



2024: Year in Review



engineering

FOR
POWER
SUPPLY




Contents

PROJECTS	5
Cable Termination Training.....	5
Construction of SE DUB I and SE DUB II Solar Power Plants on a "Turnkey" Basis.....	5
Modernization of Tram Infrastructure.....	5
First ABB ZX Series Substations	6
Industrial Sector Energy Infrastructure Modernization in NW Croatia	6
Innovations Commercialization	7
Charging Stations for Battery and Hybrid Trains.....	7
Recertified Metalwork	8
Digital Transformation of Energy Plant Production Processes	8
Serial Production of Cabinets.....	9
Closed Distribution System	9
FAIRS AND CONFERENCES	11
Speed Date at SCINERGY '24 Conference	11
TVZ Career Day	11
Hannover Messe.....	12
Renewable Energy Days	12
CIRED 2024 Vienna Workshop	13
16th Symposium of the Croatian CIGRE Committee.....	13
Career Speed Dating 2024.....	14
AT HELB	15
Best Colleagues.....	15
Women's Day.....	16
Good Deeds Day	16
World Day for Safety and Health at the Workplace	17
Pink Ribbon Day	17
Ugly Christmas Sweater Day	18
Year-End Gathering.....	18
HELB Advent Celebration.....	19
A Year in Numbers	20



Where Were We in 2024? 21





In 2024, HELB achieved significant progress in various areas of its operations. The company successfully completed numerous projects that contributed to the development of electrical power infrastructure, implementation of renewable energy sources, and advancement of green technologies in the industry. Additionally, HELB continued to invest in employee education and strengthening its business capacities. HELB representatives also participated in numerous fairs and conferences, including SCINERGY '24, TVZ Career Day, Hannover Messe, Renewable Energy Days, CIRED 2024 Vienna Workshop, and the 16th Symposium of the Croatian CIGRE Committee. Along with business successes, the company organized various internal activities for employees, such as the Best Colleague Awards, Women's Day celebrations, participation in humanitarian actions, and holiday gatherings.

PROJECTS

Cable Termination Training



In collaboration with TE Connectivity, a three-day training session on high-voltage cable termination and joint manufacturing was held at HELB's production facility. The training was designed to enable employees to acquire new skills and deepen their understanding of specific technical requirements in this area.

Over three days, experts from TE Connectivity shared their knowledge about the most

advanced techniques for making high-voltage cable terminations and joints, and participants had the opportunity to learn how to implement these techniques in their daily work through practical exercises.


Construction of SE DUB I and SE DUB II Solar Power Plants on a "Turnkey" Basis

As the main contractor, HELB oversaw the turnkey construction of two solar power plants, SE DUB I and SE DUB II, with a combined capacity of 19.8 MW. This project marks a significant milestone in advancing renewable energy in the region.

On-site, about twenty employees were continuously engaged in performing electrical installation works, including cable laying, assembly of steel structures, fences and PV modules, as well as the installation of internal transformer stations. In addition, the contract included civil works, such as excavation and concreting.

Modernization of Tram Infrastructure

HELB is involved in building charging stations for battery and hybrid trains in six Croatian cities: Bjelovar, Virovitica, Varaždin, Osijek, Split, and Pula. As part of this project, HELB is responsible



for equipment installation, cabling, supply, delivery and connection of medium voltage cable terminations, as well as testing of wiring and grounding.

The charging stations will be integrated into the existing distribution network, ensuring a stable power supply. The DC voltage system, with charging cabinets positioned along the tracks, will allow real-time remote monitoring of battery status and energy consumption.

This project significantly contributes to the application of green technologies in rail transport, providing an environmentally friendly solution for the future of passenger transport in Croatia.

First ABB ZX Series Substations




HELB participated in the supply and delivery of ZX0.2 MV substations for a wind farm connection substation in Bosnia and Herzegovina. This compact gas-insulated switchgear (GIS), manufactured by ABB, is characterized by high reliability, safety, and easy maintenance. Its modular design allows for quick installation and adaptation to specific user needs, making it an ideal solution for power distribution, industrial plants, and infrastructure

projects with limited space.

During the realization, HELB's teams worked on equipping service cabinets, and activities also included the installation of current and voltage measuring transformers and surge arresters. The final steps included FAT testing, packaging, and preparation for transport, ensuring successful delivery of the substation.

Industrial Sector Energy Infrastructure Modernization in NW Croatia

One of HELB's largest ongoing projects is taking place in northwestern Croatia and represents an important step in modernizing the energy infrastructure of the industrial sector.



