



Data drives wind O&M in 2020

Spares in Motion (SIM) has a solution for wind energy O&M pitfalls. Reducing costs and obtaining spare parts as needed is increasingly important, especially as uptime demands skyrocket and maintenance contracts end. SIM explains to PES how their database is facilitating these goals for owners and operators today.

We are a nearly half way through 2020 and thought it would be interesting to ask ourselves, what are some notable themes we are seeing in Renewable Energy? Among others, these interesting trends take center stage on a global scale today:

- There is an industry-wide effort to reduce O&M costs
- Not only that, but we see an aging installed base - increasing the lifetime of

wind assets

- Furthermore, high uptime demand has operators looking to reduce down time through proactive maintenance and stock management.

By traditional design, these 3 trends are not always complimentary to one another, yet owners and operators are working to find holistic solutions to satisfy each.

Still with a great degree of certainty, the next

decade will see incredible O&M expenditures. According to a 2018 report by IHS Markit, the United States O&M spending alone, is projected to increase to greater than \$7.5 billion by 2030, which is a 50% increase from 2018. The same trend can be observed in Europe and Asia.

Informed by these trends, perhaps one of the more difficult challenges facing owners and operators can be stripped down to juggling both:



Simultaneously, functional transformations have taken place as manufacturers have evolved into distributors, or repair shops have increased the lifetime of numerous products, ranging anywhere from key/major components like gearboxes to minor correctives, such as filters.

In essence, the past decade has seen the wind industry diversify and prepare for a more strategic future. As a result, this next decade will be more forward thinking. 2020 promises expiring maintenance contracts, with owners and operators actively looking for parts at fair prices and optimal lead-times. We see this alternative sourcing trend in major markets like Europe and the US, and we see by extension the appeal of alternative sourcing experts that can facilitate a healthy marketplace for operators.

Early on the O&M third party scene was Spares in Motion. Initially an online marketplace for spare parts in 2012, the Dutch company launched their sourcing service for utilities in 2016. This last development was demand driven, as utilities did not only want fair prices but also logistics support/services, and a more efficient supply chain.

After years of studying the global supply chain through its online platform, Spares in Motion began to leverage its industry knowledge to proactively offer fair prices and lead times to utilities for their O&M activities.

Approximately 85% of parts sold by Spares in Motion are new, while alternative refurbished or remanufactured solutions are also offered and sold due to this new era of SMART practices.

The value is in the data. As mentioned briefly before, spare parts sales are driven by part numbers whilst the shrewd organization of these data is not to be overlooked. Spares in Motion has invested heavily in linking

component OEM part numbers, to wind turbine OEM part numbers. In this way, the company can support customers with the correct product at industrial pricing.

In recent years, players from the demand side have also become more proactive. In the event of depleted inventory, or a wind turbine down, a procurement manager for a GE 1.5 wind farm need not only ask its regional GE contact.

Not only does supplier diversity help to drive down cost prices, but it creates bargaining power for buyers and a willingness from suppliers to more quickly satisfy demand. This, in turn, further drives down operating costs and increases availability. As procurement managers search for solutions, Spares in Motion actively surveys global market prices to proactively deliver cost effective solutions to owners globally.

Often times, operators look to find better prices for large quantities for their yearly inventory which often results in price breaks no-matter the source. In other cases, an operator might only require a handful of parts, however, still looking to be cost effective by going directly to the manufacturer. While this purchasing strategy is logical and cuts out middlemen, which should avoid stacked premiums, it might not be the most cost-effective route to take.

In these situations, a spare parts expert has other approaches for cost savings in their repertoire, and it might not be as obvious. The fact is, identifying part numbers and knowing where to find the best price for a hand full of units is not always enough to drive down prices for buyers, or guarantee short lead times.

Any procurement manager in wind energy knows that critical parts can be backed up for months, which is why we are involved in the process of stock sharing.

- Driving down costs on spare parts to satisfy budgetary goals
- Finding high availability of parts to reduce down time and respond effectively to uncertainties.

The issue is a marketplace one in general, as certain connections need to be made. Global sourcing poses as an interesting solution.

Historically speaking, wind turbine OEMs perhaps only with the exception of Enercon (given its closed loop supply chain) have traditionally offered their component parts to customers with transparency and numerical identifiers. Over the years, this information sharing has allowed industry players, such as, Spares in Motion, to develop profiles on key manufacturers, arrive at standard prices across product groups, and discover alternative providers for spare parts as warranties expire.



Jochem Sauer and Marc Huyzer, Managing directors



Stock Sharing Scenario

Let's say there is a wind turbine down due to a blown transformer and an operator has no spares available. In a stock sharing world, customers help each other. We keep track of who is operating the same assets and make connections to help customers in emergency situations.

Frequently, other owners are inclined to offload parts as they see opportunities for their own uptime in the future. In this way, gaps in the marketplace are filled.

Knowing which spare parts need to go where is also extremely helpful in selling overstock. Overstock might occur due to maintenance contracts expiring, and the offloading of it can help an owner's bottom line. With relative frequency, wind farms with overstock are sold to new owners. This overstock is not always purchased by the new owner and might find itself available for purchase by other companies.

However, the demand isn't always visible. Spares in Motion is able to match unwanted overstock with operators that maintain similar assets, making this network connection. When a transaction ensues, it is beneficial for the seller as well as the buyer, creating a win-win scenario for utilities.

Interestingly, some of these utilities might even compete on the development side of the wind business, but find mutual interests on the O&M side in this way. Practically speaking, sellers transform stock into cash and buyers buy parts at a lower price than they would via an original source. Spares in Motion links the two to make this possible, and the complex industry allows for straight-forward new synergies.

This is not to say that we can fulfil all of the increasing needs that spare parts' operators will come across due to aging fleets. The idea is not to criticize the market framework, but fill in the gaps where gaps can be filled which facilitates healthier competition.

To put it succinctly, wind turbine part experts like Spares in Motion utilize data to purchase parts at fair prices in an ever-changing market, and likewise help utilities reduce their spare parts' cost as they do. The company links suppliers through data and

uses available global stock to increase availability and reduce downtimes. Spares in Motion operates on the premise that spare parts' data, of this nature, will only become more valuable.

www.sparesinmotion.com

The screenshot shows the Spares in Motion website interface. At the top, there's a navigation bar with 'JOIN FREE', 'LOGIN', and 'HELP ABOUT'. Below that, a blue header contains categories: 'WIND TURBINE PARTS (4620)', 'COMPONENT REPAIRS (198)', 'WIND TURBINES (148)', 'SERVICES (208)', and 'BRANDS (140)'. The main content area displays a product page for 'Winergy peac 4300.5 Gearbox'. It features a large image of the blue gearbox, a price tag of '€ 83.300,-', and a 'CONTACT SUPPLIER' button. The product details include: 'Compatible with Neg Micon wind turbines', 'Vestas V29/225 kW', 'Part manufacturer: Winergy', 'Product group: Gearboxes', 'Brand: NELCON', 'Quantity: 1', 'Measurement unit: pcs', 'Lead time: 24h', 'Price: EUR 59.000', 'Condition: Refurbished', and 'Warranty: No'. Below the main product, there's a 'MORE LIKE THIS' section with three smaller product images and descriptions. At the bottom, there are sections for 'SUPPORT', 'SOLUTION', 'COMPANY', and 'SUBSCRIBE TO NEWSLETTER'.