

# Offshore wind turbine control system





## Overview

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What are control technologies for fixed offshore wind turbine?

Control technologies for fixed offshore wind turbine are similar to each other because wind turbine system is fixed at the seabed through substructures. Unlike to fixed offshore wind turbine, floating offshore wind turbines (FOWTs) use floating substructures such as barge type, TLP type, spar type, and semi-submersible type.

Why is control technology important for floating offshore wind turbines?

Moreover, for floating offshore wind turbine (FOWT), the adequate selection of control technologies becomes more important not only because of the high reliable energy production, but also because of the motion stability.

What is offshore wind energy?

The term offshore means something like "off the coast". Offshore wind energy (OWE) system thus means the electricity production by wind turbine system either with fixed or with floating substructure types in the ocean.

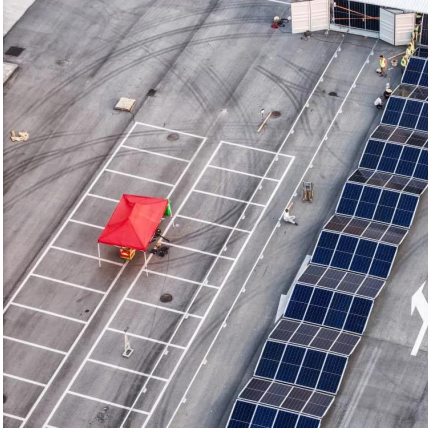
What are advanced wind turbine controls?

Advanced wind turbine controls can reduce the loads on wind turbine components while capturing more wind energy and converting it into electricity. NREL is researching new control methodologies for both land-based wind turbines and offshore wind turbines.



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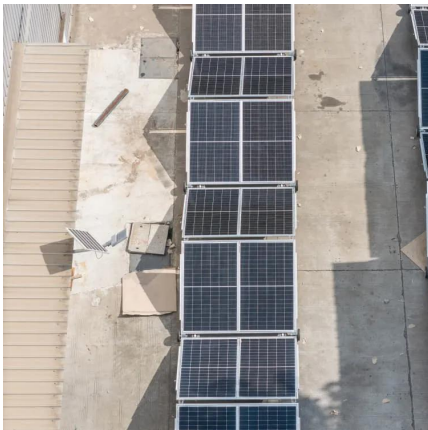
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