

# **Operations**News



ssue 1/2023



## Full (solar) power ahead – ENERTRAG Operation takes over operations management of innovative 20 MW PV project

Since April 2023, ENERTRAG Operation has been managing the solar field "Kreuz Uckermark" in terms of operations management and extending its expertise in the field of in the field of renewables.

A total area of over 21 hectares, 20 MW total capacity, located at the Uckermark motorway interchange and thus in the direct vicinity of the company headquarters in Dauerthal: The first of two sections of the "Kreuz Uckermark" solar field went into operation at the end of March 2023 and



PV-project "Kreuz Uckermark" by ENERTRAG during the construction phase

has been making a further contribution to ENERTRAG's sustainable energy supply in Germany ever since. The second section will follow soon. The highlight of this project is the connected 3.6 MW battery storage system, for which ENERTRAG won a contract in an innovation tender. The location of the battery storage is not directly at the solar field, as expected, but at the company headquarters in Dauerthal. There, the stored electricity is available for emergency supply, among other things.

ENERTRAG Operation is assuming the role of the operations manager in this project. In a **first step**, the operations management for 10 MWp of the PV plant has now been taken over. In a **second step**, the other 10 MWp of the PV plant will follow, before the **third and final step** in 2024 →



# In marathon mode

At ENERTRAG Operation, we find ourselves caught between two worlds in March and April: The final spurt of one transitions into the start sprint of the new fiscal year on April 1. And this is also reflected in the selection of topics in the latest OperationsNews: We look back at the fast start of our team for safety checks, look at the topic of PV operations management, which is gaining new momentum at ENERTRAG Operation, and talk about efficiency in the inspection body. Also included, as usual, are our ShortNews. I look forward to the upcoming, as always exciting time with you and hope you enjoy reading until then!

**Michael Dahm** Managing Director will be the operations management of the battery storage system.

For Michaela Fischbach, Operations Manager, and Andre Reichert, Head of Operational Services, the work on the project did not begin with its commissioning. Already during the construction phase, the two of them and their team accompanied the project planned by ENERTRAG SE on behalf of ENERTRAG Operation. For example, the plans of the plant had to be fed into the monitoring software in advance to ensure smooth monitoring after commissioning. Another to-do: setting up an in-house warehouse with spare parts. "In PV projects, unlike wind projects, repairs and maintenance services are also the responsibility of the operations manager," Michaela explains. It regularly happens, for example, that the modules and inverters used today are not available over the entire life cycle of a project, so they create their own inventory. Andre emphasizes another advantage of having an own stock: "If we detect damage at the components, be it to the solar module or the inverter, we need a quick remedy to minimize yield losses. With our own warehouse, we circumvent supply bottlenecks and are able to act at short notice." Another topic needs to be organized even before the project goes into operation: Green maintenance. Normally, PV modules are located on green spaces. On these, it is important to ensure that inspections and maintenance work can be carried out easily at any time and are not impaired by uncontrolled growth. "Even if it sounds simple, the green maintenance of PV projects is not that easy for various reasons," Michaela reports from her daily work. She adds, "We can't run normal lawnmowers over the area, the risk of stone chips on the modules is too high." The solution to this problem is as simple as it is creative: "We have developed a mowing concept in which we work together with a shepherd. By regularly walking the area with the herd, the vegetation is shortened in a natural way," says Michaela. This concept is not new, but it is also not the case that all PV projects work this way, because there is also the less sustainable and more cost-intensive option of working exclusively with special tools. The latter is being used as a supplement in the context of this project.

Andre is looking forward to further expanding his department's work in PV: "Now is the right time to go full throttle in PV." Particularly in view of the numerous large-

scale projects in the solar sector that parent company ENERTRAG is planning, Andre sees the additional experience now gained as helpful: "We are pleased with the pace at which we are now growing in the PV sector. Not least, the many ENERTRAG projects in various stages of development in Germany and abroad (e.g. Hyphen) with several gigawatts of PV and wind capacity will demand everything from us."



