Broadband Deployment: Sharing Rights of Way with Existing Utilities

Extension
UNIVERSITY OF WISCONSIN-MADISON

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UW-Madison Extension

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Manager - Gas & Electric Policy

WE Energies

Jessica Hatch

Broadband Coordinator

Door County WI

Our aim for this webinar

- **Gain insight** into the complexities of pole attachment projects and how to navigate them efficiently.
- **Pick up valuable tips** for fostering productive partnerships with existing utilities to advance your broadband expansion efforts.
- **Get clear on the role community leaders can play** in facilitating broadband expansion within utility rights of way.

Your Extension Broadband Team

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Contact Us

Not sure where to start? Contact any one of us and we'll make sure you get to the right person.

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UW-Madison Extension is committed to helping Wisconsin communities and their partners navigate broadband expansion so that all Wisconsin residents can realize the economic, health, and social benefits of connectivity.

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UNIVERSITY OF WISCONSIN-MADISON

Today's Speakers

Scan for full bio

Dan Sande
WE Energies

Jessica Hatch
Door County WI

Right of Way Workshop

March 6, 2025

Wisconsin Public Service

Presenters

Jessica Beckendorf – Community Economic Development Specialist

Jessica Hatch – Broadband Coordinator

Dan Sande, PE – Manager Gas & Electric Policy

Pam Malmborg – Joint Use Supervisor

Wisconsin Public Service

Agenda

Why are we here? The community perspective

Who are we?

How do you get on a pole?

Why are we so tough?

What should you take away from this presentation?

Questions

Wrap Up

Why are we here?

Wisconsin Public Service

Who are we?

