SMART PRAGUE and the City's ENERGY SAVINGS

SMART PRAGUE

OPERÁTOR ICT

PRAHA PRAGUE PRAGA PRAG

20 JUNE 2019 JIŘÍ PETERKA

The Vision of Smart Prague 2030

A better **QUALITY OF LIFE**
in a **PROSPERING CITY**
thanks to the **ACTIVE USE**
of **MODERN TECHNOLOGIES**

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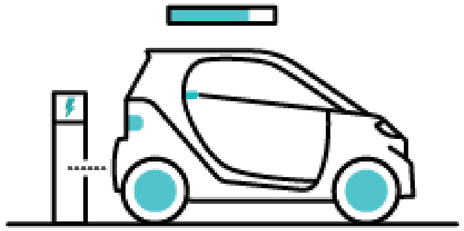
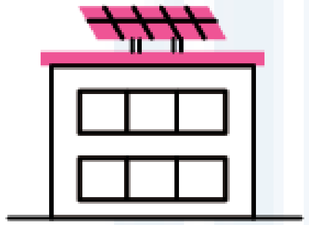
Key Areas in the Vision
and Thematic Spheres

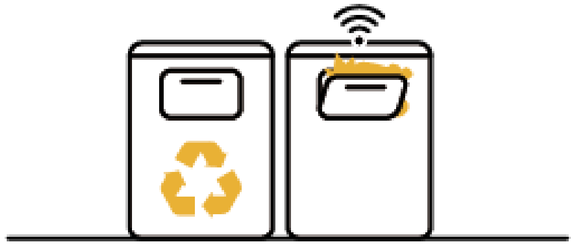


Mobility of the future



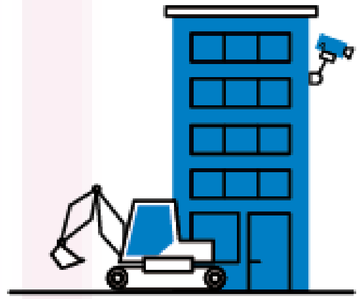
Smart buildings and energy

Attractive tourism



A waste-free city

People and the urban environment



Data fields

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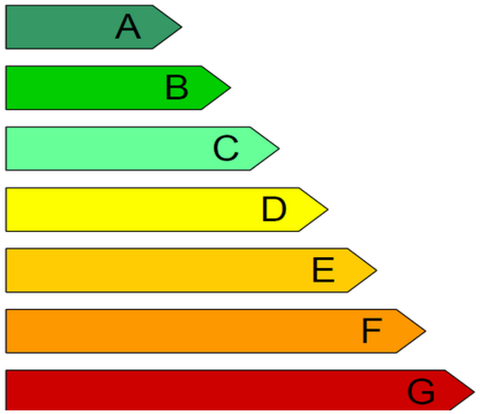
Strategic Projects of Smart Prague

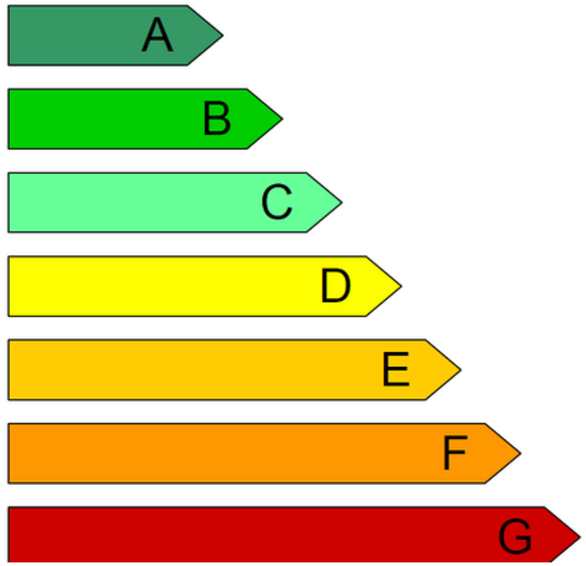


Building energy system

Energy savings thanks to the EPC method

Energy management

Building Energy System



- Prague owns more than 1,200 buildings and municipalities another 3,000
- Initial building analysis using a proprietary methodology
- A system for rating the suitability of buildings for various energy measures
- Allows for qualified decision-making about investments in energy measures and innovations in the buildings

Energy Management

- A basic tool for monitoring energy consumption
- In place in 22 buildings – e.g., the Jedličkův ústav facility, schools, seniors homes
- Evaluation of the potential of savings
- Cost-savings achieved for the city by organisational measures: more than € 50 tousand .

