

# PNE WIND AG

Germany / Cleantech  
 Primary exchange: Frankfurt  
 Bloomberg: PNE3 GR  
 ISIN: DE000A0JBPBG2

Q2 results

**RATING**  
**PRICE TARGET** **BUY**  
 Return Potential 40.2%  
 Risk Rating High

## WIND FARM PORTFOLIO SALE TAKING SHAPE

On 11 August PNE Wind reported H1 figures which were largely in line with our estimates. In a few weeks, we expect PNE to decide whether its 150 MW own wind farm portfolio will be sold directly or IPOed. The remainder of the year looks set to be a sufficient time frame to close the deal as planned and PNE thus confirmed its 2016E EBIT guidance of up to €100m, which would be a record result in the history of the company. Based on unchanged estimates and increased net debt, an updated DCF model yields a price target of €3.00 (previously: €3.30). We maintain our Buy rating.

**H1 figures largely in line with estimates** H1 sales amounted to €44.9m (FBe: €36.0m, H1/15: €71.9m). H1 total aggregate output was €61.1m (FBe: €55.0m, H1/15: €89.8m). Top line figures were below the previous year's figures due to the sale of the UK project pipeline last year. EBIT came in at €-1.4m (FBe: €-0.5m, H1/15: €24.0m). The main reason for the negative operating result is the high expenses for the construction of wind farms. Earnings will be accounted for later when the wind farms are sold. The net result was €-7.8m (FBe: €6.7m, H1/15: €18.4m) and was mainly driven by interest expenses of €8.4m.

**Own plant portfolio now at 142.5 MW** The planned 150 MW portfolio now comprises 142.5 MW, of which 98.4 MW (66%) have already been commissioned, and 38.1 MW are under construction. In July, PNE received a permit for a further 6 MW which will increase the volume of the Altenbruch Repowering project reserved for the portfolio to 18 MW. In Q2, the wind farm Apensen II (6 MW) was commissioned as scheduled, and we expect the commissioning of the wind farms Köhlen (21.3 MW) and Holzthaleben (4.8 MW) in Q3, and Altenbruch Repowering in Q4. In the conference call, management said that the 7.5 MW required to reach the 150 MW are to be filled by a 9.9 MW project which looks set to be permitted by the end of this year (see figure 1 overleaf).

Management plans to decide at the end of August/beginning of September whether the portfolio will be IPOed or sold directly to an investor. (p.t.o.)

### FINANCIAL HISTORY & PROJECTIONS

	2013	2014	2015	2016E	2017E	2018E
Revenue (€m)	144.04	211.27	109.52	170.60	221.78	260.30
Y-o-y growth	70.7%	46.7%	-48.2%	55.8%	30.0%	17.4%
EBIT (€m)	43.57	2.68	9.77	92.95	27.90	29.21
EBIT margin	30.2%	1.3%	8.9%	54.5%	12.6%	11.2%
Net income (€m)	37.58	-12.99	3.47	65.53	13.98	14.50
EPS (diluted) (€)	0.75	-0.21	0.05	0.84	0.18	0.19
DPS (€)	0.15	0.04	0.04	0.10	0.06	0.06
FCF (€m)	-4.32	-34.33	-105.38	195.23	-4.08	-0.13
Net gearing	96.8%	64.9%	98.1%	-11.7%	-6.2%	-4.1%
Liquid assets (€m)	77.40	72.18	86.08	172.45	175.71	75.98

### RISKS

Risks to our price target include, but are not limited to: changes in legislation, project financing risks, project delays, and project approval risks.

### COMPANY PROFILE

PNE WIND AG is an international wind energy project developer for on- and offshore wind farms. The company is based in Cuxhaven, Germany.

### MARKET DATA

As of 15 Aug 2016

Closing Price	€ 2.14
Shares outstanding	76.56m
Market Capitalisation	€ 163.83m
52-week Range	€ 1.55 / 2.42
Avg. Volume (12 Months)	106,659

Multiples	2015	2016E	2017E
P/E	45.1	2.6	11.9
EV/Sales	3.5	2.2	1.7
EV/EBIT	39.3	4.1	13.7
Div. Yield	1.9%	4.7%	2.8%

### STOCK OVERVIEW



### COMPANY DATA

As of 30 Jun 2016

Liquid Assets	€ 39.42m
Current Assets	€ 234.05m
Intangible Assets	€ 62.96m
Total Assets	€ 481.78m
Current Liabilities	€ 100.88m
Shareholders' Equity	€ 152.76m

