

E & E's Innovative GIS Routing Tools: Smart, Tailored Solutions to Expedite Project Siting and Build Stakeholder Consensus

Transmission developers face a complex challenge: bringing renewable energy sources to the grid while meeting reliability needs and improving an aging infrastructure. The complexities of moving transmission line projects from concept to reality are great, time-frames are tight, and the stakes are high.

Engaging stakeholders in this process is key to project success. In today's environment, building trust is a prerequisite to building transmission lines.

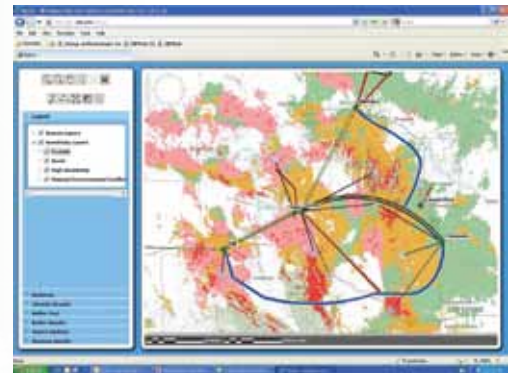
E & E has developed several tools to address the unique regulatory and stakeholder challenges transmission line siting/routing presents. We provide accurate data and critical analysis while fostering a collaborative approach. Time delays are costly to both project schedules and the bottom line. We help you make good decisions during early project phases, so you get the results you need later in the process. Using E & E's GIS routing tools help to quickly focus on viable corridors and choose buildable routes to improve the siting process and reduce project costs.



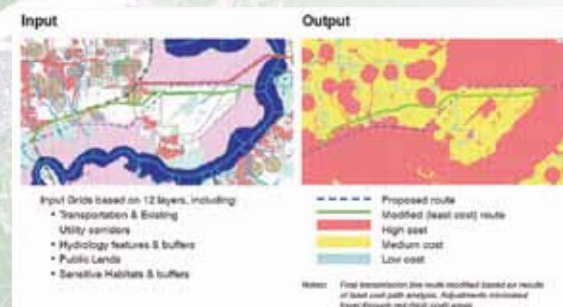
► E & E's GIS team members use our Web-based mapping applications to enhance stakeholder communication by helping landowners visualize where transmission projects will be located on their property.

E & E's GIS Applications Bring the Project to Stakeholders and Decision Makers

E & E's GIS team has developed innovative new Web-based applications that foster collaborative review of data layers on environmental constraints and engineering considerations. Thematic maps can quickly be created and viewed in a Web browser by linking data layers for endangered species, wetlands, water bodies, existing utility rights-of-way, geologic features, population centers and other constraints of interest to bring the project to the decision makers. This tool is perfect for working directly with landowners and other stakeholders, whose first question is always "how will this project affect my property?"



► For a confidential client, E & E developed a Web-based GIS mapping application that enabled users to assess critical constraint data in tandem with proposed infrastructure to determine project suitability.



► Using advanced geospatial analysis tools, E & E works with multiple GIS data layers to develop constraint models for linear siting projects.

E & E also utilizes innovative methods for viewing existing aerial imagery on third-party hosted Web sites to supplement tools like Google Earth™. These tools are instrumental in creating tailored maps and pinpointing specific locations of interest to project stakeholders. A study area can be viewed with a variety of base mapping (e.g., topographic maps, aerial photography, or client supplied mapping). A legend is developed for constraints that can be easily switched on and off to evaluate potential transmission corridors and routes.

Constraint layer analysis can also be conducted using buffer tools by selecting a point of interest and then selecting a search radius. Any constraints detected by the GIS application are then displayed in a results window, allowing for rapid evaluation of alternative routes or corridors.

Quality Information Drives Smart Decisions

Experienced and dedicated IT/GIS professionals are an integral part of E & E's multidisciplinary team of scientists, project managers, and public outreach specialists who work collaboratively to provide clients, regulators and stakeholders with the information required to make smart, informed decisions and expedite the approval process.

Our GIS analysts and visual resource specialists create and work with data sets needed to map critical environmental resources, geological features, and infrastructure (e.g., water resources, roads, railroads, geology, storage facility locations and, county and municipal boundaries). This information is used to determine the type, nature, and location of environmental and land use constraints and existing infrastructure that are relevant to the site selection process. The information can also be used to help key stakeholders understand and visualize potential project impacts.

Why E & E?

Utilizing innovative GIS technology, we help transmission clients visualize project routes and associated impacts and proactively provide stakeholders with relevant, tailored information to move projects from concept to reality. We draw on our 40 years of energy industry experience to anticipate potential project delays and resolve issues to keep transmission projects on track.



► GIS experts collect data in the field, integrate that field data in Web-based applications to create tailored maps, and share their analysis with stakeholders to foster a comprehensive understanding of potential project impacts and facilitate project routing.

