



Helping to keep the lights on,
businesses running
and communities strong

Planning Your Project Near ATC Transmission Lines

Lee Meyerhofer, Sr. Local Relations Consultant
David Hovde, Sr. Local Relations Consultant

atcllc.com

Overview

- Introduction
- Transmission facility colocation and relocation
 - Planning
 - Overhead and underground
 - Project types
 - Cost
 - Code
 - Standards
- Questions



atcllc.com

2

Introducing ATC Timeline and Facilities

- In 1999, the concept of ATC was approved by an act of the Wis. Legislature.
- Began operations in 2001 as first multi-state, transmission-only utility in U.S.
- Headquartered in Pewaukee, Wis.
- Grew from \$550 million in assets in 2001 to over \$3 billion today.
- Operating 9,440 miles of lines and 525 substations in Wisconsin, Michigan, Minnesota and Illinois.



atcllc.com

3

Introducing ATC Lines and Corridors

- Transmission lines require periodic maintenance to ensure safety and reliability.
- Unplanned outages and other emergencies require safe and quick power restoration.
- ATC accommodates joint use of transmission corridors when practicable.
- Uses that interfere with, obstruct, restrict or endanger the use of ATC's corridors will generally not be permitted.
- Need to preserve right to construct, replace, operate, maintain, reconstruct and access facilities in a safe and timely manner.



atcllc.com

4

Transmission facility co/relocation Planning review

- Submit plans to review for co/relocation.
- Submit complete set of plans:
 - ✓ Grading
 - ✓ Utilities
 - ✓ Landscaping
 - ✓ Lighting
 - ✓ Etc.



A complete review of construction or road improvement plans generally takes several weeks.



atcllc.com

5

Transmission facility co/relocation Planning outages

- Construction requires line outages.
- Outages can be very difficult to schedule and are not routinely authorized.
- Time of year or other planned outages (other T-lines or generators) can affect when and if an outage is granted.



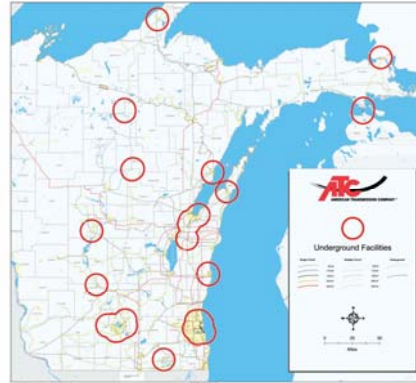
atcllc.com

6

Transmission facility co/relocation Overhead and underground



Service Territory



Underground facilities



atcllc.com

7

Transmission facility co/relocation Overhead

Transmission facility relocation can take a great deal of time, colocation is more timely:

- Review co/relocation request
- Determine feasibility & responsible party
- Planning, engineering and cost estimate
- Siting and easement acquisition
- Material acquisition
- Construction
- Restoration

Relocation of an overhead line generally takes a year or more to accomplish.

Colocation can generally be decided within a couple of months



atcllc.com

8

Transmission facility co/relocation Underground

Underground relocation takes longer than overhead:

- Planning and engineering is more specialized
- Specialized material has longer lead times
- Construction takes longer

Relocation of an underground line generally takes two or more years to complete.

Colocation is generally not permitted.



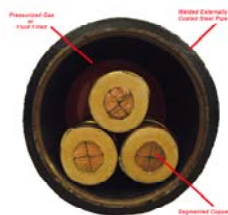
atcllc.com

9

Transmission facility co/relocation Underground

You don't have to expose or contact an underground line to cause damage.

- Grade changes can cause overheating or make the line vulnerable to future damage.



- Underground lines are surrounded by either specialized thermal sand or a slurry backfill to allow for heat dissipation.



atcllc.com

10

Transmission facility co/relocation Project Types

Co/relocation requests are most commonly associated with:

- Residential Subdivisions
- Commercial developments
- Road projects
- Other utilities

As a rule, it is most economical to plan around existing facilities and easements.

Projects involving retention or detention ponds are best planned for an area outside of the transmission corridor because of access issues.



atcllc.com

11

Transmission facility co/relocation Cost



Cost for facility relocation can be substantial.

- Voltage 69kv – 345kv
- Length of relocation
- Structure design
- Overhead vs. underground
- Land acquisition



atcllc.com

12

Transmission facility co/relocation Who is responsible for cost?

- Underlying land rights determine the party responsible for co/relocation cost.



atcllc.com 13

Transmission facility co/relocation Code requirements

- Storage and handling of materials beneath transmission lines must comply with the Wisconsin Administrative Code and the National Electric Code
- Transmission wires must maintain clearances to ground based on the voltage of the line.



atcllc.com 14

Transmission facility co/relocation Code requirements



- Objects, buildings, berms and recreational equipment placed underneath or too close to power lines can pose serious safety concerns and could be a violation of required clearances.



atcllc.com 15

Transmission facility relocation Code requirements

- Changes in grade within the span can cause too little clearance from wire to ground. Temporary or permanent mounding of soil (or snow) is not allowed.



atcllc.com 16

Transmission facility co/relocation Code requirements

- The Wisconsin Administrative Code prohibits new homes from being built under power lines.



atcllc.com

17

Transmission facility co/relocation Standards

- Sheds, septic systems and other structures are not generally allowed within the transmission line corridor.
- Transmission structures rely on the weight of the earth for stability. Grading around the base of a tower can cause a structure to become unstable or fall over.
- Maintain a minimum undisturbed area for a distance of 20 feet from the face of the structure. Certain circumstances may require additional distance.



atcllc.com

18

Transmission facility co/relocation Standards

- Parking lots, roads and driveways are generally allowed within ATC transmission corridors but plans must be reviewed to insure that the grade change will not impact line clearances or access.
- Standard parking lot and street lighting is generally not allowed within the transmission corridor.



atcllc.com 19

Transmission facility co/relocation Standards

- Traffic barriers may be required on all sides of a transmission structure that is exposed to traffic or snow plowing operations.
- Placement of electric, telephone, gas, cable TV, water, sewer and other underground utilities within the transmission corridor must be reviewed by ATC to ensure compatibility.



atcllc.com 20

Transmission facility co/relocation Standards

- Fences that cross the entire width of the transmission corridor must have a double wide gate installed for access, with an ATC lock in the locking chain. It is recommended that metal fences be grounded to prevent induction build-up.



atcllc.com

21

Transmission facility co/relocation Standards

- Owners should not assume that existing ATC corridors are being fully utilized. Some are capable of accommodating additional lines and equipment.
- Buyers should inspect any property before purchase to determine how an electric transmission line corridor may affect the property.



atcllc.com

22

Give us a call...

- Any time your construction plans require you to work near overhead or underground transmission lines or substations, call ATC at 866.899.3204.
- Before you dig, always remember to call 811 to reach your local one-call center.



Know what's below.
Call before you dig.



atcllc.com

23

More information

Call ATC at 866.899.3204

www.atcllc.com

www.atc10yearplan.com

www.atc-projects.com



atcllc.com

24

Questions?



atcllc.com

25

Thank You!



atcllc.com

26