As part of this key project, HELB has the role of main contractor and is responsible for the construction of a 110/20 kV substation and cable connection of TS 110/20 kV to DV 110 kV. The new infrastructure will enable reliable electricity supply and allow the application of advanced solutions for greater energy efficiency and sustainability.

The planned modernization plays a significant role in reducing greenhouse gas emissions and introducing innovative methods in industrial production. Additionally, the project contributes to strengthening the local economy and industrial development of the region.

Innovations Commercialization

A two-year project to commercialize innovative control and distribution electrical power devices was completed. As part of the project, two in-house innovations, EnMS and EOR, were prepared for market launch. HELB invested in new production, testing, and IT equipment, streamlining operations and enhancing business processes.

As part of the commercialization of EnMS, the trademark was protected and rebranded to HELBEX, while for EOR, the industrial design of the product was protected in EU markets. Within the project, appearances at international fairs were organized, and 15 HELB employees participated in the implementation.

Charging Stations for Battery and Hybrid Trains

In 2024, HELB began work on another important project - the construction of charging stations for battery and hybrid trains in six Croatian cities: Bjelovar, Virovitica, Varaždin, Osijek, Split, and Pula. HELB is responsible for equipment installation, cabling, supply, delivery and connection of medium voltage cable terminations, as well as testing of wiring and grounding. The power connections of the charging stations are connected to the existing distribution network, ensuring reliable electricity supply.

The project will enable stable power supply and efficient charging of trains, further promoting the application of green technologies in rail transport.



Recertified Metalwork



HELB's metalwork workshop successfully passed the recertification process. Four HELB metalworkers thus obtained certificates for performing welding works on steel structures that are an integral part of substations.

Digital Transformation of Energy Plant Production Processes

During 2024, the project "Digital Transformation of Energy Plant Production Processes" was completed, which lasted for two years and was carried out with grants from European Structural and Investment Funds. The project was aimed at improving business processes, strengthening the digital capacities of employees, and improving competitiveness in the domestic and foreign markets.

As part of the project, HELB developed two groups of control and distribution devices. It also implemented the Closed Distribution System (OZDS) service, which required adaptation of the IT system. The human resource management program was upgraded, and employees were educated in the application of new ERP-DMS modules and software tools.

Specialized software for managing OZDS measurement data was also acquired, as well as programs for antivirus protection and connecting users to the service. The project enabled better support for business processes and created foundations for future growth and digital transformation. Namely, this project represents a significant step towards modernizing operations and ensuring long-term sustainability and security of IT systems, all with the aim of commercializing new products and services.

Serial Production of Cabinets



At the end of the year, HELB signed a contract for the serial production of 150 devices intended for the foreign market.

This is an innovative solution developed according to specific partner requirements, with the aim of increasing the efficiency of existing systems, especially in facilities with complex operating conditions. The devices are characterized by an improved design that

reduces weight, enables easy installation, ensures high robustness, and allows continuous 24/7 operation.

The project includes all phases - from equipment procurement and production to detailed factory testing before delivery, ensuring the highest standards of quality and reliability.

Closed Distribution System



In 2024, HELB focused on developing and managing Closed Distribution Systems (CDS), ensuring reliable and transparent oversight of electrical networks in complex environments such as ports and industrial zones.

"This involves installing meters and measuring systems at locations and taking on a role similar to HEP-ODS in the distribution network. The simplest example of a CDS is a shopping center that is powered through a single point and has multiple stores and tenants. Such systems must have an operator responsible for the power grid from HEP's

meter to individual meters of all users, as well as for issuing bills," explained development engineer Marko Bošnjak.

In addition, the implementation of measuring systems and meters enables precise distribution of consumption, optimal energy use, and greater control over consumption, creating a more efficient power system.



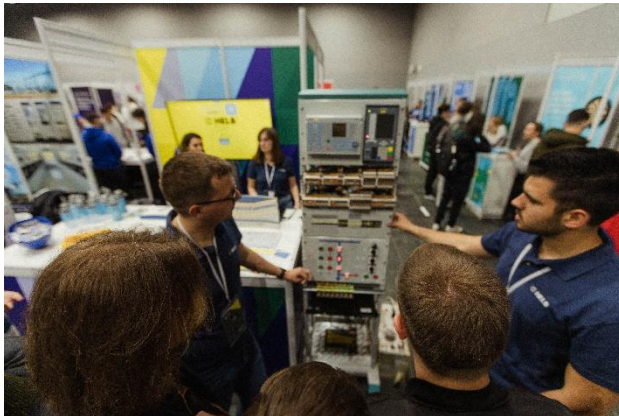
FAIRS AND CONFERENCES

Speed Date at SCINERGY '24 Conference

In February, HELB participated in the Zagreb conference SCINERGY '24, where more than 100 selected companies and 100 distinguished scientists met in a "speed dating" format. The main goal of the project is to connect the business and scientific communities in order to facilitate the commercialization of scientists' work and provide companies with access to solutions for improving and developing products and services.

