



ORGANISATION OF FINANCING FOR WIND ENERGY PROJECTS IN UKRAINE

5TH EUROPEAN-UKRAINIAN ENERGY DAY, KIEV, UKRAINE

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IS IT POSSIBLE TO ORGANIZE FINANCING FOR WINDFARM PROJECTS IN UKRAINE?

PROBLEMS WITH ALTERNATIVE ENERGY FINANCING IN UKRAINE:

- Political, social and economic instability
- Low international credit ratings at pre default levels
- Limited ECA coverage
- Limited involvement of international financial organizations
- Changing “rules of the game” in particular recent initiation of decrease in “green tariff” for solar generation

Despite these and other problems DTEK Group was successfully able to complete its pilot project in renewable energy generation – Botievo Windfarm with nominal generation capacity of 200 MW

Key benefits of developing wind power generation

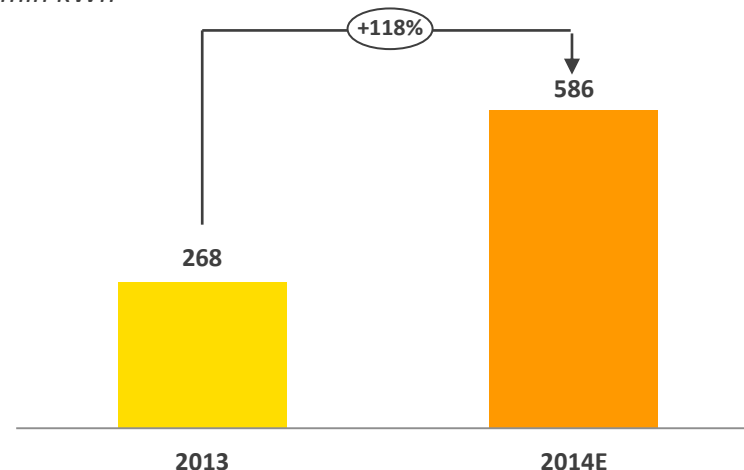
- Access to virtually untapped wind energy source in Ukraine, with annual estimated wind potential of 30-42 TWh or approx. 16GW of generation capacity with an estimated high nominal capacity utilization rate (NCUR) of 32% - 38%
- Capitalising on relationships with prominent European ECAs, international banks and equipment suppliers
- Environmental benefits from expected annual CO₂ reduction of 730k tonnes for Botievo Windfarm as well as ability to trade carbon credits
- Attractive return on investment:
 - green tariffs set at 11.3 € cents/kWh, pegged to Euro and adjusted monthly, which gives DTEK a positive FX exposure
 - state guarantees to purchase all of the produced electricity and exemption from corporate income tax (until 1 January 2021)

Botievo Windfarm operating update:

- First phase (30 turbines / 92,25 MW) commissioned and operating starting from February 2013
- Second phase (35 turbines/107,625 MW) commissioned and operating from April 2014
- Estimated project Capex (for both phases) is approx. EUR 340 mln
- Financing of the project:
 - approximately 72% of the project costs financed via ECA backed long term credit lines from LandesBank Berlin with corporate financial guarantees from DTEK Group. Coverage of part of local costs
 - First phase – EUR 107 mln 10-year tranche recognized as a Deal of the Year-2012 according to Euromoney's Trade Finance magazine (London) and Global Trade review magazine (London).
 - Second Phase – EUR 138 mln 10-year tranche

Botievo Windfarm power generation*

mln kWh



Botievo Windfarm key performance data

OPERATIONAL PERFORMANCE		2013
Electricity output	GW/h	267.7
Electricity tariff**	kopecs/kW*h	122.9
Commissioned WTG, EoY	units	39
Total capacity, EoY	MW	119.9
Availability factor	%	96.6

FINANCIAL PERFORMANCE		2013
Revenue	USD mln	41
EBITDA	USD mln	30
EBITDA margin	%	73%

*Expected generation is calculated based on P90 scenario

** Tariff is paid in UAH and is pegged to EUR at 11.3 € cents/kWh. UAH tariff rate adjusted monthly.

SWITCHING TO PROJECT FINANCE FOR WINDFARMS IN UKRAINE

Given high capital intensity of windpower project development one of the solutions would be to create the necessary support for the attraction of project finance or quasi-project finance into the industry. Below are some of the key problems that are faced by international financial institutions and ECAs when discussing possible financing on non-recourse basis.

RISK	DESCRIPTION	POSSIBLE SOLUTION
<ol style="list-style-type: none"> 1. Political and economic instability/low credit ratings 2. Cancellation/reduction of the “green tariff” 3. Non-compliance with the state guarantees to purchase produced electricity 4. Convertibility/transferability risks on interest and principal payments abroad 5. Inability to execute long-term power-purchase agreement 	<ol style="list-style-type: none"> 1. Inability of international ECAs to establish substantial limits for Ukraine 2. Inability of international financial institutions/ECAs to take the state risks on “green tariff” alterations or power purchasing guarantees 3. Inability of international financial institutions/ECAs to accept uncertainty in introduction of cross-border restrictions on payments 	<ol style="list-style-type: none"> 1. More active role from international financial institutions (e.g. EBRD, IFC) in entering the projects with private investors 2. Active involvement of political-risk insurers in Ukraine (e.g. MIGA) 3. Strict adherence by the state to the established levels of green tariff and execution of electricity purchase guarantees 4. Further market deregulation allowing to execute direct long-term power-purchase agreements which can be assigned

SOME KEY PARAMETERS FOR PROJECT FINANCE DEALS IN UKRAINE

Parameter	Description
Term	12-15 years including construction
ECA coverage	Required (approx. 85% of contract value)
Amortization	Quarterly/Semi-annual and 25-100% cash sweep
Covenants	DSCR>1.1 Debt/Equity 70/30 – 50/50 Debt/EBITDA 5x-7x Compulsory insurance (business interruption)
Security	Completion guarantee for construction Pledge of equipment Pledge of shares/corporate rights DSRA for 3/6-month interest and principal Pledge of project accounts