

Transmission Line Routing Considerations

Jon Berkin, Routing Consultant, ERM



Balancing Impacts



Statutory Requirement

Statutory Requirement: Code of Virginia Title 56. Public Service Companies Chapter 1. General Provisions § 56-46.1.

As a condition to approval the Commission shall determine that the line is needed and that the corridor or route the line is to follow will reasonably minimize adverse impact on the scenic assets, historic districts and environment of the area concerned. To assist the Commission in this determination, as part of the application for Commission approval of the line, the ***applicant shall summarize its efforts to reasonably minimize adverse impact on the scenic assets, historic districts, and environment of the area concerned.***

Routing Considerations

- Opportunities
- Constraints
- Engineering/construction
- Identification of potential routes
- Evaluation, comparison and selection of routes

Routing Opportunities

Corridor Collocation Principal

- Group linear facilities
- Potential to share right-of-way
- Minimize clearing
- Forest fragmentation



Routing Opportunities

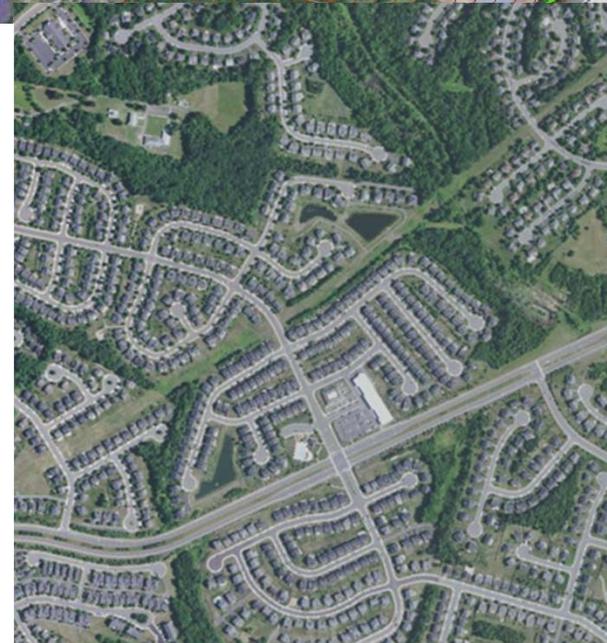
- Existing railroads
- Existing road corridors
- Existing transmission or distribution lines
- Existing pipelines
- Industrial areas



Routing Opportunities

Considerations:

- Does the existing corridor go where you need it to go?
- Is there enough room?
- Has the existing corridor been developed?
- Does it make sense to use?



Routing Constraints

Sensitive Resources:

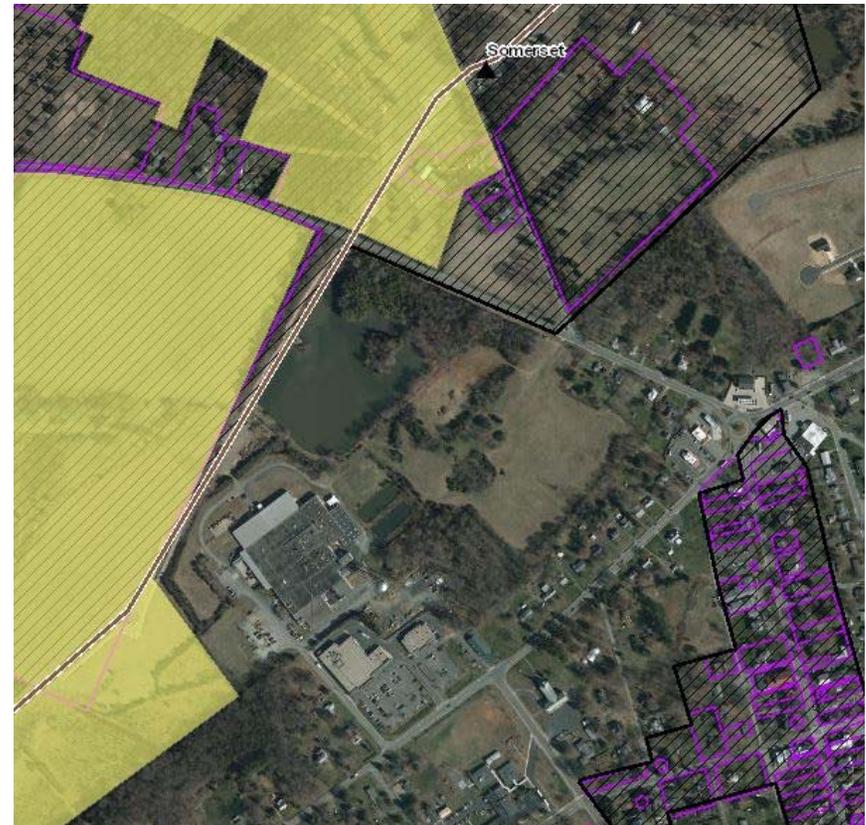
- Protected habitat
- Residences
- Wetlands
- Historic properties
- Visually sensitive or scenic areas
- Specially managed lands



