



# Morgan Valley – Twinkle

*Linn County segment*

Public Information Meeting  
Proposed 345,000 volt (345 kV) Transmission Line



**FOR THE GREATER GRID**

# Agenda

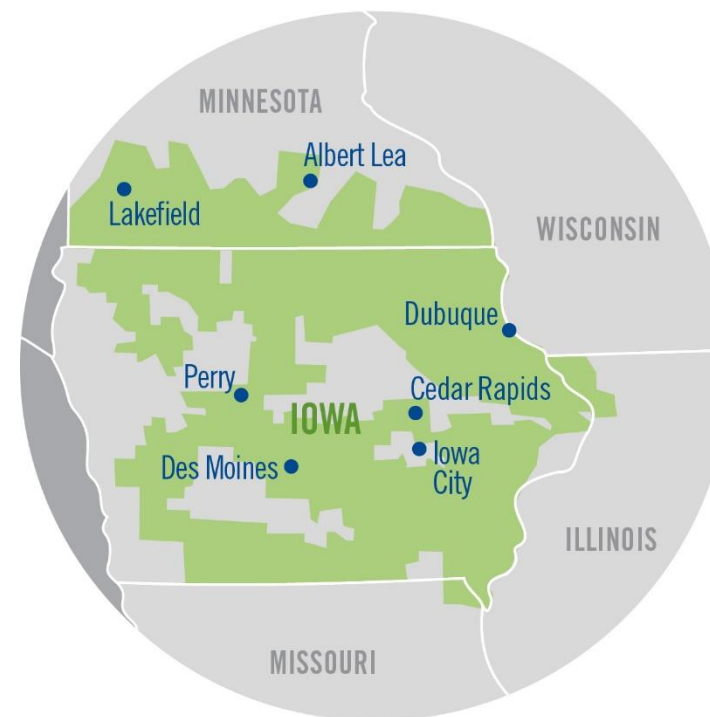


- **Overview of our company.**
- **Discuss the proposed project, the routing requirements and how we select a proposed route.**
- **Describe key milestones in the project.**
- **Discuss how we build a transmission line.**
- **Describe land use easements and how we work with landowners to obtain easements.**

# Who is ITC Midwest?

- **As the region's electric transmission company, ITC Midwest has a responsibility to connect power sources to customers to help ensure a reliable electrical system.**
  - Number of Iowa employees: 112
  - Number of miles of transmission line: more than 6,600
  - Number of substations: 272

## ITC MIDWEST SERVICE AREA



Headquarters: Cedar Rapids

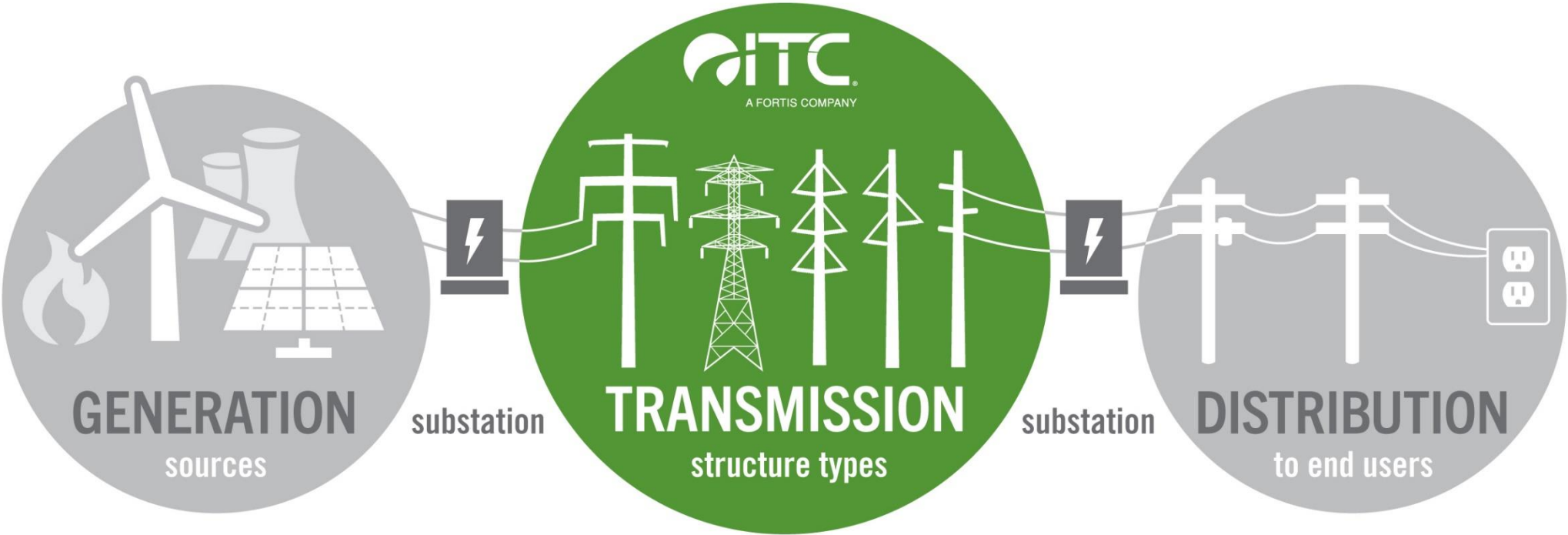
Major offices/warehouses: Des Moines, Dubuque, Iowa City and Perry, Iowa; Albert Lea and Lakefield, Minnesota

# Our Mission



- **ITC Midwest invests in electric transmission infrastructure to:**
  - Improve electric reliability
  - Reduce electric congestion
  - Provide broader access to diverse generation sources
- **For this project, ITC Midwest proposes to build a new 345 kV transmission line on steel monopoles that will be set on engineered foundations.**
- **This project was approved by MISO (the grid planning organization for our region), as part of a collaborative plan to build needed high-voltage transmission infrastructure. Once constructed, these projects will improve electric reliability, increase system resilience, reduce electric congestion and provide broader access to generation sources consistent with ITC's mission.**

