



EFFICIENT

COMMUNICATION

FOR OFFSHORE

WIND

Ensure crew safety  
and reliable operations

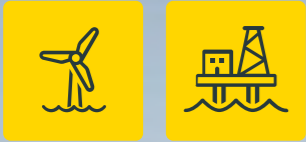
Zenitel offers safe and reliable integrated communication systems for Offshore Wind operations – so your crew will be connected across all sites: from turbines to on- and offshore substations, service vessels and installation vessels. We have turnkey solutions to meet your integrated communication needs.

[www.zenitel.com](http://www.zenitel.com)



zenitel

because communication is critical



# OFFSHORE WIND

## IN 2022

**12**  
COUNTRIES

**5.4+**  
THOUSANDS  
OFFSHORE  
WIND TURBINES

CAPACITY  
OVER  
**25 GW**



# THE POWER OF SEA WINDS



The offshore wind industry is developing and has vast potential to fulfill the sustainable energy needs of the world.

Wind turbines installed out at sea can be larger than onshore ones; as offshore wind speeds are usually higher, energy generation becomes more efficient.

There are more advantages of such a location: offshore wind farms are less visually intrusive, more environmentally friendly and face fewer physical obstacles that could affect the wind speed.

Offshore wind-producing green energy contributes considerably to achieving the UN SDGs (sustainable development goals).



### OFFSHORE WIND OPERATIONS CONSIST OF:

- Onshore control centers.
- Fixed or floating wind turbines.
- Network grid (cables, fiber).
- Offshore substations.
- Onshore converter stations.
- Installation vessels (heavy lift, submersible etc.).
- Offshore service vessels.
- Crew transfer vessels.



Daily maintenance and real-time monitoring of offshore wind farms in hazardous environments require reliable, high-speed, and easy-to-use communication infrastructure, and thus, creating cost-effective and highly dependable solutions. A resilient communication network becomes a must-have for the availability and reliability of wind energy.

Zenitel provides offshore wind with turnkey communication infrastructures and specializes in creating integrated and reliable offshore wind communication systems. Furthermore, we design and deliver solutions enable communication across all sites: from the control center to maritime turbines, offshore substations, service vessels, and aircraft.

We specialize in IP-based PAGA, IP Intercom & PABX, Two-Way Radio, CCTV, and LAN infrastructure.

**THE REASONS WHY ZENITEL IS HELD IN HIGH REGARD AMONG LARGE ENERGY PLAYERS:**

- a world-leading intelligent communication systems vendor provider;
- 70+ years of experience in maritime communication products;
- member of the Norwegian Offshore Wind cluster;
- proved reliability in an environment where human life and property are at stake;
- close cooperation with trusted and skilled partners.



**Why secure communications are a must-have for offshore wind**

Huge offshore areas covering tens or hundreds of square kilometers of wind turbines need high availability communications for every turbine and substation. Developments over recent years mean that wind turbines have longer blades, taller towers, lower maintenance needs, and can operate more efficiently.

However, as these installations are unmanned, with increases in size and scale, full visibility and reliable telecommunications solutions from onshore facilities often require long-range connectivity.

**WHAT CHALLENGES DO WE SOLVE?**

A dependable network will enable a safer work environment for remote monitoring, inspection, and operation. reliable telecommunications



The benefits of smooth and reliable telecommunications extend to maritime safety and navigation systems as well.

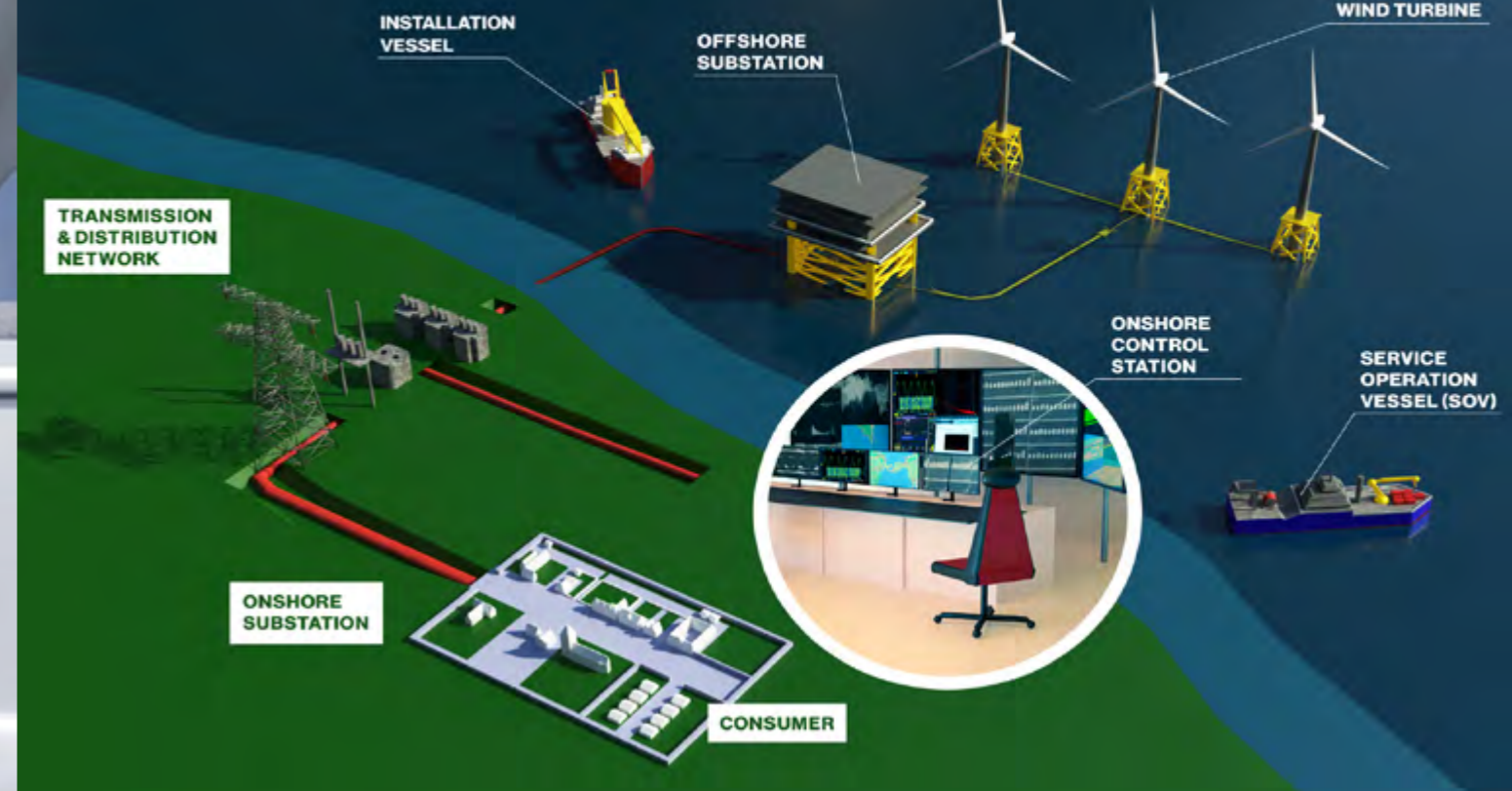
Aeronautical safety, navigation systems, general alarm systems and vessel tracking are also supported by effective telecommunication systems. Essentially, smooth and extensive connectivity results in an improvement in the functionality and productivity of any offshore wind farm.

