Vestas Wind Systems (CPN: VWS.CO) Andreas Helland
Recommendation: LONG with a 13.5% HPR on a five-year horizon

Executive Summary

The recent share price drawdown of 25% (see exhibit 1 for share price chart) has created an opportunity to own a high-quality, capital light business with a long runway for high ROIC growth as wind energy takes a larger share of the global energy mix due to learning-curve induced improvement in wind park unit economics.

VWS.CO	4/16/2021
EUR	
Price	159.4
Shares Outstanding	200.9
Market Cap	32,015
+ Total debt	908
- Cash	3,174
Enterprise Value	29,749
52-wk high	208.7
52-wk low	68.6
Avg. Daily Volume	776,000
Float (%)	96%
5Y Beta	0.88

VWS.CO is a long-time market leader in the manufacturing and installation of onshore and offshore wind turbines (*Power Solutions*) combined with the largest under-service installed base of wind turbines (*Services*). The recent cycle's price pressure on new installations has led to consolidation with an outlook for softer competitive dynamics with investments at higher ROICs going forward.

The base case forecasts a 13.6% annual holding period return for a horizon of 5 years. While the stock is not cheap at the current valuation 25x EV/EBIT, the recent multiple compression from 30x EV/EBIT led by one-off market share loss to GE and Chinese players due to lapsing subsidies in their home market leaves a greater margin of safety against multiple compression eating into the returns.

Summary Financials

FYE, EUR	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Revenue	8,423	10,237	9,953	10,134	12,147	14,819
Power Solutions	7,285	8,928	8,431	8,465	10,276	12,764
Service	1,138	1,309	1,522	1,669	1,871	2,055
Service share of biz (%)	*14%*	*13%*	*15%*	*16%*	*15%*	*14%*
Revenue growth (%)		22%	-3%	2%	20%	22%
EBIT	860	1,421	1,230	959	1,004	750
EBIT margin (%)	*10%*	*14%*	*12%*	*9%*	*8%*	*5%*
Net Income	685	965	894	684	704	765
EPS	3.1	4.4	4.2	3.4	3.6	3.9
Invested Capital	3,394	3,686	3,609	3,602	4,165	6,057
ROIC	19%	29%	26%	20%	19%	10%

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Strategic Analysis

Company Analysis

Vestas Wind Systems (VWS.CO) is a Danish manufacturer of wind turbines listed at the Copenhagen stock exchange. It has a market cap of DKK 239bn (USD 38bn, EUR 32bn) and trades an average volume of 750,000 shares a day (30D).

VWS is a leading manufacturer of wind turbines used for onshore and offshore wind parks, as well as maintenance service provider for the parks at completion. The company has installed 135 GW worth of wind turbines since inception across 83 countries, have 40 years of experience in wind and was the first player to reach the 100 GW landmark of installed service base in 2020. VWS has a truly global footprint versus its largest competitors who are focused on their 'home markets' in the US and China.

VWS reports under two segments, (1) Power Solutions (86% of revenue, 6% pre-covid EBIT margin), and (2) Service (14% of revenue, 26% EBIT margin). See the appendix (exhibit 2) for historic revenue growth and margins by segment. Collectively the company has been achieving an ROIC of ~20% (pre-covid), primarily driven by the highly attractive service segment as well as a EUR 1.5-2bn negative working capital due to prepayment at project milestones ahead of the recognition of revenue (see exhibit 3 for historic ROIC development). By YE 2020 VWS had EUR 3bn in cash equivalents and negligible levels of debt.

Power Solutions' primary activity is the planning, manufacturing and installation of onshore and offshore wind turbines. The segment has been growing revenues at 14% CAGR from 2014 to 2020 as onshore wind power have become competitive on a cost basis with other sources of energy. Historically the segment comprised solely of the onshore wind business, but in 2020 Vestas exchanged Mitsubishi Heavy Industries' share in the offshore wind JV MHI Vestas Offshore Wind for 2.5% of outstanding Vestas stock (EV of EUR 709m). By YE 2020 VWS had a firm backlog of EUR 19bn (EUR 15bn in onshore and EUR 4bn in offshore). I expect this segment to be relatively volatile as the magnitude of orders fluctuate depending on the development cycle of new infrastructure projects.

The *Service segment* entail all after-market work consisting of various type of maintenance service agreements as well as the sale of spare parts, spanning from simple maintenance agreements to output guarantees. VWS is currently servicing 117 GWh with a global footprint (72 countries), generating between EUR 15-20m in revenue per GWh depending on the nature of the service contract. The core attractiveness of VWS business lays in this segment - the average length of a new service contract commitment is 18 years (and average remaining contract length 10 years), requires limited capital investment and generates a 25% EBIT margin. This is a source of highly recurring revenues at high returns on invested capital, and as the installed base of turbines increase this segment is expected to become a larger share of the business (up from the current 15%) driving the overall margins up.

