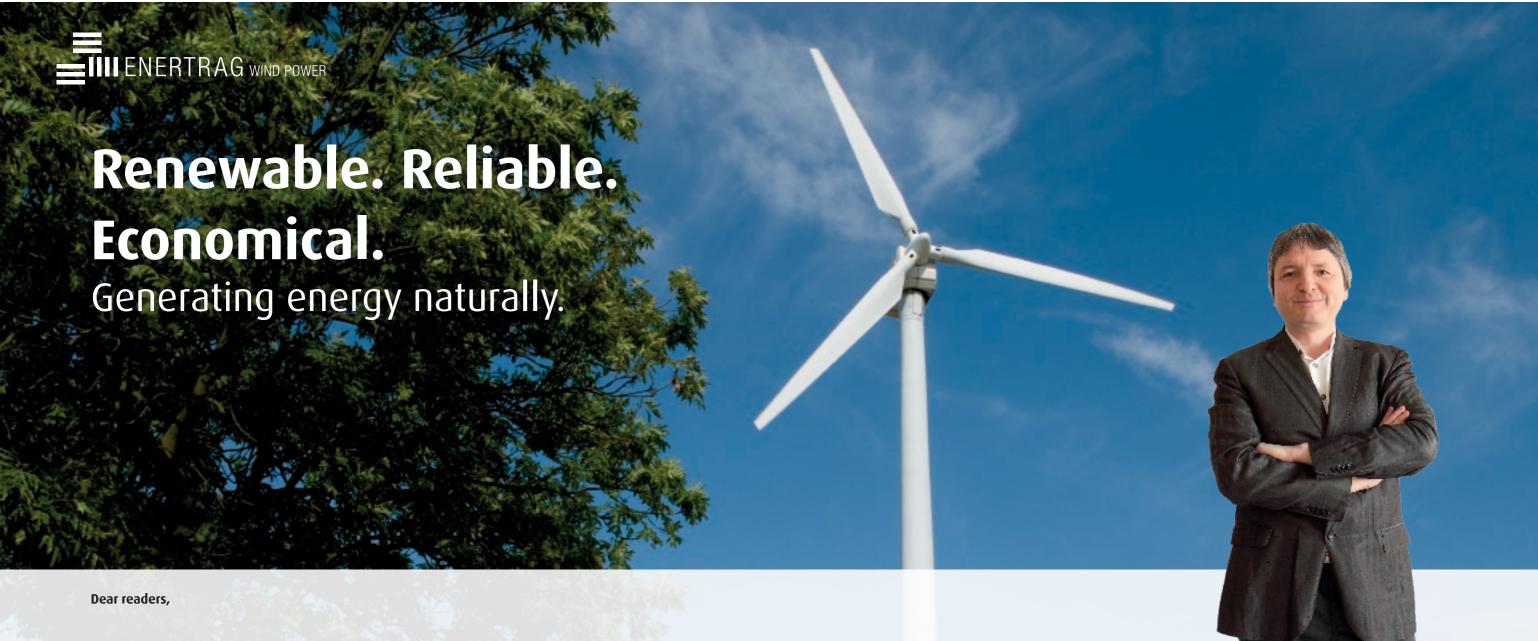


IDEAS. SOLUTIONS. ENERGY.

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For centuries we have known that energy can neither be created nor destroyed – and yet, we humans have persistently behaved as if endless sources of energy existed along with places to store the wastes created by their use. Neither of these assumptions is true. Instead, our world is a unique balance of energy and material flows, and we owe our existence to them.

Preserving and restoring this balance is precisely the goal of our company: The sun provides us with an abundance, either directly or through wind and water power. By human measures, only the sun truly deserves to be designated as an "energy source".

All fossil fuels, including oil, natural gas, coal and uranium, do not constitute true energy sources, but rather,

they are energy stores – they are exhaustible and we can only use them by destroying their contribution to the overall balance.