# "Efficiency" – How ENERTRAG Operation's Inspection Body Gives Substance to the Promise



Everyone talks about efficiency. Efficient route planning, efficient use of resources, efficient operation. Managing Director Michael Dahm and Matthes Schachtner, Head of Technical Services, give an insight into how to realize the promise in the inspection body of ENERTRAG Operation.

A multitude of internal and external factors must interact in order for ENERTRAG Operation's inspection body to deliver the best results. While external influences such as the weather or the geographical location of wind fields cannot be actively influenced, there are various internal pro-

cesses aimed at compensating for external factors and offering our inspection services at the best possible conditions. Like in a clockwork, processes, teams and planning interlock for this purpose at best. Today, we present three core components for efficiency at ENERTRAG Operation:

#### **Broad service portfolio**

The most obvious factor for high efficiency at ENERTRAG Operation is obvious to **Michael Dahm**: "By offering many different services, we can connect inspections and send our teams on optimally planned tours." Operators save themselves the coordination of sometimes unnecessarily many trades at their plants. For optimal tour planning, the goal can only be to send one team to a park for each job, if possible. But every type of turbine is different and every inspection requires different skills. ENERTRAG Operation has an answer to this as well, according to →



They have a look at the efficiency of the inspection body: **Michael Dahm**, Managing Director ENER-TRAG Operation, and **Matthes Schachtner**, Head of Technical Services.

Matthes Schachtner: " In 2021, we already started to further qualify our inspectors so that they are all individually qualified to perform several services, such as gear inspections, recurring periodic inspections and DGUV V3 checks."

With the 2023 expansion of the range of services to include safety checks, there are also teams in place that can simultaneously perform all the relevant tests and (micro) repairs in this area. This saves unnecessary additional trips and downtime for the plants.

### Smart handling of inspection results

Over the entire life cycle of a wind turbine, there are numerous inspections that must be performed – from the inspection after commissioning (so-called "H1") to the recurring periodic inspection (in Germany called "WKP") to the continued operation inspection, to name just a few. Of course, you can look at each of these individually, perform them independently and evaluate them. But it can also be done more efficiently: "In the context of a recurring periodic inspection, among other things, those variables are checked that are also relevant for a continued operation audit," Michael

explains. Therefore, it is obvious to use the results of a recurring periodic inspection as a basis for an upcoming continued operation audit. Such interfaces can also be identified in other inspection services. "When it comes to inspections, our inspectors don't think in silos," says Matthes, describing the work in the inspection body. He adds, "Wherever there are interfaces, we identify them and thus save extra deployments of our teams in the field. That helps enormously when it comes to efficiency."

As a customer, you don't just benefit from this approach if previous inspections have been carried out by ENERTRAG Operation. Results from other inspection bodies are also used to minimize effort. "Of course, we have defined rules on the quality standard that externally generated protocols must have and the maximum age of these protocols," Michael explains.

In addition, the inspection body of ENERTRAG Operation is a type C inspection body accredited in accordance with DIN EN ISO/ IEC 17020 for the scope specified in the certificate annex D-IS-18273-01-00. This means that the results of the inspections performed are standardized and thus comparable.

#### **Innovative products**

ENERTRAG Operation now has around 30 years of experience when it comes to wind turbine inspections. A lot of time to gain experience and establish processes. However, this is by no means a reason not to question existing processes.

Michael emphasizes, "Even if something works, it doesn't mean it can't be improved - With this in mind, we regularly review our services to identify potential." The latest and most prominent example of this philosophy is the drone inspection, which combines the rotor blade inspection and lightning protection measurement in a single procedure by drone. The drone inspection has succeeded in optimizing the documentation of results compared to inspection using rope access technology and minimized the risk for inspectors. Another important aspect is that the drone inspection is much quicker and can be carried out by the same teams that carry out recurring periodic inspections or DGUV V3 checks on the systems, for example. This means that there is no need for a double journey, and the customer receives two services at the same time with an approx. 60-minute longer downtime.

