

EBRD Initiatives and Programs for Power&Energy Sector

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- I. Overview of EBRD: Mission and Guiding Principles**

- II. EBRD Financing Capabilities and Requirements**

- III. Power & Energy Utilities: Focus and Experience**

- IV. PEU Case Studies**



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

Where we invest



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WHERE WE INVEST

Central Europe and the Baltic states

- 01 Croatia
- 02 Estonia
- 03 Hungary
- 04 Latvia
- 05 Lithuania
- 06 Poland
- 07 Slovak Republic
- 08 Slovenia

South-eastern Europe

- 09 Albania
- 10 Bosnia and Herzegovina
- 11 Bulgaria
- 12 FYR Macedonia
- 13 Kosovo
- 14 Montenegro
- 15 Romania
- 16 Serbia

Eastern Europe and the Caucasus

- 17 Armenia
- 18 Azerbaijan
- 19 Belarus
- 20 Georgia
- 21 Moldova
- 22 Ukraine

Central Asia

- 23 Kazakhstan
- 24 Kyrgyz Republic
- 25 Mongolia
- 26 Tajikistan
- 27 Turkmenistan
- 28 Uzbekistan

Southern and eastern Mediterranean

- 29 Egypt
- 30 Jordan
- 31 Morocco
- 32 Tunisia

33 Cyprus

34 Russia

35 Turkey

EBRD's objectives achieved through financing the private sector



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Introduction to EBRD

Case studies

AAA/Aaa rated multilateral
development bank

Invested over €101 billion in more than
4,317 projects since 1991

In 2014:

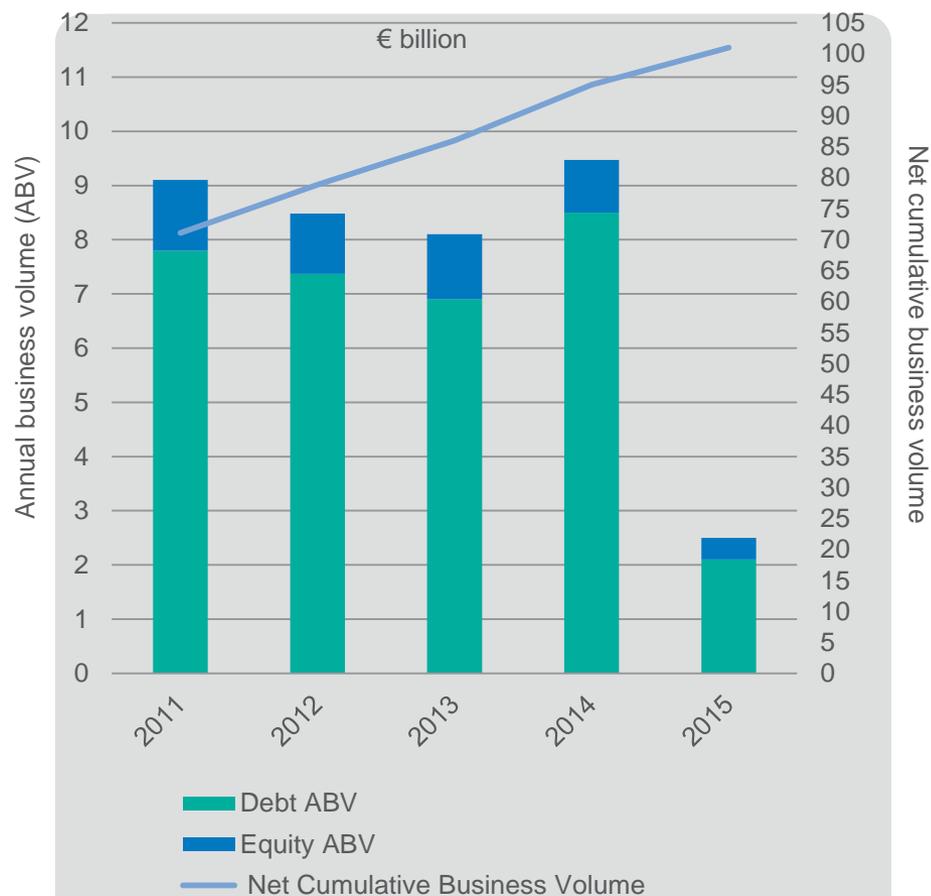
- €8.9 billion invested in 377 projects
- Private sector accounted for 72% share
- Debt 85%, Equity 10% & Guarantee 5%

