



CASE STUDY

Energia Kft. accelerates industrial design with Octave solutions



Key facts:

Company: Energia Kft.

Website:
energiakft.com

Industry: Power,
Energy, Oil & Gas,
Manufacturing

Octave products used:
BricsCAD, Forte
3DWorx (CADWorx Plant
Professional), Aspect
Pressure Vessel
(PV Elite), Aspect Tank
(TANK)

Headquartered in Algyó, Hungary, Energia Kft. is an engineering company specializing in the design and execution of piping systems, pressure-retaining equipment and related industrial installations.

The company possesses extensive experience in creating high-quality isometric drawings, detailed engineering deliverables and fully compliant technical documentation. "Our core work covers brownfield projects, plant renovations, capacity increases, the integration of new technologies and the modification of existing ones," CEO Róbert Orosz explains. "We operate across oil and gas, the wider energy sector and several manufacturing environments, including aluminum wheel production and other large-scale industrial operations. Our portfolio also includes the design and construction of heat-exchanger blocks used in battery manufacturing."

Identifying goals

What fueled the company's growth is its ability to provide end-to-end support to industrial projects, from precise engineering design to on-site execution.

Before adopting the Octave ecosystem, Energia relied on parametric systems and older 2D environments. These systems handled equipment modelling well but became inefficient for large piping packages. "We were working on a project that required full isometric piping design, so we needed a software environment built specifically for that workflow," Orosz explains. The company also needed full support for point-cloud processing to manage tight retrofits, sometimes with millimeter-level accuracy. "This led us to look for a solution that could support plant design from end to end".

These requirements led them to Octave's BricsCAD, Forte 3DWorx, Aspect Pressure Vessel, and Aspect Tank.

Key benefits:

- Significant reduction in manual engineering hours, with automated isometric generation saving roughly 60 hours on large projects and freeing engineers for higher-value tasks.
- Higher quality and consistency across design and execution, supported by accurate models, automated material take-offs and standardized specifications.
- Increased output without expanding headcount, enabling the team to deliver more work while keeping execution and design fully aligned.

"Using Octave solutions, we provide highly accurate and detailed drawing documentation to support construction work. Our material take-offs are far more automated and reliable, supported by accurate and up-to-date drawings."

Róbert Orosz
CEO, Energia Kft.

Overcoming challenges

Energia chose Octave's solutions after evaluating technical fit and long-term stability. "Forte 3DWorx has a reliable technical design background and produces consistent engineering output," says Orosz. "It was also important for us to work with a major vendor with long-term development and support and to have a complete ecosystem instead of several separate products."

Perpetual licensing was another consideration. "We wanted the assurance that we could continue working even if market conditions evolve," he explains.

Implementation was straightforward. The system runs on a single server and the team completed training through Octave University.

Energia also attended an isometrics course and created its own Hungarian-language pipe classes, specifications and templates. "After a few projects, we were confident and our workflow became very smooth and reliable," Orosz says. "We now use the system in a standardized way with our own specifications and project settings already in place."

Orosz also praises each tool's ability to integrate with third-party solutions. "For example, they work perfectly with existing AutoCAD drawings," he notes. "We can complete everything in one environment."

Realizing results

The shift to Octave tools has raised Energia's engineering output and field readiness. "During on-site construction, we provide highly accurate and detailed drawing documentation to support the work" explains Orosz. "Our material take-offs are far more automated and reliable, supported by accurate and up-to-date drawings."

Their multi-discipline workflow also improves project reliability. By combining Forte 3DWorx with Aspect Pressure Vessel and Aspect Tank, Energia verifies pressure-retaining equipment within the same ecosystem used for layout and piping. This reduces coordination time and supports end-to-end execution for its clients. This combination of design and analysis tools is now central to its work.

Design automation has had a measurable impact. "It cuts down the time we need to deliver and the amount of work-hours required," says Orosz. "It delivers major savings in engineering hours. For a typical project, automated isometric generation can save roughly sixty hours of manual work, which lets our engineers focus on higher-value tasks."

Despite the higher engineering volume, Energia can maintain a lean team of 21 professionals and selected subcontractors: "The software lets us keep our headcount stable while increasing output," Orosz adds.

Moving forward

Energia Kft. plans to expand its license base as workload grows and expects to continue deepening its use of Octave tools.

Reflecting on Energia Kft.'s differentiators in the market, Orosz highlights three themes: "Quality, better support and staying price-competitive." Octave's solutions help the organization pursue all three. "For our size and the type of work we do, this was the right choice," he says.

With a mature, repeatable workflow based on Octave's solutions, Energia Kft. continues to deliver detailed engineering and execution packages with greater speed and reliability, thus strengthening its position as a trusted partner that can take on complex projects.

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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