

Decommissioning Fact Sheet

What Happens To A Wind Turbine At The End Of Its Life?

Wind Turbines Have Long Life Cycles, Lasting Several Decades. “Some turbines from the first wind farms built in California nearly 35 years ago still operate today. However, today’s turbines are far superior, and modern equipment makes up the vast majority of the U.S. wind fleet— over three quarters of U.S. wind turbines are less than 10 years old.” (“Decommissioning Wind Turbines,” [American Wind Energy Association](#), Accessed 10/17/18)

The Majority Of Texas’ 12,750 Wind Turbines Are Still In The Early Stages of Their Life Cycle.

There Are Two Main Options For Wind Projects When They Come To An End Of Their Original Lifespan: Repowering And Decommissioning. “There are two main options for wind farm owners when a project nears the end of its original lifespan: repowering and decommissioning. Both options require new permits and can bring additional jobs and investment to the local community.” (“Decommissioning Wind Turbines,” [American Wind Energy Association](#), Accessed 10/17/18)

Repowering Is The Full Or Partial Replacement Of Turbines At Existing Project Sites. “Repowering as defined here includes two types of actions. Full repowering refers to the complete dismantling and replacement of turbine equipment at an existing project site. Partial repowering is defined as installing a new drivetrain and rotor on an existing tower and foundation. Partial repowering allows existing wind power projects to be updated with equipment that increases energy production, reduces machine loads, increases grid service capabilities, and improves project reliability at lower cost and with reduced permitting barriers relative to full repowering and greenfield projects.” (Eric Lantz, Michael Leventhal, and Ian Baring-Gould, “Wind Power Project Repowering: Financial Feasibility, Decision Drivers, and Supply Chain Effects,” [National Renewable Energy Laboratory](#), 12/13)

- **Repowering Makes Sense Because Existing Sites Have Proven Wind Resources And Access To Transmission.** “Existing sites have the best wind resource areas and already have transmission access. And with new technologies, upgraded wind farms produce more electricity at a lower cost.” (“Decommissioning Wind Turbines,” [American Wind Energy Association](#), Accessed 10/17/18)
- **Repowering Is Already Occurring Across The Country From [California](#), Where Some Of Earliest Wind Projects Were Developed, To [Nebraska](#) To Texas.**

Decommissioning Is The Complete Removal Of A Wind Project. “In some instances, project owners may decide to completely remove a wind plant. This is called ‘decommissioning.’” (“Decommissioning Wind Turbines,” [American Wind Energy Association](#), Accessed 10/17/18)

Do Project Owners Have Any Responsibility Once The Project Is Over?

When Wind Projects Are Developed, Developers Sign Agreements With Landowners; These Agreements Typically Require Decommissioning. “Lease agreements between wind project developers and landowners typically require projects to be decommissioned when taken out of service, said Ed Einowski, partner at law firm Stoel Rives. That means removing all hardware and restoring the land to its pre-construction condition.” (Herman K. Trabish, “Zombie Wind And Solar?” [Utility Dive](#), 10/26/16)

“If The Developer Does Not Meet The Decommissioning Obligation In The Lease, The Landowner Has Legal Recourse Against The Developer.” “If the developer does not meet the decommissioning obligation in the lease, the landowner has legal recourse against the developer. But it has rarely been an issue and is unlikely to be one, Einowski said.” (Herman K. Trabish, “Zombie Wind And Solar?” [Utility Dive](#), 10/26/16)

In Addition To Legally Binding Contracts, Why Would Project Owners Be Motivated To Stay With The Projects?

Wind Project Owners Don’t Want To See Their Valuable Turbines Abandoned, Much Of The Materials Can Be Reused Or Recycled. “It’s in a company’s best interest to not let valuable machines sit abandoned—they can maximize value by reusing materials. There are a number of ways to reuse the towers, foundations and electrical cables. The steel, copper and other metal components that make up the bulk of a turbine have salvage value and can be recycled.”