



RENEWABLE ENERGY

CONVENTIONAL ENERGY

DISTRIBUTION

TRADE

POLENERGIA 1Q 2016 Results

May 12, 2016



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New Management and Leadership

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New Management and Leadership (1/2)

Supervisory Board entrusted the leadership of the Management Board to Jacek Glowacki who until today was 1st Vice President of the Management Board. The current director of the Corporate Finance Department, Bartłomiej Dujczynski, also joined the Management Board and will be responsible for the finances of the Group.

Jacek Głowacki



Jacek Glowacki has over 30 years experience in the power sector. He has held the position of CEO of the first gas fired CHP in Poland, Elektrociepłownia Nowa Sarzyna (ENS). In 2001 he was appointed as the head of business development for Prisma Energy who acquired ENS and, after the take-over of Prisma by Ashmore Energy in 2006, became Ashmore's VP for Central and Eastern Europe.

He joined the Polenergia Group in January 2011 and in June 2011 was appointed as the 1st Vice President of Polenergia Holding S.a.r.l. In January 2013 he was also appointed 1st Vice President of Polenergia SA.

Jacek graduated from the University of Mining and Metallurgy in Kraków, and holds an MBA from Booth Business School, University of Chicago.

Bartłomiej Dujczynski



Bartłomiej Dujczyński has been connected to the Polenergia Group since 2011. During 2012-2013 he was Management Board member (CFO) of Polenergia SA before the merger with Polish Energy Partners. Since 2013 he has been in charge of the Corporate Finance/Investor Relations department.

He gained his experience across Warsaw and London at PriceWaterhouseCoopers (Corporate Finance), Rothschild & Sons (Utilities investment banking), Oaktree Capital Management (Principal Investing) and Kulczyk Investments (Principal Investing).

Bartłomiej graduated from Kings College, University of London and also holds a diploma from Passau University. He is a Chartered Accountant (ICEAW) and holds an MBA from Booth Business School, University of Chicago.

Due to the changes in the Management Board of Polenergia S.A. implemented by the Supervisory Board, a streamlined Management has been implemented to continue growth and align to the regulatory surrounding

Vew Management and Leadership (2/2)

Michał Michalski – Head of Development



Michał Michalski has been involved with Polenergia since 2012, initially as a Business Development Director and later in charge of new projects and offshore wind. Before joining Polenergia he was an Investment Director at Kulczyk Investments.

Michał graduated from University of Economics in Poznań. He holds a PhD in Economics. Michał also completed the "Executive Studies in Finance" postgraduate program at Warsaw School of Economics.

Hans Schweickardt – Advisor to the Management Board



Hans Schweickardt has over 40 years' experience in managing international projects in the European power sector including as CEO and Chairman of the Swiss national utility Alpiq, Chairman of the Supervisory Board of Swiss Grid (Swiss System Operator) and senior management positions at ATEL & EOS (two utilities which merged under Hans' leadership to form Alpiq in 2009) and the ABB group, the global power/infrastructure engineering company. Hans is also Vice-chairman of the Supervisory Board of the European Energy Exchange (EEX).

Hans graduated from the Swiss Federal Institute of Technology (ETH) in Zurich and gained post graduate degrees at Stanford University and INSEAD.

The new leadership will drive through efficient cost optimization, respond positively to the Polish and EU regulatory surroundings, focus on systematic growth using its renewable/conventional vertical profile and respond to the current utility transformational trends and technological innovation





Financial Results



Summary of 1Q 2016: vertical profile provides hedge against market challenges

- Profitability improvement: in every segment. Overall adjusted EBITDA increased by 33% as compared to 1Q 2015, with margins improving from 35% to 44% (excluding Trading);
- <u>High productivity</u>: productivity in 1Q in line with forecast, on average 35%, slightly below 1Q 2015 on existing farms, benefitting from excellent load factors generated by new wind farms Skurpie and Mycielin;
- **<u>369MW capacity installed</u>**: 245,3MW wind farms, 124MW ENS and cogeneration, 36% increase YoY;
- <u>Market Prices</u>: electricity prices in a horizontal trend with a small uptake in April. Flat/low GC prices due to continued regulatory uncertainty;
- Onshore Wind: low GC prices and effect of PKH breach of long-term agreement offset by good productivity and comissioning of new capacities;
- <u>Conventional Power</u>: EBITDA improvement largely due to (one off) effect of annual price projections update and resultant positive stranded cost effect;
- <u>Trading:</u> growth driven by increase in volumes and profitability of gas contracts;
- Distribution: steady performance, EBITDA influenced positively by reversal of provisions;
- **Offshore:** positive signs from the government for future regulation support;
- Dividend: the dividend of PLN 0.5 per share for 2015 announced (payable in July 2016);
- Despite the difficult regulatory environment, Polenergia was able to increase its adjusted EBITDA by 33% as compared to 1Q 2015;
- Regulatory perspectives remain uncertain but we note positive signs;
- Polenergia's vertical profile provides evident hedge against regulatory challenges in onshore wind.

