



ČEZ ESCO

Profile of smart energy solutions

Smart future

ENERGY SERVICE COMPANY



What is ESCO? **New Energy Trends.**

From the English Energy Service Company,
thus a company providing comprehensive energy services
to municipalities, companies and organizations.

**WE ARE A STRONG PARTNER FOR
SOLVING COMPREHENSIVE ENERGY
NEEDS FOR BOTH THE BUSINESS
AND THE PUBLIC SECTOR**

MESSAGE FROM CEO

Welcome to the world of new energy. In a world where the main motive is not to produce as much energy as possible, but to waste it as little as possible. Energy is a source that we treat with the same respect as clean air or crystal clear water. We perceive energy as a means to a quality life for all of us. It drives the turbines of our plants and illuminates the streets of our cities. But it also does not increase the climate burden of our planet, which we want to pass on to future generations in the purest possible state.

The current challenge facing the world we represent is how to remain just as efficient while consuming less. How not to burden investment budgets, but still implement solutions that will bring opportunities for savings. How to produce lower levels of harmful emissions.

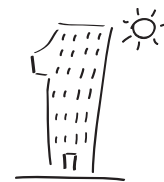
Only a strong player with a wide range of products and services in the field of energy optimization can adequately respond to such a challenge. Only a strong player can afford to offer a specific product tailored exactly to a particular company or municipality. For some, it pays to have a small solar power plant on the roof; for others, it is a change of air-conditioning systems. We, ČEZ ESCO, are such a strong player. We will find a solution for everyone. We will help with financing and operation.

We are opening the door to a world that brings lower energy costs and a lower climate load on the planet Earth. The door to the energy world, dominated by ESCO technology.

Kamil Čermák

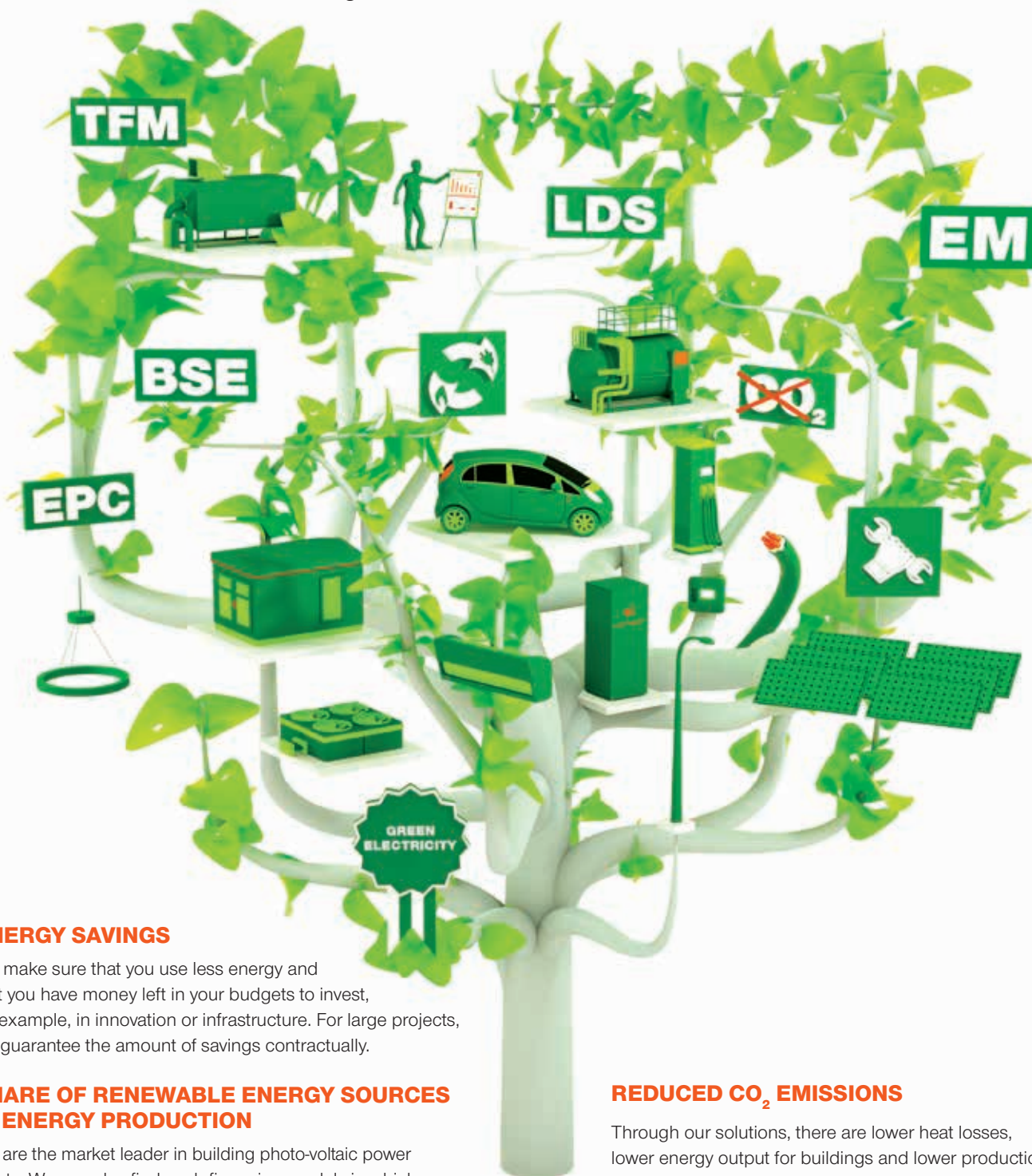
Chairman of the Board of Directors and CEO, ČEZ ESCO