Routing Constraints

Land Use:

- Planned or existing residential developments
- Conservation easements
- Government-owned lands



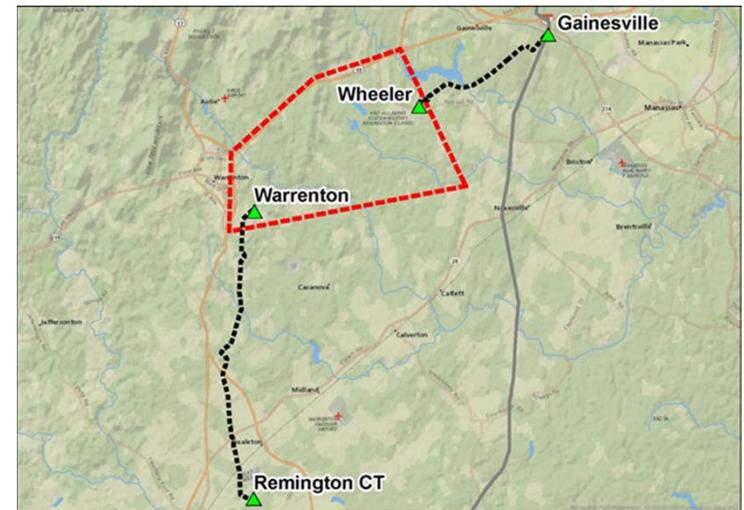
Engineering and Construction Considerations

- Tower height
- Span length
- Right-of-way width and space
- Construction access
- Unstable soils
- Route angles
- Utility off-sets and crossings
- Underground utilities



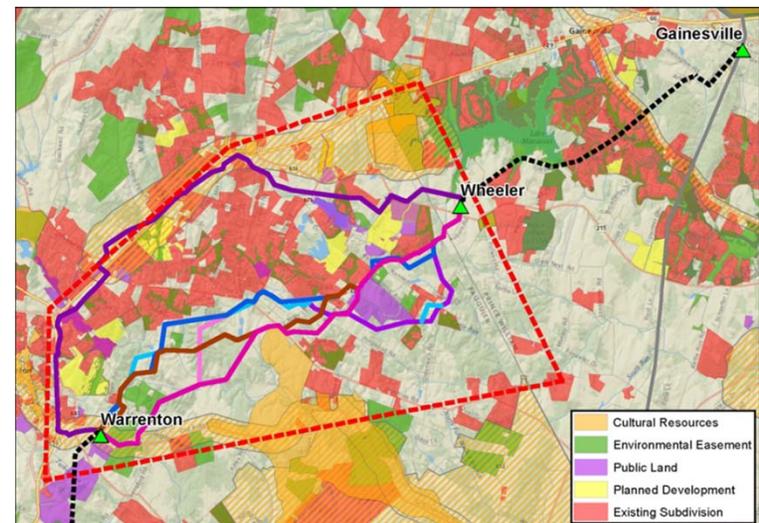
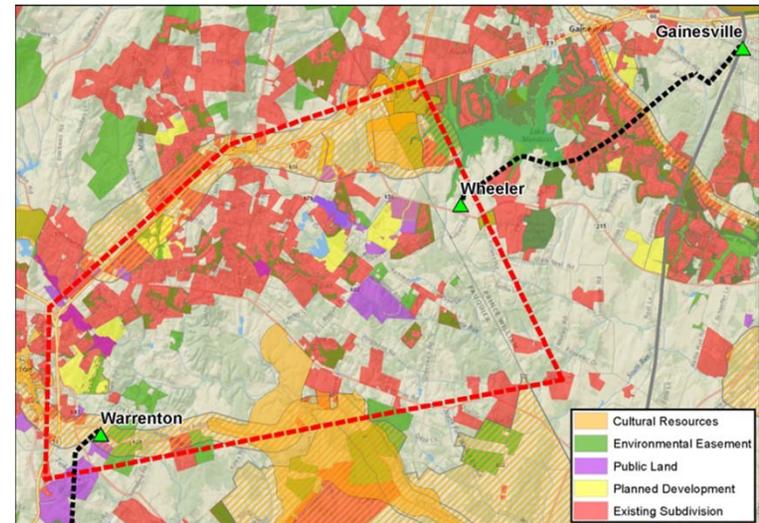
Identify Potential Routes

