SEVEn

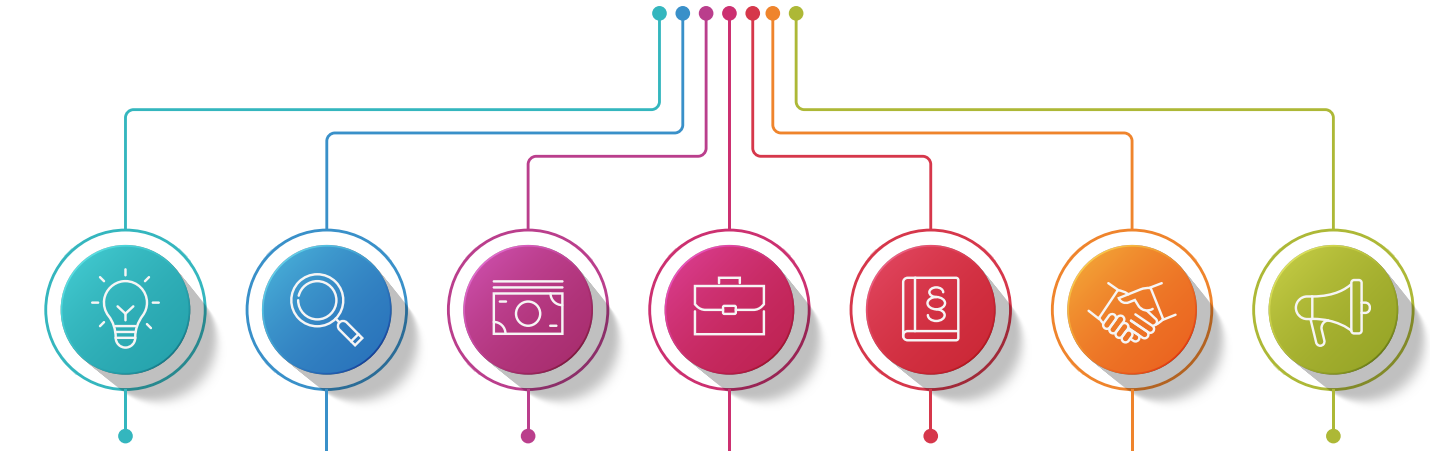
CREATING A WORLD OF MORE EFFICIENT ENERGY

CATALOGUE OF ACTIVITIES

CONTENTS


Our main mission is
to protect the environment
and promote economic
development through more
efficient use of energy.

WE HELP IN THE AREA OF ENERGY SAVINGS.



FINDING SAVINGS

identifying potential energy savings

ANALYSIS

describing the technical, financial and organisational aspects of the implementation of potential savings

FINANCE

identifying the financial possibilities for project implementation

PUBLIC TENDERS AND SUBSIDIES

co-organising public tenders or initiating and organising grant projects in the area of energy savings

LEGISLATION

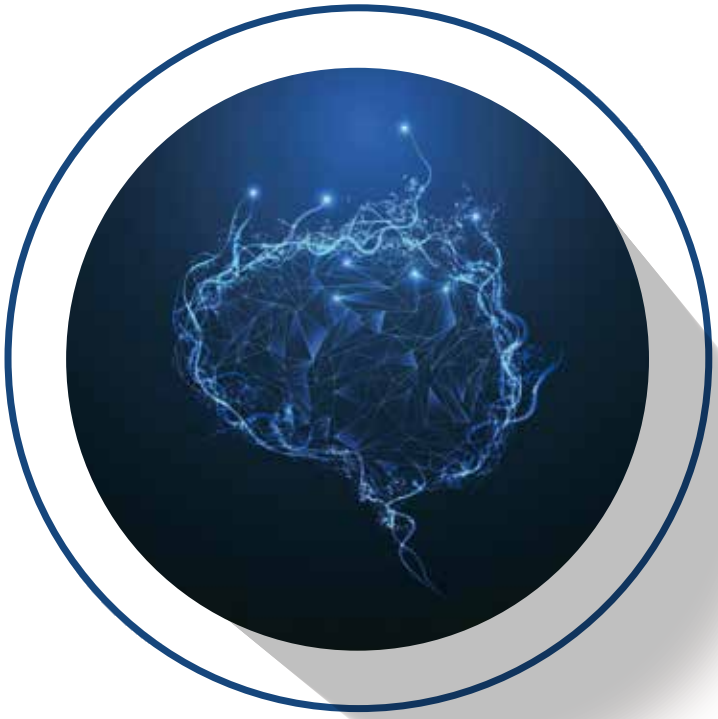
identifying and assisting with compliance with legal requirements in the area of efficient energy use in building and technologies

COOPERATION

in organising technical and implementation projects for energy savings and renewable energy sources

INFORMATION AND PROMOTION

keeping building and technology users as well as the general public informed about the environmental benefits of reducing energy consumption



1/ FORE-WORD

DEAR FRIENDS AND BUSINESS PARTNERS,

We would like to present to you the catalogue of activities of SEVEn Energy, s.r.o. and SEVEn, The Energy Efficiency Center, z.ú. The main goal of both organisations is to strive to implement projects that lead to specific energy savings on the part of the consumer and are economically and environmentally beneficial for both the user and society as a whole.

Over the course of its existence, we can boast of a growing number of projects leading to significant energy savings. Whether customer-driven energy service projects, energy concepts and audits, biogas utilisation options, complete replacement of light sources or district heating systems, our goal remains customer satisfaction, i.e. identifying and realising savings potential that is cost-effective and organisationally available.

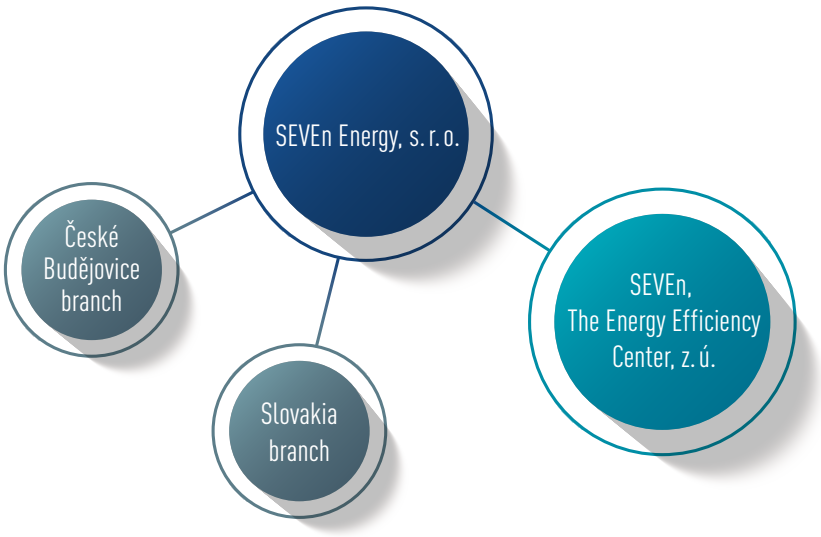
We will be happy if you contact us with your questions or suggestions on how to continue to rationalise energy consumption and apply energy savings in practice.

Juraj Krivošík
executive director SEVEn Energy, s. r. o.
managing director SEVEn,
The Energy Efficiency Center, z. ú.

Tomáš Voříšek
executive director SEVEn Energy, s. r. o.
deputy managing director SEVEn,
The Energy Efficiency Center, z. ú.

Jaroslav Maroušek
executive director SEVEn Energy, s. r. o.
Chairman of the Board of Directors of SEVEn,
The Energy Efficiency Center, z. ú.

Structure of SEVEn



2/ ABOUT US

SEVEn, the Energy Efficiency Center was established in 1990 and has undergone several legislative-legal transformations due to gradual changes in legislation. It has maintained its main mission today: protecting the environment and promoting economic development through more efficient use of energy.

SEVEn currently operates on the market in the form of two companies: SEVEn Energy, s.r.o. and SEVEn, The Energy Efficiency Center, z.ú. SEVEn Energy is the founder of the non-profit company SEVEn, The Energy Efficiency Center. Both companies work together to fulfil their original mission, but they can also act as independent legal entities.

SEVEn Energy, s.r.o. focuses on projects aimed at implementing specific energy-saving projects. Its main activities include energy auditing, feasibility studies, energy performance contracting, engineering activities and expert evaluations.

