WELCOME
TO OUR
VIRTUAL OPEN HOUSE

AEP OHIO℠
An AEP Company
BOUNDLESS ENERGY℠

As a result of the COVID-19 pandemic and social distancing recommendations made by the Centers for Disease Control and Prevention (CDC), we invite you to attend this virtual open house to minimize in-person contact. We remain committed to listening to your concerns and answering your questions while keeping you and our employees safe and healthy.

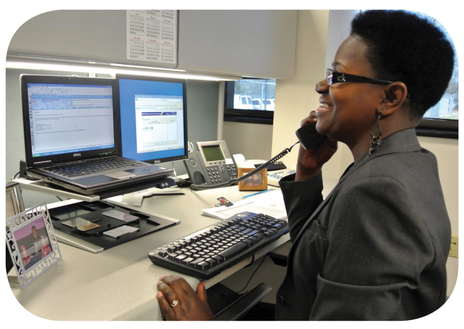
We welcome your feedback via phone, email or the "Contact Us" button on this website as we strive to make informed decisions.

HERE'S HOW IT WORKS:

1 Visit each poster for information on:

- HOW THE SYSTEM WORKS
- PROJECT NEED & BENEFITS
- PROJECT TIMELINE
- TYPICAL STRUCTURES
- STRUCTURE COMPARISON
- ROUTING PROCESS
- FIELD ACTIVITIES
- RIGHT-OF-WAY ACTIVITIES
- VEGETATION MANAGEMENT
- CONSTRUCTION PROCESS

2 Share your comments or concerns via phone, email or the "Contact Us" button on this website





HOW THE SYSTEM WORKS

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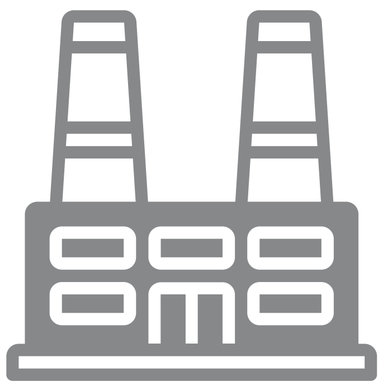
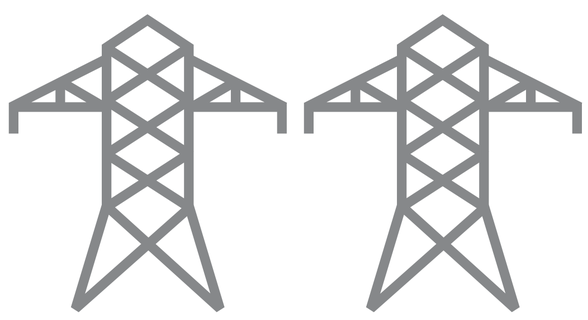


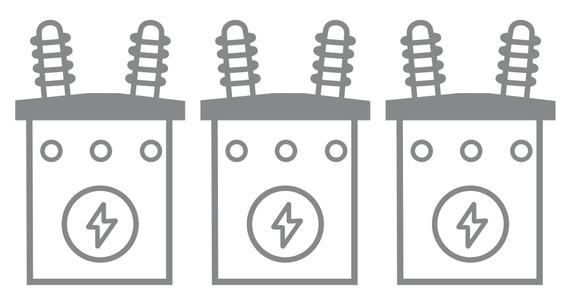
1) GENERATION STATIONS

Utilities produce electricity at coal, natural gas, nuclear, wind and hydroelectric power stations and then transport it long distances over transmission lines.



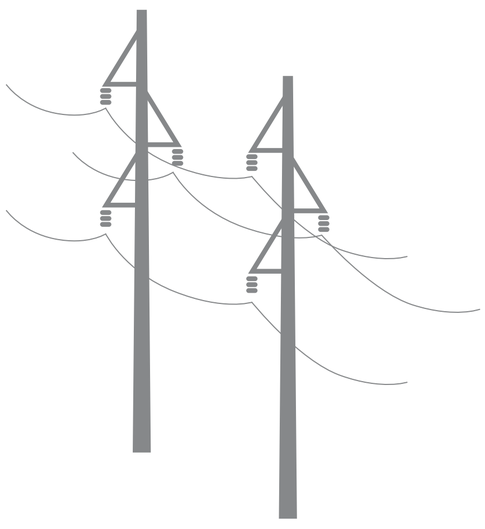
2) EHV TRANSMISSION

Extra-high Voltage electric transmission lines are generally 765 kilovolt (kV), 500 kV, and 345 kV on AEP Ohio's system.