VWS is led by Henrik Andersen, a seasoned executive with a great track record and sensibly aligned incentives to focus on high capital returns (see exhibit 4 for an overview of the management performance plan). The company has been well managed with a disciplined capital allocation strategy where they have invested sufficiently in R&D while being able to retain product leadership while

maintaining a distribution yield of 1.5-3% depending on the magnitude of share repurchases. Management is explicitly focused on the return on capital employed levels, targeting a minimum of 20% ROCE over the cycle.

VWS operates in an increasingly concentrated market (especially ex-China) due to recent price competition leading to consolidation. They face a set of specialized suppliers, but a fragmented end-market of infrastructure developers which typically operates with regional mandates. The end-market is in the process of fragmenting further due to the entrance of players traditionally focusing on conventional energy (O&G etc.)

Industry Analysis

Industry trends:

Wind power is a structurally advantaged industry facing secular growth trends over the next few decades. There are four key trends driving this development:

1) **Accelerated competitiveness of renewable energy sources.**

Ultimately electricity is a commodity, and the core driver of demand for the origin of the electricity is cost of production. With significant retirements of coal and nuclear on the horizon, the replacement capacity is likely to flow to the sources with the best economics. Government support over the past decade has created a virtuous cycle where higher demand for wind energy projects have driven down the levelized cost of electricity (LCOE) for wind relative to other sources of energy (see exhibit 5 for energy source comparison). LCOE is the total operating and capital costs over the life of the project divided by the total electricity generated and discounted by the project WACC. Accumulated installed capacity has driven a *learning curve* leading to a 71% LCOE cost reduction from 2009-2020, ultimately driving wind to become competitive on a $/MWh with more conventional energy sources on an *unsubsidized basis.* While the pace of the development is hard to forecast with high degree of accuracy, a continuation of the renewable energy learning curve is likely to drive a gradual transition to renewables. BNEF forecasts renewables to make up ~40% of the global electricity generation mix by 2040, up from around 10% today (see exhibit 6 for illustration). Wind is forecasted to take the lead on this development by making up ~30% of the mix by 2040.

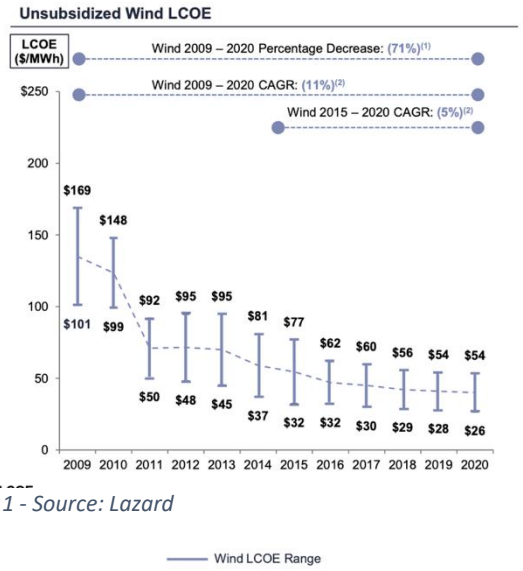

Figure 1 - Source: Lazard

2) **Structural growth in electricity demand grows the pie**

Electrification (EVs, fuel switching, HVACs), structural growth (population growth, urbanization) and digitization (IoT, data centers) is likely to continue to drive the global demand for electricity by 2-3% annually going forward.

3) **Global policy commitment to renewable energy will accelerate the wind energy learning curve, especially within offshore wind.**

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Rather than focusing on the need for continual policy support to validate the investment thesis for wind energy, the strong recent policy support towards renewables by Europe, the US and China works as an accelerator in two ways: (1) it speeds up the deployment of renewable energy accelerating the learning curve particularly of offshore wind (which is not as competitive as onshore wind on an unsubsidized basis), (2) carbon taxes worsens the economics of more conventional energy sources (particularly coal-fired capacity), accelerating the switch to renewables.

