



Audit Report

24/06

Funds of the Modernisation Fund earmarked to support renewable energy sources

The audit was included in the audit plan of the Supreme Audit Office (hereinafter also the “SAO”) for the year 2024 under No 24/06. The audit was headed and the Audit Report drawn up by RNDr. Petr Neuvirt, an SAO member.

The aim of the audit was to examine whether the funds from the *Modernisation Fund* (hereinafter also the “MF”) earmarked for the support of renewable energy sources (hereinafter also “RES”) were spent effectively and in accordance with legal regulations.

The audit was conducted with the audited entities between April 2024 and December 2024.

The audited period was 2021–2023; both the previous and subsequent periods were also considered for contextual reasons.

Audited entities:

Ministry of the Environment (hereinafter also the “MoE”); Ministry of Industry and Trade (hereinafter also the “MoIT”); State Environmental Fund of the Czech Republic, Prague (hereinafter also the “SEF”); AGRO PV 8 s.r.o., Brno; FVE 34 s.r.o., Brno; AGRO PV 15 s.r.o., Brno; INPROMA, spol. s r.o., Křinec; FVE Orlová I s.r.o., Hodonín; ENERGETIKA TŘINEC, a.s.; BULY ARÉNA – zájmové sdružení, Kravaře; ZD Novosedly s.r.o., Novosedly; Agro Sedlice, a.s., Sedlice; Impregnace Soběslav s.r.o., Soběslav; Golf Konopiště a.s., Bystřice – Tvoršovice No 27; IGS Property CZ s.r.o., Prague.

The SAO Board, at its 8th meeting held on 9 June 2025,
approved, by Resolution No 6/VIII/2025
the **Audit Report** as follows:

Funds of the Modernisation Fund earmarked to support renewable energy sources

BASIC INFORMATION

Estimated share
of the RES+ programme¹
CZK 76.7 billion
(20% of the MF allocation)

Funds of the SEF received from
the EIB² for the RES+
programme
CZK 26.5 billion
(as at 30 June 2024)

Funds allocated by the SEF
from the RES+ programme
CZK 12.7 billion
(as at 30 June 2024)

Share of RES in final energy
consumption
in 2023
18.6%

Target share of RES in final
energy consumption
by 2030
30%

Target installed PV
power plant capacity
in 2030
10.1 GWp

FINDINGS

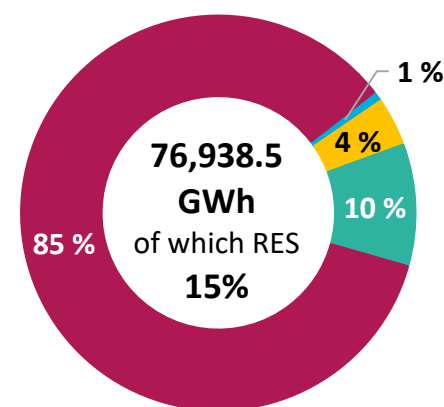
Audited RES+ calls as of 30 June 2024³

Number of projects supported
725

Subsidies provided by the MoE
and the SEF
CZK 12 billion

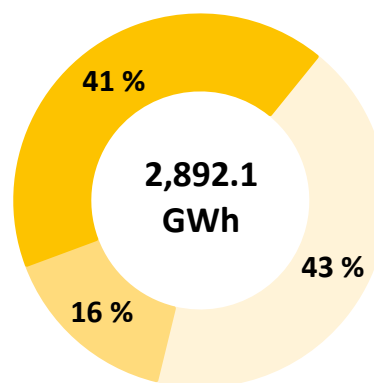
Planned PV power plant
capacity
2.2 GWp

Production of electricity
in the Czech Republic
in 2023



- Wind turbines
- Photovoltaic
- Other RES (e.g., hydro, biomass, biogas)
- Other sources (nuclear, coal)

Share of photovoltaic (PV) power plants in
electricity production by installed capacity - 2023



- PV up to 100 kW – particularly roof installations
- PV from 101 kW up to 1 MW – smaller ground or larger roof installations
- PV above 1 MW – solar farms

¹ New Renewable Energy Sources (RES+) programme.

² European Investment Bank.

³ RES+ Calls No 1/2021, 2/2021, 1/2022, 2/2022.

I. Summary and Evaluation

- 1.1 Climate protection and the reduction of greenhouse gas emissions are the EU's top priorities linked to the course and commitments stipulated in the *Paris Agreement* and the *United Nations Framework Convention on Climate Change*⁴. Bound by these international treaties, the EU is gradually taking action to ensure the fulfilment of the climate neutrality by 2050 objective. The *Modernisation Fund*, which was established by Directive 2003/87/EC⁵ and which supports, among other things, investments in the development of renewable energy production facilities, is intended to contribute to decarbonisation in the Czech Republic. The revenues of the MF are dependent on the market price of emission allowances.
- 1.2 The SAO audited funds of the *Modernisation Fund* received by the State Environmental Fund of the Czech Republic for the support of renewable energy sources. As of 30 June 2024, the SEF had received funds from the European Investment Bank (hereinafter also the "EIB") in the total amount of CZK 105.6 billion and, as of the same date, had paid out a total of CZK 32.8 billion to the beneficiaries. Of these funds, CZK 12.7 billion constituted subsidies from the *New Renewable Energy Sources* programme (hereinafter also "RES+").⁶ The SAO examined whether the funds were spent effectively and in accordance with legal regulations and how they contributed to the increase in the installed energy capacity of RES in the Czech Republic. The SAO audited the MoI's ongoing fulfilment of the objective of increasing the share of RES in gross final energy consumption, the setting of the parameters for the operating aid⁷ for renewable energy production facilities and the volume of operating aid provided in the audited years.
- 1.3 **By 2030, the Czech Republic is expected to reach a 30% share of RES in gross total energy consumption, compared to 18.59% in 2023. To achieve the 2030 target approved by the Czech government⁸, it will be necessary to install PV power plants with a target capacity of 10.1 GWp⁹ and wind power plants with a capacity of 1.5 GW to the grid. The supported projects from the four audited RES+ calls with the requested subsidies in the amount of CZK 12 billion and a total planned newly installed capacity of 2.2 GWp will double the installed PV capacity in the Czech Republic compared to 2022. This amounted to 2.1 GWp.**

The MoE and the SEF used the RES+ programme to support only photovoltaic projects. Other RES projects were not supported. The SAO found that other types of renewable

⁴ *Accord de Paris* (2015); *United Nations Framework Convention on Climate Change* (1992).

⁵ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

⁶ Most of the funds were disbursed from the HOUSEnergy programme (CZK 18.6 billion), see Annex 5 of the Audit Report.

⁷ These funds are intended for the operation of the facilities for energy production from the supported sources. Operating aid is covered by the state budget subsidies and revenues from the service charges of the electricity distribution and transmission networks, which are ultimately paid by end consumers through the distribution system operators and the transmission system operator.

⁸ Resolution of the Government of the Czech Republic No 960 dated 18 December 2024, *on the amendment of the National Energy and Climate Plan of the Czech Republic*.

⁹ For PV power plants, the unit "peak" (peak power) is usually used to indicate capacity, specifically kWp, MWp or GWp. Peak power refers to the maximum power that a photovoltaic panel or an entire power plant can produce under standard test conditions.

energy production facilities cannot be supported from the MF, as the Czech Republic has justified its planned investments of CZK 73 billion in RES+-financed PV projects with the EIB as of 30 June 2024, which represents 95% of the latest estimate of the RES+ allocation until 2030.

The SAO found that the MoE and the SEF set the conditions for the support of PV in such a way that the level of support, expressed as the amount of subsidy per unit of PV capacity, varies significantly depending on the category of beneficiaries. While business entities received an average of CZK 5,500 per kWp of PV capacity, households, municipalities and organisations established by municipalities received on average CZK 29,700 per kWp of PV capacity. Therefore, at the same level of support, the contribution of PV in households and public buildings to the planned newly installed PV capacity is five times lower compared to projects of business entities.

The SAO analysed the structure of the beneficiaries and found that three-quarters of the support from the audited RES+ calls was received by the 15 largest beneficiaries in terms of the amount of support for 219 projects, with the total subsidy amount of CZK 9.1 billion. The largest beneficiary received support in the amount of CZK 4.4 billion for 49 projects.

When auditing the conditions of support, the SAO found that, in two audited calls, the MoE and the SEF had subsidised coal regions¹⁰. Due to this advantage, the total installed capacity of PV power plants in coal regions is set to increase more than sixfold compared to 2022, while in other regions of the Czech Republic, it will rise by only one-third.

Furthermore, the SAO concluded that the MoE and the SEF did not sufficiently incentivise investments in electricity storage. Investments in newly installed RES capacity supported in the first four audited RES+ calls include new battery storage capacity, amounting to only 7% of the planned installed PV capacity.

As the SAO found during the audit of the conditions of the audited RES+ calls, the MoE and the SEF set the conditions in such a way that they allowed the beneficiaries to proceed inconsistently when selecting a contractor. Most beneficiaries did not have to follow any rules when selecting contractors.

The audit examined 12 projects where the SAO concluded that the funds were used in accordance with the approved objectives and that the expected results were achieved in the form of the planned newly installed RES capacity or new electricity storage capacity.

The SAO's audit did not find any ineffective use of funds from the *Modernisation Fund* earmarked to support renewable energy production facilities, nor any violation of legal regulations.

1.4 The overall evaluation above is based on the following findings:

The amount of available funds from the *Modernisation Fund* depends on the price of emission allowances

¹⁰ Karlovy Vary Region, Moravian-Silesian Region and Ústí nad Labem Region.

- 1.5 The allocation of MF funds is based on the market price of emission allowances and the volume of auctioned allowances for the MF. The average price of an emission allowance in the audited period ranged from EUR 54.2 in 2021 to EUR 83.7 in 2023.
- 1.6 According to the MF Status Report¹¹ of September 2024, the forecast of available MF funds for the Czech Republic in total has decreased by CZK 116.6 billion compared to the revised programming document from the end of 2023. The amount of available funds for the RES+ programme has decreased by CZK 23.3 billion compared to the revised programming document.

The RES+ programme finances mainly PV projects, leaving only a minimal amount of funds to support other renewable energy sources

- 1.7 The Czech Republic has justified investments of CZK 73.0 billion in RES+-financed PV projects with the EIB, which constitutes 95% of the latest RES+ allocation estimate from September 2024.
- 1.8 If there is no increase in the MF revenues between 2025 and 2030, and the already approved RES+ programme investments are implemented, there will be no funds in the MF left to support other renewable energy production facilities.

95% of the funds disbursed by the SEF from the MF as of 30 June 2024 were directed to support households

- 1.9 In 2023, due to insufficient state budget funding for the NGS programme, the Czech Government decided to include this programme under the *Modernisation Fund*. The SEF provides the MF funds for the NGS projects from the HOUSEnerg programme, and in the case of PV installations on family houses, from the RES+ programme. As of 30 June 2024, the SEF had paid out a total of CZK 32.8 billion to the beneficiaries of the MF support, of which CZK 31.1 billion for projects implemented under the NGS programme.
- 1.10 The Funds provided by the MoE and the SEF from the RES+ programme to households for PV installations on family houses and municipalities for PV installations on public buildings contribute less to increasing installed renewable energy capacity compared to the funds provided by the MoE and the SEF to business entities through the RES+ programme for predominantly larger ground PV installations. As of 30 June 2024, the MoE and the SEF have provided from the RES+ programme:
- CZK 12.6 billion to households for the installation of PV on family houses with a capacity of 0.42 GWp;
 - CZK 2.5 billion to municipalities and organisations established by the municipalities for the installation of PV on public buildings with a capacity of 0.08 GWp;
 - CZK 3.3 billion to business entities for PV installations up to 1 MWp with a total capacity of 0.4 GWp;
 - CZK 8.7 billion to business entities for PV installations above 1 MWp with a total capacity of 1.8 GWp.

Only 15 beneficiaries received more than CZK 9 billion in support

¹¹ *Report on the State of Implementation of the Modernisation Fund in the Czech Republic*, which was submitted by the Minister for the Environment to inform the meeting of the Government of the Czech Republic on 10 October 2024 (hereinafter the “MF Status Report”).

- 1.11 Three-quarters of the support from the audited RES+ calls were received by 15 beneficiaries or interrelated economic groups for 219 projects with a total subsidies of CZK 9.1 billion. The largest beneficiary received support in the amount of CZK 4.4 billion for 49 projects. The SAO analysed the structure of beneficiaries and found that within the RES+ calls, applications for support were submitted, among others, by newly established subsidiary business corporations, usually limited liability companies (s.r.o.), founded by parent business corporations for the purpose of constructing new PV power plants with potential support from the MF. This is a business model where the parent business corporation (the controlling entity) establishes separate legal entities, usually LLCs (s.r.o.), for individual PV construction projects, which gain licences for conducting business in the energy sector and become beneficiaries. This business model allows, for example, to change the ultimate owner of the PV power plant by changing the ownership structure of the beneficiary even during the implementation or sustainability period of the project.