### SHAREHOLDERS

V. Friedrichsen Bet. GmbH	15.0%
Axxion S.A.	3.2%
Free Float	81.9%



The company is currently in advanced talks with potential investors and, in general, sees increasing interest from investors in large wind farm portfolios. This is hardly surprising considering how difficult it currently is to find investment opportunities which offer attractive yields. This is highlighted by the negative yields on German Government bonds. Furthermore, the new renewable energy law (EEG 2017), which will be effective from 1 January 2017, and will replace the current system, in which feed-in tariffs are fixed by the government through a tender system. This means that future feed-in tariffs will be determined in a competitive bidding process which looks set to reduce the feed-in tariff level. We have seen a similar trend in the photovoltaic sector, where feed-in tariffs fell by ca. 20% during four tender rounds in 2015/16. Investors are thus keen to purchase wind farm assets that receive the rather high feed-in tariffs based on the current renewable energy law. PNE's own plant portfolio is probably the largest German wind farm portfolio currently on the market, and likely one of the last opportunities for investors to buy a large German wind farm portfolio based on the known current tariffs.

**Figure 1: PNE's own wind farm portfolio**

Wind farm portfolio	MW	Location	Status	Scheduled completion
Chrandsdorf	57.6	Brandenburg	commissioned	Q3 2015
Waldfeucht	9.0	North Rhine-Westphalia	commissioned	Q4 2015
Altenbruch II	25.8	Lower Saxony	commissioned	2009
Apensen II	6.0	Lower Saxony	commissioned	Q2 2016
Köhlen	21.3	Lower Saxony	under construction	Q3 2016 (FBe)
Holzthaleben	4.8	Thuringia	under construction	Q3 2016 (FBe)
Altenbruch Repowering	18.0	Lower Saxony	under construction	Q4 2016 (FBe)
Unnamed project	9.9	n.a.	not yet permitted	Q1 2017 (FBe)
<b>Sum</b>	<b>152.4</b>			

Source: First Berlin Equity Research, PNE WIND AG

**Balance sheet reflects wind farm portfolio build-up** The balance sheet total remained largely stable at €482m (end 2015: €488m). The main asset positions are PP&E of €162m and inventories of €163m. The main part of PP&E is commissioned wind farms with a book value of €127m. Inventories consist of offshore wind projects (€44m), German onshore wind projects (€47m), foreign onshore wind projects (€47m), and prepayments (€25m). The cash position fell from €86.1m (end 2015) to €39.4m.

Due mainly to the H1 loss of €7.8m, equity fell to €152.8m from €165.9m at the end of 2015. The equity ratio still remains solid at 32% (end 2015: 34%). Long-term financial debt fell to €214m (31/12/2015: €224m), of which long-term project financing totals €106m. Short-term financial debt increased to €45m from €37m. The net debt position thus increased to €219m from €174m at the end of 2015.

**Cash flow burdened by higher working capital** Operating cash flow amounted to €-40.4m due mainly to increased inventories and other assets by €44.8m. CAPEX was low at €0.5m resulting in a free cash flow of €-45.3m. The high negative free cash flow is caused by strong construction activity, as 82.2 MW were completed, or under construction in H1.

**New syndicated loans increase financial leeway** In July, PNE concluded a syndicated loan (€30m) and a credit guarantee facility (€10m) with a consortium led by Commerzbank. The agreement replaces a loan agreement with subsidiary WKN which was due at the end of June. The new loan increases PNE's financial leeway. In Q2, the cash outflow was financed by reducing the high cash position from €76.9m (end Q1) to €39.4m.

**Strong onshore business** In Q2, PNE commissioned the wind farms Westerengel (23.1 MW), which was handed over to CEE, and Apensen II (6 MW), which is part of the own wind farm portfolio. In France, PNE will start construction of wind farms with a total output of 21.6 MW at the end of 2016. These wind farms are part of the 50 MW agreement with John Laing.



Furthermore, another wind farm (10.3 MW) received the effective permit following the end of the objection period. In Poland, a 42 MW project is scheduled to take part in the next tender round. We expect the Polish government to announce the exact date of the tender in Q3. In Sweden, the environmental permit for 99 MW was issued, which corresponds to the operating permit and is thus a decisive step in the development of the project.

