

Financing Power Projects in SE Europe: EBRD's role

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Agenda

- Overview of EBRD:
Mission and Guiding Principles
- Power & Energy Utilities Team
- EBRD experience in financing energy projects: selected case Studies

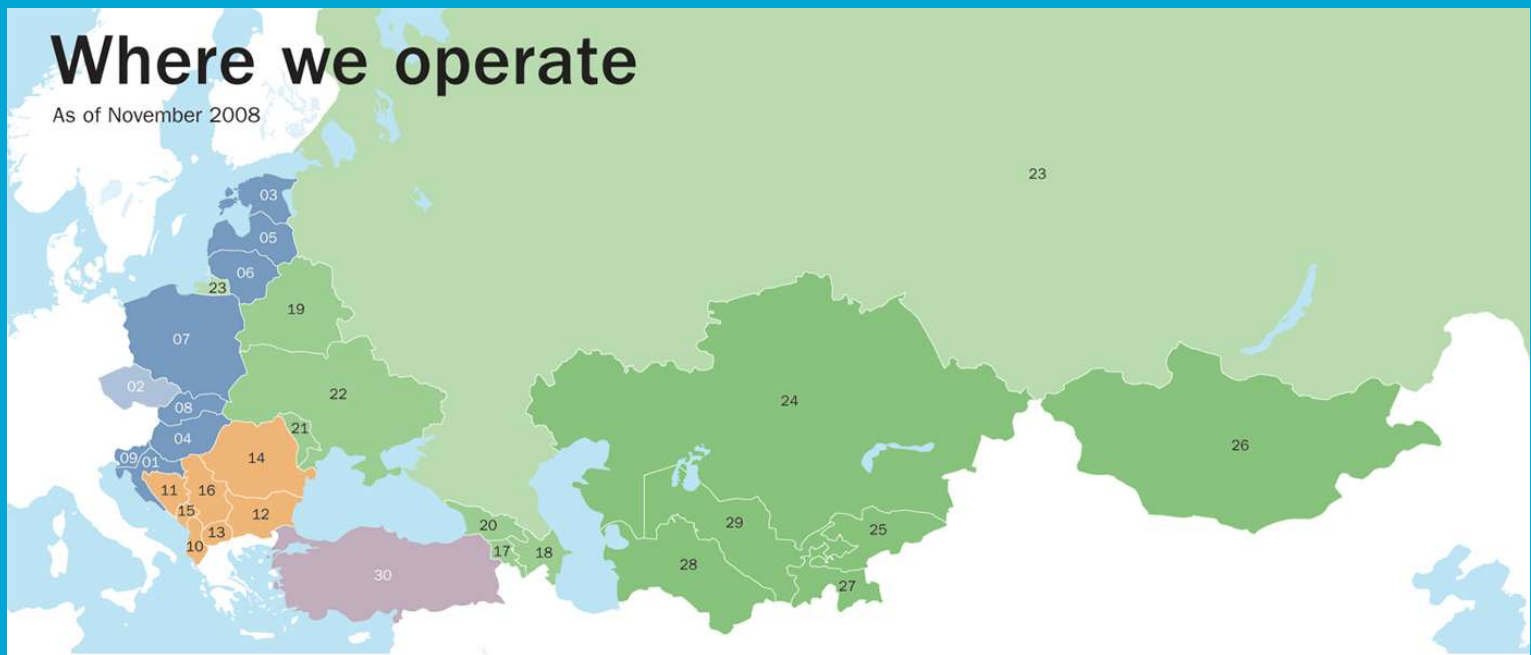


Overview of EBRD



EBRD: Regional Leader

- A network of 34 offices in 30 countries

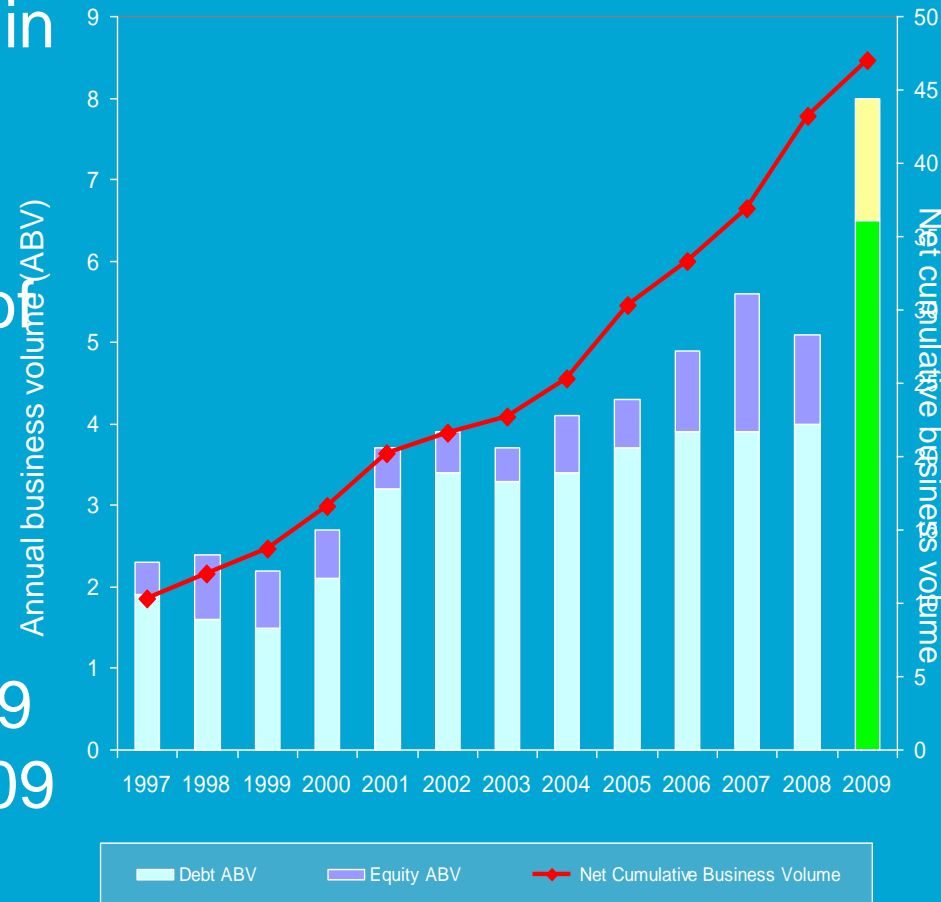


EBRD in 2009

- Invested over €47.7bn in 2,835 projects since 1991
- Private sector > 77% of portfolio
- Debt 79%, Equity 21% of portfolio
- €7.9bn invested in 2009 as at 31 December 2009

Unaudited as at 31 December 2009


€ billion



EBRD: Foundations of Operations

- Apply sound banking principles to all projects
 - We do not subsidize
- Advance the transition to a full market economy
 - Priority to promote private sector involvement and market expansion
- Support, but not replace, private investor: additionality
 - Act as a catalyst for higher and riskier involvement of financiers