The MoE and the SEF set different conditions for calls under the RES+ programme for coal regions

- 1.12 The SAO found that in the competitive calls (above 1 MWp) under the RES+ programme, the MoE and the SEF subsidised projects from the coal regions of the Czech Republic, which resulted in more cost-effective projects in other regions not receiving support. In non-competitive calls (up to 1 MWp), the coal regions were not given preferential treatment. In non-competitive calls, support for the coal regions represented 24% of the total amount of subsidies in the amount of CZK 3.3 billion; in the case of competitive calls, it represented 86% of the total amount of subsidies in the amount of CZK 8.7 billion.

Applicants were not interested in investing in battery storage of electricity

- 1.13 Investment support from the RES+ programme was directed, among other things, towards the battery storage of electricity from RES. However, 74% of the supported projects in the first four RES+ calls did not include investments in the storage of electricity from RES. The SAO found that, in the case of these calls, the SEF supported projects with a total installed PV capacity of 2.2 GWp, while these projects include investments in the storage of electricity from RES with a new capacity of only 0.15 GWh.

The conditions of the audited RES+ calls allowed for an inconsistent approach by the beneficiaries in the selection of contractors

- 1.14 The MoE and the SEF set the conditions of the audited RES+ calls in such a way that unless the beneficiary voluntarily decided to proceed according to Act No 134/2016 Coll., on public procurement, or the *Guidelines for procurement in programmes co-financed from the budget of the SEF CR* (hereinafter also the “SEF Guidelines”), they did not have to follow such rules.¹² The public contracting authorities, which are obligated to follow the law, were the exception.

Operating aid from the state budget for RES in 2021–2023 reached a total amount of CZK 73.8 billion

¹² This concerns most of the projects implemented by business corporations. In the case of several projects implemented by public entities, e.g., municipalities, these beneficiaries were obligated to follow Act No 134/2016 Coll.

- 1.15 Operating aid for RES is financed from the state budget and payments for transmission and distribution system services. The Czech Government sets the amount of such state support annually in order to mitigate the impact of energy prices on end consumers. During the energy crisis in 2022–2023, the charge for supported sources was temporarily abolished; however, it was reintroduced in 2024, virtually negating the beneficial effect of falling market prices on the price of electricity. In 2021, the MoIT provided CZK 22.2 billion from the state budget to subsidise electricity and heat, in 2022, it was CZK 26.2 billion, and in 2023, it was CZK 25.4 billion.

II. Information on the Audited Area

- 2.1 The MoE is the central government body and body of supreme oversight in environmental matters. In connection with the organisation of the *Modernisation Fund*, the MoE is a member of a coordination group and a member of the MF committee and platform. The MoE decides on the provision of the SEF funds under the programmes financed from the MF funds. The Minister for the Environment issues the relevant “*decisions on the provision of funds from the State Environmental Fund of the Czech Republic under the Programme financed from the Modernisation Fund*” for approved projects.
- 2.2 Among other things, the MoIT is the central state administration authority for state industrial policy and energy, heating and gas sectors. In these areas, the MoIT’s activities focus, among other things, on the development of strategies and concepts submitted to the Czech Government. Examples of such strategic documents include the *State Energy Policy of the Czech Republic* (hereinafter also the “SEP”) or the *National Energy and Climate Plan of the Czech Republic*. Among other things, the MoIT ensures the fulfilment of obligations arising from international treaties by which the Czech Republic is bound or obligations arising from membership in international organisations and calculates the share of energy from RES in gross final energy consumption, including the preparation of all related information and submits it to the European Commission.
- 2.3 Within the *Modernisation Fund*, the SEF plays a crucial role of the administrator and manager of the funds. Financing of the *Modernisation Fund* is provided primarily through revenues from the sale of emission allowances. The SEF is responsible for announcing MF calls and accepting and evaluating subsidy applications for projects aimed at the construction and modernisation of renewable energy production facilities.

Modernisation Fund

- 2.4 The MF was established based on Article 10d of Directive 2003/87/EC, which is implemented into the Czech law by Act No 1/2020 Coll.¹³ The implementing regulation for the *Modernisation Fund* Directive is Commission Regulation (EU) 2020/1001.¹⁴ The Member States receiving support from the MF are entitled to select the suitable areas of support taking their specific economic situation and interconnection with other programmes into account. The states then choose the appropriate form of support (subsidy, loan, insurance, guarantee) for the selected areas. The *Modernisation Fund* is not intended for the support of energy production facilities using solid fossil fuels.
- 2.5 The financing of the MF is provided through revenues from the auctioning of a portion of emission allowances. These allowances are part of the European Union Emissions Trading System (EU ETS), which aims to reduce greenhouse gas emissions in EU Member States. The proceeds from these sales are subsequently used to finance projects focused

¹³ Act No 1/2020 Coll., amending Act No 383/2012 Coll., on the conditions for trading in greenhouse gas emission allowances, as amended, and Act No 458/2000 Coll., on the conditions of business and on the performance of state administration in energy sectors and on the amendment of certain acts of law (the Energy Act), as amended.

¹⁴ Commission Implementing Regulation (EU) 2020/1001 of 9 July 2020 laying down detailed rules for the application of Directive 2003/87/EC of the European Parliament and of the Council as regards the operation of the Modernisation Fund supporting investments to modernise the energy systems and to improve energy efficiency of certain Member States.

on modernising energy infrastructure, improving energy efficiency and supporting renewable energy.

- 2.6 According to the 2023 revision of the programming document, the MF is divided into eight separate programmes. Each support programme has its own implementing programming document. *Modernisation Fund* programmes that are listed in the programming document approved by the Czech Government are not subject to approval by the EIB or the EC.

Table 1: MF Programmes

MF programme	Share of MF allocation [%]	Estimated allocation [in CZK mil.]
RES+	20.0	76,725.4
HEAT	20.0	76,725.4
ENERG		
<i>of which: ENERGETS</i>	16.0	61,380.3
<i>ENERGCom</i>	2.5	9,590.7
<i>ENERGov</i>	4.0	15,345.1
<i>HOUSEnerg*)</i>	14.2	54,475.0
TRANSPORT		
<i>of which: TRANSCom</i>	1.5	5,754.4
<i>TRANSGov</i>	8.5	32,608.3
GREENGAS	3.0	11,508.8
SMARTNET		
<i>of which: PUBGRID (LIGHTPUB)</i>	1.5	5,754.4
<i>ELEGRID</i>	4.0	15,345.1
KOMUNERG	2.8	10,741.6
I+	2.0	7,672.5
Total	100.0	383,627.0

Source: MF Status Report from September 2024.

- *) During the audited period, i.e., in 2023, it was decided, due to insufficient resources for the NGS programme within the state budget, to include it under the MF (in the HOUSEnerg programme), while PV projects on family houses are financed through the RES+ programme (RES+ NGS). The insufficient funds in the NGS programme were drawn from the *National Recovery Plan* until June 2023. By a decision of the Czech Government, the HOUSEnerg programme was implemented into the MF programme document in November 2022 with an allocation of 14.2% of the MF programme; after the resources from the *National Recovery Plan* were exhausted, the successor NGS programme financed from the MF was launched through the HOUSEnerg and RES+ programmes.

- 2.7 The link to the fulfilment of obligations in increasing the share of renewable energy in final consumption within the EU arises from Directive (EU) 2018/2001¹⁵. Directive (EU) 2018/2001 sets a binding overall EU target of a minimum 32% share of renewable energy in the EU's gross final energy consumption by 2030. The EU-wide renewable energy target for 2030 was increased to at least 42.5% in Directive (EU) 2023/2413, which amended Directive (EU) 2018/2001. The amendment to Directive (EU) 2018/2001 was a response to the energy aspects of the EU's climate transformation under the "Fit for 55" package. Under the Directive, Member States should set out their contribution to the EU target in their national energy and climate plans (see below).
- 2.8 The use of RES has benefits for achieving climate neutrality. However, the use of RES is constrained by local natural conditions, such as topography and climate, as well as

¹⁵ Directive (EU) 2018/2001 of the European Parliament and the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast).

economic viability. The economic viability criterion assesses the recovery of costs as well as whether the costs of constructing, operating, and maintaining renewable energy production facilities (including necessary supporting infrastructure) are financially sustainable and competitive compared to the same costs incurred for renewable energy production facilities.

- 2.9 At the national level, support for renewable energy, support for high-efficiency combined heat and power generation, and support for secondary energy sources is provided for by Act No 165/2012 Coll.,¹⁶ implementing regulations to this Act and pricing decisions of the Energy Regulatory Office. On 22 June 2022, Government Regulation No 189/2022 Coll.¹⁷ was issued, which, among other things, sets out the types and forms of support, types of supported energy sources, support for electricity, etc.
- 2.10 According to Act No 165/2012 Coll., the operating aid for renewable energy sources is funded from the state budget and from payments for distribution and transmission system services, which are paid by end consumers. These funds are intended for the operation of facilities for energy production from the supported sources. Support is generally provided for the entire life cycle of the project.
- 2.11 Support for electricity generation from renewable energy sources is provided in the form of feed-in tariffs, green bonuses or an auction bonus, which was introduced on 1 January 2022. The feed-in tariff has been abolished for new plants from 1 January 2022, but existing plants can continue to benefit from this form of support. The amount of feed-in tariffs and green bonuses is set by the Energy Regulatory Office (hereinafter also the “ERO”) on the basis of a price decision, usually once a year.
- 2.12 The Czech Government determines the amount of the subsidy for renewable and other supported energy sources in its regulation determining the state budget funds for each year. The goal is to cover the costs of operating aid for electricity, heat and biomethane production so that they are not passed on to end consumers through increases in regulated electricity prices. During the peak of the energy crisis, from October 2022 to the end of 2023, households and businesses did not pay the fee for supported energy sources amounting to CZK 495 per megawatt-hour of electricity consumed (excluding VAT). The fee applies again from the beginning of 2024.
- 2.13 The implementation of the Czech Government Regulation falls under the MoIT, which decides on the provision of subsidies to the market operator within the framework of support for the production of electricity from renewable energy sources and other supported sources, such as secondary sources or heat from high-efficiency combined heat and power generation. The conditions for the use of the subsidy are laid down in Act No 165/2012 Coll.

¹⁶ Act No 165/2012 Coll., on supported sources of energy and amending certain acts.

¹⁷ Government Regulation No 189/2022 Coll., on the definition of the development of supported energy sources.

State Energy Policy of the Czech Republic

- 2.14 The SEP is a strategic document expressing the national objectives regarding energy management in accordance with the principles of sustainable development, ensuring a secure energy supply, economic competitiveness and social acceptability for the population and is adopted for a period of 25 years. The SEP is prepared by the MoIT. The currently valid SEP dates to 2015 and was approved by the Resolution of the Government of the Czech Republic No 362 of 18 May 2015¹⁸.
- 2.15 By its Resolution No 257 of 12 April 2023¹⁹, the Czech Government approved the starting points for updating the SEP and related strategic documents.
- 2.16 The updated SEP is expected to be approved by the Czech Government in 2025, setting new goals and directions for the Czech energy sector until 2050.

Climate Protection Policy in the Czech Republic

- 2.17 *The Climate Protection Policy of the Czech Republic* (hereinafter also the “CPP”) sets the basic objectives of the Czech Republic in relation to climate protection until 2050 and constitutes a long-term strategy for low-carbon development of the Czech Republic within the framework of the *Paris Agreement*. The CPP is prepared by the MoE. The CPP refers to the *State Energy Policy of the Czech Republic* with regard to the energy sector. The CPP was approved by Resolution of the Government of the Czech Republic No 207 of 22 March 2017.²⁰

National Energy and Climate Plan of the Czech Republic

- 2.18 *The National Energy and Climate Plan of the Czech Republic*, which falls under the purview of the MoIT, is based on two main strategic documents, namely the SEP and the CPP. The Czech Government approved the National Plan by its Resolution No 31 of 13 January 2020²¹.
- 2.19 *The National Energy and Climate Plan of the Czech Republic* was prepared based on the requirement of Regulation (EU) 2018/1999²² for the period 2021–2030 with projections to 2050. A key part of the National Plan is setting the contribution of the Czech Republic to the EU’s climate and energy targets for reducing emissions, increasing the share of renewable energy sources and improving energy efficiency. In October 2023, the Czech Government took note of the draft update of this document. On 8 December 2024, the

¹⁸ Resolution of the Government of the Czech Republic No 362 of 18 May 2015, *on the State Energy Policy of the Czech Republic*.