ABOUT US



WHO WE ARE

ČEZ ESCO (Energy Service Company) is a strategic partner for state administration, local governments and the corporate sector, industrial companies and large companies, for comprehensive solutions to energy needs, including energy optimization and energy supply. We operate through subsidiaries in the Czech and Slovak markets.



ENERGY SAVINGS

We make sure that you use less energy and that you have money left in your budgets to invest, for example, in innovation or infrastructure. For large projects, we guarantee the amount of savings contractually.

SHARE OF RENEWABLE ENERGY SOURCES IN ENERGY PRODUCTION

We are the market leader in building photo-voltaic power plants. We can also find such financing models in which you do not need your own budget, and which will pay off even without a subsidy.

REDUCED CO₂ EMISSIONS

Through our solutions, there are lower heat losses, lower energy output for buildings and lower production of greenhouse gases. We improve air quality and light quality in buildings.

STRATEGY



We are the only player on the market that can provide you with a comprehensive range of energy products and services. So leave the energy portfolio of your company or municipality entirely to us.

1

We will advise you which solution is most effective for you. Thanks to our wide range of products and services, we will find one that suits you.

2

We will finance the solution you choose from us. We offer the energetics as a service. You can have some products for only 1 CZK.

3

We will build the solutions you ordered from us. You do not have to look for a third party. At the same time, we guarantee the quality of the projects we build.

4

We operate our projects. You can really leave any worries about energy entirely to us and devote yourself fully to your business or community administration.

5

We take care of you, as customers, as well as the services and products that you receive from us. We provide comprehensive care and service for the solutions you have purchased from us.



WE ONLY OFFER SUCH SOLUTIONS THAT FULLY MEET THE INDIVIDUAL NEEDS OF EACH CLIENT

OPTIMIZATION

We can optimize the complex energy system of buildings. From energy consumption through light quality and heat management, up to air quality. We guarantee return on investments.

SUSTAINABILITY

We actively help reduce the impact of human activities on the climate. We are a partner to our customers in meeting the climate goals of the EU and the Czech Republic.

TREND-SETTING

We develop new solutions in the fields of energy, digitization and smart systems. We predict future trends and prepare effective solutions for them. We move with the times. You will be ready with us.