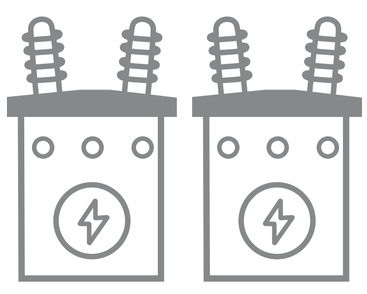
3) SUBSTATIONS

Substations direct the flow of electricity and either decrease or increase voltage levels for transport.



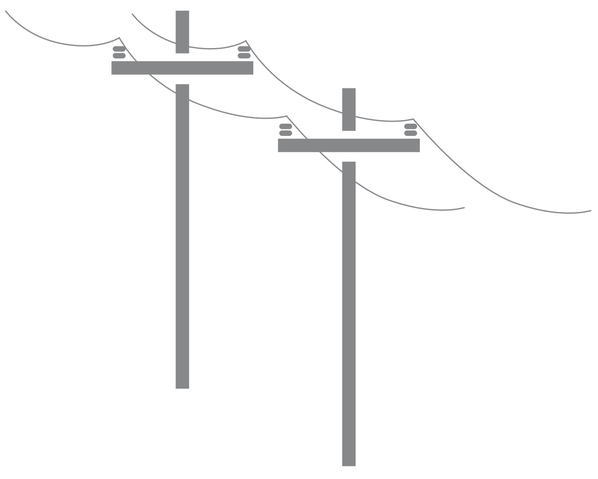
4) LOCAL TRANSMISSION

AEP Ohio typically uses 69 kV and 138 kV transmission lines to move power shorter distances - for example, to different parts of a city or county.



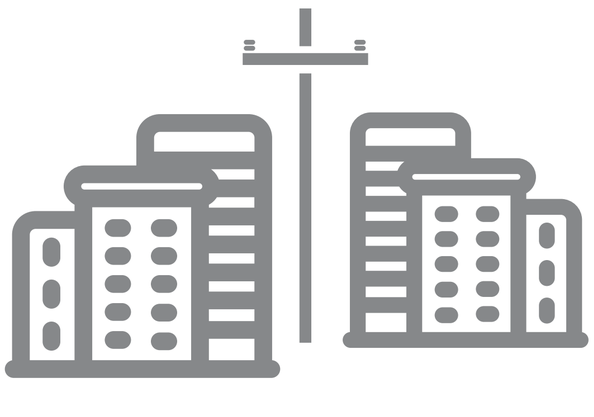
5) SUBSTATION

Substations transform 69 kV and 138 kV electricity into lower distribution level voltages such as 34.5 kV, 12 kV, or 7.2 kV.



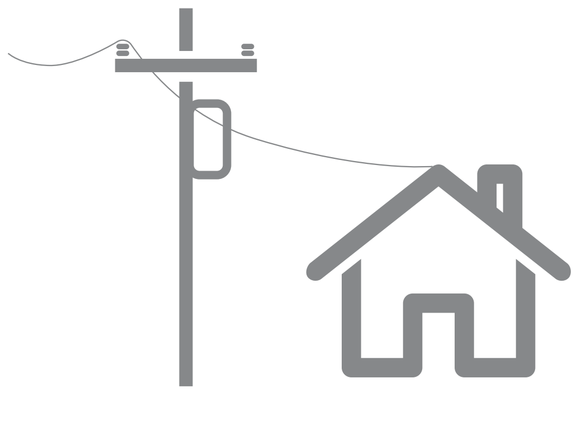
6) PRIMARY DISTRIBUTION

These main lines (also called circuits) connect substations to large parts of the community.



7) LATERAL DISTRIBUTION

These smaller capacity lines deliver electricity to neighborhoods and other smaller groups of customers.



8) INDIVIDUAL SERVICE

Smaller transformers step down voltage to levels customers can use. Individual residences typically use 120/240 volts.

TO USE AN ANALOGY, ELECTRIC TRANSMISSION IS SIMILAR TO OUR NATIONAL ROAD SYSTEM. THREE KINDS OF POWER LINES EXIST BETWEEN POWER PLANTS AND HOMES AND BUSINESSES:

- Extra-high Voltage lines are like electrical interstate highways.
- High-voltage local transmission lines are like four-lane roads.
- Distribution lines are like two-lane roads that eventually connect to your driveway.

SOUTHEAST COLUMBUS
AREA IMPROVEMENTS PROJECT

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PROJECT NEED AND BENEFITS

Why is the project important to our community?

IMPROVED RELIABILITY

The existing 70-year-old transmission line has shown significant deterioration, caused multiple electrical outages during the past six years, and is unable to support continued growth in the area. Replacing the deteriorating wooden poles with modern steel poles provides improved reliability and resiliency of the local electric system.