- Achieve environmentally sound and sustainable development





Power & Energy Utilities Team: Focus and Experience in SEE and the Balkans



EBRD in the Power Sector

EBRD has supported a range of power projects :

- Generation: new plants & rehabilitation
- Transmission: rehabilitation of substations, new lines & interconnections
- Distribution: upgrading, extension & metering
- Renewables: wind, hydro & geothermal
- Environmental: FGDs
 - *EBRD will finance any kind of investment provided it is least cost (RE excepted), environmentally sound and economically and financially viable.*



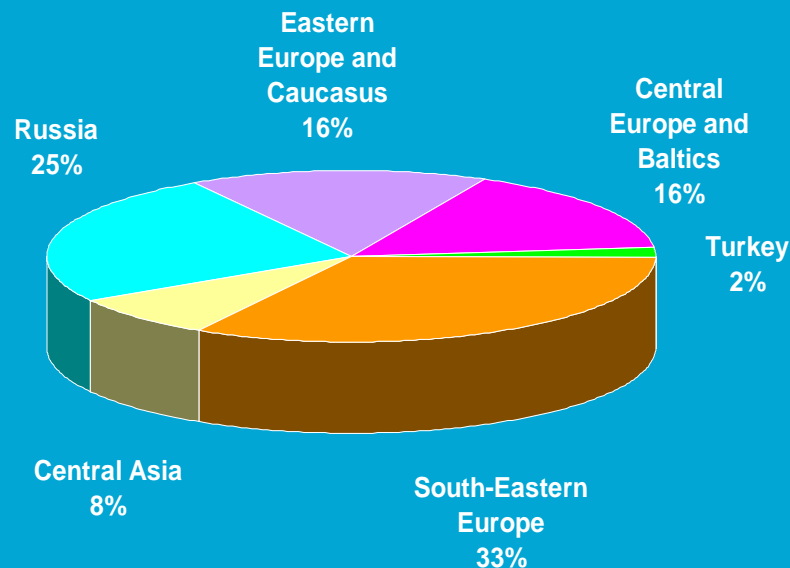
Power & Energy Utilities Team

- **Sector focus:** investments in electricity (generation, transmission, distribution and supply) and gas (distribution and supply) sectors
- **Geographical coverage:** across all countries of operation
- **Staffing:** 30 professionals, of which 8 are permanently based in resident offices, 1 team member based in Belgrade.