# How the Electric System Works

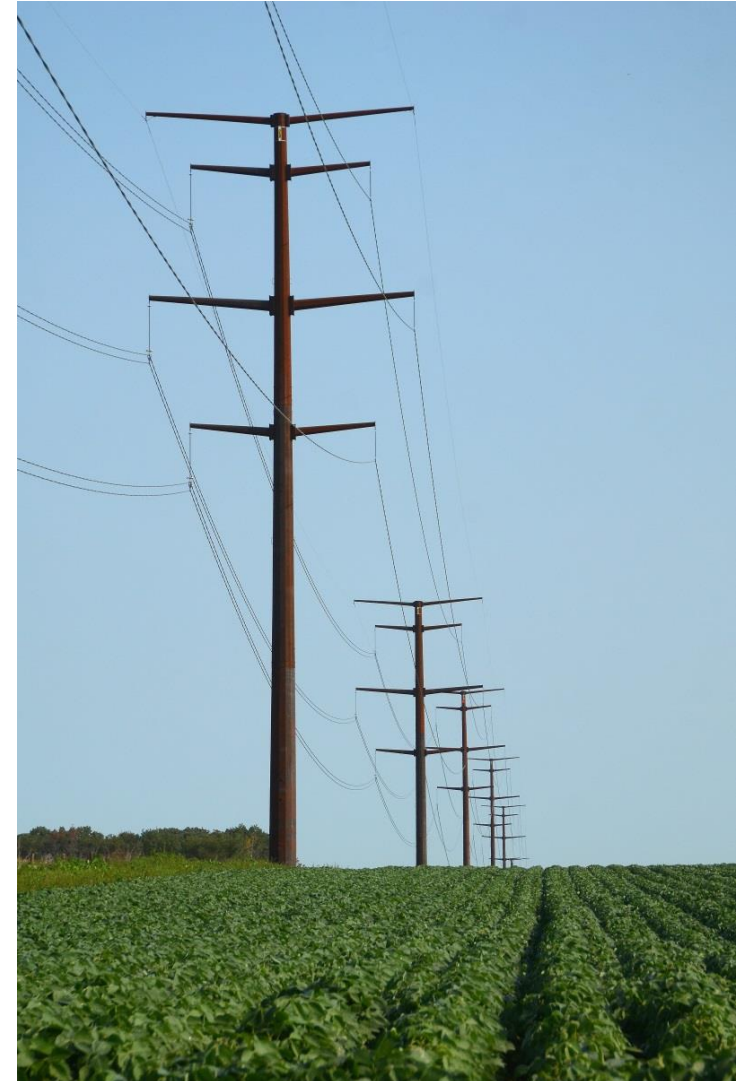


# Proposed Project

- For this project, ITC Midwest proposes building a new 345,000 volt (345 kV) transmission line with a portion of the proposed line being constructed along a new route in Marshall, Tama, Benton and Linn counties.
- This transmission line will:
  - Increase transmission infrastructure to **improve system reliability**
  - Enhance grid resilience to better **withstand extreme weather**
  - **Expand access to generation resources** for electric consumers by reducing transmission system congestion
  - Improve distribution of **lower-cost energy resources**, including renewables

# Why do we need to build this 345 kV line?

- Ensure generation, from both local and remote sources, can be delivered to meet local and regional electricity demand during all system operating conditions.
- 345 kV transmission lines are able to efficiently move large amounts of power into and out of areas to facilitate generation deliverability and overall system reliability.
- Additional 345 kV infrastructure improves system resilience and helps ensure that available generation is able to serve area loads during extreme weather events.



# Proposed Project Segment in Linn County

- To ensure reliable electric service, ITC Midwest proposes to build approximately 3.5 miles of new 345 kV transmission line in Linn County. Where possible, this new line will be double-circuited with existing transmission lines in Linn County to mitigate the need for a new transmission corridor across privately owned land.

**ITC Midwest currently owns and operates more than 595 miles of lines at this voltage in Iowa, Minnesota and Illinois.**



# Substation Interconnections



The 345 kV line will directly connect the proposed Twinkle Substation on the east side of Marshalltown to the Morgan Valley Substation located southwest of Fairfax.



Site of the proposed Twinkle Substation on the east side of Marshalltown, Iowa



Morgan Valley Substation near Fairfax, Iowa

# Substation Interconnections



The existing 161 kV line directly connects the Marshalltown Substation on the east side of Marshalltown to the Belle Plaine Junction Substation north of Belle Plaine.