FROM A TO Z

You can solve all your energy needs in one place. We only propose solutions that make sense in terms of system wholeness, not the marketability of a single product.

WHAT WE CAN OFFER YOU

From individual products to comprehensive services – but the solution is always tailor-made for you to make rational sense.



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From individual products to comprehensive services – but the solution is always tailor-made for you to make sense.

PRODUCTS AND SERVICES

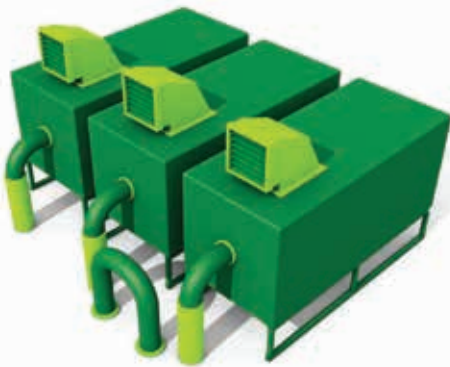


WE HOLD A QUALITY MANAGEMENT SYSTEM CERTIFICATE ACCORDING TO ISO 9001 FOR THE SALE OF ELECTRICITY AND GAS TO INDIVIDUALLY SERVED CUSTOMERS.



HEATING SYSTEM

Equipment for the production and distribution of heat or cold will reduce your operating costs and minimize risks.



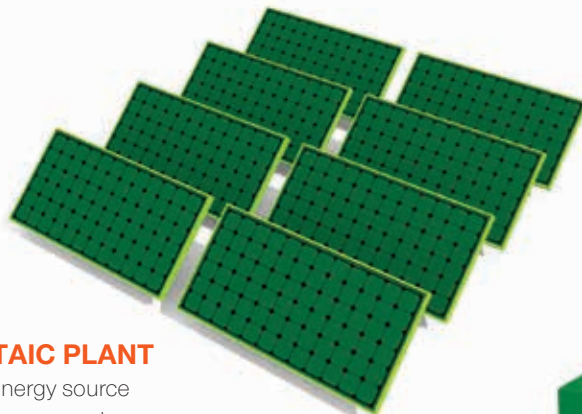
COGENERATION

Equipment for combined heat and power production guarantees greater security of energy supply.



MEASUREMENT & CONTROL

Complete measures for monitoring energy and water consumption, the task of which is to ensure optimal operation of the building and to reduce its energy intensity.



PHOTOVOLTAIC PLANT

This alternative energy source will take care of energy savings and self-sufficient operation even in the event of a power failure.



TRANSFORMERS

A set of solutions related to the supply, implementation, modernization or operation of distribution equipment and transformer stations.



ENERGY STORAGE

Battery storage systems ensure functioning of the essential infrastructure necessary for the operation of your building.





VENTILATION AND AIR CONDITIONING

An automated ventilation system is used to optimize the indoor micro-climate by measuring the temperature and the amount of CO₂.



INDOOR LIGHTING

Innovative lighting systems for public, commercial and industrial spaces - solutions focusing on high efficiency of the lighting system, cost reduction and thoughtful design.

LOCAL DISTRIBUTION SYSTEM

An autonomous system connected to one of the main distribution networks, which distributes electricity to customers in a defined area on the basis of a granted license.



MAINTENANCE OF TECHNOLOGICAL EQUIPMENT

Technical services in the field of repairs and maintenance for energy management and other industrial equipment.



ENERGY CONSULTING AND MANAGEMENT

Design and engineering services as a basis for more efficient use of energy to be recommended, including energy audits and management.

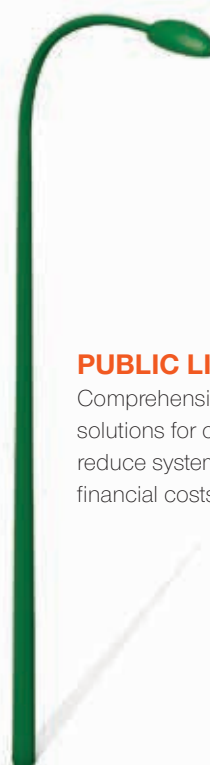


E-MOBILITY

Everything from one supplier to support electric mobility, while taking care of the vehicle fleet with its own charging system on a turnkey basis.

