

# ROBISON PARK-LINCOLN TRANSMISSION LINE REBUILD PROJECT

## WELCOME TO OUR VIRTUAL OPEN HOUSE

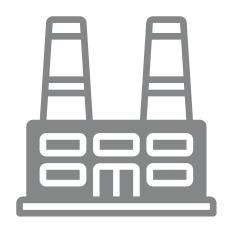
As a result of the COVID-19 pandemic and social distancing recommendations made by the Centers for Disease Control and Prevention (CDC), Indiana Michigan Power invites you to attend this virtual open house in order to minimize in-person contact. Indiana Michigan Power remains committed to listening to your concerns and answering your questions, but we are also committed to keeping our customers and employees safe and healthy. We welcome your feedback via telephone and email as we strive to make the most informed decisions possible.



## **HOW THE SYSTEM WORKS**

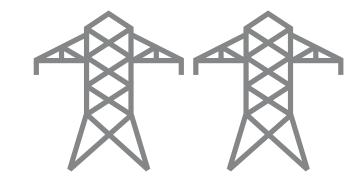
## **HIGH VOLTAGE**

LOCAL TRANSMISSION >>



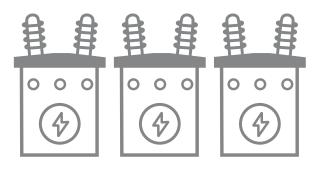
#### 1) GENERATION STATIONS

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 I&M's system.



## 3) SUBSTATIONS

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



## **HOW THE SYSTEM WORKS**

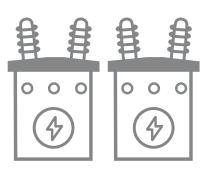
#### **DISTRIBUTION** >>

## **LOCAL TRANSMISSION**



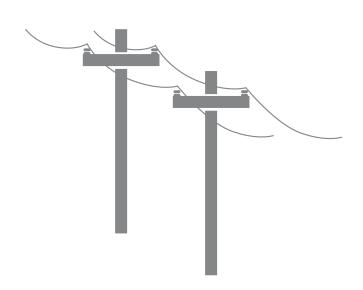
#### 4) LOCAL TRANSMISSION

I&M 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

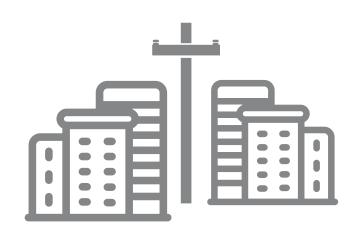
These main lines (also called circuits) connect substations to large parts of the community.





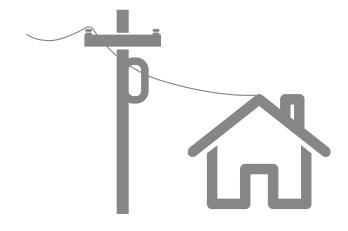
## **HOW THE SYSTEM WORKS**

## **DISTRIBUTION**



#### 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.



## **PROJECT NEED**

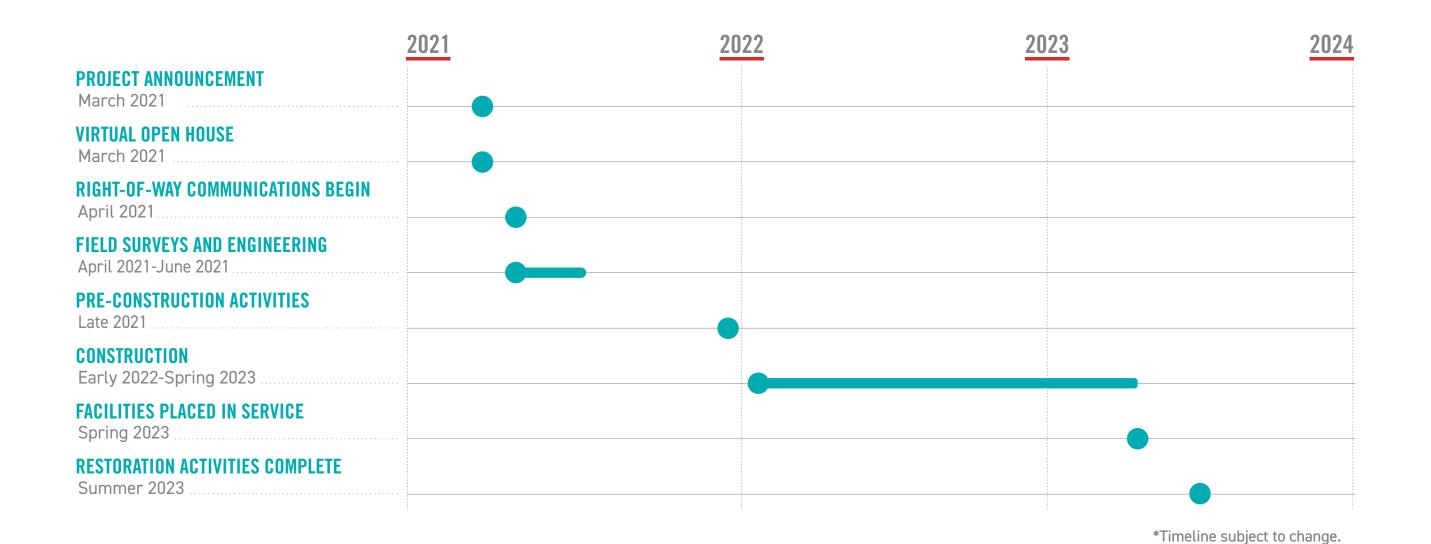
## WHY IS THE PROJECT IMPORTANT TO OUR COMMUNITY?