- Define project study area:
 - Based on starting and ending facility locations
 - Large enough to include reasonable alternatives
- Collect and review data (GIS, field review)



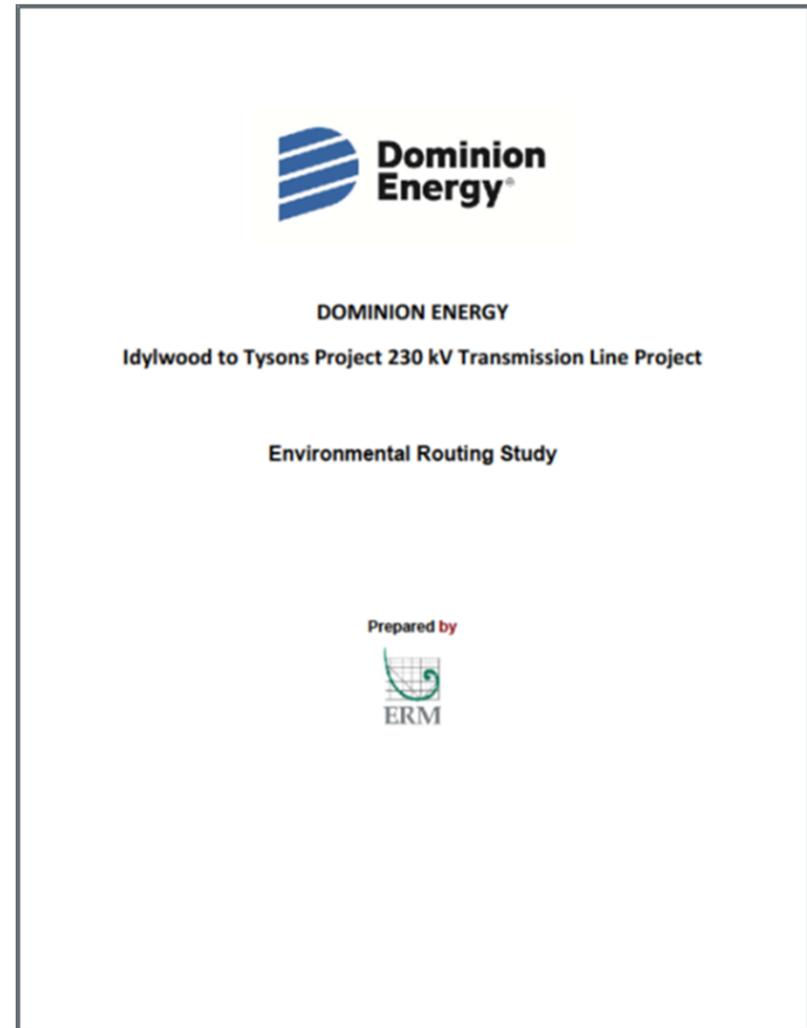
Identify Potential Routes

- ID and map constraints and opportunities
- Adjust study area as needed
- Collect public input
- Identify and map possible routes
- Field review and refine routes



Conduct Comparative Evaluation

- Quantify features affected
- Evaluate and compare routes
- Consider “other” factors (visual/scenic, public interest, stakeholder input)
- Select proposed and alternative routes