Industry Structure and changes

The wind industry can be divided into two core elements: onshore and offshore wind. Onshore wind is the dominating market segment with a 95% share of installed capacity, however, offshore wind is growing faster from a low base and is expected to account for around 20% of new additions by 2025 (see exhibit 7 for market model)

Onshore Wind

From 2016 up until recently, the onshore wind industry has gone through a process of consolidation with pressure on the *construction* margins, leading to smaller players with lower *installed base* (and therefore less of a cushion from highly cash generative service and aftermarket contracts) being pushed out of the market. The result is a widening gap between leading manufacturers and smaller players. The remaining industry structure creates an oligopoly consisting of VWS and GE ex-China (with Nordex as a loss-making laggard with lack of scale). The Chinese market, consisting of ~35-40% of installed capacity by 2020, is dominated by the *local preferred champions* Goldwind (~30% domestic share) and Envision (23% domestic share). China *accounted for 98% of the capacity commissioned by Chinese turbine makers in 2020, and does not have the performance to compete internationally.* At the same time, China was the second largest market for both GE and Vestas.

Both GE and VWS has been signaling that it is time to focus on margin improvement in *turbine construction* under the new more concentrated market structure, which is likely to lead to a return towards a more normalized level around the 2014-2017 average mark of 10% EBIT margins as the number of players who are competitive in auctions is reduced. The onshore wind market is expected to taper off slightly from the 2020 peak, but continued to grow 7-10% annually (in GWh) from the 14% growth seen in 2020.

Offshore Wind

The offshore wind market is dominated by Siemens Gamesa (the result of a 2016 merger between Siemens and Gamesa) with ~40% share followed by MHI Vestas at 15% share and a tail of smaller Chinese players operating in the domestic market. Ex-Chinese players, Siemens Gamesa holds 65% share followed by VWS (25%) and GE (8%) in 2019, leaving an oligopoly at a market where the base of installed turbines (in GWh) is expected to double over the next three years.

The margins in the offshore wind market is lower as the segment is ramping up, but the incremental invested capital input by the current leading players will contribute to significant barriers to entry in a market that is operationally and technically more advanced than onshore.

Service Market

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While there is less information flow on the nature of competition within the service market, my research largely indicates that 'you eat what you kill' backed up by VWS service base making up ~90% of their total installed capacity. The market appears to move in tandem with GWh additions from each players with stable high margins and limited capital requirements. The market is expected to grow with the added capacity to onshore and offshore wind.

Barriers to entry (and whether it is undermined by technological disruption)

1. Scale in R&D to sustain a position at the leading edge

Except for the market share loss caused by a rush of installations in the US and China in H2 2020, Vestas has been the largest player in the industry for the past four years. This has allowed them to outspend competitors on R&D to remain on the leading edge with their product portfolio on both output yield and reliability. The cumulative R&D spend on wind turbines presents a formidable challenge for an incumbent to achieve leading output yields as the pace of innovation to new generations of turbines is high.

2. Operational credibility and the learning curve of an installed base

The wind turbines are a critical input to any wind park and requires substantial upfront capital outlays for the park developer. As a result, the developers are unlikely to go with more unproven players. This represents a substantial barrier to entry as it effectively becomes a catch-22. To make it to the leading edge on yields the players are dependent on having a large installed base, but, without a large installed base, wind park developers are unlikely to take the risk it implies of going with unproven player. This is amplified by the financial cushion provided by the base of service contracts, which needs to be aggregated over time with installed capacity. *The sum of the customer captivity created through their operational credibility and the scale in product development creates sustainable barriers to entry.*

3. Customer captivity in the service segment

Added capacity rolls over onto long and predictable contracts of recurring revenue at high margins. These commitments are typically signed as the wind park construction is commenced. While being a relatively small share of revenue at a unit economics level for each wind park, it represents a very attractive business for VWS. Additionally, as other players in the industry lacks the competence to maintain VWS equipment, which at the current state of the industry makes the service segment relatively impenetrable.

Valuation

I recommend a **buy** with a 13.5% holding period return at an acceptable level of risk.

Asset Values

The critical on-balance sheet assets at VWS are primarily operating assets, consisting of EUR 5.3bn of inventory related to the rollout of new wind parks, net PPE of EUR 2bn of land, buildings, fixtures and machinery, AR of EUR 3.4bn, as well as intangible assets related to development projects usable for future applications of EUR 600m. In general, VWS operates a capital light business with EUR 1.5bn

negative working capital due to the large upfront payments under 'unearned revenue' (EUR 5.6bn by YE 2020) that follows their business model.

Additionally, VWS has two core off-balance sheet assets that are not accounted for. Firstly, the R&D spend has contributed to industry-leading turbines and should be capitalized. Secondly, the cost of replicating their EUR 43bn backlog should be accounted for. VWS also has off-balance sheet liabilities that impact the financials of the firm in the shape of warranty provisions, where VWS makes certain output guarantees for the wind parks they set up, and might have to compensate their customers if the turbines break down.

The AV at EUR 13bn is significantly below the current market capitalization of VWS. Please see exhibit 8 for full calculation.