SEVEn, The Energy Efficiency Center, z.ú. focuses on strategic studies, projects to lower energy intensity in the residential and tertiary sector, assessment of the relevant legislation, provision of services in the field of education, training, awareness and promotion in the field of energy savings.

Both companies share a common human and technical potential with an interest in achieving the best results for the customer.

SEVEn customers and partners include public and private organisations, individual Czech ministries, international development organisations, private companies and firms, cities, municipalities and regions, energy companies, interest groups and other institutes and energy consumers.

3/ SEVEN'S AREAS OF ACTIVITY AND SELECTED REFERENCES

ENERGY PERFORMANCE CONTRACTING (EPC)

PREPARATION OF EPC PROJECTS

SUPPORT FOR THE ENERGY SERVICES SECTOR

COMPREHENSIVE ENERGY STUDIES

TERRITORIAL ENERGY CONCEPT

ENERGY AUDITS

FEASIBILITY STUDIES

ENERGY MANAGEMENT

ENERGY POLICY

PROJECT MANAGEMENT INCLUDING SECURING OF FINANCING

PROJECT MANAGEMENT

PROJECT FINANCING

PROJECT PREPARATION

GRANT MANAGEMENT

TENDERS

LOWERING ENERGY INTENSITY

NEARLY ZERO-ENERGY BUILDINGS (NZEB)

ALTERNATIVE ENERGY SOURCES

EFFICIENT HOUSEHOLD AND COMMERCIAL APPLIANCES

EFFICIENT INDOOR AND STREET LIGHTING

SUPPORT FOR PROJECTS AND EDUCATION

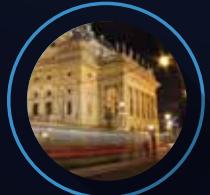
TRAINING THE EXPERTS AND PROFESSIONALS

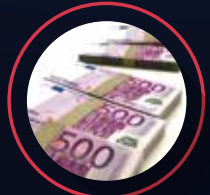
ENERGY ASSESSMENTS

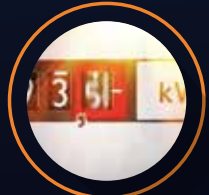
ENERGY PERFORMANCE CERTIFICATES FOR BUILDINGS

CHECKING BOILERS AND AIR-CONDITIONING

ADVISORY FOR THE PUBLIC







3.1 ENERGY PERFORMANCE CONTRACTING (EPC)

EPC projects preparation

SEVEn offers full service in negotiating Energy Performance Contracting (EPC). Based on the EPC method, the energy service provider – the contractor – offers turnkey comprehensive refurbishment of energy systems to reduce energy consumption at the customer's premises and its energy costs. The offer is gradually shaped in individual rounds of negotiations, the effective organisation of which SEVEn ensures for the customer.
The result is a solution that best suits the customer. The main return on investment of energy-saving measures is usually the cost savings themselves in terms of reducing energy consumption and improving the operation of the energy system.
The cost savings are contractually guaranteed to the customer. We see energy services in a broad context as an effective tool to reduce energy consumption.

Support for the energy services sector

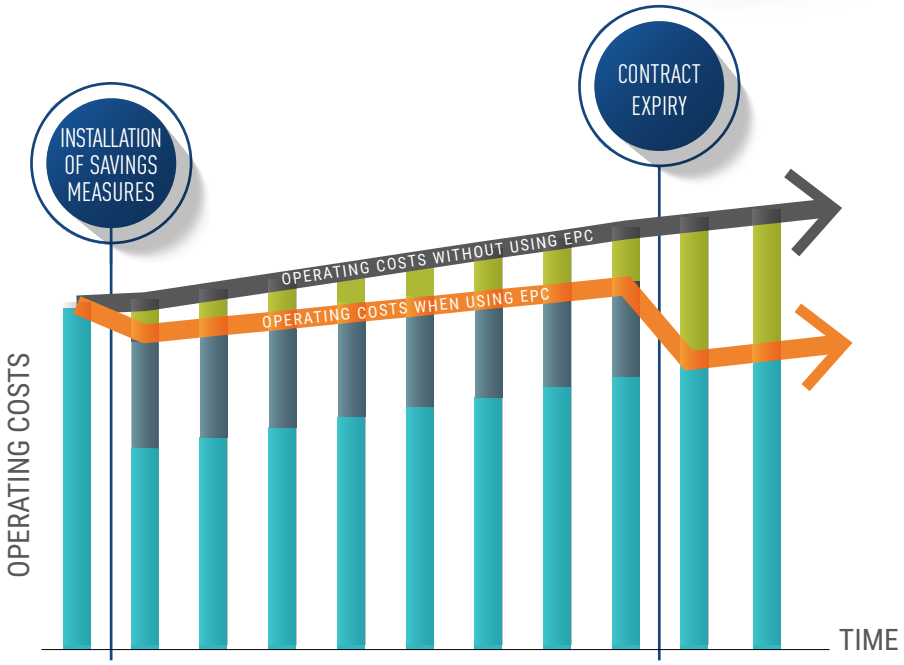
In the last 20 years, SEVEn has participated in the implementation of dozens of projects using Energy Performance Contracting. These were not just specific projects bringing energy savings to the customer, but also activities developing the overall energy services market, both at the national and European level. We organise projects with international reach and help to create the EPC "industry" in new countries. In this way, we increase the transparency and comparability of the offers of individual energy service companies.

We have long-term experience in many domestic and international projects. Our specialists gained their first experience with energy services in the US back in the early 1990s, where these services are widely applied.

Activities designed to guarantee energy savings, for example through the installation of energy efficient technologies, are known worldwide as **Energy Performance Contracting – EPC**. These consist of always verifiable, measurable and guaranteed higher energy efficiency leading to savings.

COST AND ENERGY SAVINGS WITH EPC

- COST SAVINGS
- RETURN ON INVESTMENT
- OPERATING COSTS
- → ORIGINAL OPERATING COSTS
- → COST PAID BY THE CUSTOMER WHEN USING EPC



The return on investment of energy savings measures are the actual cost savings related to the reduction of energy consumption and the improvement of the operation of the energy system. **Therefore, the customer does not need any input investment.** The cost savings are contractually guaranteed. All risks are borne by the supplier.

reference

ENERGY SAVINGS IN BŘECLAV HOSPITAL USING THE EPC METHOD

The Břeclav regional hospital has decided to reconstruct obsolete energy technologies using the EPC method. SEVEn was selected as a project facilitator, i.e. a senior advisor and organiser of the preparation and selection process for energy service providers. Our task was to carry out a basic analysis of the situation, to prepare a detailed tender dossier, an EPC contract, to organise a tender, to provide technical advice to the contracting authority and to supervise the actual installation of energy savings measures. A contract for the future EPC energy service provider was prepared by SEVEn at the beginning of the project, was discussed with the contracting authority and entered into the tender documentation.The tender was announced in the form of a negotiated procedure with publication. In the final round of negotiations, the winning company was selected from the four participants with a design that best meets the customer‘s requirements.

The selected contractor financed and implemented the entire project in the amount of over CZK 50 million over the next six months. In addition to complete heating reconstruction, the project also addresses water savings, hot water heating, lighting and more. The project will be repaid over the next 10 years, based only on operational savings, mainly by reducing energy and water costs. SEVEn worked in the project not only during the entire project preparation and the organisation of the tender until the contract was signed, but also supervised the implementation of the measure with the technical solution contained in the contract. Already after the first year of operation it turned out that the annual cost savings achieved under the EPC contract were not only met but even exceeded. The project brings not only energy savings to the hospital but also net profit every year.

