes, and anomalous data transfers. Companies should provide training to identify and escalate red flags, including camera avoidance, inconsistent time zones, unexplained changes to payment information, and credential anomalies. When concerns arise, organizations must move quickly and thoroughly by preserving evidence, conducting forensic reviews of devices and access logs, interviewing relevant personnel, and isolating affected accounts and systems as needed.

In addition to vetting the recruitment and onboarding processes, Companies may also need to amend their policies to ensure that expectations clearly articulate that employees may not maintain additional employment that conflicts with the hours the individual works with the company or the duties and responsibilities assigned to their position.

To mitigate risks, organizations should promote internal reporting and establish clear escalation paths for suspected fraud. Sharing indicators of compromise and emerging tactics with industry peers and trusted information-sharing communities is also essential. Additionally, companies should incorporate government-issued guidance into their hiring, access control, incident response, and sanctions compliance procedures. Engaging legal counsel and cybersecurity advisors early helps address employment, privacy, security, and sanctions risks, while documenting actions and rationales supports regulatory and litigation readiness.

Key Takeaways: Proactive screening, ongoing monitoring, and cross-functional collaboration are essential to effective detection and prevention of remote worker fraud. Legal, regulatory, and reputational risks can be significant, so it is essential to engage counsel and cybersecurity experts early. Staying informed through government guidance and industry intelligence helps organizations adapt quickly to this evolving risk. ◆



Constellation – 24/7 access to billing and energy usage data

NEW AND AMENDED ILLINOIS EMPLOYMENT LEAVE AND PAID NURSING BREAK LAWS

UB GREENFELDER LLP

Illinois Governor J.B. Pritzker recently signed three new bills that create new leave obligations for Illinois employers: (1) on August 15, 2025, Governor Pritzker signed into law the Family Neonatal Intensive Care Leave Act (the "Act"), which takes effect on June 1, 2026; (2) on August 15, 2025, Governor Pritzker signed into law amendments to the Employee Blood and Organ Donation Leave Act, which take effect on January 1, 2026; and (3) on August 1, 2025, Governor Pritzker signed into law amendments to what formerly was known as the Family Military Leave Act, now renamed as the "Military Leave Act," which took effect that same day. Separately, on August 1, 2025, Governor Pritzker signed into law amendments to the Nursing Mothers in the Workplace Act, which take effect on January 1, 2026.

THE FAMILY NEONATAL INTENSIVE CARE LEAVE ACT

Employers with 16 to 50 employees must provide employees with up to 10 days of unpaid leave if their child is a patient in a neonatal intensive care unit ("NICU"), or the length of time the employee's child is a patient in a NICU, whichever is less. Employers with 51 or more employees must provide employees with up to 20 days of unpaid leave if their child is a patient in a NICU, or the length of time the employee's child is a patient in a NICU, whichever is less. "NICU" is defined as a special care unit that provides medical treatment to premature and critically ill infants. Employees may choose to take the leave continually or intermittently. If intermittently, the employer may require that leave be in minimum increments of not less than two (2) hours.

An employee who takes leave under the Family and Medical Leave Act ("FMLA") while the employee's child is in the NICU, upon exhaustion of that FMLA leave, the employee will still have available all unpaid leave provided for under the Act. So, for example, an employee of an employer with 100 employees, who takes 12-weeks of continuous FMLA leave to care for the employee's child who is a patient in a NICU, upon completion of that FMLA leave, if the employee's child remains a patient in a NICU, the employer must provide that employee with up to 20 days of unpaid leave under the Act.

An employer may require that the employee provide verification of the child's length of stay in the NICU, but cannot request the child's confidential medical information. Employers cannot require that employees use available company-provided paid leave in place of leave provided for in the Act. However, the employee may choose to substitute available company-provided paid leave for any unpaid leave taken under the Act. Employers cannot require employees to find a replacement worker for the time the employee is out on leave under the Act.

Leave under the Act is job-protected, and the employee may not suffer any loss of benefits held or accrued prior to taking leave, including health insurance benefits. Employers are prohibited from retaliating against employees for engaging in protected activity under the Act, and employers who violate the Act are liable for unpaid wages and subject to a civil penalty for each employee affected, not to exceed $5,000.