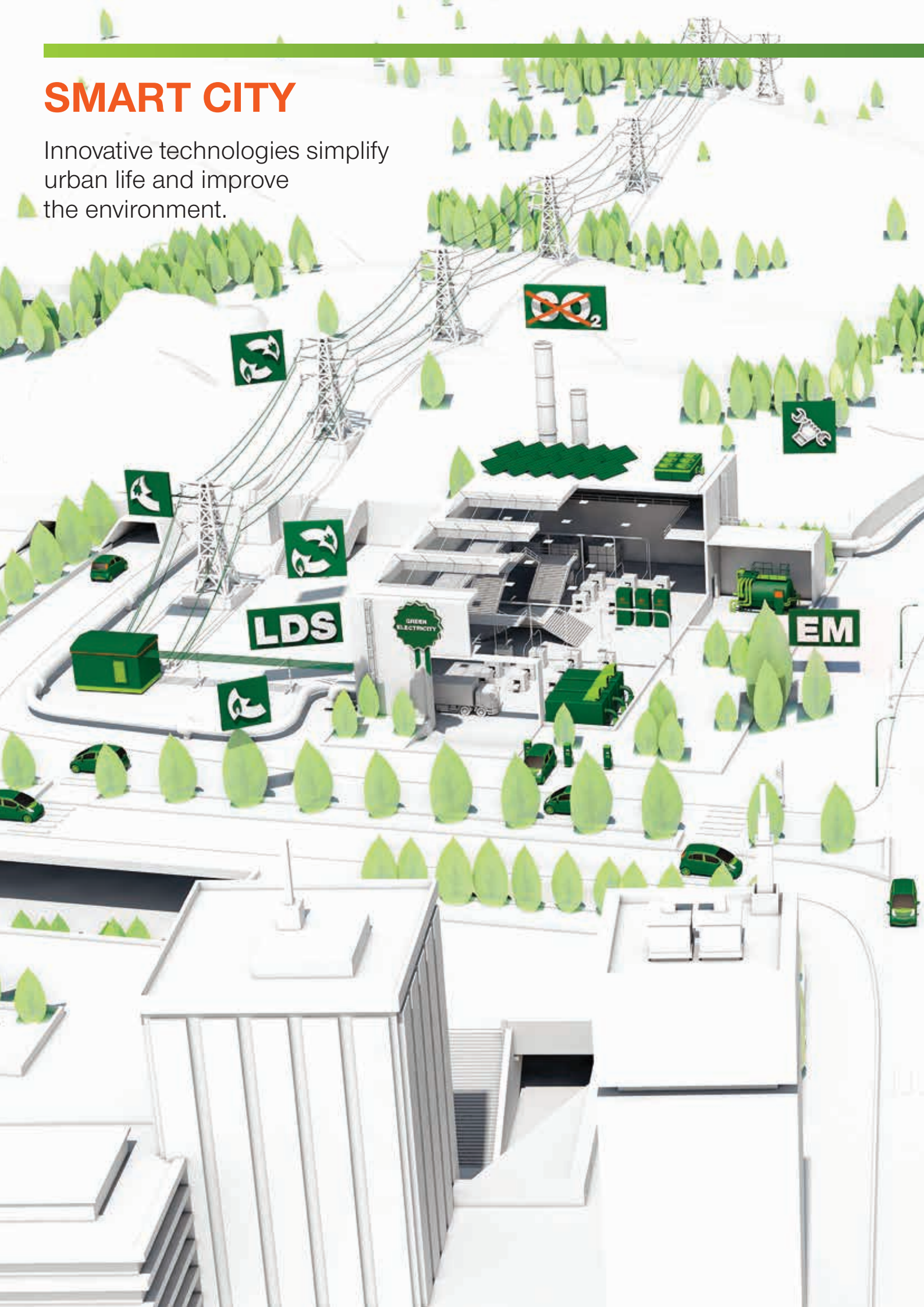
PUBLIC LIGHTING

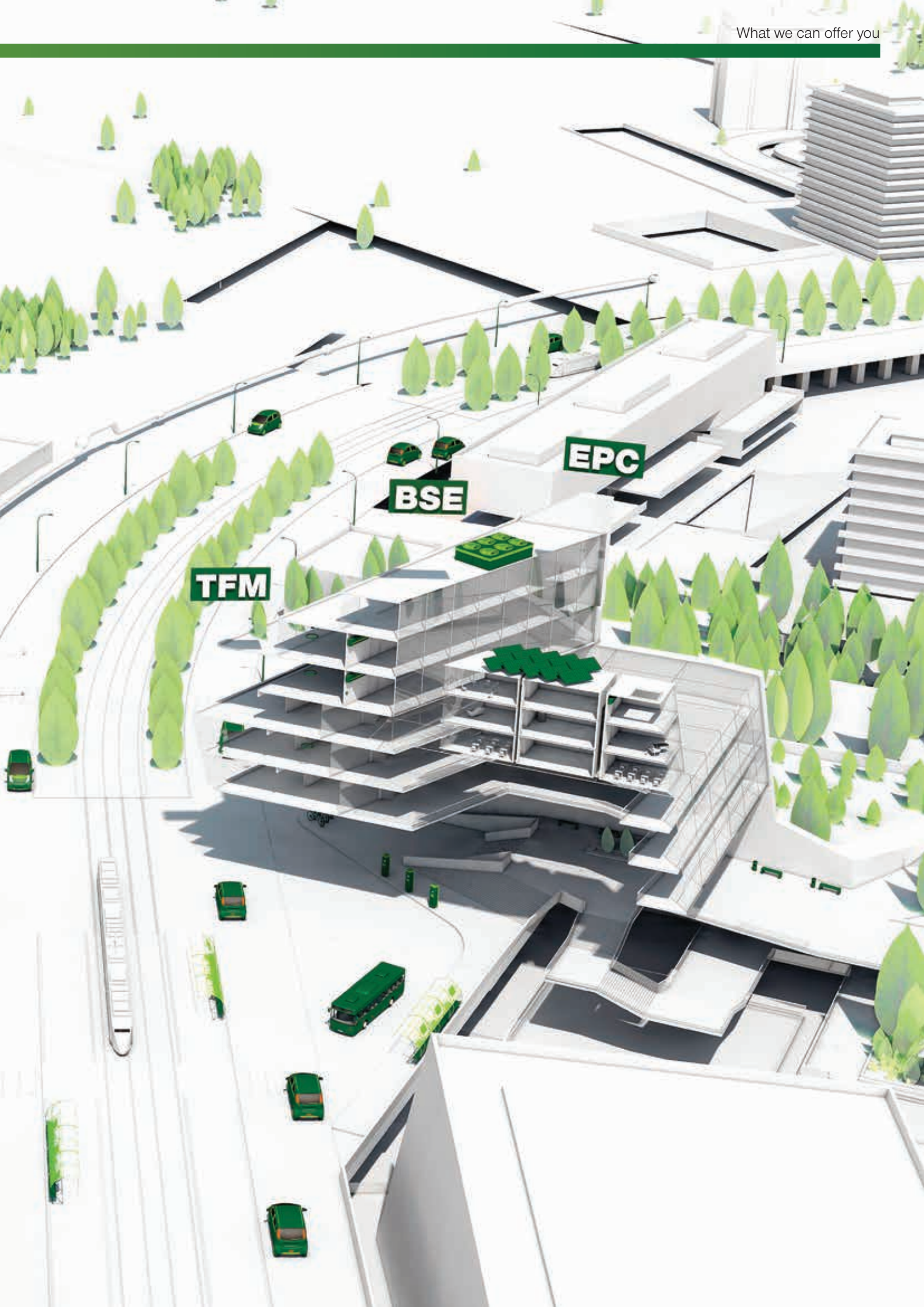
Comprehensive and system solutions for outdoor lighting reduce system failures and financial costs.