Earnings Power Values

Several adjustments should be made to the current earnings to arrive at a reasonable measure of normalized earnings. (1) Margins in the Power Solutions division is at a decade trough due to recent price pressure as the industry has consolidated. As a result, the EBIT margin has been cycle-corrected at the 5Y average to correct for the industry cycle, arriving at a steady state operating profit of EUR 1.5bn (at 10% EBIT). (2) Adjusted for estimated growth spend in SG&A to fuel the acceleration in backlog across the two division. (3) Adjusted for the product portfolio growth spending by assuming that 80% of R&D spending is allocated towards new product development.

To arrive at an appropriately conservative discount rate (7.5%) I have added 1.1% to the 6.5% CAPM induced discount rate to reflect the inherit business fluctuation and competitive erosion risk of the Power Solutions division.

The EPV of EUR 22.5bn is substantially above the AV, indicating that barriers to entry do exist. The EPV is 30% below the market capitalization of VWS, meaning the market is pricing in profitable growth for the company. Please see exhibit 9 for full calculation.

Growth

The estimated base case **HPR is 13.6%**, reflecting normalized distribution yield of 2.4% and an earnings growth of **11.1%**. This is higher than my alternative cost of capital and I would hence recommend a buy for the stock. VWS is currently trading at 25x 2021 EV/EBIT, de-rated from a 2020 high of 30x NTM EV/EBIT around YE 2020. I believe the recent share price pullback to be due to temporary factors, and while the stock is still expensive the multiples are less at risk of a margin compression after the recent share price pullback. However, in a downside case margin compression drives a conservative HPR of 7.2%. See exhibit 10 for calculations and sensitivities.

VWS has been reinvesting in its business at a normalized ROIC of 20% (2020 was lower at 10% due to challenges arising from COVID), down from the mid-to-high 20s due to the recent competitive pressure discussed above. At the same time VWS has distributed around 2-3% of enterprise value back to investors primarily through stock repurchases and dividends. As an investor it looks as though more of the excess cash generated could be plowed back into the business as opposed to be returned to investors, but the quality of management and their focus on capital allocation gives me faith in their capital deployment. Forward guidance from management points towards higher levels of reinvestment

in the business from a relatively low 2020 expected at an incremental ROIC above current ROIC due to the more benign competitive environment.

The nature of the business (as discussed previous in the writeup) requires VWS to spend on maintaining product and share leadership in the Power Solutions division for the profitability to eventually flow over to the Service division once a project has been completed.

To achieve a normalized level of investment I have used the average of the 3y average, 2020 and guided growth capex to reflect the more expansionary capex going forward as VWS reinvests in both the onshore and offshore business. Please see the exhibit 10 for the full calculation.

Risk Assessment

While VWS is a structurally growing business at healthy ROIC levels, the company does face business risks that needs to be accounted for:

- Chinese competition making inroads in international markets. China accounted for a record 39% of net GWh additions in 2020, with a preference for local turbine suppliers (Goldwind, Envision, and a tail of others) in line with their Made in China 2025 national policy. While the Chinese players commissioned 98% of their capacity domestically in 2020, a steepening learning curve followed by an international expansion in onshore wind is a material business risk for VWS in the decade ahead and would lead to a more fragmented market ex-China. *Margin of safety:* VWS and GE is still far ahead on product portfolio performance, and their installed base widely outpaces the relatively new Chinese players.
- Stagnating learning curve and loss of competitive edge against solar. Solar PV and wind energy have both followed a steep learning curve with an increasing installed base. For wind energy, this has been driven partially by more effective turbines and partially by the increased height of the towers and radius of the blades. If this learning curve is to stagnate relative to solar PV, the predicted share of wind energy in the energy mix of the future might be lower. *Margin of safety:* Solar and wind have complementary energy generation output profiles both based on season and time of day and is likely to co-function in the decades ahead.
- Multi-brand service competency leading to more fierce competition in the service segment. Currently there is a lack of multi-brand service competency. However, VWS has recently started an initiative to expand their service business to include several brands as the first mover. While this might make them more competitive in the shorter to medium term, it also risks less customer captivity in the service segment once implemented. *Margin of safety:* VWS is the first mover and renowned to have a strong service department and is therefore likely to benefit relatively to the other industry players.
- Relative strength of the offshore wind franchise in competition against Siemens Gamesa, and the cost learning curve in offshore wind. VWS has committed to be a leading player in offshore wind through the acquisition of MHI's share of their joint venture, which provides a clear opportunity to freely reinvest in the development of the offshore wind sector. At 5% of the global wind energy capacity the sector is still relatively unproven and not cost competitive at an unsubsidized level. Hence, the segment is dependent on following a similar path of LCOE reduction as onshore wind. *Margin of safety:* VWS has experience from developing the onshore

wind market from scratch as the market leader and will be able to rely on this competence as a challenger in the offshore wind market.