In response to this dilemma, Germany embarked upon a course twenty years ago that has since been pursued around the world: safeguarding a strong industrial base through the use of renewable energy. We at ENERTRAG have been committed to this path from the very beginning, for we know that ultimately, there are no fossil or alternative energy sources: we "only" have the enormous power of our sun. And we understand how this renewable energy can be utilised economically and reliably.

More than 3,000 megawatts of domestic wind energy

potential needs to be constructed in Germany in order to meet the energy policy goals for 2020 set forth by the government for the expansion of green energy. This presents a great challenge. As the best developed and cheapest renewable energy source, wind power must be substantially expanded and linked to long-existing storage technologies. Thanks to the expertise and dedication of our employees, as well as our experience in developing, financing, constructing, operating and maintaining more than 1,000 wind turbines, we are making a contribution to a secure energy future.

I invite you to accompany us on the journey ahead

Yours truly,

Jörg Müller

Managing Director

4 | ENERTRAG FOREWORD | 5



#### **FNFRTRAG** Energieprojekte

Project planning from conception to operational approval

#### **ENERTRAG** Systemtechnik

Energy facility components and lighting systems

#### **FNFRTRAG Energiedienst**

Monitoring and operation of energy facilities

#### **ENERTRAG** Energiebau

Construction of energy projects and power networks

#### **ENERTRAG** Service

Installation and maintenance of energy facilities

#### **ENERTRAG** Powersystem

Operational management software for energy facilities

#### **ENERTRAG Structured Finance**

Financing for energy projects

plant availability.

of the company.

#### **ENERTRAG EnergieInvest**

Investment funds and asset management

#### **ENERTRAG EnergieZins**

Fixed-interest bonds and issuance of securities

With ground-breaking products and more than 1,000 wind turbines under management, ENERTRAG is one of the market leaders in the wind-power industry.

ENERTRAG primarily generates electricity from wind. We plan, finance, construct, operate and maintain energy facilities with the goal of generating energy inexpensively and safely. Our planning, construction, and R&D projects aim to make renewable energy a power source that is just as secure and reliable as conventional power facilities. Alongside our core business activities in the area of wind power, ENERTRAG constructs electricity networks, biogas plants and energy storage facilities. Through these activities, ENERTRAG has developed into an innovative and path-breaking company.

Turbines constructed 460 Supervised facilities 1,000 Annual revenues in million €250 million

Employees 430

High & medium voltage power lines 560 km Total physical asset investments €1.1 billion Installed generating capacity 760

ment in funds, bonds and profit-sharing rights, enabling active participation in the successful development of wind energy.

ENERTRAG Service has a maintenance strategy that boosts

Our European-wide project development activities pro-

mote the expansion of renewable energy and the growth

ENERTRAG EnergieInvest provides opportunities for invest-

This is reflected in our services and products:

Turbine lighting systems by ENERTRAG Systemtechnik promote on-site acceptance.

Our operational management division, which provides round-the-clock monitoring services, is a leader in facility management that optimises availability.

PowerSystem, ENERTRAG's operational management software, optimises data collection, operational analysis and invoicing.

Our company headquarters is located in the Uckermark region of the German state of Brandenburg. Here, ENERTRAG is fully involved in regional development. ENERTRAG branch offices are located in Saxony-Anhalt, Schleswig-Holstein, Berlin, France and the UK. Moreover, ENERTRAG is active in Poland, Bulgaria and Belarus.

6 | ENERTRAG COMPANY PROFILE ENERTRAG COMPANY PROFILE | 7



## Investment in the future

National and international projects.

ENERTRAG is one of the leading project developers for power plants that use renewable energy. Our expertise in wind power, grid facilities and biogas is concentrated at our headquarters in Dauerthal, Germany. By leveraging the many years of experience held by our employees, we are able to skillfully and efficiently realise complex projects. ENERTRAG pursues a strategy of regional focus, making it possible for us to establish local points of emphasis and build enduring relationships with the regions in which we are active.

