

The customer the king

Turbine manufacturers are regaining lost ground in the service business. In the latest BWE service survey they confirmed last year's good performance for repairs and maintenance. The run on independent servicing has stopped for the time being.

BY SASCHA RENTZING

Things have not been running very smoothly for wind energy company Enertrag: engineers have been lured away by the competition, the quality of maintenance and repairs has diminished and operators have been dissatisfied. The upshot: in the latest service survey by the German Wind Energy Association (BWE), Enertrag does not score higher than 2.29, after 1.85 in 2012. "Our work has been poor in places," explains service manager Johannes Heidkamp self-critically. The BWE survey is highly valued in the sector. It is the largest independent assessment of maintenance firms in Germany and is therefore regarded as an important reference point for businesses.

But Enertrag's low rating is not only down to internal reasons; the euphoria over independent servicing has largely subsided. The independent providers in previous years were immensely popular because the operators were in part very dissatisfied with the services of the manufacturers. This trend has now stopped, which is demonstrated in the BWE survey in the weak return in the category of independently maintained turbines. After 1,466 turbines were assessed in 2012, in 2013 this dropped to 760. In contrast, there appears to no longer be a movement away from manufacturers, whose number of assessed turbines even rose slightly from 3,214 to 3,357.

This development can also be explained by the fact that the manufacturers are now getting to grips with servicing more so than before. Although their new installation business is boom-

ing, they have held on to their good level of previous years in terms of maintenance and repairs. In the current BWE service survey, the six turbine manufacturers assessed score an average of 2.7, as they did in 2011 and 2012.

This generally steady performance was not necessarily to be expected. During previous booms, turbine manufacturers often neglected their customer service. This is clearly no longer the case; service has become a mainstay. "It's through service that the manufacturer can document the quality of their product," says BWE expert Carlo Reeker.

There's something else making the situation more difficult for independent service providers as well: the operator structure is changing, in some measure to their disadvantage. Instead of private individuals and cooperatives, increasing numbers of major providers like municipal utilities companies are now investing in wind energy. And these investors, according to Angelo Bargel, spokesman of the BWE forum for independent servicing firms, tend to enter into long-term full maintenance contracts with the manufacturers since they offer more security to the financing banks and can better secure their investment. This leaves little breathing space for independent firms. Although in the past operators often opted for independent servicing at the end of the warranty period, in future they will increasingly not be able to switch until the end of a ten-year full maintenance at least.

Manufacturer

	Enercon	GE Energy	Nordex	Repower	Siemens	Vestas	Ø
Overall score 100 %	1.94 (1.96)	2.49 (2.64)	2.87 (2.70)	3.00 (2.75)	2.86 (3.14)	3.24 (3.04)**	2.73
Underlying data, questionnaires	404 (392)	48 (46)	33 (39)	46 (39)	25 (35)	133 (147)	114.83
Number of turbines	1886 (1809)	290 (280)	100 (189)	299 (139)	108 (152)	674 (645)	559.50
Willingness to switch in per cent	1.24 (0.79)	4.26 (8.89)	18.18 (21.05)	13.04 (20.51)	24.00 (40.00)	23.85 (17.36)	14.10
Maintenance 33.3 %	2.09 (2.09)	2.27 (2.31)	2.80 (2.57)	2.94 (2.75)	2.55 (2.86)*	3.00 (2.92)	2.61
Arrangement and keeping of maintenance appointments	1.91 (1.92)	1.96 (1.98)	2.61 (2.37)	2.82 (2.69)	2.32 (2.54)	2.98 (2.96)	2.43
Quality of the work	1.69 (1.62)*	2.04 (2.07)	2.66 (2.49)	2.40 (2.13)*	2.40 (2.43)	2.51 (2.45)	2.28
Feedback on maintenance (reports, logs)	2.24 (2.34)	2.06 (2.33)*	2.79 (2.56)	3.49 (3.33)	2.28 (2.89)**	3.26 (3.07)	2.69
Satisfaction as regards value for money	2.52 (2.49)	2.94 (2.89)	3.16 (2.84)	3.07 (2.87)	3.20 (3.60)*	3.24 (3.19)	3.02
Unscheduled repairs 33.3 %	1.93 (1.94)	2.17 (2.38)*	2.76 (2.54)	3.11 (2.92)	2.74 (2.93)	3.00 (2.76)**	2.62
Service team availability	1.69 (1.66)	1.83 (1.85)	2.55 (2.05)**	3.41 (3.42)	2.20 (2.46)	2.52 (2.47)	2.37
Speed of repairs - to essential parts	1.65 (1.64)	1.98 (2.28)**	2.61 (2.44)	2.98 (2.72)	2.52 (2.85)	2.65 (2.65)	2.40
- to all other parts	1.81 (1.87)	2.38 (2.80)**	2.94 (2.74)	3.17 (2.79)*	3.00 (3.29)	3.43 (3.01)***	2.79
Quality of the repairs	1.71 (1.57)***	2.10 (2.22)	2.48 (2.41)	2.42 (2.21)	2.44 (2.32)	2.44 (2.38)	2.27
Feedback on repairs (reports, logs)	2.25 (2.42)**	1.92 (2.37)***	2.85 (2.64)	3.52 (3.44)	2.76 (3.00)	3.39 (2.85)***	2.78
Satisfaction as regards value for money	2.50 (2.49)	2.79 (2.75)	3.16 (2.89)	3.17 (2.90)	3.52 (3.73)	3.59 (3.17)***	3.12
Additional services 33.3 %	1.81 (1.85)	3.03 (3.11)	3.06 (3.12)	2.97 (2.60)*	3.31 (3.55)	3.72 (3.30)***	2.98
Complementary improvements (Updates etc.)	1.65 (1.72)	3.09 (3.10)	3.12 (3.22)	2.67 (2.59)	3.38 (3.62)	3.41 (3.18)*	2.89
Willingness to make gestures of goodwill	1.98 (2.00)	2.98 (3.14)	3.00 (3.00)	3.21 (2.66)**	3.22 (3.56)	4.07 (3.42)***	3.08