**Another offshore milestone payment** DONG Energy made the Final Investment Decision to construct Borkum Riffgrund II, which was developed by PNE. This resulted in a €3.2m milestone payment becoming due. PNE will receive the last milestone payment of €4.1m when the wind farm is put into operation. In total, PNE expects up to €29m in milestone payments for Borkum Riffgrund II and Gode Wind 3 and 4. The Atlantis I offshore project is being prepared for the tender in 2017. The project size increased to 584 MW from 400 MW, as PNE now plans to install turbines with a capacity of 8 MW.

**Strong increase in sales and EBITDA in the Electricity Generation segment** Due to the build-up of the own plant portfolio (now 98.4 MW in operation) H1 revenues almost doubled to €11.9m. Segment EBITDA was up to €8.3m from €3.8m in H1/15, an increase of 118%. The EBITDA margin was 69.6% (H1/15: 62.8%).

**Regulatory headwinds in Germany both onshore and offshore** The EEG 2017 and the new offshore law (SeeWindG) will initiate tender processes both for onshore and offshore projects. Onshore installations will be capped at 2,800 MW p.a. for 2017-19. We expect pricing and margin pressure for the wind industry along the value chain. However, the expected consolidation process also offers opportunities for larger project developers such as PNE as many smaller project developers may lack the financial strength to stay in business.

The offshore wind energy act (WindSeeG) will replace the feed-in tariff system by a competitive tender process. For projects far from the coast line (zones 3, 4, 5), development will be taken over by a government agency and the areas will be auctioned off for realisation between 2025 and 2030. If the legislation is not legally challenged, these changes could affect PNE's investments in offshore projects (Jules Verne, Nemo, Natulius and Atlantis II, III) amounting to €22m. Overall, Germany remains committed to renewable power production and aims to increase its share from ca. 33% in 2015 to 55-60% by 2035.

**Buy reiterated at lower price target** Based on unchanged estimates and the higher net debt position an updated DCF model yields a new price target of €3.00 (previously: €3.30). We expect record EBIT of €93m this year due to the scheduled sale of the portfolio in Q4. 2016E multiples (EV/EBIT: 4.1, P/E: 2.6) indicate that PNE is attractively valued. We reiterate our Buy recommendation.

**Figure 2: Reported figures versus forecasts**

All figures in €m	Q2-16A	Q2-16E	Delta	Q2-15	Delta	H1 2016	H1 2015	Delta
Sales	32.86	24.06	36.6%	56.75	-42.1%	44.80	71.94	-37.7%
EBIT	-1.62	-0.52	-	30.00	-	-1.44	24.01	-
margin	-4.9%	-2.2%	-	52.9%	-	-3.2%	33.4%	-
Net income	-4.10	-3.03	-	27.63	-	-7.77	18.44	-
margin	-12.5%	-12.6%	-	48.7%	-	-17.3%	25.6%	-
EPS (diluted) in €	-0.05	-0.04	-	0.36	-	-0.10	0.24	-

Source: First Berlin Equity Research, PNE WIND AG



## VALUATION MODEL

DCF valuation model								
All figures in EUR '000								
	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E
Net sales	170,600	221,780	260,298	265,504	270,814	276,230	281,755	287,390
NOPLAT	85,473	23,978	25,152	25,749	26,016	24,219	23,272	20,957
+ depreciation & amortisation	15,040	3,920	5,197	6,543	7,648	8,579	9,355	9,993
Net operating cash flow	100,513	27,899	30,349	32,292	33,665	32,798	32,627	30,950
- total investments (CAPEX, WC, other)	110,024	-24,610	-22,361	-13,775	-19,338	-18,872	-18,378	-17,856
Capital expenditures	90,418	-15,525	-17,440	-16,992	-16,618	-16,222	-15,804	-15,362
Working capital	22,516	-8,175	-4,111	3,922	-2,125	-2,171	-2,217	-2,264
Free cash flows (FCF)	210,538	3,289	7,987	18,517	14,326	13,926	14,248	13,094
PV of FCF's	205,022	2,991	6,782	14,681	10,604	9,625	9,196	7,891

All figures in thousands	
PV of FCFs in explicit period (2016E-2030E)	316,836
PV of FCFs in terminal period	141,336
Enterprise value (EV)	458,172
+ Net cash / - net debt	-219,453
+ Investments / minority interests	-4,858
Shareholder value	233,861