As at end September 2015

- €3.8 billion invested in 180 projects

Note: Unaudited as at end September 2015

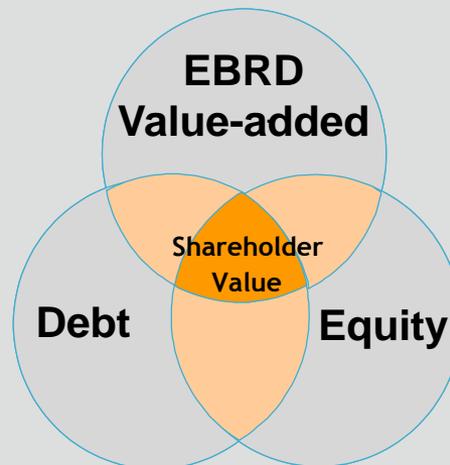
Net cumulative business volume €101bn



Benefits of working with the EBRD

- Strong, internationally recognized partner with long term perspective
- Mitigation of political and regulatory risks
- Policy dialogue with government and regulators
- Grant-funded technical assistance
- Finance and operations monitoring

- Flexible deal structure
- Debt finance to both public and private sector
- Syndication under preferred creditor status
- Catalyst to access additional debt



- Support of strategic investors
- Perception of quality investment
- Sector expertise through Board of Directors
- Good corporate governance
- Catalyst to access additional equity
- Positioning as neutral party

Loans

- Project finance loans
- Corporate loans with specified use of proceeds
- 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 of greenfield projects); additional funds mobilised through syndication

Equity

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



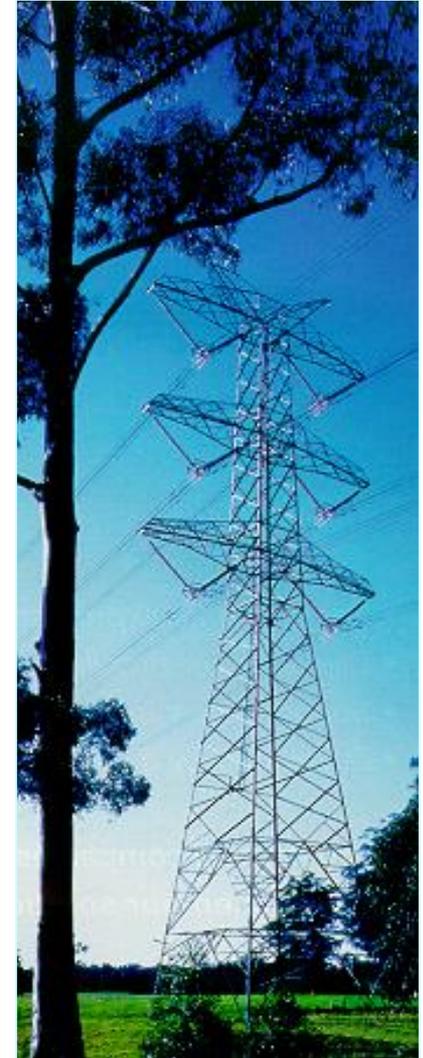
- **Catalyst for commercial investment:** Every €1 invested or lent by the EBRD mobilises €3.1 from other sources
- **Equity:** by investing as a minority shareholder we reduce the equity burden and add value through partnership
- **Debt syndication:** The EBRD can syndicate all or part of the senior debt under A/B structures
- **Debt co-financing:** The EBRD will work with or alongside other commercial banks to provide the appropriate debt package