SMART CITY

Innovative technologies simplify urban life and improve the environment.





COMBINED SOLUTIONS



ENERGY MANAGEMENT

Production, distribution, operation of heat sources and distribution, including heat appliances.



BUILDING SERVICES ENGINEERING

Technical services in the field of supply, operation and maintenance of technical equipment.



ENERGY PERFORMANCE CONTRACTING

Energy-saving measures lead to a reduction in the energy intensity of buildings and guaranteed savings.



TECHNICAL FACILITY MANAGEMENT

Comprehensive professional care by one responsible partner who will ensure operation of the building without defects.

CEZ ESCO FAMILY

We are an integral part of CEZ Group, the largest player in the field of Czech energy with 30 years of know-how. Thanks to the wide portfolio of activities of our subsidiaries, we can reliably cover all the needs of our customers.

AirPlus

ČEZ Energetické služby

ČEZ LDS

ČEZ Solární

ENESA

KLF-Distribúcia

ELECTRICITY AND NATURAL GAS



ELECTRICITY AND NATURAL GAS

A wide range of commodity products, which guarantees a stable supply of electricity as well as natural gas.



EMISSION ALLOWANCES

A comprehensive solution for the purchase and sale of emission allowances.



PURCHASE OF ELECTRICITY FROM DECENTRALIZED SOURCES

Purchase of electricity produced from renewable energy sources, co-generation units and other production sources.



GREEN ELECTRICITY

Origin confirmation for electricity production from renewable energy sources.

AZ KLIMA

ČEZ Energo

ČEZ SERVIS

Domat Control System

HORMEN CE

SPRAVBYTKOMFORT

BYTKOMFORT

CEZ ESCO Slovensko

CEZ Slovensko

e-Dome

KART

Note: Subsidiaries with ČEZ ESCO ownership interest of 49% or more as of June 1, 2020, sorted alphabetically.

Jihlava Hospital

THEY RELY ON US

As much as a third of the operating costs of Jihlava Hospital were energy expenditures, which is why its management decided to step onto the energy-saving path in the future while maintaining the high quality of the services offered. After the modernization performed by ENESA, a subsidiary of ČEZ ESCO, this medical facility is now saving 13 million CZK every year, which pays for implementation of the energy-saving project and for the infrastructure management. At the same time, ČEZ ESCO guarantees a saving of 4 million CZK. This exceptional project won the European Energy Service Award 2014 of the European Energy Services Initiative (EESI).

13

MIL. CZK

JIHLAVA HOSPITAL ACHIEVED THESE ANNUAL SAVINGS THANKS TO THE MODERNIZATION OF ITS ENERGY INFRASTRUCTURE

Lukáš Velev, Manager of Jihlava Hospital:

"The biggest advantage for us is that we could hand over all our energy equipment and its management to experts who know which type of savings are worth the investment."



Prague Congress Centre

The oldest and, at the same time, the largest building in the metropolis, intended for congresses and cultural events, is gradually changing inside and outside. Until recently, the costs of electricity, gas and water swallowed almost 74 million CZK a year, but today the image of an uneconomical colossus no longer applies to it. In the years 2016–2017, fundamental reconstruction of the energy system of the Prague Congress Centre (PCC) took place during full operation of the building.

Liberty Ostrava

One of the Liberty Ostrava plants (formerly ArcelorMittal Ostrava), Plant No. 65, also began to focus on distant foreign markets due to the crisis in the mining industry. 140 people work in the four halls in the plant with an area of 30,000 square meters, and its industrial products – road barriers and steel reinforcements – head to more than 40 countries around the world. During the modernization, the company also linked up with ČEZ ESCO, which specializes in energy savings.