Fair value per share in EUR	3.00
-----------------------------	------

WACC	7.1%	Terminal growth rate							
		0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	
Cost of equity	11.8%	3.1%	8.27	9.66	11.91	16.22	27.80	163.47	-34.47
Pre-tax cost of debt	7.0%	4.1%	5.69	6.24	7.02	8.16	10.02	13.58	23.14
Tax rate	25.0%	5.1%	4.24	4.51	4.85	5.31	5.95	6.89	8.42
After-tax cost of debt	5.3%	6.1%	3.31	3.46	3.64	3.86	4.15	4.52	5.04
Share of equity capital	28.0%	7.1%	2.68	2.76	2.86	2.98	3.13	3.31	3.54
Share of debt capital	72.0%	8.1%	2.21	2.33	2.32	2.39	2.47	2.57	2.69
		9.1%	1.86	1.89	1.93	1.97	2.02	2.07	2.14
Fair value per share in EUR	3.00	10.1%	1.58	1.60	1.62	1.65	1.68	1.71	1.75

\* for layout purposes the model shows numbers only to 2023, but runs until 2030



## INCOME STATEMENT

All figures in EUR '000	2013A	2014A	2015A	2016E	2017E	2018E
<b>Revenues</b>	<b>144,040</b>	<b>211,268</b>	<b>109,524</b>	<b>170,600</b>	<b>221,780</b>	<b>260,298</b>
Change in inventories	13,376	19,078	116,096	0	0	0
Other operating income	3,223	3,603	7,707	3,902	2,883	3,384
<b>Total aggregate output</b>	<b>160,639</b>	<b>233,949</b>	<b>233,327</b>	<b>174,502</b>	<b>224,663</b>	<b>263,682</b>
Cost of goods sold	71,895	170,496	154,934	14,296	138,391	176,438
<b>Gross profit</b>	<b>85,521</b>	<b>59,850</b>	<b>70,686</b>	<b>156,304</b>	<b>83,389</b>	<b>83,860</b>
Personnel costs	21,615	27,041	29,254	27,720	28,950	29,414
Depreciation and amortisation	6,196	8,526	9,870	15,040	3,920	5,197
Other operating expenses (-)	-17,364	-25,206	-29,504	-24,500	-25,500	-23,427
<b>Operating income (EBIT)</b>	<b>43,569</b>	<b>2,680</b>	<b>9,765</b>	<b>92,945</b>	<b>27,902</b>	<b>29,207</b>
Interest Expense	-10,617	-14,934	-16,381	-18,887	-10,948	-12,073
Interest Income	1,283	2,422	1,743	665	665	1,041
Income from participations & ass. companies	159	-5,334	-86	0	2,000	2,100
<b>Pre-tax income (EBT)</b>	<b>34,394</b>	<b>-15,166</b>	<b>-4,959</b>	<b>74,723</b>	<b>19,619</b>	<b>20,275</b>
Income taxes	2,600	-3,131	3,570	-7,472	-3,924	-4,055
Minority interests	585	5,305	4,863	-1,719	-1,719	-1,719
<b>Net income / loss</b>	<b>37,579</b>	<b>-12,992</b>	<b>3,474</b>	<b>65,532</b>	<b>13,977</b>	<b>14,501</b>
<b>Diluted EPS (in €)</b>	<b>0.75</b>	<b>-0.21</b>	<b>0.05</b>	<b>0.84</b>	<b>0.18</b>	<b>0.19</b>
<b>EBITDA</b>	<b>49,765</b>	<b>11,206</b>	<b>19,635</b>	<b>107,986</b>	<b>31,822</b>	<b>34,404</b>
<b>Ratios</b>						
Gross margin	59.4%	28.3%	64.5%	91.6%	37.6%	32.2%
EBITDA margin on revenues	34.5%	5.3%	17.9%	63.3%	14.3%	13.2%
EBIT margin on revenues	30.2%	1.3%	8.9%	54.5%	12.6%	11.2%
Net margin on revenues	26.1%	-6.1%	3.2%	38.4%	6.3%	5.6%
Tax rate	-7.6%	-20.6%	72.0%	10.0%	20.0%	20.0%
<b>Expenses as % of revenues</b>						
Personnel costs	15.0%	12.8%	26.7%	16.2%	13.1%	11.3%
Depreciation and amortisation	4.3%	4.0%	9.0%	8.8%	1.8%	2.0%
Other operating expenses	12.1%	11.9%	26.9%	14.4%	11.5%	9.0%
<b>Y-Y Growth</b>						
Revenues	70.7%	46.7%	-48.2%	55.8%	30.0%	17.4%
Operating income	113.1%	-93.8%	264.4%	851.8%	-70.0%	4.7%
Net income/ loss	121.4%	n.m.	n.m.	1786.4%	-78.7%	3.8%