2013 values in brackets. Significant changes are marked with *.
Level of significance: 1% ***, 5% **, 10% *

Forerunner of full maintenance for turbines is the Au-rich-based firm **Enercon**. With its Enercon Partner Concept, it paved the way years ago for a comprehensive no-hassle package in wind energy. According to details from Ulf Winkler, spokesman of the BWE forum for Enercon operators, operators have to pay around 13 per cent of their revenue for the package, and in return Enercon ensures above-average availability for the turbines. Bottlenecks for replacement parts are also an exception for Enercon, which manufactures almost all components itself. "This comprehensive no-hassle package provides operators with a high degree of service security," declares Winkler.

The success of the comprehensive no-hassle package is another reason why Enercon remains the clear number 1 in manufacturer servicing. The company meanwhile scores 1.94 (1.96 for the previous year). "This indicates a high level of customer satisfaction and is a clear indication of high quality and reliability," says service manager Volker Kendziorra. Enercon has particularly improved in the feedback on the work undertaken. "The measures that Enercon Service has consistently implemented in order to optimise customer information and transparency of its services are paying off here," explains Kendziorra. An example would be the introduction of the Service Info Portal (SIP), which enables operators to bring part of the remote monitoring of their turbines onto their own computer.

"We took the results of the last surveys very seriously and have focused on tackling the critical points"

Winkler, too, praises the latest version of SIP as a "genuine tool for operational management". But the Enercon expert also sees weaknesses in the market leader's service. The company Umweltplan, for which the engineer works, operates Enercon turbines in eastern Germany and Poland. "The service quality varies greatly here." Winkler believes that better training, above all, is necessary for new employees. This demand does not appear unjustified, because in terms of the quality of unscheduled servicing Enercon slips from a 1.57 to a 1.71.

GE Wind Energy occupies second place in the latest BWE survey. The company has improved from a 2.64 to a 2.49. "We took the results of the last surveys very seriously and have focused on tackling the critical points," explains service manager Uli Schulze Südhoff. The company has got better, particularly in terms of the speed of its reconditioning and feedback – on both points GE scores a 1 before the decimal place. In terms