**Creating reliable and extensive connectivity from onshore stations to offshore sites improves offshore wind productivity, safety, and functionality. Learn more about the turnkey solutions offered by Zenitel.**



# ZENITEL'S PRODUCTS

## FOR OFFSHORE WIND



### IP PAGA

The Zenitel Exigo PAGA system is a flexible and scalable IP-based PAGA system. It is designed to meet the stringent requirements for normally unattended installations including remote monitoring of system status.

One of the key benefits of Exigo PAGA is the integration ability: with Zenitel's product line or any third-party products in the IP range, such as Two-Way radio, DECT, CCTV, PBX, Alarms and more. Using indoor and outdoor IP speakers as a carrier can save costs and valuable space.



### IP Intercom & PABX

Zenitel is recognized as a turnkey integrator of Intercom & PABX systems, which are ready to use in demanding environments. With our new modern ICX AlphaCom server, we offer a state-of-the-art IP-based Intercom server that fully integrates with our IP stations and IP-based stations from most other vendors. Our PBX is fully scalable and interoperable with other IP-PBX systems, Two-Way Radio and PAGA.



### Wireless Communication

Zenitel is Value Added Motorola reseller. We utilize Motorola Two-Way Radio products for various applications and customer segments in the maritime and energy business. We fully integrate radio in our communication systems, allowing IP-PBX from any location connected to the network to call and monitor radio, two-way PA broadcast with radio or a fully redundant voice gate from TETRA to VHF-AM and VHF-FM.

### CCTV Systems

Zenitel designs and delivers full CCTV systems for use in energy applications around the world. Our key benefit is the full integration with PAGA and PBX, allowing effective monitoring and voice communication – enhancing a stand-alone CCTV system's safety and security features. We have a range of CCTV products for outdoor and indoor use, compliant with Ex and ATEX directives, heat detection and more.



### Crew welfare – solutions for service and installation vessels

Not only does Zenitel deliver a full range of maritime telecom systems, PAGA systems, wireless communication and CCTV, but we also focus on crew welfare. A few years back, IP TV was a nice add-on; now, it is more often becoming a requirement as part of the onboard communication package. We have the solutions to deliver state-of-the-art IP TV onboard all vessels, integrating information and entertainment systems and our range of critical systems such as PAGA.

Reliable, intelligent communications are crucial for offshore wind crew safety and efficiency.  
Start creating the future of green energy with Zenitel.

[www.zenitel.com](http://www.zenitel.com)



System "Remote Control" via VPN



Training



24/7 Service



Service agreements



Type-Approved systems



Innovative technology



Monitoring of system solution with follow-up on sailing ships



Spare parts policy



Extended warranty terms



Crew training program

## WHY ZENITEL?

You need systems that work. Every time. We provide reliable and resilient integrated communication solutions. We understand that the safety and efficiency of your most valuable resource – your employees – is key to your success.

We're specialists in the maritime and energy segments: we know the ocean industry, and we speak your language. Our innovative solutions for critical and intelligent communication deliver reliable performance in all conditions. We also understand your need to safeguard your assets, whether it is an ocean going vessel or energy plant. That's why we offer integrated communication solutions that enable seamless information sharing, so you can make better decisions more quickly.

Our systems and solutions provide high availability, scalability, reliability, maintainability and cyber defensibility. Our flexible and innovative solutions for intelligent communication, data, safety and entertainment systems deliver reliable performance in all conditions.