

Our Commitment From the Start



East Penn Manufacturing

CORPORATE SUSTAINABILITY REPORT

About Our Business

East Penn Manufacturing Co., Inc., a privately-held company, operates the world's largest single-site, lead-acid battery manufacturing facility in the industry. Headquartered in Lyon Station, Pennsylvania, East Penn is the industry leader in its commitment to sustainability throughout its operations.

East Penn's extensive product line includes more than 450 types of batteries and related products serving four key segments: SLI (Starting, Lighting, and Ignition), Motive Power, Stationary, and Wire and Cable.

Markets We Serve



Automotive

East Penn manufactures SLI batteries that provide starting power for cars, light trucks and vans, and many other vehicles. Our wire and cable products include booster cables, terminals, battery cables, and bulk wire, among many other accessory items.



Commercial

East Penn's power storage solutions provide starting, auxiliary, and deep cycle power for heavy-duty line-haul trucks, sleeper cabs, mixers, loggers, dump trucks, farm tractors, and other heavy construction and off-road equipment.



Marine

From personal watercraft to luxury yachts and commercial vessels, our line of marine batteries provides starting, auxiliary, and deep cycle power in marine applications of virtually every size and description.



Motive Power

Our motive power batteries are used in a wide variety of demanding industrial applications, including sit-down riders, walkies, stand-up riders, floor scrubbers, scissor lifts, mining vehicles, and locomotives.



Specialty

East Penn's specialty batteries are found in wheelchairs, golf cars, lawn and garden tractors, motorcycles, all-terrain vehicles, medical devices, electronic security, and broadband cable TV.



Stationary Power

Our stationary battery products serve the needs of telecommunications, data centers, renewable energy, and other industries, providing reliable back-up power supply to support critical business functions.

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Sustainable

Since Day One

In 1946, when our family first started in this business, we worked hard to take care of our customers, our co-workers, and our community. Today, more than six decades later, East Penn Manufacturing has undergone enormous growth, but our commitment to doing the right thing by those three stakeholder groups has never wavered.



Sally S. Miksiewicz
Chief Executive Officer and Vice Chairman

I've been fortunate to spend my entire career with East Penn. One of the reasons I love this company so much, and why it has prospered and endured, is that we embrace the concept of treating each other right and taking care of our customers and the surrounding communities. That commitment is deeply embedded throughout our organization. It begins with leadership, but it is brought to life by the actions of our co-workers at every level of the company.

Being a truly sustainable enterprise comes down to making thousands of small decisions that carefully weigh the social, environmental, and economic effects on all our stakeholders. Even as we invest and grow, East Penn remains intently focused on ensuring that our actions protect the health, safety, and vitality of the surrounding community.

This report details our key initiatives and the results of those efforts. We're proud of our progress as well as our ability to adapt to change, but always mindful of our core beliefs and values.

My family has spent a lifetime investing its passion to build an enterprise that respects people and the environment. On behalf of them, and our thousands of valued co-workers, I am pleased to share with you our story of commitment.

Sincerely,

Sally S. Miksiewicz
Chief Executive Officer
and Vice Chairman

Q&A

Where It Started, Where We're Going DeLight Breidegam and Sally Miksiewicz



DELIGHT BREIDEGAM

Q

East Penn's commitment to sustainable practices goes back to its earliest days. What started you on that path?

A

(DeLight) We began in 1946 as a battery rebuilding business in a small, one-room creamery. We didn't have much money, but I knew that if we conserved what we had, and re-used everything we could, those were savings we could put back into the business. It was part of the culture I grew up with – take care of what you have, and protect resources whenever possible. Back then we didn't call it sustainability, we called it common sense. And we've stayed true to those principles and built upon them in all the years that followed.

Q

How does employee engagement contribute to achieving your sustainability objectives?

A

(DeLight) In manufacturing, the solution to nearly every problem can be found on the factory floor – with the men and women who operate the machinery and produce the product. So we make sure that employees have a strong voice in improving our designs and processes. When management set the goal of zero wastewater discharge, or said that we would be the first in our industry to recycle battery acid, we achieved those objectives because our employees devised creative solutions to complex problems. It's the people here who provide the expertise that keeps us growing and makes us sustainable.

Q

What's the role of quality in operating a sustainable business?

A

(Sally) The quality and reliability of our products is crucial. To be truly sustainable, a product first must be durable. Our customers rely on our batteries and accessories for important jobs like starting a car or truck, operating a forklift or mining vehicle, providing backup power, or jump starting a vehicle – there are hundreds of applications. The performance of every product we make can either improve or diminish East Penn's reputation. That's why we perform hundreds of quality checks on our products, and apply Six Sigma techniques and other programs to minimize defects and ensure reliable, long-lasting performance.



SALLY MIKSIEWICZ

Q

What are the advantages to East Penn being a private company?

A

(Sally) One key benefit of our private ownership structure is a commitment to continuous reinvestment in the business. We have a favorite expression – “we're into growing oak trees, not mushrooms.” What that means is our focus will always remain on the long-term viability of the enterprise, and we will continue to grow through our investments in innovation, new products, and sustainable practices as well.

Q

With the increasing electrification of cars, the growth of renewable energy sources, and investments in a smarter grid, how does East Penn fit into this evolving energy future?

A

(Sally) This is an incredibly exciting time to be in the energy storage business. We have some of the most talented engineers and R&D teams in the industry. Their work is proving that our advanced lead-acid batteries can play a major role in hybrid vehicles and locomotives, solar and wind systems, smart grid technology, and other applications as well. The energy landscape is evolving, and we're well positioned to change with it.

Q&A

Customer Connection & Commitment Dan Langdon and Chris Pruitt



DAN LANGDON

Q

East Penn has a strong record of continuous reinvestment in the business. How do customers benefit from that approach?

A

(Dan) One of the most important things a customer wants to know is: Will you be a reliable partner for the long term? Ultimately, your business can't be sustainable unless you are investing in R&D, advanced technology, new plant and equipment, and the people necessary to make it all work. On the OE side, we are proud of our longstanding relationships with premier companies like Caterpillar, GM, Harley-Davidson, Daimler, Honda, MTD, and BMW. We've maintained those partnerships because they know that we keep our commitments and that we will continue to invest in quality and innovation.

Q

How has East Penn achieved over twice the industry growth over the last decade?