Independent companies

	Availon	DWTS	Enertrag	NTES	PSM	Wind Max	Ø
Overall score 100 %	2.60 (2.52)	2.01 (2.07)	2.29 (1.85)**	1.43 (1.37)	1.60 (1.87)***	1.53 (1.59)	1.91
Underlying data, questionnaires	22 (32)	74 (63)	21 (39)	16 (12)	30 (30)	13 (17)	29.33
Number of turbines	126 (313)	335 (280)	106 (659)	36 (23)	118 (159)	39 (32)	126.67
Willingness to switch in per cent	22.73 (22.58)	0.00 (1.61)	9.52 (5.56)	0.00 (0.00)	3.33 (3.33)	0.00 (0.00)	5.93
Maintenance 33.3 %	2.33 (2.50)	1.84 (1.91)	2.16 (1.76)**	1.36 (1.35)	1.66 (1.78)	1.56 (1.44)	1.82
Arrangement and keeping of maintenance appointments	2.68 (2.31)	1.79 (2.05)*	2.05 (1.71)*	1.81 (1.67)	1.73 (1.93)**	1.54 (1.35)	1.93
Quality of the work	2.18 (2.47)	1.77 (1.71)	2.30 (1.67)***	1.31 (1.33)	1.75 (1.97)*	1.46 (1.29)	1.79
Feedback on maintenance (reports, logs)	2.18 (2.44)	1.69 (1.74)	2.20 (1.79)*	1.19 (1.25)	1.10 (1.30)	1.69 (1.59)	1.68
Satisfaction as regards value for money	2.24 (2.78)***	2.04 (2.14)	2.10 (1.87)	1.12 (1.17)	2.03 (1.93)	1.54 (1.53)	1.84
Unscheduled repairs 33.3 %	2.30 (2.28)	1.83 (1.81)	2.04 (1.78)	1.31 (1.38)	1.63 (1.76)*	1.50 (1.52)	1.77
Service team availability	1.86 (1.88)	1.53 (1.63)	1.68 (1.49)	1.19 (1.42)	1.27 (1.53)*	1.46 (1.18)*	1.50
Speed of repairs - to essential parts	2.55 (2.26)	1.69 (1.66)	2.21 (1.89)	1.25 (1.00)	1.60 (1.73)	1.50 (1.47)	1.80
- to all other parts	2.64 (2.44)	2.15 (1.87)**	2.00 (1.97)	2.00 (1.45)**	1.87 (1.93)	1.67 (1.71)	2.06
Quality of the repairs	2.36 (2.28)	1.77 (1.73)	2.25 (1.63)***	1.25 (1.27)	1.87 (2.07)**	1.17 (1.35)	1.78
Feedback on repairs (reports, logs)	2.00 (2.22)	1.74 (1.87)	2.05 (1.66)*	1.12 (1.50)**	1.17 (1.37)	1.67 (1.69)	1.62
Satisfaction as regards value for money	2.38 (2.59)	2.07 (2.13)	2.05 (1.97)	1.06 (1.17)	2.00 (1.93)	1.33 (1.76)**	1.81
Additional services 33.3 %	3.16 (2.77)*	2.24 (2.37)	2.63 (2.07)*	1.62 (1.38)**	1.52 (2.07)***	1.62 (1.78)	2.13
Complementary improvements (Updates etc.)	3.35 (2.90)*	2.32 (2.42)	3.05 (2.17)**	2.06 (1.55)**	1.90 (2.24)*	1.64 (1.81)	2.39
Willingness to make gestures of goodwill	3.00 (2.53)**	2.18 (2.38)*	2.00 (1.97)	1.19 (1.17)	1.13 (1.93)***	1.67 (1.71)	1.86

2013 values in brackets. Significant changes are marked with *.
Level of significance: 1% ***, 5% **, 10% *

of exceptional service, however, GE made no progress with a 3.03, although the company has invested heavily in innovations according to Schulze Südhoff.

In 2013 GE presented its new Powerup product, a type of basic upgrade. Specialists in the company analyse an existing wind farm, and determine which improvements to software and hardware would be required to improve capacity and how much additional electricity the customers could therefore generate. GE then also undertakes the adjustments free of charge. Payment is only needed when efficiency really increases and profits rise. Through a combination of software and hardware solutions GE achieves a surplus of up to 4 per cent. That the company achieved only a "satisfactory" for exceptional service means that Schulze Südhoff wants to use the opportunity to communicate innovations even better in the future. "We need to approach customers more pro-actively."

Competition against GE today comes mostly from **Siemens**, which climbs from last to third place with a 2.86 in the manufacturer ranking. For Karsten Skov, service manager for Germany, this development is only logical. "We set up a new service structure in 2013 based on three pillars: a better supply of replacement parts, greater flexibility and closer customer relations." He goes on to explain that operators now have direct contact partners, unlike before. "We have created clear re-