¹⁹ Resolution of the Government of the Czech Republic No 257 of 12 April 2023, *on the starting points for updating the State Energy Policy of the Czech Republic and related strategic documents (Climate Protection Policy and the National Energy and Climate Plan of the Czech Republic)*.

²⁰ Resolution of the Government of the Czech Republic No 207 of 22 March 2017, *on the Climate Protection Policy in the Czech Republic*.

²¹ Resolution of the Government of the Czech Republic No 31 of 13 January 2020, *on the National Energy and Climate Plan of the Czech Republic*.

²² Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013.

Czech Government⁸ approved the *National Energy and Climate Plan of the Czech Republic*, which updates the National Plan from January 2020.

- 2.20 Energy and climate plans are intended to inform the European Commission, in particular, on how individual Member States intend to contribute to the EU's targets for renewable energy and the reduction of greenhouse gas emissions.

III. Scope of the Audit

- 3.1 The goal of the audit was to examine whether the funds from the *Modernisation Fund* earmarked for the support of renewable energy sources were spent effectively and in accordance with legal regulations.
- 3.2 Expenditure of funds was considered effective if it led to an increase in the share of newly installed renewable energy capacity from supported RES+ projects in the total installed renewable energy capacity of the Czech Republic, or to the maintenance of energy-efficient generation facilities that are already in operation.
- 3.3 In the case of the audited projects, expenditure was considered effective if it contributed to fulfilling the purpose of the project, achieving the set objectives and expected results and if the provided funds led to an increase in installed renewable electricity capacity.
- 3.4 The SAO audited the MoE, the SEF, the MoIT and 12 other selected beneficiaries.
- 3.5 The SAO audited the activities of the MoE and the SEF related to the provision of funds from the *Modernisation Fund* to support renewable energy sources under the RES+ programme, focusing on the set-up of the support system, administration of the applications for support and the provision of funds.
- 3.6 As part of the Audit, the SAO also examined whether the MoE and the SEF evaluated the benefits of the RES+ programme and the projects implemented under the RES+ programme. The SAO further audited the MoIT's conceptual activities related to RES, the ongoing fulfilment of the objective of increasing the share of RES in gross final energy consumption, the setting of the parameters for the operating aid of renewable energy generation facilities and the volume of operating aid provided in the audited years.
- 3.7 Furthermore, the SAO audited the compliance of the 12 selected beneficiaries with the conditions of provision of the subsidy, the demonstrability and justification of eligible expenditure, the use of the subsidy funds for the specified purpose and the fulfilment of the objectives and sustainability of the projects. A total of 12 projects were selected for the audit, focusing on the installation of new photovoltaic power plants, which were supported from the MF, namely from the RES+ programme.
- 3.8 Four calls under the RES+ programme³ with a total allocation of CZK 13.1 billion were audited. The selected sample of projects was based primarily on the requirement of financial significance and the stage of implementation. The SAO also took into account the time of the disbursement of funds and the activities of the RES+ programme. An overview of the audited projects is presented in Annex 1 to this Audit Report.
- 3.9 The audited amount of funds in the audited projects amounted to CZK 113 million – the amount of the subsidy from the MF according to the “*decisions on the provision of funds from the State Environmental Fund of the Czech Republic under the Programme financed from the Modernisation Fund*”.

Note: The legal regulations indicated in this audit report are applied in their wording effective for the audited period.

IV. Detailed Findings of the Audit

- 4.1 The revenues of the *Modernisation Fund* from the auctioning of emission allowances are managed by the European Investment Bank, which provides them to selected EU Member States for the implementation of investments based on the assessment of investment proposals and the subsequent decision of the European Commission. In the Czech Republic, the management of funds from the MF is regulated by Act No 383/2012 Coll.²³ Pursuant to Section 12 of Act No 383/2012 Coll., the funds allocated to the Czech Republic from the MF constitute revenue of the SEF budget. The Minister for the Environment decides on the provision of funds to the SEF.
- 4.2 The areas to be financed from the *Modernisation Fund* in order to achieve the energy and climate objectives set have been defined and approved by the Czech Government in the MF programming document²⁴. The Czech Government also approves its revisions and updates.²⁵ The individual MF sub-programmes are approved by the Minister for the Environment. The SEF is entrusted with the preparation of investment proposals²⁶, which are approved by the EIB. The audit action focused on the RES+ sub-programme. Within the programme, support is provided from the SEF funds under the conditions of the RES+ programme, the announced calls and the conditions set out in the decision of the Minister for the Environment on the provision of funds from the SEF (hereinafter also the “Decision”) and in the agreement on the provision of support from the SEF (hereinafter also the “Agreement”).
- 4.3 At the end of 2020, the SEF announced a call for potential applicants for the RES+ programme. The submitted project plans were to provide the SEF with information on the future applicants, the technical design of the projects, the expected amount of funding and its distribution over the years and the expected form and amount of support. In March 2021, the SEF published an analysis²⁷, which included an assessment of more than 8,000 project plans. From the results of the analysis, the SEF deduced a high degree of project readiness, a great interest in PV investments and a high share of potentially installed capacity (nearly 24,000 MWp) and potential battery storage of the energy produced (4,900 MWh).

Investment support from the *Modernisation Fund*

- 4.4 The allocation of the MF funds is based on the market price of emission allowances and the volume of auctioned allowances for the MF. The total allocation from the MF for the Czech Republic is estimated by the MoE and presented in the MF programming

²³ Act No 383/2012 Coll., on the conditions for trading in greenhouse gas emission allowances.

²⁴ Resolution of the Government of the Czech Republic No 64 of 25 January 2021, *on the general programming document for the implementation of the Modernisation Fund in the Czech Republic*.

²⁵ Resolution of the Government of the Czech Republic No 981 of 20 December 2023, *on the report on the implementation of the Modernisation Fund in the Czech Republic and updating the General programming document of the Modernisation Fund*.

²⁶ Investment proposals may be either individual projects or support schemes comprising several individual projects with homogeneous measures.

²⁷ Analysis of project plans submitted in the RES+ pre-registration in March 2021:
<https://www.sfzp.cz/dokumenty/detail/?id=2442>.

document and, according to the current developments of emission allowance prices, also in reports on the status of the MF implementation in the Czech Republic.

- 4.5 *The Modernisation Fund* is financed by the auctioning of emission allowances under Directive 2003/87/EC and is managed by the European Investment Bank under an agreement with the European Commission²⁸. Table 2 shows the estimates of the total MF allocation and the RES+ allocation derived from it, according to the percentage determined by the MF programming document. A complete overview of the allocation estimates according to the individual MF programmes is presented in Annex 2 hereto.

Table 2: Estimates of MF and RES+ Allocations

	MF programming document (estimate for 2021)		Revision of the MF programming document (12/2023)		MF status report (09/2024)	
	[CZK million]	[%]	[CZK million]	[%]	[CZK million]	[%]
TOTAL	154,039.40	100	500,188.00	100	383,627.10	100
<i>of which RES+</i>	59,613.20	38.7	100,037.60	20.0	76,725.40	20.0

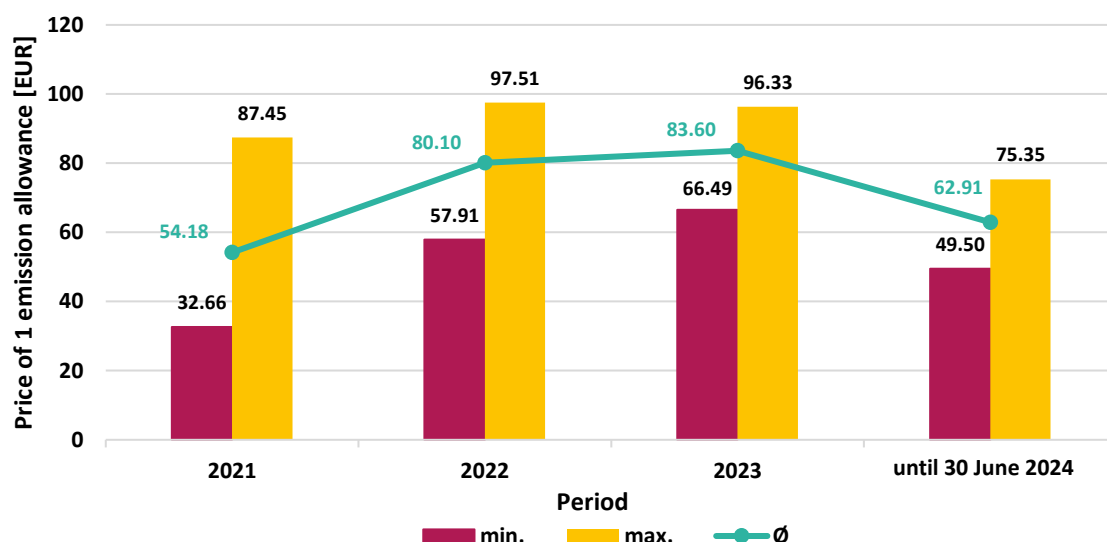
Source: MF Programming Document, MF Programming Document Revision; MF Status Report (September 2024).

→ *The volatility of the market price of the emission allowances presents uncertainty regarding the MF revenues, which impacts the possible support for MF-supported projects.*

- 4.6 A detailed breakdown of the sources of MF revenue under Directive 2003/87/EC and a breakdown of the distribution of the emission allowances for the MF by each recipient Member State is provided in Annex 3 hereto. The estimate of the allocation of funds for the MF is affected by the hard-to-predict prices of the emission allowances. The average price of an emission allowance in the audited period ranged from EUR 54.18 in 2021 to EUR 83.65 in 2023. The maximum price per allowance in this period was EUR 97.51 (on 8 February 2022), while the lowest traded price per allowance was EUR 32.66 (on 1 February 2021).

²⁸ The agreement between the European Commission and the EIB, referred to as the COOPERATION AGREEMENT, sets out the specific conditions under which the EIB carries out its tasks and the amount of the fees due to the EIB. The disbursement of EIB funds to the State Environmental Fund of the Czech Republic is governed by the above agreement and the EU implementing regulation. This agreement was not available to the
SAO
during
Audit No 24/06. A summary of EIB fees (provided by the Ministry of the Environment) is provided in Table 4.

Chart 1: Development of the average annual price of an emission allowance in the period from 1 January 2021 to 30 June 2024



Source: <https://www.eex.com/en/markets/environmental-markets/eu-ets-auctions>.

- 4.7 In the period from 1 January 2021 to 30 June 2024, a total of 251,741,695 emission allowances were auctioned for the MF, and the revenue from these auctions amounted to EUR 17.77 billion.²⁹ Between 2021 and 2024, a total of 80.07 million emission allowances were allocated to the Czech Republic under the MF auctions. MF emission allowances are not auctioned at the level of individual Member States, but at the level of the MF as a whole. The revenues from the auctioning of emission allowances are included in the MF portfolio, which is centrally managed by the EIB under the terms of the agreement with the European Commission.
- 4.8 In order to receive funds from the *Modernisation Fund* for the implementation of investments, the beneficiary Member States submit investment proposals to the European Investment Bank for confirmation³⁰ or recommendation³¹ in accordance with the Implementing Regulation. The European Commission then takes a decision on the disbursement of funds from the MF.
- 4.9 Based on the investment proposals submitted by the State Environmental Fund of the Czech Republic, the EIB confirmed a total of 40 priority investments and recommended 6 non-priority investments in the period from 1 January 2021 to 30 June 2024, with a total volume of CZK 268.41 billion, of which CZK 73.02 billion represents the volume of confirmed investment schemes under the RES+ programme. An overview of all investments approved by the EIB is presented in Annex 4 hereto.

²⁹ See: <https://www.eex.com/en/market-data/environmental-markets/eua-primary-auction-spot-download> and <https://modernisationfund.eu/documents-2/annual-reports/>.

³⁰ Article 6 of the Implementing Regulation lays down the procedure for the confirmation of priority investment proposals by the European Investment Bank. A priority investment means an investment falling under Article 10d (2) of Directive 2003/87/EC.

³¹ Article 7 of the Implementing Regulation lays down a procedure for recommendations regarding non-priority investments.

Table 3: Investments approved by the EIB as of 30 June 2024 and the share of the RES+ programme

	Volume of approved investments [CZK million]	Share of approved investments [%]	Latest estimate of the MF allocation [CZK million]	Share of approved investments in the estimated allocation of the MF [%]	Share of the MF programmes in the allocation by programme document [%]
Total MF programmes	268,405.29	100.00	383,627.10	69.97	86.7
of which RES+	73,021.04	27.21	76,725.40	19.03	20

Source: SEF.