V POLENERGIA **High productivity partially offset by decline in GC prices**



Load factors 1Q 2015 versus 1Q 2016



- In 1Q 2016 prices of GC were low/flat, while electricity prices were flat.
- Low prices of GC in 1Q 2016 were partially offset by good productivity: existing wind farms in line with forecast, below 1Q 2015 productivity, new wind farms exhibiting excellent productivity

Q1 2016: earnings and volume growth continued in challenging market



Onshore Volumes (Certificates, MWh)



Adjusted EBITDA Growth (PLNm)



Adjusted Net income (PLNm)



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Q1 2016 results and realization of forecast for 2016

(mPLN)	Q1 2016 Actual	Q1 2015 Actual	Q1 16 / Q1 15	Q1 16 / Q1 15
			diff	diff %
Adjusted EBITDA	87,1	65,4	21,7	33%
Adjusted Net Profit	38,6	28,6	10,0	35%
(mPLN)	Q1 2016 Actual	2016 Budget	% realised	
Adjusted EBITDA	87,1	233,3	37%	
Adjusted Net Profit	38,6	52,1	74%	

High adjusted net profit realization results mainly from revenues from update of price forecasts in ENS, better wind conditions in Q1 and no depreciation and interest cost for Mycielin WF in Jan-Feb 2016. Furthermore, selected segments reported results slightly above expectations (of 57% of annual Net Profit coming in Q1). Management maintains the forecast noting the following risks:

- wind conditions,
- level of green certificates prices,
- regulatory uncertainty.



Consolidated results for Q1 2016 – P&L

Polenergia Group Income Statement (mPLN)		Q1 2016	Q1 2015	Diff y/y		
Revenues from sales		722,5	677,8	44,7		
of which trading segment		538,2	490,8	47,4		
Cost of sales		(653,6)	(625,6)	(28,0)		
of which trading segment	_	(529,2)	(487,0)	(42,2)		
Gross profit on sales		68,9	52,2	16,7		
Gross profit on sales margin		9,5%	7,7%	1,8%		
Other operating income		1,4	1,2	0,2		
Administrative expenses		(8,7)	(8,0)	(0,6)		
Other operating expenses		(0,6)	(1,4)	0,8		
Gross result on sale	_	61,1	43,9	17,1		
Depreciation	_	26,7	20,8	6,0		Detailed analysis of the results of EBITDA by segment is
EBITDA		87,8	64,7	23,1		presented on the following pages
EBITDA margin		12,2%	9,5%	2,6%		precented on the fellowing pages.
Eliminating the effect of purchase price allocation		(0,7)	0,6	(1,3)		
Elimination of fundraising costs	_		0,1	(0,1)		
Adjusted EBITDA*		87,1	65,4	21,7		Lower financial income due to lower cook belonce and lower
Adjusted EBITDA margin		12,1%	9,7%	2,4%		interest rates
Financial income		1,2	4,2	(3,0)		
Financial expenses		(14,4)	(11,7)	(2,6)		
Profit (loss) before tax		47,9	36,4	11,5		Higher interest cost resulting from start of new projects,
Income tax	_	(11,5)	(9,8)	(1,7)		partially offset by decrease in debt in other operating assets.
Net Profit (loss)		36,4	26,6	9,8		
Net profit margin		5,0%	3,9%	1,1%		Higher CIT costs results from higher profit before tax of the
Eliminating the effect of the purchase price allocation	1)	1,5	2,5	(1,0)	Г	Group.
Eliminating the effect of unrealized exchange differences	2)	0,2	(1,2)	1,4		
Eliminating the effect of AMC loan valuation	3)	0,4	0,5	(0,1)		
Elimination of fundraising costs	4)		0,1	(0,1)		1) Purchase price allocation effect of non-goodwill assets
Adjusted Net Profit*		38,6	28,6	10,0		 Unrealized exchange differences (mostly in Dipol due to loop in EUD)
Adjusted Net profit margin		5,3%	4,2%	1,1%		10011 III EUR)
Adjusted EBITDA (excl. trading segment)	_	80,5	65,4	15,1		4) Historical cost for strategic investor
Adjusted EBITDA margin (excl. trading segment)	_	43,7%	35,0%	8,7%		

*) adjusted for non-cash/one-off items



Consolidated results for Q1 2016 – EBITDA Analysis



EBITDA Build-up Q1 2016

EBITDA Bridge Q1 2016/ Q1 2015



- Conventional energy provides stable EBITDA, however significantly higher EBITDA (by PLN 10.8m) is a result of update of energy, gas and CO2 price forecasts for 2016 – 2020 (in 1Q 2016) that changed allocation of stranded costs compensation in the whole compensation system period (2008 – 2020), reflected in the current period resulting in relatively high operating outcome in 1Q 2016.
- Due to start of Mycielin and Skurpie wind farms (48 MW and 43,7 MW respectively) wind farm segment has reported increase of the result (by PLN 3.4m y/y) partly compensating impact of lower green certificates prices and long-term contract breach by PKH.
- Result of distribution segment was higher y/y mainly due to reversal of rebate provision and higher sales.
- Growing share of trading segment, results increased y/y mainly due to profitability of gas supply contracts and better margins on green certificates sales.
- Stable biomass performance.