Wisconsin Public Service


WEC
Energy Group


we


WPS
Wisconsin Public Service


PEOPLES GAS


NORTH SHORE GAS


MINNESOTA
ENERGY
RESOURCES


MICHIGAN
GAS UTILITIES


UPPER
MICHIGAN
ENERGY
RESOURCES


we
WPS

Serving the region's energy needs

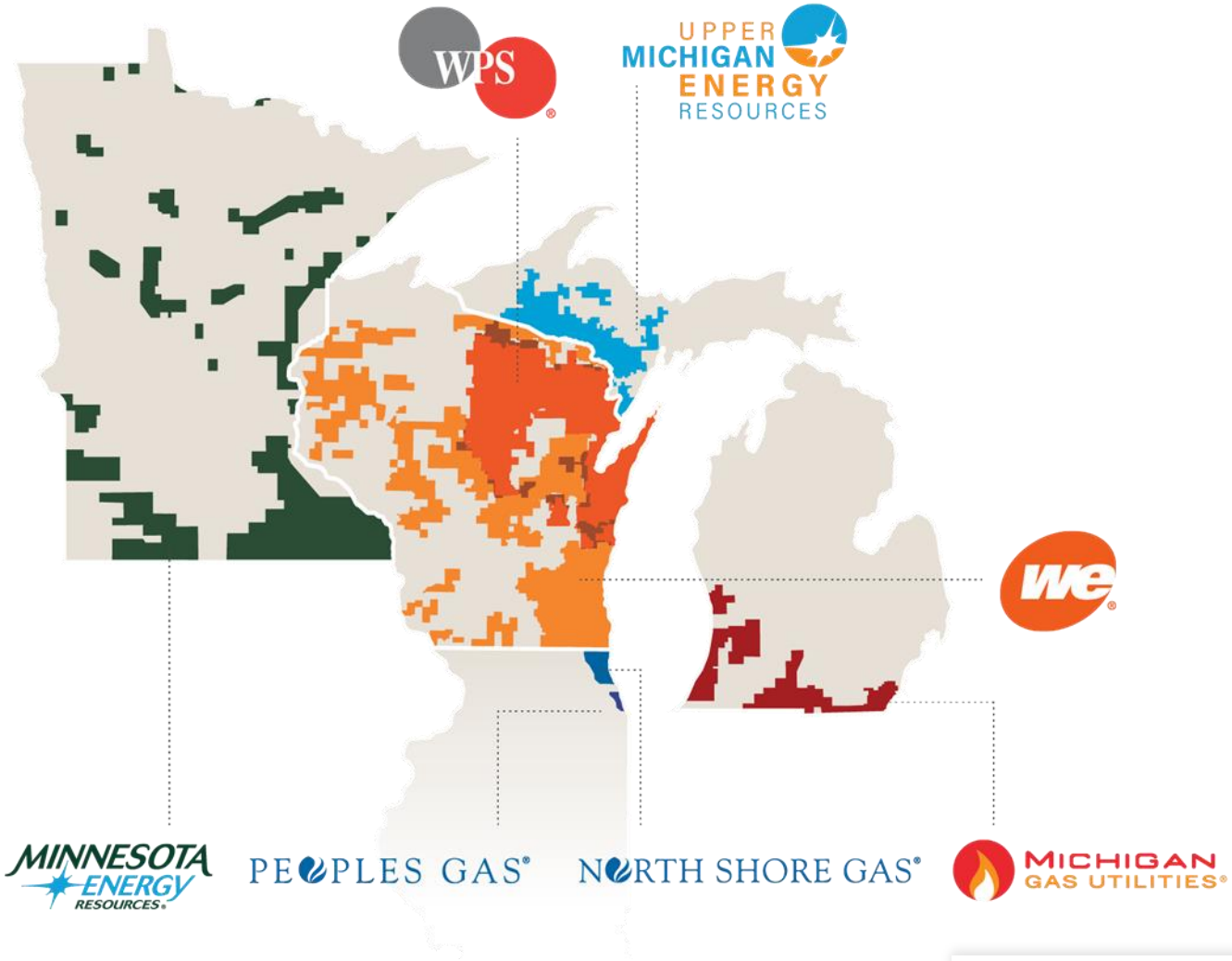
4.7 million
customers

72,000 miles
of electric distribution

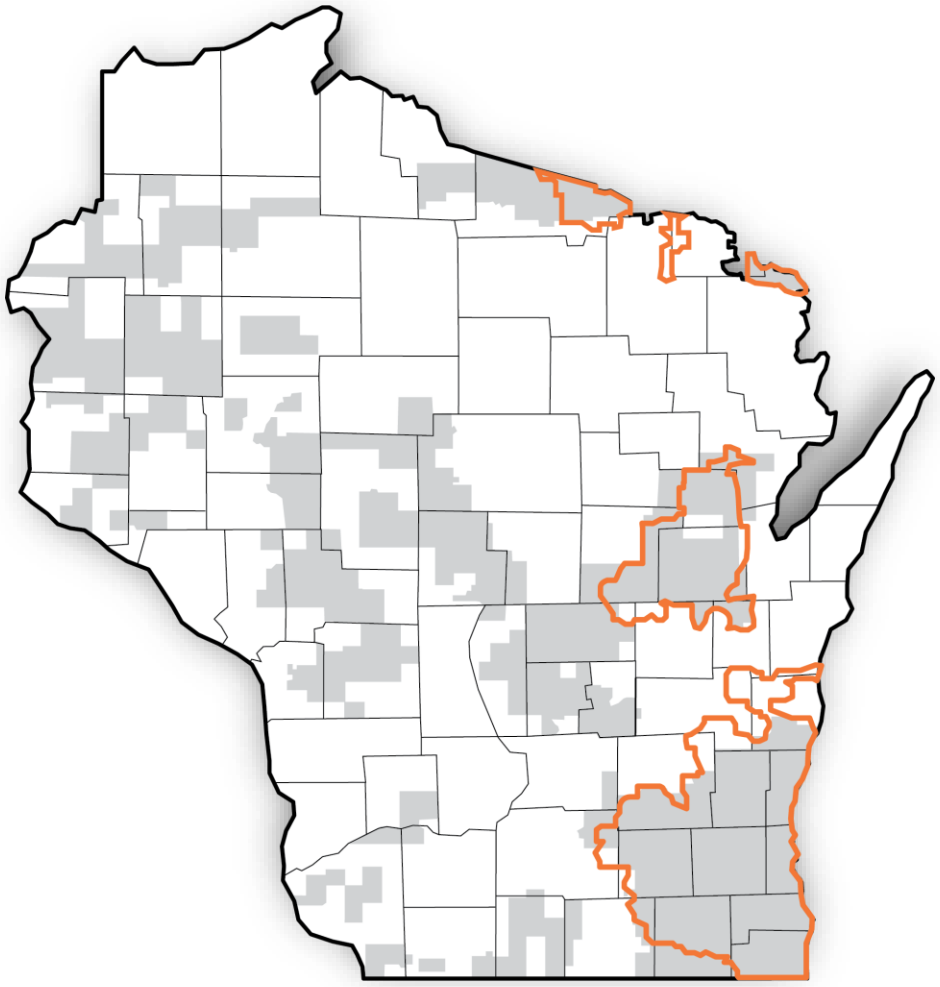
46,400 miles
of natural gas distribution and transmission lines