#### **IMPROVED RELIABILITY**

The project strengthens the electric transmission system by replacing deteriorating towers from the 1920s with modern steel poles. The upgrade ensures the power line complies with the company's structural standards, improves the line's operational performance and reduces the need for frequent equipment repairs.

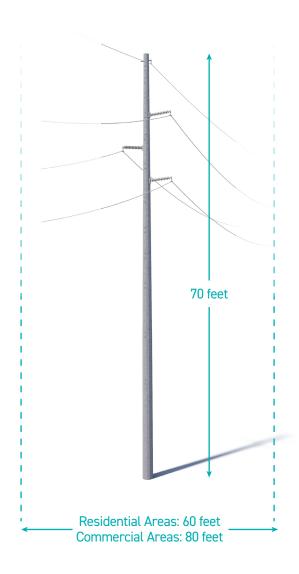


## PROJECT SCHEDULE





## PROPOSED STRUCTURES



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

The project involves the use of single, steel poles.

Structure Height: 70 feet\* Right-of-Way Width:

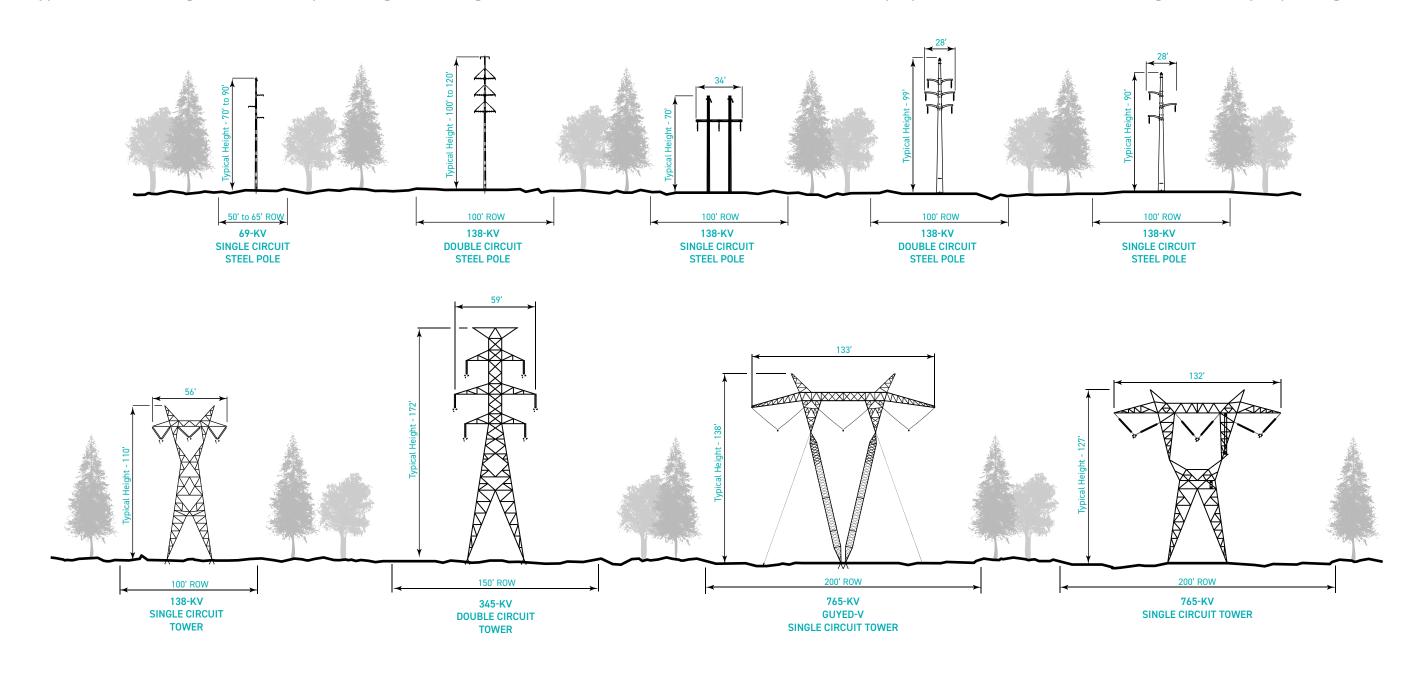
Residential Areas: Approximately 60 feet\*

Commercial Areas: Approximately 80 feet\*



## STRUCTURE COMPARISON

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.