Consolidated cash flow analysis

Consolidated statement of cash flows (PLN m)	Q1 2016
A. Cash flows from operating activities	
I.EBITDA	88
II. Adjustments	(40)
III. Net cash flow from operating activities (I+/-II)	48
B. Cash flows from investing activities	
I. Cash received	0
II. Expenses	(47)
III. Net cash flow from investing activities (I-II)	(47)
C. Cash flows from financing activities	
I. Cash received	45
II. Expenses	(65)
III. Net cash flow from financing activities (I-II)	(20)
D. Net cash flow, total (A.III+/-B.III+/-C.III)	(20)
E. Balance transition of cash, including:	(19)
F. Cash and cash equivalents at beginning of period	362
G. Consolidated cash and cash equivalents at end of period	343
Consolidated debt	1 137
Consolidated net debt	794

The amount consists mainly from the change in working capital (PLN -25m) and CIT settlement (PLN -11m). Detailed analysis of WC is presented on slide 17.

Construction of Mycielin WF, distribution segment development and further projects development.

Long-term investment loans for Mycielin WF construction and distribution segment development.

Investment loans and interest repaid, mainly wind farms, ENS and PE-D.

- Adjusted EBITDA for last 12M (from April 1st 2015 to March 31th 2016) amounted to PLN 244.6m, which compared with the Group's net debt at the level of PLN 794.5m (as at March 31st 2016) implies Net debt / EBITDA ratio of 3.25x and was lower than as at 4Q 2015 (3.53x).
- The long-term goal of Management Board is to maintain Net Debt/EBITDA ratio below 3.0x.



Segmental Results

Q1 2016 (PLN m)	Conventional energy	Development activity	Biomass	Wind power	Distribution	Trading	Unallocated management	Purchase price allocation	TOTAL
Revenues from sale	83,6	0,0	14,6	53,3	31,3	538,2	0,9	0,7	722,5
Operating expenses	(53,2)	(0,2)	(12,8)	(27,2)	(24,1)	(529,2)	(4,5)	(2,5)	(653,6)
including depreciation	(4,9)	-	(1,0)	(16,8)	(1,1)	(0,0)	(0,4)	(2,5)	(26,7)
Gross profit on sales	30,4	(0,2)	1,9	26,1	7,2	9,0	(3,6)	(1,9)	68,9
Gross profit on sales margin	36,4%	"n/a"	12,8%	49,0%	22,9%	1,7%	-413,9%	-271,8%	9,5%
General and administrative expenses	(1,7)	(0,2)	(0,3)	(1,6)	(1,1)	(2,5)	(1,3)	-	(8,7)
Other operating activities	(0,4)	(0,0)	0,0	1,0	0,0	0,1	0,1	-	0,9
Profit from operating activities	28,3	(0,4)	1,6	25,5	6,2	6,6	(4,8)	(1,9)	61,1
EBITDA	33,2	(0,4)	2,6	42,3	7,2	6,6	(4,4)	0,7	87,8
EBITDA margin	39,7%	"n/a"	17,6%	79,5%	23,0%	1,2%	-505,0%	100,0%	12,2%
Eliminating the effect of purchase price allocation								(0,7)	(0,7)
Adjusted EBITDA	33,2	(0,4)	2,6	42,3	7,2	6,6	(4,4)	-	87,1
Adjusted EBITDA margin	39,7%	"n/a"	17,6%	79,5%	23,0%	1,2%	-505,0%	0,0%	12,1%
Result on financial operations	(1,9)	(0,0)	(0,3)	(11,2)	(0,3)	(0,4)	0,9	-	(13,2)
Profit (loss) before tax	26,4	(0,5)	1,3	14,4	5,8	6,2	(3,9)	(1,9)	47,9
Income tax									(11,5)
Profit (loss) for the period								·	36,4
Eliminating the effect of the purchase price allocation									1,5
Eliminating the effect of unrealized exchange differences									0,2
Elimination of the effect of AMC loans valuation									0,4
Adjusted Net Profit									38,6