Note: For the conversion of the volume of approved investments from EUR to CZK, the SAO used the average annual exchange rate of the Czech National Bank (CNB) and the average exchange rate for the period January to June 2024.

4.10 As of 30 June 2024, the Czech Republic had successfully secured approval from the EIB for planned MF investments in the amount of CZK 268.4 billion, which represents 70% of the latest estimated allocation from 2024. According to the MF programming document, the RES+ allocation amounts to 20% of the total MF allocation. The volume of approved investments in the RES+ programme as of 30 June 2024 amounted to CZK 73.02 billion.

→ The RES+ programme investments approved by the EIB were at 95% of its estimated allocation until 2030 as of 30 June 2024.

4.11 All investment proposals under the RES+ programme, prepared by the SEF and for which the Czech Republic secured approval from the EIB as of 30 June 2024 include only support for investments in the construction of photovoltaic power plants and, where applicable, the storage of the electricity produced.

→ If the already approved investments are implemented, the MF will not have the resources to support other types of renewable energy production facilities, such as wind power plants, until 2030.

4.12 Table 4 below provides a summary of the MF's funds for the period from 1 January 2021 to 30 June 2024.

Table 4: Summary of MF Funds (in CZK)

	Item	2021	2022	2023	2024	Total
1	Approved investments	41,724,415,000.00	102,239,530,000.00	50,372,978,699.00	74,068,364,894.50	268,405,288,593.50
2	SEF's revenue from EIB	8,086,260,000.00	32,528,700,000.00	44,214,500,688.10	20,729,956,205.86	105,559,416,893.96
3	Balance with EIB (year-end balance)	19,948,985,437.77	24,517,804,797.12	22,690,997,144.62	17,756,344,405.30	x
4	Total available for the Czech Republic (year-end balance)	28,035,245,437.77	65,132,764,797.12	107,520,457,832.72	123,315,761,299.26	
5	EIB fees	59,999,520.02	89,583,619.40	66,672,336.43	N/A	216,255,475.85
6	Funds paid out to beneficiaries (year-end balance)	N/A	N/A	19,240,863,803.94	32,769,053,604.69	
7	Balance with the CNB (year-end balance)	8,001,445,583.27	40,365,295,351.94	65,588,596,884.16	72,790,363,289.27	x

Source: The MoE and the SEF.

Explanation: The conversion from EUR was carried out using the CNB's average annual exchange rate (lines 1 and 5); the CNB's rate on the date of receipt of the payment into the CNB's account (line 2); and the CNB's rate on the date of the statement of the balance of funds at the CNB (line 3).

4.13 In the period from 1 January 2021 to 30 June 2024, the SEF received funds from the EIB in the total amount of CZK 105.56 billion and, as of 30 June 2024, it had disbursed support from the MF to the final beneficiaries in the amount of CZK 32.77 billion (31% of the funds received from the EIB), see Table 5 for details.

- 4.14 As of 30 June 2024, the balance of the SEF's current account held with the CNB for the management of funds received from the EIB for the implementation of the MF amounted to the total of CZK 72.79 billion. The SEF holds these funds for the purpose of ongoing financing of MF projects. These SEF funds are not part of the state budget.
- 4.15 EIB regularly informs the beneficiary Member States of the balances of the funds available to them after deducting the fees for the administration of the MF. As of 30 June 2024, the balance of MF funds earmarked for the Czech Republic amounted to CZK 17.76 billion (EUR 709.4 million).

Table 5: MF Revenue and Disbursements for the period between 1 January 2021 and 30 June 2024

MF programme	SEF's revenue from EIB [EUR]	SEF's revenue from EIB [CZK]	Disbursed funds [CZK]	Share of disbursed funds [%]
HEAT	1,633,613,312.00	39,124,994,003.35	1,429,071,394.77	3.65
RES+	565,000,000.00	14,080,880,000.00	225,240,989.00	1.60
RES+ (NGS)	500,000,000.00	12,410,000,000.00	12,478,704,100.55	100.55
ENERG	20,000,000.00	481,180,000.00		0.00
ENERG ETS	374,860,580.34	9,148,202,890.61	41,612,017.99	0.45
ENERGov	100,000,000.00	2,352,200,000.00		0.00
HOUSEnerg (NGS)	1,130,000,000.00	27,467,600,000.00	18,594,425,102.38	67.70
TRANSGov	10,000,000.00	248,200,000.00		0.00
LIGHTPUB	10,000,000.00	246,160,000.00		0.00
Total	4,343,473,892.34	105,559,416,893.96	32,769,053,604.69	31.04

Source: SEF.

- 4.16 As of 30 June 2024, the SEF had disbursed a total of CZK 31.07 billion from the MF to NGS projects under the HOUSEnerg and RES+ programmes. In the other MF programmes, the ongoing spending is low due to the implementation of more time-consuming projects in combination with their ex post MF funding. A detailed overview of the subsidies provided and funds paid out for the individual programmes under the MF is presented in Annex 5 of the Audit Report.

→ 95% of the funds disbursed by the SEF from the MF as of 30 June 2024 were directed to financial aid provided to households from the NGS programme.

- 4.17 As of 30 June 2024, the SEF disbursed a total of CZK 12.48 billion from the RES+ programme through the NGS programme to fund projects for the installation of PV on family houses, of which CZK 7.62 billion had already been disbursed in 2023, although the EIB did not confirm the relevant RES+ investment scheme for these investments until March 2024.

→ Provision of funds from the SEF without prior approval by the EIB may pose a risk of the need to cover the support provided from other SEF's own funds, should the EIB subsequently fail to confirm or recommend the investment proposal.

- 4.18 The programme for providing support from the *Modernisation Fund – “New Renewable Energy Sources in the Energy Sector (RES+)”*, was approved by the Minister for the Environment on 28 April 2021. The first version of the RES+ programme was valid throughout the audit period.³²

³² The second version of the RES+ programming document was published by the SEF with effect from 18 December 2024.

- 4.19 The RES+ programme focuses on measures contributing to the fulfilment of the Czech Republic's commitments to increase the share of RES in the Czech energy mix and reduce greenhouse gas emissions. The National Energy and Climate Plan of the Czech Republic was approved by the Czech Government in December 2024 with the goal of achieving a 30% share of RES in gross total energy consumption in 2030. The prerequisite for achieving this goal is the launch of new renewable energy production facilities with a target installed capacity of 10.1 GWp in PV power plants and 1.5 GW in wind power plants.
- 4.20 The RES+ programme could support the following:
- installation of new PV or geothermal energy sources;
 - installation of new or upgrading of existing wind turbines or small hydroelectric power plants;
 - electricity storage systems (only as a part of comprehensive projects).
- 4.21 The MoE, through the SEF, had announced by 30 June 2024 a total of 10 calls under the RES+ programme aimed at supporting the installation of PV power plants and electricity storage systems, with a total allocation of CZK 26.1 billion (excluding the NGS programme).
- 4.22 The amount of funds in the Decisions issued for the RES+ programme projects was CZK 27.10 billion as of 30 June 2024, representing 37% of the total confirmed RES+ investments. Excluding the projects of the NGS programme, the amount of support provided was CZK 14.51 billion.

Table 6: Overview of RES+ Funds in the Decisions

Programme	Number of projects with an issued Decision	Amount of support according to the issued Decisions [CZK]	Number of projects with disbursed support	Amount of support disbursed [CZK]
RES+	1,865	14,512,716,432.63	74	225,240,989.00
RES+ (NGS)	59,993	12,590,253,501.17	50,666	12,478,704,100.55
TOTAL RES+	61,858	27,102,969,933.80	50,740	12,703,945,089.55

Source: SEF.

- 4.23 During the audit, the SAO focused on the administration and implementation of selected projects within the first four RES+ calls aimed at supporting PV installations up to and including 1 MWp and above 1 MWp, with a total allocation of CZK 13.1 billion.

Table 7: Overview of the RES+ programme calls announced in the audited period

RES+ Call	Activities	Allocation [in CZK billion]	Number of applications	Number of projects supported	Amount of subsidy [CZK]
1/2021	PV installations with a capacity up to 1 MWp	1.0	234	119	639,270,809.92
2/2021	PV installations with a capacity above 1 MWp	3.5	151	57	3,214,837,239.61
1/2022	PV installations with a capacity up to 1 MWp	3.1	578	465	2,682,417,877.43
2/2022	PV installations with a capacity above 1 MWp	5.5	210	84	5,470,619,051.94

Source: SEF.

4.24 The specific measurable objectives of the RES+ programme are defined in the investment proposals (or support schemes) approved by the European Investment Bank. Table 8 summarises the performance of the expected benefits of the RES+ programme as of 30 June 2024. More detailed information on the individual RES+ investment schemes is provided in Annex 6 hereto.

Table 8: Overview of the achievement of expected benefits of the RES+ programme as of 30 June 2024

Item	Newly installed capacity [MWp]		New storage capacity [MWh]	Reduction of CO ₂ [kt CO ₂ eq]		Capacity of new electrolyzers [Nm ³ /h]
	Including the NGS	Excluding the NGS		Including the NGS	Excluding the NGS	
Expected benefits of RES+ schemes	5,944.7	4,963.9	925.4	5,116.0	4,272.5	2,410.4
Projected benefits of the supported RES+ projects (contractual commitment)	2,677.7	2,253.4	190.8	x	1,967.9	313.0
Share of the projected benefits of the supported projects in the expected benefits of the RES+ schemes [%]	45.04	45.40	20.62	x	46.06	12.99

Source: SEF.

4.25 Confirmed RES+ programme investment schemes as of 30 June 2024 in the total amount of CZK 73.02 billion (EUR 2.89 billion) include only support for the construction of PV plants with a planned newly installed capacity of 5.9 GWp, and therefore, do not cover investment support for other renewable energy production facilities, e.g., small hydroelectric power plants or wind power plants. An overview of the total installed capacities of selected technologies producing electricity from RES in the Czech Republic in the audited years according to the data of the ERO is presented in Table 9.

Table 9: Installed capacity of selected types of facilities in 2021–2023 in the Czech Republic (in MW)

RES technology	2021	2022	2023
PV power plants	2,083.4	2,100.4	3,272.3
Hydroelectric power plants (excluding pumped-storage power plants)	1,113.4	1,113.6	1,116.9
Wind turbines	339.4	339.1	342.5

Source: ERO.

4.26 As of 30 June 2024, the SEF has provided CZK 12.0 billion within the four announced RES+ calls provided primarily for ground PV installations up to 1 MWp and above 1 MWp with the total planned newly installed capacity of 2.17 GWp. The SAO found that, as of the same date, the SEF also provided a total of CZK 2.5 billion under two further RES+ calls for the installation of PV installations on public buildings with a total planned newly installed capacity of 0.08 GWp and, at the same time, it provided support from the RES+ programme in the amount of nearly CZK 12.6 billion for rooftop PV installations on family houses with a total capacity of 0.42 GWp (projects implemented under the NGS programme calls). Table 10 provides an overview of the subsidies provided by the MoE and the SEF to the beneficiaries and data on the planned installed capacity and the average amount of subsidy per unit of capacity.

Table 10: Funds provided from the RES+ programme per unit of PV capacity

Beneficiaries	Subsidy [CZK]	Installed capacity [kWp]	Subsidies per unit of capacity [CZK/kWp]
Individuals – households	12,590,253,501.17	424,286.71	29,673.93
Municipalities and organisations established by municipalities	2,505,571,453.73	83,739.21	29,921.13
Business entities	12,007,144,978.90	2,169,652.53	5,534.13
<i>of which: projects up to 1 MWp</i>	3,321,688,687.35	366,634.94	9,059.93
<i>projects above 1 MWp</i>	8,685,456,291.55	1,803,017.59	4,817.18

Source: SEF.

→ *The funds provided by the SEF from the RES+ programme for the installation of PV on family houses and public buildings contribute less to the increase in installed RES capacity than the funds provided from the RES+ programme by the SEF to business entities, which is due to the higher level of support per unit of PV capacity.*

4.27 Based on the ongoing implementation of the RES+ programme, the SAO concluded that, provided there is sufficient absorption capacity for the remaining funds in the RES+ investment schemes, new PV power plants with a target installed capacity of 5.9 GWp will be built, leading to a reduction in CO₂ emissions. However, this planned new PV capacity is not sufficient to ensure that the 2030 targets are met. The SAO further assessed that it will be difficult to achieve the expected electricity storage capacities with the planned battery capacity of 925.4 MWh and electrolyser capacity of 2,410 Nm³/h. Increasing the installed capacity of RES leads to increased requirements for the development of transmission and, in particular, distribution networks and storage systems.