AMENDED EMPLOYEE BLOOD AND ORGAN DONATION LEAVE ACT

Effective January 1, 2026, the Employee Blood and Organ Donation Leave Act will be amended to require Illinois employers with 51 or more employees to provide paid leave for part-time employees for purposes of serving as an organ donor. The paid leave benefit to serve as an organ donor (and to donate blood) is already available under the Employee Blood and Organ Donation Leave Act for "full-time" employees, a term that is and remains undefined. The amendments also do not define "part-time," so this will likely be determined by each employer based on the employer's own internal definitions/classifications.

Part-time employees may use up to 10 days of leave in any 12-month period to serve as an organ donor. The amendments state that for part-time employees who take leave to serve as an organ donor, employers are required to calculate the daily average pay the part-time employee received during that employee's previous two months of employment, and compensate the part-time employee in the amount of that daily average pay for the leave days used. Thus, it appears that employers cannot require that part-time employees first exhaust available company-provided paid leave (e.g., leave provided under the Paid Leave for All Workers Act) to serve as an organ donor. Prior to taking leave to serve as an organ donor, a part-time employee is required to obtain approval from the employer. Employers may also require that the part-time employee provide the employer with supporting medical documentation of the proposed organ donation before approving any leave for that purpose.

MILITARY LEAVE ACT

Effective August 1, 2025, the Military Leave Act will provide up to forty (40) hours of paid leave to eligible employees serving in a funeral honors detail. The funeral honors detail provisions apply to employers with 51 or more employees. To qualify for this leave, an employee must be employed by the same employer for at least 12 months and have worked at least 1,250 hours during the 12-month period preceding the commencement of the leave. The employee also must be (1) trained to serve in a funeral honors detail of a veteran; and (2) is either (a) an active or retired member of the U.S. Armed Forces or reserve components, including the Illinois National Guard; or (b) be an authorized provider or a

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registered member of a non-profit or other organization that is an authorized provider.

"Funeral honors detail" means an honor guard detail provided for the funeral of any veteran, consisting of at least two members of the U.S. Armed Forces, one of whom is from the deceased veteran's service branch, with the remainder of the detail consisting of members of the armed forces, whether retired or not, or members of an authorized provider.

Employees may use up to 8 hours of paid leave per calendar month, with a maximum of 40 hours per calendar year, to participate in funeral honors details. An employee taking this leave is not required to first exhaust any company provided leave, and this leave is in addition to any other relevant paid or unpaid leave, for example, under the Uniformed Services Employment and Reemployment Rights Act and/or the Illinois Service Member Employment and Reemployment Rights Act, both of which provide for protected but unpaid "funeral honors duty."

Employees must provide their employers with reasonable advance notice, and the employer is allowed to request confirmation of participation from the relevant veteran service organization or other official notice. Certain employers, such as independent living facilities, may deny an employee's leave request if granting the request would reduce staffing levels to below the established minimum or impair the safe and efficient operations of the facility.

Employers must pay the employee at the employee's regular rate of pay for any funeral honors detail leave. Finally, funeral honors detail leave is job-protected.

NURSING MOTHERS PAID BREAKTIME

Effective January 1, 2026, the Nursing Mothers in the Workplace Act requires employers to compensate nursing mothers for breaks taken to express breast milk at their regular rate of pay, unless doing so would create an "undue hardship" as that term is defined under the Illinois Human Rights Act. Employers may not require nursing mothers to use paid leave during such break time or otherwise reduce the employee's compensation during that break time. ◆

NEW TAX SAVINGS FOR ILLINOIS MANUFACTURERS

MILLER COOPER & CO, LTD

New tax laws aim to stimulate manufacturing activity. Signed into law on July 4th, the "One Big Beautiful Bill Act" (the Act) expands deductions for capital spending, interest, research expenses, and state and local taxes. It also extends several major provisions about to expire, including individual tax rates, the Qualified Business Income Deduction (QBID), and the estate tax exemption.

The Act further encourages mergers and acquisitions by increasing opportunities for exempt and reduced tax on gains. Buyers of businesses can benefit from improved after-tax returns on investment, as cash otherwise paid in taxes becomes available to reinvest. Meanwhile, the state of Illinois has launched a new tax credit for Advancing Innovative Manufacturing.