8,300 megawatts
of power generating capacity

7,000 employees



We Energies

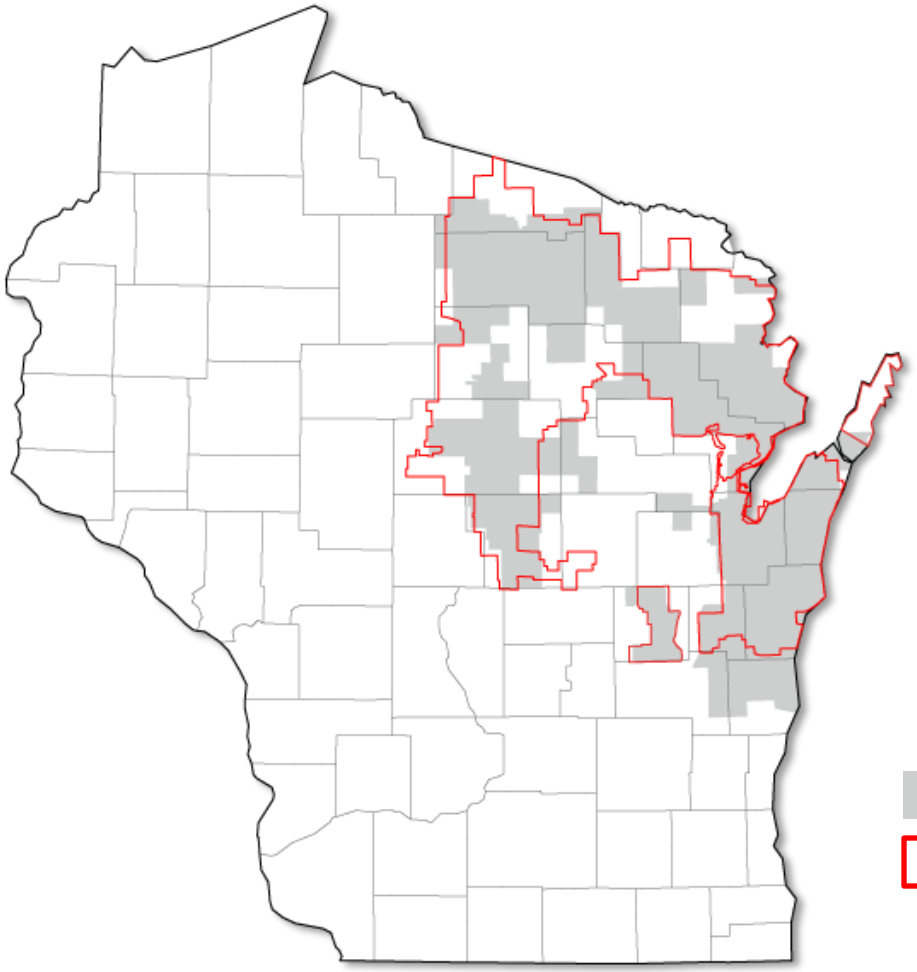


Serves more than 1.1 million electric customers and 1.1 million natural gas customers in Wisconsin.