→ *The estimated amount of funds from the Modernisation Fund allocated to the RES+ programme will not be sufficient to ensure the required increase in electricity production from RES by 2030 (an increase of 10.1 GWp for PV power plants and 1.5 GW for wind power plants). At the same time, the expected storage capacities for RES-produced electricity, as foreseen in the RES+ investment schemes, will not be built.*

4.28 Each year, the International Renewable Energy Agency³³ publishes the global weighted average cost of installing renewable energy facilities. Table 11 shows the development of the weighted average cost of the selected facilities. Table 12 below shows the average investment expenditures of PV projects without electricity storage from the audited RES+ calls.

Table 11: Global weighted average cost of selected installed facilities

Type of installation	2010	2020	2021	2022	2023	Cost reduction between 2023/2010 [%]	Cost reduction between 2023/2020 [%]
Photovoltaic systems [CZK/kWp]	101,489	23,647	20,600	21,211	16,828	83	29
Onshore wind power plants [CZK/kW]	43,428	36,003	31,894	30,876	25,772	41	28
Battery storage [CZK/kWh]	47,995	6,974	6,127	8,362	6,053	87	13

Source: IRENA, *Renewable Power Generation Costs in 2023*:

<https://www.irena.org/Publications/2024/Sep/Renewable-Power-Generation-Costs-in-2023>.

Note: Average annual CNB exchange rates were used to convert USD to CZK.

³³ International Renewable Energy Agency (hereinafter also the “IRENA”).

Table 12: Supported projects without electricity storage as of 30 June 2024

RES+ Call	Number of projects supported	Requested amount of subsidy [CZK]	Newly installed RES capacity [kWp]	Total expenditure exclusive of VAT [CZK]	Average investment costs [CZK/kWp]
Calls up to 1 MWp					
Call 1/2021	103	525,043,717.69	72,800	1,716,617,318.35	23,579.91
Call 1/2022	312	1,373,987,713.24	191,923	5,088,878,090.81	26,515.20
Calls above 1 MWp					
Call 2/2021	47	2,408,571,931.09	439,010	7,333,907,594.83	16,705.56
Call 2/2022	73	4,863,171,500.55	1,182,239	22,195,352,775.29	18,773.99

Source: SEF.

4.29 The audit of investments in the construction of PV power plants supported by the State Environmental Fund under the RES+ programme found that, for projects up to 1 MWp without energy storage, the average investment costs were higher than the global weighted average costs in the years under review, whereas for projects above 1 MWp, these investment costs were approximately equal to or even lower than the global weighted average costs.

4.30 The SEF also monitors other parameters of PV installations under the RES+ calls audited, in particular, the location or type of the PV power plant.

Table 13: Monitored parameters of RES+ projects

Call RES+	Number of projects with reported parameters	Ground installations of PV power plants [kWp]	Ground installations of PV power plants on brownfield sites [kWp]	Rooftop installations of PV power plants [kWp]
1/2021	119	52,384.35		28,771.32
2/2021	57	123,703.22	376,813.95	32,048.02
1/2022	457	211,010.79		69,617.45
2/2022	84	765,548.42	459,568.23	45,651.04
Total	717	1,152,646.78	836,382.18	176,087.83

Source: SEF, status as of 13 November 2024.

4.31 In the audited RES+ calls, ground PV installations predominated, with a total installed capacity of 1.99 GWp (of which 0.84 GWp was on brownfield sites). Rooftop installations accounted for only 8% of the planned newly installed PV capacity.

4.32 As of 30 June 2024, the SEF supported a total of 584 projects focused on PV installations up to and including 1 MWp, with total support of CZK 3.3 billion and a planned newly installed capacity of 0.4 GWp. The SEF also supported a total of 141 projects for PV installations above 1 MWp with a total support amount of CZK 8.7 billion and a planned newly installed capacity of 1.8 GWp.

4.33 The SAO found that:

- 74% of the projects do not include investments in electricity storage;
- 26% include investments in battery storage of electricity with a total planned storage capacity of 147.1 MWh. The ratio of storage capacity to the total installed capacity of all PV power plants is 7%;
- Only 5 projects include investments in electrolyzers for hydrogen production.

4.34 The results of the analysis of project plans showed a high degree of project readiness, a great interest in PV investments and a high share of potentially installed capacity and storage of generated electricity. According to these plans, the share of PV projects including electricity storage could be 51% and the ratio of storage capacity to total

installed capacity of all PV projects could be 23.6%. However, the MoE and the SEF set the conditions of support for the audited RES+ calls in such a way that the results did not fulfil the potential established on the basis of the call for project proposals.

Table 14: Summary data for audited RES+ calls

	Calls up to 1 MWp	Calls above 1 MWp
Number of projects supported	584	141
<i>of which: Number of projects without energy storage</i>	415	120
<i>Number of projects with energy storage</i>	165	20
<i>Number of projects with electrolyzers</i>	4	1
Newly installed RES capacity [kWp]	366,634.94	1,803,017.59
New storage capacity [kWh]	62,027.51	85,066.00
New hydrogen capacity [Nm ³ /h]	313.00	N/A
Amount of subsidy [CZK]	3,321,688,687.35	8,685,456,291.55
Total project expenditure [CZK]	11,770,072,334.40	43,615,906,828.30
Total eligible expenditure [CZK]	5,676,285,297.72	35,108,954,493.48

Source: SEF.

→ In the first four RES+ calls, the MoE and the SEF supported projects with a total installed PV capacity of 2.2 GWp, which include investments in battery storage of electricity only at 7% of the total newly installed capacity of the supported PV power plants.

4.35 From the audited RES+ calls, the SEF provided subsidies per unit of PV capacity or per unit of storage of electricity from RES. The SAO found that the MoE and the SEF set more favourable conditions for electricity storage for applicants in non-competitive calls up to 1 MWp than in competitive calls above 1 MWp.

Examples of support for ground PV installations up to 1 MWp:

The applicant intending to build a new ground PV power plant with a total capacity of 0.99 MWp without energy storage received, based on the conditions of the non-competitive call for proposals, a unit subsidy of CZK 6,931 per kWp of installed capacity.

In comparison, the applicant intending to build a new ground PV power plant of the same capacity with energy storage received, based on the conditions of the non-competitive call for proposals, a unit subsidy of CZK 14,396 per kWp of installed capacity.

Examples of support for ground PV installations above 1 MWp:

The applicant intending to build a new ground PV power plant with a total capacity of 5.99 MWp without energy storage received, based on the conditions of the competitive call for proposals, a unit subsidy of CZK 5,821 per kWp of installed capacity.

In comparison, the applicant intending to build a new ground PV power plant of the same capacity with energy storage received, based on the conditions of the competitive call for proposals, a unit subsidy of CZK 6,803 per kWp of installed capacity.

→ The share of projects with electricity storage was higher in the case of non-competitive calls up to 1 MWp (28%) than in the case of the competitive calls above 1 MWp (14%).

- 4.36 The MF supports projects implemented in regions affected by the decline in coal mining (Ústí nad Labem, Karlovy Vary and Moravian-Silesian Regions).³⁴ The SAO found that, in the case of non-competitive calls under the RES+ programme, where the MoE and the SEF did not favour applicants implementing projects in coal regions, support for coal regions accounted for 24% of the total subsidies provided, amounting to CZK 3.3 billion. In the case of competitive calls where the MoE and the SEF favoured projects located in coal regions, on brownfield sites and projects of electricity producers participating in the EU ETS³⁵, support for coal regions accounted for 86% of the total subsidies provided, amounting to CZK 8.7 billion. The SAO found that the MoE and the SEF set the multi-criteria scoring evaluation for the competitive calls in such a way that projects implemented in coal regions were disproportionately favoured, resulting in more cost-effective projects located in other regions of the Czech Republic not receiving support from the MF.
- 4.37 Based on the evaluation of the audited calls under the RES+ programme, the MoE and the SEF changed their approach and stopped favouring projects in coal regions in further calls under this programme. The SAO found that the results of the call for project proposals already indicated strong interest in investment support for renewable energy production in the coal regions.

Example of support for the least cost-effective project

In the first competitive call (RES+ Call No 2/2021), the MoE and the SEF established a multi-criteria scoring system that favoured projects from coal regions and based on this evaluation, they supported, among others, a project that received the lowest score in the cost-effectiveness criterion – only 20.75 out of a maximum of 60 points – while, conversely, support was not granted to three projects that each scored more than 50 points for cost-effectiveness but were not located.

→ *The MoE and the SEF set the conditions for the RES+ competitive calls in the above 1 MWp category in such a way that only 14% of the funds provided were directed to the implementation of projects outside coal regions.*

Example of favouring entities operating installations under the EU ETS

The MoE and the SEF supported 42 projects of favoured electricity producers in the EU ETS within the RES+ competitive calls with a total amount of CZK 4.16 billion. A total of 41 projects were implemented by a single business corporation, of which 29 projects receiving subsidies in a total of CZK 3.86 billion are located in coal regions.

- 4.38 Every year, ERO publishes an “*Annual Report on the Operation of the Electricity System of the Czech Republic*”, which, among other things, presents the development of the installed capacity of PV power plants by individual Czech regions. The SAO compared the installed PV capacity in the individual Czech regions prior to the implementation of the RES+ programme as of 31 December 2022 with the planned newly installed PV capacity supported under the audited RES+ calls (based on the programme implementation status as of 30 June 2024). The comparison is provided in Annex 7 hereto.

³⁴ The provisions of Section 12(3) of Act No 383/2012 Coll. stipulate: “*The Minister for the Environment decides on the allocation of the Modernisation Fund. The assessment will favour the projects implemented in regions affected by a decline in coal mining.*”

³⁵ Section 12(2) of Act No 383/2012 Coll.

→ Projects from the audited RES+ calls will double the installed PV capacity in the Czech Republic compared to 2022. The installed PV capacity in the three coal regions will increase more than sixfold compared to 2022, while in the other regions of the Czech Republic, the installed capacity will increase by one-third.

4.39 The SAO further found that the MoE and the SEF set the audited RES+ calls so that the maximum possible support for a single project could not exceed 50% of the total project spending. A beneficiary, which was not a public contracting authority within the meaning of Section 4(1) of Act No 134/2016 Coll., was therefore not required to follow the procedures set out in Act No 134/2016 Coll. when selecting suppliers (the beneficiary could do so only voluntarily).

4.40 At the same time, the SAO found that in the audited calls, the MoE and the SEF did not require beneficiaries to follow the SEF Guidelines in cases where they were not obligated to follow Act No 134/2016 Coll. For a beneficiary who was not a public contracting authority, the procedure for selecting contractors under the Act or the SEF Guidelines was therefore entirely voluntary.

→ The MoE and the SEF set the subsidy conditions in such a way that they allowed the beneficiaries to proceed inconsistently when selecting a contractor.

4.41 The SAO audited a total of 12 projects to which the MoE and the SEF provided subsidies totalling CZK 113.01 million. The total planned newly installed RES capacity for these projects is 16 MWh, and the planned new energy storage capacity is 0.73 MWh.

Operating aid for RES

4.42 In 2021, the MoIT provided the market operator with a subsidy of CZK 27 billion. Of this amount, CZK 22.22 billion was used for the support of electricity and heat. In 2022, the MoIT provided another subsidy in the amount of CZK 27 billion. CZK 26.17 billion was used for the support of electricity and heat in 2022. In 2023, a subsidy of CZK 37 billion was originally planned. The MoIT paid CZK 25.43 billion to cover the costs of financial aid for electricity and heat in 2023.

4.43 The amount of operating aid is influenced by the market price of electricity. The higher the price, the less financial support needs to be provided to the owners of power and heat plants in the category of supported sources. The decrease in support reflects changes on the energy market and adjustments to the regulatory instruments made by the Energy Regulatory Office. High electricity prices on the day-ahead market led the Energy Regulatory Office to set low or zero annual green bonus rates for a number of generation sources (this also applied to secondary sources and combined heat and power generation sources). The amounts of operating aid paid, including MoIT subsidies, by source are shown in Table 15.