A

(Dan) It begins with people – both our customers and our co-workers. We talk to customers every day to better understand their challenges and how we can strengthen our product set to meet those needs. With that knowledge in hand, it's East Penn people who provide the new product solutions and deliver the quality that meets and exceeds customer expectations over the long term. Another key to our growth is the diversity of our product line and the end markets we serve. We have a robust commitment to R&D, and the innovations developed by our engineers are often leveraged into new products across several diverse markets.

Q

Whether it's a retailer, an OE manufacturer, or an industrial customer, there is increasing scrutiny of the sustainable performance of their suppliers. What do you tell them about East Penn?

A

(Chris) Whenever possible, we prefer to show them in person. And when they come here they see "sustainability" is not just a buzzword, it's part of our DNA. When we show them our on-site battery recycling process and smelter, and our acid recycling plant, and our high-tech water treatment facility, and our data on safe blood lead levels in our workforce, it comes through very clearly that sustainability is deeply rooted in our culture, and plays a huge role in the decisions we make every day. Our customers recognize that we are the type of company that they will be able to do business with for years to come.



CHRIS PRUITT

Q

Overseas markets, especially the developing world, represent some of the most attractive opportunities for energy storage. How is East Penn leveraging those opportunities?

A

(Chris) In recent years we have significantly grown our presence in China, which is an extremely important market for us. In 2006, we launched East Penn International, headquartered in Wujiang, China, as a base to serve the needs of our multinational customers throughout China and the entire Asia-Pacific market. Our joint venture with Banner GmbH of Linz, Austria, and Gonher de México of Monterrey, Mexico, has allowed us to strengthen our market position and customer service throughout Europe and Mexico. Joint ventures with Acumuladores Duncan in Venezuela, Acumuladores Moura S.A. in Brazil, and Exide Industries Limited in India have also proven to be effective in expanding our reach in what are some of the fastest-growing markets in the world.

Sustainability

Battery Recycling

East Penn operates a safe, modern, state-of-the-art battery recycling facility that processes approximately **30,000 batteries** per day. This closed-loop automated system recycles virtually **100 percent** of each spent battery, including lead, plastic, steel, and acid. Each year East Penn processes an average of **17 million batteries** in environmentally-safe, EPA-permitted recycling facilities. This accounts for approximately two-thirds of all lead used in the manufacture of new batteries.

Lead Recycling

Our EPA- and Pennsylvania Department of Environmental Protection-permitted smelter recycles nearly **200 million pounds** of lead per year.

Plastic Recycling

Plastic battery cases and covers are cleaned and ground into polypropylene pellets that are molded into new cases and parts at our on-site injection molding facility. East Penn recycles over **11.8 million pounds** of plastic per year.

Acid Recycling

East Penn's acid reclamation plant was the first in the industry. This patented process recycles approximately **6 million gallons** of acid per year, diverting this material from potentially hazardous disposal. That amount could fill over nine Olympic-size swimming pools.

Water Recycling

One hundred percent of industrial wastewater is recycled at East Penn's two highly advanced water treatment plants. This zero discharge system recycles over **31.5 million gallons** of water per year.

Minimizing and Monitoring Emissions

East Penn monitors air quality from testing stations in the adjoining community and on the Lyon Station campus. Ambient air lead concentration readings continuously **remain below government-mandated standards**, including the highly stringent 2008 EPA requirements.

Powering a Greener Future

East Penn's energy storage innovations are enabling several of the most promising green technologies. Our Advanced Valve-Regulated Lead-Acid (VRLA) batteries have proven their effectiveness in mild- and mid-hybrid electric vehicles, including start-stop hybrid applications. A smart grid project, in partnership with the U.S. Department of Energy, is designed to leverage the breakthrough capabilities of the **UltraBattery®** to improve grid efficiency and utilization of renewable energy sources.

Certifications, Awards and Recognitions

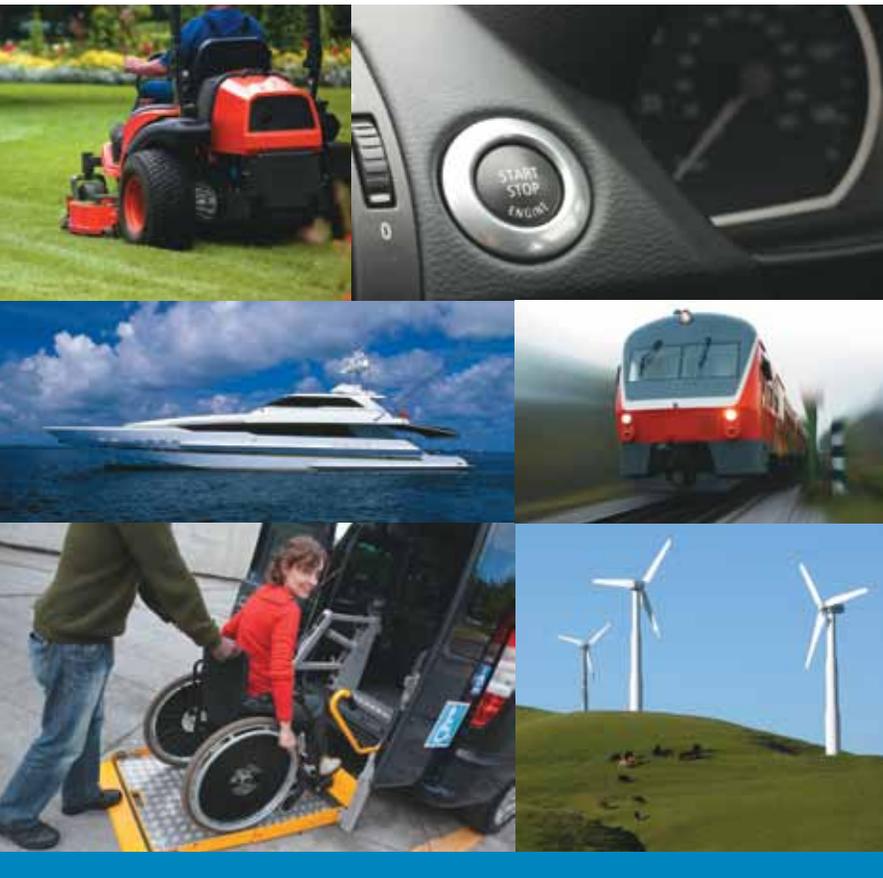
- Entire 520-acre complex certified to International Organization for Standardization ISO 9001:2008, ISO/TS 16949:2009 and ISO 14001:2004 requirements
- American Society of Safety Engineers (ASSE) Industrial Safety Award
- Pennsylvania Governor's Award for Outstanding Environmental Excellence
- "Best Places to Work in PA" for 11 consecutive years since 2001
- *Fortune* magazine's "100 Best Companies to Work For" in 2006
- Environmental Stewardship Award, Pennsylvania Institute for Children's Environmental Health

y At-A-Glance



Innovative Products, Strategic Positioning

East Penn Manufacturing's well-established and diverse product line has created leading positions in many of the most important segments in our industry. One of the few lead-acid battery manufacturers to offer a full assortment of flooded, gel, and Absorbed Glass Mat (AGM) technologies, our more than 450 product designs meet the needs of applications from wheelchairs and motorcycles to locomotives and mining vehicles – ranging in size from 6 pounds to over 50,000 pounds. East Penn's continuing emphasis on quality, reliability, innovation, and responsiveness to customers has produced a compound annual revenue growth rate that is more than double the industry's.