Primary objectives



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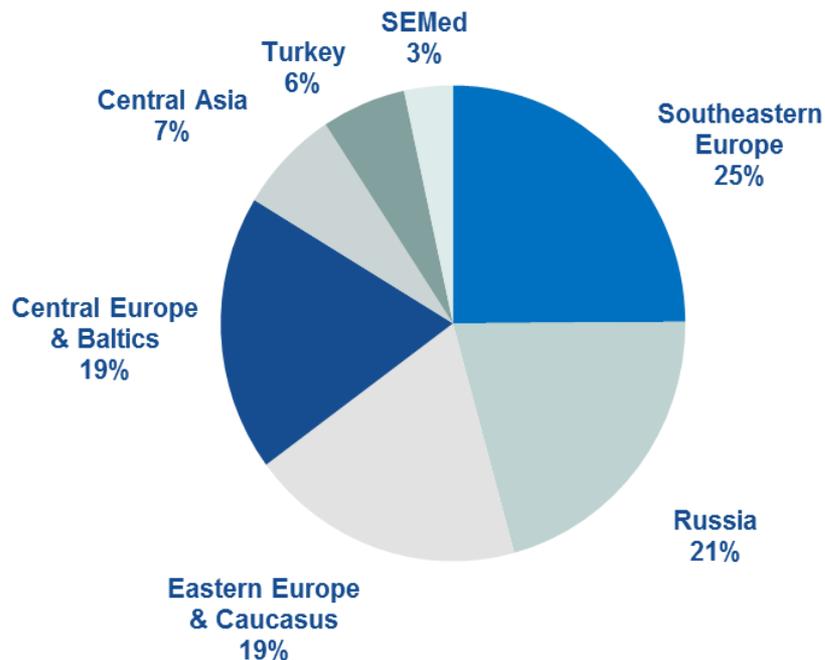
- Support sector reforms that enable energy sectors to function according to market principles (e.g. increased competition, market liberalization and private ownership)
- Strengthen frameworks for regionalisation (trans-border transmission lines, energy trading)
- Prioritise environmental, energy efficiency and renewable energy investments



Financing by region 1992-2014



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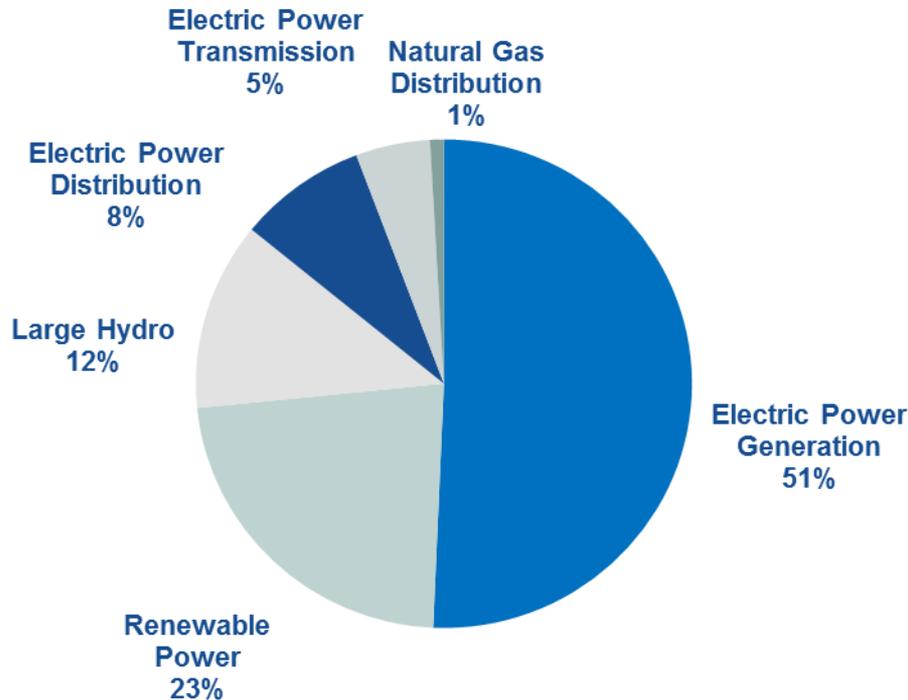
Turkey became a country of operation in 2008, Southern and Eastern Mediterranean in 2012.
Source: EBRD data

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- Prioritise environmental, energy efficiency and renewable energy investments

