

# *Financing Energy in the Czech Republic*

*Funding Mechanisms, Policies, and Market Trends*

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# Information about CZ-AT energy school

► <http://www.energy-europe.org/index.php>

# Introduction

- ▶ The **Czech Republic** is undergoing an energy transition, shifting from coal-based power to renewables.
- ▶ **Financing energy projects** is crucial for grid modernization and decarbonization.
- ▶ Various **funding sources** exist: state budget, private investments, EU grants.
- ▶ **Challenges:** High initial costs, long ROI periods, regulatory uncertainty.

# Key Financing Mechanisms in the Czech Energy Sector

## ▶ 1. Public Financing:

- ▶ State budget allocations
- ▶ Support programs for renewables & efficiency
- ▶ Capacity mechanisms for grid stability

## ▶ 2. Private Sector Investments:

- ▶ Energy companies' internal financing
- ▶ Private equity and corporate investments
- ▶ Public-private partnerships (PPPs)

## ▶ 3. EU & International Funding:

- ▶ European Investment Bank (EIB) loans
- ▶ EU structural and modernization funds
- ▶ Energy-specific grants (EU ETS revenues)

# Grant Programs Supporting Energy Projects

- ▶ **1. Modernization Fund**
  - ▶ Financed by **EU ETS revenue**, supports decarbonization.
  - ▶ **Target:** Energy efficiency, renewables, grid expansion.
- ▶ **2. Operational Programs (OP TAK, OPŽP)**
  - ▶ **OP TAK:** Industry energy efficiency, R&D.
  - ▶ **OPŽP:** Renewable energy, environmental protection.
- ▶ **3. New Green Savings (Nová zelená úsporám - NZÚ)**
  - ▶ **Focus:** Residential solar panels, heat pumps, energy storage.
  - ▶ Grants available for households & businesses.

# Self-Financing of Energy Projects

- ▶ **1. Corporate Financing Models**
  - ▶ Self-financing by energy companies (EPC projects).
  - ▶ Corporate green bonds for clean energy projects.
  - ▶ Loans & investment partnerships.
- ▶ **2. Public-Private Partnerships (PPPs)**
  - ▶ Government and private co-financed projects.
  - ▶ Used in **district heating, energy storage, and infrastructure expansion.**

# Where Do Energy Grants Come From? - EU ETS 1

- ▶ 1. EU ETS (Emission Trading System) Overview
  - ▶ Carbon pricing mechanism for industry and energy.
  - ▶ Firms must buy allowances for their CO<sub>2</sub> emissions.
- ▶ 2. How Does It Fund Energy Transition?
  - ▶ Part of auction revenues allocated to energy projects.
  - ▶ Supports renewables, energy efficiency, and innovation.

# Why Will EU ETS 2 Be Introduced?

- ▶ **1. Expansion of Carbon Pricing**
  - ▶ Includes transport & buildings (heating fuels).
  - ▶ Pushes consumers toward energy efficiency & cleaner alternatives.
- ▶ **2. Expected Impacts in the Czech Republic**
  - ▶ Higher fuel & heating costs but more investment in green solutions.
  - ▶ New revenue stream for climate projects.



# Czech Energy Grant Spending (2018-2023)

- ▶ Annual spending on energy grants:
- ▶ 2018: CZK 12 billion
- ▶ 2019: CZK 14 billion
- ▶ 2020: CZK 18 billion
- ▶ 2021: CZK 22 billion
- ▶ 2022: CZK 25 billion
- ▶ Major funds went to solar, wind, battery storage, and grid upgrades.

# Why Is the Czech Republic Introducing a Capacity Mechanism?

## ▶ 1. Grid Stability Risks

- ▶ Phasing out coal reduces **reliable baseload power**.
- ▶ Need for **flexible backup capacity**.

## ▶ 2. How It Works

- ▶ Power plants **paid to remain available**, even when not generating.
- ▶ Ensures **energy security during peak demand**.

# Bank Financing & the Cannibalization Effect in PV

- ▶ 1. Banks & Renewable Energy Financing
  - ▶ Strong support for solar & wind but selective on risks.
  - ▶ Long-term return on investment challenges.
- ▶ 2. The Cannibalization Effect
  - ▶ Too much solar production lowers electricity prices.
  - ▶ Reduces profitability of PV projects.

# Future Outlook & Trends

- ▶ More green bonds & private equity in renewables.
- ▶ Growth of Power Purchase Agreements (PPAs).
- ▶ Expansion of battery storage and hydrogen investments.
- ▶ Energy transition needs both innovation & finance reforms.
- ▶ Corporate PPAs (long-term renewable contracts) are booming.

# Conclusion

- ▶ Czech energy financing is evolving rapidly.
- ▶ EU ETS & government policies will drive future investments.
- ▶ New financing models are emerging to support green projects.