In addition, ENERTRAG Operation has, as is the market standard, digitized all processes in report generation. Defects discovered during a **drone inspection**, for example, are recorded and further processed via the 3DX Blade Platform of cooperation partner Sulzer Schmid, while the final assessment of the content remains in the hands of the technical experts. For our inspectors, this is a pleasant change of workplace: Whereas in the past the rope climbers at ENERTRAG Operation were mainly directly involved in the field with the documentation, they now carry out the assessments from the office.



They put the measures into practice: The inspectors at ENERTRAG Operation.

# SHORT

# The most important news of ENERTRAG Operation at a glance!

## Electrified: ENERTRAG Operation increasingly relies on e-vehicles

Sustainability is one of the top priorities at ENERTRAG Operation in all areas. For this reason, adjustments are also being made outside the office: ENERTRAG Operation is gradually changing its own vehicle fleet to electric drive.

Since December 2022, the inspectors at ENERTRAG Operation now have an ID.Buzz from Volkswagen in their fleet, a Skoda Enyaq was already in use. A Tesla Model Y will also be added to the fleet in the near future. The models will initially be used to test how (different) electric vehicles can be optimally integrated into the inspectors' daily work routine. Due to the high volume of travel and the frequent work in rural regions in combination with the





sometimes thin charging infrastructure in Germany, previous processes may now have to be adapted in order to be able to quarantee optimal tours.



Inspector Arne Lauermann in the ENERTRAG Blue ID.Buzz

#### What's next? Drone inspection news

On February 6 and 7, our colleague **David Müller**, Head of Sales, was a guest at the **5th Phoenix** 

#### **Contact Technology**

**Congress** in Hanover. There he gave a presentation on the innovative drone inspection from ENERTRAG Operation and addressed the questions: Where does the technology currently stand? What development steps are planned? What are the strengths and also weaknesses of the technology?

You missed the presentation but are interested in the topic? Contact us, we will gladly provide the slides with a lot of interesting background information!

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### READING RECOMMENDATION:

**Matthes Schachtner**, Head of Technical Services at ENERTRAG Operation and an expert on drone inspection, has given an exciting interview on the subject.

Click here for the **article** "Drone inspection of wind turbines: Flying game-changer?" (German only!)



## On tour: ENERTRAG Operation at operator forum in Gdansk/Poland

Poland is one of ENERTRAG's focus countries when it comes to internationalization. Therefore, **Anne Sommer**, Key Account Manager, made her way to Sopot/Gdansk at the beginning of March (8-9) to participate in the **6th "Wind Farm Operators Forum" (WFOF)**. Also there: Elena Piras and Dr. Felix Bübl, representing the Powersystem.

In addition to their own booth, where numerous interesting discussions were held, there was a special highlight: ENERTRAG Operation and Powersystem held a joint workshop on "Reducing costs for monitoring and inspections". Anne summa-







rizes her visit to Poland as follows: "The market in Poland is incredibly interesting and we learned a lot about it again. It was definitely worth making the trip and I look forward to the developments in this country!"

Learn more about our activities in Poland – in issue 3/2022 of our BetriebsNews! **★ Issue 3/2022** 





Key Account Manager Anne Sommer at the 6th "Wind Farm Operators Forum" (WFOF)

# Focus on safety checks – About the start of the new team at ENERTRAG Operation



Since the end of 2022, there has been a new team of experts at ENERTRAG Operation: the team for Safety Checks. Located in the Technical Services department, the team around Nico Toll takes care of your safety in wind turbines. Annual safety checks, including of the service lift, ladder, crane system and fire extinguishers, so-called ZÜS inspections of the service lift and any necessary (small) repairs are carried out precisely by the experienced safety technicians.

We asked: What is special about your work? Are there any danger spots that the team frequently encounters? And how were the first months at ENERTRAG Operation?

#### The interviewees:

- → Nico Toll, 39 years, Safety inspector
- → **Matthes Schachtner**, 40 years, Head of Technical Services Department

How were the first few months that the team has been in operation at ENERTRAG for you, Nico and Matthes? There must have been a lot to manage.

