

Power System Basics Wind Power Plant





Overview

How does a wind power plant work?

In a utility-scale wind plant, each turbine generates electricity which runs to a substation where it then transfers to the grid where it powers our communities. Figure 1. Wind Power Plant Transmission lines carry electricity at high voltages over long distances from wind turbines and other energy generators to areas where that energy is needed.

How does a utility-scale wind plant work?

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How do wind turbines work?

Wind turbines work on a simple principle: instead of using electricity to make wind—like a fan—wind turbines use wind to make electricity. Wind turns the propeller-like blades of a turbine around a rotor, which spins a generator, which creates electricity. To see how a wind turbine works, click on the image for a .

How are wind turbines categorized?

Modern wind turbines can be categorized by where they are installed and how they are connected to the grid. Land-based wind turbines range in size from 100 kilowatts to as large as several megawatts. Larger wind turbines are more cost effective and are grouped together into wind plants, which provide bulk power to the electrical grid. Figure 36.



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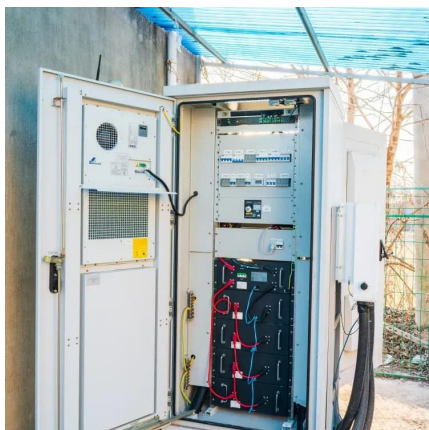
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