references

WE WORKED ON MORE THAN 100 EPC PROJECTS

ENERGY RECONSTRUCTION OF NATIONAL HERITAGE BUILDINGS USING THE EPC METHOD – ACADEMY OF FINE ARTS IN PRAGUE

IMPLEMENTATION OF EPC PROJECT AT THE BUILDING OF THE NEW TOWN HALL – PRAGUE CITY HALL

EPC+ PROJECT: PROMOTING SME COOPERATION TO PROVIDE QUALITY ENERGY EFFICIENCY SERVICES

QUALITEE PROJECT – CERTIFICATION OF ENERGY EFFICIENCY SERVICES TO INCREASE RESPONSIBLE INVESTMENT IN THE BUILDING SECTOR

COMBINES PROJECT – USE OF COMBINED PROJECT FINANCING EPC ENERGY SAVINGS PROJECT IN CENTRAL EUROPE

EVALUATION OF ACHIEVED ENERGY SAVINGS IN GUARANTEED ENERGY SERVICES PROJECTS IN THE UNIVERSITY HOSPITAL MOTOL

ENERGY SERVICES FOR UNIVERSITY HOSPITALS IN BRNO, OSTRAVA, OLOMOUC AND THE VINOHRADY DISTRICT OF PRAGUE

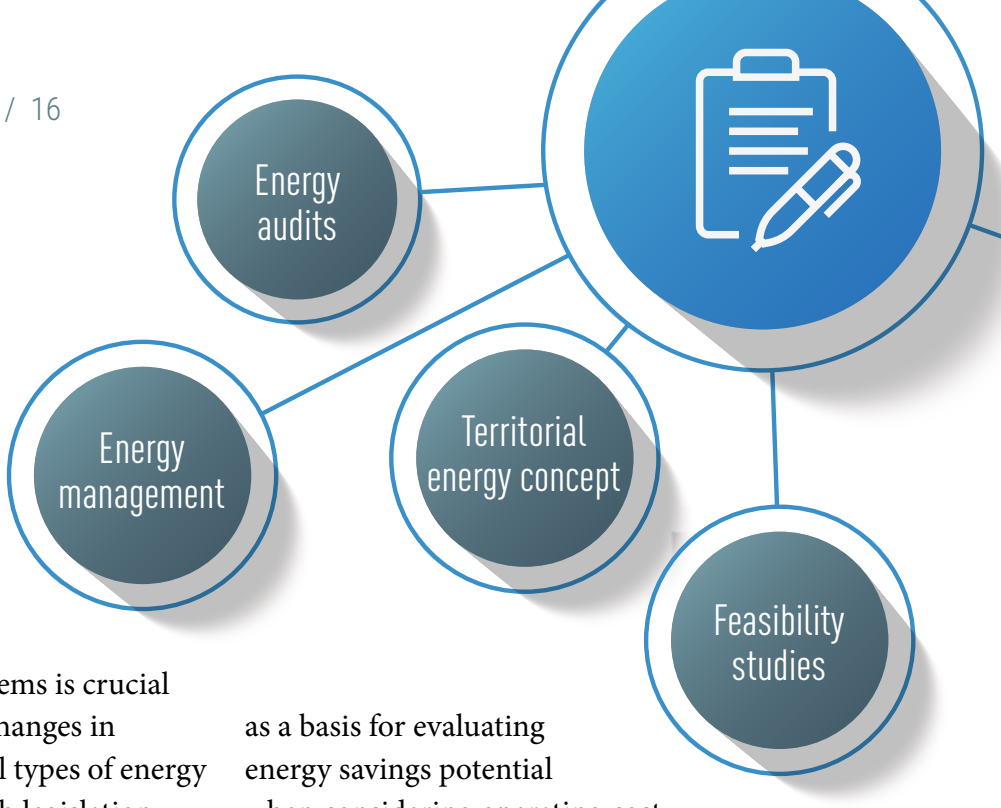
ENERGY SERVICES FOR PSYCHIATRIC HOSPITALS IN JIHLAVA, KROMĚŘÍŽ AND BRNO

PUBLICATION OF METHODOLOGY FOR AWARDING AND ORGANISING EPC PROJECTS IN STATE ORGANISATIONAL UNITS

TRANSPARENSE: A PROJECT TO INCREASE THE TRANSPARENCY AND CREDIBILITY OF EUROPEAN EPC MARKETS

Among the specific projects and locations in which EPC projects are implemented in cooperation with SEVEn are: Rudolfinum Prague, Czech Technical University in Prague, District of Prague 3, State Opera Prague, SPŠ stavební in Plzeň, New Town Hall Prague, cities of České Budějovice, Olomouc, Jeseník, Litoměřice, Vsetín, Moravská Třebová, etc.

3.2 COMPREHENSIVE ENERGY STUDIES



Comprehensive energy studies

A comprehensive view of energy systems is crucial for truly lasting energy savings and changes in energy management. SEVEn offers all types of energy studies, which are embedded in Czech legislation (energy audit, energy concept), as well as individual feasibility studies, energy studies, absorption capacity studies or energy management analyses. SEVEn can meet not only the legal requirements for developing conceptual or technical outputs, but can also ensure that they are highly professional and objective, and that the recommended measures are technically, economically and environmentally optimal.

Energy audits

SEVEn processes energy audits focused on office buildings, schools, hospitals, shopping centres, operating buildings, manufacturing units, industrial enterprises and service sector organisations. Energy audit areas include heating, hot water, lighting (including street lighting), electrical appliances and technology. Energy audits serve customers primarily as a basis for evaluating energy savings potential when considering operating cost reductions as well as demonstrating compliance with legislative requirements in a given business area.

Energy management

The energy management system is a set of activities that contribute to continuous improvement in energy performance in a given energy economy. Thanks to the existence of the ČSN EN ISO 50 001 standard, its concept is now standardised. SEVEn offers the introduction of energy management and design of the system so that it is effective, reasonably priced and administratively undemanding.

Territorial energy concept

SEVEn processes a territorial energy concept, in which it focuses on identifying the potential for energy savings and renewable energy sources in the territory of the city, area or region and possibilities of their wider use in the future.

Energy policy

SEVEn has also long been involved in the energy policy of the Czech Republic and the EU. In the Czech Republic, these are primarily the issues of the State Energy Policy, the National Energy Efficiency Action Plan, the Regional Energy Concepts, and the implementation of directives, in particular the Directive on the Energy Performance of Buildings and Energy Efficiency.

In addition to meeting the legal requirements for developing conceptual or technical outputs, SEVEn can also ensure their highly professional content and objectivity. The recommended measures are then technically, economically and environmentally optimal.

Energy policy

reference

TERRITORIAL ENERGY CONCEPT OF THE CITY OF PRAGUE – ACTION PLAN FOR IMPLEMENTATION FOR 2018–2022

The SEVEn team worked on an action plan for implementation within the territorial energy concept of the City of Prague. In particular, the action plan aims to specify the territorial energy concept activities and to differentiate the scope according to development scenarios. Under the Action Plan, more than 60 specific actions have been developed within four priority areas and one cross-sectional area. Each activity has its guarantor, description, expected start and finish dates, and the expected costs and benefits are quantified. The Action Plan also categorised activities into development scenarios. Some activities fall into a progressive scenario, most will be specified upon implementation. Part of the Action Plan is continuous monitoring, which takes place within the regular meetings of the Prague City Hall. Priority areas of the Action Plan include support for energy management in buildings owned by Prague, support for efficient use of energy in the city, support for the use of renewable, secondary and prospective energy sources, and increasing the security and reliability of energy supplies. Among the concrete activities of the Action Plan are the use of the EPC method for buildings owned by the City of Prague, reduction of energy consumption of buildings, modernisation of heat sources, assessment of public transport electrification and support of activities to increase the efficiency and functionality of electricity distribution systems.

references

SEVEN IS SIGNED UNDER MORE THAN 250 ENERGY AUDITS AND ASSESSMENTS

TERRITORIAL ENERGY CONCEPT OF THE OLOMOUC REGION

TERRITORIAL ENERGY CONCEPT OF THE VYSOČINA REGION

STUDIES FOR THE GREEN SAVINGS PROGRAMME

ENERGY CONCEPT OF THE PRAGUE ZOO

A STUDY OF SAVINGS IN THE OPERATIONAL PREMISES OF THE NATIONAL THEATRE IN PRAGUE

PROCESSING OF SAMPLE ENERGY AUDITS FOR APARTMENT BUILDINGS IN MACEDONIA

STUDY OF SAVINGS IN THE NOVÝ SMÍCHOV SHOPPING CENTRE

ENERGY AUDITS FOR HOSPITALS IN PÍSEK, SUŠICE, VIMPERK, THE SOUTH BOHEMIAN REGION, ETC.