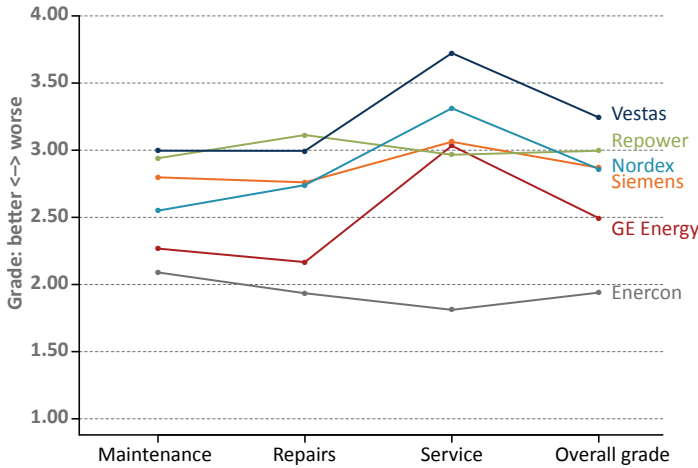
sponsibilities," says Skov. According to him, the service is now better organised too. For example, there is now a clear division between maintenance and fault clearance teams. "If scheduled maintenance is due, the fitters can now only be called in extreme emergencies and following agreement for fault clearances – making service more reliable." The operators appreciate the measures taken: Siemens has increased significantly for regular maintenance work from a 2.86 to a 2.55.

The Hamburg-based turbine manufacturer **Nordex** meanwhile slips into fourth place in the BWE survey. Although Nordex does not get beyond a 2.87 compared to last year's 2.7, this is not seen as a shortcoming by Jörg Hempel, manager for Germany. "We are not really unhappy because we have confirmed our good previous year's result." Despite the fact that, according to service manager Volker Bartolles, last year saw a significant proportion of recently employed and trained service technicians immediately engaged in installing and commissioning new turbines. Business is booming at Nordex. In 2013 the company increased its sales by about 165 per cent. For the first time since 2010 it once again posted a surplus of 1.3 million euros last year.

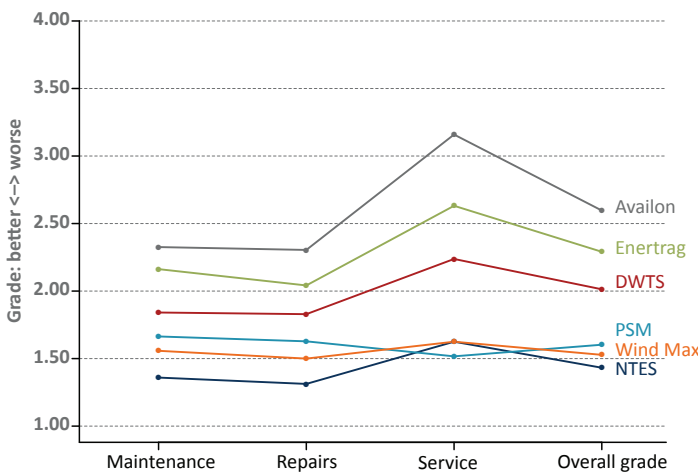
In an otherwise good level of manufacturer servicing, Senvion and Vestas were the disappointing exceptions. The reasons

Manufacturer grades in 2013 service survey

MANUFACTURER



INDEPENDENT COMPANIES



for **Senvion** scoring a relatively weak 3.0 are apparent. The company has re-organised and responsibilities have been redistributed. At the same time, Kai Froböse, managing director of Senvion GmbH, which is responsible for the German market, reported record growth for 2013: "We have newly erected 164 turbines in Germany in 2013. There are significantly more turbines to service than in the previous year."

Vestas, too, has to take some sharp criticism from its operators. With a 3.24, the Danish company is bottom of the service ranking. Above all, its willingness to show goodwill is lacking – it slips from a 3.42 to a 4.07. However, BWE forum spokesman Siggie Schülter warns against criticising Vestas' service on principle. "Only the administrative side was punished, the fitters on site continue to do good work." In fact, the technicians save Vestas from an even more mediocre score. The company scores a 2.51 and 2.44 for the quality of its maintenance and repairs respectively.

Whether the independent providers can capitalise on the deficits of the manufacturers as in the past is questionable. Almost all of Vestas' new turbines are only offered in combination with full maintenance contracts – making things difficult for independent turbine services, according to Schülter. Vestas has



qualified service for your rotor blades
inspection – maintenance – repair
optimization – balancing – photometric measurements

cp.max Rotortechnik GmbH & Co. KG, Fon +49 (0) 351.85 89 34 - 50, Fax -77
www.cpmx.com, info@cpmax.com