## FIELD ACTIVITIES



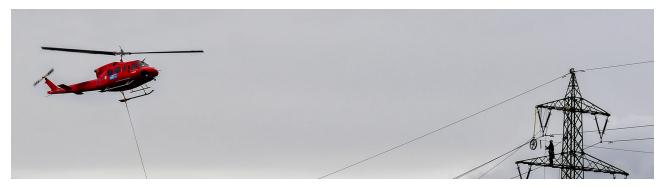
#### **GROUND PENETRATING RADAR**

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.



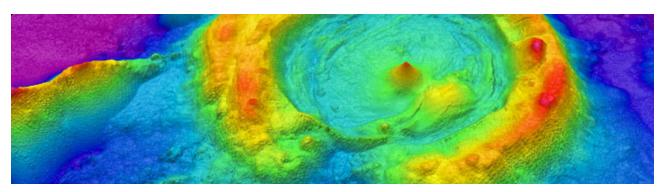
#### **HYDRO EXCAVATION**

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.



#### **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, per form line work and maintain electric facilities. Company representatives work with local media out lets to communicate these activities to the public.



#### **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.



## FIELD ACTIVITIES



## **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.



#### **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.



#### **CULTURAL RESOURCE SURVEY**

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



## **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.



## FIELD ACTIVITIES



#### **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**

# I&M HAS TWO KEY PHILOSOPHIES THAT PERTAIN TO POWER LINE RIGHTS-OF-WAY:



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



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



## **RIGHT-OF-WAY**

I&M studies the land and proposes routes that reduce impacts on property owners.

I&M 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 I&M'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.

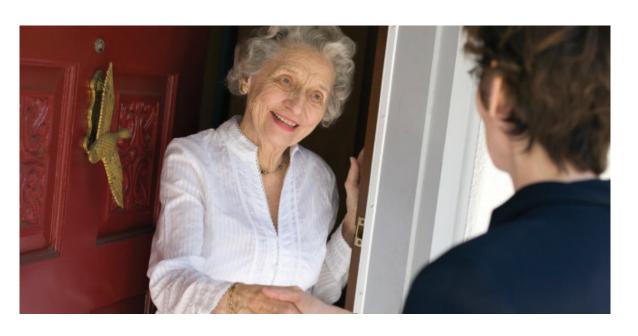
#### WHY IS IT DONE?



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

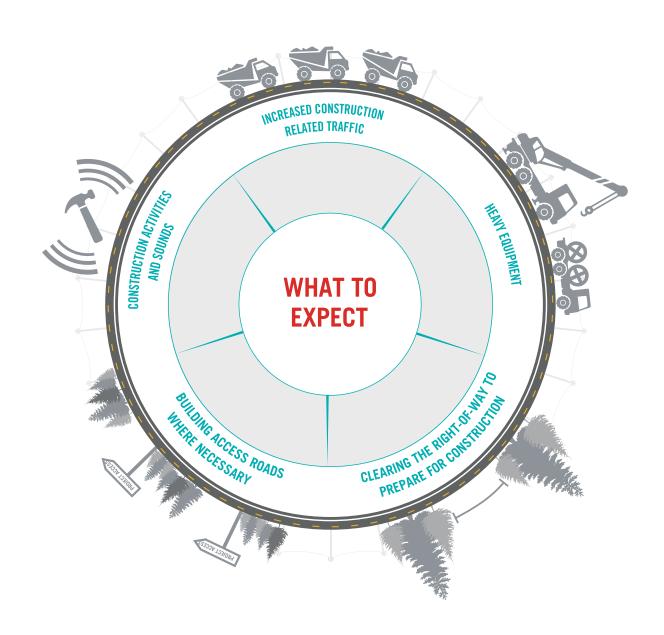
## THE GOALS OF I&M'S VEGETATION MANAGEMENT PROGRAM ARE TO:

- 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, and
- · Maintain a positive relationship with land owners and the public





## **CONSTRUCTION PROCESS**



I&M 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.

I&M 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.



## **PROJECT MAPS**

### **OVERVIEW MAP**

**Step 1:** Below is an Overview Map that displays the entire project area. Please use the **Overview Map** to find the general location of your property.

Overview Map (PDF)

## **DETAILED MAPS**

**Step 2:** Each outlined area on the **Overview Map** represents a single, numbered Map Page that shows that section in greater detail. Visit the appropriate **Map Page** below for your area.

Detailed Map 1 (PDF)

Detailed Map 2 (PDF)

Detailed Map 3 (PDF)

Detailed Map 4 (PDF)

Detailed Map 5 (PDF)

Detailed Map 6 (PDF)

Detailed Map 7 (PDF)



## ROBISON PARK-LINCOLN TRANSMISSION LINE REBUILD PROJECT

## **THANK YOU!**

Thank you for visiting the project virtual open house. For more information and project updates please visit the project website, or contact us with any additional questions.



REPLAY OPEN HOUSE



DOWNLOAD SLIDE DECK



**CONTACT US** 



VISIT PROJECT WEBSITE