East Penn's Four Principal Operating Divisions

SLI (Starting, Lighting, and Ignition) East Penn designs and manufactures hundreds of energy storage devices that serve the automotive, truck, marine, motorcycle, and lawn and garden industries. We are the second largest provider of SLI batteries in the North American market. The majority of production is sold on a private label basis, including distribution through many of the major auto parts retailers in North America.

Stationary Batteries meet the needs of telecommunication, data centers, renewable energy, and other industries where uninterrupted power is essential, providing back-up power supply to critical business applications. Under this division, we rank third in the valve-regulated lead-acid battery market in North America. Batteries in this segment are distributed primarily under the Deka Unigy and Deka Solar brands.

Motive Power Batteries are focused on larger energy storage units used primarily in forklift operation. This line also includes batteries for automated guided vehicles, airline ground support, mining, and locomotives. East Penn ranks second in the North American market for the manufacture and sale of motive power batteries, sold primarily under the Deka brand name.

Diversified Products include a variety of wire and cable products and battery accessories. Products include booster cables, terminals, battery cables, and bulk wire. East Penn is the largest provider of cable products in North America.

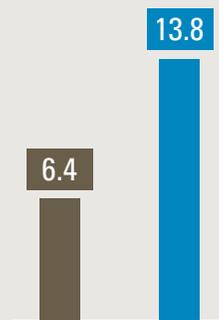
Reinvesting in Innovation and Efficiency

Independent and privately-held, East Penn has a more than 65-year record of reinvesting earnings in innovation, increased efficiency, and processes that reduce waste and emissions. Our focus on the long term drives an ongoing emphasis in expanded capacity, research and development, and emerging technologies that align with a changing energy storage landscape.

Our Performance Indicators

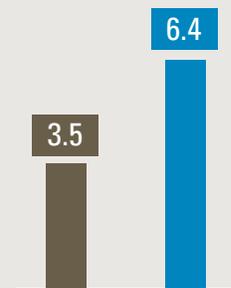
East Penn vs. Industry

Sales Compounded Annual Growth Rate 2005-2010 (percent)



East Penn grew over the last five years at a compounded annual growth rate of **13.8%** versus the industry compounded annual growth rate of **6.4%**. This represents **over twice the growth rate** of the remaining industry.

Capital Investment As a Percentage of Sales Five-Year Average (percent)



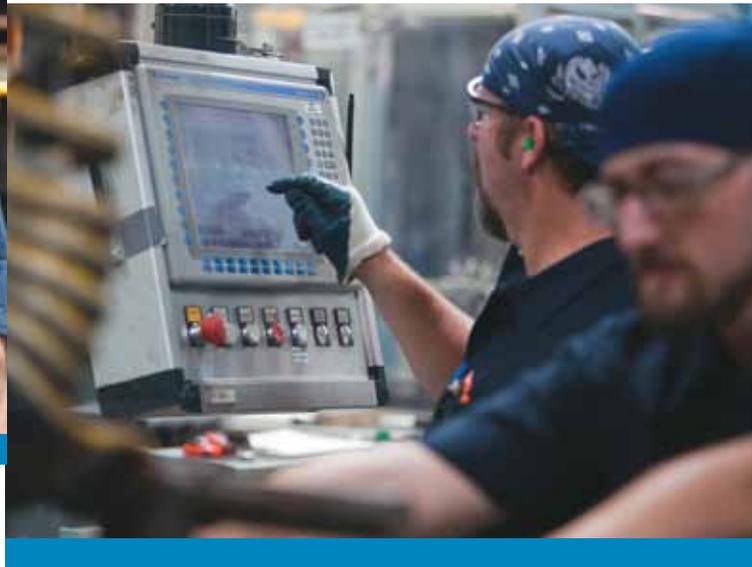
East Penn's five-year average capital investment as a percentage of sales **exceeded the industry's average by 1.8 times.**

Make It Right, Make It Last

Quality Drives Sustainable Success

At East Penn, we understand that being sustainable means designing and manufacturing defect-free, durable products that provide years of reliable performance. We achieve one of the lowest defect rates in our industry through a deeply embedded quality-centered culture and the relentless application of continuous improvement initiatives. Our company-wide system defines, measures, analyzes, improves, and controls processes to achieve higher levels of efficiency and quality.

East Penn's emphasis on quality and process improvement is not new. The focus on continuous improvement in all things began over a half century ago and is brought to life each day by our workforce that is engaged and empowered to create positive change.



A quality-centered culture requires an engaged workforce that is empowered to apply steady improvement in all things.

