



# Power the energy transition with data

EBOOK

Define a future of operational excellence, reduce risk and advance sustainability with the partnership that can unlock the true power of data across your organization

Drive sustainable progress

# Meet future demand sustainably

Across the power industry, leaders are committed to meeting the world's growing energy demands by providing reliable and affordable energy – and doing so through sustainable business practices. Energy consumption is projected to increase almost 50% by 2050<sup>1</sup> and, in response, power sector organizations recognize the imperative to integrate innovative technologies – supporting new levels of operational efficiency, resilience and safety, while accelerating the transition to next-generation sustainable solutions.

Electric utility companies understand that data sits at the heart of this mission, and that siloed data, processes and workflows present a barrier to progress. Navigating this path requires a trusted partner with the experience of supporting organizations to overcome today's most pressing digital transformation challenges – enabling them to harness and connect data, remove silos for advancement, gain complete visibility into operations and move to a maintenance approach that is both preventative and predictive.

**50 %** ↓

reduction in maintenance overtime, labor and contractor cost with Attune EAM<sup>2</sup>

**20 %** ↑

improvement in labor productivity with Attune EAM<sup>2</sup>



## Experience and Innovation

Octave has both the deep experience and future-ready solutions to support power industry organizations – starting from wherever they are in their digital transformation journeys and moving to where they want to be. Our vision of unleashing intelligence at scale unites planning, engineering, construction, operations, maintenance, safety and OT cybersecurity information to unlock the full potential of data – providing a single source of truth, increasing organizational resilience and enhancing operational excellence.

Our enterprise asset management solution **Octave Attune EAM** (formerly HxGN EAM) enables the digitalization of asset tracking and maintenance operations. Built on more than 30 years of experience and continuous innovation, Attune EAM delivers a suite of risk, condition and reliability-focused maintenance tools, combined with artificial intelligence (AI) and machine learning (ML) technologies, to unlock the benefits of faster, smarter access to information.

## Data-Driven Benefits

Attune EAM is a powerful engine, not only for digitalizing processes, but for gaining data insights that enable operational excellence, enhance safety, reduce security risks, ensure improved compliance and support sustainability.

For example, our customers leveraging Attune EAM have seen benefits including a 50% reduction in maintenance overtime, labor and contractor costs, a 30% reduction in inventory levels and a 20% improvement in labor productivity.<sup>2</sup> Now we'll show how Attune EAM, in combination with our other key solutions for the power industry, such as **Octave InConcert** (formerly HxGN SDx2), can enable your organization to unlock the full potential of your data by creating a Smart Digital Reality. By taking this integrated approach to digitalization, you can harmonize siloed data, make faster, more informed decisions and define the future of power generation, transmission, distribution and utilities – a future in which tomorrow's power demands are consistently met alongside key global decarbonization targets.



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# Drive operational excellence

## Today's opportunity

The top concerns of today's power industry leaders include a need to increase efficiency, decrease downtime and remove value leaks. This has created a pressure to get more value from existing assets and identify where fast improvements can be made in pursuit of operational excellence. Organizations need to create a digital bridge between large amounts of information dispersed across separate systems in a myriad of formats.

Enterprise asset management solutions (EAMs) can address this need – but many EAM software solutions provide only a framework, which then needs costly customization. Meanwhile, older solutions can often prove inflexible when an organization attempts to scale up its data-driven activities.

Now, there is an opportunity to take advantage of a highly configurable, scalable EAM system that addresses industry-specific needs in support of optimized asset management, maximized uptime, increased productivity and reduced costs.

## Powering the future with Octave

Attune EAM comes with expanded functionality – providing asset condition data that is continually updated via IoT devices, sensors and field inspections. Its core modules include asset, performance, work, materials, procurement, budget, inspection, project and safety management. Its advanced modules include geographic information system (GIS) integration, energy performance monitoring, fleet management, electronic records and more.

By leveraging Attune EAM in support of resilience and operational excellence, power industry organizations can move from a preventative to predictive approach. It will enable you to record, maintain, structure and standardize asset information – capturing the identity, configuration and



**20%** ↓  
reduction in production downtime  
with Attune EAM<sup>2</sup>

structure of physical assets, technical and commercial configurations and current position, as well as prior locations and maintenance history. It will also enable you to simplify the decision process by comparing multiple “what-if” scenarios.