HELB representatives held meetings with several scientists whose scientific research work could correspond to HELB's development plans, and on that occasion presented the results of the DINGO project.

TVZ Career Day



In April 2024, HELB participated for the first time in the TVZ Career Day fair, an event that brings together ambitious students and leading companies in the fields of electrical engineering, construction, informatics, mechatronics, computing, and mechanical engineering. The organizer, the Student Council of the Zagreb University of Applied Sciences, enabled young people to directly meet potential employers and gain insight into

industry trends.

At its exhibition space, HELB presented key projects and career opportunities, and visitors were particularly attracted by the test station for protective devices, an innovative project resulting from Filip Marasović's graduate thesis. This device serves as an educational tool for testing and configuring numerical relays and transformer temperature protection relays, making it a valuable contribution to the professional development of future engineers.

In addition to the professional part, visitors could participate in HELB's knowledge quiz and test their skills through fun interaction and win prizes. Participation in this fair proved to be an excellent opportunity for knowledge exchange, connecting with young talents, and presenting innovations in the industry.

Hannover Messe

In April, Hannover Messe, the largest and most important European industrial fair, was held in Germany, bringing together leading companies from the mechanical engineering, electrical engineering, digital, and energy sectors. Among the participants was HELB, whose representatives took the opportunity to gain insight into current technological trends and connect with potential business partners.

Hannover Messe gathered more than 4,000 exhibitors and 130,000 visitors from 150 countries, making it one of the most important events in the industrial sector. Key topics were automation, digitalization, and sustainable energy solutions, with an emphasis on green transition and innovations in Industry 4.0.

HELB representatives had the opportunity to participate in numerous panels and demonstrations of the latest technologies, exchange experiences with international experts, and explore opportunities for future collaborations. Solutions related to smart energy systems, optimization of production processes, and digitalization of power infrastructure were particularly interesting, which is directly related to HELB's field of activity.

Renewable Energy Days



Renewable Energy Days (Dani OIE), held in June in Pula, gathered more than 400 experts from various sectors of energy and sustainable development, including HELB representatives.

Over three days, participants addressed topics of key importance for the energy sector, including public policies in the RES sector, optimal methods of thermal and electrical energy storage, as well as financial strategies

for RES projects. Great attention was also paid to the challenges of energy transition, the introduction of new technologies that enable greater efficiency in energy use, and the necessity of developing green projects to reduce negative environmental impact.

CIRED 2024 Vienna Workshop



HELB representatives participated in the CIRED 2024 Vienna Workshop, which focused on increasing the capacity of distribution networks. The main topic of the conference was considering new approaches in expanding and optimizing power grids.

During the event, about 15 meetings were held with experts from the power industry, and during these meetings, it was confirmed that HELB's solution for distribution network planning (DINGO) is competitive in the

European market. Also, important insights were gathered about trends in digitalization and optimization of distribution networks, enabling more efficient infrastructure management.

16th Symposium of the Croatian CIGRE Committee



From November 4 to 7, 2024, Cavtat hosted the 16th Symposium of the Croatian CIGRE Committee (HRO CIGRE), one of the key events for experts from the energy sector. The symposium gathered about 800 participants from Croatia and abroad, including engineers, scientists, and representatives of companies from the power industry, with the aim of exchanging experiences and considering new challenges and solutions in the industry.

HELB, as in previous years, participated as a sponsor of the symposium, further confirming its contribution to the development of the power sector. With this appearance, HELB began marking

its 35th anniversary of successful business and development. During more than three decades of operation, HELB has realized projects in more than 50 countries worldwide.

It was precisely the long-term experience, specialization in the energy industry, and commitment to quality that inspired the design of the stand, which showed visitors HELB's journey from the first local projects to international achievements and cooperation with global partners.

Career Speed Dating 2024



In December, HELB participated in Career Speed Dating 2024, an event that brought together students and employers with the aim of fast and efficient networking. This specific event format provided students from technical fields the opportunity to meet potential employers and learn more about professional development opportunities in the industry.

HELB representatives conducted six interview rounds, engaging with 22 students about their career aspirations and opportunities in the power industry. Each session lasted eight minutes.

HELB aimed to present a wide range of career development opportunities, including various sectors of the power industry, as well as challenges and projects in which the company participates.