Centralized Quality Control

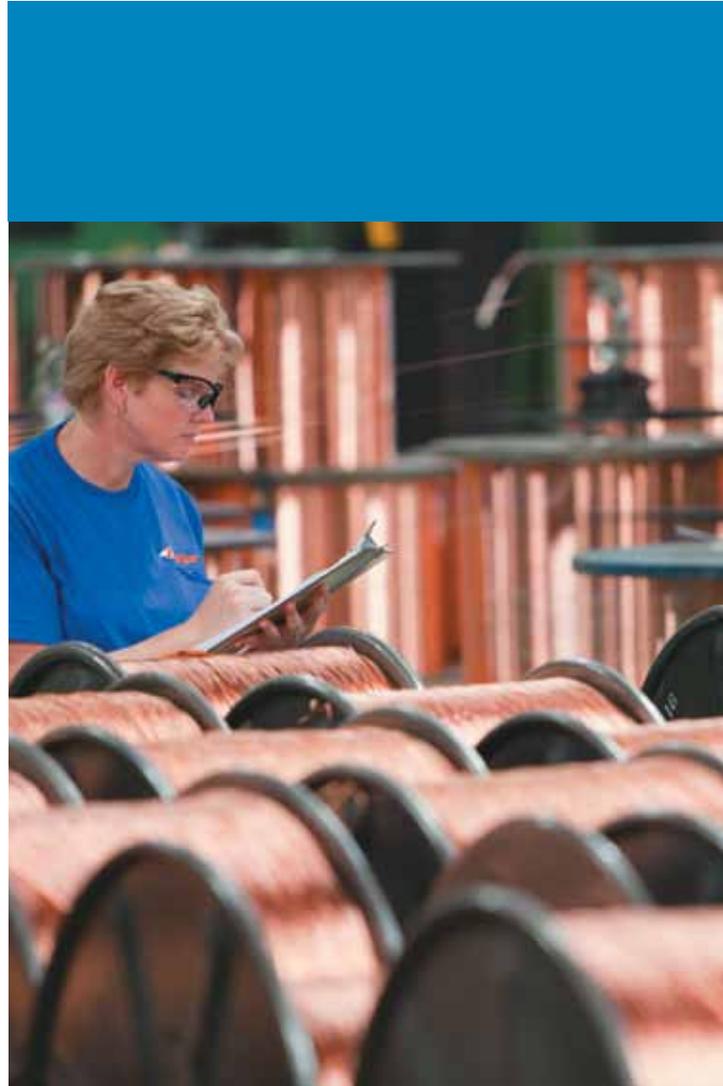
All of our energy storage products receive more than 250 quality checks, with accompanying standards and corrective measures. This comprehensive quality control program begins with raw materials and continues to component manufacturing, assembly, formation, finishing, final production, and product testing. Leveraging the benefits of a centralized system of quality control and a single-site campus, our quality control inspectors, supervisors, and directors report to the Vice President of Quality with a direct line to executive management.

Six Sigma Drives Excellence

East Penn employs Six Sigma initiatives to identify and eliminate the causes of defects and reduce variability in manufacturing and business processes. Six Sigma principles are incorporated into all functions, including manufacturing, distribution, accounting, design, finance, IT, logistics, marketing, and sales.

Lean and OEE to Enhance Efficiency

Eliminating costs and resource expenditures that do not add value to the customer is the discipline that underpins lean manufacturing techniques at East Penn. Lean principles help ensure that we optimize production, safety, and environmental performance. Overall Equipment Effectiveness (OEE) analysis is applied to better align resources with demand, resulting in a better value proposition for our customers. East Penn also subscribes to a Total Preventative Maintenance (TPM) program. TPM is a key concept that improves multiple facets of the organization, including safety, quality, production, and overall equipment effectiveness.



WHERE SOLUTIONS START

To achieve our continuous improvement goals, co-workers are regularly engaged in identifying problems and opportunities to enhance quality and process efficiency. Regular suggestion and “tailgate” meetings bring together line personnel, plant management, quality control, on-site R&D, and engineering leaders. The result is a productive exchange of ideas that produces workable solutions to even the most challenging problems. During the last seven years, through our suggestion program, East Penn has received almost 4,600 employee suggestions.



The Vertical Integration Advantage

East Penn's Lyon Station manufacturing facility, the world's largest single-site facility in the industry, creates advantages that drive value, efficiency, and sustainability. Included within 520 acres in Berks County, Pennsylvania, are approximately 3.25 million square feet of building space under roof. The campus incorporates all the facilities required for the design, manufacture, distribution, and recycling of East Penn products.

Transportation and Logistical Efficiencies

Component materials produced on-site require no over-the-road transportation before assembly. Hundreds of millions of pounds of lead, plastic, and acid are recycled into new energy storage products each year without the expense and environmental impacts of extended transportation.

Uniform Raw Materials Testing and Quality Control

With three fully equipped technical/lab centers on-site, East Penn benefits from centralized testing of all incoming raw materials as well as those produced at its smelter, oxide, and injection molding facilities.

Enhanced Information Sharing

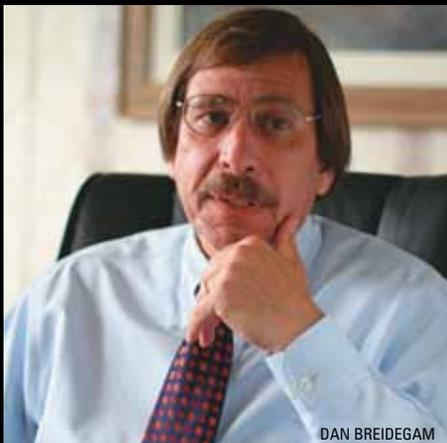
Combining management, engineering, development, environmental, and manufacturing teams at a single location leverages knowledge and information sharing across the enterprise.

Independence and Flexibility Within a Centralized Framework

While operations at each plant benefit from proximity to centralized capabilities and resources, each facility operates independently and can sustain production needs for its intended market. Should market demands require, a plant also may supplement production for other East Penn markets.



A MORE SUSTAINABLE ENTERPRISE THROUGH RECYCLING



DAN BREIDEGAM

Q: Many people don't realize that lead-acid batteries can be a very sustainable and recyclable product. Can you explain?

A: Batteries don't always come to mind when people think of recycling. However, the battery industry operates in a very efficient closed-loop system. Scrap batteries are collected by distributors and manufacturers, taken to recycling facilities, and then reprocessed. The lead can be recycled over and over again for use in new batteries. According to the Battery Council International, over 98 percent of all battery lead is recycled. Glass, aluminum cans, newsprint, and even plastic bottles can't rival this recycling rate.

Q: How has East Penn added to the recycling success of lead-acid batteries?

A: From our inception, we realized the importance of collecting and recycling batteries. As time progressed, we worked hard to establish an extensive nationwide network for collecting batteries. After we collect them, our process enables us to recycle virtually 100 percent of every component in the battery. We were the first to recycle the acid and a leader in innovative plastic and lead re-use. Safe, efficient, and proper recycling is not only good for the environment, it's essential to our customers and the sustainability of our business.

Investing in Innovation, Enhancing Efficiency

East Penn has made major, ongoing investments in automated battery manufacturing processes and new technology, reducing the cost of production while maintaining the highest quality standards in the industry. Our significant investment in new automated solutions enhances efficiency, quality, productivity, and employee safety.

