



CASE STUDY

Naepo Green Energy drives digital transformation in power plant operations with Octave Attune EAM



Key facts:

Company:
Naepo Green Energy

Website: npge.co.kr

Industry:
Power and utilities

Country: South Korea

Octave products used: Attune EAM
(HxGN EAM)

[Naepo Green Energy](#), a South Korean power generation and district heating operator, partnered with Octave to modernize its plant operations through the deployment of [Octave Attune EAM](#).

Facing challenges associated with fragmented, document-based maintenance and operational processes, the organization sought to improve information visibility, standardize workflows and strengthen equipment reliability across the plant.

By implementing an integrated, digital asset management platform, the organization has taken a significant step toward data-driven operations, improved reliability and scalable digital transformation.

The challenge

Operating a power plant requires seamless coordination across maintenance, operations, safety and materials management. At Naepo Green Energy, these processes were historically managed through fragmented, manual systems, creating operational inefficiencies and limiting insight. Key challenges included:

- **Disparate data environments:** Maintenance history, operational logs and material data were stored across spreadsheets and documents
- **Limited visibility and continuity:** Knowledge was dependent on individuals, making collaboration and handover difficult

Key benefits:

- Standardized plant operations and maintenance
- Centralized management of asset and materials information
- Structured maintenance history management and utilization
- Digitalization safety work and permit-to-work processes
- A foundation for data-driven decision-making
- A foundation for improved asset reliability and operational performance

- **Manual, paper-based workflows:** Safety approvals, work permits and material processes were slow and resource-intensive
- **Lack of integrated analytics:** Operational data was not centralized, constraining data-driven decision-making
- **No unified asset framework:** Absence of a digital platform to manage plant-wide asset and operational data

To support future growth and reliability targets, Naepo Green Energy required a standardized, digital-first approach to asset lifecycle management.

The solution

Naepo Green Energy implemented Attune EAM to establish a unified, scalable asset management platform tailored to power plant operations.

The solution was designed through close collaboration with operational teams and structured around four core areas:

Integrated maintenance and work management

- Standardized work processes including work requests, work orders and preventive maintenance
- Calendar-based scheduling for improved planning and coordination
- Digital management of safety permits, risk assessments and approvals

Centralized equipment and materials management

- Established equipment and functional location master data
- Integrated inventory, inspection and material movement processes

Operational performance management

- Real-time tracking of generation performance and operational status
- Digital logging, inspection tracking and incident reporting



Engineering and construction management

- Centralized engineering standards and cost data
- Enhanced maintenance and project planning
- Automated project cost estimation
- Integrated engineering, maintenance and cost information

Business impact

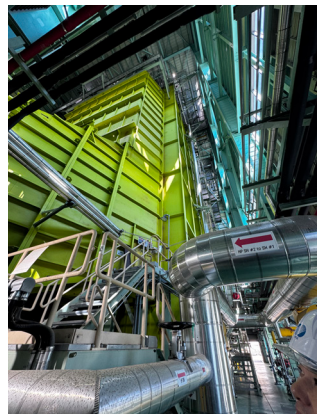
Although still in the early stages of operation, the transformation has already delivered meaningful improvements:

- Transition from paper-based workflows to fully digital processes
- Creation of a single source of truth across maintenance, operations and materials
- Automated capture of maintenance and asset history
- Improved cross-functional collaboration and transparency

Expected outcomes

As adoption matures, Naepo Green Energy expects to:

- Standardize and scalable maintenance and operational processes
- Increase workforce productivity and reduce administrative overhead
- See stronger asset reliability and reduce downtime risk
- Enhance data utilization and analytics capability
- Lower total cost of operations through efficiency gains



Why it matters

Naepo Green Energy's transformation highlights how asset-intensive organizations can:

- Replace fragmented processes with connected, end-to-end asset intelligence
- Shift from reactive operations to predictive, data-driven decision-making
- Build a scalable foundation for AI-enabled performance optimization

With Attune EAM, organizations gain more than a system - they gain the operational backbone for digital transformation.

Future vision

Building on this foundation, Naepo Green Energy is advancing its digital transformation strategy with:

- ERP and enterprise system integration to further unify operations
- Expansion of asset management capabilities to new infrastructure, including fuel cells and district heating systems
- Adoption of AI-driven (AX) strategies leveraging accumulated operational data
- Development of intelligent, predictive maintenance and operational optimization models

This roadmap positions the organization to evolve into a fully digital, data-powered smart power plant.

"The most important goal of this project was to establish a maintenance management system optimized for our operations. By standardizing and digitalizing our processes, we have created a strong foundation for improving reliability and efficiency. Going forward, we will further enhance our asset management environment through ERP integration and AI-based operations."

Joo Woo-cheol, Deputy manager, instrumentation team, Naepo Green Energy

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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