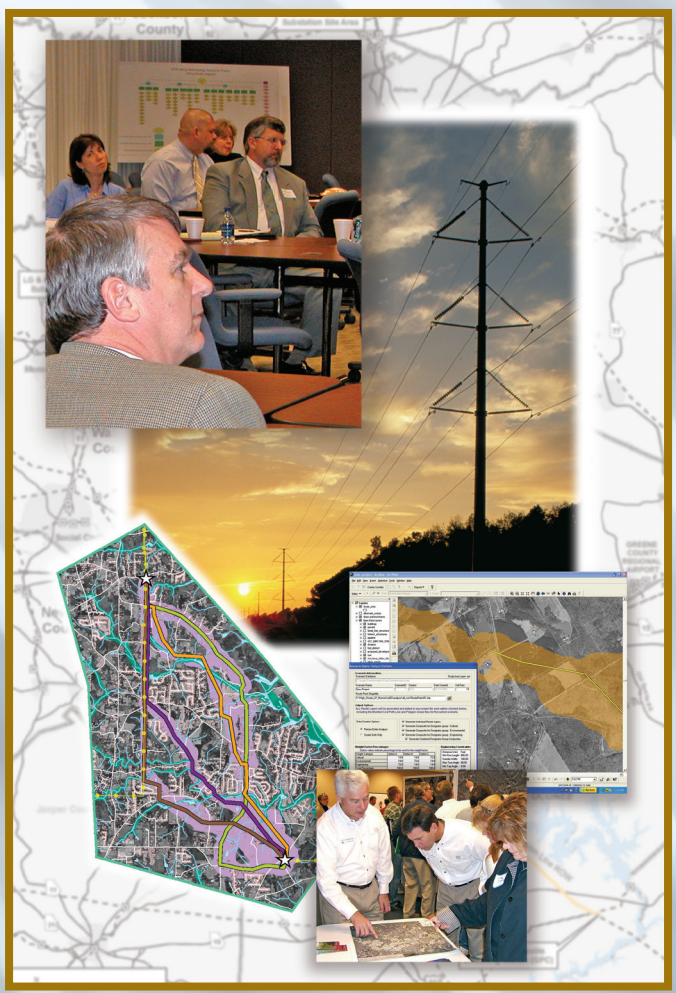
LOCATING NEW POWER LINES

Working with the public to find the best locations

Reducing effects on communities and the environment

Creating an industry-leading siting model



GeorgiaTransmission®

Building and maintaining electric transmission lines and substations for Georgia's electric membership cooperatives

Building New Power Lines

New power lines are most often needed to:

- Strengthen the grid to maintain overall reliability, minimize outages, and lessen the risk for system-wide brownouts and blackouts,
- Replace aging infrastructure to sustain increased usage during times of peak demand for electricity,
- Prepare for future growth – we plan for high-voltage lines on a 10-year horizon using models that forecast population growth, economic factors and industry indicators, and
- Attract industry and jobs to Georgia communities by ensuring a robust electric grid is available to meet their needs.

We understand that communities are affected when a new high-voltage power line is constructed. We take our responsibility to find the best route with the least effect on people and the environment very seriously.

Steps for building a new transmission line	
1	Electrical needs identified and electric alternatives evaluated
2	Geographic area studied for existing land uses, existing environmental conditions, existing corridors, engineering factors and costs
3	Potential corridors studied to determine a preferred route
4	Elected officials, landowners and the general public informed of proposed route; public meetings held
5	Landowners contacted to arrange on-site surveys; environmental studies performed
6	Preferred route reevaluated based on surveying results and community input
7	Line route and design finalized
8	Easements and other property rights acquired; Permits obtained
9	Facilities constructed

Different steps can apply for substations, lines of a mile or shorter, and other facilities not covered by Title 22, Article 8 of the official code of Georgia.

Setting the standard

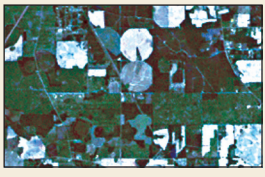
A new model for siting high-voltage power lines

Georgia Transmission worked with the Electric Power Research Institute (EPRI), the electric industry's non-profit research center, to develop an objective approach for siting new transmission lines. The EPRI-GTC model was developed by a team of national experts, with the participation of more than 200 representatives from utilities, environmental groups, agencies and community groups. GTC reengaged stakeholders in 2011 and 2013 to update and enhance the criteria for the Methodology. GTC is committed to keeping an open dialog with stakeholders as additional data and technology becomes available.