Management System
ISO 9001:2008
SCC17
www.tuv.com
ID: 910503898



TÜVRheinland®
CERT
ISO 9001



GL
Renewables Certification
CERTIFIKAT NO. AP-CC-005-2013

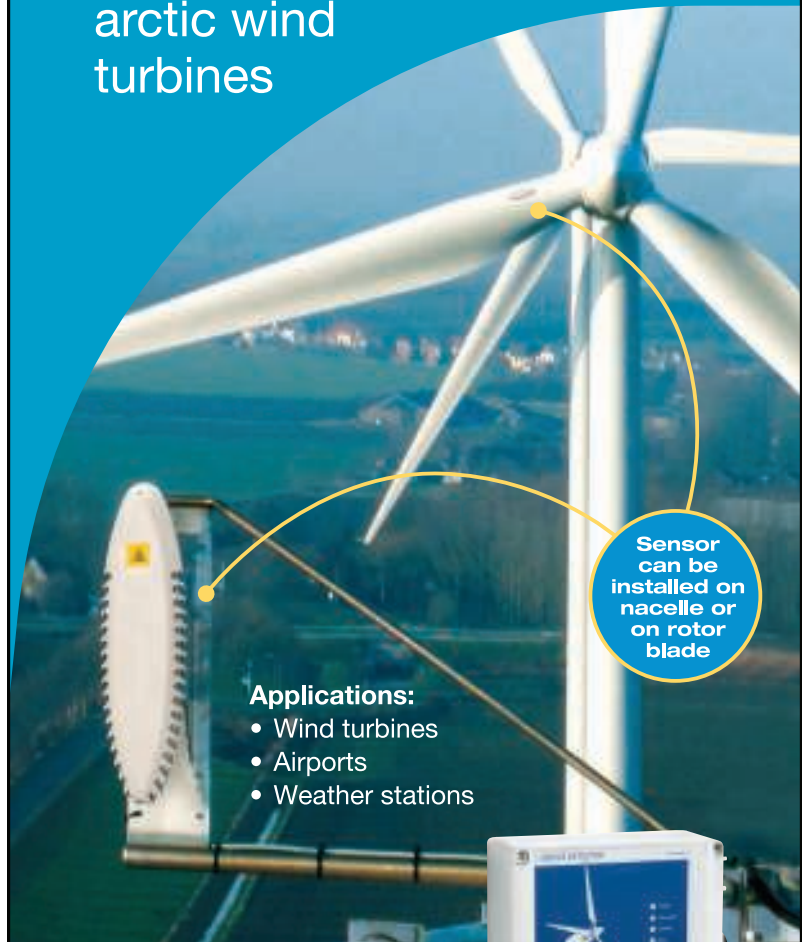
also revised its service prices down. "For many operators, switching to independent service providers does not seem worthwhile." Enertrag service manager Heidkamp also believes the independent service market is facing major challenges. "Previously, manufacturers did not even accept service orders for less than ten turbines – now they're piling on the resources for free servicing and are trying to get the best prices, particularly for large components."

Has this independent servicing model had its day? BWE experts believe that independent providers are indispensable. "Who will look after special and frequently older turbines? Who will take over the turbines that are not repowered? Independent providers are made for these tasks, they have an enormous amount of knowledge," says BWE forum spokesman Bargel. The consistently good average score of 1.9 achieved by the independents confirms his assessment. PSM in Erkelenz even improved from a 1.87 to a 1.60, with its technical innovative strength particularly praised. "We offer our customers a range of options to increase the revenue of their turbines. These include hydraulic upgrades, upgrades for yaw brakes or retrofitting pitch systems," explains PSM spokeswoman Annkatrin Dretzke

There's another option open to businesses to position themselves in the market. They could also offer full maintenance concepts and try to throw down the gauntlet to manufacturers in the servicing of new facilities. Availon and Deutsche Windtechnik are already making a start. At the beginning of the year they both entered into comprehensive no-hassle packages with Swiss energy providers for several wind farms. Will other service providers follow suit? How good will they be at full maintenance? Exciting times are in store. ■

LID-3300IP

Efficient ice detection brings reliability and safety to arctic wind turbines



Applications:

- Wind turbines
- Airports
- Weather stations

- Compact, rugged design
- Easy and quick installation
- Ready to use after installation, no calibration needed
- Suitable for old and new wind turbines
- Suitable for all manufacturer's wind turbines
- Easy to connect to wind turbine control systems via TCP/IP protocol
- Congealment status, alarms and parameters can be monitored and adjusted through an inbuilt www user interface

Measure your success

Labkotec
INDUTRADE GROUP

www.labkotec.com
www.labkonet.com

Labkotec Oy
Myllyhaantie 6
FI-33960 Pirkkala, Finland
Tel. int. +358 29 006 260
Fax int. +358 29 006 1260
E-mail info@labkotec.fi