SOUTHEAST COLUMBUS
AREA IMPROVEMENTS PROJECT

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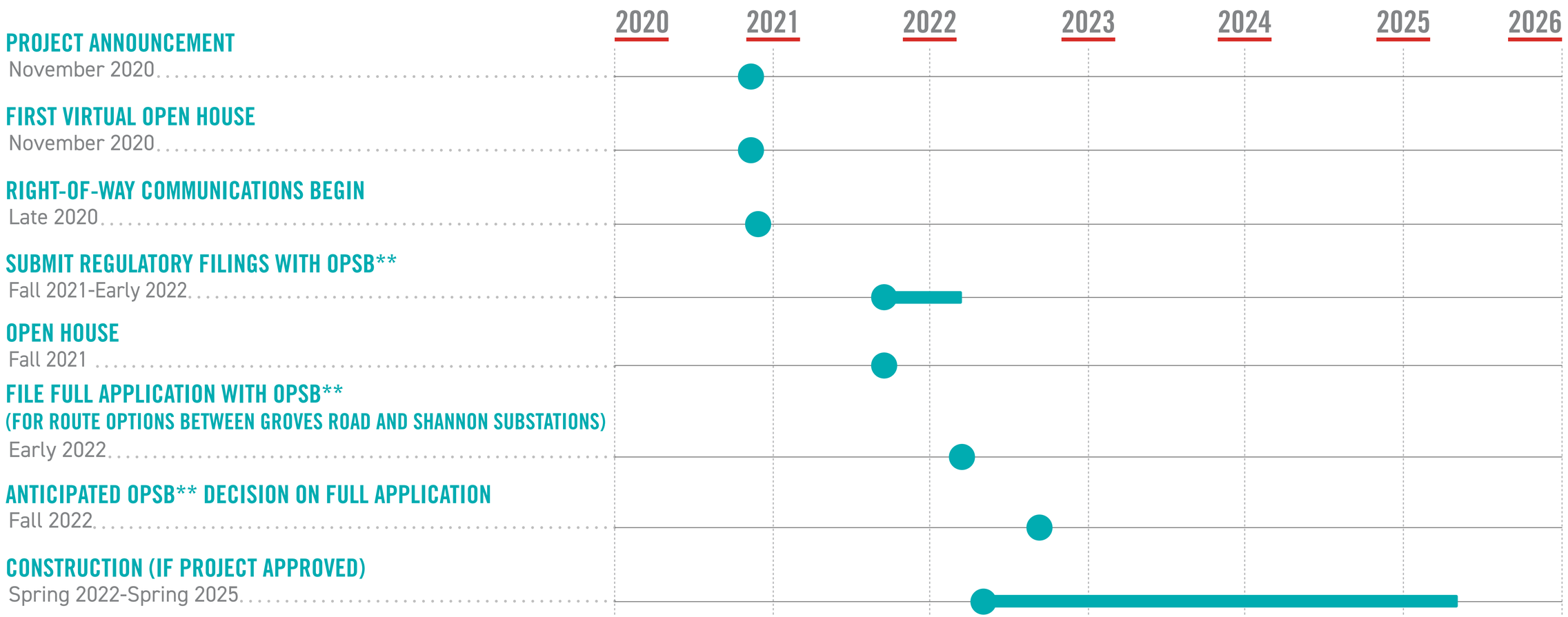
PROJECT SCHEDULE