Natural gas

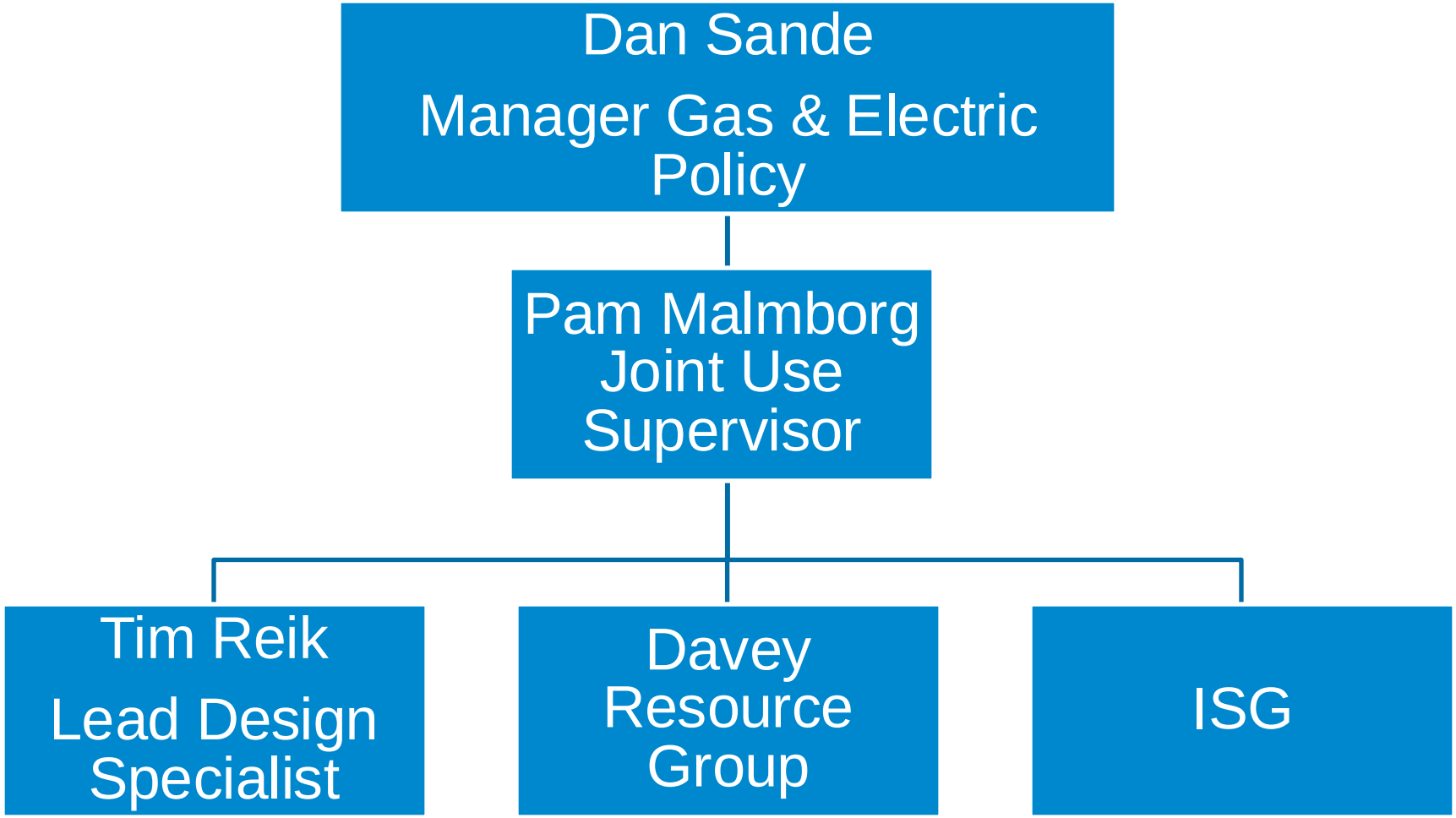
Electric

Wisconsin Public Service



Serves approximately 466,000 electric customers and 344,000 natural gas customers in northeast and central Wisconsin.