## BALANCE SHEET

All figures in EUR '000	2013A	2014A	2015A	2016E	2017E	2018E
<b>Assets</b>						
<b>Current assets, total</b>	<b>284,000</b>	<b>265,935</b>	<b>236,033</b>	<b>302,622</b>	<b>315,327</b>	<b>223,026</b>
Cash and cash equivalents	77,402	72,175	86,075	172,448	175,709	75,981
Short-term investments	0	0	0	0	0	0
Receivables	34,371	20,098	7,969	27,109	34,634	39,223
Inventories	145,860	152,389	121,177	82,253	84,172	87,010
Other current assets	25,165	20,075	19,332	19,332	19,332	19,332
<b>Non-current assets, total</b>	<b>150,940</b>	<b>150,900</b>	<b>252,231</b>	<b>146,773</b>	<b>158,377</b>	<b>170,620</b>
Property, plant & equipment	76,089	73,655	167,347	35,639	47,243	59,486
Goodwill & other intangibles	56,343	63,926	63,105	63,105	63,105	63,105
Long-term investments / ass. companies	0	0	0	26,250	26,250	26,250
Other assets	18,508	13,319	21,779	21,779	21,779	21,779
<b>Total assets</b>	<b>434,940</b>	<b>416,835</b>	<b>488,264</b>	<b>449,394</b>	<b>473,704</b>	<b>393,647</b>
<b>Shareholders' equity &amp; debt</b>						
<b>Current liabilities, total</b>	<b>112,729</b>	<b>95,034</b>	<b>84,858</b>	<b>86,393</b>	<b>174,600</b>	<b>82,916</b>
Short-term debt	38,978	34,940	35,857	30,000	120,000	25,000
Accounts payable	12,093	21,476	16,852	19,584	20,853	24,170
Current provisions	9,457	3,908	6,291	6,291	6,291	6,291
Other current liabilities	52,201	34,710	25,858	30,518	27,455	27,455
<b>Long-term liabilities, total</b>	<b>178,085</b>	<b>161,606</b>	<b>237,478</b>	<b>137,478</b>	<b>62,478</b>	<b>62,478</b>
Long-term debt	172,475	141,207	215,975	115,975	40,975	40,975
Deferred revenue	0	0	0	0	0	0
Other liabilities	5,610	20,399	21,503	21,503	21,503	21,503
<b>Minority interests</b>	<b>5,693</b>	<b>33</b>	<b>-3,102</b>	<b>-1,383</b>	<b>336</b>	<b>2,055</b>
<b>Shareholders' equity</b>	<b>138,433</b>	<b>160,162</b>	<b>169,030</b>	<b>226,907</b>	<b>236,290</b>	<b>246,198</b>
Share capital	54,858	71,975	76,555	76,555	76,555	76,555
Capital reserve	55,546	77,803	82,287	82,287	82,287	82,287
Other reserves	-661	-296	-724	-724	-724	-724
Treasury stock	-6,483	0	0	0	0	0
Loss carryforward / retained earnings	35,173	10,680	10,912	68,789	78,172	88,080
<b>Total consolidated equity and debt</b>	<b>434,940</b>	<b>416,835</b>	<b>488,264</b>	<b>449,394</b>	<b>473,704</b>	<b>393,647</b>
<b>Ratios</b>						
Current ratio (x)	2.52	2.80	2.78	3.50	1.81	2.69
Quick ratio (x)	1.23	1.19	1.35	2.55	1.32	1.64
Net cash	-134,051	-103,972	-165,757	26,473	14,734	10,006
Net gearing	96.8%	64.9%	98.1%	-11.7%	-6.2%	-4.1%
Book value per share (€)	2.69	2.60	2.20	2.89	3.01	3.13
Return on equity (ROE)	27.1%	-8.1%	2.1%	28.9%	5.9%	5.9%
Days of sales outstanding (DSO)	87.1	34.7	26.6	58.0	57.0	55.0
Days of inventory turnover	740.5	326.2	285.5	2,100.0	222.0	180.0
Days in payables	61.4	46.0	39.7	500.0	55.0	50.0