Q1 2015 (PLN m)	Conventional energy	Development activity	Biomass	Wind power	Distribution	Trading	Unallocated management	Purchase price allocation	TOTAL
Revenues from sale	87,6	0,3	16,3	44,4	38,4	490,8	(0,0)		677,
Operating expenses	(67,6)	(0,6)	(14,6)	(17,8)	(33,8)	(487,0)	(1,1)	(3,1)	(625,6
including depreciation	(4,6)	-	(1,0)	(11,3)	(1,0)	(0,0)	(0,3)	(2,5)	(20,8
Gross profit on sales	20,0	(0,3)	1,7	26,7	4,6	3,7	(1,1)	(3,1)	52,
Gross profit on sales margin	22,8%	-89,8%	10,6%	60,0%	11,9%	0,8%	"n/a"	"n/a"	7,7%
General and administrative expenses	(1,8)	(0,1)	(0,2)	(0,3)	(1,0)	(2,3)	(2,2)	-	(8,0
Other operating activities	(0,4)	(0,2)	0,2	1,3	(0,6)	(0,0)	(0,5)	-	(0,2
Profit from operating activities	17,8	(0,6)	1,7	27,6	3,0	1,4	(3,8)	(3,1)	43,
EBITDA	22,4	(0,6)	2,7	38,9	4,0	1,4	(3,5)	(0,6)	64,
EBITDA margin	25,5%	-191,8%	16,7%	87,7%	10,4%	0,3%	"n/a"	"n/a"	9,5%
Elimination of fundraising costs							0,1	0.6	0,
	22.4	(0.6)	2.7	20.0	4.0	1.4	(2.4)	0,0	0,
Adjusted EBITDA	25.5%		16.7%	87.7%	10.4%	0.3%	(3,4) "n/a"	"n/a"	0.7%
Aujusteu Ebrida margin	20,070	-131,070	10,170	01,170	10,470	0,570	100	11/4	5,17
Result on financial operations	(2,4)	0,1	(0,3)	(5,7)	(0,5)	(0,4)	1,7	-	(7,5
Profit (loss) before tax	15,4	(0,5)	1,4	22,0	2,5	0,9	(2,1)	(3,1)	36,
Income tax									(9,8
Profit (loss) for the period									26,
Eliminating the effect of the purchase price allocation									2,
Eliminating the effect of unrealized exchange differences									(1,2
Elimination of the effect of AMC loans valuation									0,
Elimination of fundraising costs									0,
Adjusted Net Profit									28,
Adjusted EBITDA y/y	10,8	0,2	(0,1)	3,4	3,2	5,2	(1,0)		21,

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Net profit - overview of the changes y / y



Adjusted net profit increased by PLN 10.0m, due to:

- Higher EBITDA excluding the effect of the settlement of the purchase price allocation (results better by PLN 21.7m explained in detail on slide 12);
- Higher depreciation (by PLN 6.0m) excluding depreciation related to the purchase price allocation, which is primarily driven by depreciation of new wind farm projects;
- Lower interest income (by PLN 1.1m) resulting form lower cash balance and lower interest rates;
- Higher interest costs and fees (by PLN 2.8m) effect of commisioning of new wind farm projects;
- Negative CIT impact (PLN 1.8m) resulting from higher profit before tax of the Group;
- Detailed decomposition of normalizing adjustments was presented on P&L summary page (explained on slide 11).

Assets and financing structure of Polenergia Group

Assets (PLN m)	As at 31.03.2016	As at 31.12.2015	Diff
Fixed assets (long-term)	2 480	2 448	32
Tangible fixed assets	2 220	2 192	28
Intangible assets	47	49	(2)
Goodwill of subordinate entities	185	185	(0)
Financial assets	12	6	6
Long-term receivables	5	5	(0)
Deferred income tax	12	11	1
Accruals	0	0	0
Current Assets (short-term)	664	751	(87)
Stock	56	47	9
Receivables from deliveries and services	124	159	(35)
Receivables from income tax	4	3	1
Other short-term receivables	30	65	(35)
Accruals	10	11	(1)
Short-term financial assets	98	104	(6)
Cash and cash equivalents	343	362	(19)
Total Assets	3 144	3 199	(55)

Liabilities (PLN m)	As at 31.03.2016	As at 31.12.2015	Diff
Equity	1 411	1 397	14
Long-term liabilities	1 323	1 304	19
Loans and borrowings	1 043	1027	16
Provision from deferred income tax	75	66	9
Reserves	2	2	0
Accruals	62	64	(2)
Other liabilities	141	145	(4)
Current liabilities	410	498	(88)
Loans and borrowings	95	121	(26)
Trade payables	124	179	(55)
A liability for income tax	-	7	(7)
Other liabilities	161	166	(5)
Reserves	4	4	0
Accruals	27	21	6
Total liabilities	3 144	3 199	(55)

	Construction of Mycielin wind farm and development of projects
1	
	Mainly increase of green certificates stock.
	Mainly decrease of trade receivables in wind farms, distribution and trading segments.
	Mainly valuation of contracts in trading segment.

Change in	cash and	cash ec	uivalents	is pro	esented	on the	next p	bage.	
								· · · ·	

Change in loans and credits is presented on the next	page.
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Including ENS liabilities due to long term contracts termination settlement (KDT), long term liabilities in trading segment and PPA liability.

Mainly decrease of trade liabilities in distribution and trading segments and KDT settlement liability in ENS.

Mainly valuation of contracts in trading segment, investment liabilities in EP and liabilities of Polenergia S.A..

Adjusted EBITDA for last 12M (from April 1st 2015 to March 31th 2016) amounted to PLN 244.6m, which compared with the Group's net debt at the level of PLN 794.5m (as at March 31st 2016) implies Net debt / EBITDA ratio of 3.25x and was lower than as at 4Q 2015 (3.53x).

The long-term goal of Management Board is to maintain Net Debt/EBITDA ratio below 3.0x.