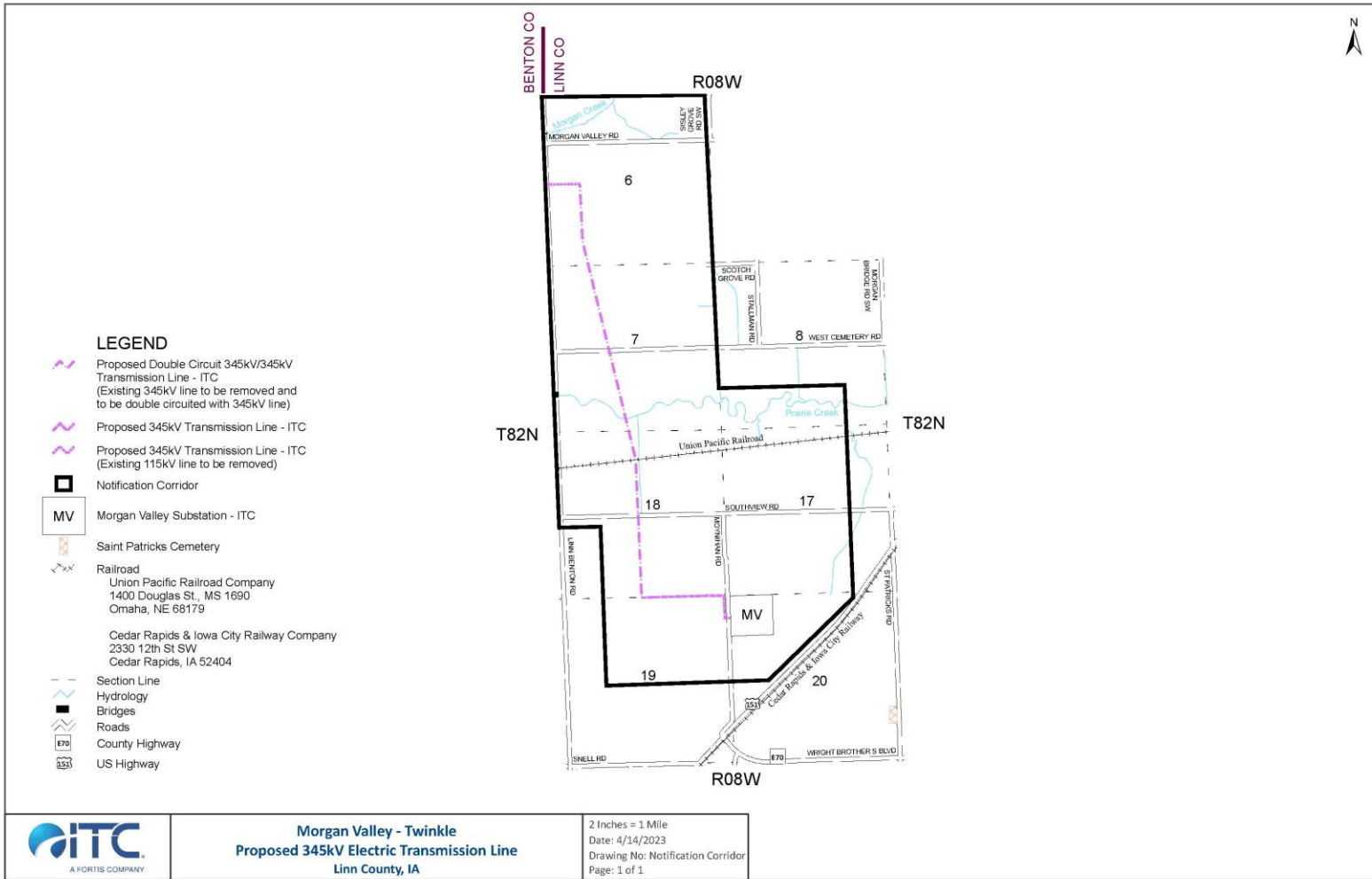
The Marshalltown Substation on the east side of Marshalltown, Iowa.



The Belle Plaine Junction Substation north of Belle Plaine, Iowa.

# Selecting the Proposed Line Route

- The proposed route area for the 345 kV transmission line in Linn County.
- Proposed transmission line runs from the Benton County line slightly east, then south and then east in Linn County, where it interconnects with the Morgan Valley Substation.
- Your meeting notice included a map showing the proposed line route with a defined notification corridor.



# Selecting the Proposed Line Route

- ITC Midwest reviewed several possible line routes, considering the requirements set forth by the Iowa Code:
  - Start planning with routes near or parallel to roads, active railroads, or along division lines of land.
  - Create minimal impacts on current land use.
  - Consider location of residences and environmentally sensitive areas.
- ITC Midwest will work with landowners in the notification corridor to negotiate easements.

**While the mailing you received shows a line on a map, the final route is determined significantly through conversations with landowners once the public information meeting is completed.**

# Selecting the Proposed Line Route

- Again, the final route will be determined after negotiations with landowners.
- ITC Midwest will submit the final route to the Iowa Utilities Board for approval, which is required before construction can begin.
- According to our proposed schedule:

<b>Easement acquisition complete by:</b>	<b>Second quarter 2024</b>
<b>If approved, construction will begin:</b>	<b>Third quarter 2025</b>

# What the Transmission Line will look like



- Structures will be single steel monopoles set on engineered foundations.
- This project will include some double-circuit and single-circuit segments.
- Poles will typically be 125 to 170 feet tall after installation.
- Poles will be spaced approximately 800 to 1,200 feet apart.
- The conductors, or wires, have the appearance of being twisted which helps prevent ice forming on the lines during winter weather.



# Typical 345 kV Steel Structure



- Transmission wires are attached to steel monopoles.
- The poles will be mounted on engineered foundations. The example below is a concrete pier.



# Typical 345 kV & 161 kV Steel Structure Double Circuit

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- Double circuit transmission structures support two circuits on a single structure.

Photo: Single steel poles along a cross-country route.