With Attune EAM, power generation, transmission, distribution and utility companies can optimize asset utilization, repair time and maintenance and capital planning, and can automate administration of the complete project process – from initial budget and timescale planning to completion.

The workforce management benefits of Attune EAM include an ability to manage, plan and monitor work, as well as the necessary resources to complete that work. And the cost-control advantages include a capability to track all costs incurred for services delivered to customers, such maintenance costs; costs for fuel consumption; equipment usage, rent or lease; and utility charges.

Digitalize processes, connect data



# Digitalize processes, connect data

## Today's opportunity

To reliably meet growing energy demands effectively and to do so sustainably, utility companies know they must accelerate digital transformation. Processes underpinned with hard-copy documents, siloed spreadsheets and scattered databases are anachronistic in the context of a future-ready industry and can lead to miscommunication, human error, operational inefficiency and safety risks.

Now, industry leaders are expected to embrace the 'digitalization of everything' movement – facilitated by intelligent devices and advanced AI/ML-driven analytics that can exploit the vast amount of data being generated across the grid. Continually combining a broad range of organizational competencies with digital capabilities presents the opportunity to supercharge efficiency, cut costs and deliver a multiplier effect on progress toward key net-zero carbon targets.

## Powering the future with Octave

Octave provides a full suite of solutions – led by Attune EAM – that enables power sector organizations to digitalize the end-to-end management of data, processes and workflows. With **Octave Tempo Operating Procedures** (formerly AcceleratorKMS), for example, you can improve employee time-to-competency through training –providing access to all learning content at the point of need from any device.

And with **Octave Tempo Operations Management** (formerly j5 Shift Operations Management), you can take shift reports, operator rounds, personnel, safety, maintenance and process information and make it visible and viable to users across the organization – enabling online monitoring for an accurate picture of asset health and ensuring transparency across the organization to ensure standard work processes are executed.

Meanwhile, **InConcert** enables the organization to enhance information connection and interoperability by aggregating operational data and creating a digital thread framework.



We've been able to trend on some of the data the technicians are generating. We can follow maintenance items on the mobile checklist, and if a component is wearing faster than it should, we can decide whether to switch to a different product.

**Frank Santiago**

Director, Operations Support Systems, Inverergy

The solution empowers your business to capture, organize and link large volumes of information in context; provide web-based access for authorized personnel; and centralize and unite operations, maintenance, safety, engineering and real-time data.

At the heart of this digital transformation, Attune EAM ensures that all content usually restricted to access via a desktop computer can be delivered in a personalized mobile layout, and continually delivers insights from data gathered across the lifecycle of an asset – bringing graphical insights to users via dashboards, reports and more. And as a software-as-a-service cloud solution, Attune EAM enables faster, seamless updates to users, specified to the content they need, to ensure you are always ready to meet the needs of tomorrow.

Each of these solutions can form part of a digitalization strategy that enables you to connect data and gain a single source of the truth in support of cohesive and more sustainable operational processes.

Enhance safety



# Enhance safety

## Today's opportunity

In an industry that requires the handling of high pressure and temperature assets, hazardous materials, high-voltage equipment and complex systems that can pose a risk if not managed to the highest standards, the safety and wellbeing of employees and the public is of paramount importance. Ensuring safety is vital to the health and well being of employees, securing public trust, protecting organizational reputation and delivering the consistent power supply on which society depends.

This is another mission-critical area in which organizations face a challenge to bridge the islands of information that exist across systems and formats. Now there is a key opportunity to advance safety processes in parallel with innovation and sustainability – closing the operational gaps that create safety risks by digitalizing and automating processes such as area and shift handovers, permitting and inspections.