## CASH FLOW STATEMENT

All figures in EUR '000	2013A	2014A	2015A	2016E	2017E	2018E
<b>EBIT</b>	<b>45,050</b>	<b>2,681</b>	<b>9,765</b>	<b>92,945</b>	<b>27,902</b>	<b>29,207</b>
Depreciation and amortisation	6,224	8,554	9,898	15,040	3,920	5,197
<b>EBITDA</b>	<b>51,274</b>	<b>11,235</b>	<b>19,663</b>	<b>107,986</b>	<b>31,822</b>	<b>34,404</b>
Changes in working capital	-50,713	-28,886	-74,556	22,516	-8,175	-4,111
Other adjustments	-1,548	-11,845	-47,582	-25,694	-12,207	-12,987
<b>Operating cash flow</b>	<b>-987</b>	<b>-29,496</b>	<b>-102,475</b>	<b>104,808</b>	<b>11,441</b>	<b>17,305</b>
CAPEX	-3,334	-4,829	-2,903	90,418	-15,525	-17,440
Investments in intangibles	0	0	0	0	0	0
<b>Free cash flow</b>	<b>-4,321</b>	<b>-34,325</b>	<b>-105,378</b>	<b>195,226</b>	<b>-4,084</b>	<b>-135</b>
<b>Debt financing, net</b>	<b>111,202</b>	<b>11,137</b>	<b>97,715</b>	<b>-105,857</b>	<b>15,000</b>	<b>-95,000</b>
<b>Equity financing, net</b>	<b>-6,483</b>	<b>33,435</b>	<b>9,454</b>	<b>0</b>	<b>0</b>	<b>0</b>
Other changes in cash	-59,581	-15,474	12,109	-2,996	-7,655	-4,593
<b>Net cash flows</b>	<b>40,817</b>	<b>-5,227</b>	<b>13,900</b>	<b>86,373</b>	<b>3,261</b>	<b>-99,728</b>
Cash, start of the year	36,586	77,402	72,175	86,075	172,448	175,709
<b>Cash, end of the year</b>	<b>77,403</b>	<b>72,175</b>	<b>86,075</b>	<b>172,448</b>	<b>175,709</b>	<b>75,981</b>
<b>EBITDA/share (in €)</b>	<b>0.97</b>	<b>0.18</b>	<b>0.26</b>	<b>1.37</b>	<b>0.41</b>	<b>0.44</b>
<b>Y-Y Growth</b>						
Operating cash flow	n.m.	n.m.	n.m.	n.m.	-89.1%	51.3%
Free cash flow	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
EBITDA/share	121.6%	-81.2%	40.4%	438.3%	-70.5%	8.1%

**FIRST BERLIN RECOMMENDATION & PRICE TARGET HISTORY**

Report No.:	Date of publication	Previous day closing price	Recommendation	Price target
Initial Report	31 March 2008	€2.38	Buy	€4.50
2...77	↓	↓	↓	↓
78	19 November 2015	€2.05	Buy	€3.60
79	1 April 2016	€1.81	Buy	€3.30
80	13 May 2016	€2.20	Buy	€3.30
81	Today	€2.14	Buy	€3.00

**Authored by: Dr. Karsten von Blumenthal, Analyst**

**Company responsible for preparation:**

**First Berlin Equity Research GmbH**

Mohrenstraße 34  
10117 Berlin

Tel. +49 (0)30 - 80 93 96 85 Fax +49 (0)30 - 80 93 96 87

info@firstberlin.com

www.firstberlin.com

**Person responsible for forwarding or distributing this financial analysis: Martin Bailey**

**Copyright© 2016 First Berlin Equity Research GmbH** No part of this financial analysis may be copied, photocopied, duplicated or distributed in any form or media whatsoever without prior written permission from First Berlin Equity Research GmbH. First Berlin Equity Research GmbH shall be identified as the source in the case of quotations. Further information is available on request.

**INFORMATION PURSUANT TO SECTION 34B OF THE GERMAN SECURITIES TRADING ACT [WPHG], TO REGULATION (EU) NO 596/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF APRIL 16, 2014, ON MARKET ABUSE (MARKET ABUSE REGULATION) AND TO THE GERMAN ORDINANCE ON THE ANALYSIS OF FINANCIAL INSTRUMENTS [FINANV]**

First Berlin Equity Research GmbH (hereinafter referred to as: "First Berlin") prepares financial analyses while taking the relevant regulatory provisions, in particular the German Securities Trading Act [WpHG], Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014, on market abuse (market abuse regulation) and the German Ordinance on the Analysis of Financial Instruments [FinAnV] into consideration. In the following First Berlin provides investors with information about the statutory provisions that are to be observed in the preparation of financial analyses.