How the siting model is used to select a new power line site:

1. Gain consensus

Members of utilities, agencies, environmental groups and other civic groups jointly set values for factors, such as wetlands, public lands, land cover and housing density that were incorporated into the model.

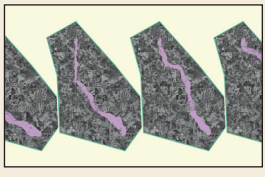


2. Identify macro corridors

Macro corridors are used to focus data collection. A grid of 100-square foot cells is used to screen satellite imagery and other geographic data of roads, terrain, existing power lines and land cover to identify possible corridors. Algorithms score each cell to define paths of greatest suitability.

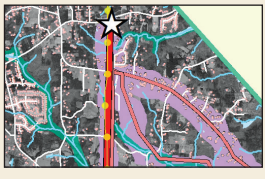
3. Data collection

Using higher resolution data, such as aerial photography and a grid of 15-square foot cells, each potential power line corridor is further studied to identify potential routes.



4. Suitability analysis and alternate corridors

Using the scoring established in step 1, suitability maps are produced for existing land uses, existing environmental conditions, co-location with existing corridor opportunities, and engineering concerns. The same algorithms used for macro corridors are applied to these more detailed datasets to produce alternative corridors. GTC siting teams delineate constructible alignments within these corridors.



5. Select a preferred route

Geographic Information Systems are used to quickly score alternative routes for a range of factors, such as housing density, forested acres and cost. The GTC siting teams use the data to select a preferred route.

6. Gather on-site data

More information about the preferred route is gathered from land surveying, environmental studies, public meetings and discussions with landowners.

7. Finalize plans

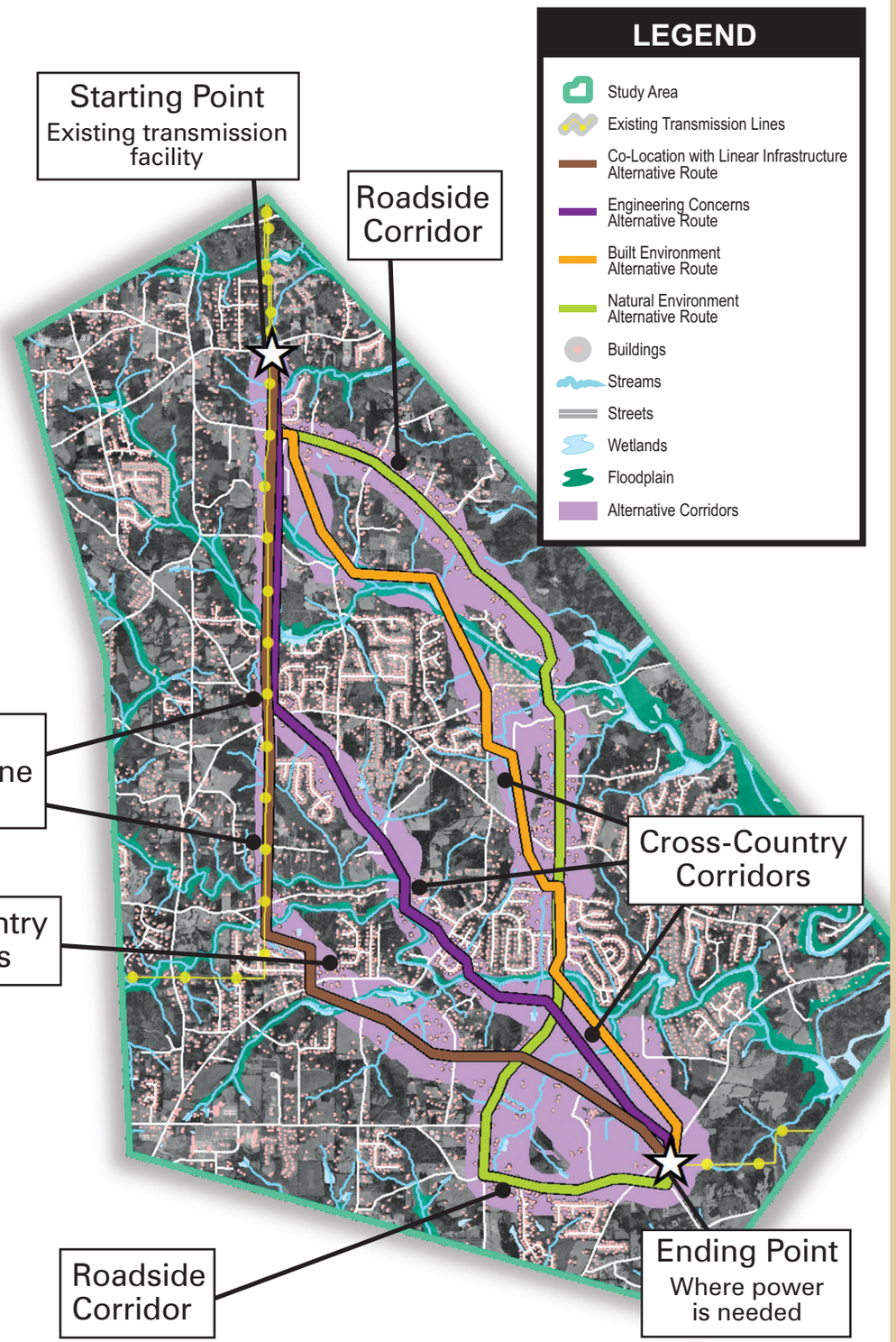
Siting teams consider survey and study findings, community concerns and other data before finalizing the route. This step can include adjustments to the proposed route.

