



CASE STUDY: BOLTIGHT WHITEPAPER

**Bridge produces white paper on
renewable energy sector to underpin
Boltight's digital media campaign**



CASE STUDY

British manufacturer Boltight offers specialist hydraulic bolt tensioning solutions to businesses working on major infrastructure projects. Boltight recognised the potential of the renewable energy market and turned to Bridge PR & Media Services to produce a white paper addressing the challenges and opportunities facing the sector. [*Power Generation from Wave to Wind: Creating Tension and Maintaining it*](#), highlights the importance of Boltight's technological solutions. The white paper was then used as a key piece of collateral for Boltight's digital marketing campaign, helping raise the profile of the business as a valuable partner in renewable energy supply chain for delivering safe and robust projects.

Boltight has built a reputation within the power generation industry for its technical expertise. As part of the Nord-Lock Group, its hydraulic bolt tensioning tools sit alongside the group's Expander System, Nord-Lock wedge locking washers, and Superbolt mechanical tensioning systems. The manufacturer identified huge growth potential within the renewable energy market in helping OEM's guarantee the structural integrity of major infrastructure projects.

On behalf of its client, Bridge embarked on producing a 20-page white paper which would help establish Boltight as a thought leader and trusted manufacturing partner within the renewables sector. Bridge has extensive knowledge of the manufacturing sector and its expertise and contacts stood it in good stead when embarking on the project.

Bridge began by conceptualising the white paper and identifying the key focus areas. It was decided that the paper should assess current demand and growth forecasts for the renewables market, before exploring what Boltight's technological innovations have to offer. It concludes with a look into the future potential of power sources such as wind, wave and solar and what a key role innovation will play in reaping their benefits.

POWER GENERATION FROM WAVE TO WIND: CREATING TENSION AND MAINTAINING IT



BOLTIGHT™
PART OF THE NORD-LOCK GROUP

By 2022
renewables will
account for
29%
of the global
energy market.

FUTURE GROWTH OF RENEWABLE ENERGY SECTOR



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Bridge carried out extensive research into the market and produced a detailed briefing document. It then liaised with Boltight's technical team to gain more insight into the products' specific capabilities and applications.

Producing the white paper was just the start of the process. Bridge advised their client on how to use the document as a marketing tool and the driver for a digital marketing campaign, in particular using banner advertising to help drive traffic to their website.

WHEN SAFETY REALLY MATTERS.

Nearly 20 years of advancing and perfecting our hydraulic bolt tensing technology has cultivated our expertise in bolting. As global leaders, we are up to any challenge. We'll do anything in our power to help you eliminate breakdowns, control downtime and ensure safety for your entire team.

Get in touch with your nearest Boltight representative today.



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NORD-LOCK
GROUP

BOLTIGHT LEADS THE WAY

UK manufacturer Boltight offers a complete range of hydraulic bolt tensing systems used around the world for demanding applications in civil and gas power generation, wind energy, industrial engineering, construction and mining industries.

The UK business has been at the forefront of the sector for almost 20 years and Boltight's hydraulic bolt tensing systems have a global reputation for innovation and quality.

Boltights equipment is manufactured to the highest standards and employs advanced technology to ensure the greatest levels of performance and reliability. Incorporating the latest technology, consistent material quality, and a portfolio of tools, Boltight offers a wide range of high-precision tools.

In addition, Boltight's range of specialist equipment has been used across the energy sector and includes the world's largest compressor rotor bolt tensioners, turbine bolt joint tensioners, hydraulic closure systems and compact flange tensioners.

Boltight has gained a reputation as a market leader in supplying bolt tensing solutions to the energy market.

For many years Boltight has supplied equipment to the oil, petrochemical and offshore sectors. Its tensioners are used on offshore flanges, compact flanges, heat exchangers, chimneys, burners, valves and other critical bolting applications. It also supplies the onshore and offshore markets, which provide a fast and accurate

method for monitoring bolt elongation using the latest ultrasonic technology.

In recent years, supplying equipment to the renewable energy market has become an ever more integral part of Boltight's business.

For instance, within the wind power industry Boltight tools are used on wind turbine tower base bolts, frame bolting and blade root bolts, with a variety of bolt tensioners, foundation bolt tooling and a compact electric 1000bar pump.

Its tools have been designed to meet the demands of the major OEM wind turbine manufacturers, including Vestas, Siemens, GE, Iberdrola, Siemens, GE Power and Mitsubishi Heavy Industries. They are particularly popular with contractors providing after-market inspection and maintenance.