Financing the Power Sector

PEU financing by region (1991-2009)



100% = €4.4 bn

Note: SEE includes Romania and Bulgaria

Source: EBRD data

Unaudited as at 31 December 2009

- **€4.4 bn** EBRD financing to power and energy utilities projects with €17.4 bn total value
- **Privatisations:** Made key investments in power and gas privatisations in Bulgaria, Moldova, Poland, Romania and Turkey
- **IPPs** are a key focus: Maritza East I, II and III, Pak, Belchatow, Turceni
- **Renewables** represent c. 10% of total financing, including Rotor and St. Nikola wind farms
- **Russia:** First IFI to participate in equity of newly unbundled Gencos, supporting reputable strategic investors (OGK-5, TGK-9)



Broad and extensive support for SEE

| | Western Balkans | Bulgaria | Romania | Regional |
|----------------------------|--|--|---|--|
| Generation | <ul style="list-style-type: none"> - Albania Vlore TPP (€40mn) | <ul style="list-style-type: none"> - Saint Nikola Wind Farm (€70mn) - Maritza East 1 (€96mn) - Maritza East 2 (€22mn) - Maritza East 3 (€28mn) - Vez Svoghe Hydro (€34mn) | <ul style="list-style-type: none"> - Turceni Rehab (€100mn) | <ul style="list-style-type: none"> - Joint Power Venture (€60mn) |
| Transmission | <ul style="list-style-type: none"> - Serbia EPS (€60mn) - Serbia EPS Reconstruction (€100mn) - BiH Power Reconstruction (€68mn) | | <ul style="list-style-type: none"> - Transelectrica (€13mn) - NPGC (€33mn) | <ul style="list-style-type: none"> - FYROM Transmission Interconnection (€41mn) |
| Distribution | <ul style="list-style-type: none"> - FYROM ESM Efficiency (€35mn) - BiH Distribution Reconstruction (€55mn) - Albania Rehab (€24mn) | <ul style="list-style-type: none"> - NE Discos (€17mn) | <ul style="list-style-type: none"> - E.ON Energie (€11mn) - E.ON Gaz Romania (€33mn) - Distrigaz Sud (€31mn) | |
| Technical/ Policy Dialogue | <ul style="list-style-type: none"> - Monitoring of privatisation process of Albanian Disco | <ul style="list-style-type: none"> - CCS transport and storage dialogue - Wind power strategic environmental assessment | <ul style="list-style-type: none"> - Network analysis for wind power integration | <ul style="list-style-type: none"> - Active participant in the ECT process - Creation of Coordinated Auction Office to trade transmission capacity |

Note: Selected projects after 2000; figures shown are EBRD financing





**EBRD power sector:
selected case studies**



Generation: ZE PAK

- €540 mln construction of a new 464 MW unit at ZE PAK, in Poland – a group of 3 lignite-fired power plants
- 14-year EBRD senior debt limited recourse financing of up to €60 mln along-side other lenders
- PAK is one of Poland's largest and lowest-cost producers with a 2,300 MW capacity
- Resolution of long-term PPAs remains an issue in the Polish power sector
 - Structuring of financing allows for specific outcomes



EVN Distribution Grid Efficiency (FYR of Macedonia)

- EVN is the single operator of the electricity distribution grid in FYR Macedonia
- Privatised in 2006 and 90 percent owned by EVN AG
- Distribution Grid Efficiency Investment to reduce network losses and improve energy efficiency: distribution losses reduced from over 24% in 2006 to 16% in 2009
- 12 year EBRD €35 mn loan in parallel with an equivalent loan from the IFC. Stable source of long-term financing



Financing Renewables

- **Small hydro:** Investor in small hydro assets in Bulgaria, Georgia and Armenia and working on projects in Bosnia, Bulgaria, FYR of Macedonia, Serbia.
- **WeB Sustainable Energy Direct Financing Facility:** Dedicated facility for small renewable energy projects (loans of up to EUR 6 million)
- **Wind:** Major investment in wind energy (Bulgaria, Turkey, Romania, Poland) and investment in equity in the Baltics.
- **Geothermal:** Have invested in a pioneering large scale geothermal plant in eastern Russia
- **Biomass:** Currently reviewing pipeline opportunities



Renewables financing : St. Nikola Windfarm



The project

- Project finance for construction of a 156 MW wind farm that contributed approximately 1% to Bulgaria's energy consumption
- Total debt finance: EUR 198 mln senior debt provided by EBRD and IFC with a 15 year tenor
- EBRD provided a senior loan under A/B structure with EUR 70 mln from own account and EUR 56 mln underwritten by UniCredit
- Total project cost amounted to EUR 270 mln in which AES Corp provided 26% of the cost as equity
- The project was completed in 2010

The impact

- The project doubled the wind installed capacity in Bulgaria and support achieving the country target for 11% of renewable in the electricity production in 2010
- The average annual output of electricity is expected to be 337 GWh/year
- The total CO2 emissions reduction potential is estimated to be 305814 tCO2/year
- The largest wind farm project in SEE to date



2009 Showcase Syndicated Loan Turceni TPP (Romania)

Overview

- Rehabilitation and modernisation of Unit 6 (330 MW) of lignite fired Turceni power plant in Romania
- After the transaction was restructured due to the financial crisis, it was oversubscribed and offering increased to satisfy demand
- Corporate loan with many project structuring features

Key Figures

- €150 mln syndicated A/B Senior facility
 - €80 mln A Loan for 13 years
 - €70 mln B Loan for 10 years through 4 commercial banks
- Black Sea Trade Development Bank parallel loan of €20 mln
- Signed July 2009
- Deal of the year 2009 – Energy Risk magazine

EnergyRisk



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