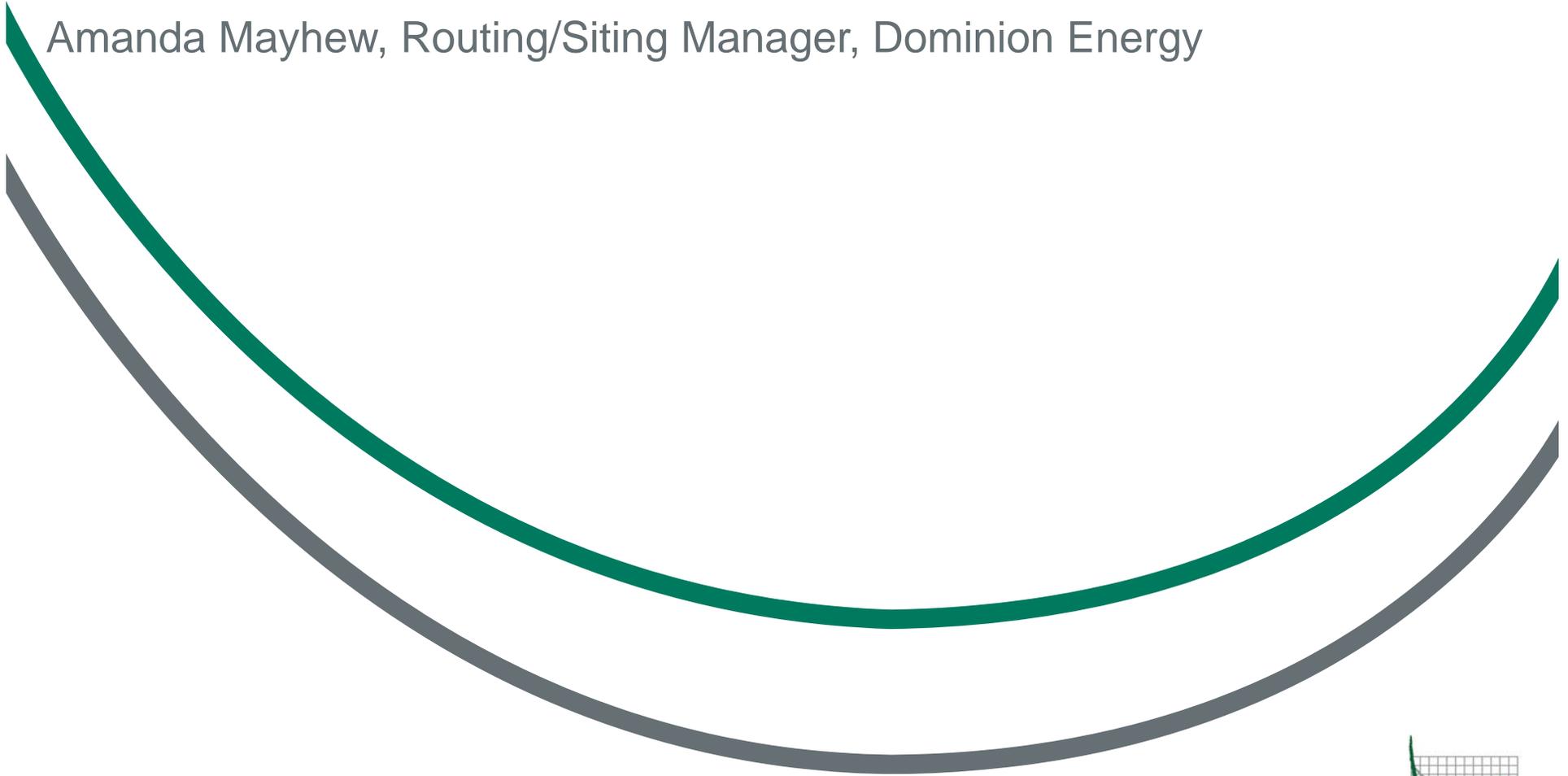
BREAK



Interactive Routing Constraints Exercise

Jon Berkin, Routing Consultant, ERM

Amanda Mayhew, Routing/Siting Manager, Dominion Energy



Recap/Closing/Q&A

- Next meeting:
 - Week of August 14
 - Timing
 - Location

- Parking Lot

- Meeting Evaluation

Contact Information

Patty Rusten

Facilitator

ERM

612-347-7868

Patty.rusten@erm.com

Tiffany Taylor-Minor

Outreach & Communications

Dominion Energy Virginia

888-291-0190

powerline@dominionenergy.com

t.taylor-minor@dominionenergy.com