This article summarizes the business aspects, but readers should consult their tax advisors for guidance specific to their circumstances.

CONTINUED LOW RATES, NEW INCENTIVES

The Act resolves the uncertainty as to whether favorable tax rates would continue after 2025. The 37% maximum individual rate and the 20% QBID deduction allowed to most non-service businesses are now permanent. In combination, they effectively make the top tax rate 29.6% (37% times 80%) on income from pass-through entities, such as S corporations and Limited Liability Companies filing as partnerships.

By comparison, while regular C corporations have enjoyed a permanent 21% tax rate since 2018, they are subject to double taxation in that stockholders pay an additional 23.8% tax on dividends, including net investment income tax. This results in a combined effective tax rate of 39.8%.

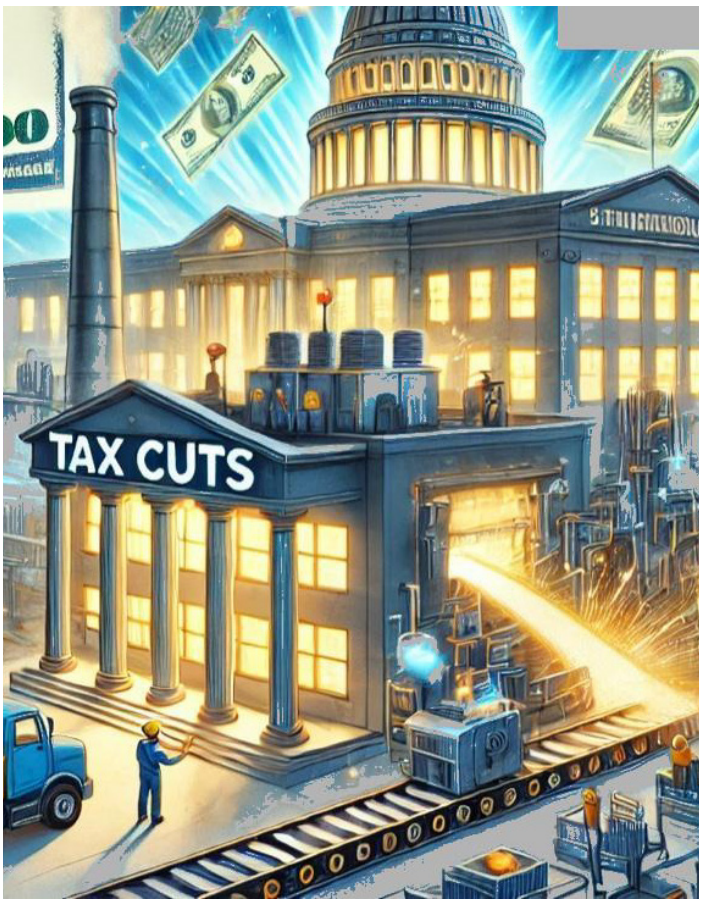
FOR EXAMPLE $1,000,000 in income is taxed first to the corporation for $210,000, leaving $790,000 for a dividend. Of that amount, stockholders incur a tax of 23.8% or $188,020, leaving $601,980. Taxes total $398,020 or a 39.8% rate.

However, C corporations may qualify for paying zero tax on the sale of stock after a five-year holding period. In that case, assuming no dividends are paid, only a single level of tax at the 21% corporate rate is owed. This 100% exemption from gain, technically known as section 1202 for Qualified Small Business Stock (QSBS), started in 2010. For QSBS issued after July 4, 2025, the Act introduces new benefits: A 50% exemption after three years and a 75% exemption after four years. Moreover, the gain exemption is now the greater of ten times the stock basis or $15 million, instead of $10 million. Finally, the asset threshold for qualifying businesses increases from $50 million to $75 million.

Readers should keep in mind that only sales of C corporation stock qualify, making this an all-or-nothing proposition. Sellers get either a full exemption 0% federal income tax on a stock sale, or a burdensome 39.8% double tax on an asset sale. Unfortunately, buyers typically prefer purchasing assets rather than stock to avoid assuming liability exposures associated with the previous company. Asset purchases also offer tax step-up benefits for buyers. Moreover, certain industries are ineligible for QSBS, including services, hospitality, farming, insurance, finance, and mining.