Table 15: Amount of operating aid paid between 2013 and 2023 (in CZK million)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Renewable sources	34,922	38,361	41,098	40,752	43,154	43,689	42,475	43,218	40,841	37,452	25,106
<i>Solar power</i>	23,279	24,601	26,804	25,911	27,002	29,203	29,076	29,147	27,084	27,461	24,028
<i>Wind power</i>	936	1,017	1,215	1,100	1,332	1,273	1,344	1,341	1,081	947	110
<i>Hydro power</i>	1,803	1,861	1,927	2,057	2,541	1,837	1,965	2,454	2,204	1,193	382
<i>Biomass</i>	2,490	3,331	3,458	3,787	4,115	3,641	3,281	3,278	3,378	1,920	223
<i>Biogas, mine gas, landfill gas and sewage gas</i>	6,413	7,551	7,694	7,897	8,163	7,735	6,810	6,999	7,094	5,931	363
Secondary sources	126	136	137	150	147	116	100	81	119	69	0
Combined power and heat production	1,970	1,664	1,899	1,933	1,934	2,124	2,622	1,844	2,017	1,552	1
Decentralised production	310	241	203	–	–	–	–	–	–	–	–
Heat from renewable sources	–	183	171	188	214	199	218	236	265	55	172
Total sources supported	37,458	40,585	43,509	43,023	45,448	46,128	45,416	45,379	43,241	39,127	25,278

Source: <https://www.ote-cr.cz/cs/statistika/statistika-poze/poskytnuta-podpora>

→ Between 2021 and 2023, the MoIT provided a total of CZK 73.82 billion from the state budget through the market operator to operators of supported energy sources under the support scheme for electricity production from renewable energy sources and other supported sources (e.g., secondary sources or heat from high-efficiency combined heat and power production).

4.44 The boom in solar power plant construction peaked in 2009 and 2010. The support for photovoltaic power plants was regulated by Act No 180/2005 Coll.³⁶, which established subsidy conditions and guaranteed feed-in tariffs. At that time, guaranteed feed-in tariffs were put in place to cover the high investment costs and allow a quick return on investment. Therefore, the operators of solar power plants were guaranteed a stable income, which led to a significant increase in the installed capacity of PV plants. Today, these facilities still benefit from the original favourable conditions that were part of the Czech energy policy during the “solar boom” with support paid for up to 20 years. The cost of promoting photovoltaic has a significant impact on the state budget. Operating aid for solar power plants put into operation after 31 December 2013 has been discontinued.

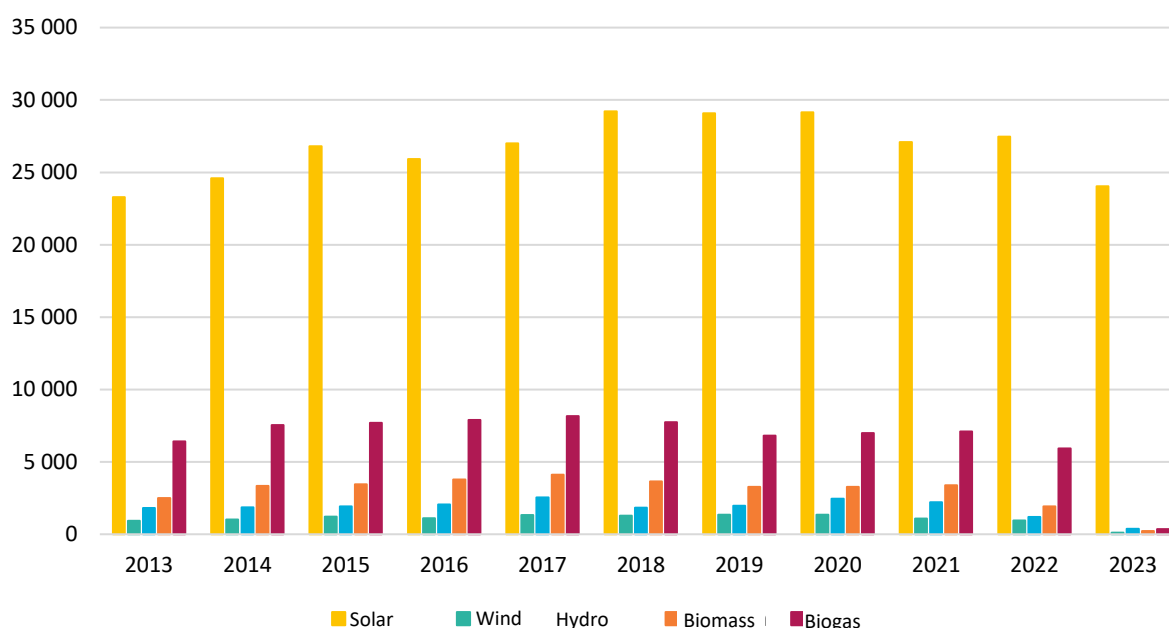
→ Nearly all operating subsidies were directed to the owners of photovoltaic power plants, moreover, only to those built over ten years ago. Photovoltaic power plants completed in 2010 represent three-quarters of the installed capacity of photovoltaic power plants operating today and have the operating aid guaranteed until 2030.

4.45 Chart 2 shows the financial aid provided for different types of renewable energy sources (solar, wind, hydro, biomass and biogas) between 2013 and 2023. In 2023, the financial aid was decreased for all categories. High electricity prices on the day-ahead market led

³⁶ Act No 180/2005 Coll., on the promotion of electricity production from renewable energy sources and amending certain acts (the Act on Promotion of Use of Renewable Sources).

the ERO to set low or zero annual green electricity bonus rates for a number of generation sources.

Chart 2: Operating aid paid in 2013–2023 (CZK million)



Source: <https://www.ote-cr.cz/cs/statistika/statistika-poze/poskytnuta-podpora>

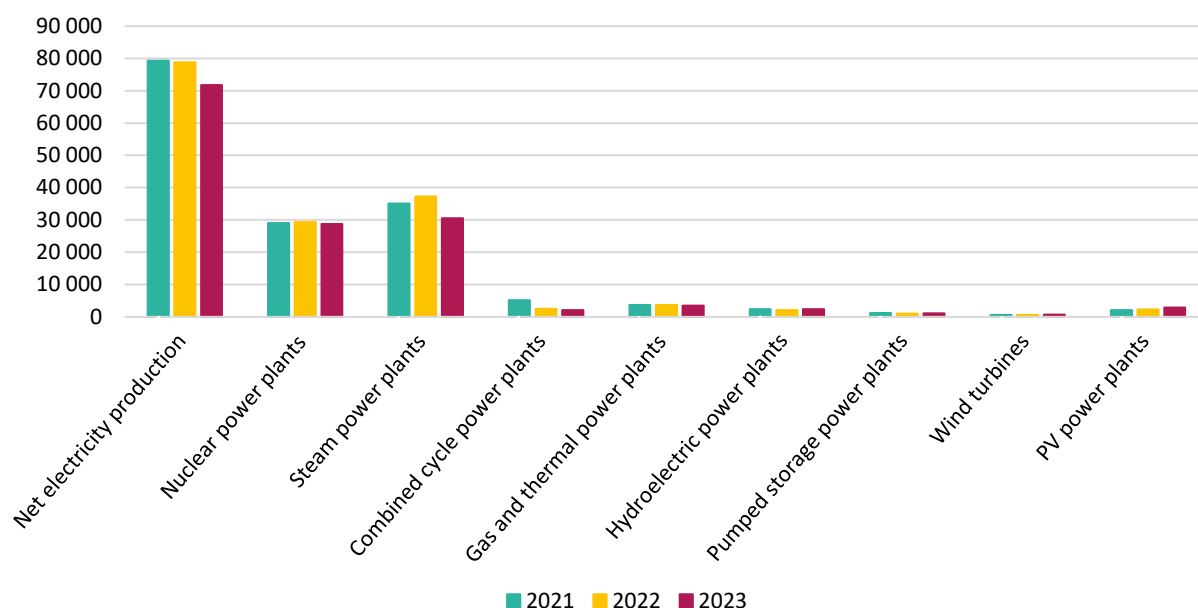
Electricity production and RES share in final consumption

- 4.46 The MoIT regularly publishes information on the energy mix and strategic energy objectives of the Czech Republic. According to the available data from 2022, gross electricity production in the Czech Republic was 78.8 TWh, while domestic consumption was approximately 60.4 TWh. The energy mix in 2022 consisted of 53.6% fossil fuels (47.5% brown coal; 5.86% natural gas), 40.95% nuclear energy and 5.46% renewable sources (3.34% biomass; 1.47% solar power; 0.63% hydroelectric power).
- 4.47 The SEP is a strategic document that sets out the future goals and priorities of the state in the energy sector to ensure sufficient energy at affordable prices for citizens and businesses, while meeting climate goals. The main challenge for the European energy sector in this respect is decarbonisation, which applies to the Czech energy sector as well. Decarbonisation of the energy sector while maintaining competitiveness and energy security is therefore also the primary challenge for this policy.
- 4.48 The current SEP dates back to 2015. The SEP was approved by the Resolution of the Government of the Czech Republic No 362 of 18 May 2015, *on the State Energy Policy of the Czech Republic*, with the understanding that it would be updated every five years. The previous energy policy was approved by the Czech Government on 10 March 2004. The policy was not updated between 2004 and 2015.
- 4.49 There have been significant changes in the energy sector, yet the SEP approved by the Czech Government in 2015 still remains in effect. The MoIT started updating the SEP in 2020. In 2023, the *starting points for the update of the State Energy Policy of the Czech Republic and related strategic documents*, which define the general direction for further development of the energy policy of the Czech Republic, were approved. On 12 April 2023, the Czech Government approved these starting points as the basis for the update

of the SEP. The updated SEP had not been approved by the end of 2024, and as a result, new targets and directions for the Czech energy sector up to 2050 have not yet been established.

- 4.50 In terms of sources, electricity production from RES is relatively diverse. In 2023, the largest shares of electricity generated from RES came from biogas (25%), biomass (23%), hydroelectric power plants (23%, excluding pumped-storage power plants) and photovoltaic plants (21%). Electricity generation from wind power and waste together accounts for approximately 7% of the total electricity produced from RES.

Chart 3: Electricity production in the Czech Republic by type of source in 2021–2023 (in GWh)



Source: “Yearly Report on the Operation of the Czech Electricity Grid” for 2021, 2022 and 2023.

Target and development of the share of renewable energy sources in the Czech Republic by 2030

- 4.51 There are two binding targets for electricity from renewable sources in the Czech Republic. The first follows from the *State Energy Policy of the Czech Republic* and stipulates that the share of RES in gross final energy consumption should reach 30% by 2030. In 2023, this share was 18.59%. The second target follows from the SEP and calls for a share of RES in electricity generation in the range of 18–25% by 2040. Electricity generation from RES had seen significant growth in the period 2008–2013 due to substantial support. Growth has slowed since 2014. In 2023, this share was 13.7%.
- 4.52 The modelling carried out as part of the update of the SEP expects, under the scenario with existing measures, a 24.0% share of RES in final energy consumption in 2030, and a 30.1% share under the scenario with additional measures.
- 4.53 Information on the development of the share of RES and the set targets in the SEP is available at: <https://www.enviometr.cz/data/podil-oze-na-vyrobu-elektriny>.

→ The Czech Republic aims to achieve a 30% share of RES in final energy consumption by 2030, while in 2023, this share was 18.59%. According to the MoIT model, meeting the target share of RES in final energy consumption by 2030 is feasible; however, further support for the development of RES will be necessary.

