European Bank
for Reconstruction and Development

Obstacles and Opportunities for financing energy investments and regional market development in SEE

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Rome
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AGENDA

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I. **Overview of EBRD**

II. Power & Energy Utilities: Focus and Experience

III. Obstacle and Opportunities for financing in SEE

EBRD at a glance

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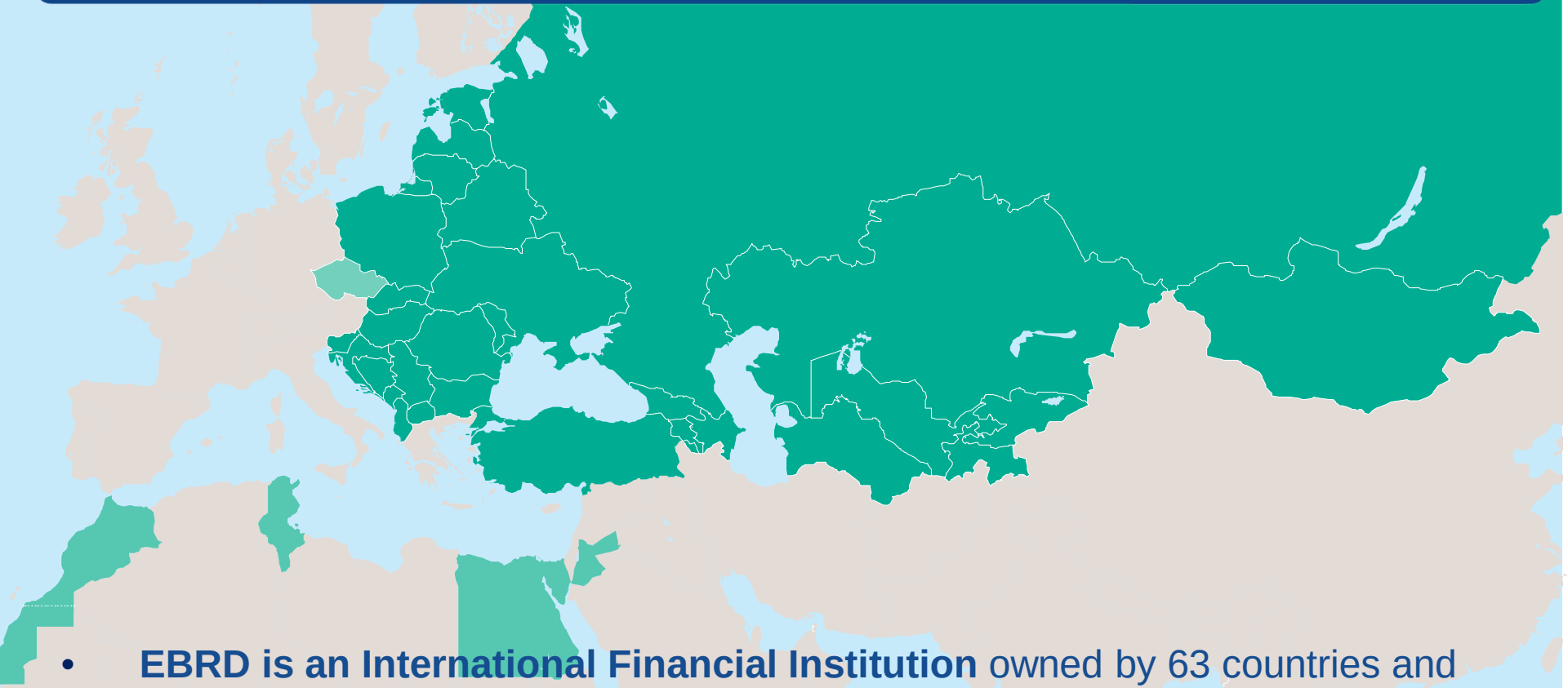

- **EBRD is an International Financial Institution** owned by 63 countries and two inter-governmental institutions
- **EBRD promotes transition** to market economies
- **EBRD is Expanding** –Turkey added in 2009, now expanding to the Southern and Eastern Mediterranean region

EBRD Facilities

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Main features of financing for energy projects

LOANS

- Project finance loans
- Corporate loans with specified use of proceeds or sovereign guaranteed loans
- Tenor of 10-15 years
- Margin benchmarked to market
- Fixed rate and/or local currency possible
- EBRD can directly finance up to 35% of an enterprise's long term capital (or project costs for greenfield projects); additional funds mobilised through syndication