ENERGY AUDIT FOR THE PRODUCTION PLANT CNM TEXTIL, A. S. OSKAVA

ENERGY POVERTY IN EUROPE: AGENDA CREATION AND KNOWLEDGE INNOVATION

ENERGY EFFICIENCY MEASURES IN EUROPE, UNDER ARTICLE 7 OF THE EED

DESIGN OF MODEL CALCULATIONS OF OPERATING PARAMETERS OF BOILERS AND HEAT PUMPS

AN OUTLINE OF SCENARIOS FOR THE DEVELOPMENT OF ENERGY INTENSITY IN THE CZECH ECONOMY (INDEPENDENT ENERGY COMMISSION)

ENERGY AUDITS OF MEDICAL, SCHOOL AND OFFICE BUILDINGS IN A NUMBER OF CITIES AND MUNICIPALITIES IN THE CZECH REPUBLIC

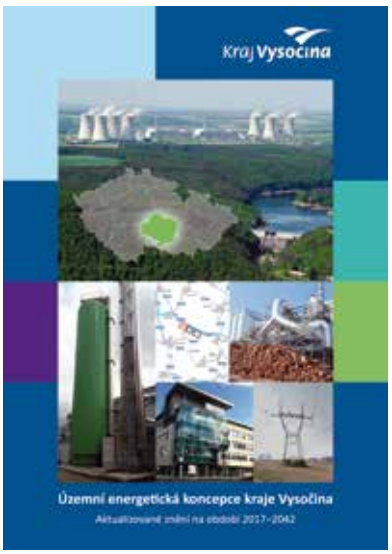

Lokální energetické zdroje – popis technologie

Kotle

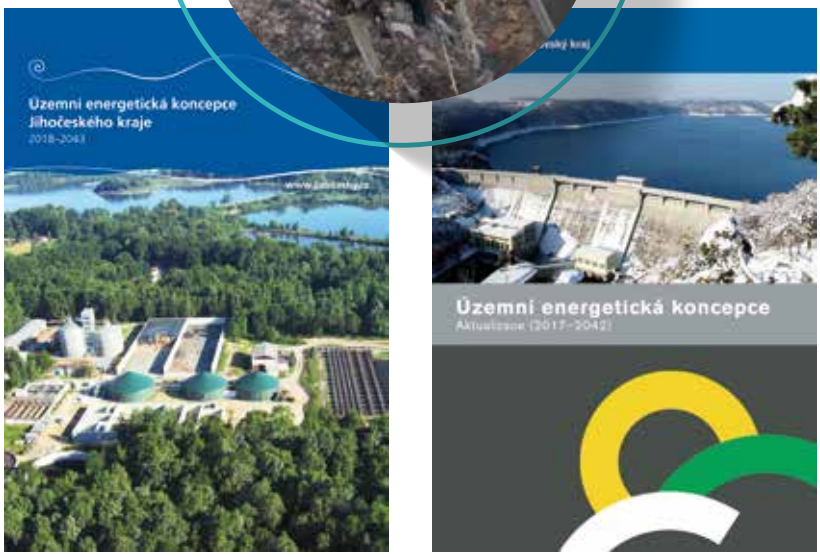
Základní rozdělení

Kotle na kapalná a plynná paliva

Kotle na pevná paliva

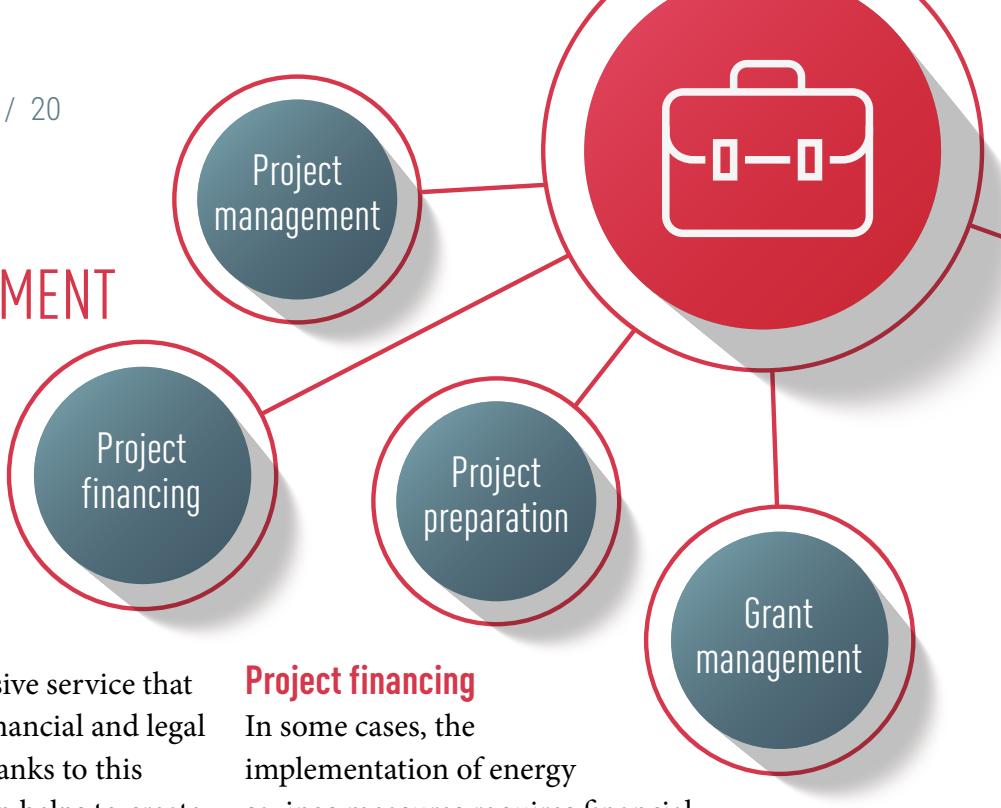


Design of Model Calculations – Local Energy Sources and Territorial Energy Concept of the Vysočina Region



Territorial Energy Concept of the South Bohemian Region 2018–2043, Territorial Energy Concept – Update (2017–2042) and Marketing Strategy for operators of heat supply systems in the Olomouc Region

3.3 PROJECT MANAGEMENT INCLUDING SECURING OF FINANCING



Project management

Project management is a comprehensive service that combines the technical, economic, financial and legal skills and experience of our team. Thanks to this multidisciplinary competence, SEVEn helps to create more demanding projects, which typically use new technical means or processes to save energy or use renewable or secondary energy sources. In this way, it is possible to identify suitable projects, to optimise the technical and economic aspects, to ensure expert supervision of design preparation, to provide financing, to organise tenders for contractors, to monitor the proper production of the work and to evaluate the actual operation and expected benefits after commissioning.

Project financing

In some cases, the implementation of energy savings measures requires financial support from public funds due to longer return on investment periods. These include, for example, thermal insulation of buildings, replacement of windows, installation of heat pumps as substitutes for electric heating, introduction of energy consumption monitoring systems and the like. In such cases, SEVEn enables the project to be prepared, including the identification of suitable subsidy programmes. SEVEn also enables the adequate financing of the project and analyses the conditions of subsidy programmes for a particular applicant.

Project preparation, grant management, tenders

Within the framework of individual projects, emphasis is placed on their thorough preparation and completion of documents for the application (energy assessment and other requirements). In the second phase, the implementation of the project, including ongoing grant management, is important. In the last third phase, the project evaluation is a matter of course. As part of energy saving projects, SEVEn allows for the preparation of a suitable tender for the lawful selection of the supplier along with the setting of essential criteria (e.g. price, technical parameters, quality and more).