Our Group


Dan Sande
Manager Gas & Electric Policy
Pam Malmborg
Joint Use Supervisor
Tim Reik
Lead Design Specialist
Davey Resource Group
ISG

We are very busy already…..

- In 2023 we received 916 proposals to attach to 13,407 poles.
- In 2024 we received 761 proposals to attach to 11,266 poles.

How do you get on a pole?

Wisconsin Public Service

Proposal Submittal Checklist - Wireline Attachment

Proposal will be considered complete and accepted for an engineering review when all of the applicable information is received. This is NOT an approval to proceed with attachments.

☐ **Completed Permit Application** (Form B)

☐ **Site map — Must include the following:**
- SPANS ID Number.
- Legend/north arrow.
- Cross streets labeled.
- Streets labeled with highway designation (i.e., STH, CTH, municipal, private, etc.).
- Pole numbers (WPS pole number tag. If no tag, list "NT" and SPANS ID Number).
- Pole ownership (by WPS or another utility?).
- Critical crossings labeled (e.g., railroads, waterways, highways, transmission lines).
- Rights-of-way clearly shown and identified.
- Proposed guying and riser placement details.
- Span lengths.

☐ **Pole Profile Sheets — Must include the following:**
- Ambient temperature and date when measurements were taken.
- Pole tag number from field or pole view (if no tag, list "NT" and SPANS ID Number).
- The pole height and class
- Measured height of lowest WPS conductor(s) and drip loops (if present) at each pole.
- Measured height of power equipment if present (i.e., transformer, load break switch insulator, riser, etc.).
- Measured height of roadway light fixture (if present), along with bonding status clearly indicated and drip loops measured height recorded.
- Company name and measured height at pole of all existing communication attachments on pole.
- Measured midspan (lowest point) of lowest power conductor and all existing communication lines in the span.
- Pole profile forms for adjacent poles with communication attachments.
- Sag profile results for lowest WPS conductor loaded to worst-case conditions showing calculations and mid-span clearances to top communication line (*see Note 2*).
- Sag profile results for lowest communication line (*see Note 2*) for worst-case mid-span ground clearance calculations.
- Identify all existing risers and proposed riser locations in top view.
- Identify all existing and proposed guying, including lead lengths, guy wire type and anchor type.
- Provide conductor tensions for all pole attachments.
- Provide clearance calculations and confirm compliance for all NESC-required clearances.
- Proposed Make Ready described clearly. If requesting a pole be replaced or existing facilities re-arranged, provide "as-is" and "post-make ready" clearance calculations.

☐ **Three photos — Attach to pole page**
- High-resolution digital photos (do not convert to PDF), each labeled with WPS pole number. Save as .ZIP file and attach in SPANS under "Attachments."
- Photo 1 facing direction of the route
- Photo 2 facing the pole head on
- Photo 3 facing away from the route

☐ **Pole loading calculations**
- Pole loading results for each pole along with a group summary for existing and any new poles.
- Provide calculations to confirm a pole meets all NESC-required pole strength requirements at the appropriate grade of construction.
- If requesting a pole be replaced or existing facilities re-arranged, provide "as-is" pole strength calculations as well as the "post-make ready" pole strength calculations. Include an export of poles in a .ZIP file.

☐ **Make Ready form listing all poles being attached**
(mark N/A if no make ready under each entity)
- Must identify all names of all companies currently attached.
- Must include complete description of all Make Ready that is required.
- Must show the party responsible for payment.
- Must have the name of the project listed.

☐ **Applicable proof of entry** *(see Note 1)*
- Railroad crossing permit.
- Water crossing permit.
- Right-of-way permit.
- Private property access/easement/land rights.

☐ **Payment confirmation – please note in SPANS and submit either of the following**
- Copy of SPANS confirmation page if paid online.
- Note indicating check was mailed.

Note 1: The company will review the submitted proof of entry documents based on the sketch provided. The proposal will be rejected if it is found during the engineering review that additional proof of entry is required.