**CONFLICTS OF INTEREST**

In accordance with Section 34b Paragraph 1 of the German Securities Trading Act [WpHG] and Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014, on market abuse (market abuse regulation) financial analyses may only be passed on or publicly distributed if circumstances or relations which may cause conflicts of interest among the authors, the legal entities responsible for such preparation or companies associated with them are disclosed along with the financial analysis.

First Berlin offers a range of services that go beyond the preparation of financial analyses. Although First Berlin strives to avoid conflicts of interest wherever possible, First Berlin may maintain the following relations with the analysed company, which in particular may constitute a potential conflict of interest (further information and data may be provided on request):

- The author, First Berlin, or a company associated with First Berlin holds an interest of more than five percent in the share capital of the analysed company;
- The author, First Berlin, or a company associated with First Berlin provided investment banking or consulting services for the analysed company within the past twelve months for which remuneration was or was to be paid;
- The author, First Berlin, or a company associated with First Berlin reached an agreement with the analysed company for preparation of a financial analysis for which remuneration is owed;
- The author, First Berlin, or a company associated with First Berlin has other significant financial interests in the analysed company;

In order to avoid and, if necessary, manage possible conflicts of interest both the author of the financial analysis and First Berlin shall be obliged to neither hold nor in any way trade the securities of the company analyzed. The remuneration of the author of the financial analysis stands in no direct or indirect connection with the recommendations or opinions represented in the financial analysis. Furthermore, the remuneration of the author of the financial analysis is neither coupled directly to financial transactions nor to stock exchange trading volume or asset management fees.

If despite these measures one or more of the aforementioned conflicts of interest cannot be avoided on the part of the author or First Berlin, then reference shall be made to such conflict of interest.

**PRICE TARGET DATES**

Unless otherwise indicated, current prices refer to the closing prices of the previous trading day.

**AGREEMENT WITH THE ANALYSED COMPANY AND MAINTENANCE OF OBJECTIVITY**

The present financial analysis is based on the author's own knowledge and research. The author prepared this study without any direct or indirect influence exerted on the part of the analysed company. Parts of the financial analysis were possibly provided to the analysed company prior to publication in order to avoid inaccuracies in the representation of facts. However, no substantial changes were made at the request of the analysed company following any such provision.



### ASSET VALUATION SYSTEM

First Berlin's system for asset valuation is divided into an asset recommendation and a risk assessment.

#### ASSET RECOMMENDATION

The recommendations determined in accordance with the share price trend anticipated by First Berlin in the respectively indicated investment period are as follows:

**STRONG BUY:** An expected favourable price trend of more than 50% combined with sizeable confidence in the quality and forecast security of management.

**BUY:** An expected favourable price trend of more than 25% percent.

**ADD:** An expected favourable price trend of between 0% and 25%.

**REDUCE:** An expected negative price trend of between 0% and -15%.

**SELL:** An expected negative price trend of more than -15%.

#### RISK ASSESSMENT

The First Berlin categories for risk assessment are low, average, high and speculative. They are determined by ten factors: Corporate governance, quality of earnings, management strength, balance sheet and financial risk, competitive position, standard of financial disclosure, regulatory and political uncertainty, strength of brandname, market capitalisation and free float. These risk factors are incorporated into the First Berlin valuation models and are thus included in the target prices. First Berlin customers may request the models.

#### INVESTMENT HORIZON

Unless otherwise stated in the financial analysis, the ratings refer to an investment period of twelve months.

#### UPDATES

At the time of publication of this financial analysis it is not certain whether, when and on what occasion an update will be provided. In general First Berlin strives to review the financial analysis for its topicality and, if required, to update it in a very timely manner in connection with the reporting obligations of the analysed company or on the occasion of ad hoc notifications.

#### SUBJECT TO CHANGE

The opinions contained in the financial analysis reflect the assessment of the author on the day of publication of the financial analysis. The author of the financial analysis reserves the right to change such opinion without prior notification.