Robotics: Reducing Waste, Increasing Productivity

East Penn's extensive deployment of robotic technologies reduces process times throughout the manufacturing process, minimizes scrap and waste, and creates better ergonomic conditions for our workforce. For example, a Six Sigma project undertaken in our pasting take-off area, which typically requires a large amount of strenuous labor, resulted in the addition of new robotics, as well as improved lifting training and efficiencies. Upon its completion, this initiative succeeded in reducing the OSHA incident rate in this area by 80 percent over an eight-year period.

Customized Solutions the East Penn Way

Because our equipment needs are often so specific and demanding, we frequently collect the expertise and input of teams on the factory floor to create our own specialized equipment designs. We create and design our own machinery in a dedicated manufacturing services facility. In addition, our extensive use of latest-generation, high-efficiency electric motors reduces energy consumption and costs. New technological advancements in the equipment processes also allow output of material at a much lower energy cost.



A4: The State-of-the-Art in Battery Manufacturing

With 741,000 square feet packed with robotics and new technology, our newest automotive battery facility, A4, is one of the largest and most sophisticated lead-acid battery plants in the world. Its design was driven largely by employee teams, including engineers, production management, production employees, and research and development teams.

This highly modern facility features a central computer-integrated system and an advanced manufacturing infrastructure. These systems optimize process control, operational efficiency, and energy conservation. Cutting-edge features include docks powered by solar energy. High-efficiency motors and computer-controlled and -timed lighting are also used throughout the plant. Specialized areas of the plant are dedicated to the breakthrough UltraBattery® and Advanced VRLA batteries, designed to meet the specialized needs of start-stop and other hybrid vehicles and partial state-of-charge applications.

Efficiency Through Control

East Penn's distribution network is designed to provide customers with responsive, on-time delivery that is energy and resource efficient. The network includes more than 95 warehouse and distribution locations across the U.S. and Canada. Its hub is our central distribution facility in Tipton, Pennsylvania, located five miles from the manufacturing complex in Lyon Station. During peak periods, the facility stores several million SLI batteries as well as hundreds of motive power and stationary products. Real time inventory order processing is updated continually using radio frequency laser bar code scanners, and a state-of-the-art, high-density automatic retrieval system maximizes productivity.



East Penn's fleet of 205 long-haul tractors, 152 straight trucks, and 411 trailers serves as a network for new product distribution and reclamation for spent, recyclable batteries. Utilizing sophisticated dispatch and routing tools ensures that trailers depart with full loads and also return at or near capacity with batteries ready for recycling. Maximizing load capacities significantly reduces CO₂ emissions.

Distribution resource efficiency is further enhanced by adhering to preventative maintenance schedules and anti-idling codes. Consistency with our engines, drive trains, and vehicle settings enables our fleet specialists to optimize the

fleet's performance, delivering highly efficient fuel usage and extended mileage results. Installing Auxiliary Power Units on our fleet of sleeper cab tractors has reduced annual diesel fuel consumption by 28,400 gallons and reduced greenhouse gas emissions by 331 tons.

Solutions to Power a More Sustainable Future

Leveraging the talents of some of the brightest minds in the industry, East Penn's research and product development program is at the cutting edge of new innovations in energy storage. Our role in advanced lead-acid technology will help support start-stop and other Hybrid Electric Vehicles (HEVs), smart electrical grid technology, and renewable energy generation like wind and solar power. We are also dedicating significant research and resources in other new technologies to be a complete energy solution provider for ever-changing application needs.

A New Era of Lead-Acid Technology

The deployment of advanced AGM products, including carbon-enhanced lead-acid batteries, is rapidly expanding as consumers, manufacturers, and policymakers worldwide seek better vehicle efficiency and reduced CO₂ emissions. For example, start-stop technology can achieve fuel savings of up to 12 percent, and at a fraction of the incremental cost of adding a full hybrid powertrain.

Hybrid and electric vehicles demand a storage device that operates reliably in Partial State of Charge (PSOC) conditions. The demand for AGM Advanced VRLA batteries should grow significantly as large numbers of start-stop, HEVs, PHEVs (plug-in hybrid electric vehicles), and EVs (electric vehicles) enter the marketplace.



The UltraBattery®: Unique Capabilities, Broad Opportunities

East Penn's unique UltraBattery takes technological innovation an additional step further, combining the advantages of Advanced VRLA with those of an asymmetric supercapacitor. The UltraBattery is ideal for Moderate HEVs, which rely on a battery-operated electric motor to meet peak power needs during acceleration and recapture energy normally wasted through braking to recharge the battery.

The UltraBattery also offers the most practical and cost-effective technology to build storage solutions to support electrical grid stabilization.

Tests at Sandia National Laboratories confirm that the UltraBattery capabilities are well aligned to maximize the efficiency of solar and wind generation systems. East Penn is also involved in several testing locations to prove the UltraBattery technology in smart grid applications and the assimilation of wind and solar energy. Less expensive than lithium-ion and nickel-metal hydride alternatives, the UltraBattery also enjoys the advantage of being completely recyclable in the same manner as traditional lead-acid devices.



Q&A

East Penn's Role in Emerging Power Storage Solutions **Bob Flicker**



BOB FLICKER

Q How is East Penn helping to drive more efficient and renewable energy solutions?

A Lead-acid batteries were invented in 1859, so some may think of it as “old school” technology. But in fact, new innovations are putting our products at the very center of many of the most important developments to create efficient and renewable solutions in a variety of applications. As a company, we’ve evolved from a producer of batteries to become an energy storage device manufacturer. And while lead-acid technology is a core competency and will remain central to our business, our engineers are also conducting research on lithium-ion and other chemistries.

Q Can these new lead-acid storage devices expand the presence of Hybrid Electric Vehicles (HEVs) in the marketplace?

A Without question, these solutions are more affordable, more recyclable, and safer than existing alternatives. Making hybrid technology more affordable puts it within reach of more consumers, which in turn reduces fuel consumption and carbon emissions. The Department of Energy recognized the potential of these advanced technologies. We are working with them on special projects to promote lead-acid batteries in start-stop to moderate HEV applications.

Q What are the most promising applications for advanced lead-acid technology?

A Leading the list are HEVs, smart electrical grid technology, and renewable energy generation like wind and solar power. Our new generation of AGM and Advanced VRLA batteries have proven their effectiveness in micro- and mild-HEVs. The UltraBattery is unlike anything else on the market and has significant potential to create a storage device that provides quick charge acceptance and discharge with long life as well.