• The ratio of Net debt / Equity and Equity / Assets ratio amount to 0.56x and 0.45x respectively.

Consolidated cash flow analysis for Q1 2016

Consolidated statement of cash flows (PLN m)	Q1 2016	
A. Cash flows from operating activities		
I.EBITDA	88	
II. Adjustments	(40)	Mainly CIT in ENS and operating wind farms
1. Income tax	(11)	
2. Change in provisions	-	Mainly increase of green partificates steek
3. Change in inventories	(9)	Mainly increase of green certificates stock.
4. Change in receivables	70	Change in receively and surrent liabilities (DLNL 7m) results mainly from
5. Change in current liabilities, excluding borrowings	(76)	Change in receivables and current liabilities (PLN -/m), results mainly from:
6. Change in accruals	(9)	 Lower receivables (PLN 3011) In WF segment, Lower receivables (PLN 9m) in distribution and trading segments
7. Other adjustments	(4)	 Lower payables in distribution (PLN 36m) ENS (PLN 30m) and trading
III. Net cash flow from operating activities (I+/-II)	48	(PLN 9m) segments.
B. Cash flows from investing activities		
I. Cash received	0	Higher accruals in WF segment (PLN 4m), trading segment (PLN 2m) and
II. Expenses	(47)	Polenergia S.A. (PLN 2m).
1. Purchase of intangible and tangible fixed assets	(47) —	
2. For financial assets, including:	(0)	Construction of Mycielin WF (PLN 39m), distribution segment development (PLN
3. Other investment expenses	-	2m) and further projects development (PLN 6m).
III. Net cash flow from investing activities (I-II)	(47)	
C. Cash flows from financing activities		
I. Cash received	45	Long-term investment loans Mycielin WF construction (PLN 42m) and distribution
1. Net proceeds from issue of shares and other equity instruments	-	segment development (PLN 3m).
2. Credit and loans	45	
II. Expenses	(65)	
1. Dividends and other distribution to owners	-	
2. Repayment of borrowings	(53) —	
3. Payment of financial lease agreements	(0)	Investment loans and interest repayment drawn by the operating assets, mainly
4. interest	(11)	wind farms, ENS, and distribution.
5. Other financial expenses	(1)	
III. Net cash flow from financing activities (I-II)	(20)	
D. Net cash flow, total (A.III+/-B.III+/-C.III)	(20)	
E. Balance transition of cash, including:	(19)	
F. Cash and cash equivalents at beginning of period	362	
G. Consolidated cash and cash equivalents at end of period	343	17





Market Update

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Regulatory market surrounding and impact on strategy

- Leading position to participate in Poland's renewable strategy....
 - <u>258 MW ready for first auction in 2016</u>: largest from any single market participant, 216MW already at Ready to Build Stage (i.e. Building Permit secured);
 - <u>Auctions/Regulation</u>: work on an anti-wind legislation slowed down, proposed provisions will be reconsidered and possibly eased, new amendment to the RES Act proposed includes auctions which can be shaped to Polenergia's profile.
 - <u>Offshore wind:</u> positive signals.
-however, we need to take actions to ensure Polenergia is optimized to the current market and fits with the strategy of the Government:
 - Ensure fully optimized HQ cost base process has commenced;
 - Reduce O&M costs in operational wind farms process has commenced;
 - Fully utilize the vertically integrated position of the Company to maximize its stable generation profile e.g. participation in "hybrid" aspects of the auctions or contributing to the overall stability of the Polish Grid via ENS;
 - Ensure the strategy for the Company is ready for the transformational trends among European/global utilities (e.g. customer flexibility/proximity and technological innovations)
- Regulatory changes still uncertain
 - Wind Turbine Investment Act introducing minimum distance criteria and additional UDT requirements with property tax implications has been put on hold. However signs could be positive for favorable outcome;
 - The new draft of RES Act has been published on 6th May but the key provisions are very general and most of the issues will be settled by implementing regulations;

V POLENERGIA **Offshore windfarms: huge growth potential**

- Polenergia has two projects of offshore wind farms with a total capacity of 1,2 GW, which are scheduled to commence
 operations consecutively in 2022 and 2026;
- Taking as a reference point value of the project at the Ready To Build Stage (i.e. with Construction Permit) Polenergia
 assesses the current progress of offshore wind farm projects at 45% (among others projects have permit use of artificial
 islands, placement of submarine cables and signed Connection Agreement with PSE). By the end of 2016 Polenergia plans
 to secure the Environmental Decision;
- Based on actual transactions in the European market in recent times, the potential value of offshore wind farm projects at the time of Financial Close may reach c.260k EUR* / 1MW;
- Assuming this valuation, we can determine the potential value of the project as:



* Multiple based on purchase of Gode Wind I and II by Dong Energy from PNE Wind in 2012, according to data published by Bloomberg New Energy Finance

Polenergia estimates potential disruptive valuation effect at PLN13/share

Europe renewables LCOE declining whilst conventional growing



Note: US\$/MWh. Capacity factors – onshore wind: 25-35%; solar PV: 10-15%

Source: BNEF

In Europe onshore wind as well as PV have already reached grid parity compared to natural gas/coal in some cases. Coal LCOE is expected to grow due to rising CO2 prices medium/long term (despite recent falls), lower utilization rates as a result of the changing market, as well as rising financing costs and declining ablity of external financing availability for coal fired generation.



