

# **EBRD Energy Policy & Key Strategic Challenges in Countries of Operation**

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## What do these projects have in common?

Investment Amount (€m)	Payback Period (years)	IRR	Cash Multiple
45.5	1.5	68%	14.4x
25.6	2.1	48%	4.9x
8.7	2.5	39%	4.1x
7.8	3.4	27%	2.9x
4.6	2.3	44%	4.8x
3.5	4.2	29%	3.4x
1.7	3.9	22%	2.6x



## ...Energy Efficiency by EBRD

*These are all industrial energy efficiency projects financed by the EBRD since 2003*

In each case EBRD has

- secured grant funding for energy audit;
- financed implementation of proposed measures;
- offered assistance in the structuring and purchase of emission reductions



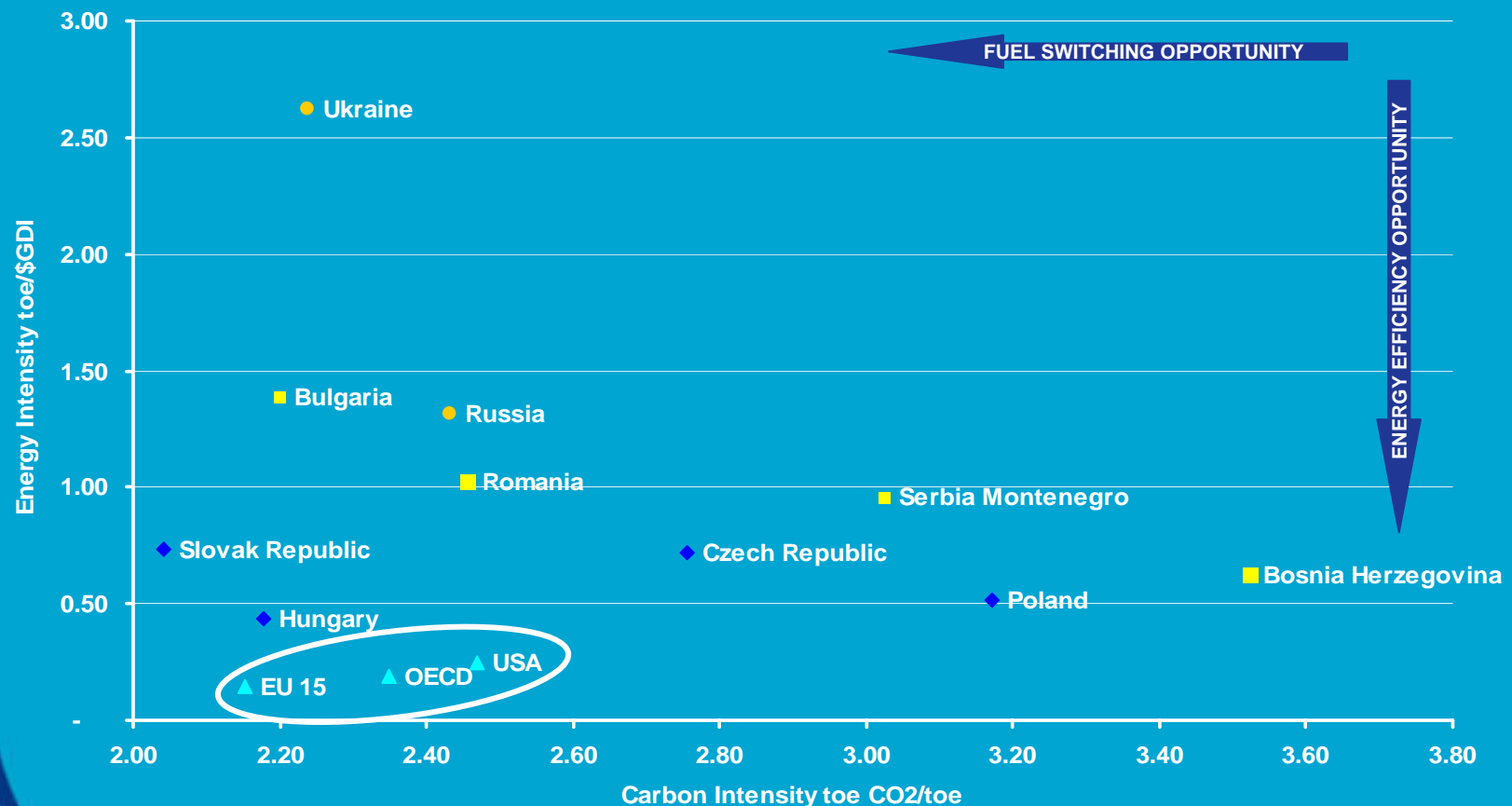
# What am I going to say?