Werner Diwald

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**GERMANY:** Based upon its regional strategy, ENERTRAG has successfully built and placed into operation 600 MW of renewable energy facilities in northern Brandenburg alone. Brandenburg is also the home of our first feeder network, which uses a wind power collector to directly feed into the integrated power grid. Furthermore, we are successfully engaged in the German states of Mecklenburg-Vorpommern, Saxony-Anhalt and Lower Saxony. By collaborating with town councillors, community representatives and local residents, ENERTRAG ensures the public acceptance that is necessary for wind power, and remains continuously involved in the region – even after project completion.

**UNITED KINGDOM:** ENERTRAG successfully completed the construction of a wind park with eight turbines in North Pickenham and has operated the turbines since 2006. Eight additional wind farms are in the planning stage for Scotland; projects in England's northern neighbour will contribute significantly to supplying the United Kingdom with power.

**FRANCE:** ENERTRAG operates seven wind farms in France with 39 wind turbines that produce 70 MW of power. Additional wind farms are currently in the advanced planning stage.

**POLAND:** Here, ENERTRAG is active in three regions near the Baltic Sea coast in northern and northwestern Poland. In addition to investments in wind power in this area, plans are under way to build company-own feeder networks that connect to Europe's high-voltage network.

**BULGARIA:** In the Dobrish region on the Black Sea coast, our Bulgarian team is making plans for new wind parks. The region has the potential for the installation of more than 1,000 MW in generating capacity.

**BELARUS:** Here, ENERTRAG has concluded a contract for the construction of up to 80 wind turbines with a total generating capacity of 160 MW; construction will take place in stages.



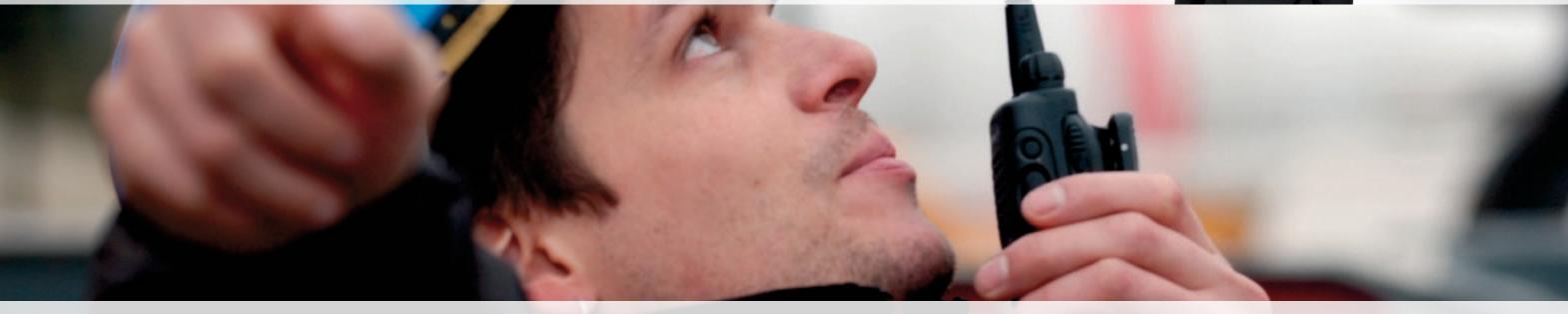
## Personalised service

As unique as our clients.

ENERTRAG Service offers a full range of services related to wind energy that are custom-designed to meet the exacting expectations of our customers. Our first priority is the needs of the operator. We guarantee transparency and a direct link to your energy facilities. With around 1,000 wind turbines under management and 140 employees at more than 20 sites in Germany, Austria and France, ENERTRAG Service is one of the largest manufacturer-independent service providers. As a part of ENERTRAG, we are also responsible for maintaining the company's own turbines, which number 460.



Jörg Winter
Managing Director
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**ENERTRAG Service** began operations in 2000 with its first monitoring centre and its own service personnel, and was significantly expanded through its merger with the service division of the manufacturer DeWind in 2005 as well as the wind service company SAG Erwin Peters GmbH in 2008. The firm has many years of operating expertise, broad experience in manufacturer-independent service along with the experience of a manufacturer. This combination is unique in the wind energy sector. The company's service portfolio is consistently directed toward optimising production at supervised facilities. In order to meet the individual needs of our clients, we have developed a building block system that consists of four elements.

