

Support for financing public lighting projects in the Czech Republic

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Light Pollution, October 2022

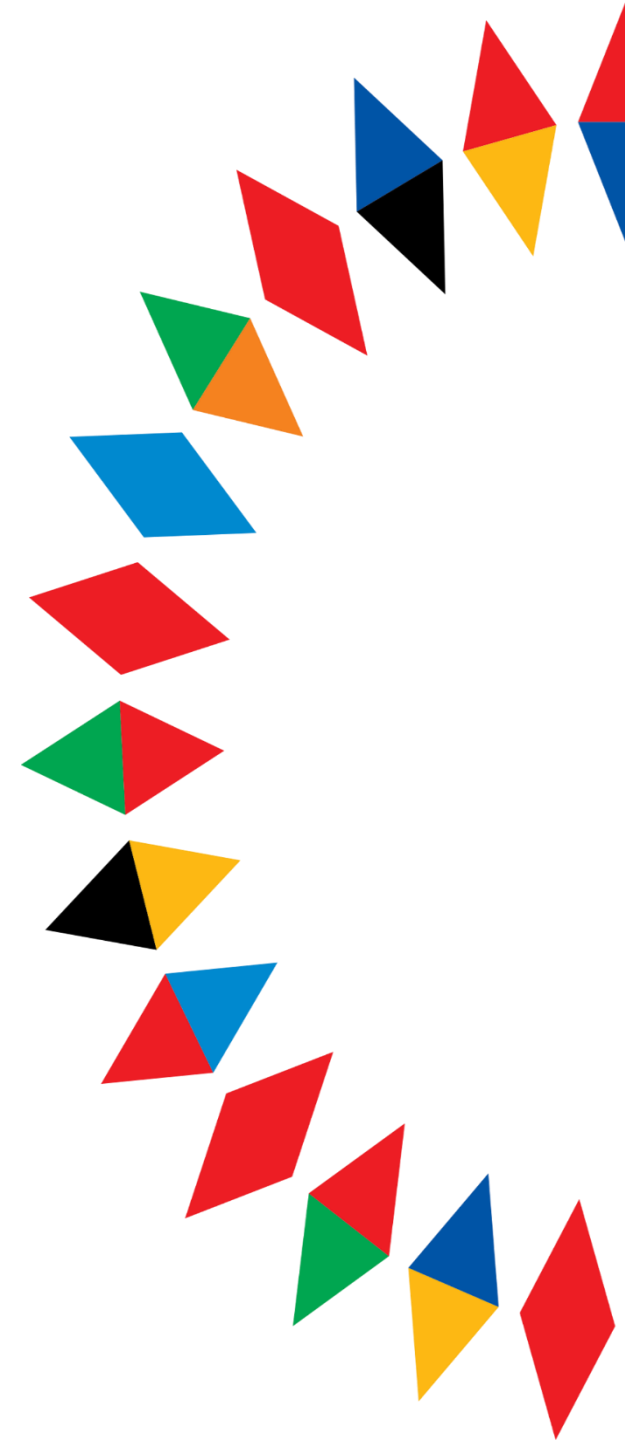


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Ministry of the Environment
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What are the resources for providing **financial support**?



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National Programme Environment

- 2017 National Parks (NP)
- 2018-2020 NP and Protected Landscape Areas

Modernisation Fund

- 2022+ initially for National Parks (NP)
LPAs considered



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Programme EFEKT (*energy savings*)

- 2018-2020 Areas outside NP and PLA

Recovery and Resilience Facility

- 2022+



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Historically: two programmes = same technical and similar financial conditions



Emphasis on minimizing light pollution:

- $ULOR = 0 \%$
luminaires must not radiate above a horizontal plane passing through the centre of the luminaire
- the level of illumination/brightness of the road must not exceed the standard values by more than 30 %
- CCT: max. 2700 K (until 2021 = bonus/ after = obligation)
prescribed maximum chromaticity temperature according to the type of road to be illuminated + advantage is given to installations where all luminaires have a chromaticity temperature ≤ 2700 K



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Historically: call as a competitive call *(the best ranked projects)*

Evaluation criteria *(identical for both programmes):*

- share of energy saved in the consumption within the PL system 35 %
- share of eligible energy saving expenditure 35 %
- chromaticity temperature of all luminaires ≤ 2700 K 20 %
- eligible expenditure per 1 light point 10 %



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Primary energy savings of at least 30%

The replacement chromaticity temperature shall be less than or equal to 2700 K.

The lighting parameters of the designed road sections must meet the requirements of CZ norm

The parameters of the interfering light must meet the requirements of the applicable legislation.

- call launched in May 2022
- total allocation 1,700 mCZK
- the ambition is to reach the target of **286TJ/year and 2,000 projects**
- current situation is 56,5TJ/y and 232 projects
- requested allocation is ca 480 mCZK





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	Approved projects	Savings generated	Eligible project costs	Project Support	Projects implemented	Eligible project costs	Project Support
NP	46	1 407 GJ	93 mil. CZK	73 mil. CZK	34	65 mil. CZK	51 mil. CZK
PLA	77	13 000 GJ	177 mil. CZK	83 mil. CZK	53	114 mil. CZK	54 mil. CZK



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Future support is coming from the **Modernisation Fund**



- Reconstruction and **modernization of public lighting**
light sources, luminaires, optimal spatial arrangement and use of light points, regulation of luminous flux, balancing of current consumption in individual phases of operation of the public lighting system, automation, optimization of control and monitoring of system operation
- the implementation of the project **must save at least 20 % of electricity**
- measures to enable future integration of public lighting systems into the wider urban infrastructure by installing **innovative technological features** that have a positive impact on development, such as:
 - alternative modes of transport
 - installation of intelligent transport elements and their optimisation
 - intelligent waste management systems
 - optimisation of energy and water consumption



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LIGHTPUB



Aid = total energy saving * unit cost of saving (CZK/KWh)

+ optional cost (limit)

+ project preparation + professional technical or author's supervision +
installation of smart elements

- reconstruction of public lighting is a mandatory part (**at least 50% of the support**)
- outside NP = up to 90 % of EE (*maximum unit subsidy is EUR 3 per kWh saved*)
- in NP = up to 100 % of EE (*maximum unit subsidy is EUR 5 per kWh saved*)
- contribution to the installation of smart elements in the form of unit costs
- for newly added luminaires to meet the requirements of EN 13201, the energy assessment can model the current situation with the number of luminaires in the proposed situation



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