

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 CO₂ 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.