Through its worldwide distribution network, Boltight has recently supplied tools for wind farms in India, China and the US.

Boltight designs tools to meet the requirements of specific sectors across the energy and power generation markets. For instance, its specialist

hydraulic bolt tensing tool, Tychoson, provides a simple, accurate and reliable solution for tightening critical bolted joints on today's modern wind turbines.

Optimised for size, weight and load capacity, it is ideal for tightening high load bolts using confined spaces to precise measurements, applications on wind turbine include blade bolting, bearing to hub bolting, tower bolting, foundation bolting, tower frame bolting and hub to blade bolting.

Since 2015 Boltight has been part of the Nord-Lock Group. The Swedish group is a world leader in bolt securing systems and as part of a strong network of global companies, Boltight now offers customers access to a range of unique technologies.

The combined strength of Nord-Lock's Expansion System wedge locking washers, its Scanlock mechanical locking systems and Boltight's innovative hydraulic bolt tensing systems, offer a powerful proposition.

Combining the combined distribution outlets available within the group, Boltight can grow and diversify its technology more easily and offer enhanced support on a worldwide stage.



Wind turbine project – US and China

Hydro-electric plant Italian Alps

Wind turbine solution

Hydro-electric plant Norway

Boltight worked with customers in the US and China on multiple wind turbine blade gearbox and bearing. Together with pump and housing, Boltight used its M30 Tychoson and M30 Tychoson tensioners. These tensioners offer a high-load, low-profile solution for tower-to-rotor applications demanding high torque and accurate pressure.

Boltight worked with an Italian hydroelectric supplier to provide a combination of tools to ensure the required tensioning force on a turbine and valve flange. The challenge was to provide responsive solutions to suit bolts of various sizes including both round and hex not applications. Boltight responded to the customer's challenges with a range of standard and semi-customised tools.

Boltight was selected by a US agent for Enso for work at a tower foundation liberty turbine. Enso's Clasper Windtower Liberty turbine, it supplied a safe and reliable building solution. Both machines are secured by quality reliable washers for optimum load distribution. It is also critical that accurate and reliable tools are used to ensure bolts are in the right tension or torque.

Customer Hørsdal Norway turned to Boltight to assist with the bolt tensing for a hydro turbine project. Boltight analysed the customer's requirements and designed a range of tools to meet the project's needs. The tools include a range of hydraulic bolt tensing tools, including a range of hydraulic pumps and electric pumps.

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CREATING TENSION AND MAINTAINING IT...

Holding it together

As renewable energy infrastructure projects become more ambitious and more complex, so too do the engineering challenges they present. Be it wind turbines or offshore oil and gas, these structures must remain robust and designed to last. Boltight's hydraulic bolt tensing systems offer a high-load, low-profile solution for tower-to-rotor applications demanding high torque and accurate pressure.

Much of that attention focuses on the myriad of bolted joints which identify hold these structures together. Wind turbines for instance comprise a series of bolted joints which are under constant attack from the elements. Dealing with vibration presents a huge challenge to virtually all energy projects and Boltight solutions offer a high-load, low-profile solution for tower-to-rotor applications demanding high torque and accurate pressure.

As engineers develop ever larger power stations, taller towers and longer blades, these problems are accentuated. Both fatigue, relaxation and corrosion are a huge concern for project engineers. Bolts must be secured by quality reliable washers for optimum load distribution. It is also critical that accurate and reliable tools are used to ensure bolts are in the right tension or torque.

Hydraulic bolt tensing tools are now widely used to assist with the bolt tensing for a hydro turbine project. Boltight analysed the customer's requirements and designed a range of tools to meet the project's needs. The tools include a range of hydraulic bolt tensing tools, including a range of hydraulic pumps and electric pumps.

- 1 Hydraulic bolt tensing
- 2 Nut crushing tool
- 3 Pump
- 4 The hydraulic force is transferred to the bolts
- 5 Bolting
- 6 Load on bolts



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Bridge has also exploited the white paper to boost press coverage and worked with Boltight to have articles published in titles including Nuclear Engineering International magazine and Wind Energy magazine. This sits alongside ongoing work to raise the profile of the business by using press coverage and social media to tell stories and highlight the applications of its solutions.

To read the white paper visit:
<http://web.nord-lock.com/cn/aop9q/windenergy>

“ We were so happy with the work Bridge did on this paper, it gave us everything we wanted. Using the white paper assisted us in running a very successful digital campaign drawing new followers to our social media channels and views on our website.

Sandy Andringa
Marketing Manager, Boltight

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