# Typical 345 kV Steel Structure



Shield Wire



345 kV Transmission Wires



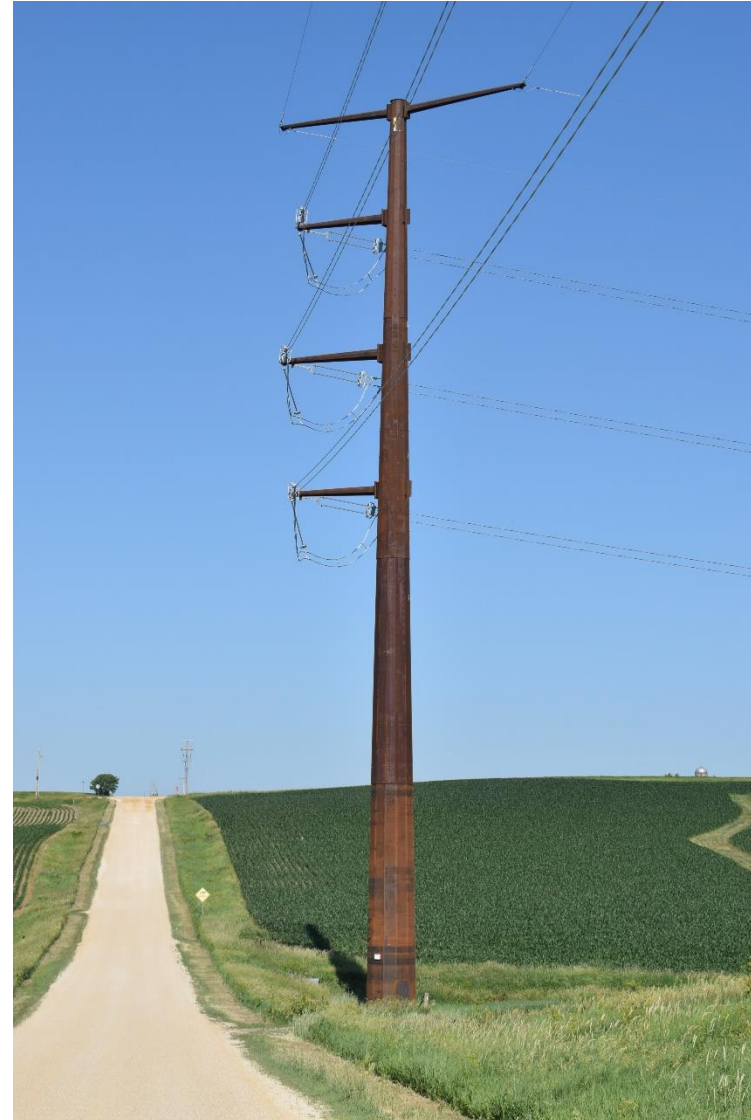
Mounted to Engineered Foundation



# 345 kV Corner Structure



Corner steel structures will be self supporting and do not require guy wires.

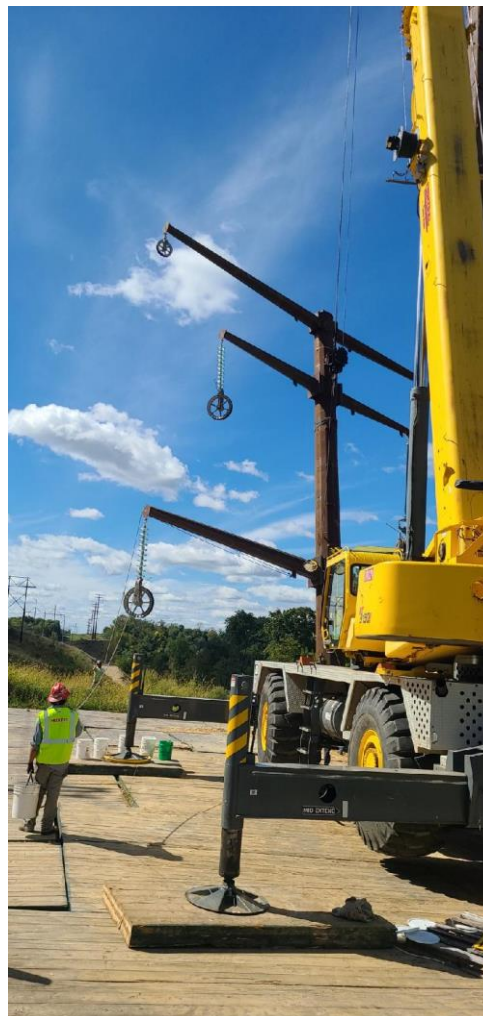


# Building a Transmission Line: Matting



**Matting may be used in various locations to:**

- Reduce soil compaction
- Allow for work to proceed in wet weather
- Minimize environmental impacts



# Building a Transmission Line: Foundations

Concrete foundations are frequently used.



# Building a Transmission Line: Pole Installation



# Building a Transmission Line: Stringing Rope

Conductor dollies are used to string the conductor from one pole to the next.

Photo: Single circuit  
345 kV configuration



# Building a Transmission Line: Reel Trailer



The wires (or conductors) are pulled off of the reels and through the conductor dollies.

The tension of the line is adjusted and the conductors are fastened to the insulators.

# Building a Transmission Line: Helicopters



Helicopters are often used to string the wires on transmission lines. This saves time and minimizes environmental impacts.





# Designing a Safe and Reliable Transmission Line

- Maintain adequate vertical clearance for driveways and field entrances for farm equipment.
- Maintain clearance from trees that could damage the line.
- Meet or exceed the requirements of the National Electrical Safety Code and Iowa Electrical Safety Code.



# Proposed Timetable

- **Today:** conduct the public information meeting.
- JCG Land Services, Inc. will meet individually with landowners to negotiate line easements.
- **Within two years:** ITC Midwest will file a franchise petition with the Iowa Utilities Board.
- **Following the petition:** regulatory review by the Iowa Utilities Board.
- **By approximately Third Quarter 2025:** anticipate beginning construction, if approved by the Iowa Utilities Board, with construction anticipated to be complete by Third Quarter 2027.

# Q: What are we requesting from you?

## A: An easement

\*

- Purchasing an easement is not the same as transferring complete ownership of your property, which would be called purchasing your property in *fee*.
- Instead of purchasing your property in fee, ITC Midwest may request a type of *easement*, which gives us the right to use your property for certain stated purposes. You will retain ownership of the land covered by the easement, including many rights such as the right to plant and harvest crops within the easement area.