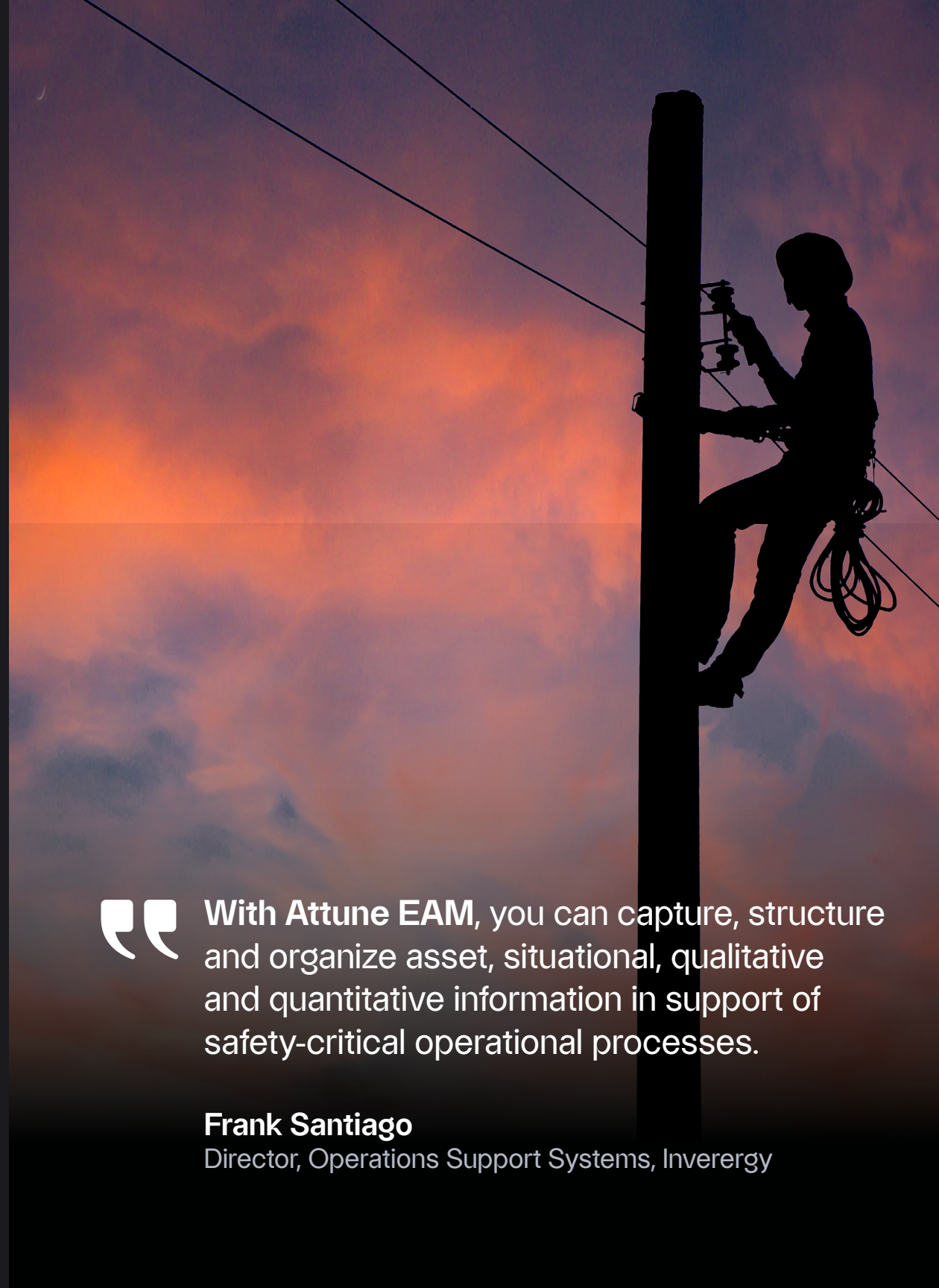
## Powering the future with Octave

With Attune EAM, you can capture, structure and organize asset, situational, qualitative and quantitative information in support of safety-critical operational processes.

For example, in assisting employees to quickly highlight when equipment is operating out of its specified ranges. Attune EAM enables the ongoing monitoring of asset conditions – combining condition data with work history. It can also enable you to identify and control all hazardous situations, materials and activities to protect people and the environment – in compliance with health, safety and environmental regulations.

Through this future-ready solution, organizations in your sector can employ multiple asset performance management strategies to reduce business risk factors. They can quickly identify potential issues that can be tracked over time and then assign a level of severity or risk based on a preset nonconformity index. This includes the auditing of an event, such as an accident; creating detailed documentation; and searching by severity, intensity, size and importance.