#### Information management:

Supervised facilities are monitored using our own ENERTRAG PowerSystem operational management software. With this permanent, automatic monitoring system, we can recognize problems early on and prevent facility downtimes, thus avoiding losses in production and expensive consequential damages. ENERTRAG PowerSystem is operated around the clock from the Dauerthal control centre. All data and status reports are made available to the client at a password-protected online portal.

#### Service Taskforce:

Power facilities are optimally supervised through the international presence of service teams in Germany, Austria and France, an emergency service network and regional team coordination. The range of services provided covers all aspects of maintenance, and is supplemented by special services, such as major component replacement, installation and de-installation. In addition, we can perform blade maintenance, installation and repair for wind energy turbines of all types.

#### Replacement parts management:

ENERTRAG Service offers all services for wind turbines manufactured by DeWind, Nordex/Südwind, Tacke/Enron/

GE, Fuhrländer, Repower, Eviag and Micon/NEG-Micon. We have all necessary replacement parts for these types of turbines on stock at our own warehouses. Using a networked material logistics system, we can rapidly and reliably supply our approx. 20 warehouse sites.

#### **Engineering know-how:**

The service teams and control centre are supported by our internal technical support team. Specialists for condition monitoring systems (CMS), inverters and controls are available at all times to perform system components analysis at the facilities and thus assure rapid and efficient repair of malfunctions. Altogether, we can rely upon a total more than 1,000 turbine operating years of experience.

10 | ENERTRAG SERVICE | 11



## Operational management

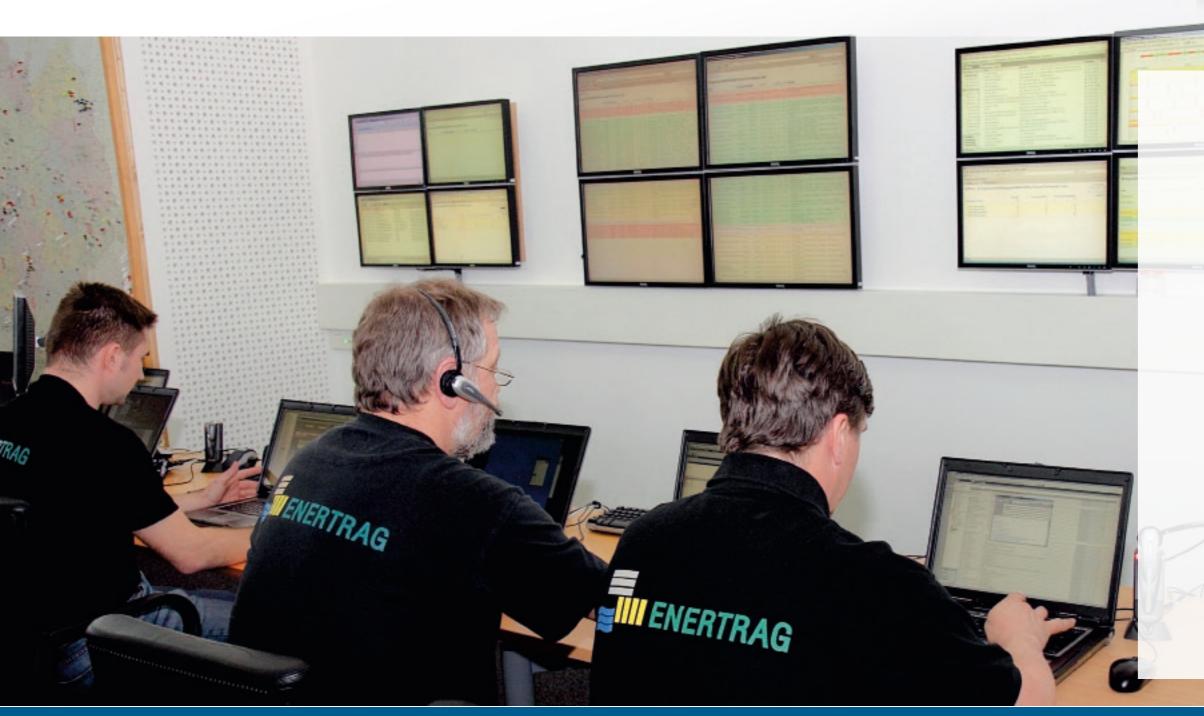
Efficiency coupled with expertise.