Turbines price declines



Wind turbine price (inflation corrected to 2014),1984-2016e (mEUR/MW)

Source: Bloomberg New Energy Finance, Lawrence Berkeley National Laboratory (LBNL), ExTool study (Neij et al.2003), Vestas annual reports.

BNEF estimates significant prices declines of turbines (9% cost reduction for every doubling of installed capacity) – Polenergia best placed to take advantage of this due to significant negotiation power.

Wind project capital expenditure cost (per MW nameplate



Decrease in O&M costs and improving load factors

Global (excluding China) onshore wind O&M price trend (inflation corrected to 2014), 1984-2015 (thousand EUR/MW/yr) Global (ex. China) onshore wind capacity factor improvement over years, 1997-2015 (%)



Source: Bloomberg New Energy Finance

Source: Bloomberg New Energy Finance

Decreasing O&M driven by economies of scale and more standardized, mature technology along with improving the average global load factor will even further allow Polenergia for more aggressive bids in auctions.



Levelised cost of electricity – offshore wind at US\$110/MWh target for 2020 (BNEF)

Historical and forecasted LCOE using various learning rates vs commissioning year (USD/MWh)



Notes: Reading off the chart will give the LCOE at the time of commissioning. For example, the historic LCOE reaches until 2017 because for a project commissioned in 2017 it reflects the calculated LCOE at pre-construction 2 years prior. Calculations based on forecasted number of units rather than installed capacity. Conversion rate of USD/GBP = 1.5 and USD/EUR = 1.1 (last 3 month average).

Offshore could have significant positive impact on Polish economy



> PLN 60bn in additional GDP and up to 70 thousand jobs across entire Polish economy – easily offsetting (or providing an alternative) to any potential restructuring effect of Polish coal mines thus providing a good replacement alternative for the Polish State.





Business/Project Descriptions

C POLENERGIA **Group Structure**



VPOLENERGIA

Renewable listed vertically integrated utility with predictable returns and strong near term growth profile



V POLENERGIA **Onshore wind farms - operating**

Operating wind farms

# Location	Capacity (MW)	COD	Clients	WF Puck • Combined project capacity equals 22,0 MWe, comprise 11 turbine (Gamesa) 2,0 MW each; • Location: Pomorskie voivodeship, district Puck; • COD in January 2007; • Average annual production of approximately 42 GWh;
1 Puck	22,0	2007	Energa, Polenergia Obrót	WF Modlikowice • Combined project capacity equals 24,0 MWe, comprise 12 turbine (Vestas) 2,0 MW each;
2 Modlikowice	24,0	2012	Tauron Sprzedaż	 Location: Dolnośląskie voivodeship, district złotoryjski; COD in 2012; Average annual production of approximately 50 GWh;
3 Łukaszów	34,0	2011	Tauron Sprzedaż	WF Łukaszów Combined project capacity equals 34,0 MWe, comprise 17 turbine (Vestas) 2,0 MW each; Location: Dolnośląskie voivodeship, district złotoryjski; COD in 2012; Average annual production of approximately 74 GWh;
4 Gawłowice	48,3	10.2014	Polenergia Obrót	WF Gawłowice • Combined project capacity equals 48,3 MWe, comprise 21 turbine (Siemens) 2,3 MW each; • Location: Kuj. – pom. voivodeship, district grudziądzki; • COD in November 2014; • Planned annual production of approximately 144 GWh;
5 Rajgród	25,3	11.2014	Polenergia Obrót	WF Rajgród • Combined project capacity equals 25,3 MWe, comprise 11 turbine (Siemens) 2,3 MW each; • Location: Podlaskie voivodeship, district grajewski; • COD in October 2014;
6 Skurpie	43,7	08.2015	Polenergia Obrót	 Planned annual production of approximately 67 GWh; <u>WF Skurpie</u> Combined project capacity equals 43.7 MWe, comprise 19 turbine (Siemens) 2.3 MW each:
7 Mycielin	48,0	12.2015	Polenergia Obrót	 Location: Warmińsko-Mazurskie voivodeship, district działdowski; COD in August 2014; Planned annual production of approximately 122 GWh;
	245,3 MW			WF Mycielin • Combined project capacity equals 48 Mwe, comprise 24 turbine (Vestas) 2,0 MW each; • Location: Lubuskie voivodeship, district szprotawski; • COD in December 2015; • Planned annual production of approximately 136 MWh;

V POLENERGIA **Onshore wind farms – development portfolio**

Pipeline build up

- The portfolio of operating wind farms at YE2015 reached installed capacity equal 245,3 MW;
- Additional 669MW portfolio of wind farms under development of which:
 - 6 projects of 258 MW will participate in first auction planned for 2016;
 - 411 MW will participate in auctions in 2017-2019.