Tenders

reference

AN ENERGY SAVINGS PROJECT IN THE JOINT STOCK COMPANY BUZULUK

As part of a large-scale cost-effective project of decentralisation and modernisation of energy management in Buzuluk, a.s., SEVEn Energy, s.r.o. carried out consultancy services in two stages in the preparation and implementation of energy savings measures, verification of technical solutions and solution parameters for the first stage and verification of economic and energy benefits for the investor. Our company also provided a conceptual design of the composition of the second stage of the project with regard to the analysis of the conditions for obtaining an investment grant. The second stage of the modernisation was thus supported from the 1st call of the Energy Savings Programme in the context of OPPIK programme. This was followed by a tender for a building contractor in which the supplier's participation in the later operation of the energy management in the form of a seasonal efficiency guarantee was applied to the investor. The entire modernisation was successfully completed in August 2017.

selected references

MODERNISATION OF THE DISTRICT HEATING SYSTEM IN THE TOWN OF PŘEŠTICE

MODERNISATION OF THE SPÁČIL LAUNDRY FACILITY, PROSTĚJOV

THERMAL INSULATION OF SCHOOL BUILDINGS IN PRAGUE

ANALYSIS OF THE POSSIBILITIES OF DRAWING ON SUBSIDIES FROM THE OPERATIONAL PROGRAMME ENVIRONMENT IN SUPPORT OF MEASURES AIMED AT MODERNISING STREET LIGHTING

APPLICATION FOR A GRANT FOR SCHOOL BUILDINGS IN STRAKONICE

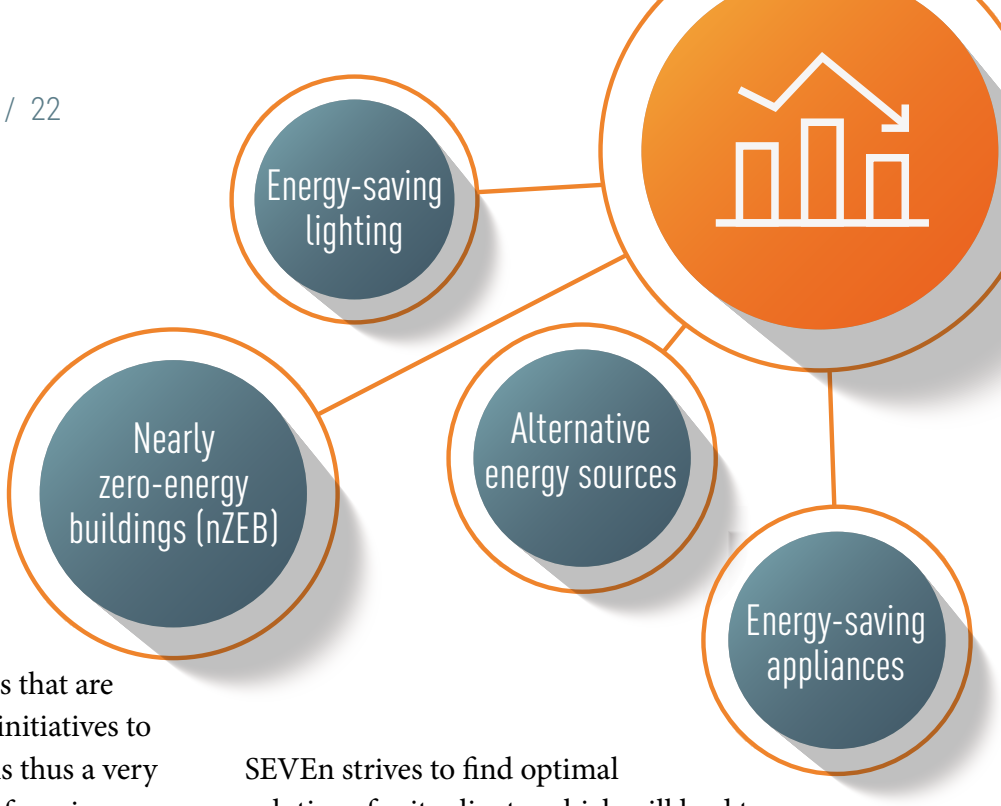
GRANT MANAGEMENT FOR SCHOOL BUILDINGS OF THE CITY OF PRAGUE

GOECO: ENERGY CONCEPT OF INDUSTRIAL PARKS

CHP GOES GREEN: SUPPORT AND PROMOTION FOR RENEWABLE RESOURCES IN ELECTRICITY AND HEAT PRODUCTION

STUDY OF CONDITIONS FOR COGENERATION UNITS IN THE CZECH REPUBLIC

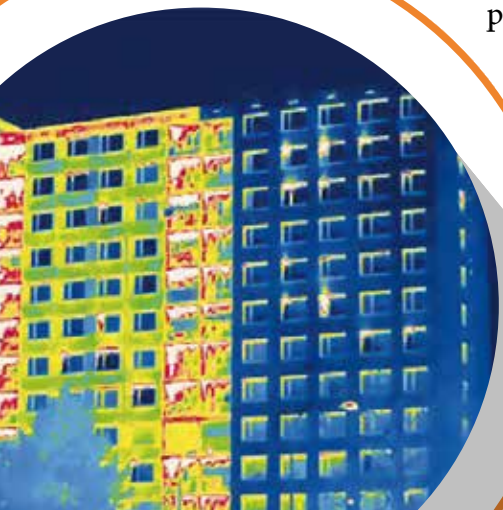
3.4 LOWERING ENERGY INTENSITY



Nearly zero-energy buildings

Buildings are major energy consumers that are subject to a number of measures and initiatives to reduce it. Energy saving in buildings is thus a very important topic that SEVEn has been focusing on for a long time. This topic is also gaining in importance due to fluctuating energy prices, falling prices for building materials and technology. Equally important are the increasing quality requirements for buildings and legislative amendments. Since 2021, the requirement for the construction of nearly zero-energy buildings (nZEB) will come into force in the European Union. SEVEn operates in all areas of energy reduction in buildings: we provide consultations during project preparation and implementation, in the preparation of energy legislation and, last but not least, we provide training for construction professionals.

At the legislative level, SEVEn deals with the transposition of European directives on the energy performance of buildings and energy efficiency and the preparation of legislative regulations outside the Czech Republic, primarily within the European Union, the countries of the former Soviet Union and Southeast Europe. In education, SEVEn focuses primarily on improving qualifications, increasing interdisciplinary skills and BIM (Building Information Modelling).



SEVEn strives to find optimal solutions for its clients, which will lead to a reduction in the energy intensity of their buildings at a rational cost and with maximum long-term benefits.

Alternative energy sources

Alternative energy sources (AES) are a dynamic segment of innovative technologies that can replace conventional energy sources. SEVEn offers independent advice on the use of alternative energy sources, new policy development, analysis of technical-economic parameters of the solutions under consideration or technical assistance to investors in the preparation of specific projects (focused on electricity or heat generation or other forms of energy such as alternative fuels). SEVEn's primary goal is to find AES at the same or lower economic cost. SEVEn is engaged in renewable energy sources (RES) and secondary energy sources (SES), especially waste. Last but not least, SEVEn deals with alternative sources of energy in transport and eliminates barriers to their wider application.

The number of electrical appliance models that have been tested to meet the energy efficiency requirements of SEVEn projects: 162 televisions, 80 refrigerators, 58 lamps, 50 washing machines, 7 vacuum cleaners, 6 clothes dryers, 5 dishwashers and 561 standby modes.

Efficient household and commercial appliances

Common household and commercial appliances make a significant contribution to energy consumption. Energy labels are an important policy instrument contributing to market self-regulation. Putting energy labels on appliances leads manufacturers to reduce their energy performance and customers to greater awareness of efficiency and energy costs. Eco-design of products is also an integral part of energy labels. This is a summary of the minimum efficiency and functional requirements for a given group of appliances. SEVEn has long been involved in the promotion of energy-saving appliances and is doing so primarily in the field of energy labelling and by developing tools that provide an overview of the consumption and economic demands of appliances.

In its activities, SEVEn cooperates not only with end consumers, but also with market surveillance authorities, appliance manufacturers and retailers, non-profit organisations, professional associations and other actors. Another activity is the promotion of green procurement, i.e. the creation of criteria and recommendations for the purchase of appliances and services for authorities and companies.

Efficient indoor and street lighting

Energy-saving lighting is another priority area that SEVEn has been working on for a long time. Lighting has undergone a significant change over the past few years, caused by the arrival of light emitting diodes (LEDs) and the gradual replacement of traditional light sources (incandescent, fluorescent and discharge lamps). SEVEn deals with lighting for households (especially popularisation of savings and information for the public) as well as with professional lighting (industry, services). SEVEn proposes austerity measures under existing projects (energy audits and assessments, EPC projects), promotes cost-saving and qualitative criteria, and works on conceptual design of lighting policies and tools (advice on eco-design of lamps, handbooks for the public and professionals). A specific area SEVEn deals with is street lighting. SEVEn has been providing long-term consultancy in this area: energy audits to assess the overall state of street lighting, including mandatory requirements (property records, electric revisions, etc.), energy assessments as a basis for subsidy programmes (EFEKT, NPŽP), EPC project management in street lighting and information in the form of many publications.

reference

TRAIN-TO-NZEB PROJECT: TRAINING CENTRE FOR NEARLY ZERO-ENERGY BUILDINGS

Professional and expert organisations from Bulgaria, Romania, the Czech Republic, Turkey, Ireland, Germany and Ukraine participated in the Train-to-nZEB project. The aim was to create a functional network of training and consulting centres that would provide practical training and comprehensive consulting services for construction workers and highly qualified professionals focusing on nearly zero-energy building projects. New programmes have also been developed for the wider professional public from the construction industry, especially for officials, business managers, NGOs, consumer groups, media, etc., focusing on increasing knowledge and demand for nZEB projects. The Building Knowledge Hubs create a community of experts around them to implement quality nZEB projects.

