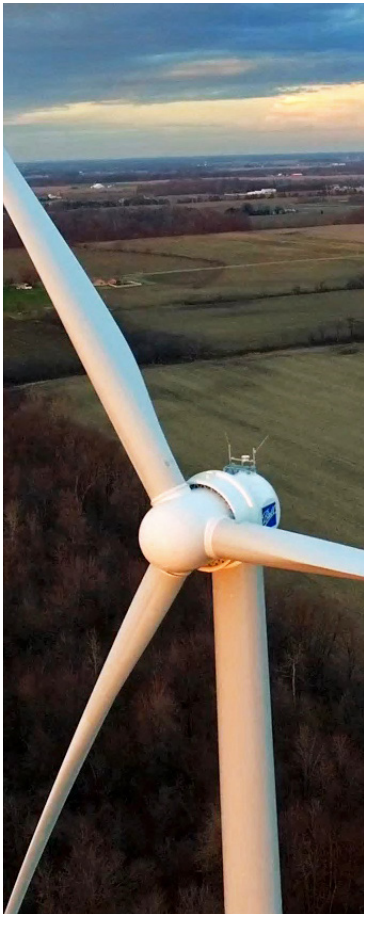
ONE ENERGY

WIND FOR INDUSTRY®



A WIND TURBINE CONSTRUCTION PHOTO BOOK

WIND FOR INDUSTRY®

ONE ENERGY

One Energy provides Wind For Industry® solutions for large electricity consumers. We deliver project development, engineering, procurement, construction, finance, and operations services to take projects from concept to installation to operation.

Wind For Industry® projects are designed to significantly offset an industrial facility's electricity consumption from the grid. Wind For Industry® projects involve installing one or more utility-scale wind turbines and interconnecting them on a facility's side of their utility meter. These projects allow our customers to control their energy costs.

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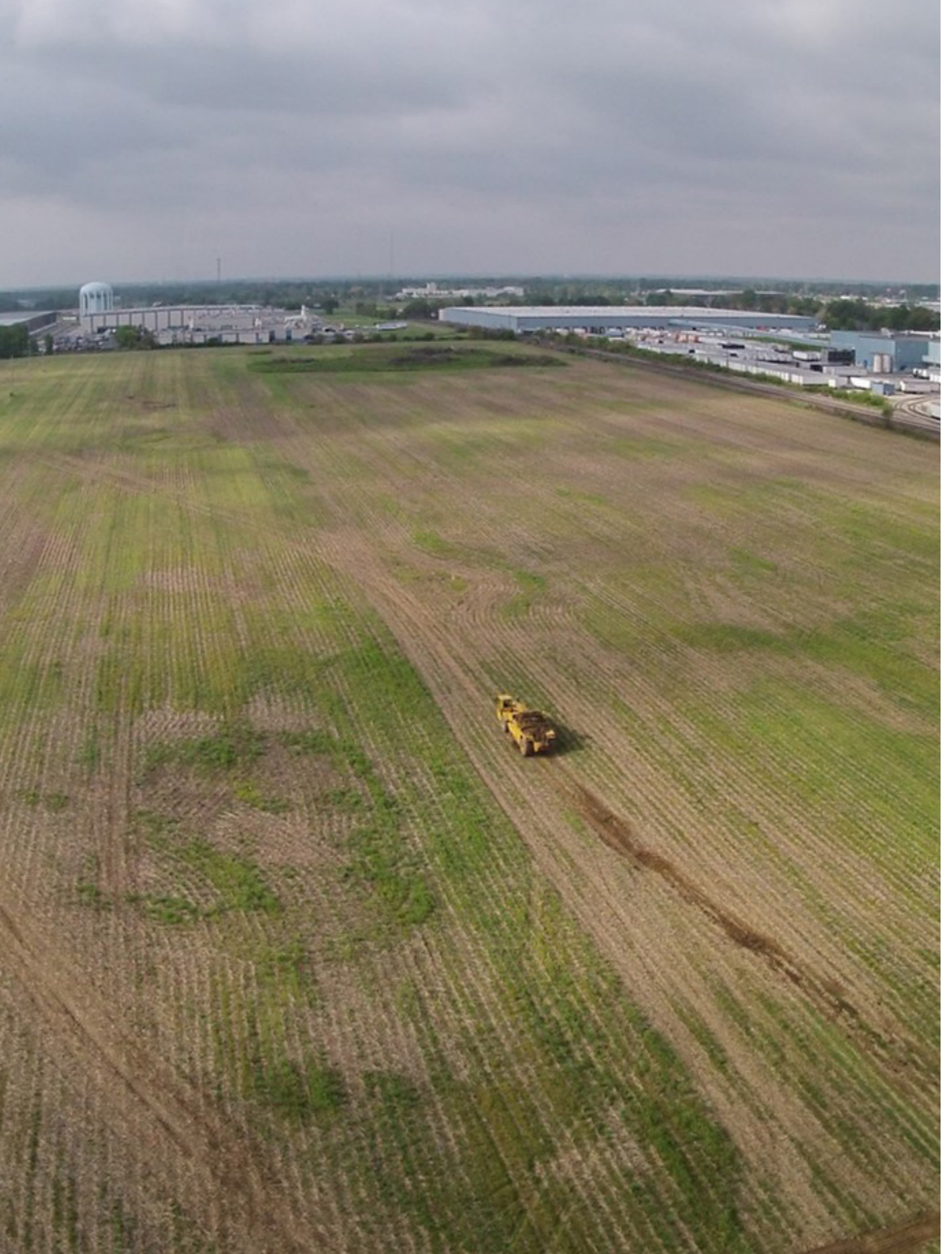