In the generation of electricity from renewable sources, value creation occurs as a result of an interplay between technical expertise, many years of experience, highly qualified and committed employees, and operator proximity. For over 15 years, ENERTRAG has provided technical and commercial operations management for wind parks planned by our own group of companies and for external operators throughout Europe.



#### Johannes Heidkamp

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#### **ENERTRAG Wind Power**

Our core goals are:

- · preventing stoppages,
- · safeguarding high levels of availability,
- assuring seamless operation of power plants and substations
- achieving an extended operational life through condition monitoring and preventive measures that maintain the value of the power plant.

We achieve these goals by maintaining direct connectivity with the facilities, which are monitored round-the-clock by a control centre.

The gathering of comprehensive technical and commercial operating data are prerequisite for sound management and for making future project decisions. To obtain such data, we developed the ENERTRAG PowerSystem software solution, which has been custom-designed to meet the needs of renewable energy plant operators. Our operational management services look after all technical matters and assure conformity to all deadlines and regulations, as well as the correction of any deficiencies.

We organise all necessary maintenance and servicing procedures and supervise their proper implementation. Monthly reports provide all relevant data in an understandable format for operators, investors and banks.

12 | ENERTRAG OPERATIONAL MANAGEMENT



## PowerSystem Smart and innovative.

Would you like to get more output from your energy systems using a standardised IT system specially developed for energy facility operators? Are you preparing to directly sell your wind energy output? Are you planning to switch over to automatic account settlement with network operators and power generators who sell their energy directly? Take advantage of our many years of operational management experience with more than 1,000 wind turbines.

We look forward to hearing from you.





#### **ENERTRAG PowerSystem**

PowerSystem is a smart and innovative software application for getting more output from your energy systems. This standardised IT solution is specially designed to serve the specific management and direct sales needs of energy facility operators. PowerSystem is a product of our many years of operational management experience with more than 1,000 wind turbines.

Once a minute, the module automatically collects operational and status data from your energy systems and transmits them to a central database. All malfunctions are immediately reported to control centre staff so they can address the problem without delay. The system creates a reliable database for availability analyses. This means you can monitor servicing speed, component service life, output losses due to reduced power operation, the consequences of specific malfunctions and much more.

With performance reporting, you get an evaluation accurate to the day or month of generation output at one or even several power facilities; this feature is available at any time over the internet. The "wind yield" module can do everything from the remote reading of transformer station meters to the automatic invoicing of electricity customers. In addition, the PowerSystem solution prepares invoicing data for each facility on a monthly basis for renewable-energy subsidy accounting and the settling of accounts with

generators who directly sell their power to the grid. It also calculates the proper income distribution for the various operators. Fifteen qualified experts are constantly improving this comprehensive IT tool with the goal of allowing renewable energy systems to be professionally operated as power plants that are just as reliable as conventional energy facilities. The PowerSystem solution helps to make red tape and manual documentation a problem of the past.

14 | ENERTRAG POWERSYSTEM



## System technologies

The turbine lighting technology experts.

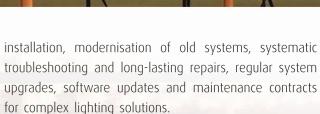
ENERTRAG Systemtechnik ("System Technologies") develops and supplies wind turbine components. Our focus is on low-emission lighting systems for wind-turbine marking. Since 2003, ENERTRAG Systemtechnik has equipped ENERTRAG installations and wind turbine projects from all the largest manufacturers with innovative lighting technology. At our new factory in Prenzlau, Germany, our production, engineering and sales teams work in close coordination to provide flexible solutions and respond quickly to all of our customers' needs.