Reduce security risks



**With Attune EAM, you can capture, structure and organize asset, situational, qualitative and quantitative information in support of safety-critical operational processes.**

**Frank Santiago**

Director, Operations Support Systems, Inverergy

# Reduce security risks

## Today's opportunity

In a world of rapidly proliferating and increasingly sophisticated cyberattacks, organizations that provide vital aspects of national infrastructure are particularly attractive targets for malicious actors – who today range from lone actors to entire nations.

The ARC Advisory Group – a leading technology research and advisory firm for industrial, energy and infrastructure markets – has observed that a limited visibility of the key risks “compounds the problem by allowing managers to operate with a false sense of security.”

But as they drive the energy transition through digitalization, power industry organizations have an opportunity to embrace 'defence-in-depth' cybersecurity strategies that meet today's fast-emerging threats with future-ready protection and recovery capabilities.

## Powering the future with Octave

Octave equips power industry companies for resilience against today's most sophisticated cyber threats, via solutions that enable you to: discover and maintain a complete inventory of your operational technology assets; identify, evaluate and manage system vulnerabilities; analyze and visualize system security risks; detect and manage unexpected system changes; and accelerate recovery with backups of critical control system data.

For example, with **Octave Cyber Integrity** (formerly **PAS Cyber Integrity**), you can enable workflows and documentation for vulnerability remediations and compliance with standards including ISA/IEC 62443; ISO 27001/2; NERC-CIP; NIST and the NIS Directive. The solution also accelerates recovery with backups of critical control system data and support for in-depth forensic analysis.



# 70%



reduction in OT inventory  
and documentation effort  
with Octave cyber Integrity

Attune EAM enables you to employ multiple asset performance management strategies to reduce business risk factors. And Cyber Integrity gives industry leaders the confidence that digital transformation can continue apace – unhindered by cyber threats or the processes created to protect against them. Indeed, research has shown that Cyber Integrity reduces OT inventory and documentation effort by 70% or more.

