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## KEYWORDS

Energy, Climate, Wind energy, Onshore, Offshore, Germany, Growth and Renewable Energy Act.

## 1. ABSTRACT

In 2014 the wind energy market in Germany has seen an all-time record in new onshore installations of approximately 4750 MW accumulating to a capacity of more than 37 GW, which corresponds to an increase of 58 % compared to the 2013 level of 2998 MW.

Local players on the market are Germany's Enercon, Nordex and Senvion with new interesting turbine development, but also worldwide known corporations such as Siemens, Vestas and GE Energy are active on the market with wind turbines in all wind classes.

The after sales segment is big when an estimated amount of around 24,000 wind turbines need spare parts, maintenance and technical operations.

The repowering market will probably stay stable or even rise in the future because of the big number of old wind turbines that need to be replaced by new ones.

German onshore installations will develop strongly from north to south in the near future because of the updated renewable legislation, but political forces in parts of the country, especially Bavaria are slowing the process. The new EEG 2.0 reform imposed 01.08.2014 which is an update of the German Renewable Energy Act with a focus on boosting the offshore market and maturing the onshore market in the coming years is the framework behind the German success.

The German Offshore market is still relatively small with its capacity of 520 MW reached in 2013, but it will grow in the near future with the help of the new legislative reform.

## 2. MARKET DEVELOPMENT

The German wind energy market has experienced a record breaking year in 2014 with the installation of approximately 4750 MW onshore capacity which accumulates into a capacity of more than 37 GW<sup>1</sup>. This corresponds to an increase of 58 % compared to the 2013 level of 2998 MW and shows that the market is strong. This development is among others driven by the Renewable Energy Act originally imposed in 2000 with the clear goal of boosting the share of renewables in the energy mix. It especially became a reality after the Fukushima disaster in Japan, which influenced the public opinion in Germany into opposing nuclear power and instead preferring renewables which turned into a milestone for the Green energy transformation policy "Energiewende"<sup>2</sup>. Since 2011 the level of new wind turbine projects has risen from 1750 MW to 4750 MW in 2014 and when looking at other parts of the market such as the after sales segment and the repowering market it shows that the future is bright and interesting for further investments and projects<sup>3</sup>. Also the offshore market is currently experiencing a real

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<sup>1</sup> VDMA/BWE: Windenergie an Land 2014.

<sup>2</sup> Science for Environment Policy.

<sup>3</sup> VDMA/BWE: Windenergie an Land 2014.

revolution and rebirth in Germany with as many as 6 wind parks constructed alone in 2014 and more to follow in 2015 and 2016<sup>4</sup>. BWE (The German Wind Power Association) projects that by 2020 the amount of cumulated onshore capacity will be 47 GW compared to 6.5 GW offshore capacity in Germany<sup>5</sup>.

## 2.1 ONSHORE

The new potential central and southern Germany is a result of the southern states' change in political direction and recognition of wind power as a serious alternative to both nuclear- and coal-fired energy resources. Many companies now see a significant commercial potential in the mid and south of Germany. Especially in the coming years up to the nuclear transition year in 2022 it is expected that more and more wind turbines will be installed in central and southern Germany<sup>6</sup>. The strongest growth rates are likely to be seen in the German states Rheinland-Phalz, Bavaria and Baden-Württemberg with an estimated amount of 258 new wind turbines built in 2013<sup>7</sup> as these federal states have a small installation base today. Bavaria is on the top 10 list among German states, but is unfortunately lacking behind, because of political unwillingness to fully incorporate the new wind turbines into their landscape. New regulations such as "10H Regelung" and protests against the South-link corridor, a power line which would transport the power from north to south, are occurring and disturbing the development of wind power in Bavaria<sup>8</sup>.

When looking on Baden-Württemberg which shifted from a conservative to a green-led government during the last local elections will probably have a smoother path to wind energy compared to Bavaria but until now the development in both states has been slow. The new Green government in Baden-Württemberg has however pledged to increase the annual installed capacity of wind turbines more than tenfold in the coming years<sup>9</sup>. The onshore market will experience a maturing period where the good year of 2014 where 4750 MW was installed, would thereby be downgraded to a preferred level of 2.4-2.6 GW annually. It will be conducted because the grid has to be adapted and developed to new demands of flexible output that the renewable energies are delivering<sup>10</sup>.

Northern Germany is however still leading in the field of new onshore wind turbine projects. The new EEG reform which is explained in detail on page 9 was imposed 01.08.2014 and favors the installation of wind turbines at less windy areas such as Bavaria or Baden Württemberg.