Jiří Chvalina, Project Manager:

"The difference in the quality of lighting before and after the reconstruction is very noticeable. And when we know that it also has an ecological effect, one is happier, especially here in the Ostrava Region. In some places it was not necessary to illuminate so much, elsewhere, on the contrary, the intensity needed to be upped. Before several hundred heavy mining reinforcements embark on the long journey to South Africa, Chile, Peru or Guatemala, they must be thoroughly inspected. Therefore, good lighting is literally priceless, and we will save significantly here by installing new light fittings."

ČEZ ESCO implemented a lighting modernization project in part of the plant's central underpass. At full operation, almost 300 light fittings that no longer met current standards were replaced. The investment of CZK 5 million has an economic and environmental dimension. Electricity consumption decreased by 3,016 MWh per year, which represents an 80% saving compared to the original state and a decrease in CO₂ emissions of 3,050 tons. The intelligent lighting control system according to the requirements of individual parts of the plant contributes to the savings.





The modernization affected practically the entire energy infrastructure of Jihlava Hospital. During the implementation of this demanding project, the original wooden windows were replaced with plastic ones and all buildings received quality insulation. The change also affected indoor facilities - heating technology, air conditioning, steam production and the lighting system. Now the hospital also uses co-generation units producing electricity and residual heat that is used for heating buildings. Excess production is then sold to the distribution system. Experts from ČEZ ESCO now take care of the hospital's energy management. Thus, the project did not end with the implementation itself, but provides the subsequent necessary service.

The company ENESA, member of CEZ ESCO, implemented one of the largest domestic projects of guaranteed energy savings (EPC) in the PCC building, which, with an initial investment of 126 mil. CZK, saves 21.3 mil. CZK annually on energies and enables a reduction in consumption of up to 30%.

The investment required the modernization of the central boiler room with 4 new high-performance boilers and a new co-generation unit for the production of electricity and heat. The air-conditioning system, controlled by CO₂ sensors, has also undergone a thorough reconstruction, enabling the volume of energy for heating or cooling the air in the halls to be optimized. Further savings come from new LED lighting with continuous intensity control and an individual temperature control system (IRC) in each room. Supervision of energy operations is controlled by a central control room with a new visualization of technological processes.

21.3^{MIL. CZK}

IS SAVED BY KCP ON ENERGIES ANNUALLY. THE COMPLEX OF ECONOMIC MEASURES HAS AFFECTED THE HEATING COSTS THE MOST - ACCORDING TO ENESA DATA, THEY DECREASED BY 30%. THE COSTS FOR BUILDING INTERIOR COOLING DECREASED BY 25%, AND THE AIR CONDITIONING MANAGEMENT IS 16% CHEAPER COMPARED TO THE ORIGINAL CONDITION.

Lenka Žlebková,
Sales and Marketing Director of PCC:

"It used to be heated or cooled all at once throughout the building, with the comfort in the halls and foyer on the south side of the building being very different from the north side, where the cold could already be felt. Now we can meet the different requirements better, the heating or cooling options are variable according to the exposure of the building walls, the season or the occupancy of the halls, and any other needs of the client. Every manager would tell you that there is nothing to discuss in the case of a project with a return on investment up to ten years."



Rudolfinum – Czech Philharmonic Orchestra

The Rudolfinum building hosts concerts of the Czech Philharmonic Orchestra and other orchestras, many cultural events, and it also includes a gallery and a café. The Rudolfinum management was seeking a way to improve the power management, quality ventilation and control of constant temperature and humidity in different parts of the building. It was also necessary to combine the needs of many of its users.

Ondřej H. Matyáš, Deputy-Director for Economy and Operation of the Czech Philharmonic Orchestra:

"Artworks presented in the gallery require relatively precise temperature and humidity. On the other hand, the concert hall requires a certain temperature range to be maintained and other parameters observed; for example, the amount of fresh air. While the load in the gallery area is more or less constant, a total of 1,200 people enters the concert hall at a time. We have used the guarantee of savings in the implementation of this investment, the premium know-how and patronage of ENESA over the whole project and its development," says Ondřej H. Matyáš, who oversees the financial matters of the Czech Philharmonic Orchestra.