Financing by sector 2011-2014



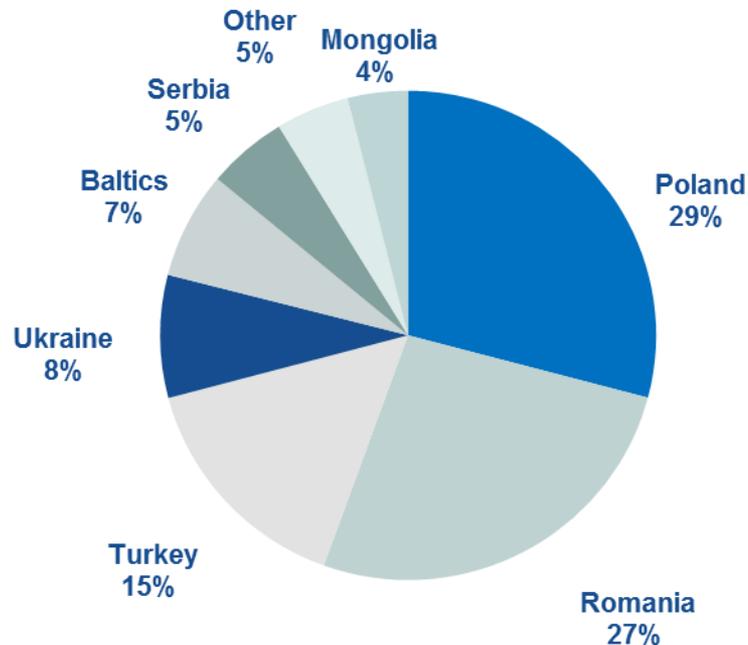
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Unaudited
Source: EBRD data

- Privatisations: Made key investments in power and gas privatisations in Bulgaria, Moldova, Poland, Romania and Turkey .
- IPPs are a key focus: Al-Manakher (Jordan), Kirikkale (Turkey) and Paravani (Georgia).
- Conventional power generation projects financed are mainly natural gas fired.
- Significant involvement in transmission investments in Georgia, Ukraine, Kazakhstan, Russia, and the Balkans.
- Since 2011, at least a fifth of annual financing has been for renewable energy generation.

Focus on renewables - financing by region 2011-2014



Unaudited

Note: Renewable power excluding new build large hydro

Source: EBRD data

- Excluding large hydro, the EBRD has been most active in financing renewables projects in Poland, Romania, Turkey and Ukraine.
- Award winning transactions include Salkhit wind farm (Mongolia), Rotor wind farm (Turkey) and Graanul Invest biomass (Latvia and Estonia).
- Renewable energy technologies financed since 2011 include primarily onshore wind (72%), with small hydro (10%), biomass (9%) and solar (4%).

EBRD offering in privatisations



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	Description	Example
Advisory	<ul style="list-style-type: none"> Privatisation / Market Advisory through provision of independent consultants using Technical Cooperation funding 	<ul style="list-style-type: none"> Bulgaria Power Distribution
Equity	<ul style="list-style-type: none"> Pre-privatisation and At Privatisation Equity Pre-privatisation conditionality to include put to Government if privatisation deadline not met Equity At Privatisation – Straight and Portage Equity, usually with put to investor Investor at IPO IFI carve out of share sale / purchase restrictions 	<ul style="list-style-type: none"> Pre-privatisation – FYR of Macedonia At-privatisation – Moldova, Romania, Bulgaria IPO – Poland, Russia
Debt	<ul style="list-style-type: none"> Pre-privatisation and At privatisation debt financing Portion of debt to be linked to capital investment 	<ul style="list-style-type: none"> Moldova FYR of Macedonia Turkey Russia