*Timeline subject to change
**Ohio Power Siting Board

TYPICAL STRUCTURES

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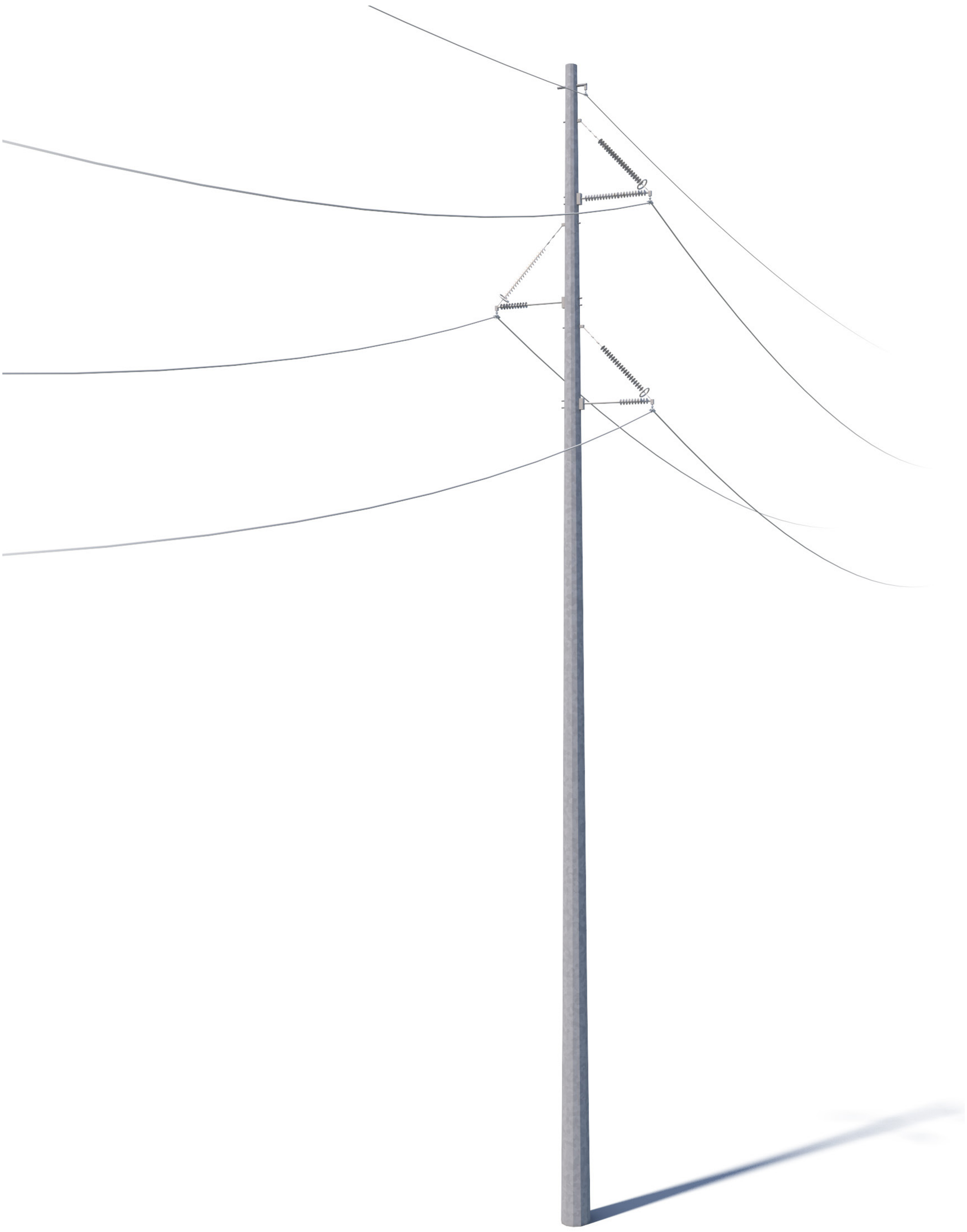
The project involves installing steel poles.

Structure Height: Approximately 90 feet*
Right-of-Way Width: Approximately 60 feet*



*Exact structure, height and right-of-way requirements may vary

STRUCTURE COMPARISON

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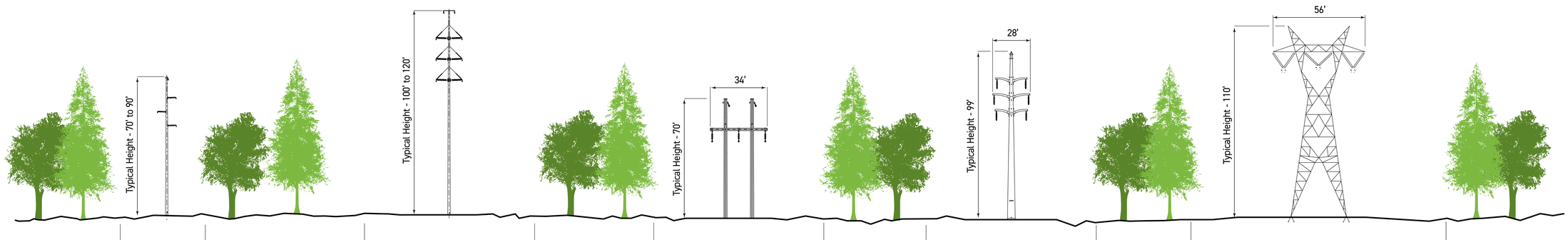
Typical structure heights are based upon voltage and configuration. Structures are not to scale but are shown in proportion to each other. Actual heights will vary depending on terrain.



