

Wind Energy Development

A Typical Project Timeline

Development (2+ years)

COMMUNITY OUTREACH

Open houses, public meetings, and other events will be held to introduce you to Apex team members and inform all residents and officials about project plans. A local Apex office may also be opened for drop-in visits. Apex team members will seek to answer all community questions about the project and what it will mean for local residents.

DESIGN

As we complete our land leasing efforts, collect final study results, and come closer to selecting the specific model of the technology that will be most efficient at a particular project, we hone our plans for the project's layout. Most project layouts are modified multiple times before being finalized.

PERMITTING

Laws vary by state, county, and locality, but in most places, Apex is required to secure local permits and approvals to build a wind or solar energy facility. These may include construction permits, special use permits, road use agreements, floodplain permits, state siting permits, and others.

LAND LEASING

Apex representatives will meet with local landowners to determine whether they would be interested in leasing land for the project or its components. The leasing process can take months or even years.

STUDIES

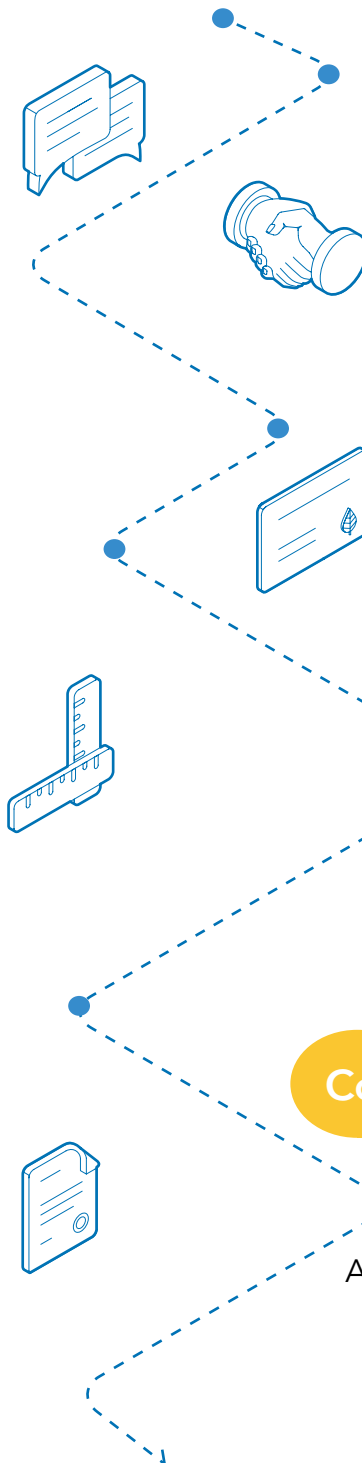
Apex will coordinate with federal and state agencies to study the presence of wildlife and ensure the project is sited to eliminate or minimize any adverse impact. During this time, a variety of additional studies will also be conducted.

These studies may include ongoing analysis of the wind resource, cultural resources, soil and geotechnical conditions, beam paths and radar, stormwater conditions, and airspace interactions.

Construction (9 to 12 months)

ROADS

Access roads are constructed and local road improvements are made before project components arrive, then are maintained and repaired as needed.



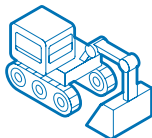
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Construction *(continued)*

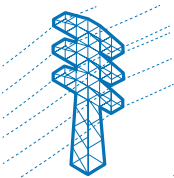
FOUNDATIONS AND FOOTERS

Turbine foundations are excavated and assembled. Once complete, soil is restored to the site.



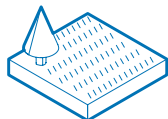
GRID INTERCONNECTION

Project electrical collection system and substation are routed for grid interconnection.



RESTORATION

Following completion of construction, the site is restored as much as possible to its pre-existing state. The ground surrounding all permanent structures is returned to its prior condition. Yes, that means topsoil and subsoil are separated at the beginning of construction and returned (in the correct order!) upon completion.



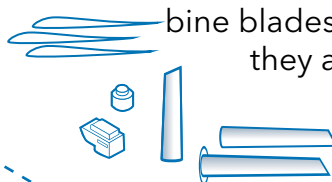
REMOTE OPERATIONS

Back at Apex's headquarters in Charlottesville, a 24/7/365 remote operations team coordinates with the local crews to optimize generation, respond immediately to any mechanical issues, and manage integration with the local energy market.



TURBINE COMPONENTS

Tower sections, nacelles, and turbine blades are staged nearby until they are ready to be installed.



TURBINE ASSEMBLY

Turbine cranes assemble turbine components on the site as crews inspect and commission each turbine.



Operations (25 to 30 years)

ON-SITE MAINTENANCE

Once a project is operating, a crew of technicians will routinely conduct maintenance on the facility. Led by a facility manager, often based out of a local operations and maintenance building, these teams keep a close eye on the facility at all times to ensure that it functions efficiently and safely. Wind turbines are routinely inspected to maintain appearance and efficiency of energy production. This is not a job for those who are afraid of heights!