Q How do East Penn's new technologies integrate with solar and wind power systems?

A We’ve been serving the solar market for many years with a variety of energy storage products, including flooded, gel, and AGM designs. New Advanced VRLA products take our involvement to a new level. Solar and wind generation have some inherent constraints, including fluctuating levels of power generation. Our testing shows that our Advanced AGM VRLA products, including the UltraBattery, can maximize the efficiency of these systems, extending both battery cycle life and power capacity. Enabling more reliable and efficient wind and solar power generation helps build a stronger business case for these renewable sources.

Partnering to Make the Grid Smarter

Researchers, business leaders, and state and federal policymakers are working to create an electrical grid that will function more efficiently, delivering affordable, reliable service while reducing environmental impacts. According to the U.S. Department of Energy (DOE), if today's grid was just five percent more efficient, the energy savings would equate to permanently eliminating the fuel and greenhouse gas emissions from 53 million cars.

Stationary energy storage utilizing new battery technology, which narrows the standard deviation in fluctuating power and reduces the need for spinning reserves, can play an important role in making the smart grid a reality. Batteries can be used periodically to smooth or shift power supply. That is especially beneficial in reducing the variability that is inherent in solar and wind generation.

East Penn has been selected by the DOE as a partner in a grid-scale energy storage demonstration facility constructed on our Lyon Station manufacturing campus that employs UltraBattery modules. Utilizing these revolutionary hybrid

storage devices, the Battery Energy Storage System is designed to provide up to 3 MW of frequency regulation to the grid, as well as demand management services during specified peak power periods. We believe this important demonstration project will confirm that UltraBattery technology provides an effective, scalable, and economically competitive means to help realize the full potential of a smarter grid.



GIVING OLD BATTERIES NEW LIFE

Rebuilding Mine and Railroad Batteries for Years of Reliable Service



East Penn's largest motive power energy storage products, some as large as 50,000 pounds, provide reliable power for mining vehicles. These machines haul material and transport miners and equipment underground, operating around the clock and seven days per week, in some of the toughest work environments in the world. East Penn promotes the sustainability and cost efficiency of mining operations by offering complete repair and rebuild services for these enormous battery devices. Our highly trained technicians replace and restore components and then return these units to service for many more years of reliable operation.

Similarly, East Penn provides rebuild services for locomotive batteries. The restoration and re-use of these high-capacity devices conserves resources and reduces costs for our railroad customers.

Taking Care of What We Have

The centerpiece of East Penn's commitment to the environment can be found in our product stewardship principles that include a continuous product life cycle approach. At our state-of-the-art recycling facility, we process approximately 30,000 batteries per day. Our computer-controlled, closed-loop system, co-located with our manufacturing facilities, recycles virtually 100 percent of each spent battery received for processing. The processed lead, combined with the other premium-grade recycled lead, accounts for approximately two-thirds of all lead used in the manufacture of new batteries. Each of the three major battery components (lead, plastic, and acid) are safely recycled and used in making new energy storage devices.



**2010 Amount Collected
for Off-Site Recycling**

[in pounds except as noted]

Our Smelter: A Model of Innovation and Efficiency

Our highly efficient smelting facility provides lead required in the manufacture of our products, but its benefits don't end there. East Penn engineers designed the smelter not only to minimize emissions and to be fully compliant with Environmental Protection Agency and the Pennsylvania Department of Environmental Protection standards, but also to maximize the use of byproducts from the smelting process. Excess heat is redirected to warm adjacent manufacturing facilities in cold weather. Sulfur fumes generated during the smelting process are captured and reprocessed into a liquid nitrogen sulfur solution. Over 24,000 tons of this solution is sold to make fertilizer for agricultural use each year.

Plastic Recycling and Acid Reclamation

East Penn scientists invented the patented process that reclaims sulfuric acid from spent batteries for use in new energy storage devices. At the acid reclamation facility, the first of its kind in our industry, heavy metals and other impurities are removed and the solution is converted into new electrolyte. East Penn's process recycles approximately 6 million gallons per year, diverting this material from potentially hazardous disposal.

The third major component of spent batteries – polypropylene plastic – is also recycled. Battery cases and covers are cleaned and ground into polypropylene pellets. The material is then blown through a pipe network to our on-site injection molding facility where it is molded into new cases and parts. East Penn recycles over 11.8 million pounds of plastic annually.

Renew – Recycle – Reuse

East Penn's commitment to recycling and sustainable practices doesn't end with the processing of spent batteries. Throughout our facilities, robust, employee-driven programs are in place to recycle the full range of scrap and excess material.

561,940
Stretch and shrink plastic wrap

1,929,760
Corrugated cardboard

362,377
Cardboard cores

Scrap metal for recycle/recovery

1,068,739 Copper	70,896 Stainless steel
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12,146 Aluminum	175,093 Iron
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2,026,000 Steel	3,813 Brass
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117,860
Commingled waste
Plastic and glass bottles;
Aluminum and steel cans

130,053
Office paper and newspaper

14,219
Electronic waste

5,190
Mercury containing devices
Light bulbs and thermometers

27,300
Spent oil filters

17,603
Waste oil (in gallons)

Protecting People, Conserving Resources

Leveraging Advanced Emission Control Technologies

Throughout its facilities, East Penn employs the most advanced control technology available to reduce lead emissions into the air, wastewater, and stormwater. We began deployment of High-Efficiency Particulate Air (HEPA) filters in our manufacturing facilities more than a quarter century ago. Today, the state-of-the-art secondary HEPA filtration units in use are 99.997 percent efficient at 0.3 microns. These systems produce air quality that is actually cleaner than that found in the surrounding atmosphere.

Advanced control technology effectively cleans the air, wastewater, and stormwater.

Exceeding Stringent Standards

East Penn continuously monitors air quality from testing stations in the adjoining community and its on-site monitors. Even as the production and manufacturing intensity on our Lyon Station campus has increased over time, highly effective emission control technology has made possible reductions in ambient air lead concentration readings. These measures have consistently remained below government-mandated standards, including the highly stringent 2008 National Ambient Air Quality Standard for lead of 0.15 micrograms per cubic meter.