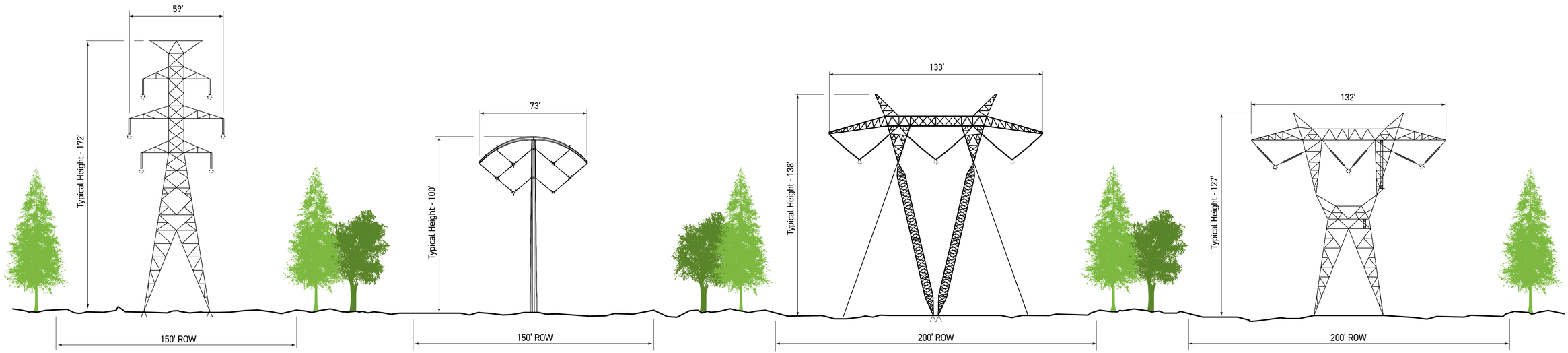
69-KV SINGLE CIRCUIT STEEL POLE

138-KV DOUBLE CIRCUIT STEEL POLE

138-KV SINGLE CIRCUIT STEEL POLE

138-KV DOUBLE CIRCUIT STEEL POLE

345-KV SINGLE CIRCUIT TOWER



345-KV DOUBLE CIRCUIT TOWER

345-KV BOLD STRUCTURE

765-KV GUYED-V SINGLE CIRCUIT TOWER

765-KV SINGLE CIRCUIT TOWER

*ROW: Right-of-Way

TRANSMISSION LINE
ROUTING PROCESS

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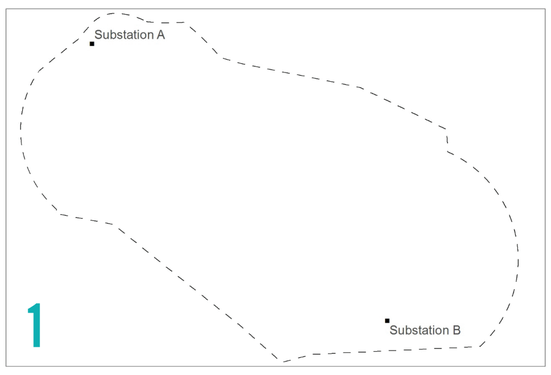
AEP Ohio implements a comprehensive siting process that takes land use, the environment, public input and engineering guidelines into account to develop a transmission line route. The information below illustrates each stage of the routing process.

1) STUDY AREA

AEP Ohio develops a study area for the project that incorporates both end points of the power line and the area between.

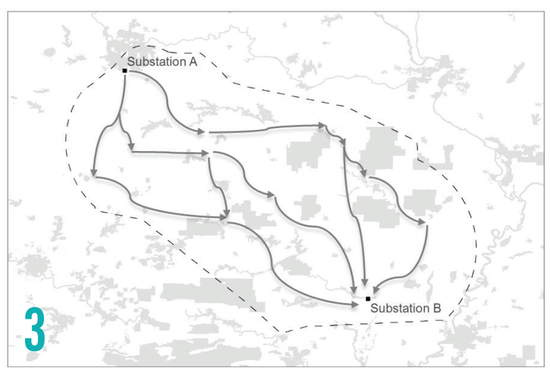


2) DATA GATHERING

Data is gathered for the defined study area including environmental, land use, historic and cultural resources, existing infrastructure and sensitive areas.

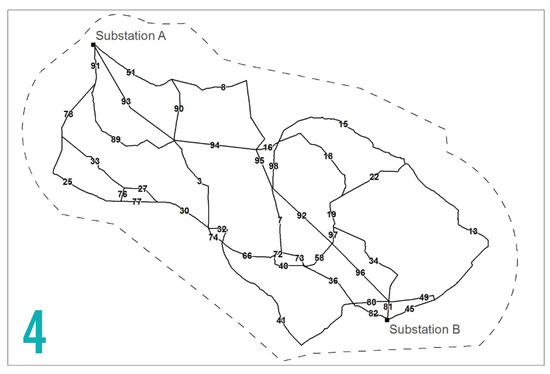
3) CONCEPTUAL ROUTES

The routing team uses this information to develop conceptual routes adhering to a series of general routing and technical guidelines.