EQUITY

- EBRD equity stake typically below 20-25% (meaningful, but minority)
- Investment through capital increase
- Invest in Funds to address smaller projects or larger stakes
- Exit through IPO, trade sale or put/call agreement
- Political and regulatory risk mitigation

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Power and Energy Financing by Region and Sector

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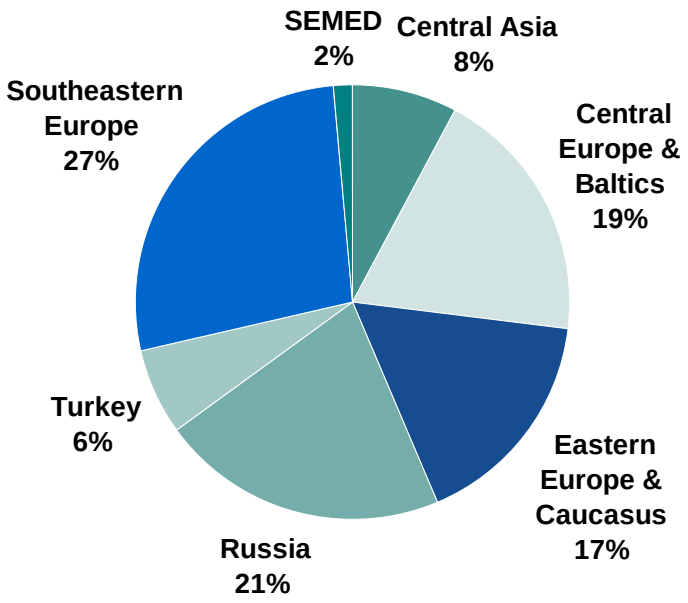
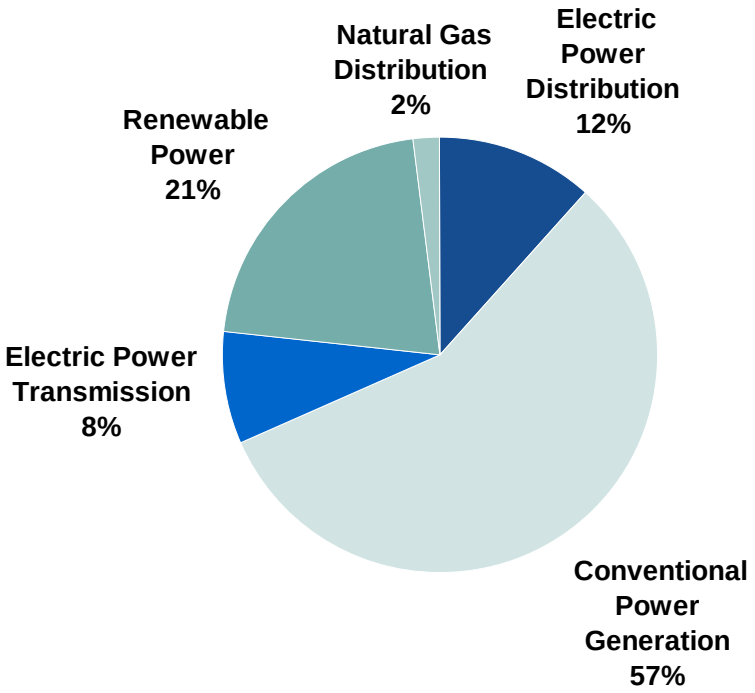
Financing by Region



Financing by Sector



Unaudited as at 31 December 2012. Note: Renewable power does not include large hydro.
Financing by Region since 1991. Financing by Sector since 2009.