# Three types of easements



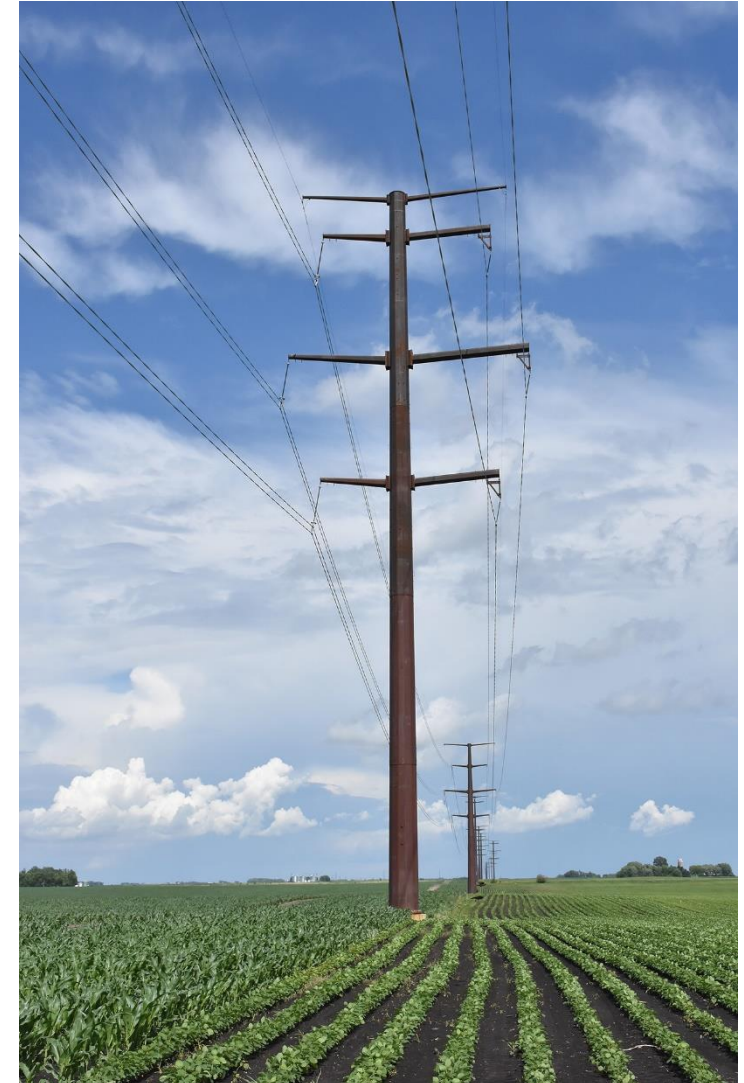
1. Full transmission line easement
2. Overhang easement
3. Vegetation Management easement

\*ITC Midwest may determine that no easement is required from you if the line has adequate existing easement on your property.

# Full Transmission Line Easement



- Poles and conductors (or wires) are placed on private property.
  - 110' of easement on private property when parallel to road right-of-way.
  - 200' of easement when the line travels cross country.
- ITC Midwest would have the right to construct, reconstruct, maintain, operate, and repair the line.
- Also includes the right to perform vegetation management.