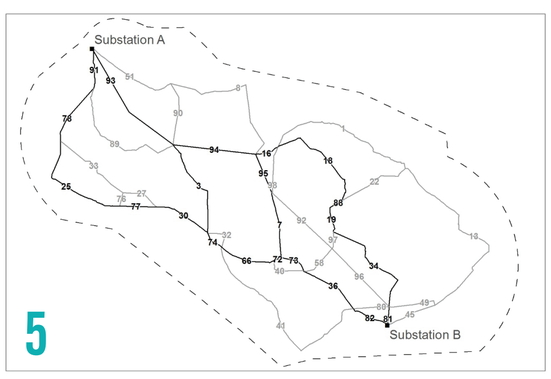
4) STUDY SEGMENTS

Conceptual routes are broken up into study segments.



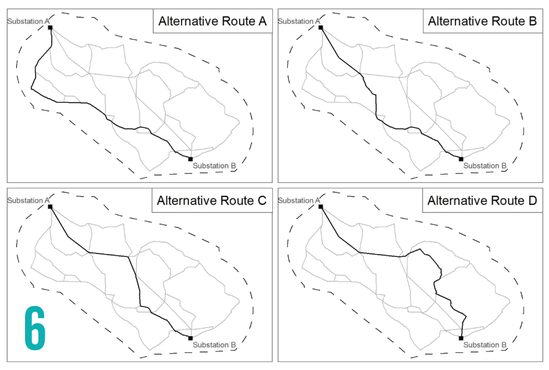
5) REFINED STUDY SEGMENTS

As more information is gathered, the study segments are refined. Some study segments are eliminated or modified, leaving the refined study segments for further consideration.



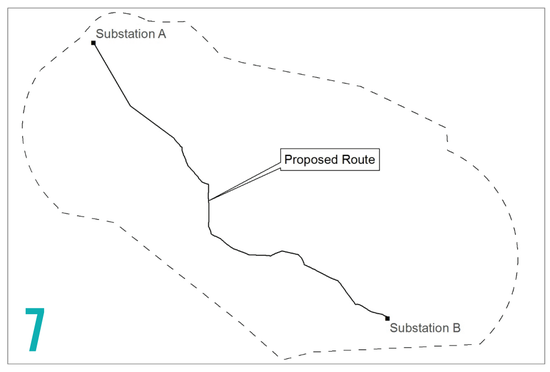
6) ALTERNATIVE ROUTES

After public input is gathered, study segments are further refined and evaluated. The most suitable segments are selected and assembled into alternative route options.



7) PROPOSED ROUTE

Alternative routes are assessed and a proposed route is chosen. The proposed route minimizes impact to the community and environment, while considering cost, line length and design requirements.



FIELD ACTIVITIES

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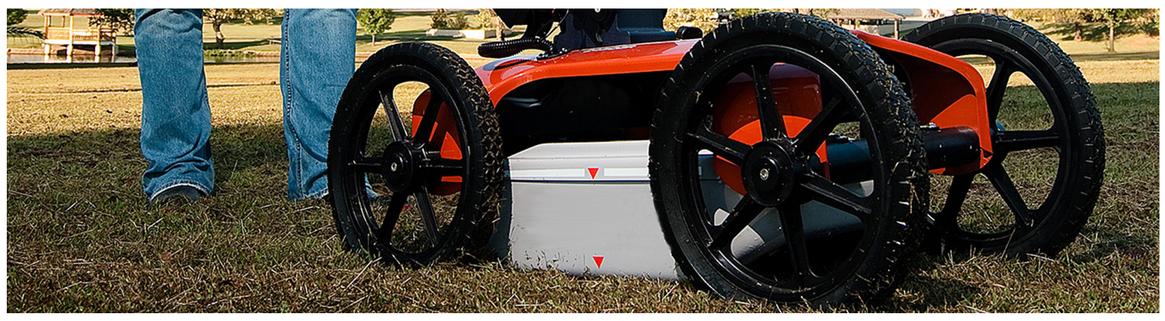