Sladovny Soufflet CR

Sladovny Soufflet CR plant in Prostějov, together with the facilities in Hodonice, Litovel, Kroměříž and Nymburk, accounts for 60 percent of malt production in the Czech Republic and for more than 90 percent of Czech malt exports abroad. The Czech branch of the French Soufflet Group sells 12 types of malts, both kilned and roasted, to breweries. The operation and economy of malting plants are affected by various risk factors; in addition to extreme weather, efficient use of energy is also crucial.

Sladovny Soufflet CR was looking for optimal solutions for energy savings. They established cooperation with ČEZ Energo, a subsidiary of ČEZ ESCO, which gradually installed five cogeneration units with an output of 10 MW in the facilities in Nymburk, Prostějov and Hodonice, at a total amount of almost CZK 200 million. The cogeneration units supply heat more cheaply and, at the same time, without negative effects on the environment. Equipment dispatching is provided by ČEZ Energo. All investment costs were covered by the solution provider, who gradually deducts them from the price of heat.

200

MIL. CZK

ČEZ ENERGO INVESTED IN FIVE COGENERATION UNITS IN THE OPERATION OF SLADOVNY SOUFFLET CR. UNITS OF MILLIONS PER YEAR IS THE SIZE OF THE ANNUAL ENERGY SAVINGS THANKS TO THE COGENERATION.





30%
IS SAVED ANNUALLY BY THE OPERATOR
OF THE RUDOLFINUM AS COMPARED TO THE
ADJUSTED REFERENCE CONSUMPTION IN 2012.

The upgrade concerned almost the entire technological facilities. The cold production equipment and the air conditioning underwent the most extensive reconstruction. The installation of new technologies in a historical building from 1885 required an unusual approach and many unique solutions. From the customer's point of view, not only is the higher performance of the ventilation system essential, thanks to which, for example, listeners in the fully occupied Dvořák Hall always have enough fresh air today, but also the expected 9-year return on investment of 20 million CZK.

Waltrovka

The Waltrovka residence and administrative complex in Prague follows the trend of regeneration of so-called brownfields. The investment group Penta Investments revitalized a large plot of land, where the famous factory for motorcycles, cars and aircraft engines, Walter Motors, once stood. Waltrovka became the new address for the headquarters of Johnson & Johnson, which occupies the Mechanica building. The building meets the most demanding criteria of economy and environmental friendliness of operation. The lighting system from HORMEN CE, a member of CEZ ESCO, also contributes to this.

45%

THE SAVINGS ARE BROUGHT BY HIGHLY EFFICIENT LIGHTS WITH LED TECHNOLOGY AS COMPARED TO COMMON FLUORESCENT LAMPS. IN ADDITION, LED TECHNOLOGIES OFFER GREAT SHAPE VARIABILITY TO DEVELOPERS AND ARCHITECTS

In its concept, the interior of the Mechanica building represents the highest level of comfort: employees have a healthy and visually pleasing working environment at their disposal. High-quality and sufficient lighting holds a seemingly inconspicuous but very important place. HORMEN, a domestic manufacturer and supplier of lighting systems, designed and installed almost 8,000 custom-made LED light fittings for the entire building. In addition to lighting for so-called fit-outs, the company also supplied emergency light fittings, lighting for corridors and garages, and a comprehensive control and regulation system for emergency lighting. Light fittings from HORMEN meet the parameters for achieving LEED or BREEAM energy performance certification in accordance with the criteria of sustainable development.



**Richard Paulů, General Director
of Sladovny Soufflet CR:**

"In our malting plants, energy costs represent more than 50 percent of the variable costs for malting. The process of drying malt at temperatures of 50–85°C is especially energy-intensive. The implementation of the project by installing cogeneration units in the malting process significantly reduced the consumption of primary fuels, and thus streamlined the malting process. They also have an ecological benefit, because in combination with the operation of malting plants, they make full use of the energy released during the combustion of natural gas and do not burden the surroundings with smoke or odors."



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