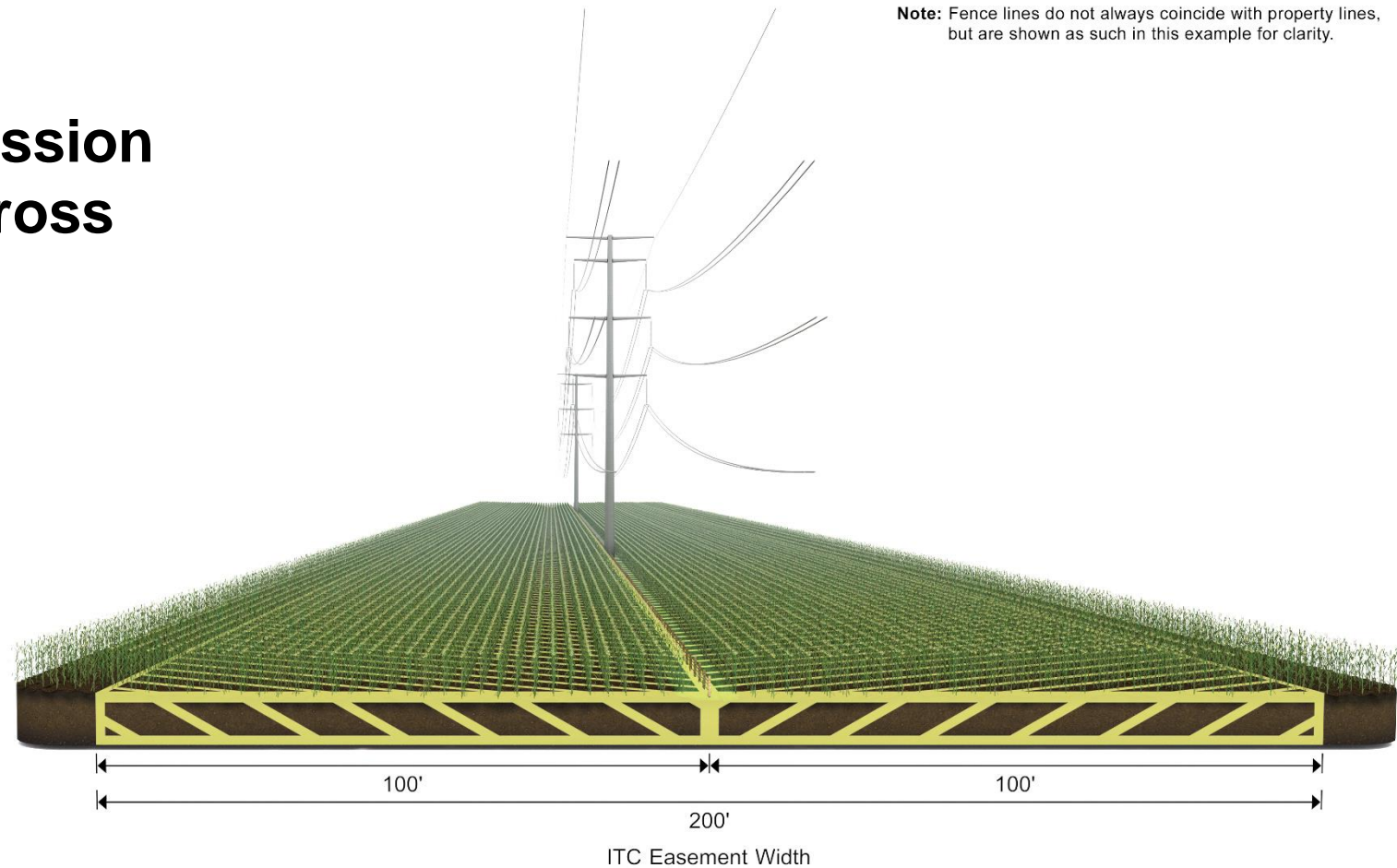


# Structures Located on Private Easement



## Typical Full Transmission Line Easement - Cross Country

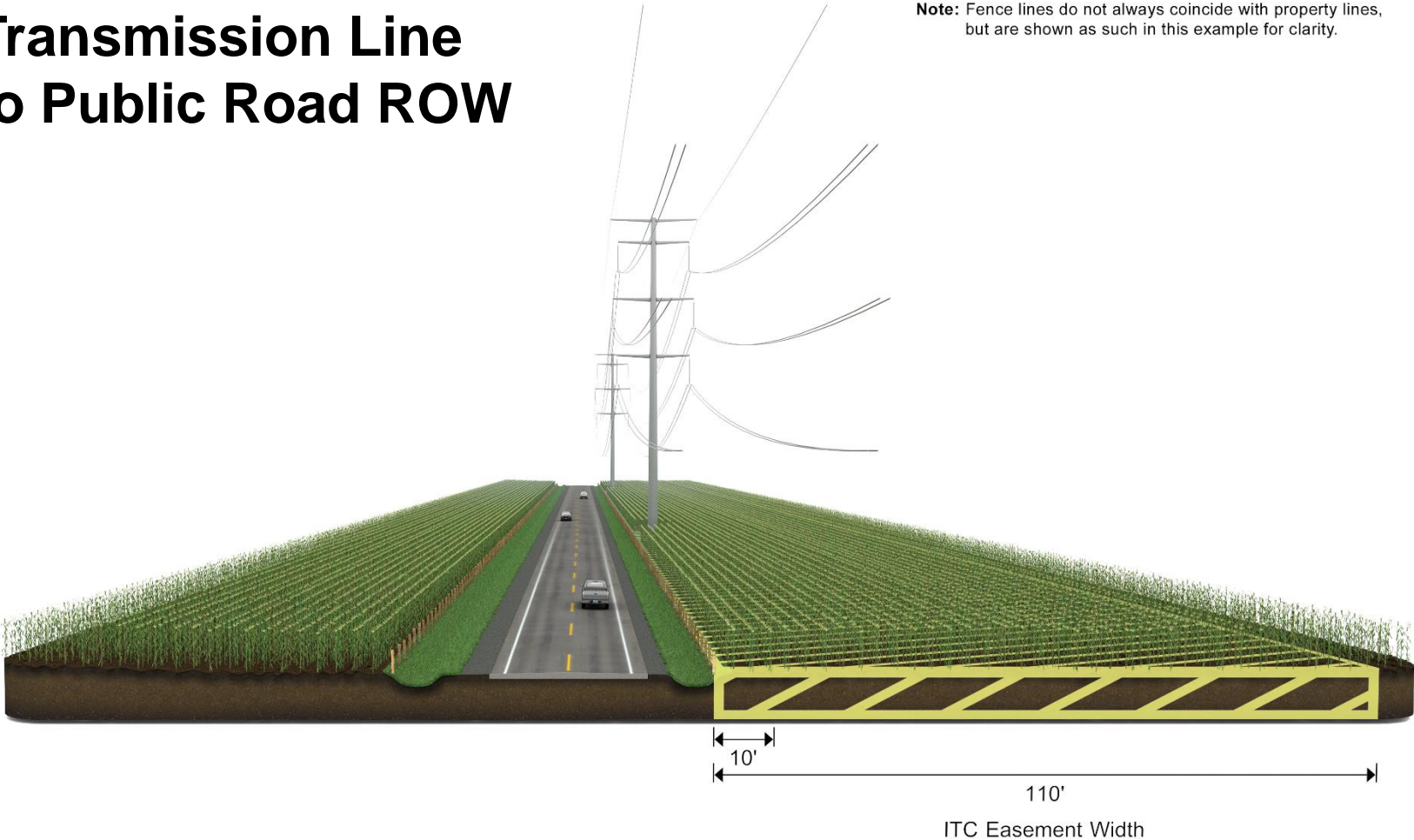
**Note:** Fence lines do not always coincide with property lines, but are shown as such in this example for clarity.