Under current legislation, from 2021 onwards, all newly built buildings should be nearly zero-energy consumption. It is therefore important to educate, train and enhance the skills of construction workers. More than 3,700 people have been trained in various courses at five new European training centres to increase their expertise and skills. This is also the contribution of the project to the construction of buildings with really low energy consumption.

reference

FIT-TO-NZEB PROJECT: RENOVATION OF BUILDINGS TO ACHIEVE A NEARLY ZERO-ENERGY BUILDING STANDARD

The Fit-to-nZEB project started on 15 June 2017 and lasts for two years. The project is one of the H2020 projects and deals with topical issues. It covers the whole education system: students in schools and adult education (EQF levels 2–7). It ensures the sustainability of the Train-to-nZEB or BUILD UP Skills project, increasing the number of instructors in the area of comprehensive renovation of buildings (DER) and expanding international cooperation.

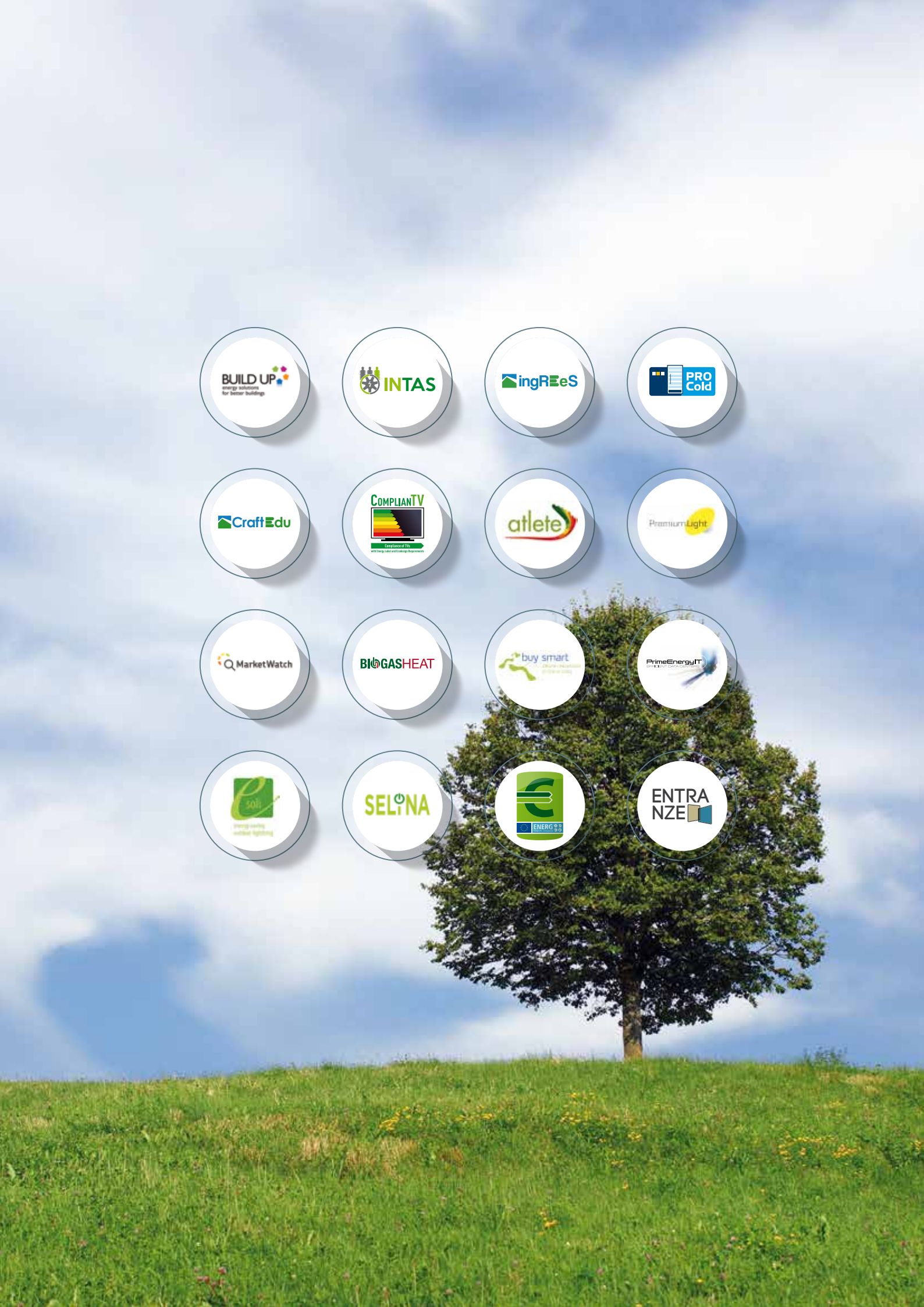
The project aims to compile a list of necessary technological knowledge and skills in relation to comprehensive renovation of buildings, develop new training programmes, improve the nece-

ssary knowledge and skills, revise national training plans for relevant NSK (National Qualifications System) and NSP (National Occupation System) professions, train trainers and support and monitor initial training in this area at all levels of the EQF (European Qualifications Framework). The expected results of the project include the creation of unique study programmes/courses on the subject of comprehensive renovation of buildings, designing models of structures suitable for renovation, training of trainers to achieve their satisfactory number, monitoring and evaluation of pilot courses and raising awareness of the benefits of comprehensive building renovations.

reference

PROJECT PREMIUMLIGHT PRO

The Premiumlight Pro international project focuses on promoting quality and cost-effective professional lighting (both indoor and outdoor) in the private and public sectors. The main goal of the project is to support the introduction of high-quality and efficient LED solutions using appropriate tools and services. Successful implementation is supported by the development of effective tools involving both solution vendors and consumers. Among other things, the project organises surveys and discussions with city experts, manufacturers, suppliers, associations and energy specialists, as well as training for designers, installers, architects and lighting designers, extending good practice examples, guides and manuals and developing technical criteria for LED design solutions in the public and private sectors. More info at www.premiumlight.cz.


BUILD UP
energy solutions for better buildings
INTAS
ingREeS
PRO Cold
CraftEdu
CompliantTV
atlete
PremiumLight
MarketWatch
BIOGASHEAT
buy smart
PrimeEnergyIT
SELINA
ENTRANZE

selected references

BUILDUP: PROFESSIONAL TRAINING OF BUILDING PROFESSIONS IN THE FIELD OF ENERGY PERFORMANCE OF BUILDINGS AND RES

INTAS: APPLICATION OF ENERGY EFFICIENCY STANDARDS TO INDUSTRIAL AND TERTIARY PRODUCTS AND THEIR TESTING

INGREES: CREATING EDUCATIONAL PROGRAMMES ON NEARLY ZERO-ENERGY BUILDINGS

PROCOLD: PROMOTING AND ADVANCING COST-EFFECTIVE PROFESSIONAL REFRIGERATION EQUIPMENT, INCLUDING CLIMATE-FRIENDLY REFRIGERANTS

CRAFTEDU: INCREASING QUALIFICATIONS AND TRAINING FOR CONSTRUCTION PROFESSIONALS

COMPLIANTV: MONITORING COMPLIANCE WITH TV ENERGY EFFICIENCY REQUIREMENTS

ATLETE: TESTING REFRIGERATORS AND WASHING MACHINES TO VERIFY ENERGY CONSUMPTION ACCORDING TO ENERGY LABELLING AND ECO-DESIGN

PREMIUMLIGHT: EFFICIENT HOME LIGHTING AND TESTING OF LIGHT SOURCES

MARKETWATCH: INVOLVING CIVIL SOCIETY IN THE MONITORING OF ENERGY EFFICIENCY AND ENERGY LABELLING REQUIREMENTS

BIOGASHEAT: A PROJECT TO DEVELOP THE SUSTAINABLE USE OF HEAT FROM BIOGAS PLANTS

STUDY ON THE EFFECTIVE USE OF BIOGAS IN THE “MUNICIPAL WASTE TREATMENT CENTRE IN MLADÁ BOLESLAV”