There are numerous OEM's (Original Equipment Manufacturers) competing for the MWs in Germany. The German OEMs have in recent years experienced a technological development and have expanded beyond the German and European markets.

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<sup>4</sup> BWE Marktübersicht. Jahrbuch Windenergie 2014, pp. 75.

<sup>5</sup> Bundesverband WindEnergie.

<sup>6</sup> Energy Transition, The German Energiewende.

<sup>7</sup> BWE Marktübersicht. Jahrbuch Windenergie 2014, pp. 18.

<sup>8</sup> Universität Bayreuth/Kommunalberatung.

<sup>9</sup> Energy Transition, The German Energiewende.

<sup>10</sup> Agora Energiewende.

The onshore market in Germany is much larger than the offshore market and therefore there are also more OEMs compared to the offshore market<sup>11</sup>.

As an example is the Hamburg based **Nordex** company that has developed competitive turbines for all wind classes onshore and has recently developed three different turbines respectively N131/3000 for low wind speed areas (IEC3), N117/3000 for medium areas (IEC2) and the flagship N100/3300 for strong areas (IEC1) with a total output of 3.3 MW<sup>12</sup>.

Another Hamburg based company **Senvion** is also developing competitive turbines along all wind class areas from the 3.4 MW M104 which is their flagship to MM100 with 2.0 MW output suitable for IEC3 areas<sup>13</sup>.

The other OEMs on the market are **Enercon** who is one of the leading manufacturers in the world together with **Siemens**, **GE Energy** and **Vestas** who have a big portfolio of different wind turbines in all wind class areas. The overall onshore market shows that the companies are competitive and innovative and developing better and better machines for the different wind classes which make the market lucrative for further investments and developments.

## 2.2 OFFSHORE

The German offshore sector is still facing its major breakthrough. The ambition for Germany is to become one of the most important offshore markets in Europe eyeing Great Britain who currently is the market leader. Germany is able to reach a targeted level of around 2.6 GW cumulated offshore capacity by the end of year 2016<sup>14</sup>.

In the beginning of 2013 around 48 offshore wind turbines with a capacity of 240 MW were installed and in the end of 2013 there were 116 turbines delivering a cumulated capacity of 520 MW, which is far from the German 2020 EU target of 6.5 GW<sup>15</sup>. Some of the major causes behind the gap between the targeted level and the actual level of wind power, can be found in unexpected start-up obstacles with funding, permits, cable laying and connection to the main energy network. The electrical grid is not fully adapted to the new demands especially in peak times where there is a lot of wind. The grid has to be more flexible in order to handle the varying output. Furthermore, there are issues regarding the big north-south corridor between the windy areas of north Germany and the energy hungry south Germany, because a lot of power would have to be transported over long distances from far-away offshore parks to the mainland.

In regards to permits and funding, these issues have now been resolved and as of now the major obstacle for the breakthrough of the German offshore market, is to find the most comprehensive way to connect to the future offshore wind parks, using the existing energy network. But as it looks now 6 new offshore parks were fully constructed in 2014 with a total output of 1572 MW which shows that the

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<sup>11</sup> Windindustrie in Deutschland 2014, pp. 16.

<sup>12</sup> Nordex.

<sup>13</sup> Senvion.

<sup>14</sup> Windindustrie in Deutschland 2014, pp. 16.

<sup>15</sup> Windindustrie in Deutschland 2014, pp. 16.

situation has changed and that the targeted level of 2.6 GW by the end of 2016 is reachable<sup>16</sup>.

The German government however, is doing what it can to further advance the development. With the new EEG regulations the government wants to accelerate the construction of new offshore wind turbines by making the market more lucrative and easy accessible with for example a better feed-in tariff reimbursement compared to onshore wind turbines. The big winner with the new reforms is unquestionably the offshore market because many new projects in the coming years will be initiated thru better framework conditions set up by the new EEG regulations<sup>17</sup>.

An analysis from the EWEA (European Wind Energy Association) indicates that the offshore wind power industry is now on the same level, as the onshore wind power industry was 15 years ago and is expecting to grow fast in the coming years. EWEA underlines that the European Union's new target for 2020 is between 20-28 GW accumulated offshore wind power capacity<sup>18</sup>.

The OEM's on the market are **Siemens, Vestas/MHI Vestas, Areva Wind and Senvion** where the flagship of the market is Vestas's/MHI Vestas's 8 MW V164<sup>19</sup> which currently has the most powerful wind turbine. Siemens has also recently developed a new 7 MW SWT-154<sup>20</sup> turbine and Senvion has a 6.15 MW 6.XM<sup>21</sup> turbine which together shows that the market is developing itself and strives for more powerful turbines because the demand and requirements are becoming tougher.