- Why Energy Efficiency matters (it is sexy!)
- Why difficult
- Why changing
- Case studies
- Summary



# The opportunity is compelling

## Energy and carbon efficiency: West vs East



Data source: IEA ([www.iea.org/Textbase/stats/index.asp](http://www.iea.org/Textbase/stats/index.asp))  
Ref. year: 2002

[www.ebrd.com](http://www.ebrd.com)

# Energy Efficiency almost unique to Transition Countries

- Access to energy NOT the issue ...
- Psychology is:
  - Free good (heat and power) – Russian air conditioning
  - No metering
  - No payment
  - No disconnections
  - Below cost
  - Environment “not important”

But increasing awareness that .....



# Energy Efficiency is a Transition Country's most abundant natural resource



# What is Changing

- Rising fossil fuel prices
- Domestic industry needs to be competitive
- EU legislation – buildings etc
- Kyoto and ETS – transition countries large surpluses (1990 limits) and increasing carbon prices
- Security of supply (Dec 2005)
- Import substitution
- Closure unsafe NPPs



## Even in Russia

- Competitiveness domestic industry
- Free up gas for export at high prices (good for west)
- Internal energy security (Moscow power cuts)
- Regional development (district heating)
- Cheaper than new generation
- Gas flaring ???
- Kyoto ???



# EBRD Industrial Energy Efficiency projects 2002-2005

Energy savings p.a.

- Equivalent to consumption of a city like **LEEDS**

CO2 reduction p.a.

- Equivalent to CO2 emitted by households of a city like **BIRMINGHAM**



# Potential for GHG emissions reduction

EBRD (conservative) estimate of potential for GHG emission reduction in industrial sector in our region:

- **135 mln tonne CO<sub>2</sub> p.a. =**
  - 25% UK emissions
  - >3 times Ireland
  - equivalent Bulgaria and Romania combined



# Case Studies



## Case 1: *Energy Alliance (Ukraine)*

- US\$10m loan to back first privately owned Ukrainian ESCO. Majority owned by Western NIS Fund (US-backed PE Fund)
- US\$5m loan from Bank was syndicated with US\$5m loan from RZB
- ESCO follows lease-finance structure giving client the full benefit of assets without upfront purchase of equipment
- First project was construction of 4MW co-generation plant fuelled by sunflower seed peels



***EBRD pioneered first private ESCO facilitating long-term lease-finance for clients***



## Case 2: Poznan Cogeneration (Poland)

- €34m to finance Dalkia Polska in acquisition of Poznan district heating network and subsequently Poznan CHP, privatised by Polish Treasury
- Successive acquisition of network and CHP created first consolidation of heat generation and distribution assets in Poland, maximising efficiency gains
- The investment programme includes expansion of the district heating network, efficiencies improvements, insulation and extending metering



*Long term partnership with EBRD has enabled Dalkia to develop energy efficiency projects across the region*



## Case 3: *Bulgaria EE/RE Credit Line*

- US\$50m credit line with Bulgarian banks for on-lending to private sector for energy efficiency and renewable energy projects
- Loan complimented with US\$10m from Kozloduy International Decommissioning Support Fund
- 14 projects already financed, including hydro, geothermal, biomass and equipment refurbishment
- See <http://www.beerecl.com>



*EBRD's relationships with local financial institutions allow us to reach deeper into our markets addressing even small scale projects*