EFFICIENCY 2.1: NEW MEDIA FOR INFORMED CONSUMERS ON SUSTAINABLE AND ENERGY-EFFICIENT PRODUCTS

BUYSMART: SUPPORT FOR BULK GREEN SHOPPING

PRIMEENERGYIT: SUPPORT FOR ENERGY-EFFICIENT CENTRAL ICT SOLUTIONS

ESOLI: ENERGY-EFFICIENT AND INTELLIGENT STREET LIGHTING

SELINA: MEASUREMENT OF APPLIANCE LOSSES CAUSED BY STANDBY AND OFF MODE CONSUMPTION

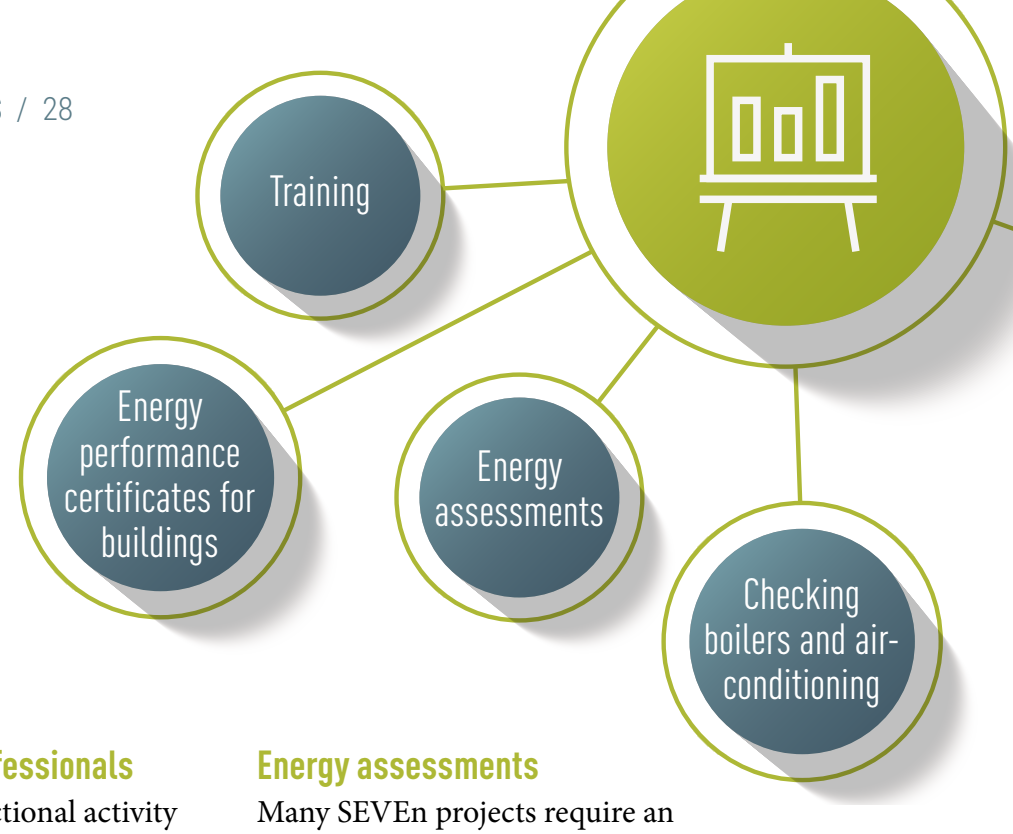
STANDARDISATION AND PROMOTION OF ENERGY EFFICIENCY OF CONSUMER PRODUCTS IN BELARUS AND EGYPT

EVALUATION OF THE ENERGY LABELLING DIRECTIVE AND SOME ASPECTS OF THE ECO-DESIGN AND TECHNICAL ASSISTANCE IN THE STANDARDISATION OF ENERGY CONSUMING PRODUCTS DIRECTIVE

YAECI: DISPLAY OF ANNUAL ENERGY AND WATER COSTS FOR HOUSEHOLD APPLIANCES

ENTRANZE: DATA COLLECTION AND MODELLING IN NEARLY ZERO-ENERGY BUILDINGS

3.5 SUPPORT FOR PROJECTS AND EDUCATION



Training the expert public and professionals

Educational activities are a cross-sectional activity in all SEVEn activities. In addition to seminars, trainings and conferences designed for the professional public, there are also popularising energy saving activities aimed at the general public. As part of its activities and projects, SEVEn organises training and seminars on near-zero energy consumption (nZEB), EPC projects (targeting all stakeholders), training on energy labels and policies, training of energy specialists, and last but not least, lighting technology training. In 2016, SEVEn established the nZEB Training Centre within the ABF Foundation for the Development of Architecture and Construction.

747 persons trained in nZEB
35 training courses
6 models of building structures

Energy assessments

Many SEVEn projects require an objective assessment of the benefits and costs of the proposed measures. Technical, economic and environmental feasibility is verified. An energy assessment is often required by a legal regulation, sometimes even without this obligation. SEVEn has a team of experts that allows a detailed and objective assessment of projects from all legal aspects (building and renovation of buildings, assessment of high-efficiency CHP, assessment of the utilisation of waste heat, assessment of projects financed from subsidies, evaluation of performance of parameters and others).

Building energy performance certificates

The building energy performance certificate provides the building user with information similar to the energy label used on selected appliances, i.e. information on energy consumption for heating, ventilation, lighting, domestic hot water and cooling. It provides the user with information in a detailed numerical expression within the output protocol, but also in a simple and intuitive graphical representation. The energy performance certificate

Advisory for the public

SEVEn offers to prepare an energy performance certificate of buildings in all cases where this is a statutory obligation, always coupled with additional analysis of potential energy savings.

is mandatory for the construction of new buildings or major changes to completed buildings, public buildings, apartment buildings, office buildings and in the case of rental. SEVEn offers to prepare a statement of energy performance of buildings in all cases of statutory obligations always with additional analysis of potential energy savings.

Checking boilers and air-conditioning

Inspections of air-conditioning systems are required by the Act on Energy Management and its accompanying Decree No. 193/2013 Coll., on Air-conditioning System Control, which obliges building owners and operators of air-conditioning systems with a rated cooling power of more than 12 kW to check these systems regularly every 10 years or every 4 years for systems over 100 kW power without a monitoring system.

Inspections of boilers and power distribution systems are also required by law and its implementing Regulation No. 194/2013 Coll., on Boiler and Energy Efficiency Control, which obliges owners and operators of boilers with a rated output of 20–100 kW to ensure regular inspection of these boilers at 10-year intervals and at intervals of 2–10 years for higher power sources, depending on the fuel being burned and the monitoring system.

SEVEn processes inspections of boilers and air-conditioning systems with regard to the needs of customers and with the highest added value, i.e. including the identification of economically efficient savings potential.

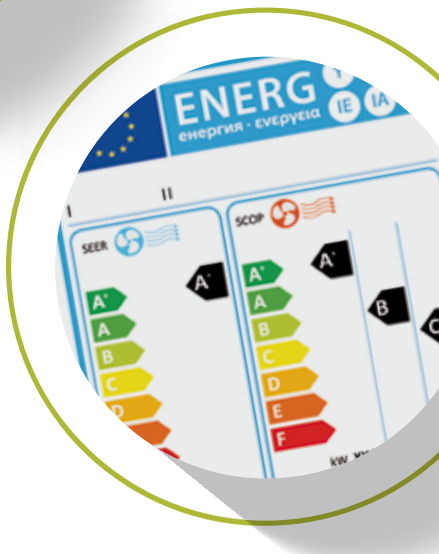
Advisory for the public

SEVEn's complementary activity is advisory for the public. Usually these are training and consultations organised in the context of broader project activities and aimed at popularising energy savings. SEVEn has been running the www.uspornespotrebice.cz portal for more than 10 years, focusing on information and education in the area of energy savings in households (Czech branch of Topten website).

reference

ENERGY-SAVING APPLIANCES TOPTEN

The main goal of the TopTen project is to identify and promote the most energy-efficient household appliances. The organisers of the project try to inform the consumer through the website www.uspornespotrebice.cz and other communication tools about the choice of the most economical models available on the Czech market, and the criteria for their selection are strictly defined based on the parameters available on the appliance's energy label. The aim of the project is therefore to inform consumers about the possibilities of choosing really economical models, thus contributing both to reducing operating costs and to protecting the environment.