- Fluctuations in gas and coal prices. The profitability of wind park *developer and operators* are dependent on the end-market prices of electricity in their relevant markets, which ultimately rely on relative cost positions of various producers of electricity.

Review

The market is too short-term in the evaluation of VWS. It fails to price in VWS' ability to **deploy capital at ~20% ROIC** in a **structurally growing market** with a **low probability of erosion of their competitive position**. At the same time, the Mr. Market has derated VWS from ~30x EV/EBIT at YE 2020 to 25x EV/EBIT in mid-April on the basis of a temporary VWS market share loss caused by the exogenous variable of lapsing subsidies in the US (GE home market) and China (local players preferred). This leaves a lower risk of margin compression, and a greater margin of safety in my return estimates.

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Appendix:

EXHIBIT 1:

EXHBIT 2:

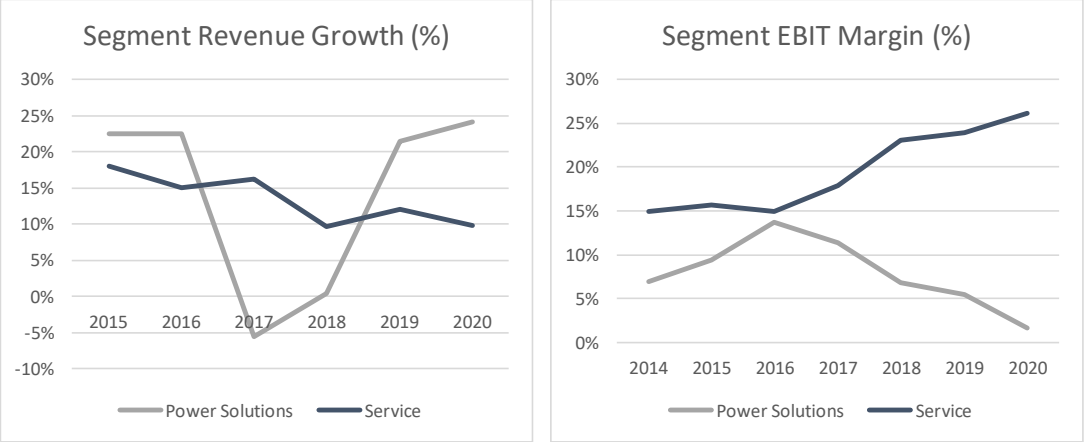

EXHIBIT 3:

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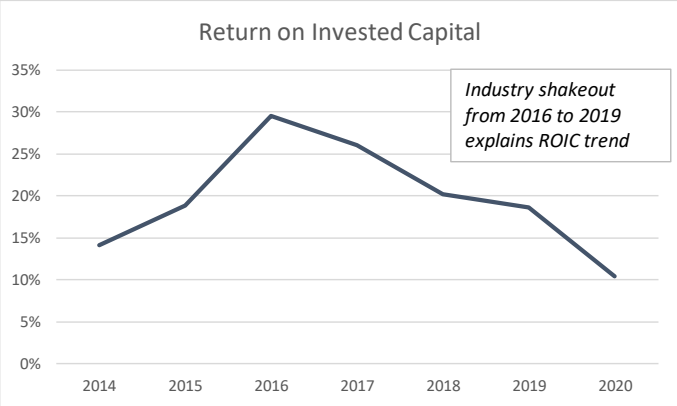