Note 2: These calculations may be done on the existing communication facility. If the proposed attachment is the uppermost or lowermost communication attachment, the calculations should be done for the proposed attachment.

- When broadband planning discussions are facilitated at a municipal and County level, it ensures that connections between community members and stakeholders are created. Those that need it most are represented, and their lived experience and needs are heard,
- The benefits mirror the access to the utility grid: education, healthcare, and economic development.

FiberNet DOOR COUNTY
BROADBAND INFRASTRUCTURE PROJECT

Planning - Community Discussions on Pole Attachment

- Consider an engineering analysis of your area. This includes an inventory of poles in your area and pole inventory. This would also include geographic and geological cost reviews so you can have an understanding of potential high-cost areas and something to compare bids to.
- Work with utility companies, school boards, community anchor institutions, and other relevant groups to leverage existing relationships and facilitate planning efforts like permitting, environmental review, co-locating, and working with neighboring areas about major infrastructure projects.
- Use all of this to develop a comprehensive broadband plan that outlines objectives, priorities, and strategies for working with utilities and other stakeholders. This will help guide decision-making throughout the deployment process.

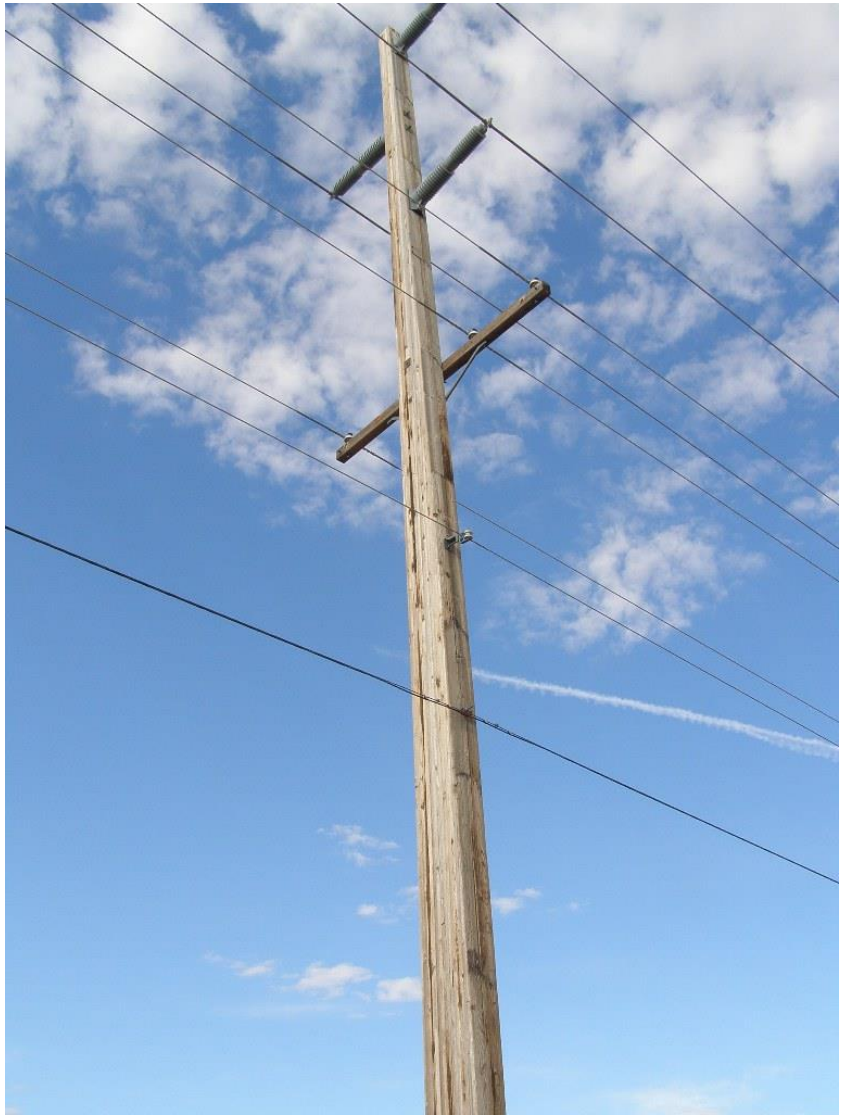
Why are we so tough?