List of terms and abbreviations

Agreement	Agreement on the provision of financial aid from the State Environmental Fund of the Czech Republic
Audit	Audit by the Supreme Audit Office
CNB	Czech National Bank
Commission	European Commission
CPP	<i>Climate Protection Policy in the Czech Republic</i>
CR	Czech Republic
CZK	Czech crown
Decision	<i>decisions on the provision of funds from the State Environmental Fund of the Czech Republic under the Programme financed from the Modernisation Fund</i>
EA	emission allowance
EC	European Commission
EIB	European Investment Bank
ERO	Energy Regulatory Office
EU ETS	European Union Emissions Trading Scheme
EU	European Union
EUR	Euro
GW	gigawatt
GWp	gigawatt-peak
IRENA	International Renewable Energy Agency
kt CO ₂ eq	kilotons of carbon dioxide equivalent
kW	kilowatt
kWh	kilowatt-hour
kWp	kilowatt-peak
MF status report	<i>Report on the State of Implementation of the Modernisation Fund in the Czech Republic – 1st half of 2024</i>
MF	<i>Modernisation Fund</i>
MoE	Ministry of the Environment
MoIT	Ministry of Industry and Trade
MW	megawatt
MWh	megawatt-hour
MWp	megawatt-peak
N/A	not applicable
NGS	<i>New Green Savings programme</i>
Nm ³ /h	standard cubic metres per hour
PV	Photovoltaic (power plant)

RES	renewable energy sources
RES+	<i>New Renewable Energy Sources</i> programme
s.r.o.	Limited liability company
SAO	Supreme Audit Office
SEF Guidelines	<i>Procurement Guidelines for Programmes Co-financed from the Budget of the State Environmental Fund of the Czech Republic</i>
SEF	State Environmental Fund of the Czech Republic
SEP	<i>State Energy Policy of the Czech Republic</i>
TWh	terawatt-hour
UN	United Nations
USD	US dollar
VAT	Value added tax

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Annex 1

Sample of audited projects

	Main call	Application registration number	Name of applicant	Total project expenditure [CZK]	Total eligible expenditure [CZK]	Subsidy [CZK]	Paid [CZK]
1	No 1/2021	7211100006	ZD Novosedly s.r.o.	25,677,410.00	21,221,000.00	7,384,086.90	6,921,287.00
2	No 1/2021	7211100011	Agro Sedlice, a.s.	24,709,410.00	20,421,000.00	7,215,672.74	7,212,437.00
3	No 1/2021	7211100034	AGRO PV 15 s.r.o.	19,550,580.15	16,192,215.00	6,334,203.48	6,334,203.48
4	No 1/2021	7211100035	FVE 34 s.r.o.	20,352,271.39	16,820,059.00	6,773,734.94	6,598,079.81
5	No 1/2021	7211100042	IGS Property CZ s.r.o.	22,022,000.00	16,825,776.75	6,906,937.12	6,904,346.00
6	No 1/2021	7211100057	ENERGETIKA TŘINEC, a.s.	14,778,445.64	12,213,591.44	2,730,719.23	2,730,719.23
7	No 1/2021	7211100060	Golf Konopiště a.s.	12,418,041.78	10,263,018.00	4,618,273.00	4,617,822.98
8	No 1/2021	7211100079	INPROMA, spol. s r.o.	25,063,849.25	20,599,925.00	8,748,480.69	8,732,767.34
9	No 1/2021	7211100151	AGRO PV 8 s.r.o.	21,136,162.63	17,467,903.00	6,861,485.92	6,861,485.92
10	No 2/2021	7211200002	FVE Orlová I s.r.o.	127,849,969.72	103,961,132.00	41,999,100.00	41,999,100.00
11	No 1/2022	7221100003	Impregnace Soběslav s.r.o.	24,362,946.46	20,134,666.50	6,578,506.89	6,578,506.89
12	No 1/2022	7221100068	BULY ARÉNA – zájmové sdružení	18,531,645.00	18,531,645.00	6,861,485.92	6,859,980.86
Total				356,452,732.02	294,651,931.69	113,012,686.83	112,350,736.51

Source: SEF.

Estimates of allocations for *Modernisation Fund* programmes

MF programme	MF programming document (estimate for 2021)		Revision of the MF programming document (estimate 12/2023)		Estimate according to the Report on the state of the MF (9/2024)	
	[CZK million]	[%]	[CZK million]	[%]	[CZK million]	[%]
RES+	59,613.20	38.7	100,037.60	20.0	76,725.40	20.0
HEAT	40,050.20	26.0	100,037.60	20.0	76,725.40	20.0
ENERG						
<i>of which: ENERG ETS</i>	20,487.20	13.3	80,030.10	16.0	61,380.30	16.0
<i>ENERGCom</i>	9,242.40	6.0	12,504.70	2.5	9,590.70	2.5
<i>ENERGov</i>	6,161.60	4.0	20,007.50	4.0	15,345.10	4.0
<i>HOUSEnerg</i>	0	0.0	71,026.70	14.2	54,475.00	14.2
TRANSPORT						
<i>of which: TRANSCom</i>	5,391.40	3.5	7,502.80	1.5	5,754.40	1.5
<i>TRANSGov</i>	7,702.00	5.0	42,516.00	8.5	32,608.30	8.5
GREENGAS	0	0.0	15,005.60	3.0	11,508.80	3.0
SMARTNET						
<i>Of which:</i>						
<i>PUBGRID (LIGHTPUB)</i>	3,080.80	2.0	7,502.80	1.5	5,754.40	1.5
<i>ELEGRID</i>	0	0.0	20,007.50	4.0	15,345.10	4.0
KOMUNERG	2,310.60	1.5	14,005.30	2.8	10,741.60	2.8
I+	0	0.0	10,003.80	2.0	7,672.50	2.0
TOTAL	154,039.40	100	500,188.00	100	383,627.00	100

Source: SEF, MoE.

Annex 3

Overview of the allocation of MF emission allowances to recipient Member States

Receiving Member State	State share in category I*	Number of EAs under Article 10 (1), third subparagraph (2021–2030)	State share in category II**	Number of EAs under Article 10 (1), fourth subparagraph (2024–2030)	Article 10 (2)	Article 10c	Total number of EAs transferred pursuant to Article 10d (4)	Total number of EAs in the MF
Bulgaria	5.84	14,344,600	4.90	9,427,107	x	x	x	23,771,707
Czech Republic	15.59	38,293,205	12.60	24,241,131	33,332,220	95,946,974	129,279,193	191,813,529
Estonia	2.78	6,828,423	2.10	4,040,189	x	x	x	10,868,611
Greece	x	x	10.10	19,431,383	x	x	x	19,431,383
Croatia	3.14	7,712,679	2.30	4,424,968	x	5,146,608	5,146,608	17,284,256
Latvia	1.44	3,537,025	1.00	1,923,899	x	x	x	5,460,924
Lithuania	2.57	6,312,607	1.90	3,655,409	x	7,486,240	7,486,240	17,454,255
Hungary	7.12	17,488,622	5.80	11,158,616	x	4,000,000	4,000,000	32,647,238
Poland	43.41	106,626,556	34.20	65,797,356	x	x	x	172,423,912
Portugal	x	x	8.60	16,545,534	x	x	x	16,545,534
Romania	11.98	29,426,080	9.70	18,661,823	70,305,049	73,312,923	143,617,972	191,705,876
Slovakia	6.13	15,056,917	4.80	9,234,717	1,535,009	28,603,091	30,138,100	54,429,734
Slovenia	x	x	2.00	3,847,799	x	x	x	3,847,799
Total	100	245,626,714	100	192,389,931	x	x	319,668,113	757,684,758

Source: https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/modernisation-fund_en

Explanatory notes:

* The Category I share is regulated by Directive 2003/87/EC in Part A of Annex IIb.

** The Category II share is regulated by Directive 2003/87/EC in Part B of Annex IIb.

EA = emission allowance.

Overview of investments approved by the EIB as at 30 June 2024

MF programme	Year	Confirmed/recommended investment proposal	Type of investment ¹⁾	Type (priority/non-priority)	Amount of approved investment [EUR]
ENERG	2022	Scheme: Financial instrument for improving energy efficiency in business	Scheme	Priority	100,000,000
Total ENERG					100,000,000
ENERG ETS	2021	Scheme (Part A1): Modernisation of energy production	Scheme	Priority	85,000,000
ENERG ETS	2022	Scheme: Modernisation of energy sources to natural gas with CHP	Scheme	Priority	76,000,000
ENERG ETS	2022	Scheme: Modernisation of energy sources to natural gas with CHP	Scheme	Priority	38,000,000
ENERG ETS	2022	Scheme: Improving energy efficiency in industrial production under the EU ETS.	Scheme	Priority	700,000,000
ENERG ETS	2022	Scheme (Part 2A): Modernisation of energy sources to biomass without CHP	Scheme	Non-priority	33,000,000
ENERG ETS	2022	Scheme (Part 2C): Modernisation of energy sources to natural gas without CHP	Scheme	Non-priority	89,000,000
ENERG ETS	2022	Scheme – Modernization of natural gas energy sources without CHP	Scheme	Non-priority	18,000,000
ENERG ETS	2024	Investment: Modernisation of nitric acid production	Project	Priority	60,211,773
ENERG ETS	2024	Investment: New Polymerization Plant (NPP)	Large-scale project	Priority	103,126,483
ENERG ETS	2024	Investment: ALFAGEN – Modernisation of the melting and casting technology	Large-scale project	Priority	79,117,830
ENERG ETS	2023	Investment: Construction of OV VP4 media preheating	Project	Priority	4,648,807
Total ENERG ETS					1,286,104,893
ENERGov	2023	Scheme: Energy efficiency and energy savings in public buildings	Scheme	Priority	300,000,000
ENERGov	2023	Scheme: Energy efficiency and energy savings in new buildings for public sector	Scheme	Priority	150,000,000
Total ENERGov					450,000,000
HEAT	2021	Scheme: Modernization of energy sources	Scheme	Priority	250,000,000
HEAT	2022	Scheme: Modernization of energy sources to natural gas with CHP	Scheme	Priority	198,000,000
HEAT	2022	Scheme: Modernization of energy sources to biomass without CHP	Scheme	Non-priority	250,000,000
HEAT	2022	Scheme: Modernization of energy sources to natural gas without CHP	Scheme	Non-priority	120,000,000
HEAT	2023	Scheme: Energy efficiency and savings in modernisation and development of pipelines in the district heating and cooling (DHC)	Scheme	Priority	350,000,000
HEAT	2023	Investment: Modernization of the ŠKO-ENERGO heating plant	Project	Priority	89,376,476
HEAT	2023	Investment: Modernization of “Brno-North” Heat Source for Brno City Heat Energy Supply System	Project	Priority	79,568,908
HEAT	2023	Investment: Modernization of WtE plant of the SAKO Brno to increase processing capacity and operational efficiency	Project	Priority	116,780,718
HEAT	2023	Investment: Construction of WtE facility in the Mělník power plant location	Project	Priority	249,946,208
HEAT	2023	Investment: Replacement of a coal block with a gas source (STAGE I) - Opatovice	Project	Priority	64,255,276
HEAT	2023	Investment: Waste to energy plant in Písek	Project	Priority	53,864,049
HEAT	2023	Investment: The Construction of a steam-gas cycle PPC1 at The UE Komořany	Project	Priority	57,784,105
HEAT	2023	Investment: Waste-to-Energy Facility EVO – Komořany, Most	Project	Priority	105,586,266
HEAT	2023	Investment: EGT-transition to low-emission heat and power generation - Stage 1	Project	Priority	307,762,161
HEAT	2023	Investment: The Construction of a steam-gas cycle PPC2 at The UE Komořany	Project	Priority	62,399,645
HEAT	2023	Investment: Replacement of a coal block with a gas source (STAGE II)	Project	Priority	47,848,099
HEAT	2023	Investment: EVO Planá - Energie z odpadu Tábořska / WtE Planá	Project	Priority	58,441,401

MF programme	Year	Confirmed/recommended investment proposal	Type of investment ¹⁾	Type (priority/non-priority)	Amount of approved investment [EUR]
HEAT	2024	Investment: Reduction of CO2 emissions during heat production	Large-scale, project	Priority	124,526,841
HEAT	2024	Investment: Decarbonisation of the Karviná CHP Plant – part: Multi-fuel Boiler with Combined Heat and Power Generation and Gas-fired CHP Installation with Combined Heat and Power Generation	Large-scale, project	Priority	204,589,717
HEAT	2024	Investment: Modernisation of the Olomouc CHP Plant – Part: Multi-Fuel Boiler and Gas-fired CHP Unit	Large-scale, project	Priority	102,218,068
HEAT	2024	Investment: CV_PM 45 MW EPR, Prunéřov	Large-scale, project	Priority	72,539,137
Total HEAT					2,965,487,075
HOUSEnerg	2022	Scheme: Energy Efficiency and Energy Savings in houses and buildings for Residential Sector	Scheme	Priority	1,200,000,000
HOUSEnerg	2022	Scheme: Renewable Modernisation of Energy Sources for Residential Sector	Scheme	Non-priority	1,000,000,000
Total HOUSEnerg					2,200,000,000
LIGHTPUB	2022	Scheme: Modernisation of public lighting	Scheme	Priority	40,000,000
Total LIGHTPUB					40,000,000
RES+	2021	Scheme (Part A): Support for photovoltaic power plants with installed capacity up to 1 MW of the “RES+” Programme (New renewable energy sources)	Scheme	Priority	192,000,000
RES+	2021	Scheme (Part B): Support for photovoltaic power plants with installed capacity above 1 MW of the “RES+” Programme (New renewable energy sources)	Scheme	Priority	1,100,000,000
RES+	2022	Scheme: Municipal PV - small municipalities; priority investment of the “RES+” Programme (New renewable energy sources)	Scheme	Priority	100,000,000
RES+	2022	Scheme: Municipal PV – communal renewable energy; priority investment of the “RES+” Programme (New renewable energy sources)	Scheme	Priority	200,000,000
RES+	2024	Scheme: Installation of photovoltaic power plants in households of the “RES+” Programme (New renewable energy sources)	Large-scale, scheme	Priority	800,000,000
RES+	2024	Scheme: Aid for installation of photovoltaic power plants to address self-consumption of energy (in enterprises) of the “RES+” Programme (New renewable energy sources)	Large-scale, scheme	Priority	500,000,000
Total RES+					2,892,000,000
TRANSGov	2024	Scheme: Modernisation of public transport – electric and H2 passenger trains	Large-scale, scheme	Priority	615,085,029
TRANSGov	2024	Scheme: Modernisation of public transport – buses, trolley buses and tramways	Large-scale, scheme	Priority	299,661,515
Total TRANSGov					914,746,544
Total MdF					10,848,338,512

Source: SEF, MoE.