**Thomas Herrholz**Managing Director

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**LED lights:** ENERTRAG offers solutions tailor-made for each. We use a wide range of different LED lights, from single proven and robust remote-control lights to interactive lights fitted with their own sensors and radio modules. We develop new products that draw on our many years of experience with wind energy. And we make every effort to ensure the results perfectly match your application requirements.

**Lighting management:** Lighting controls are where lighting and wind turbine technology meet. We gather all relevant information, monitor operational status and produce status reports. In addition, our modern systems can share data with each other.

**Sensor technology:** Using a wide range of data, we correctly adjust and optimise the operation of lighting

systems. German projects in particular can benefit from the use of visibility measurements to ensure light emissions do notexceed the minimum requirements. Our standard products featuring light sensors and GPS also offer superb convenience and reliability. Besides data from the usual sensors, additional input can be used to manage the lights. For example, astronomical clocks can provide information about sun position, or thermostats can be used to ensure reliable operation in regions with colder climates. ENERTRAG develops solutions to perfectly serve your specific needs.

**Primary radar:** Providing lighting that meets requirements is a key factor in gaining acceptance for wind energy projects. One option that fulfils requirements and helps to boost acceptance is to turn off lighting when no plane or helicopter is nearby. The benefits? Wind turbines become

practically invisible, the night sky is darker and lighting is only briefly activated when needed. ENERTRAG Systemtechnik employs a technology that works regardless of the aircraft's equipment, type or origin: primary radar.

**Lighting service:** Daily practice makes perfect. We manufacture and install lighting systems every day at ENERTRAG. That means we have all the experience required to offer professional service. Regardless of what control system is required, we always deliver solutions tailor-made for the customer, system and job

Even complex assignments involving visibility measurement, radar or GPS are a snap for ENERTRAG's experienced staff. ENERTRAG's lighting services include

**Supply chain management:** ENERTRAG Systemtechnik ensures that every component is always exactly where it should be at exactly the right time. From the cables in the factory to the lights at the construction site, we develop a supply strategy in close coordination with our clients that extends from initial project development to the final commissioning. We can also ensure that identical mechanical and electronic interfaces are used across the globe for all projects, regardless of country-specific equipment requirements.

16 | ENERTRAG SYSTEM TECHNOLOGIES | 17



# The innovative hybrid power plant

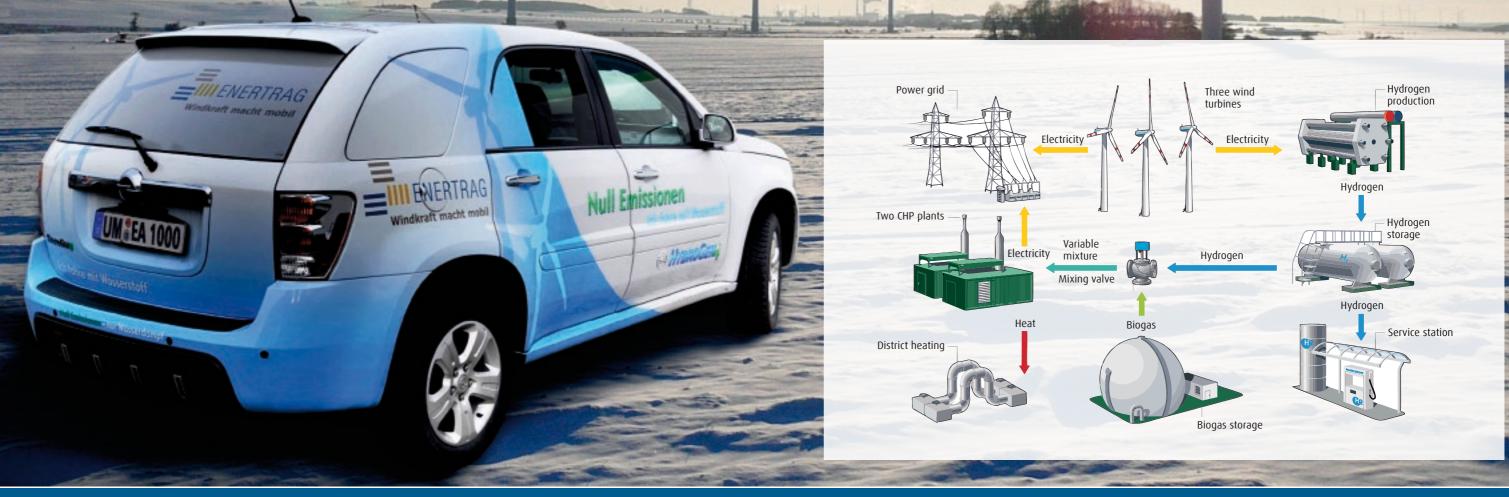
Wind power hits the road.