Privatisations: electricity and gas distribution



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<p>Moldova</p>	<ul style="list-style-type: none"> • Government of Moldova privatised three power distribution companies (REDs) to Union Fenosa (UF) in 2000 • EBRD provided €5 mln equity, valued at price per share paid by UF, for 19.9% stake in REDs with a put right attached • EBRD also provided €25 mln limited recourse debt financing with 10 years maturity
<p>Romania</p>	<p>Distrigaz Sud</p> <ul style="list-style-type: none"> • Company privatised in 2004 to Gaz de France • EBRD and strategic investor invested €31 mln, representing 5.1% beneficial ownership <p>E.ON Energie and E.ON Gaz Romania</p> <ul style="list-style-type: none"> • Distrigaz Nord privatised to E.ON Ruhrgas in June 2005 and Electrica Moldova privatised to E.ON Energie in October 2005 • EBRD acquired two indirect equity participations in E.ON Gaz Romania (formerly Distrigaz Nord) and E.ON Moldova (formerly Electrica Moldova) for a combined value of approx. €44 mn
<p>Poland</p>	<ul style="list-style-type: none"> • EBRD participated in the first IPO by a state-owned Polish power company in November 2008 • Government of Poland privatised 23% of the ENEA Group in this landmark transaction • EBRD invested approx. €48 mln, representing a 2.5 % stake, to encourage other investors to provide financing and to facilitate the company's expansion plans
<p>Turkey</p>	<p>Izgaz Gas Distribution Company</p> <ul style="list-style-type: none"> • Izgaz privatised to Gaz de France Suez in 2009 • TL 128 mln (EUR 60 mln), 9 year loan for capital investments and refinancing <p>Sedas Electricity Distribution Company</p> <ul style="list-style-type: none"> • Sedas privatised to AkCez, a JV between Akenerji and CEZ in 2009 • USD 175 mln A/B loan to complete the privatisation and capital expenditures

Iberdrola Polska and Magyar, Poland and Hungary



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- Equity investments in Iberdrola Renovables' two subsidiaries Iberdrola Polska and Iberdrola Magyar to support the operation and construction of c. 300 MW and the development of a pipeline of wind farms
- EBRD subscribed for a €125 mln capital increase, of which €75 mln corresponded to 25% of Polska and €50m corresponding to 25% of Magyar
- Signed in February 2010, with Magyar being the Bank's first direct investment in the Hungarian Power Sector
- Investment follows on from a minority equity investment to develop Iberdrola's Luga wind farm project in Estonia

Investment Details

Company	- Iberdrola Polska (Poland) - Iberdrola Magyar (Hungary)
Sponsor	Iberdrola Renovables
Ownership	-25% in IBR Polska and Magyar - 75% Iberdrola Renovables
Project	- c. 160 MW operational in Poland + pipeline - c. 124 MW operational in Hungary + pipeline

Maritza East III Thermal Power Plant, Bulgaria



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- Rehabilitation and environmental retrofit of Maritza East III, an 840 MW lignite fired power plant that provides 7% of Bulgaria's installed capacity
- Bulgaria's first private power deal
- Benefits include emissions reduction, increased conversion efficiency, 60MW additional installed capacity and 15 year plant lifetime extension
- €650 mln project cost, of which €348 mln (53%) in loans from:
 - EBRD (€132 mln) of which €20 mln was novated to BSTDB
 - MIGA covered facility (€141 mln) from Credit Agricole Indosuez, Societe Generale, Banca Mediocredito & Bank Austria
 - 4 Bulgarian banks (€75 mln)

Facility Details

Borrower

Maritza East III Power Co.

Sponsor

JV: 27% NEK, 44% Enel Produzione S.p.A, 29% Entergy Power Maritza Holding BV

Lenders

- EBRD: €132 mln
- MIGA facility: €141 mln
- Bulgarian banks: €75 mln

Tenor

- EBRD & BSTDB: 15 yrs
- Other lenders: 12 yrs

Structure

- PPA covering construction + 15 yrs
- Long-term take-or-pay Lignite Supply Agreement
- Government Support Undertaking

Suvorovo Wind Farm, Bulgaria



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- Project finance loan signed in 2010 for the construction of the 60 MW Suvorovo wind farm in Bulgaria
- The project will increase the installed wind capacity in Bulgaria and support increasing reliance on renewable energy sources
- Total project cost of €108 mln, of which 31% was equity provided by Spanish wind developer Grupo Enhol
- EBRD provided a senior A loan and a B loan underwritten by Unicredit Austria; Black Sea Trade Development Bank provided a parallel loan