1) Investment types: project, large-scale project, scheme, large-scale scheme.

Annex 5

Overview of the ongoing drawdown from the MF and the balances of the SEF account with the CNB as of 31 December 2023 and 30 June 2024

Programme	Number of projects with an issued Decision	Amount of financial aid committed in Decisions issued [CZK]	Number of contracted projects	Amount of financial aid tied up in concluded contracts [CZK]	Number of projects with disbursed support	Amount of support disbursed [CZK]	Amount of refunds [CZK]	Balance on account with the CNB [CZK]
TOTAL as of 31 December 2023	113,035	59,192,792,484.50	398	10,168,017,910.34	109,164	19,240,863,803.94	143,928,717.36	65,588,596,884.16
HEAT	28	24,448,052,731.00	9	3,222,128,162.00	7	1,159,272,731.55		37,469,321,271.80
RES+	1,559	13,797,355,873.00	384	6,788,801,994.00	22	92,667,028.90		6,240,630,507.34
RES+ (NGS)	42,965	8,375,265,500.49			41,372	7,623,482,463.76	15,068,542.79	
ENERG ETS	17	1,789,787,209.00	5	157,087,754.34	1	1,714,320.00		7,403,832,364.75
ENERG								481,180,000.00
ENERGov	3	256,493,858.00						2,352,200,000.00
LIGHTPUB								246,160,000.00
HOUSEnerg	68,463	10,525,837,313.01			67,762	10,363,727,259.73	128,860,174.57	11,395,272,740.27
TOTAL as of 30 June 2024	173,881	88,782,215,782.70	754	15,188,097,377.03	158,501	32,769,053,604.69	365,958,210.39	72,790,363,289.27
HEAT	28	31,634,976,783.37	10	3,590,003,161.50	8	1,429,071,394.77	18.00	37,695,922,608.58
RES+	1,865	14,512,716,432.63	738	11,216,480,546.77	74	225,240,989.00	216,612.90	13,786,934,910.45
RES+ (NGS)	59,993	12,590,253,501.17			50,666	12,478,704,100.55	28,510,718.34	
ENERG ETS	23	9,201,464,710.28	6	381,613,668.76	4	41,612,017.99		9,106,590,872.62
ENERG								481,180,000.00
TRANSGov								248,200,000.00
ENERGov	7	823,103,536.01						2,352,200,000.00
LIGHTPUB								246,160,000.00
HOUSEnerg – loans	12	101,227,785.00			12	101,227,785.00		98,772,215.00
HOUSEnerg	111,953	19,918,473,034.24			107,737	18,493,197,317.38	337,230,861.15	8,774,402,682.62

Source: SEF.

Overview of the RES+ programme implementation

Table 1: Overview of expected benefits under approved investment proposals (schemes) for the RES+ programme

RES+ investment scheme	Total amount of investment [EUR million]	Number of projects	Newly installed capacity [MWp]	New storage capacity [MWh]	Capacity of new electrolyzers [Nm ³ /h]	Reduction of CO ₂ [kt CO ₂ eq]
Scheme (Part A): Support for photovoltaic power plants with installed capacity up to 1 MW	192	1,154	452.2	124.5		389.0
Scheme (Part B): Support for photovoltaic power plants with installed capacity above 1 MW	1,100	343	2,959.0	684.5		2,545.0
Scheme: Municipal PV – communal renewable energy priority investment of the “RES+” Programme (New renewable energy sources)	200		317.0	87.3	2,019.4	272.7
Scheme: Municipal PV - small municipalities priority investment of the “RES+” Programme (New renewable energy sources)	100		105.7	29.1	391.0	90.9
Scheme: Installation of photovoltaic power plants in households of the “RES+” Programme (New renewable energy sources)	800		980.8			843.5
Scheme: Aid for installation of photovoltaic power plants to address self-consumption of energy (in enterprises) of the “RES+” Programme (New renewable energy sources)	500		1,130.0			974.9
Total	2,892	1,497	5,944.7	925.4	2,410.4	5,116.0

Source: SEF.

Table 2: Overview of indicators for RES+ calls, including number of active projects and the total amount of subsidy

RES+ Call	Number of projects supported	Subsidy [CZK]	Newly installed hydrogen production capacity from RES [Nm ³ /h]	New RES electricity storage capacity (kWh)	Newly installed RES capacity (kWp)	CO ₂ emission reduction [t CO ₂ /year]	Reduction of primary energy consumption from non-renewable sources [MWh/year]	Energy production from RES [MWh/year]	Hydrogen production [Nm ³ /year]
No 1/2021	119	639,270,809.92		5,480.00	80,770.00	91,655.90	200,737.35	78,985.82	
No 1/2022	465	2,682,417,877.43	313.00	56,547.51	285,864.94	242,357.37	713,172.08	281,188.72	2,135,876.10
No 2/2021	57	3,214,837,239.61		40,660.00	532,250.00	529,251.05	1,307,615.46	504,165.64	
No 2/2022	84	5,470,619,051.94		44,406.00	1,270,767.59	1,038,416.58	3,115,150.41	1,201,343.70	
No 3/2022	1,032	1,906,027,923.73		32,683.54	49,677.30	39,213.06	114,688.72	47,765.52	
No 4/2022	108	599,543,530.00		11,003.50	34,061.91	27,007.66	81,600.99	31,718.23	
Sum total	1,865	14,512,716,432.63	313.00	190,780.55	2,253,391.74	1,967,901.62	5,532,965.01	2,145,167.63	2,135,876.10

Source: SEF.

Table 3: Interim evaluation of the performance of projects up to 1 MWp

Scheme (Part A): Support for photovoltaic power plants with installed capacity up to 1 MWp	Number of projects	Newly installed RES capacity [MWp]	New storage capacity [MWh]	Reduction of CO ₂ [kt CO ₂ eq]	Total amount of investment – committed		SEF funds received from the EIB	
					[EUR million]	[CZK million]	[EUR million]	[CZK million]
Expected benefits under the approved investment proposal	1,154	452.2	124.5	389.0	192.0	4,923.8	97	2,450.04
RES+ Call No 1/2021	119	80.8	5.5	91.7	x	639.3	x	x
RES+ Call No 1/2022	465	285.9	56.5	242.4	x	2,682.4	x	x
Total RES+ calls No 1/2021 and No 1/2022	584	366.6	62.0	334.0	x	3,321.7	x	x
Implementation (% share)	50.61	81.08	49.82	85.86	x	67.46 ¹⁾	50.52 ²⁾	49.76 ²⁾

Source: SEF.

1) Share of funds in the Decisions (active projects) in the total amount of investments approved by the European Investment Bank.

2) Share of the SEF funds received from the EIB in the total amount of investments approved by the European Investment Bank.

Table 4: Interim evaluation of the performance of projects above 1 MWp

Scheme (Part B): Support for photovoltaic power plants with installed capacity above 1 MWp	Number of projects	Newly installed RES capacity [MWp]	New storage capacity [MWh]	Reduction of CO ₂ [kt CO ₂ eq]	Total amount of investment – committed		SEF funds received from the EIB	
					[EUR million]	[CZK million]	[EUR million]	[CZK million]
Expected benefits under the approved investment proposal	343	2,959.0	684.5	2,545.0	1,100.0	28,209.5	313	7,814.34
RES+ Call No 2/2021	57	532.3	40.7	529.3	x	3,214.8	x	x
RES+ Call No 2/2022	84	1,270.8	44.4	1,038.4	x	5,470.6	x	x
Total calls RES+ No 2/2021 and No 2/2022	141	1,803.0	85.1	1,567.7	x	8,685.5	x	x
Implementation (% share)	41.11	60.93	12.43	61.60	x	30.79 ¹⁾	28.45 ²⁾	27.70 ²⁾

Source: SEF.

1) Share of funds in the Decisions (active projects) in the total amount of investments approved by the European Investment Bank.

2) Share of the SEF funds received from the EIB in the total amount of investments approved by the European Investment Bank.

Table 5: Interim evaluation of the performance of projects in households (RES+ NGS)

Scheme: Installation of photovoltaic power plants in households of the "RES+" Programme (New renewable energy sources)	Newly installed capacity [MWp]	Reduction of CO ₂ [kt CO ₂ eq]	Total amount of investment – committed		SEF funds received from the EIB	
			[EUR million]	[CZK million]	[EUR million]	[CZK million]
Expected benefits under the approved investment proposal	980.8	843.5	800.0	20,011.2	500	12,410
NGS	424.3	N/A	x	12,590.3	x	x
Implementation (% share)	43.26	x	x	62.92 ¹⁾	62.50 ²⁾	62.02 ²⁾

Source: SEF.

1) Share of funds in the Decisions (active projects) in the total amount of investments approved by the European Investment Bank.

2) Share of the SEF funds received from the EIB in the total amount of investments approved by the European Investment Bank.

Table 6: Interim evaluation of the performance of municipal projects – community energy

Scheme: Municipal PV – communal renewable energy priority investment of the "RES+" Programme (New renewable energy sources)	Number of projects	Newly installed RES capacity [MWp]	New storage capacity [MWh]	Reduction of CO ₂ [kt CO ₂ eq]	Capacity of new electrolyzers [Nm ³ /h]	Total amount of investment – committed		SEF funds received from the EIB	
						[EUR million]	[CZK million]	[EUR million]	[CZK million]
Expected benefits under the approved investment proposal	N/A	317.0	87.3	272.7	2,019.4	200.0	4,913.0	100	2,461.60
RES+ Call No 4/2022	108	34.1	11.0	27.0	0.0	x	599.5	x	x
Implementation (% share)	x	10.74	12.60	9.90	0.00	x	12.20 ¹⁾	50.00 ²⁾	50.10 ²⁾

Source: SEF.

1) Share of funds in the Decisions (active projects) in the total amount of investments approved by the European Investment Bank.

2) Share of the SEF funds received from the EIB in the total amount of investments approved by the European Investment Bank.

Table 7: Interim evaluation of the performance of projects in small municipalities (up to 3,000 inhabitants)

Scheme: Municipal PV – small municipalities priority investment of the "RES+" Programme (New renewable energy sources)	Number of projects	Newly installed RES capacity [MWp]	New storage capacity [MWh]	Reduction of CO ₂ [kt CO ₂ eq]	Capacity of new electrolyzers [Nm ³ /h]	Total amount of investment – committed		SEF funds received from the EIB	
						[EUR million]	[CZK million]	[EUR million]	[CZK million]
Expected benefits under the approved investment proposal	N/A	105.7	29.1	90.9	391.0	100.0	2,456.5	50	1,230.80
RES+ Call No 3/2022	1,032	49.7	32.7	39.2	0.0	x	1,906.0	x	x
Implementation (% share)	x	47.00	112.30	43.14	0.00	x	77.59 ¹⁾	50.00 ²⁾	50.10 ²⁾

Source: SEF.

1) Share of funds in the Decisions (active projects) in the total amount of investments approved by the European Investment Bank.

2) Share of the SEF funds received from the EIB in the total amount of investments approved by the European Investment Bank.

Annex 7

Comparison of the installed capacity of PV power plants in the Czech Republic as of 31 December 2022 and the planned newly installed capacity of PV power plants from the four audited RES+ calls as of 30 June 2024

Region	Installed PV capacity in the Czech Republic as of 31 December 2022 [MWp]	Planned newly installed capacity of PV power plants supported in the audited RES+ calls as of 30 June 2024 [MWp]
Total Czech Republic	2,100.4	2,169.7
City of Prague	21.9	18.6
South Bohemian Region	242.6	57.8
South Moravian Region	450.4	77.4
Karlovy Vary Region	13.2	223.7
Vysočina Region	93.2	39.8
Hradec Králové Region	94.7	43.1
Liberec Region	113.3	78.3
Moravian-Silesian Region	64.1	252.8
Olomouc Region	111.4	37.3
Pardubice Region	97.2	35.8
Pilsen Region	212.3	128.4
Central Bohemian Region	251.5	69.7
Ústí nad Labem Region	173.4	1,088.9
Zlín Region	161.3	18.0

Source: SEF, ERO.