ENERTRAG's hybrid power plant proves in practice that a secure and sustainable supply of energy based on renewable sources is a real and viable option for the future.

This power plant stores carbon-neutral energy as hydrogen with the help of wind power. This allows demand for energy to be met regardless of how much renewable energy is being produced at a particular time. The first step necessary for adoption is to refine load predictions – an essential tool for managing the power grid – so that discrepancies between actual electricity production and the demand for electricity can be reduced to a minimum.

Alongside use in electricity production, hydrogen can be sold directly as a carbon-free energy source for industry and transportation. The wide-scale implementation of ENERTRAG's hybrid power plant would create an additional extraordinarily attractive market for selling wind energy with massive potential for growth.

ENERTRAG signed a cooperation agreement with Total Deutschland GmbH, Deutsche Bahn Energie GmbH and Vattenfall Europe Innovation GmbH to conduct experimental research on the technical requirements and production costs of wind hydrogen. The technological solution developed by ENERTRAG opens the door for the sustainable, efficient and cost-effective restructuring of the energy economy.



18 | ENERTRAG INNOVATIVE HYBRID POWER PLANT



# The innovative feeder network

Supplying consumers directly.

Whether it's wind power, biogas, heat power or entire high-voltage grids, ENERTRAG is an expert in building systems that tap renewable energies. From assessing and finalizing planning documents, technical engineering for planning and project development, to tendering, contracting, order processing and commissioning: we manage your project from beginning to end. Contact us to learn more.

#### Matthias König

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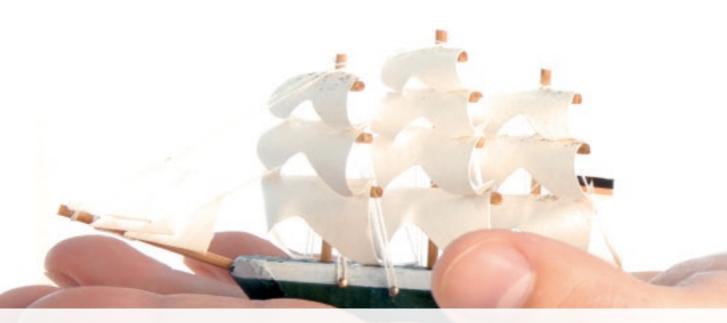
intelligent systems for producing and distributing renewab energy. Over the years, our company has developed superlexpertise in the area of renewable energy. We intimately know our industry and have played a role in shaping its development. The 460 wind turbines built by ENERTRAG to date store most of the clean energy they produce in an underground feeder network for renewable energy built and operated by our company.

Transformer stations as well as 560 kilometres of high- and medium-voltage underground cables connect the network to the European high-voltage grid. Intelligent, cutting-edge technologies with control and regulation features and temperature monitoring are integrated into the network. That guarantees electricity takes a direct route to consumers. The feeder network supports a networked power plant – the first ever of its kind ever. So far 32 million euros have been invested in this network. ENERTRAG possesses the necessary internal resources for planning and building grid connection facilities. That ensures fast, effective and scalable grid connectivity.