AT HELB

Best Colleagues



February was once again marked by HELB's Best Colleagues selection, which recognized and rewarded employees who left a positive mark on the collective with their work, values, and expertise. This selection has become part of HELB's tradition, and its goal remained the same - to highlight those colleagues who were examples of cooperation, dedication, and expertise, thus contributing to a more pleasant

and successful work environment.

All employees had the opportunity to participate in nominations and voting, and the selection was again held in three categories:

✅ **"Always for Cooperation"** - a colleague who showed understanding, was ready to help, and created an atmosphere of trust and respect with their approach.

🏆 Winner: Mario Pranjic

✅ **"Gives More of Themselves"** - someone who stood out with exceptional engagement, responsibility, and dedication, giving more than expected.

🏆 Winner: Damir Mažar

✅ **"The One Who Knows Knowledge"** - an employee who set high standards with their expertise and quality of work and selflessly shared their experience with colleagues.

🏆 Winner: Ivan Zrinščak

More than two-thirds of employees participated in voting through an online survey, which once again confirmed that this selection has great support within the company.

Women's Day



As in previous years, HELB marked Women's Day, continuing the tradition of appropriate socializing and showing appreciation to female colleagues. This small token of gratitude has become part of HELB's culture and a way of highlighting the importance of women in the business and professional environment.

Good Deeds Day

For the third consecutive year, HELB joined the celebration of World Good Deeds Day, a global humanitarian initiative that brings together participants from more than 100 countries. In the spirit of solidarity and social responsibility, HELB organized three actions aimed at providing help to those who need it most.

One of the key activities was collecting funds for four families from the Dugo Selo area who need financial support. Thanks to donations, gift vouchers for shopping in stores and symbolic gift packages were provided.

In addition, HELB provided support to the Stančić Rehabilitation Center by donating computer monitors that will be used in educational workshops for their beneficiaries. Namely, this social welfare institution cares for more than 700 children and adults with intellectual and mental disabilities in the area of Dugo Selo, Vrbovec, and Jelkovec.

Additionally, to further promote reading culture, HELB provided a donation of books by Croatian writer Jozo Vrkčić, supporting the spread of domestic literature.

World Day for Safety and Health at the Workplace



For the fourth consecutive year, HELB has joined the celebration of the World Day for Safety and Health at the Workplace, continuing to promote the importance of a safe and healthy work environment. On this occasion, employees had the opportunity to participate in a prize competition divided into three categories.

🏆 **"Best Knowledge of Health and Safety"** – This title was awarded to the employee with the best score in the workplace safety knowledge quiz.

🏆 Winner: Sanjin Krmpotić

♦ **"Safest Employee"** – Colleagues voted for the employee who contributes the most to workplace safety.

🏆 Winner: Dragan Bandić

📷 **"Best Health and Safety at Work Photo or Video"** – The award in this category was given to the best visual material related to workplace safety.

🏆 Winner: Krunoslav Benko


Pink Ribbon Day



For the first time, HELB employees joined the observance of Pink Ribbon Day.

This day is marked annually in Croatia on October 7th, as part of a global initiative dedicated to raising awareness about breast cancer. October is recognized worldwide as Breast Cancer Awareness Month, and the pink ribbon has become an international symbol of solidarity and support for those affected by this

serious illness.



In Croatia, around 3,000 women are diagnosed with breast cancer each year. Wearing a pink ribbon is also a reminder of the importance of regular preventive screenings, as early detection can save lives.

Ugly Christmas Sweater Day



Once again, HELB employees took the opportunity to bring some fun and holiday spirit into the workplace – Ugly Christmas Sweater Day was filled with laughter, colorful patterns, and creative fashion choices. From classic winter motifs to completely wacky designs, everyone put in the effort to showcase their sense of humor

and enjoy the festive atmosphere.

Year-End Gathering



The year concluded with a relaxed gathering at HELB's production facility. Employees from all departments came together to celebrate the successful completion of another business year, enjoying a great atmosphere and delicious food.



HELB Advent Celebration



The end of December was marked by HELB's first-ever Advent event, specially organized for employees and their families. The event provided a chance to unwind and enjoy the holiday spirit.

The youngest attendees were entertained by magician Magic Vladimir, while face painting was a hit among both kids and adults. Grown-ups indulged in festive treats, mulled wine, and draft

beer from the popular "beer truck."

The highlight of the evening was Santa Claus handing out special gifts to about fifty delighted children.

A Year in Numbers



At the end of 2024, HELB had 140 employees



A total of 346 projects were activated



A total of 13 services were performed



A total of 120 cabinets were produced



HELB employees participated in 19 training sessions

Where Were We in 2024?