Construction begins with building the site access roads.

Topsoil is removed, underlying soil is compacted, and gravel is placed on the surface.

The completed road allows construction traffic, especially heavy turbine component deliveries, to access the site without getting stuck in the mud.

Excavation for the turbine foundation creates a hole approximately 7 feet deep and 60 feet in diameter.

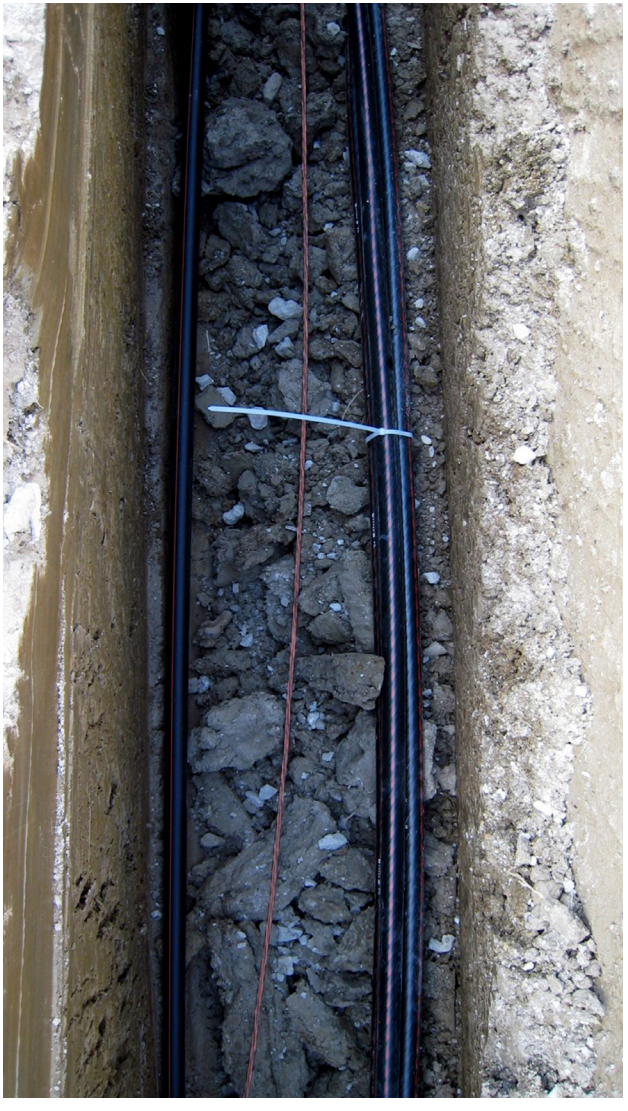
A 2 inch thick layer of concrete, called a mudmat, is placed. This provides a clean, flat surface for subsequent work.

Iron-workers place steel reinforcing bars, or rebar, in several layers. The bottom layer is supported above the mudmat on concrete bricks. Near the center, where the loads will be highest, bars are larger and spaced more closely together. A typical foundation has 40-60,000 pounds of rebar.

Concrete has been placed up to the top layer of rebar. An additional 2-3 inches of concrete will be placed to cover the rebar.

A second placement of concrete forms the pedestal, 18 feet in diameter. The completed foundation contains roughly 320 cubic yards of concrete. That is equivalent to 32 fully loaded concrete trucks.

A trench is excavated below the turbine foundation for the low voltage conduit. Electrical conduits are installed in the trench and backfilled.



On the right side of the collection line trench, we can see the three power cables. In the center is a bare ground cable. On the left is a fiber optic cable for communication and control of the turbine.