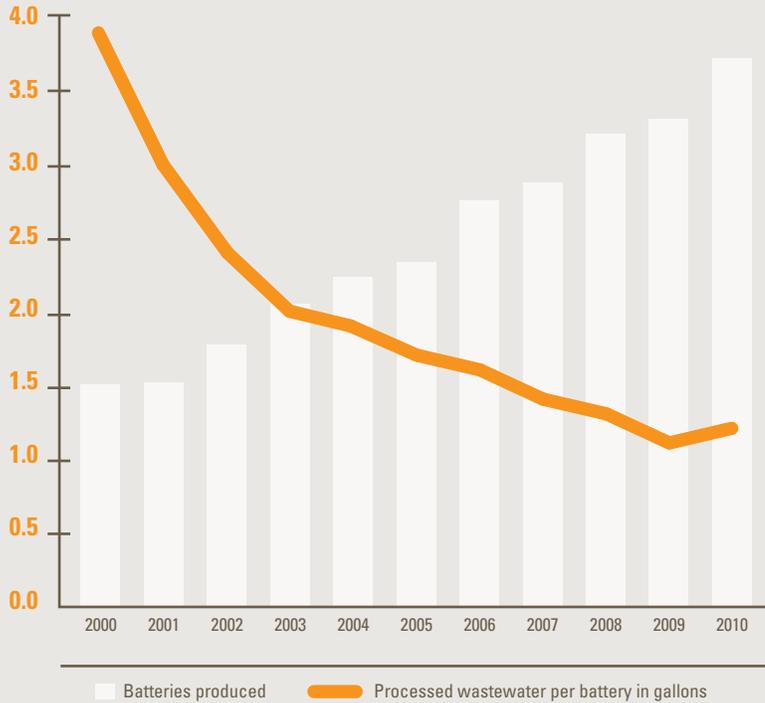
Sanitary wastewater is treated to remove solids and potential lead contamination at our on-site sanitary treatment plant through advanced techniques like ultrafiltration. Control technologies are also applied to minimize lead in stormwater on the East Penn campus. Lead concentrations in stormwater have shown steady and significant declines during the last five years. East Penn's environmental programs are third-party certified to ISO 14001 requirements.



Our Environmental Stewardship Indicators

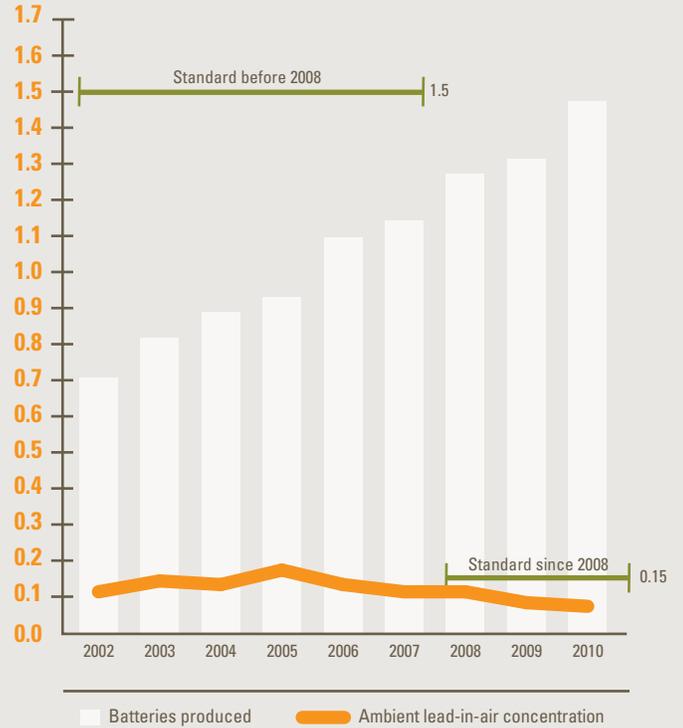
Over 70 percent reduction in process wastewater per battery produced.

Water Usage Per Battery
(in gallons)



Lead-in-air levels consistently below stringent standards.

Ambient Lead-In-Air Emissions vs. Batteries Produced
(micrograms per cubic meter)



CAREFUL STEWARDSHIP OF WATER RESOURCES



Operating a campus that includes seven battery manufacturing plants, a lead smelter, and an oxide manufacturing mill while discharging no untreated wastewater requires both a commitment to sustainable practices and sophisticated, innovative engineering. East Penn treats and reuses wastewater from its manufacturing processes in an ultramodern wastewater distillation and treatment plant that is unique within the industry.

An exclusive patented system of distillation, reverse osmosis, neutralization, co-precipitation, and salt crystallization produces water of exceptional purity, suitable for re-use in the production of new energy storage devices. The facility not only reclaims process wastewater, but also reduces groundwater use from on-site wells by as much as 100,000 gallons per day. Another East Penn innovation is the recovery of sodium sulfate salt as a byproduct of the water treatment process. Almost 7 million pounds per year is sold for use in manufacturing of glass products.

Safety Starts Here

Our Comprehensive Approach

Maintaining the health and safety of every employee at East Penn is a critical priority. Comprising our safety-first culture are comprehensive procedures to prevent injury and reduce exposure to workplace hazards, along with extensive training and regular health monitoring programs.

East Penn's internal lead health standards are significantly more stringent than OSHA requirements and continue to fall well below both standards.

In fact, we continue to rigorously monitor the health and safety of all of our co-workers through Six Sigma projects, looking for new and innovative ways to keep everyone healthy and the environment clean. We engage both our co-workers and outside consultants in the continual development of best-in-class health and safety practices.

Training Drives a Safer Work Environment

Arming co-workers with the knowledge they need to limit exposure begins the day their employment begins. New hires are provided extensive lead training on hygiene, safe handling procedures, and techniques to limit exposure. This safety curriculum is repeated for all personnel on an annual basis. Safety committees meet regularly to assess potential risks and recommend facility and process improvements.



17,830 hours per year
dedicated to employee lead training

3,264 hours per year
dedicated to safety committees

136 people engaged
in safety committees

876 Safety Audits
in plants annually

Preventing Injury and Exposure

East Penn invests in processes and equipment to maximize safety and minimize exposure to potentially harmful materials. Safety glasses, boots, and respirators are issued to employees assigned to areas with lead exposure. Company uniforms are laundered and supplied each day, as are fresh respirators for those in high lead areas. On-site shower and locker room facilities ensure that any remaining lead residues are removed before an employee leaves the manufacturing facility.