The Act also makes permanent the ability to defer capital gains by reinvesting proceeds into designated economically distressed opportunity zones. Holding the property for five years increases the basis by 10%, or by up to 30% if located in a qualified rural zone, thereby reducing the taxable gain. Appreciation is exempt from tax after a ten-year holding period, and the entire gain is exempt after a thirty-year hold.

As to estate and gift taxes, the exempt portion of individual estates will be $15 million in 2026, rather than dropping to $7 million under the prior law. The exemption is now permanent and will be adjusted for inflation going forward. However, for those with assets above the exemption amount, the potential tax burden when transferring to



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beneficiaries through gifting or estate remains considerable. The worst-case scenario involves incurring a 39.8% double tax when selling C corporation assets, followed by a 40% estate and gift tax. Continuing with the example above, if the remaining $601,980 is subject to 40% or $240,792 tax, only $361,188, or thirty-six cents on the dollar, remains. Financial planning is needed to mitigate the impact.

EXPANDED CAPITAL SPENDING SAVINGS

The Act incentivizes capital spending, especially for manufacturers. For purchases, 100% bonus depreciation is now available for both new and used tangible personal and certain other property placed into service after January 19, 2025. Previously, the bonus was set to drop to 40% this year, but it has been fully restored. This enhanced benefit applies to machinery, equipment, and even Qualified Production Property (QPP) involving real estate normally depreciated over decades. Under the Act, QPP includes building construction that is newly purchased by the taxpayer, not previously used in manufacturing, and placed into service before 2031.

> "LIKEWISE, ILLINOIS HAS INTRODUCED A NEW TAX CREDIT, ADVANCING INNOVATIVE MANUFACTURING, APPLICABLE TO MODERNIZATION, UPGRADES, AUTOMATION, OR EXPANSION PROJECTS."

The credit ranges from 3% to 7% on qualifying purchases of $10 million or more. In addition to Illinois taxes, the credit can offset payroll withholding. For more information, readers can contact the Illinois Department of Commerce and Economic Opportunity.

Another option for immediate write-offs is Section 179 expensing. The Act increases the 2025 limit to $2.5 million, provided total capital spending does not exceed $4 million. Section 179 allows for the expensing of qualified real property improvements, such as roofs and HVAC systems, as well as tangible personal property.

For maximum savings, managers purchasing or constructing buildings should consider a cost segregation study. This helps identify portions of spending that can be expensed immediately, rather than capitalized as real property and depreciated over time.

With its unlimited 100% depreciation of new and used property permitted under the Act, the bonus seems preferable to the more restrictive Section 179. However, Illinois tax law does not recognize bonuses, so related deductions are spread over the standard recovery periods. As a result, Illinois manufacturers often maximize Section 179 expensing and then apply the bonus only to the eligible amounts remaining.

By using bonus depreciation in business acquisitions to write-off the purchase price allocated to qualifying assets, buyers shield post-acquisition income and defer income taxes during the early years of ownership. In some cases, newly formed companies may owe no income tax in their initial years.

MORE DEDUCTIONS

Interest deductions improve under the Act due to a change in calculation methodology. For 2025, the 30% limitation on interest applies after adding both depreciation and amortization to income, preserving the tax savings from those expenses. Expanded interest deductions free up capital.

Research tax credits are also more beneficial as their capitalization as assets for amortization is no longer required. Additionally, smaller manufacturers can amend prior tax returns to reverse research assets that were previously capitalized.The individual itemized deduction cap for state and local taxes (SALT) will increase in 2025 from $10,000 to $40,000 through 2029, subject to income-based phaseouts. Although the Act still has a cap, the state of Illinois will need to take separate legislative action to make the Pass-Through Elective Tax (PTET) effective for 2026 and subsequently. PTET allows pass-through entities to pay owner personal state taxes, bypassing the SALT deduction limits.

Additional longstanding tax incentives are worth reconsidering. In an inflationary environment, the last-in, first-out (LIFO) method for valuing inventory enables companies to expense current, higher costs against sales instead of older, lower costs. Simplified methods, such as using government indices, make it possible to adjust to LIFO only for year-end, minimizing disruption to normal accounting practices. Businesses might also elect to expense recurring prepaid items, such as insurance. Similar to capital spending incentives, prepaying these items can provide immediate tax deductions.