The EPRI-GTC Siting Model

Winner of the The National Rural Electric Cooperative Association's Innovators Award

Adopted by other utilities, praised by industry press

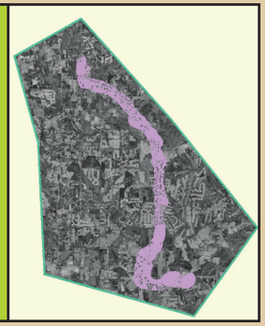
Implemented on $100 million in construction



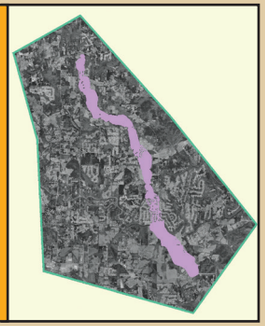
The siting model, created by GTC, EPRI and Photo Science, is the first to use separate suitability maps for natural, man-made, existing corridors and engineering conditions. It can also be used with external parties to jointly rank wetlands, building density, land uses and other factors.

Factors considered

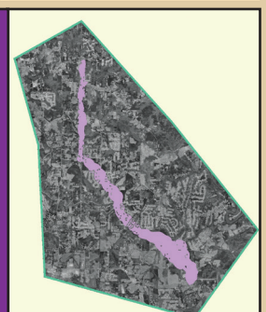
Natural
- Public lands
- Streams, wetlands
- Floodplains
- Land cover
- Wildlife habitat



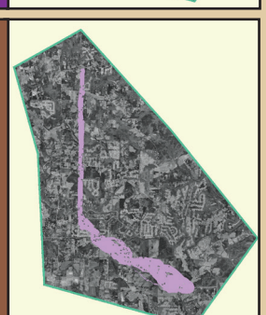
Built environment
- Land uses
- Building density
- Proximity to buildings
- Spannable lakes, ponds
- Historic resources



Engineering concerns
- Access
- Slope
- Geology
- Reliability issues
- Engineering conflicts



Co-location
- Electric transmission
- Transportation
- Pipelines
- Electric distribution



Georgia's EMCs

Georgia Transmission builds and maintains high-voltage systems for its owners: 38 of the state's 41 electric membership cooperatives. These customer-owned utilities provide power to more than 4 million people across a service territory of 73 percent of the state.

Public meetings

State law requires public meetings for most new transmission line construction. Since 2004, Georgia Transmission has conducted more than 100 public meetings and completed more than 70 lines and substations. Because we work closely with communities, even adjusting projects based on feedback, most projects have been completed without controversy.

Please visit us today at www.gatrans.com/PlanningConstruction/EPRI-GTCSitingModel.

Protecting Your Right to Light

GeorgiaTransmission

2100 East Exchange Place
Tucker, GA 30084
Phone 770.270.7050

www.gatrans.com