Wisconsin Public Service

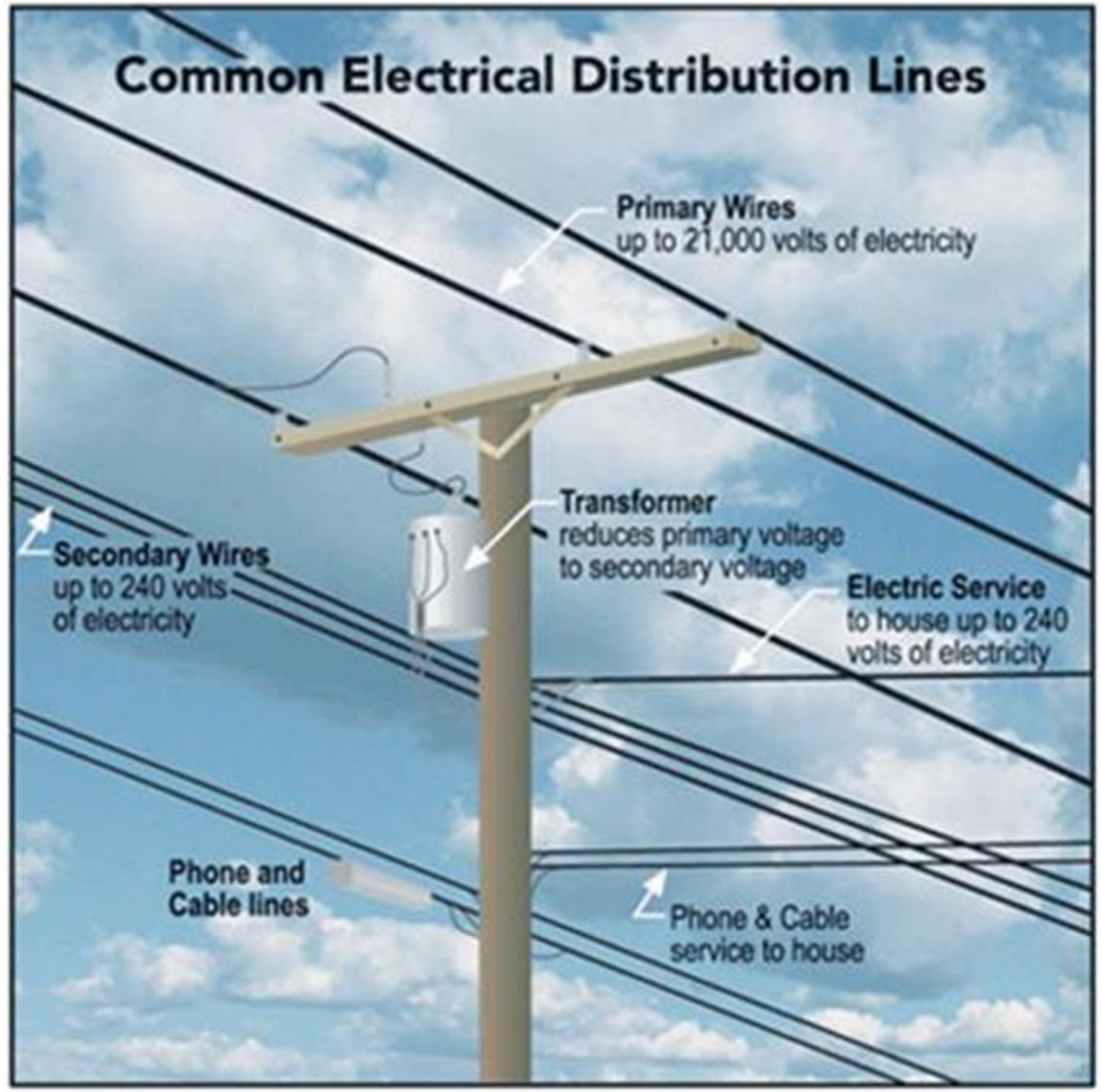
WEC Energy Group

Our strategy is to create long-term value by focusing on the fundamentals: safety, world-class reliability, operating efficiency, financial discipline and customer care.