GROUND PENETRATING RADAR

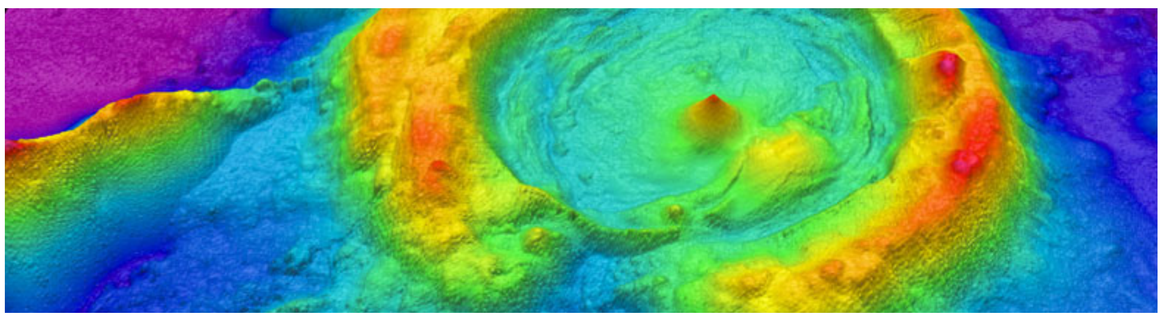
Ground Penetrating Radar (GPR) helps identify the location of underground utilities. A device that looks similar to a lawnmower, and is nondestructive to the soil, uses radio frequencies to detect objects below the ground's surface. Maps and images are created from the data.

HELICOPTER

Challenging terrain or other restrictions/obstructions can make accessing certain parts of a project area difficult. In these locations, crews use helicopters to install structures, string conductors, perform line work and maintain electric facilities. Company representatives work with local media outlets to communicate these activities to the public.

HYDRO EXCAVATION

Crews use hydro excavation (hydrovac) in areas where many underground utilities are located near each other. This process involves using pressurized water to break down soil to expose underground utilities. Afterward, crews backfill the area. The process helps prevent damage to underground infrastructure while gathering important information.



LIDAR

LiDAR (Light Detection and Ranging) uses laser pulses to measure the distance of an object to the source. The data points result in digital 3D maps for accurate design and engineering. LiDAR surveying crews use mobile (car or aerial vehicle) or static (tripod) equipment.

SOIL BORINGS

Field crews use a drill to bring up soil samples and then backfill the holes. Testing the core samples helps determine soil conditions in the area. Soil conditions and types can affect structure location and foundation design.

CULTURAL RESOURCE SURVEY

Field crews walk the area and conduct multiple excavation tests to identify historical and archaeological artifacts. Landowners also provide information about their property to survey crews.

ENVIRONMENTAL SURVEY

Surveyors collect information about the habitats and physical attributes of the project area. They also look for ecological concerns like wetlands, flood plains and forests. This process can help protect endangered species, such as the Indiana Bat and American Burying Beetle.

UNMANNED AERIAL VEHICLES (DRONES)

Unmanned aerial vehicles (UAVs), or drones, perform aerial inspections and safely gather data and detailed images of electric facilities. Company employees and vendors comply with all commercial Federal Aviation Administration (FAA) guidelines. Company representatives work with local media outlets to communicate these activities to the public.

STAKING

- Field crews use staking to mark the project area, identify utility equipment and pinpoint future structure locations. This process essentially transfers engineering and construction plans to the field.
- Right-of-way crews use staking to identify parcel boundaries, easement boundaries and other utility locations within the company's rights-of-way.
- Environmental crews use staking to identify wetlands or other environmentally sensitive areas.

FIELD SURVEY

- Field survey crews help determine an appropriate route for a new transmission line by identifying constraints within the project area.
- Engineers conduct extensive studies of the terrain and soil to determine what types of structures and foundations are most suitable. They also gather information to create digital 3D maps of the project area to help engineer and design the project.

RIGHT-OF-WAY ACTIVITIES

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AEP OHIO HAS TWO KEY PHILOSOPHIES THAT PERTAIN TO POWER LINE RIGHTS-OF-WAY:

1 Routes should cause the least possible disturbance to people and the environment.

2 Property owners should be fairly compensated for any land rights that must be acquired.

AEP Ohio studies the land and proposes routes that reduce impacts on property owners.
AEP Ohio reaches out to landowners in the following ways:

TO GAIN RIGHT-OF-ENTRY TO BEGIN:

- Environmental assessments
- Appraisal work
- Land surveying, soil boring and other field activities
- Cultural and historic resource reviews

TO SECURE RIGHT-OF-WAY AND COMMUNICATE:

- Landowner compensation
- Terms and conditions of easement
- Width of the right-of-way

TO OUTLINE AEP OHIO'S CONSTRUCTION PROCESS WITH A SPECIFIC FOCUS ON:

- Property restoration
- Damage mitigation as appropriate

VEGETATION MANAGEMENT

WHAT IS VEGETATION MANAGEMENT?

The practice of controlling the growth of trees and other woody stemmed vegetation in line corridors and around substations, while maintaining respect for the environment.

