YOUR EXPERTS IN MARKING & LIGHTING OFFSHORE WINDFARMS





www.sabik-offshore.com

Keeping offshore windfarms safe

Offshore windfarms are important assets that play an increasing role in the renewable energy transition. We're proud to have an important role in keeping offshore windfarms safe with our marking & lighting systems.

SAFETY IS OUR SHARED PRIORITY

From alerting pilots and mariners to potential hazards, to guiding search and rescue operations to the right location, safe vessel transfers and workspace illumination; everything we do focuses on creating a safe environment in and around your offshore windfarm.

PASSION & TECHNOLOGY

Our love of the sea and passion for technology has helped us gain a deep understanding of what it takes to properly mark and light an offshore wind farm.

Our wealth of experience helps us leverage technology to create inventive solutions developed specifically for offshore wind farms.

- У Scale & Standardization
- 🔮 Faster Installation
- 💛 Easy Commissioning
- Temporary & Permanent Solutions
- Experience for Peace of Mind

with innovative marking & lighting solutions:



These three areas define our existence. Tying them together into integrated systems lets us enable a safer, more sustainable world.







As the market leader, you benefit from extensive experience and global reach.



YEARS' EXPERIENCE



UNRIVALLED EXPERIENCE

We are the only lighting company devoted to offshore wind. This focus has led to a wide project portfolio spanning the globe.

UNPARALLELED EXPERTISE

Through our experience, we have gained a wealth of knowledge in marking in lighting which helps our customers along the project development process.

INNOVATIONS SHAPING THE FUTURE

Our products have been designed for specifically for offshore wind for easy design, installation, commissioning, and maintenance. No other lighting system compares to the NAi system.





48GW

*Figures correct as of January 2024.

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Marking & Lighting Offshore Wind Farms

OSS OFFSHORE SUBSTATION

The OSS is generally inside the windfarm. This acts as a central location to collect communication and energy to send to shore.

SPS SIGNIFICANT PERIPHERAL STRUCTURE

An SPS is a structure on a corner or major directional change in the windfarm direction. Other structures on the periphery can also be considered an SPS determined by local requirements. As a general rule, these structures will have the most marking equipment on them.

IPS INTERMEDIATE PERIPHERAL STRUCTURE

These are other structures along the periphery of an offshore wind farm that will be marked with a yellow marine lantern.

PS PERIPHERAL STRUCTURE

All other structures along the periphery.

Windfarms are comprised of many separate structures. The marking system brings all these structures together so that the mariner or pilot sees that there is one large hazard in front of them. This done through various marking techniques. Each type of structure plays a unique role in the communication of this message. Local guidelines vary, this is a general description.



Explore the specific marking requirements

This is a general description, contact your local Sabik Offshore representative for specific details on your project.

The following pages present the three functional areas covered by our marking & lighting solutions.





IS INNER STRUCTURE

These structures are within the peripheral boundary of an offshore wind farm.



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Aids to navigation help mariners understand their surroundings. Depending on the country the windfarm is located, a combination of navigation aids will be used such as:

Marine Lantern: yellow flashing light indicating an obstruction.

ID Sign: for nighttime legibility, we can either illuminate the daytime marking with a special floodlight or use a separate ID Signboard and light mounted on the railing.

Fog Signal: in times of low visibility, triggered by a visibility sensor or MRASS a fog signal emits an audible signal to warn mariners of an obstruction in the area.

AIS: the Automatic Identification System signal shows the turbine location on digital maps.

MLCS: the Marking Light Control System acts as link between the ParkMaster[™] server and the components on the railing. It gathers information, gives commands and holds the necessary battery backup for the components.

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OVP box: the Over Voltage Protection box serves as a protective barrier as electrical lines transition from the outside to the inside.

KEY PRODUCTS









MARKING

Explore the specific marking requirements for your region.



Turbines reach high into the sky and pose a hazard for aircraft. Using a variety of lights, we can make the area safer for aircraft to navigate through and around an offshore wind farm.

Medium Intensity Obstruction Lights: sit on top of the nacelle and signal to a pilot there is an obstruction in their way.

Heli-Hoist / SAR Light Combo: the green Heli-Hoist signals to a helicopter pilot that it is safe to commence lifting operations on a turbine. The SAR light can either be a separate light or combined with the Heli-Hoist light. This red light is part of a search and rescue program.

Low Intensity Tower Light: once turbines reach above 215m (699ft) an additional layer of communication is added. The tower light usually positioned just below the blade tip in its downward rotation and indicates to a pilot an additional height of the obstruction.

Visibility Meter: where applicable a visibility meter will dim the intensity of the lights according to atmospheric surroundings.

Aviation Light Controller: this acts as a link between the ParkMaster™ server, ADLS server (if installed) and the components.

KEY PRODUCTS



Medium Intensity Liaht



Aviation Light Controller







Light: ALS500

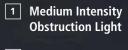
Heli-Hoist /

SAR Light



Visibility Meter





- 2 Heli-Hoist / SAR Light
- **3** Visibility Meter
- 4 Aviation Controller
- **5** Low Intensity Tower Light



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Explore the specific arking requirements



It is important to ensure a safe working environment for the service technicians on a wind turbine. While properly illuminating work spaces on the turbine, these lights must not overpower the aids to navigation communicating outwardly to the mariners.

Focused lighting creates a safe working environment through:

Platform Lights: these lights illuminate the platform where a technician will be walking and working.

Boat Landing Light: properly illuminating the ladder for safe transfer from vessel to turbine. These lights have a focused beam illuminating only the area needed to avoid light pollution and blinding reflection off the water surface.

Tower Internal Lights: providing enough light to work safely on the inside of the turbine tower.

KEY PRODUCTS



ALS450

Boat Landing Light:



Platform & Tower Internal Light: LA40



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MARKING GUIDE

Explore the specific marking requirements for your region.

We're here to help:

At every stage we have the knowledge, expertise & skill to support in marking your offshore windfarm.

With our experience of marking systems and involvement with local authorities, we are equipped with in-depth knowledge to advise you on the marking set-up for your project. From detailed marking plans, installation diagrams, to simulations and equipment lists we'll help guide you through the permitting and design phase.

In our local markets we can provide area demarcation of the construction site through Cardinal and parameter Buoys including service and maintenance. We can also provide temporary self-contained lights start the construction process while we closely with our customers to ensure seamless project implementation on the permanent marking systems.



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During the commissioning process, our engineering team is ready to assist remotely. In some instances we can even provide supervision.

Why Choose Sabik Offshore?

EXPERTISE



SPECIALIZED PRODUCTS

COMPREHENSIVE SOLUTIONS







Requirements change, the lifetime of a windfarm can be extended, new challenges may arise. We have knowledge to develop and adapt technology for your situation, from new requirements to lifetime extension projects.

Mark it, Light it, **Keep it safe!**

Achieving Scale through Simple Installation, Easy Commissioning & High Quality

Your Experts in Marking Offshore Windfarms!



Learn more about marking offshore wind with our video series.

Get in touch. We're here to help.

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