Energy Savings Using the EPC Method

Energy Performance Contracting

- History – the USA in the 1970s
- First project in the Czech Republic implemented in 1993
- A change required in the Act on Energy Management and in the Public Procurement Act
- The Act contains a model EPC agreement

Energy Savings Using the EPC Method

Energy Performance Contracting is a type of a contractual relationship in which:

- The supplier guarantees to the customer the contracted-for savings
- If the guaranteed savings are not achieved, the supplier compensates the customer for the difference
- The investment is paid for by the supplier of the solution and it is paid for from the savings

Energy Savings Using the EPC Method

Project leading and financing:

- Project preparation 1st step is energy analysis, consult with universities and research centres
- On the base of analysis tender is starting, supplier selection
- Project team – PM, assistant and Lawyer, contract
- Our resources, Environmental Operational Program and Smart Prague budget
- Project leading € 70 tousand

Energy Savings Using the EPC Method

The buildings in which Prague will save

The Municipal House

The Holešovice Exhibition Grounds

Municipal Police Directorate

The Oliva Children's Sanatorium

The Šutka Aquacentre

The headquarters of the Technical Road Administration company

Energy Savings Using the EPC Method

Technologies used in all buildings:

- Energy management
- Replacement of lighting fixtures with cost-efficient LED panels
- Water saved with the use of faucet aerators
- Modification of the parameters of electricity using the so-called Energy Saver

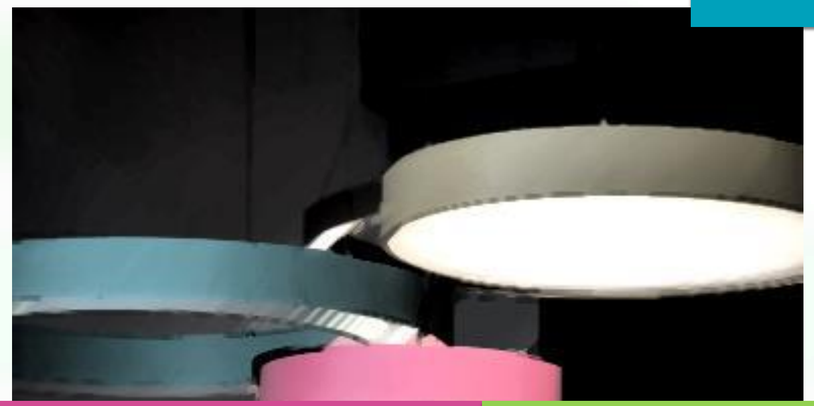
Energy Savings Using the EPC Method

Special technologies employed in specific buildings:

- The Municipal House – installation of new, more efficient sources of heat
- Technical Road Administration company- installation of thermostatic radiator heads
- The Oliva Sanatorium – installation of new, more efficient sources of heat and installation of photovoltaic panels – electricity for direct consumption
- The Šutka Aquacentre – innovative technology for cleaning and re-use of pool water, preheating of pool water with waste shower water

Energy Savings Using the EPC Method

Where we plan to save



Power savings on lighting **50%**

Savings on heat **11%**

Reduced water consumption **20%**

Savings on gas **11%**

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Energy Savings Using the EPC Method

How much will we save

Guaranteed savings over the 12 years of the project's life

€4 million

Guaranteed savings over the 12 years of the project's life

37,615 t of CO_2

THANK YOU FOR YOUR ATTENTION