Selected Power and Energy Transactions

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	Russia / Turkey	Central Asia	Central & SE Europe	EE & Caucasus	SEMED
Thermal Generation	- LUKOIL/TGK-8 Rehabilitation (2009) - RusHydro Bond Issue (2010)	- CAEPCO (2009) - Aktobe CHP rehabilitation (2010) - AES Sogrinsk CHP (2011)	- Lietuvos Elektrine (2010) - Latvenergo CHP (2010) - Petrom Power Plant (2009)		- IPP4 Al-Manakher (2012)
Renewable Energy	- Rotor Wind Farm (2009) - Bares Wind Farm (2012)	- Salkhit Wind Farm (2012)	- Saturn Biomass (2009) - Suvorovo Wind (2010) -Margonin Wind (2010)	- Porogi Solar PV (2012) - Eco-optima wind (2012) - Graanul Invest Biomass (2011)	
Transmission	- Federal Grid Company Bond Issue (2011)	- KEGOC Modernisation II Loan (2008) - KEGOC Osakarovka (2011)		- Black Sea Energy Transmission System Energy (2010) - South Ukraine Transmission Project (2010)	
Electricity & Gas Distribution	- Federal Grid Company (2010) - SEDAS (2010) - IZGAZ (2009)	- Sugd - Energy Loss Reduction (2011)	- ENEA Privatisation (2008) - Energa SA (2010) - Gas Rimini (2010) - OSSH efficiency improvement (2011)	- Electric Networks of Armenia (2009) - Moldova Electricity Distribution Upgrade (2009)	- ONE: Rural Electrification and Smart Metering (2013)

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Key regulatory issues

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- **Overall: a regulatory framework must be clear, predictable, stable and enforced**
- **Tariff methodology that focuses on transparency and efficiency – social issues dealt with separately**
- **Networks – regulated asset base plus realistic cost of capital**
- **Renewables – many options (feed-in tariff, auctions, green certificates, contract for differences, premium) but key is:**
  - Certainty of despatch
  - Reliable framework – no retroactive changes
  - Access to grids
- **Conventional generation – largest and most risky investments. Require:**
  - Revenue predictability – regulated tariff, or long-term offtake or liquid, deep market
  - Access to grids
  - For fossil fuels – clarity on future carbon policy framework

Some regulatory challenges

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- **How to deploy renewables without being overwhelmed or paying too much?**
  - Consider auctions in early stages
  - Caps on specific technologies with “use it or lose it” permitting
  - Aggressive reduction in support for fast-changing technologies
- **How to support conventional capacity in an era of high fuel price volatility and increasing renewables penetration?**
  - Wide availability of information on network development
  - Capacity payments or deep ancillary services/reserve market
- **How to promote cross-border trade?**
  - Clear, transparent rules on capacity allocation
  - Mechanisms to allow merchant lines

The importance of the SEE CAO

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Key Considerations in EBRD financing for power and energy projects

Financial Structuring

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Structuring approach

•The structuring process is driven, in the first instance, by the client's preferences and strategy.

•Structuring is then an iterative process between the EBRD (any co-financiers, B-lenders) and the client.

Requirements on construction contracts

•The EBRD may take construction risk (without or with limited recourse to sponsor) if the EPC contract is robust.

•For thermal generation, especially coal, the EBRD is likely to require a fully-wrapped EPC contract.

•In renewables, the EBRD may accept supply contract / BoP split.

•The EBRD dos not take new technology risk, and will require proven technologies from credible suppliers (no demonstration technologies).

•Focus on liquidated damages and warranties

Key Considerations in EBRD financing for power and energy projects
Environmental and Social Considerations

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Performance standards, Environmental & Social Impact Assessments (ESIA)

•Management plans and H&S practice

•ESIA must be EBRD compliant.

Industrial Emissions Directive (IED) and Best-Available Techniques (BAT)

•Generation: any new plants must be IED compliant. Compliance may require going beyond national requirements.

•The EBRD looks at the entire project and related facilities, not just a specific component.

•Perform a gap analysis to determine how the technical / environmental performance of the new project differs from best practice (e.g. in Germany) – will facilitate EBRD E&S due diligence.

•Any fossil fuel project must be designed to highest possible level (i.e. BAT compliance). State-of-the-art technology must be accompanied by state-of-the-art ESIA (with CCS assessment).

Key Considerations in EBRD financing for power and energy projects
Transmission Projects

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Transmission is a regulated monopoly, so bankability of transmission projects depends on regulatory regime.

Recent lending to transmission companies in SEE has been both on a sovereign guaranteed and on an unsecured corporate basis

The proposed Montenegro: Lastva – Plejvlja transmission line project, being co-financed with KfW and constructed by CGES (and their minority investor TERNA) is an interesting case study:

- Several lessons drawn from this project:

• Transmission projects are financeable without sovereign guarantee

• Importance of Environmental and Social due dliligence cannot be overstated

• Predictable Regulatory Framework is key for financing

Thank you

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