#### Legally required information regarding

- key sources of information in the preparation of this research report
- valuation methods and principles
- sensitivity of valuation parameters

can be accessed through the following internet link: <http://firstberlin.com/disclaimer-english-link/>

**SUPERVISORY AUTHORITY:** Bundesanstalt für Finanzdienstleistungsaufsicht (German Federal Financial Supervisory Authority) [BaFin], Graurheindorferstraße 108, 53117 Bonn and Lurgiallee 12, 60439 Frankfurt

### EXCLUSION OF LIABILITY (DISCLAIMER)

#### RELIABILITY OF INFORMATION AND SOURCES OF INFORMATION

The information contained in this study is based on sources considered by the author to be reliable. Comprehensive verification of the accuracy and completeness of information and the reliability of sources of information has neither been carried out by the author nor by First Berlin. As a result no warranty of any kind whatsoever shall be assumed for the accuracy and completeness of information and the reliability of sources of information, and neither the author nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall be liable for any direct or indirect damage incurred through reliance on the accuracy and completeness of information and the reliability of sources of information.

#### RELIABILITY OF ESTIMATES AND FORECASTS

The author of the financial analysis made estimates and forecasts to the best of the author's knowledge. These estimates and forecasts reflect the author's personal opinion and judgement. The premises for estimates and forecasts as well as the author's perspective on such premises are subject to constant change. Expectations with regard to the future performance of a financial instrument are the result of a measurement at a single point in time and may change at any time. The result of a financial analysis always describes only one possible future development – the one that is most probable from the perspective of the author – of a number of possible future developments.

Any and all market values or target prices indicated for the company analysed in this financial analysis may not be achieved due to various risk factors, including but not limited to market volatility, sector volatility, the actions of the analysed company, economic climate, failure to achieve earnings and/or sales forecasts, unavailability of complete and precise information and/or a subsequently occurring event which affects the underlying assumptions of the author and/or other sources on which the author relies in this document. Past performance is not an indicator of future results; past values cannot be carried over into the future.

Consequently, no warranty of any kind whatsoever shall be assumed for the accuracy of estimates and forecasts, and neither the author nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall be liable for any direct or indirect damage incurred through reliance on the correctness of estimates and forecasts.

#### INFORMATION PURPOSES, NO RECOMMENDATION, SOLICITATION, NO OFFER FOR THE PURCHASE OF SECURITIES

The present financial analysis serves information purposes. It is intended to support institutional investors in making their own investment decisions; however in no way provide the investor with investment advice. Neither the author, nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall be considered to be acting as an investment advisor or portfolio manager vis-à-vis an investor. Each investor must form his own independent opinion with regard to the suitability of an investment in view of his own investment objectives, experience, tax situation, financial position and other circumstances.

The financial analysis does not represent a recommendation or solicitation and is not an offer for the purchase of the security specified in this financial analysis. Consequently, neither the author nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall as a result be liable for losses incurred through direct or indirect employment or use of any kind whatsoever of information or statements arising out of this financial analysis.

A decision concerning an investment in securities should take place on the basis of independent investment analyses and procedures as well as other studies including, but not limited to, information memoranda, sales or issuing prospectuses and not on the basis of this document.

**NO ESTABLISHMENT OF CONTRACTUAL OBLIGATIONS**

By taking note of this financial analysis the recipient neither becomes a customer of First Berlin, nor does First Berlin incur any contractual, quasi-contractual or pre-contractual obligations and/or responsibilities toward the recipient. In particular no information contract shall be established between First Berlin and the recipient of this information.

**NO OBLIGATION TO UPDATE**

First Berlin, the author and/or the person responsible for passing on or distributing the financial analysis shall not be obliged to update the financial analysis. Investors must keep themselves informed about the current course of business and any changes in the current course of business of the analysed company.

**DUPLICATION**

Dispatch or duplication of this document is not permitted without the prior written consent of First Berlin.

**SEVERABILITY**

Should any provision of this disclaimer prove to be illegal, invalid or unenforceable under the respectively applicable law, then such provision shall be treated as if it were not an integral component of this disclaimer; in no way shall it affect the legality, validity or enforceability of the remaining provisions.

**APPLICABLE LAW, PLACE OF JURISDICTION**

The preparation of this financial analysis shall be subject to the law obtaining in the Federal Republic of Germany. The place of jurisdiction for any disputes shall be Berlin (Germany).

**NOTICE OF DISCLAIMER**

By taking note of this financial analysis the recipient confirms the binding nature of the above explanations.

By using this document or relying on it in any manner whatsoever the recipient accepts the above restrictions as binding for the recipient.

**QUALIFIED INSTITUTIONAL INVESTORS**

First Berlin financial analyses are intended exclusively for qualified institutional investors.

**This report is not intended for distribution in the USA, Canada and/or the United Kingdom (Great Britain).**