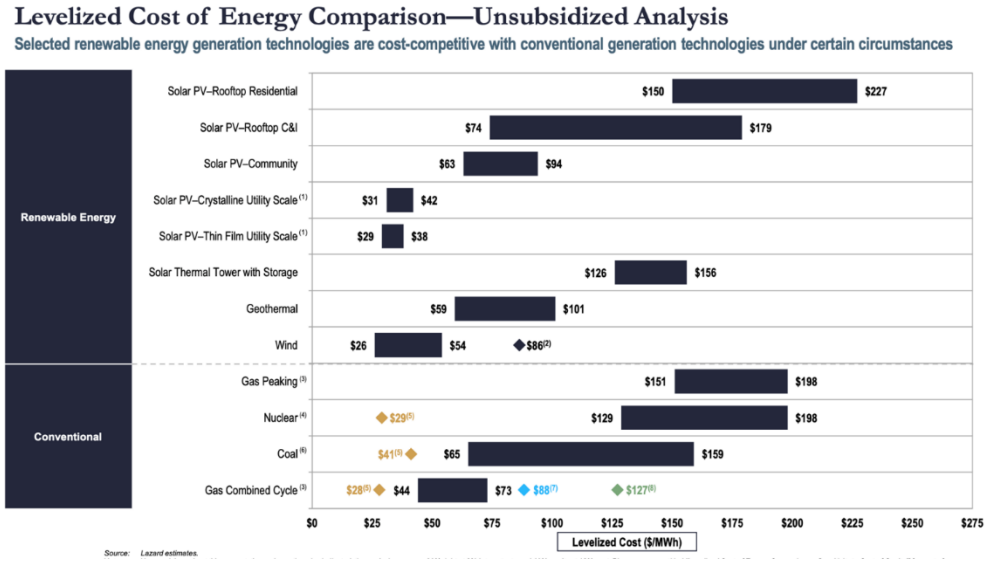
EXHIBIT 4:

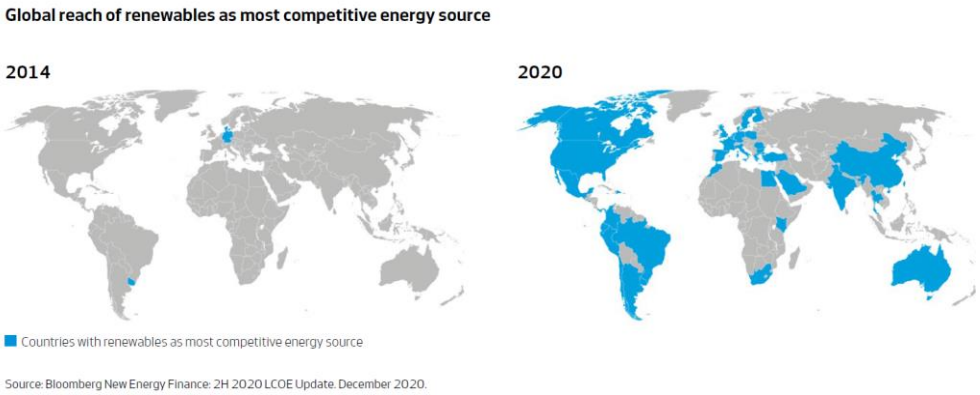
Table 9: Performance result share programmes - 2020 performance (indicative results for illustration only)

KPI	Weight of KPI	2020 result of KPI
Earnings per share	50%	At target
ROCE	30%	Below target
Market share	20%	Pending
Total	100%	Performance result for 2020 (assuming target performance on market share KPI): 72.0 percent of allotted number of shares

Source: VWS 2020 Remuneration Report

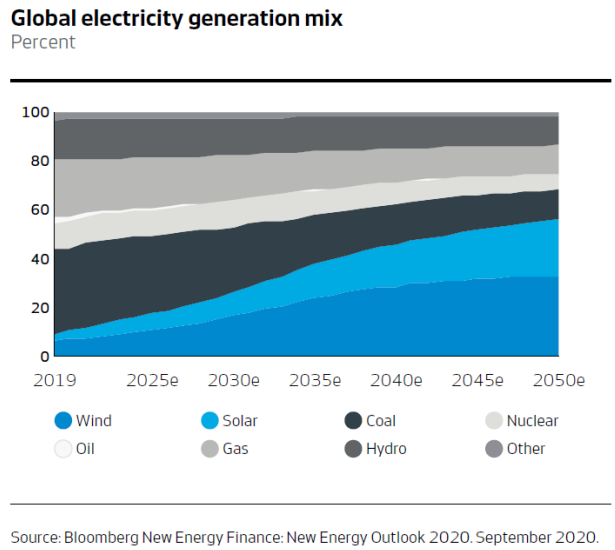
EXHIBIT 5 :



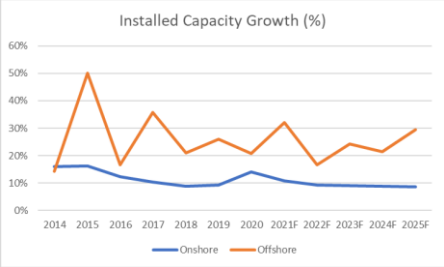


Source: Lazard Estimates, BNEF

EXHIBIT 6:



EXHBIT 7:



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Market Model		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021F	2022F	2023F	2024F	2025F
Global Wind Energy Capacity (GW)	Onshore	234	278	312	362	421	473	522	568	621	708	784	858	935	1,019	1,107
	Offshore	4	5	7	8	12	14	19	23	29	35	46	54	67	81	105
	Capacity	238	283	319	370	433	487	541	591	650	743	831	912	1,002	1,100	1,212
	Share of onshore	98%	98%	98%	98%	97%	97%	96%	96%	96%	95%	94%	94%	93%	93%	91%
	Share of offshore	2%	2%	2%	2%	3%	3%	4%	4%	4%	5%	6%	6%	7%	7%	9%
	Source: GWEC															
Global Wind Energy Additions	Onshore		44	34	50	59	52	49	46	53	87	76	73	77	84	88
	Offshore		1	2	1	4	2	5	4	6	6	11	8	13	14	24
	Share of additions, onshore		98%	94%	98%	94%	96%	91%	92%	90%	94%	87%	91%	86%	85%	79%
	Share of additions, offshore		2%	6%	2%	6%	4%	9%	8%	10%	6%	13%	9%	14%	15%	21%
Global Wind Energy Growth	Onshore		19%	12%	16%	16%	12%	10%	9%	9%	14%	11%	9%	9%	9%	9%
	Offshore		25%	40%	14%	50%	17%	36%	21%	26%	21%	32%	17%	24%	21%	29%
	Capacity		19%	13%	16%	17%	12%	11%	9%	10%	14%	12%	10%	10%	10%	10%
Vestas Installed Base	Service Agreements										117	131	144	158	173	191
	Total Installed capacity										135	151	166	182	200	220
	Share of global installed capacity										18%	18%	18%	18%	18%	18%
	Share of installed capacity under service										87%	87%	87%	87%	87%	87%

Source: GWEC, BNEF, Own estimates

EXHIBIT 8:

AV calculation:

Asset Value	*(all figures in millions unless otherwise noted)*	
Book value of equity	4,654	
Adjustments		
Accounts receivable	25	*Add AR allowances*
PP&E	1,207	See calculation below
Recreation of lease portfolio	6	See calculations below
Goodwill	(1,274)	*EUR 900m relates to the recent acquisition of MHI Vestas*
Work force	588	*See calculations below*
Product portfolio	3,780	*See calculations below*
Order backlog	4,290	*See calculations below*
Adjusted value of equity	13,275	
Market capitalization	32,015	
Difference	**(18,740)**	

Underlying calculations:

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Adjustments - Reproduction Value of PPE			
PPE	***Book value***	**Adjusted value**	
Land and buildings	1,166.00	1,166.00	*Assumed at cost price*
Pland and machinery	1,096.00	548.00	*Assumed at half of useful life*
Other fixtures and fittings, tools and equipme	1,530.00	765.00	*Assumed at half of useful life*
PP&E in progress	169.00	169.00	*Assumed fairly valued*
Right-of-use assets	581.00	581.00	*Assumed fairly valued*
Total	4,542.00		
Less accumulated D&A	(2,520.00)		
PPE, net	*2,022.00*	*3,229.00*	
PPE Adjustment	**1,207.00**		

Reproduction of lease portfolio	
Total operating lease obligations	116
Cost (%) to recrease portfolio	5%
Reproduction cost of lease portfolio	**5.80**

Goodwill	*Book value*	Adjusted value	
Goodwill account	1,274	0	All acquisitions are integrated; goodwill relates primarily to the acquisition of MHI Vestas (2020) and NEG Micon (2004)
Goodwill adjustment	**(1,274)**		

Workforce		
Employees	29,378	Employees YE 2020
Average salary (kEUR)	100,000	Calculation from Glassdoor reviews, checked with Comparably and Indeed
Base Salaries	2,937,800,000	
Cost of rehiring	20%	White-collar and engineering industry standard
Reproduction cost of workforce	**588**	

Product portfolio		
R&D spend	252	3y average (18-20') R&D expenditure
Product life (years)	15	
Capitalized internally generated R&D	3,780	
Adjusted value of product portfolio	**3,780**	

Order Backlog		
Backlog - Turbines	19,000	*To be realized within 1-3 years*
Backlog - Service	23,900	*To be realized at an average of 9 years*
Sales Effort	10%	*Sales cost as % of contract value*
Order backlog replication cost (EURmn)	**4,290**	

EXHIBIT 9:

EPV calculation:

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Earnings Power Value Calculation		
Revenue	14,819	FY 2020
Steady State Operating Margin	10%	*5Y average EBIT margin for the last industry cycle*
Normalized Operating Profit	1,473	
(+) Depreciation and Amortization charges	630	
(-) Maintenance Capex and Intangibles	(482)	*Assumed 50% of capex and intangible spending*
(+) Product Portfolio	212	*See calculation below*
(+) Order Backlog	183	*See calculation below*
Adjusted Operating Profit	2,016	
Tax expense	439	*3Y avg tax rate*
Sustainable NOPAT	**1,577**	
WACC	7.50%	*See WACC calcualation below*
EPV Operating Business	**21,025**	
(+) Non-Operating Cash	2,322	*Assume 5% of sales is needed for operations*
(+) Marketable Securities	111	
(-) Financial Debt	908	*Short-term and long-term financial debt*
EPV of Equity	**22,439**	
Market Capitalization	32,015	
Difference	**(9,577)**	

Growth Expense		
SG&A Expense	523	*See AV calculation*
Growth share	35%	
Growth expense	**183**	

Product Portfolio Adjustment		
R&D Expenditure	265	
Allocation to growth spend	80%	*Assume 80% of R&D allocation is dedicated to growth efforts*
Product Portfolio Growth Spend	**212**	

WACC calculation		
Conservative WACC	**7.5%**	*To provide a margin of safety on current interest rate cycle*
WACC	6.4%	
Share of equity	97%	
Market cap	32,015	
Debt	908	
Cost of debt	4%	
Tax rate	22%	
Cost of equity	6.5%	
Beta	0.88	*5y monthly*
MRP	5.5%	*In line with US historic average; Dimson, et. al*
Rf	1.66%	*In line with 10Y treasury yield, April 4th 2021*

EXHBIT 10:

Growth Calculation – Return Analysis:

Vestas Wind Systems (CPN: VWS.CO) Andreas Helland

Recommendation: LONG with a 13.5% HPR on a five-year horizon

Return Analysis	
Expected returns	
Distributions	2.4%
Earnings growth	11.1%
Enterprise return	*13.6%*
Multiple return (base)	0.0%
Multiple return (optimistic)	4.1%
Multiple return (conservative)	-6.3%
HPR (base)	**13.6%**
HPR (optimistic)	17.7%
HPR (conservative)	7.2%

Growth Calculation – Distribution Yield:

Distribution yield		
Market Cap	32,015	
Debt	908	
Cash & Investments	3,174	
EV	*29,749*	
Dividends	242	*3y average; excluding 2020 due to COVID*
Share Repurchases	433	*3y average; excluding 2020 due to COVID*
Debt Repayment	-	
Interest Payments	40	*2020*
Total Distributions	*715*	
Total Distribution Yield	**2.40%**	

Growth Calculation – Earnings Growth:

Earnings growth				
Normalized NOPAT	1,216			
Assets Net of Spont. Liab	6,057	*Adjusted for AP, tax payables, other current liabilities, contract liabilities, and other liabilities*		
ROIC	**20%**			
Operating income	1,472.90	*Normalized income*		
Tax rate	17.5%	*2020 tax rate*		
NOPAT	**1,215.85**			
	2020	3y Avg	2021 guidance	
D&A	630	534	725	Upwards trend due to growth of business
CAPEX	688	690	1,000	Tangible and intangible capex
Acq	-	41	41	2020: Acquisition of MHI Vestas merely a transition from below the line to above the line
Growth Capex	58	198	317	
Growth Capex / NOPAT	**5%**	**16%**	**26%**	
g	**11.1%**			
Growth / NOPAT	16%	*Avg of 2020, 3Y avg and 2021 guidance*		
ROIC	20%	Normalized for post-COVID		
Organic Growth	8.0%	*Conservative industry growth 5Y, 2020-2025, assuming flat prices*		

Growth Calculation – Margin Compression:

Vestas Wind Systems (CPN: VWS.CO) Andreas Helland
Recommendation: LONG with a 13.5% HPR on a five-year horizon

Margin Compression			
Current EV/EBIT NTM	24.8		*EV/ 2021 EBIT consensus*
Converge to over next five years..		Annual delta	*Case description*
2020 EV/EBIT NTM	30.4	4.1%	*Reversion to 2020 peak multiple*
Current EV/EBIT NTM	24.8	0.0%	*Base*
18-20' Avg EV/EBIT LTM	17.9	-6.3%	*Conservative - return to pre-transition averages*

Growth Calculation – HPR scenarios:

HPR Scenarios		
	Low Organic Growth	High Organic Growth
Low Growth Capex/NOPAT	5.0%	9.0%
High Growth Capex/NOPAT	9.2%	13.2%

Growth Capex/NOPAT		
Aggressive	26%	*Guided spending*
Conservative	5%	*Continuation of depressed 2020*

Organic Growth		
Aggressive	8.0%	*Industry growth*
Conservative	4.0%	*Half of projected industry growth*

ROIC	20%	Avg of 2020, 3Y avg and 2021 guidance