Tioga County

Testimony On
Data Centers: Part 1
Mapping the Landscape Across the State, Local, Industry & Environmental Perspectives

Presented To Center for Rural Pennsylvania

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Chairman Yaw, members of the Center for Rural Pennsylvania, thank you for the opportunity to provide testimony on data center site-selection decision-making and analysis in rural Pennsylvania. As GIS Director for Tioga County, Pennsylvania, my role in the County's ongoing site-selection effort for this type of development has been both organizational and technical.

The GIS Department has hosted and organized recurring weekly project meetings in a hybrid in-person and Zoom format in support of the Tioga County Board of Commissioners and related stakeholders. My responsibility has been to structure those meetings, prepare mapping and analysis for discussion, and provide a GIS-based framework for identifying locations that are operationally feasible for potential development, while also being pursued in a conservation-minded and community-compatible way.

From a technical standpoint, I have been using a multi-criteria decision analysis (MCDA) process through desktop and web-based GIS applications to evaluate potential sites using county GIS data and specialty infrastructure layers. This work includes parcel data, infrastructure data, 3D slope and terrain models, soils analysis, zoning, flood-related constraints, land use, transportation access, and proximity to existing utilities.

We have also relied heavily on specialty datasets, including generalized U.S. Energy Atlas data, authoritative sources for major electric and gas transmission lines, and internal behind-the-meter gas gathering line data assembled from permit records and supported by Pennsylvania DEP production data. These specialty layers help us determine not just where developable land exists, but where energy and utility conditions are realistic for this type of development while imposing the least amount of impact on the environment and surrounding populations.

The multi-criteria analysis is structured, repeatable, and understandable. We begin with a basic filter using criteria such as parcel size, utility proximity, separation from populated or residential areas, and the absence of major prohibitive constraints. Sites that pass that initial screen are then compared through a weighted scoring system that considers utility infrastructure readiness, fiber and backhaul/long-haul potential, terrain and earthwork suitability, parcel size and shape, zoning and permitting favorability, land disturbance history, and transportation access. This gives local decision-makers an objective way to compare sites and understand why one location may be more suitable than another.

Just as important, this process has never been based on scoring alone. A major part of my role has been to use GIS analysis not only to maximize development suitability, but also to minimize impacts on county residents. That has meant deliberately steering discussion toward barren, disturbed, or low-conflict properties that could reasonably be described as "wasteland" sites, such as former coal or strip-mined lands, large tracts associated with waste management or long-term waste disposal, and isolated rural parcels with little likelihood of more compatible and productive future use. The goal has not been simply to find developable land, but to identify land where this type of infrastructure would have the least impact on homes, neighborhoods, agriculture, and established community patterns.