Planned participation in the first auction in 2016				
#	Location	Power (MW)	Building permit	Possible completion
8	Piekło	12	Secured	2017
9	Grabowo	40	Secured	2017
10	Zielona	110	Secured	2018
11	Kostomłoty	18	Secured	2018
12	Bądecz	42	Q2'16	2018
13	Szymankowo	36	Secured	2019
		258 MW*		

 \ast Decrease in comparison to YE 2015 r. due to technical limitations of project sites



- WPS Terms of connections to the Network
- PB Building Permit

Polenergia is a leading offshore wind farms developer in Poland

Description

- Two projects with total power of c. 1.2 GW
- The plan is to build offshore projects in cooperation with an experienced industrial player (50/50 JV)
- An additional option is third project with a capacity of 1,6 GW with a valid location permit
- In August 2014, connection agreement for 1200 MW with PSE SA was signed



Name of project	Bałtyk Środkowy III	Bałtyk Środkowy II
Actual planned capacity (MW)	600	600
Number of turbines	Ca. 75	Ca. 75
Distance from the shore	22 km	37 km
Region	116,6 km ²	122 km ²
Depth	25-39m	23-41m
Average wind speed	9 – 10 m/s	9 – 10 m/s

Installed capacity and electricity generation (PH share)



Planned key dates	Bałtyk Środkowy III	Bałtyk Środkowy II
Environmental decision	Q2 2016	Q3 2016
Construction start	2020	2023
Commisionig date	2021/22	2026

Leading developer of offshore in Poland, supported by increasingly attractive cost economics. Also, the Polish government wants to impose regulations to suport offshore wind farm projects.

VPOLENERGIA

ENS Gas-fired CHP – operational portfolio

Description

- Natural gas powered CHP plant with a capacity of 116 MWe and 70 MWt.
- Modern asset, which began commercial operations in 2000.
- Operating with high efficiency unit works as a power system.
- Produced energy is ejected by the three above-ground transmission lines with a capacity of 110 kV.
- CHP meets polish environmental standards.
- Fixed income and cash flow of stranded costs for 2020.
- ENS after 2020 will operate a gas turbine and a steam turbine, producing electricity and heat in combination. The Board assumes that the second turbine will be used as a power source for the intervention of the National Power System based on the agreement to share power with the operator of the National Power System. In addition, Nowa Sarzyna CHP as a source will be able to provide a service of the National Power System reconstruction under an agreement with the operator of the system;



ENS 116MWe / 70MWt Operating assets: Gas powered CHP plant

Technical Specifications			
Installed capacity	116 MWe, 70 MWt		
Net capacity	113 MWe		
Avg. net output	Electricity ca. 750 GWh Heating ca. 435 TJ		
Technology	CCGT		
Fuel	Natural gas / fuel oil backup		
Efficiency	HHV (47.7%), LHV (52.9%)		
Туре	2*1 CCGT Thomassen (GE) frame 6		
COD	2000		
Availability	96.5%		

Compensation formula

- ENS generates revenue through the sale of electricity and heat, additionally receives compensation for stranded costs, compensation for gas and yellow certificates.
- Guaranteed compensation for stranded costs sufficient to cover all the costs of fuel and operating expense (EBIT = 0). It is calculated in such way to balance power and heat sales minus the cost of fuel and operating expense.
- Depreciation (included in the compensation) allows for debt service and interest costs.
- Gas Compensation and yellow certificates directly increase the profit before tax.

Electricity distribution

The length of the distribution network (number of projects)



Distribution of electricity

	In use	In development	Total
Distribution power	75 MW	19 MW	94 MW
Distribution volume	279 GWh	30 GWh	c. 309 GWh
Number of projects	31	12	43
Final users	10,5k	4,7k	ca. 15,2k
The length of the mediun voltage lines (km)	- 111,3	13,1	124,4
Number of substations	87	25	112
Number of transformers	143	34	177

Polenergia Distribution

Description

- Polenergia Distribution is a niche distributor of electricity to industrial, retail and commercial customers, ie. residential areas, factories, office buildings and shopping centers.
- Regulated entity based on WACC / WRA with approved investment plans.

Projects in development

- 12 projects based on contracts with developers of housing and industrial partner.
- All regulated in accordance with the system WACC / WRA with approved investment plans.
- Excellent platform for expansion on a larger scale – in the distribution of energy.

Increase in value and benefits for customers

Increase of value

- Obtaining a license to distribute electricity for the electrical infrastructure (ie. the "last mile") in non-residential buildings, ie. shopping centers and office buildings.
- Effective use of cooperation between the regulated activities (distribution of electricity) and commercial (sales of energy).
- Providing partners with opportunities to optimize the cost of electricity infrastructure during construction and maintenance.
- Effective use of cooperation within the Group.

A unique package of benefits for customers

- Immediate settlement or reduction of electrical infrastructure costs.
- Competitive tariffs for distribution and connection to the grid.
- All costs associated with the maintenance of infrastructure covered by Polenergia Distribution.
- Settlement for electricity by company.
- Risk of delays in payments for electricity transferred to company.
- The ability to change vendors (TPA) by the customers.