Manufacturers averaging revenues below $31 million can elect simplified and potentially advantageous tax filing methods. For example, the cash basis of accounting gives taxpayers more control over income and expense timing. These businesses may also be exempt from the complex and often costly Unicap rules, which require adding certain overheads to inventory costs.

Readers need to keep in mind that tax strategies always carry a degree of uncertainty. This article references many changes as "permanent." Unfortunately, in tax law, "permanent" does not mean forever. New tax legislation could always change the rules. In this context, "permanent" simply means that the provision is not scheduled to expire. ◆

MEMBER NEWS

Gaby Garza from the IMA recently participated in the Edgar Fellows Program, joining fellow participants Donovan Griffith, Sarah Hartwick, and Patrick Schweska. Former Governor Jim Edgar established this program upon his retirement, focusing on leadership training.

The Edgar Fellows Program lasts for one week. It gathers 40 leaders from across Illinois, including elected officials at both the state and local levels, as well as representatives from the business community, organized labour, education, and non-profit organizations. With over 200 applicants vying for just 40 spots, it is a highly selective initiative. The program aims to foster collaborative solutions to some of the state's most pressing issues. Congratulations Gaby!

MTH PUMPS

MTH recently celebrated its 60th anniversary on Friday, August 15, with a company dinner in Naperville. During the event, they honored both current and former team members, as well as their supplier partners. A highlight of the evening was the recognition of 93-year-old Dave Tremain, the company's founder, who established MTH on August 15, 1965, in Dayton, OH. The celebration was attended by 92 individuals, including team members, former employees, supplier partners, spouses, friends, and family.

AT&T

AT&T is dedicated to connecting people to new opportunities in Illinois. That's why the company is excited to announce that it has invested nearly $4.8 billion in network infrastructure in Illinois from 2020 to 2024. This significant investment highlights AT&T's commitment to enhancing connectivity, which is essential for driving economic growth and creating opportunities for residents throughout the state.

Currently, AT&T offers 3.3 million miles of AT&T Fiber® in Illinois, serving 870,000 customer locations across 230 cities. The wireless voice and data network covers more than 99% of all Americans, including residents of Illinois, from rural areas to urban centers. AT&T is also improving network performance in high-traffic locations such as airports, stadiums, and other venues, including the United Center, Soldier Field, Chicago O'Hare International Airport, and Chicago Midway International Airport.

In less densely populated areas, such as Freeport, Galena, Rushville, Centralia, Pinckneyville, and Lincoln, AT&T is expanding its 5G network to ensure residents have access to reliable connectivity. Additionally, the company is collaborating with AST SpaceMobile to offer voice, data, text, and video services in remote, off-grid locations.

To better meet customer needs and provide faster, more reliable services, AT&T is actively investing in modernizing its networks. This investment prepares the company for the demands of the next century, not just the past.

Rahco Rubber, Inc.

Rahco Rubber is thrilled to welcome Casey Shaw as the newest member of Team Rahco! Casey will lead the company's expansion into the Southeast region, bringing with him a wealth of experience and a strong customer-first mindset.

With a solid background in business development across various high-demand markets, Casey has a proven track record of assisting customers in developing engineered materials and products tailored to their most complex and challenging needs. His industry experience includes automotive, aerospace and defense, custom packaging, tape and gasket production, and flooring, making him a versatile and knowledgeable partner for clients. Casey holds a Bachelor of Science degree in Textile Management from North Carolina State University. Welcome, Casey!

Gotion Illinois

GOTION ILLINOIS FACILITY CREATES JOBS, DRIVES LOCAL ECONOMIC GROWTH

MANTENO, Ill. – Gotion Illinois is bringing new life to Manteno with a $2 billion investment in a 1.5 million-square-foot battery manufacturing facility. The project will create 2,600 high-quality jobs over the next several years, with more than 300 expected by the end of 2025.

The facility contributes about $2 million annually in property tax revenue and partners with local schools, workforce programs, and community organizations. Employees earn 20% above the regional average and receive comprehensive benefits.

