



SESSION 4: GIS – LAND RIGHTS FIELD USE

Dan Leshner (dlesher@greenergy.com)

Great River Energy

Since 2007 - Land Rights Department for Great River Energy in Maple Grove, Minnesota, and has been involved in land acquisition since 2000. Most recently working as the Routing and Land Rights Manager for the CapX2020 Brooking Transmission line project. The Brooking line is a 345kV transmission line running from Brookings County, South Dakota, to Hampton, Minnesota.

Dan has been an active member of the International Right of Way Association (IRWA) since coming to Great River Energy in 2007. At the present time he serves as the Treasurer of Region 3.

Andy Schmidt (aschmidt@greenergy.com)

Project Manager-GIS,
Great River Energy

Background includes a BA degree in Geography with an emphasis in GIS from Saint Cloud State University and a Master's of Science in Geographic Information Sciences from Saint Mary's University of Minnesota. Since completing the bachelor's degree, I have been employed at Great River Energy for the past 18 years managing various GIS projects.

GIS – Land Rights Field Use

Dan Lesher – Land Rights

Andy Schmidt – Project Manager GIS

Using GIS for transmission line projects

- ▶ Planning conceptual routes – *Map is worth 1000 words*
- ▶ Collecting landowner & corridor characteristics
 - ▶ Route issues, pinch points, restrictions, trees etc.
- ▶ Meetings (project team, landowners, public meeting)
- ▶ Data from multiple sources
 - Engineering design, field data, external data

ESRI Software

▸ Software used

- ESRI ArcGIS Online
- ESRI ArcGIS server for pass-through services
- ArcGIS collector on iPads
 - 12.9in iPad pro with pencils and magnetic keyboards

Who is using it today?

- ▶ 160 current members in ArcGIS online at GRE
- ▶ Used throughout the company
 - Primary in the Transmission Division
 - Land Rights, Engineering, Planning, Environmental, Assets, System Operations, Construction & Maintenance
 - Vegetation contractors
 - Future construction contractors

IPAD DEMO

Benefits

- ▶ Gives us an easy tool to work with – Fear of change
- ▶ Eliminates translation mistakes – Efficiency!
- ▶ Ability to see and collect data
- ▶ Provides project status
- ▶ Ability to show landowners design – Different perspective
- ▶ Project handoff

Concerns

- ▶ Printing/creating maps
- ▶ Cell data coverage
- ▶ User friendly multi-line text info
- ▶ Controlling who has access to the data
 - ▶ Editing previous history
- ▶ Cost
- ▶ Ongoing project usage
- ▶ Functionality changes (updates)

Future considerations

- ▶ Input or collaborations from other utilities
- ▶ 3D design elements
- ▶ Offline and caching in poor reception areas
- ▶ Rolling out to other functional groups
- ▶ Adding external GPS antenna – survey accuracy

Questions