## 2.3 AFTER SALES

The after sales segment which is a fundamental part of the German wind energy market is actually one of the fastest growing segments among the wind energy industry. The employment rate is generally rising and there is a steady growing demand for spare parts or ordinary service of existing wind turbines. Both big wind turbine producers and small specialized service companies are competing in an ever increasing and competitive-oriented German after sales segment.<sup>22</sup>

The German after sales segment is huge when considering that up to 37 GW installed onshore-wind at some point need spare parts and maintenance, which is roughly an estimated amount of 24,000 onshore wind turbines<sup>23</sup>.

There is high competition between Independent Service Providers (ISP's) and OEM's on the German after sales segment. The competition is tough and both the ISP's and OEMs try to make use of their advantages. German ISP companies such as Availon, Enertrag or DWTS have a clear focus on the quality of their spare parts

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<sup>16</sup> BWE Marktübersicht. Jahrbuch Windenergie 2014, pp. 75.

<sup>17</sup> Gesetz für den Ausbau erneuerbarer Energien 2014, pp. 7, § 3.

<sup>18</sup> European Wind Energy Association.

<sup>19</sup> MHI Vestas.

<sup>20</sup> Siemens Wind Power.

<sup>21</sup> Senvion.

<sup>22</sup> BWE Marktübersicht. Jahrbuch Windenergie 2014, pp. 83.

<sup>23</sup> BWE Marktübersicht. Jahrbuch Windenergie 2014, pp. 16.

and the service they are delivering, while the German OEMs have technological knowledge that the smaller ISP companies do not have<sup>24</sup>. The biggest advantage of the OEMs is that service agreements such as VESTAS`S AOM 5000<sup>25</sup> or Siemens SWPS-4300<sup>26</sup> are mostly made in advance because clients want the know-how and knowledge that the OEMs have of their own products. Enercon for example is producing many of its components by themselves which means that the turbines are mostly only functioning with their own spare parts and their own service agreements.

On the other hand the ISP`s are clearly delivering a better service and maintenance compared to OEM`s according to a BWE survey, because they have to compensate for the lack of know-how and knowledge with something else such as the approach towards the customer or the price<sup>27</sup>. Small ISP`s often consolidate into partnerships with others which turns them into a strong alternative to the OEM`s. All together it shows that the after sales segment is clearly driven by competitive forces.<sup>28</sup>

## 2.4 REPOWERING

Repowering, the replacement of older wind turbines with new and more efficient ones, is crucial for Germany if it wants to reach its goals with green energy, because the technology on the market is developing as never before and old wind turbines that was installed in the 1990`s have a much lesser performance than modern wind turbines. Repowering should be understood as boosting the output of an old wind park by replacing old wind turbines with new ones. There are many positive aspects connected to repowering such as a lower amount of wind turbines due to the better performance of new ones, which satisfies the local communities. The sound pollution is also lower due to improvements of rotor blades and drive trains. As the life time of a wind turbine is approximately 20-25 years and a significant number of turbines have been installed from 1992-2000<sup>29</sup> it becomes quite obvious that a lot of old wind turbines need replacement in the next years and thus creating a large business opportunity.

## 3. FEED-INN-TARIFF (EEG 2.0)

When looking on what lies behind the positive developments on the German wind energy market it is especially due to the Renewable Energy Act EEG which is a set of laws used to boost the share of renewables in the German energy mix to at least 80 % by 2050<sup>30</sup>. It was initially imposed in 2000 and has experienced several reforms up until the new EEG 2.0 reform from 01.08.2014 with a goal of further promotion and development of the renewable energy sector. The aim is to secure the affordability and reliability of the energy transformation for both private households and companies through a regulated feed-in-tariff reimbursement strategy<sup>31</sup>. The biggest change will be within Germany`s offshore sector which is estimated to increase up to a capacity of 6.5 GW by 2020 with the help of the

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<sup>24</sup> BWE Marktübersicht. Jahrbuch Windenergie 2014, pp. 113-117.

<sup>25</sup> Vestas.

<sup>26</sup> Siemens Wind Power.

<sup>27</sup> BWE Marktübersicht. Jahrbuch Windenergie 2014, pp. 116.

<sup>28</sup> BWE Marktübersicht. Jahrbuch Windenergie 2014, pp. 84.

<sup>29</sup> BWE Marktübersicht. Jahrbuch Windenergie 2014, pp. 16.

<sup>30</sup> Gesetz für den Ausbau erneuerbarer Energien 2014, pp. 6, § 1.