selected references

ENERGY PERFORMANCE CERTIFICATE OF THE BUILDING OF THE NATIONAL TECHNICAL MUSEUM

ENERGY PERFORMANCE CERTIFICATE OF PAVILION P OF THE BRNO EXHIBITION CENTRE

ENERGY ASSESSMENT OF PART OF STREET LIGHTING FOR THE TOWN OF LYSÁ NAD LABEM

ENERGY AUDIT AND ENERGY PERFORMANCE CERTIFICATE FOR THE BUILDING OF THE MUNICIPAL OFFICE IN ČESKÝ KRUMLOV

METHODOLOGY TO ADVISE CUSTOMERS ON ENERGY SAVINGS TO ENERGY SUPPLIERS

ENERGY-SAVING LIGHTING AND ENERGY MANAGEMENT FOR THE PRAGUE MARRIOTT HOTEL

SAMPLE ENERGY AUDITS AS TECHNICAL ASSISTANCE FOR THE OPERATIONAL PROGRAMME ENVIRONMENT

EDUCATIONAL SEMINARS ON LED LIGHTING FOR THE GENERAL PUBLIC AND PROFESSIONALS IN PRAGUE, ČESKÉ BUDĚJOVICE, OLOMOUC, ZLÍN, ETC.


Number of course participants
in the IngREeS and Train-to-nZEB projects
485
Implementation and construction of nZEB
45
68
74
82
113
Energy intensity and use of RES in buildings
for construction supervision
for designers
for site managers
for building sustainability advisors
for energy specialists
153
Sustainable development of construction, management and use of nZEB
109
Building design and technology for nZEB

4/ ADVISORY BOARD

Marie Košťálová
One of the founders of SEVEn. She headed the Department of Strategy and Quality of Services at the Ministry of Industry and Trade of the Czech Republic and served as Ambassador of the Czech Republic to the Kingdom of Denmark and as Ambassador of the Czech Republic to the UN in Vienna.

Jiří Dudorkin
A senior expert primarily in the field of energy and utilities at the Prague office of auditing and consulting company Ernst & Young.

Drahomír Ruta
He served as a member of the Supervisory Board and Chairman of the Board of Directors of Pražská energetika, a. s. In the past he worked in managerial positions at Západočeská energetika, a. s.

Dietmar Winje
Professor of Energy and Economics at the Technical University of Berlin. He was Chairman of the Board of Directors of Bewag AG and Nuon Germany. He also worked as a member and chairman of the supervisory boards of a number of industrial companies and banks.

Bedřich Moldan
Founder and Deputy Director, Charles University Environment Centre. From 2004 to 2010 he was a member of the Senate of the Parliament of the Czech Republic.

Jan Kára
The Ambassador and Permanent Representative of the Czech Republic to the UN Office and other international organisations in Geneva, he served as Ambassador of the Czech Republic to the Kingdom of Sweden. He was a director of the UN Department at the Ministry of Foreign Affairs of the Czech Republic and a Deputy Permanent Representative of the Czech Republic to the UN in New York.

William Chandler
Founder and former Director of International Studies and Research at the Global Change Research Institute (Battelle, Pacific Northwest National Laboratory). Professor of International Relations at Johns Hopkins University. Director of Research at the Energy Transformation Research Institute, Director of the Environmental Law Institute and member of the Climate Change Committee of the American National Academy of Sciences.

Samuele Furfari
He lectures on geopolitical energy issues at the Free University of Brussels, worked as a representative of the European Commission on Energy. He is the author of a number of books and studies on the transformation of the energy sector.

Hans-Eike von Scholz
Professor of Energy and Environment – EU Policy at the Economic Faculties of the Universities of Berlin and Avignon, former Head of the Advisory Unit of the European Commission's Directorate General for Energy in Brussels.

5/ MEMBERSHIP IN ORGANISATIONS

The SEVEn consortium and its representatives are members of the following domestic and international expert and professional organisations:

AEA – ASSOCIATION OF ENERGY AUDITORS – ENERGY SPECIALISTS

AEM – ASSOCIATION OF ENERGY MANAGERS

APES ČR – ASSOCIATION OF ENERGY SERVICE PROVIDERS OF THE CZECH REPUBLIC

CPGA – CZECH ASSOCIATION FOR PYROLYSIS AND GASIFICATION

CZGBC – CZECH GREEN BUILDING COUNCIL

ECEEE – EUROPEAN COUNCIL FOR AN ENERGY EFFICIENT ECONOMY

EEBCZ – PLATFORM FOR ENERGY EFFICIENT CONSTRUCTION

IAEE – INTERNATIONAL ASSOCIATION FOR ENERGY ECONOMICS

PS EPC HK – WORKING GROUP FOR EPC – ENERGY PERFORMANCE CONTRACTING WITH THE CZECH CHAMBER OF COMMERCE

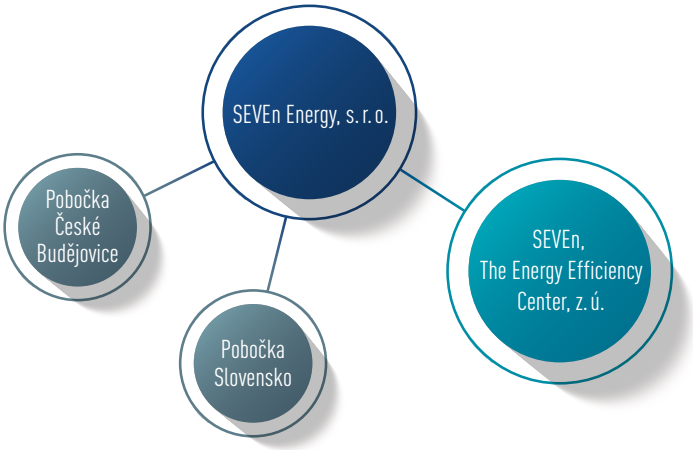
SRVO – ASSOCIATION FOR THE DEVELOPMENT OF STREET LIGHTING

ASSOCIATION TO PROMOTE THE DEVELOPMENT OF ECO-DRIVING IN THE CZECH REPUBLIC, O. S.

TOPTEN INTERNATIONAL GROUP

MEMBER OF THE SUSTAINABLE ENERGY COMMITTEE

CONTACT INFORMATION



CONTINUOUS EFFORTS TO IMPROVE THE QUALITY OF THE SERVICES provided led to the introduction of company certification according to the ISO 9001 system in 2003, concerning the improvement of the system of provided services.
In 2006, the ISO 14001 system was introduced, leading to further reduction of negative environmental impacts, both within SEVEn's own activities and in cooperation with clients and partners.
ČSN EN ISO certification 9001:2008 and 14001:2004, approved company LL -C (Certification), applies to both SEVEn companies.

ISO 14001 LL-C (Certification) ISO 9001 LL-C (Certification)

100% GREEN ELECTRICITY
The Prague office of SEVEn is a consumer of electricity with a certificate of PRE eco-current – 100% green electricity.

PODPORA ENERGIE Z OBNOVITELNÝCH ZDROJŮ PREKO PRAŽSKÁ ENERGETIKA, A.S.

CONTACT

SEVEn Energy, s. r. o.
SEVEn, The Energy Efficiency Center, z. ú.
Americká 579/17, 120 00 Praha 2
Tel.: +420 224 252 115
seven@svn.cz

ČESKÉ BUDĚJOVICE BRANCH
Žižkova 12, 370 01 České Budějovice
Tel.: +420 386 350 443

SEVEn Energy Slovakia office
Roľnícka 10, 831 07 Bratislava
Tel.: +421 220 400 607

www.svn.cz

twitter.com/SEVEnEnergie

www.linkedin.com/company/sevenenergie

www.facebook.com/SEVEnEnergie/

Examples of countries in which SEVEn has been active and participated in identifying and promoting energy efficiency potential

Czech Republic
Slovakia
Bosnia and Herzegovina
Notrh Macedonia
Serbia
Ukraine
Moldova
Egypt
Belarus
Armenia
Kyrgyzstan
Mongolia

CATALOGUE OF ACTIVITIES
SEVEn Energy, s. r. o.
SEVEn, The Energy Efficiency Center, z. ú.

www.svn.cz