## Case 4: *TogliattiAzot (Russia)*

- US\$160m loan to largest ammonia producer in FSU operating 7 plants in Togliatti for revamping ammonia unit
- Senior A + B loan structure to modernise ammonia production units and finance expansion
- 20% reduction in gas consumption for Russia's largest domestic gas consumer
- Carbon reduction > 550 000 tons CO<sup>2</sup>/annum



*Project will stimulate annual reductions in natural gas consumption equivalent to total monthly consumption of Switzerland, Greece or Portugal*



# What EBRD brings



## **EBRD: *Stimulating energy efficiency***

- Dedicated energy efficiency team
- Pioneering efficiency projects and promoting good practice
- Specialists in project financing, carbon finance and energy engineering

***Delivering innovative financing to  
projects enhancing energy efficiency***



## ***EBRD: Monetising carbon credits***

- Manager of Dutch Carbon Fund, creating Multilateral Carbon Fund
- Will purchase carbon credits from EU ETS, JI and CDM in Bank financed projects
- In-house expertise to guide clients through monetisation of carbon from 'PIN' to 'ERPA'

***Balanced and well-structured carbon transactions to enhance project viability***



## ***EBRD: Mobilising technical assistance***

- Access to Government grant funding
- Funds available for market studies, project feasibility, technical cooperation...
- Assisting **committed** sponsors in early project development phases

***Entrusted with grant funding to overcome transition challenges***



## *Flexible*

- **Wide palette of financial instruments:** Debt & equity; guarantees; credit lines; equity funds
- **Long-term partner:** Offering longer tenors than market norms; partnering at an early stage
- **Public and Private:** Invest with and through public and private operations; engaging with Government bodies on projects and policy



## Summary

- Energy Efficiency significant natural resource in Transition Countries
- Views changing
- Need continued support

.....from all of us



# Contact at the EBRD

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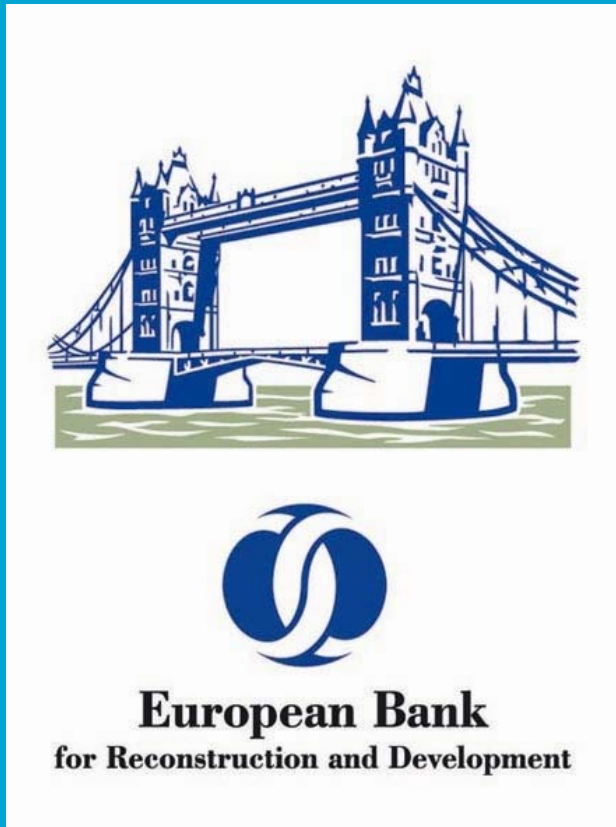
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## EBRD Annual Meeting & Business Forum 2006



Business development opportunities from Central Europe to Central Asia  
**Sunday 21 – Monday 22**  
**May London**

A unique opportunity to meet leading investors, bankers, entrepreneurs and senior government officials



# EBRD's New Energy Policy

Comments welcomed .....

[www.ebrd.com/about/policies/sector/energy/new.htm](http://www.ebrd.com/about/policies/sector/energy/new.htm)