<sup>31</sup> Gesetz für den Ausbau erneuerbarer Energien 2014, pp. 6-7, § 2.

reform. A modified EEG 3.0 act is going to be imposed somewhere between 2016 and 2017 and is yet to be formulated. But the overall goal of this reform will be to gradually curb down new onshore and solar energy projects in order to minimize the costs for private households and companies. But the goal with curbing down the onshore and solar energy sources is based on the fact that Germany needs resources and money to harmonize and distribute the growing number of energy sources into a more stable and modern electrical grid that can effectively distribute the varying output. A modified EEG 3.0 act will therefore on the one side probably try to boost the offshore market even further and on the other side turn the onshore market into a more steady and stable growing market instead of an exponentially growing one<sup>32</sup>.

The new EEG 2.0 act consists of several new goals that are considered interesting for the future aspects of the German wind industry. The main goals of the German government are to cut the future costs in the construction of new green energy projects and a smoother and better distribution of resources, but upholding the competitiveness among German companies. In order to reach its goals the government has formulated some key strategies for the onshore and offshore wind industry.

Onshore strategies<sup>33</sup>:

- Annual construction of 2.4 – 2.6 GW net electrical capacity (Ausbaukorridor) which is an extension corridor the government wants the electrical capacity to follow.
- The feed-in-tariff gives now a reimbursement of 8.9 ct/kWh compared to the earlier 9.5 ct/kWh and falls gradually, depending on where the wind turbine is installed and what the output percentage is at the chosen place.
- The feed-in-tariff is especially reduced in strong wind areas.
- From 2016 the feed-in-tariff is reduced quarterly per year with approximately 0.4 %, but is due to vary depending on the amount of new wind turbine projects and whether they follow the extension corridor of 2.4-2.6 GW. If the new wind turbine projects exceed 2.6 GW the feed-in-tariff would be reduced further, but if the projects fall beneath 2.4 GW then the feed-in-tariff would be raised.

Offshore strategies<sup>34</sup>:

- Reduced goal of possible overall capacity installed by year 2020 from 10 GW to 6.5 GW.
- The basis tariff consists of 3.9 ct/kWh (Grundvergütung).
- Companies who choose an increased feed-in-tariff for the first 12 years of a newly installed wind turbine will have 15.4 ct/kWh reimbursement until 2017. From 2018-2019 the reimbursement will be 14.9 ct/kWh and from 2020 it will be 13.9 ct/kWh and fall 0.5 ct/kWh annually. This model is called “Basismodell”.

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<sup>32</sup> Gesetz für den Ausbau erneuerbarer Energien 2014, pp. 7, § 3.

<sup>33</sup> Gesetz für den Ausbau erneuerbarer Energien 2014, pp. 28, § 49.

<sup>34</sup> Gesetz für den Ausbau erneuerbarer Energien 2014, pp. 29, § 50.

Companies who choose an increased feed-in-tariff for the first 8 years of a newly installed wind turbine will receive 19.4 ct/kWh reimbursement until 2017. From 2018-2019 it will consist of 18.4 ct/kWh and beyond 2019 it is not yet clear how big the reimbursement will be. This is called the “Stauchungsmodell” which is an accelerated model suited for fast installations of wind turbines before 2020.

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<sup>35</sup> Gesetz für den Ausbau erneuerbarer Energien 2014, pp. 28, § 49.

<sup>36</sup> Gesetz für den Ausbau erneuerbarer Energien 2014, pp. 29, § 50.

## 4. WIND ENERGY ADVISORY

In case you wish to know more about the German wind energy market or need consultancy on the export opportunities to Germany, you are more than welcome to contact the Wind Energy Advisory (WEA) in Hamburg. The WEA team focuses exclusively on the wind industry in Germany and is set up by experts with a long-time experience in the market. The team has a good network within the industry along the whole value chain counting various decision makers even on the political stage through our foreign service.

WEA offers following services to our customers:

- Strategic Analysis & Planning
- Business execution
- Incubator & Monitoring
- Corporate establishment

And is open to discuss any other potential fields of cooperation.