Typically there are several types and sizes of cranes on site. The main crane (shown above), which is nearly 300 feet tall when assembled, is delivered in pieces on many flat bed trucks.

Turbine components, including the blades (shown above) are delivered by specialized trucks. The largest components can take up two highway lanes and require police escorts.

The nacelle (above left, first truck), the hub (above left, second truck), and the tower sections (above right) are also delivered by trucks and offloaded at the site.

Looking down from the top of one turbine to the components of another turbine. The three blades have been assembled with the hub to form the "rotor". The dark spot on the tower section on the right is the door. The two lowest tower sections, the base and the lower mid, have uniform diameters of 14 feet. The top two sections are tapered. The top of the top section is approximately 8 feet in diameter. The generator and nacelle are just below the rotor in this picture. The three full size pickup trucks give a sense of the size of the components.

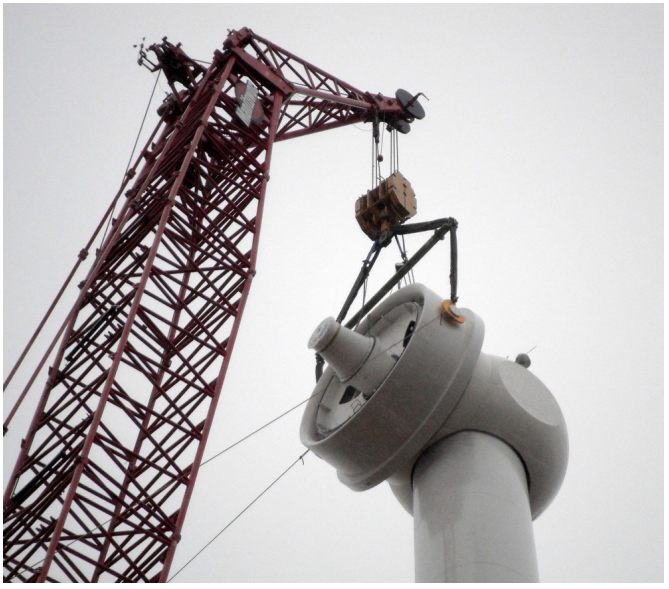
The controller is assembled on top of the foundation pedestal and converts the variable frequency power from the generator to direct current (DC), then back to alternating current (AC), which is synchronized with the grid at 60 hertz. In this picture, the base tower section is being lowered over the controller. The base section will be attached to the anchor bolts.

The tower consists of four sections, the base, lower mid, upper mid, and top. Workers stand on platforms (as seen in left photo) and wait to receive the next tower section.

Workers align the lower mid section and bolt it to the base section. These two sections weigh about 100,000 pounds each.

This process is repeated section by section, until the tower is complete.

The nacelle, which weighs approximately 28,000 pounds, is rigged (top left) and hoisted to the top of the tower (top right). It is bolted to the top of the tower (shown below). Motors inside the nacelle allow it to yaw (rotate) on its vertical axis, in order to face into the wind.



The generator, which weighs approximately 100,000 pounds, is lifted and turned 90 degrees in mid-air. Special rigging allows the generator to pivot, yet still be unhooked from the crane once installed.

The three blades, each 140 feet long, are bolted to the hub, forming the rotor.

From the front of the generator, a worker prepares to receive the completed rotor (pictured on following page). For safety, the worker always wears a harness and is tied off when working at elevation.

The rotor is lifted by the main crane at the base of two blades, with special rigging that allows the assembly to be lifted and rotated in mid-air. A smaller tail crane lifts the third blade to keep it off the ground.

The rotor pivots in mid-air and is raised to the top of the tower.

The rotor is aligned with the generator and bolted into place. There is very little spare height to lift the rotor any higher. This crane with a “wind tip” is designed specifically for installing wind turbines. This crane configuration is chosen to have sufficient height and load capacity for this task, with little room for error.

A NEW STANDARD IN DISTRIBUTED GENERATION

SAFETY AND QUALITY ARE ALWAYS FIRST

BE PROFESSORS, NOT SALESMAN

MAKE OUR CUSTOMERS SMARTER THAN THE COMPETITION'S EXPERTS

WORK WITH MANUFACTURERS TO GIVE OUR CUSTOMERS THE BEST PRODUCTS POSSIBLE

MAKE WIND HASSLE FREE

BE AVAILABLE AND BE HONEST

CHARGE A FAIR PRICE AND GET PAID FOR OUR WORK

MAKE DECISIONS FOR THE LONG TERM

NEVER SETTLE FOR THE INDUSTRY STANDARD

CHALLENGE EVERYTHING