# Poles Located in Adjacent in Public of Way



## Typical Overhang Transmission Line Easement Adjacent to Public Road ROW

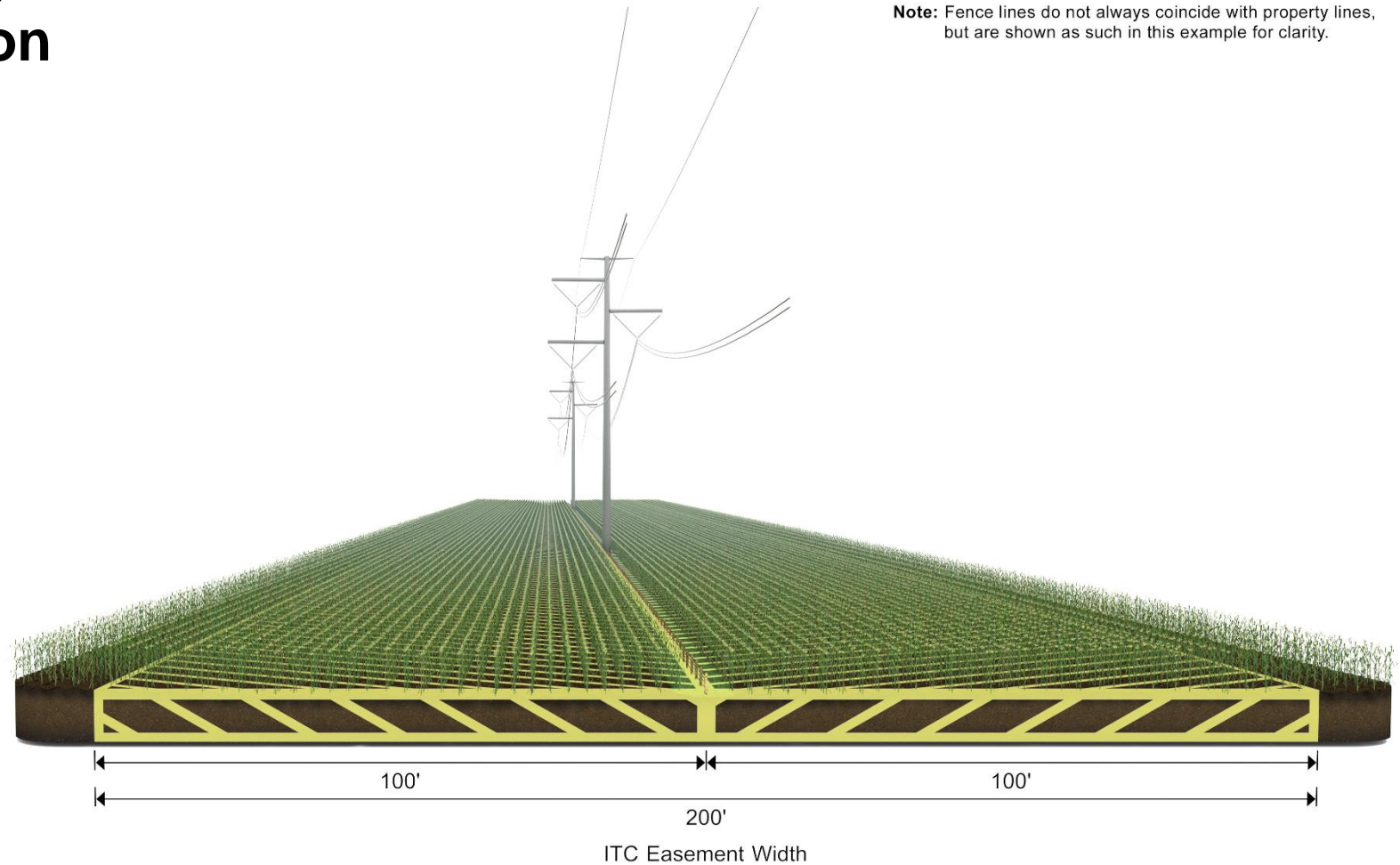


# 345 kV Single Circuit Configuration



## Typical 345 kV Single Circuit Configuration

**Note:** Fence lines do not always coincide with property lines, but are shown as such in this example for clarity.



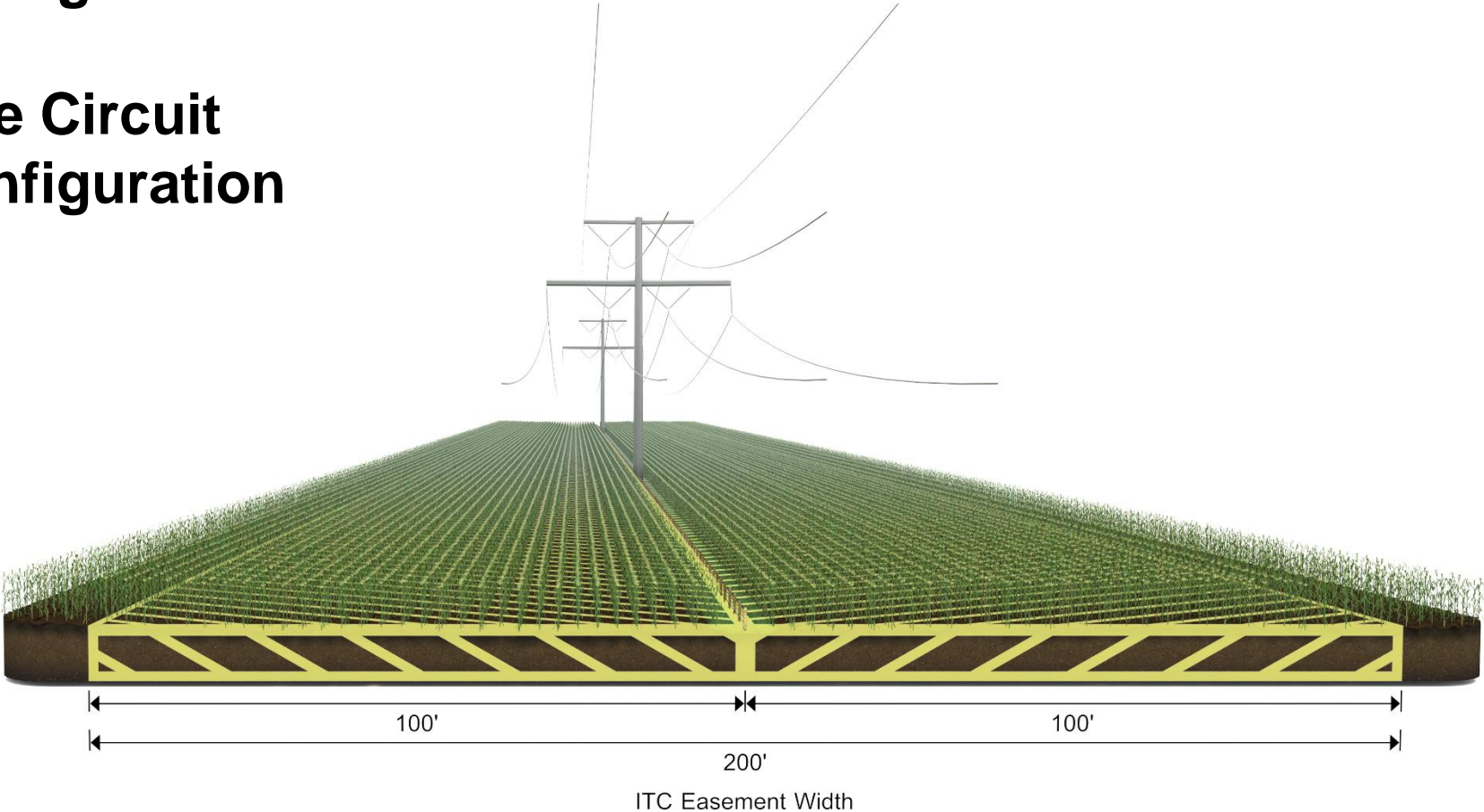


# Double Circuit Low Profile Configuration



## Typical 345/161 kV Double Circuit Low Profile Configuration or 345 kV Double Circuit Low Profile Configuration

**Note:** Fence lines do not always coincide with property lines, but are shown as such in this example for clarity.



# Easement Payment

- ITC Midwest is only asking to acquire an easement on your property. The company bases its compensation on the *fee* (complete ownership) value average as reported by the most current Iowa State University land value survey for the county with the highest value land along the four-county project route, which is Linn County.
- The amount of compensation you will receive for the easement will vary depending on the size of the easement area and the type of easement ITC Midwest acquires.
- Current ISU fee value for Linn County is \$13,330/acre. Again, this is the county with the highest value land along the project route, and will be used as the basis for easement payments in Marshall, Benton, Tama and Linn Counties.
  - Full transmission line easements are paid at 100% of the county average *fee* land value.
  - Overhang and vegetation management easements are paid at 50% of the county average *fee* land value.

# Typical Easement Calculation and Offer Sheet

Date \_\_\_\_\_

Parcel # \_\_\_\_\_

## Easement Payment Calculation Sheet

A.	Value / Acre		/Acre
B.	Easement Value (100% of value per acre of line A above)		/Acre
C.	Easement Acreage (from easement plat - Exhibit A)		Acres
D.	Total Payment for Easement = B x C		

\_\_\_\_\_  
Landowner Name

By \_\_\_\_\_  
Landowner

By \_\_\_\_\_  
Representing ITC Midwest LLC

### Supporting notes:

Easement area = \_\_\_\_\_ acres

Value per acre based on the Iowa State Land Survey

Current Use:

Additional Comments:

# Easement Procedure

- Utility representatives have developed a list of landowners in the corridor area shown on the notification map.
- If an easement is needed on your property, a land agent from JCG Land Services, Inc. will contact you to set up an appointment to discuss the details.
- Easement acquisition expected to be completed by Second Quarter 2024.



# Additional Compensation



In addition to the easement payment, there are two forms of compensation related to transmission line development:

- Crop Damage
- Property Damage



# Crop Damage



- ITC Midwest understands that construction equipment in the right-of-way may damage your crops or property.
- Once construction is completed, ITC Midwest will return your property as near as possible to its pre-construction condition.
- Restoration work begins once all construction activities have been completed.