Support sustainability and compliance



# Support sustainability and compliance

## Today's opportunity

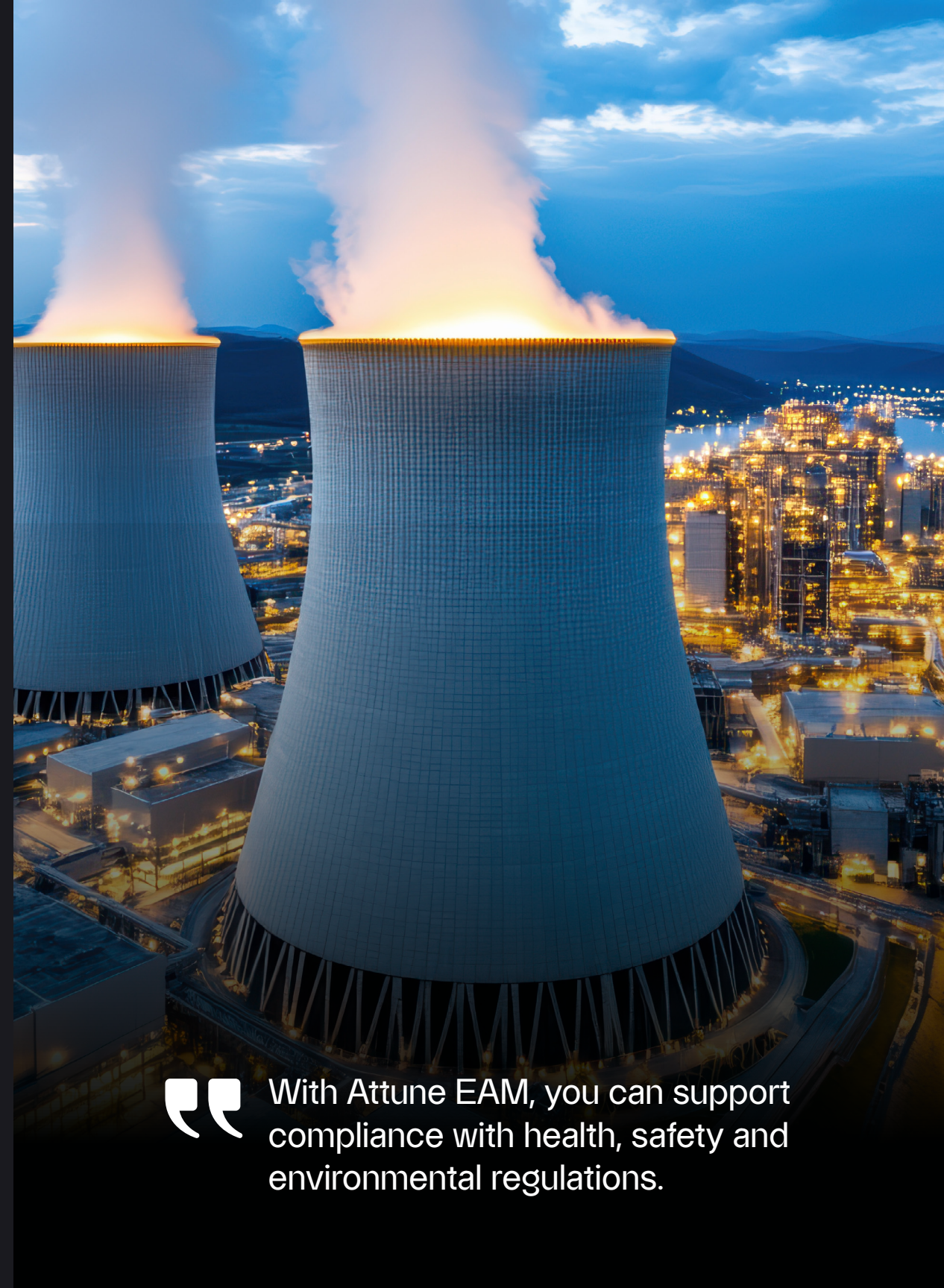
The regulatory landscape presents significant and ever-changing risks for power generation, transmission, distribution and utility companies. Organizations have long had to operate in a high-risk environment while complying with stringent health and safety regulations – a situation made considerably more complex by the variations in regulations across different geographies and project types.

At the same time, environmental sustainability-related regulations continue to evolve as governments set binding targets to reduce carbon emissions in their territories. Across both areas, the costs of non-compliance extend beyond the potential fines, as consumers and shareholders intensify scrutiny on the practices of organizations with which they transact and invest. This, however, makes better compliance a key competitive differentiator and there are transformative solutions that can provide an advantage.

## Powering the future with Octave

Octave supports organizations in your sector to meet both internal and external compliance demands by instantaneously leveraging clear, accurate, concise, complete and current digital records for local, state or federal regulatory compliance requests and procedures, such as OSHA standards for Lockout/Tagout.

With Attune EAM, you can support compliance with health, safety and environmental regulations, and manage every aspect of the purchasing cycle – from requisition creation, approvals, supplier selection, purchase order placement and goods receipt, through to invoice matching – all while ensuring the selection of qualified suppliers and obtaining the best price and delivery terms.



“ With Attune EAM, you can support compliance with health, safety and environmental regulations.

Our solutions enable the performance optimization, downtime reduction and improved asset life performance – leading to efficient resource utilization and reduced waste in support of regulatory compliance. We can enable the extraction of valuable insights to make informed decisions about energy usage, resource allocation and sustainability initiatives.

Octave is committed to taking innovation further still. We stand ready to leverage our experience and solutions to support your organization in powering the sustainable energy transition with data – starting today.

Let's Talk



# Let's talk

Your organization can define a sustainable future of power generation, transmission and distribution with Octave. Contact our dedicated team today to continue the conversation:

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## References

1. [EIA projects nearly 50% increase in world energy usage by 2050](#)
2. <https://aliresources.hexagon.com/brochures/eam-overview>
3. <https://www.arcweb.com/blog/pas-global-cyber-integrity-helps-secure-industrial-control-systems>
4. <https://aliresources.hexagon.com/cybersecurity/the-growing-importance-of-ot-cyber-security-and-risk-management>



## About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property, and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency, and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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