You can read more on the homepage of the Ministry of Foreign Affairs/Trade Council of Denmark in Germany on: [www.tyskland.um.dk](http://www.tyskland.um.dk)

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## 5. REFERENCES

### **Agora Energiewende**

Langenheld Alexandra, accessed 10/04/15, last modified not known,  
[www.agora-energiewende.org/topics/efficiency-and-load-management/detail-view/article/endbericht-zum-lastmanagement-erschienen/](http://www.agora-energiewende.org/topics/efficiency-and-load-management/detail-view/article/endbericht-zum-lastmanagement-erschienen/)

### **Bundesverband WindEnergie**

Axthelm Wolfram, accessed 09/04/15, last modified July 2008,  
[www.wind-energie.de/presse/pressemitteilungen/2008/bwe-stromversorgung-2020-jede-vierte-kilowattstunde-vom-wind](http://www.wind-energie.de/presse/pressemitteilungen/2008/bwe-stromversorgung-2020-jede-vierte-kilowattstunde-vom-wind)

### **BWE Marktübersicht. Jahrbuch Windenergie 2014**

Eggert Ferdinand

### **Energy Transition, The German Energiewende**

Author not know, accessed 09/04/15, last modified not known,  
[www.energytransition.de/2012/09/renewables/](http://www.energytransition.de/2012/09/renewables/)

### **European Wind Energy Association**

Moccia Jacopo, accessed 09/04/15, last modified July 2014,  
[www.ewea.org/fileadmin/files/library/publications/scenarios/EWEA-Wind-energy-scenarios-2020.pdf](http://www.ewea.org/fileadmin/files/library/publications/scenarios/EWEA-Wind-energy-scenarios-2020.pdf)

### **Gesetz für den Ausbau erneuerbarer Energien 2014**

Author not known, accessed 09/04/15, last modified July-August 2014,  
[www.bmwi.de/BMWi/Redaktion/PDF/G/gesetz-fuer-den-ausbau-erneuerbarer-energien,property=pdf,bereich=bmwi2012,sprache=de,rwb=true.pdf](http://www.bmwi.de/BMWi/Redaktion/PDF/G/gesetz-fuer-den-ausbau-erneuerbarer-energien,property=pdf,bereich=bmwi2012,sprache=de,rwb=true.pdf)

### **MHI Vestas**

[www.mhivestasoffshore.com/innovations/](http://www.mhivestasoffshore.com/innovations/)

### **Nordex**

[www.nordex-online.com/de/](http://www.nordex-online.com/de/)

### **Science for Environment Policy:**

Wittneben Bettina, accessed 10/04/15, last modified April 2012,  
[www.ec.europa.eu/environment/integration/research/newsalert/pdf/280na2\\_en.pdf](http://www.ec.europa.eu/environment/integration/research/newsalert/pdf/280na2_en.pdf)

**Senvion**

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

[www.senvion.com/wind-energy-solutions/wind-turbines/6xm/](http://www.senvion.com/wind-energy-solutions/wind-turbines/6xm/)

**Siemens Wind Power**

[www.energy.siemens.com/hq/en/renewable-energy/wind-power/offshore.htm#content=Turbines](http://www.energy.siemens.com/hq/en/renewable-energy/wind-power/offshore.htm#content=Turbines)

[www.energy.siemens.com/hq/en/renewable-energy/wind-power/services/](http://www.energy.siemens.com/hq/en/renewable-energy/wind-power/services/)

**Universität Bayreuth/Kommunalberatung**

Dr. Miosga Manfred, accessed 08/04/15, last modified not known,

[www.kommunal-](http://www.kommunal-erneuerbar.de/fileadmin/content/PDF/Praesentation_Miosga.pdf)

[erneuerbar.de/fileadmin/content/PDF/Praesentation\\_Miosga.pdf](http://www.kommunal-erneuerbar.de/fileadmin/content/PDF/Praesentation_Miosga.pdf)

**VDMA/BWE: Windenergie an Land 2014**

Axthelm Wolfram, accessed 07/04/15, last modified January 2015,

[www.wind-energie.de/presse/pressemitteilungen/2015/vdma-bwe-windenergie-land-2014-rekordzubau-von-4750-megawatt](http://www.wind-energie.de/presse/pressemitteilungen/2015/vdma-bwe-windenergie-land-2014-rekordzubau-von-4750-megawatt)

**Vestas**

[www.vestas.com/en/products\\_and\\_services/operation\\_and\\_maintenance](http://www.vestas.com/en/products_and_services/operation_and_maintenance)

[www.vestas.com/Files/Filer/EN/Sustainability/LCA/LCAV90\\_juni\\_2006.pdf](http://www.vestas.com/Files/Filer/EN/Sustainability/LCA/LCAV90_juni_2006.pdf)

**Windindustrie in Deutschland 2014**

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The Trade Council is a part of the Ministry of Foreign Affairs and is the official export and investment promotion agency of Denmark. The Trade Council benefits from around ninety Danish Embassies, Consulates General and Trade Commissions abroad. The Trade Council advises and assists Danish companies in their export activities and internationalisation process according to the vision: Creating Value All the Way. The work in the Trade Council follows specific procedures and quality guidelines. In this way our customers are secured the best possible quality under the varying working and market conditions at any given point of time.

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