**Nico Toll:** When we started our first day of work in October 2022, the excitement was enormous. We only knew

ENERTRAG from the time when we were an external service provider for the company – although that was still 8 years. Of course, it was great that I didn't start off on my own, but that my whole team, consisting of four technicians and two administrative staff, came along. The vast experience of each team member made things a lot easier for me in terms of getting the right equipment for the technicians, setting up the warehouse, equipping the vehicles, selecting the tools and the entire organization in the background.

Matthes Schachtner: I can only agree with that. Thanks to the existing expertise, we quickly got to the point where we could move from organizational to technical topics, which is of course a great advantage in everyday life. Irrespective



**Nico Toll,** safety technology expert at ENERTRAG Operation

of this, Nico and his team also quickly settled into ENERTRAG on a human and cultural level. I think I can say that it could hardly have gone better.

**Nico Toll:** That's right. Thanks to the circumstances, the initial excitement also very quickly turned into great anticipation. Last but not least, all this also led to the fact that we can already be on the road since 02.01.2023 professionally and with heart at the plants.

How did the decision to establish a team for safety checks come about in the first place, and what are the benefits for the inspection body at ENERTRAG Operation and the customers?

Matthes Schachtner: There are a number of factors that have encouraged us to set up our own team for safety checks. With the addition of safety checks to our service portfolio, we are able to offer a wide range of services from a single source. The combination of services in larger packages and the joint route planning of our →



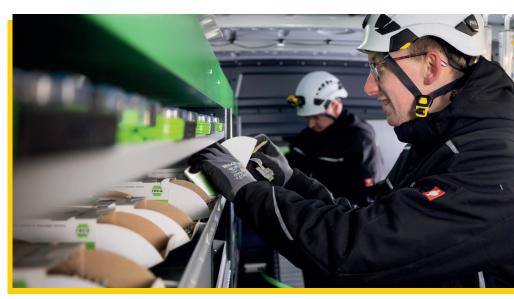
At work since January and already well occupied: **Christoph Hetzel, Nico Toll** (from left to right) and their team took off at full speed.

different teams, independent of subcontractors, can result in cost advantages for our customers.

Nico Toll: In addition to the points mentioned by Matthes, we offer our customers another advantage: We also undertake any necessary (minor) repairs to systems, quickly and without complications. Repairs directly during the safety checks or so-called ZÜS monitoring are particularly helpful because we do not necessarily have to block the defective components. As a result, subsequent inspections and maintenance can be carried out as scheduled. We thus facilitate the interaction of different teams or trades at a plant. In addition, the immediate completion of repairs means that there is no need for an additional travel to the plant or to stop it - this minimizes downtimes and saves costs accordingly.

Nico, you've already told us that you and your team have extensive experience in the field of safety checks on wind turbines. Are there any particular problem areas that you have noticed again and again in the past, and if so: which ones?

Nico Toll: Those components that are most frequently used by the trades on site must always be considered potentially problematic. From a safety perspective, these certainly include the crane system and the service lift. We have and will continue to have a lot to do with troubleshooting, repairs and maintenance on these, and we take a very close look here. This is also reflected in our warehouse: the largest share here is made up of spare parts



Prepared for everything: In order to be able to carry out minor repairs quickly and easily, the safety check team has many parts directly on hand. Other components, especially larger ones, are kept in a central warehouse.

for every manufacturer and type of crane and lift, followed by ladders and fall protection.

Is there anything else you would like to add?

Nico Toll: Finally, on behalf of my entire team, I would like to express my sincere thanks to ENERTRAG Operation, in particular Dr. Konrad Iffarth, Michael Dahm and Matthes Schachtner, for the opportunity and the trust they have placed in us to set up the safety technology here.

For more information on the topic of safety inspections, please see our press release (only German!) or our website.

### Full speed ahead: Team Safety Checks takes off at full throttle!

The fact that there is a huge demand for experts in safety checks and that it is worth setting up a separate department for this purpose is demonstrated not least by the work carried out so far by the teams: between January 2 and February 28, in the first two months of operation, the colleagues carried out **safety checks and so-called ZÜS-inspections of 147 wind turbines**, plus numerous repairs and maintenance work. And that was despite the fact that, after deducting days when they were not able to work in the field, there were only 22 operating days available. Hats off!

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