Health Screening and Prevention

East Penn's on-site health and safety facility provides comprehensive screening, prevention, and rehabilitation services to our co-workers. The facility, staffed by four doctors and twelve registered nurses, performs 1,500 blood lead tests per month. Employees also receive annual chest X-rays, hearing tests, and occupational health exams. X-ray equipment is also located within the on-site medical facility. The medical staff provides wellness screenings such as blood pressure tests and flu shots, and a fully staffed physical therapy facility is available.

Investing in Automated Processes

Throughout its manufacturing facilities, East Penn invests significant resources in robotics and automated systems that reduce or eliminate repetitive manual handling of material – enhancing ergonomics and efficiency while reducing the incidence of workplace injuries.

VALUING SAFETY

East Penn's employee blood lead levels continue to fall well below OSHA requirements.



A Veteran's Viewpoint:

WORKING SAFE FOR 29 YEARS

Willie Stump began his career at East Penn in 1982 right out of high school and has continued to work in a variety of roles in the pasting department ever since.

On working with lead: "I've worked in a high lead area for 29 years, and I've never had to be removed from the job because of high lead blood levels. The company provides the proper procedures and equipment to ensure that lead-in-air exposure is minimized in the work area."

On the role training plays in a safe workplace: "Our lead training program helps make sure co-workers are aware of the steps they need to take to limit their exposure. We retrain on lead safety every year, and we have safety personnel and veteran co-workers who reinforce the right procedures on the plant floor."

On employee input to improve safety: "Through our safety committees, our suggestion program, and open door management, there are many opportunities for co-workers to recommend improvements in plant operations. That free flow of communication makes this a great place to work."



Our People Are Our Business

Quality, innovation, reliable performance, customer loyalty, advanced technology – all these are only made possible by dedicated employees who apply their talents to improve our company every day. A defining characteristic of East Penn is the long tenure of thousands of our people, many of whom build careers that span decades. Our extremely low annual voluntary turnover rate reflects a culture in which employees have pride in their company and the company respects them.

Investing in a Long-Term Future

East Penn's long-term track record of reinvestment in new plant, equipment, and products is a powerful expression of management's confidence in the future of the enterprise, and in the people who make our success possible. Our stable management maintains a consistent, long-term approach that has attracted several generations of family members to make their careers with us.



East Penn has the distinction of being one of Pennsylvania's Best Places to Work for 11 consecutive years.

The Best Place to Work

Open-door management policies, a comprehensive benefits package, a bonus program that is made available to personnel at all levels, and extensive opportunities for training and career advancement all contribute to a workforce that is highly motivated and sustainable. These attributes have earned us honors as one of Pennsylvania's Best Places to Work for 11 consecutive years. East Penn ranked as high as third place and has been among the top 10 for five years.

A Focus on Family

A family-owned enterprise, East Penn is strongly committed to fostering an atmosphere that honors the contributions of everyone. These contributions are celebrated with events that include company picnics, open houses, safety poster contests, and special events for kids and retirees. Almost 10,000 co-workers and family members attend the company picnic on an annual basis.

East Penn's Commitment to Human Rights and Fair Treatment

We value and respect the basic human rights of all people, and our policies explicitly prohibit the use of illegal child labor or any form of forced labor at any time, in any part of the enterprise. East Penn is committed to fair compensation in accordance with the laws of the nations in which we do business. We respect the principle of equal pay for work of equal value.

Communication With All Co-Workers

Co-workers are kept informed on a consistent basis about new projects, customers, and company initiatives by utilizing strategic departmental meetings and executive management updates throughout the year.

Employee Longevity

East Penn has a well-balanced employee group. With the continued growth of the company, new employees are hired, bringing in fresh perspectives and educational training. East Penn also maintains a dedicated, long-term workforce with expertise in all aspects of the business. Over 30 percent of our co-workers have over 10 years of service. Close to 1,000 of these employees have over 20 years tenure with East Penn, and 89 percent of all employees surveyed plan to retire from East Penn.



THE EAST PENN PHILOSOPHY OF QUALITY & ENVIRONMENTAL EXCELLENCE

East Penn **RECOGNIZES** the importance of all people at East Penn working together to achieve customer satisfaction. As a team, we establish a culture that integrates the essential elements of quality and environmental issues into our business decision-making processes.

East Penn **STRIVES** to foster thinking and actions that promote product quality, pollution prevention, and enhanced environmental performance. We also work to deliver products to the customer on time, at an affordable price. Through the implementation of the integrated management system, we encourage continual improvement in quality, service, cost, technology, and environmental performance.

East Penn **ACTS** to eliminate and/or reduce waste, variation, and defects through its processes. We encourage the creativity of our workforce through individual employee participation as part of the East Penn team and foster the input of our suppliers.

East Penn demonstrates its dedication to the welfare of the workforce and the community through our focus to comply with all applicable laws, regulations, permits, and other requirements to which we subscribe.

East Penn **ACHIEVES** its goals by establishing environmental and quality objectives and targets.

We're All in This Together

From the factory floor to our distribution centers and our executive offices, East Penn people are deeply committed to reaching out to their neighbors and working to address important community needs. Each year, thousands of co-workers offer their time, talents, and financial resources to support organizations and causes that build a stronger community.

East Penn's support for the United Way includes both corporate and employee contributions, as well as employee volunteers. For several years, East Penn has hosted the Ride for Life, an important fundraising event that benefits the Muscular Dystrophy Association (MDA) and provides support to MDA services and medical research.

East Penn and its co-workers are also strong supporters of the Heart Walk, benefiting the American Heart Association, the American Cancer Society's Relay for Life, and numerous blood drives, toy drives, food drives, and other worthwhile events and programs that benefit our community. In an employee survey, 94 percent of co-workers indicated they feel good about how we contribute to the community.

In years past and for many years to come, East Penn people can be counted on to provide a helping hand to those who need it most.



East Penn's management is committed to the continuous improvement of, and reinvestment in, its energy storage business. Our reputation for integrity, conservative financial practices, enduring customer relationships, and ability to leverage emerging opportunities creates an enterprise built for long-term, sustainable performance.



From left to right, top to bottom:

DeLight E. Breidegam, Jr.
Chairman

Daniel D. Breidegam
Vice President of Metals
and Commodities Management
and Treasurer

Sally S. Miksiewicz
Chief Executive Officer
and Vice Chairman

Daniel R. Langdon
President

Robert P. Flicker
Executive Vice President
and Chief Operating Officer

Christopher E. Pruitt
Executive Vice President
and Chief Financial Officer





EAST PENN manufacturing co., inc.

Lyon Station, Pennsylvania 19536-0147

www.eastpenn-deka.com