Production lines are already underway, with more scheduled to launch by year's end. Construction of the site's first battery cell manufacturing line is on track for completion in early 2026.

In addition to its operations, Gotion has provided $420,000 in local philanthropy so far in 2025, supporting first responders, schools, veterans' services, and community programs—with a goal of $600,000 by year-end. For more information, visit gotionillinois.com

GENERAL MILLS RELEASES FIRST U.S. ECONOMIC IMPACT REPORT

In the week of September 4, General Mills released its first U.S. Economic Impact Report, showcasing its contributions to the economy, jobs, and local communities. For nearly 160 years, the company has been dedicated to making food people love while driving economic growth and supporting communities nationwide.

Highlights include:

- Growing the U.S. economy: $19.3 billion contributed; $345 million spent on U.S. wheat.
- Supporting jobs: 134,000 U.S. jobs supported; every 100 direct jobs create an additional 730 in the broader economy.
- Strengthening communities: $3.3 million given to local nonprofits; $3.1 million to schools through Box Tops for Education, with nearly $1 billion contributed since the program's start.

ABBOTT AND BIG TEN LAUNCH SECOND ANNUAL 'WE GIVE BLOOD' DRIVE

Abbott and the Big Ten Conference have partnered for the second annual "We Give Blood" drive, running through December 5, 2025. The competition encourages students, alumni, and fans to donate blood and support their university. The school with the most donations will receive a $1 million grant from Abbott to advance student or community health initiatives. Participants can also earn a limited-edition Homefield T-shirt by submitting proof of donation. For more details and to donate, visit bigten.org/abbott.

BUILDING THE FUTURE OF PLASMA-DERIVED THERAPIES IN ILLINOIS: TAKEDA'S NEW MANUFACTURING SCIENCES LAB

Illinois has long been a hub for innovation in pharmaceutical manufacturing, and Takeda's latest investment in Libertyville continues that legacy. Construction is officially underway on a new state-of-the-art manufacturing sciences lab (MS lab) at Innovation Park in Libertyville. The lab is designed to advance in-house research and development, improve manufacturing efficiency, and pioneer new practices in the production of a life-transforming plasma-derived therapy that is used to treat patients with liver disease, trauma, and other serious conditions.

WHO IS TAKEDA?

Takeda is a global biopharmaceutical company with an over 240-year history rooted in values of integrity, fairness, honesty, perseverance, and putting patients first. While headquartered in Tokyo, Japan, Takeda has a strong R&D and manufacturing presence in the United States, including its Round Lake and Libertyville sites in Illinois. These facilities are part of the company's global plasma-derived therapies (PDT) manufacturing network, which focuses on producing treatments for rare and complex conditions using plasma collected from donors worldwide.

THE VISION BEHIND THE MS LAB

The new MS Lab in Libertyville demonstrates Takeda's commitment to innovation and excellence. By creating a dedicated space for manufacturing sciences, Takeda aims to: Enhance production efficiency and scalability, Foster collaboration among scientists, engineers, and manufacturing teams and Support continuous improvement in the quality and reliability of plasma-derived therapies

This initiative is not just about infrastructure; it's about advancing manufacturing and life sciences to better serve patients. As construction progresses, Takeda will share updates and milestones with the community.

SIC CELEBRATES GRAND OPENING OF STAN WILLIAMS CAREER AND TRAINING CENTER

Tue, August 5, 2025 by Jc Tinsley

Regional, community, and college leaders gathered Tuesday to celebrate the Grand Opening and Ribbon Cutting of the Stan Williams Career and Training Center at SIC's Carmi campus. Ground was first broken at 1700 College Avenue in April 2022, and the center is now set to serve as a regional hub for career and workforce training.

SIC President Dr. Karen Weiss called the project "a celebration of progress, partnership, and purpose," noting it represents more than just a building, but "a gateway to opportunity" for students to gain real-world skills and training.

A $500,000 donation from Stan Williams helped bring the project to completion. Additional support came from Chris Mitchell of George Mitchell Drilling, the Absher Charitable Foundation, Elastec, Vibracoustic, Martin & Bayley, Campbell Energy, and Roark Transport.

SIC Trustee Dr. Frank Barbre emphasized the role of community partners, saying the expansion "wouldn't have been possible without everybody's part to play.