- Rights of a landowner or tenant to claim damages are established by Iowa Code Chapter 478, including but not limited to Section § 478.17. There is no limit on the amount of proven damages that may be claimed pursuant to statute and paid if proven.

# Damage Payments when Crops are in the Field \*

- Damage settlement is paid in one lump sum, following construction, to cover losses anticipated over a four-year period.
- The settlement price is based on annual yields and current market price.
- If there is an existing crop or where a crop would normally have been planted before construction is complete, the percentage paid for crops damaged by construction:

<b>First Year</b>	<b>100%</b>
<b>Second Year</b>	<b>50%</b>
<b>Third Year</b>	<b>30%</b>
<b>Fourth Year</b>	<b>20%</b>
<b>Total:</b>	<b>200%</b>

**The total calculated loss amount is paid in a lump sum once construction is completed.**

# Damage Payments when No Crops are in the Field

If construction is conducted and completed during a time when no crop was planted or in cultivation, ITC Midwest compensates for actual crop ground lost to production at the following percentages:

First Year	66%
Second Year	50%
Third Year	30%
Fourth Year	20%
<b>Total:</b>	<b>166%</b>

**The total calculated loss amount is paid in a lump sum once construction is completed.**



# Property Damage

- ITC Midwest will seek to avoid damage to your property when possible.
- ITC Midwest will repair erosion or ruts or will pay the landowner the full cost required to repair them.
- ITC Midwest will pay the repair costs for damaged equipment.
- ITC Midwest will pay replacement costs for any other damages.  
(examples: fences, drain tiles, field entrances, etc.)
- ITC Midwest will meet individually with landowners and tenants to settle damages.

# Property Damage

- ITC Midwest takes its commitment seriously to restoring property once a line is built.
- We intend to be good neighbors for many years to come.



# Damage Payments

- Damage compensation is calculated when construction is complete.
- Crop and property damages will be calculated and paid in one lump sum.



# Signing and Time of Landowner Compensation



- ITC Midwest uses option agreements to secure easements prior to regulatory approval. ITC Midwest pays 10% of the total easement value to secure the option.
- Landowners may cancel an easement within 7 business days of signing by sending written notice by certified mail.
- Total easement compensation will be paid after all regulatory final route approvals and prior to line construction.

# Our Commitment to Landowners



**ITC Midwest has a proud track record of working with Iowa landowners on hundreds of transmission line projects over the past 15 years, achieving more than 98% voluntary easements.**

# Project Website



- ITC has established a project website to serve as an information source for landowners.
- [www.morganvalley-twinkle.com](http://www.morganvalley-twinkle.com)
- Website will be launched on Friday, May 19

# Thank You



**We appreciate you  
taking time to meet  
with us today.**





# Questions?