20 | ENERTRAG INNOVATIVE FEEDER NETWORK



## **Investing**Low risk, high yield.



### ENERTRAG EnergieInvest ENERTRAG EnergieZins

In order to develop and implement new projects on the path to a sustainable energy future, large investments are required in our technological and human resources. In 1998 ENERTRAG began developing and brokering investments in closed funds and interest-bearing securities. Today these products are developed and offered by ENERTRAG Energie-Invest.

ENERTRAG EnergieZins ("Energy Interest") was also created as a brand for the brokerage of profit-sharing rights and bonds sold to finance energy systems. To attract investors and serve their needs, we have developed intelligent investment products in the wind energy branch with a range of maturities and conditions.

We develop and manage assets you can reach out and touch, and also offer a highly transparent product: our green investments promise opportunities for returns and make an addition to your portfolio with lasting value – and one that's independent from other investments.

Our full service range covers product development, consulting and sales for investment products as well as comprehensive investor support. On behalf of our operators we manage a total of 500 million euros, representing 5,200 investors and ownership stakes in a total of 18 closed wind energy funds. In addition, we manage interest rate products for around 2,000 investors, with a total of 34 million euros in invested capital.

#### **ENERTRAG Structured Finance**

ENERTRAG Structured Finance offers specialised financial services for the energy market. We have years of experience successfully structuring project financing in Europe. Our financial experts provide for the assessment and structuring of cash flows, the evaluation of projects, the securing of credit for the optimal raising of capital, and liquidity management.

By focussing on our core competencies – financial structuring, due diligence and investor acquisition – we've gained decisive competitive advantages in recent years in the renewable energy project financing market.

#### ENERTRAG EnergieInvest GmbH

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22 | ENERTRAG INVESTMENTS





Across the globe, the energy market is facing huge challenges. After decades of low-cost growth driven by fossil fuels, the heyday of these resources is now drawing to a close. Step by step, renewable energies are replacing the carbon-based energy economy. This shift is affecting every area of the energy industry with equal force: electricity, heating and transportation. ENERTRAG is already successfully active in all of these sectors. Given the world's goals for climate protection, today we face clear energy policy challenges. As a company, we're taking on these challenges with an innovative, forward-looking, respectful and responsible approach.

#### System integration of renewable energies:

Reliably satisfying all demand with renewable energy means introducing new regional long-term storage facilities that can be used at any time to flexibly supply power. ENERTRAG will continue to expand its commitment to the hydrogen industry.

#### Optimisation of the power grid:

Reducing energy consumption and increasing energy efficiency can reduce grid expansion costs. Among the improvements required, a top priority is that the European high-voltage grid be able to draw as needed from various decentralised renewable-energy feeder networks.

ENERTRAG now operates the largest feeder network in Germany in the state of Brandenburg.

#### Changing energy infrastructure usage:

The existing gas network could also carry vast quantities of renewable energy and deliver it where required. ENERTRAG views gas feeders as an area with enormous potential.

#### Giving renewable energy priority:

The transition to a new energy economy will only be successful if renewable energy is expanded in combination with an effort to overcome our reliance on conventional power plants and current market structures. ENERTRAG is committed to cooperating with the energy industry, policy makers and the public sector to develop a far-sighted legal framework based on the further strengthening of Germany's already successful Renewable Energy Act.

#### Further development of renewable energy:

Exploiting domestic carbon-neutral resources can guarantee reliable energy supplies, ensure stable and affordable prices, create new supply chains and provide secure, highly qualified jobs. ENERTRAG is pursuing a sustainable growth policy to effectively take advantage of these opportunities.

**ENERTRAG's commitment** to a secure energy future is turning ideas into reality and making wind power an essential component of our energy economy. We're dedicated to meeting the challenge of building reliable, clean and affordable energy systems – both today and for future generations.

24 | ENERTRAG'S VISION FOR THE FUTURE | 25