ECOLAB TO ACQUIRE OVIVO'S ELECTRONICS BUSINESS

Ecolab Inc. has entered into a definitive agreement to acquire Ovivo's Electronics business, a global provider of ultra-pure water technologies for semiconductor manufacturing. The $1.8 billion cash deal will expand Ecolab's high-tech water platform, combining Ovivo's advanced purification systems with Ecolab's water, digital, and service solutions to help microelectronics customers reduce freshwater use while maximizing chip quality and output.

Ovivo Electronics, projected to generate $500 million in sales in 2025 with 900 employees worldwide, delivers the world's purest water — essential for advanced microchip production. "This acquisition more than doubles the size of our high-tech water business and positions Ecolab as a clear leader in fast-growing microelectronics and AI markets," said Christophe Beck, Ecolab chairman and CEO.

The acquisition is expected to close in Q1 2026, subject to regulatory approval, and will be immediately accretive to sales growth with strong returns projected through 2027 and beyond.

For more information, visit ecolab.com

Quality Metal Products, INC Wins Prestigious Excellence Award from Caterpillar Inc.

Quality Metal Products located in Peoria, Illinois announced it has won the Caterpillar Supplier Excellence Award 2025 from Caterpillar Inc. (NYSE: CAT). Caterpillar procurement leadership presented the award at the Supplier Excellence Recognition event in Grapevine, Texas, on September 9, 2025.

This year's recognition carries special significance as Caterpillar celebrates 100 years as a company and a century of innovation, resilience and global impact. Quality Metal Products, INC is honored to be part of this historic milestone, which underscores the power of long-term supplier relationships that help Caterpillar deliver on its purpose: to help customers build a better, more sustainable world.

"This recognition is a testament to our team's dedication, hard work and collaboration with Caterpillar," said Jo Dunbar, President of Quality Metal Products, Inc. "To be honored during Caterpillar's centennial year makes this moment even more meaningful."

"Caterpillar depends on suppliers like us to provide high-quality, defect-free products that meet or exceed the company's standards. We're proud that our team has collaborated with Caterpillar to help them provide products and services to their customers all over the world," said Lori Gaskins, Vice-President, Quality Metal Products, Inc.

Founded in 1974 and proudly headquartered in Peoria, Illinois, Quality Metal Products, Inc. has built a legacy of precision, reliability, and long-standing partnership. Since its inception, the company has served as a trusted supplier to Caterpillar Inc., delivering high-quality metal components that meet the rigorous standards of the heavy equipment industry.

In 2024 alone, Quality Metal Products supplied over 400,000 individual pieces across more than 1,200 distinct part numbers, specializing in elbows, brackets, and supports. This impressive output reflects the company's commitment to excellence and its capacity to scale with demand.

With a dedicated workforce of over 100 employees, Quality Metal Products continues to invest in innovation, craftsmanship, and customer satisfaction—driving forward the manufacturing strength of the Midwest and beyond.

NEW IMA MEMBERS

AUTOMATED LOGISTICS
Jackson, Michigan

BRUNSWICK CORP
Mettawa, Illinois

CACHE ENERGY
Champaign, Illinois

CHIP'S TOOL & MACHINE WORKS INC
Peoria, IL

EL PRUITT CO
Springfield, IL

ELEVATION GLOBAL INDUSTRIES DBA QUARI ICE
Chicago, IL

FLEXTRONICS INTERNATIONAL USA INC
Buffalo Grove, IL

LIFEWAY FOODS
Morton Grove, IL

NATIONAL POWER CORPORATION
Chicago, IL

RANA MEAL SOLUTIONS
Bartlett, IL

SAFETY STORAGE
Charleston, IL

WELCOME TO THE IMA!

Constellation – 24/7 access to billing and energy usage data

Constellation is the easy answer to complex energy purchasing decisions. Energy professionals at Constellation, the IMA endorsed energy supplier, work with IMA members to manage energy costs to protect their bottom line. Using a customized strategy, integrated energy solutions, and efficiency and sustainability programs, we have the solutions you need to fit your budget.

To learn more about participating in the IMA energy program, contact please contact Rich Cialabrini at **richard.cialabrini@constellation.com** or **847.738.2510**.

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