Facility Details

Borrower

Eolica Bulgaria

Sponsor

Grupo Enhol

Lenders

- EBRD A: €42.5 mln
- EBRD B: €17.5 mln
- BSTDB: €11 mln

Tenor

- EBRD A: 15 years
- EBRD B: 12.5 years
- BSTDB: 12.5 years

Structure

- Project finance
- EBRD B loan underwritten by Unicredit Austria

Rotor Wind Farm, Turkey



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- The EBRD signed its first Turkish deal in May 2009 after launching operations there in October 2008
- The Bank is lending €45 mln for the financing of Rotor Wind Farm, a 135MW wind farm being developed by Zorlu Enerji
- The total investment cost is estimated to be > €200 mln, of which €70-75 mln will be funded with Sponsor equity
- Rotor Wind Farm will be among the largest wind farms in Turkey
- Awarded European Onshore Wind Deal of the Year 2009 by Project Finance Magazine

Facility Details	
Borrower	Rotor Elektrik Uretim A.S.
Sponsor	Zorlu Enerji
Lenders	- EBRD: €45 mln - IFC: €55 mln - EIB: €30 mln
Tenor	- IFC, EBRD: 12 yrs + 1yr grace - EIB: 10 yrs + 1 yr grace
Structure	- Project finance - EIB loan guarantees from HSBC Bank plc and DenizBank A.S.

Black Sea Transmission Line, Georgia



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- In March 2010 the EBRD signed the Black Sea HV Transmission Line project, a 700 MW capacity interconnection between the Caucasus and Russian electricity network and the Turkish electricity network
- Promotes power trading in the region, especially exports to Turkey
- Boosts the development of hydro generation plants in Georgia by granting preferred access to renewable energy producers
- Provides energy security to Georgia by ensuring domestic grid reliability
- Awarded EMEA Finance Best Infrastructure Deal in 2010

Facility Details

Borrower

Energotrans Ltd

Sponsor

Georgian State
Electrosystem (GSE)

Lenders

- KfW: €100 mln
- EIB: €80 mln
- EBRD: €8
0 mln
- EC/NIF grant: €8 mln

Tenor

- KfW: 15 yrs
- EIB: 20 yrs
- EBRD: 15 yrs

Structure

- Sovereign-guaranteed loan to Energotrans, a subsidiary of state-owned GSE

- In August 2009 the Bank financed the first large scale biomass fired power plant in Poland owned by a local investor with a strategy for expanding biomass operations.
- The CHP facility owned by Saturn Management is the provider of heat and energy to Mondi Swiecie, the largest Polish paper producer, and operates under a long-term off-take agreement.
- The Bank has provided a €30 million to Saturn Management to convert the existing boiler into a forest biomass-fired boiler and to finance major repairs and the modernisation of existing facilities.
- Transaction was structured as project finance exceeding €100 million and was successfully closed despite the financial turmoil.

Facility Details	
Borrower	Saturn Management
Sponsor	Polish Energy Partner
Lenders	- EBRD: €30m - Commercial Banks: €56m
Tenor	- EBRD: 8.5 yrs - Commercial Banks: 6.5 yrs
Structure	- Project finance - Very strong offtake contract with Mondi Swiecie

Margonin Wind Farm, Poland



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- In September 2010 the EBRD financed the 120MW Margonin Wind Farm, the largest operational wind farm in Poland
- Margonin Wind Farm is controlled by EDP Renovaveis, the world's third largest onshore wind farm owner and operator
- Margonin is the first wind farm in CEE to be financed on a limited recourse basis without a long-term, fixed-price arrangement for electricity sales
- Total debt size was PLN 535 million (€135 million equivalent) financed by the EBRD, EIB and commercial banks, including Bank Millennium S.A., BESI and Unicredit's Pekao

Facility Details

Borrower

Relax Wind Park I Sp.
z.o.o.

Sponsor

EDP Renovaveis

Lenders

EBRD: €45m
EIB: €45m
Commercial banks: €45m

Structure

Project finance without
long-term fixed-price sales
contract for the electricity