WHY IS IT DONE?

To minimize power outages caused by trees and other plants coming into contact with power lines.

THE GOALS OF AEP OHIO'S VEGETATION MANAGEMENT PROGRAM ARE TO:

- Protect our system and minimize outages
- Minimize any adverse environmental impacts
- Ensure compliance with all applicable laws and regulations
- Perform our work as safely as possible
- Maintain a positive relationship with land owners and the public

CONSTRUCTION PROCESS

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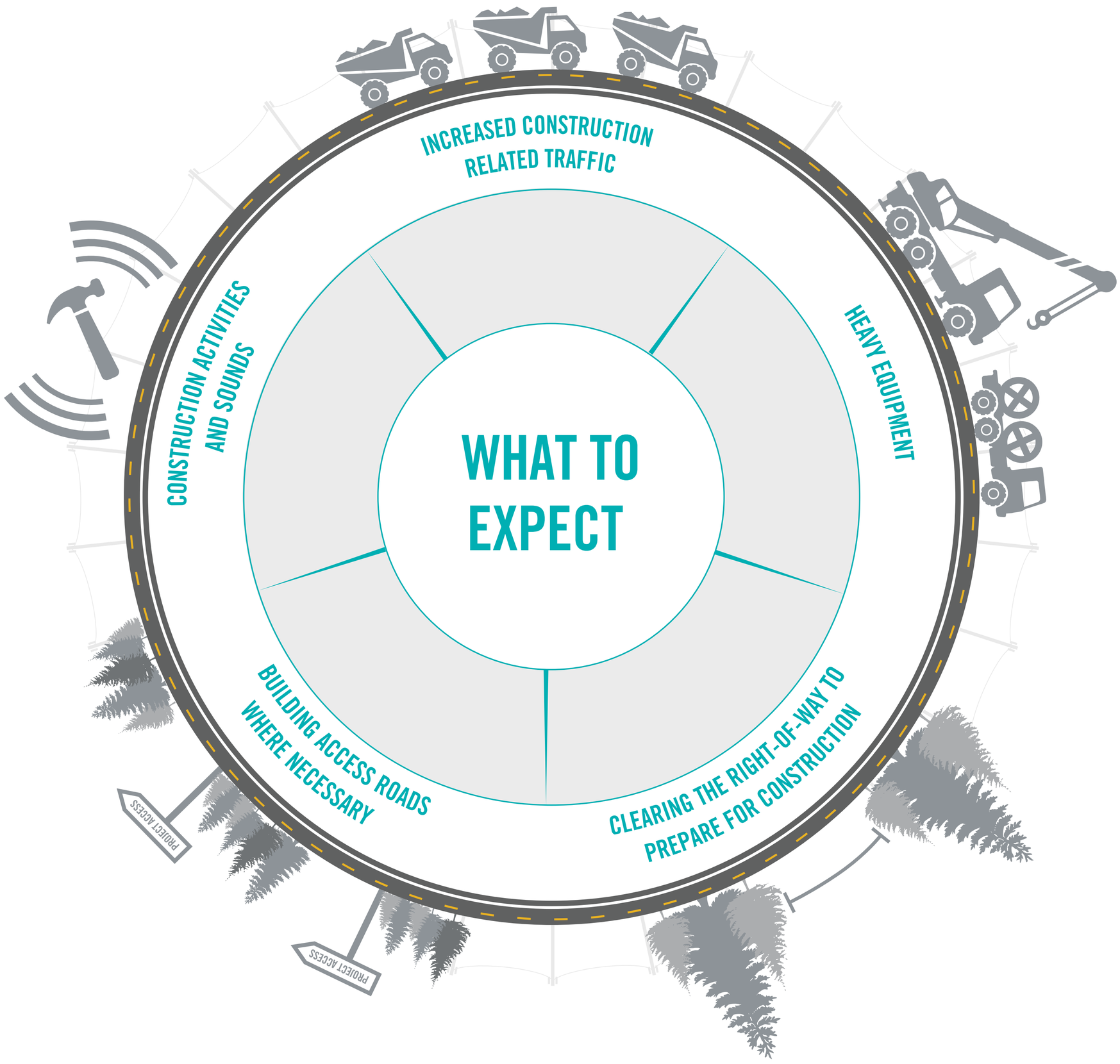
AEP Ohio understands the work related to transmission grid improvements can sometimes be an inconvenience. That's why the company makes every effort during the construction process to respect the environment and our neighbors, while working safely to ensure reliable electric service.



AEP Ohio plans to work with individual property owners throughout the construction process. Team members provide details of upcoming work and listen to customer feedback. If damages occur during the construction process, the company works to restore property as close to its original state as possible.