How many people pay attention?




YIKES!


Common Electrical Distribution Lines
Primary Wires
up to 21,000 volts of electricity
Transformer
reduces primary voltage
to secondary voltage
Secondary Wires
up to 240 volts
of electricity
Electric Service
to house up to 240
volts of electricity
Phone and
Cable lines
Phone & Cable
service to house


160-747
BIG BUD
160-747
BIG BUD


12/14/2010 15:03


LONGHILL RD


BLOOD HOUND
Underground Utility Locators
VACMASTERS
OF DENVER
SPEED
LIMIT
35


Vermeer


North

What should you take away?

Wisconsin Public Service

Engineers

ENGINEERING

- The number one reason we don’t approve pole attachment requests is because the proposal package is incomplete or is found to have errors.
- We provide all of the materials necessary to guide attachers.
  - Checklists
  - Standards
  - Training guides
  - Offers for in person training

Engineering

- Turnkey Engineering
  - It appears that communication companies and project owners set up a lot of turnkey engineering contracts.
  - We tend to see a lot of issues with this.
  - Involvement from the communication company and/or the project owner are a good way to ensure that engineering is being done properly.
  - When communication companies and project owners are directly involved in the engineering process the engineering firms tend to be better trained, have more reasonable expectations and there is better communication between us and the parties that want on the pole.

ENGINEERING

We will NOT approve an attachment request until we are certain it can be done in accordance with codes and standards

Timeline

- The pole attachment submission can impact timelines that the internet service provider has for deployment around out weather system and possible grant performance periods which can negatively impact your deployment and funding.

- The amount of staffing the utility/pole owner has to process these requests can impact this.
- The quality of the submission will make a difference in the time to process the request.
- The make-ready work product submission by the engineering company can delay pole attachment processing. Ensure you choose engineering companies that understand the utility company requirements.
- Negotiations between the pole owners and providers seeking to attach lines can lead to significant delays in deployment for broadband expansion projects.

Contractors

Contractors

- Installing broadband is not an easy thing to do.
- We see many contractors who say they are experienced but it is clear that they are not.
- The owners of broadband projects need to make sure that they are getting what they are paying for.
- Contractors need the time to work safely.
- Contractors should be paid fairly so they don’t have to cut corners to make a profit.

- Rural areas have higher costs; rural communities often require more poles to connect a single household or facility, making broadband deployment more expensive and challenging in these areas.
- Foster public-private partnerships between local governments, utilities, and ISPs to share costs and streamline the installation of broadband networks.

FiberNet DOOR COUNTY
BROADBAND INFRASTRUCTURE PROJECT

Costs

- Pole replacement – this cost has gone up significantly and is assigned to the pole attacher, which impacts monthly broadband rates/fees as well as electric utility costs.
- Make-ready cost estimate from the pole owner – determined after pol attachment request and pole assessment
- Locate costs
- Monthly/annual attachment costs
- Annual underground costs
- There are different regulations for ISPs depending on their telco registration
- Permitting
- Deployment timeline goals can impact the costs, and decisions on network installation and how that network will be installed can raise the costs.

Available Resources

Resources

- Both We Energies and WPS have public websites that hold all of the information a communication company should need to put together an approvable proposal to attach.
  - https://www.we-energies.com/joint-use-management/default
  - https://www.wisconsinpublicservice.com/joint-use-management/default

Resources

- We will provide training if needed:
  - General group training for attachment proposals
  - One on one training for attachment proposals
  - Safe digging training for contractors
  - Our operations people are always happy to answer questions about working near energized equipment.

- Diggers Hotline will also provide safe digging and locate ticket training upon request.

Where to find resources for this webinar

https://tinyurl.com/utilityROW

Also – sign up for our newsletter!

Q&A

Poll

4 short questions

Thank you!

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