FOLENERGIA Trading (Polenergia Obrót)

Review of Polenergia Obrót (trading)

- Central platform for trading and risk management located in Warsaw.
- In January, 2013 the company took over the former
 Vattenfall Trading team operating in the energy markets in the CEE region.

Commercial activity

Expertise in the wholesale electricity trading, property rights and natural gas. The company has licenses for electricity trading, trade in gas fuels in Poland and foreign trade.

Important role in the value chain of Polenergia Group - market access, transfer of knowledge and information about the market, optimizing business processes, portfolio management.

Proprietary trading (trading on the stock exchange and OTC)

Low risk profile

Trade based on the physical delivery of the product

Limited risk profile - monitored daily

Polenergia Obrót	2015	1Q 2016
Energy sold	12 TWh	3,3 TWh
Natural gas sold	290 GWh	600 GWh

Polenergia Obrót – key highlights 2015/2016

- Apart from energy trading, Polenergia Obrót actively participates in the natural gas market, taking advantage from its ongoing liberalization. In Q1 2016 the company increased its natural gas volume to 0,6 TWh (more than two times as much as in the whole 2015).
- In 2016 Polenergia Obrót will start supplying gas in a physical delivery point.
- Polenergia Obrót also plans to take part in the forward market for green certificates formed by Towarowa Giełda Energii (Polish Power Exchange). As a step towards this market, in 2015 the company was the first in Poland to sell certificates of origin in the Polskie Gwarancje Pochodzenia Energii Programme (certificates originated from one of the wind farms in Polenergia Group).

EXAMPLENERGIA Bernau – Szczecin pipeline (Germany-Poland)

Overview

- Gas transmission project is ideally located to connect western gas markets with the isolated markets of Poland and other Eastern European countries (Ukraine, Lithuania)
- It is to provide the access to import infrastructure in Germany and become one of the key market openers of the East Europe gas market
- Customers in Poland (and potentially in neighbouring countries to the east and south of Poland) will gain access to the liquid Gaspool spot market which allows them to purchase gas at lower prices and from various suppliers, thus significantly improving their energy security and ensuring supplies of this strategic commodity in a diversified way
- Strategic partners are to be invited for joint development of the project in Poland and Germany, however the company assumes to hold minimum 51% of German part of the business
- Transmission return structured on attractive RAB based remuneration

Pipeline Bernau – Szczecin

- · · •	
Total technical capacity	3,0 - 5,0 bcm p.a.m
Compressor stations	3 x 5,4 MW
Lenght	c. 150km (30km in POL. 120km in GER)
	Project status
FEED Design	Secured
Construction Permits	Secured
Rigths of way	C. 50% Secured
TPA/Unbundling	In progress
Commercial closing	In progress
Grid connection	In progress
EPC	To be completed
Financing	To be completed



General characteristics

EXIT FROM POLAND/ENTRY TO GERMANY EXIT FROM GERMANY/ENTERING TO POLAND



VPOLENERGIA

Other operating assets and projects

Coal power plant - Power station Północ

- The construction of coal-fired power plants with total capacity of 2 * 800 MW using supercritical technology.
- The project will be based on a long-term PPA contract with a guaranteed collection price for 20 years.

Planned power	to 2*800 Mwe
Efficiency	over 45%
Fuel (coal)	20-22 GJ/ton

Zakrzów heating plant

- The plant with heat power of 23 MW located in Wroclaw
- Energy is produced from natural gas supplied by PGNiG distribution network
- Built in 2000 in order to provide electricity and heat to Whirlpool under long-term contract (valid up to approx. 2020).
- Built by Polenergia turnkey, along with the necessary infrastructure (gas pipeline and terminals)
- Whirlpool is the sole user of the produced thermal energy

Power Plant Mercury

- The power plant is located in Walbrzych
- Launched in July 2006.
- Power unit boiler fueled with gas and steam turbine with power above 8 MWe
- Power unit generates electricity from gas that is a byproduct in the production of coke in WZK Victoria
- The power plant operates on the basis of a contract concluded between Polenergia and Victoria WZK for supply of coke oven gas and electricity reception. The contract is valid until December 31 2021.

Biomass power plant

Polenergia is currently working on power plant with a capacity of 31 MWe in Wińsko - received all permits

Key features				
Turbine	Condensation / Alstom			
Cauldron	Vibrating grate / DP Cleantech			
Installed power	31 MWe			
Start-up	2020			
Client	Delivery to the grid			
Productivity (load factor)	92%			
Efficiency	Electric 33%			
Operational period	30 years			

Production of pellet

- In response to the growing demand, since 2008 Polenergia launched 3 projects which produce pellet from agricultural biomass, required for power industry and municipal power plants. The company has three pellet factories
 - North Factory, located in Sępólno Krajeńskie
 - South Factory, located in Ząbkowice Śląskie
 - East Factory, located in Zamość

	North Factory	South Factory	East Factory
Start-up	2009	2010/2011	2012
Annual production (t)*	28k	50k	54k