

A Rebuttal

Electric Transmission Lines

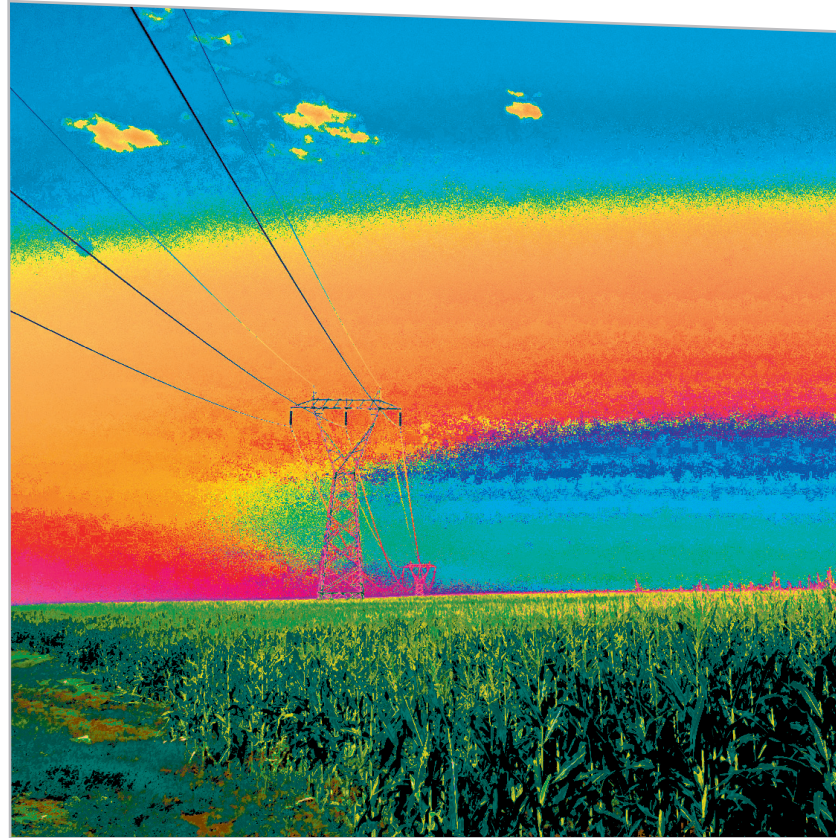
BY JOHN SCHMICK

I believe a great disservice has been done to property owners as a result of the article, "Electric Transmission Lines: Is There an Impact on Rural Land Values?" by Thomas Jackson, Ph.D., AICP, MAI, CRE, FRICS. In this article, published in the November/December 2010 issue of *Right of Way* magazine, Dr. Jackson implies that high voltage power lines have minimal to no impact (damage) on rural land values. However, his analysis raises more questions than it answers, and the data he provides does not support his conclusions. The information as presented raises the issue of credibility. Ultimately, it is the property owners who suffer from this type of questionable research.

The author uses the data from a single study to develop two models. The variable, location at the county level, is essentially the same in both models and the outcomes are predictable. The study is based on 88 land sales with power lines (online) and 297 sales without power lines (offline). In any large study of this type, it is important to guard against built-in bias through control of the data selection process. In this case, data selection of the 297 sales was turned over to local Wisconsin appraisers, but there is no information as to what steps, if any, were taken to prevent bias. Dr. Jackson does not describe the population of available sales data or the parameters the appraisers used to determine which sales would be included in the study.

The author describes his study in terms of rural land values and identifies woodland, open land and wetlands. However, the term rural can be defined as any land outside of an incorporated city. As such, what zoning characteristics are reflected in the study? Were there any rural industrial sites, rural commercial sites, rural agribusiness sites or rural residential sites? Simply referring to the data as either open land or woodland is not sufficient to relate the study findings to all types of rural land.

The general categories listed in this article (use, type, size, features and location) do not adequately address the fact that rural land prices are influenced by a number of additional factors. Rural open space used for crop land (tillable acres) in the Midwest may be affected by efficiency (shape), access (type of roads), distance from the nearest city/town (zoning), soil productivity and presence of or need for drain tile. There is no indication any of these factors were considered in the analysis. Rural woodland may not be influenced by these same factors, or to the same degree, but may be impacted by other factors such as water frontage or topographical issues.

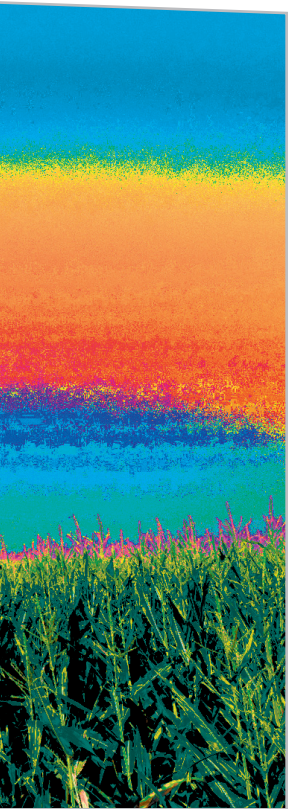


Rural industrial, agribusiness or commercial lands have other influences as well. Since woodland sales comprise a higher percentage of land use data, this study seems more relevant to rural woodlands than to open usable land.

Furthermore, where there is one utility easement, you may well find additional easements for pipelines or fiber optic lines, which have not been addressed. Data selection and data classification become even more important in a study that purports to represent all rural land in Wisconsin. If any single factor influencing value in the marketplace is omitted from the study model, then that model may well be flawed and its conclusion meaningless.

The author indicates that wooded acres have the strongest positive effect on sale price. This comment also warrants further examination. Wisconsin open productive crop land is generally thought to have greater value in the market than non-productive woodland. Good quality Wisconsin farm land with a crop equivalency rating above 80 often commands prices well above those listed or implied in this article. Yet, we do not know if 'rural open land' as used in this article is equivalent to tillable agricultural crop land or if it included non-agricultural land types. Additionally, prices have changed over time. Does the impact of power lines change over time, or has time been neutralized in this study?

and their Impact on Rural Land Values



With woodland representing a higher percentage of land use, what impact is there when up to 150 feet of woodland is clear cut along a path to support the power line? By stating woodland use has the strongest positive impact on sale price, the author is suggesting that non-productive woodland areas are impacted to a greater degree than productive open or tillable land. However, the issue of impacts on the two separate land types is not addressed. Everything is lumped together under the term rural land.

More questions arise when considering the mean price chart provided by Dr. Jackson. The unadjusted sale price for online sales is \$119,301 and for offline sales it is \$101,591. Online sales are higher, and the spread between online and offline sales is 14.8%. However, after adjustments, the relationship flips, with online sales adjusted downward by 13.1% and offline sales adjusted upward by 4.6%. If sales were, in fact, “selected on the basis of similarity in land use, property type, size and land features,” the adjustment process should not have resulted in a significant

change in the relationship. Initially, the data show online sales reflecting higher prices. However, in the final analysis, we are left with a -2.44% difference between the two, and offline prices are now higher than online prices. Clearly, the outcome leaves one wondering whether the data has been manipulated.

For rural land transactions, most buyers and sellers look at price per acre. Thus, the use of total sale price as a basis for comparison has little meaning. We expect that the total sale price for a parcel of land that is five acres in size will differ from the sale price for a parcel of land ten acres in size, but is the price per unit of comparison, for example price per acre, different? That being said, what can we infer from the information in the article? The study included a total of 385 sales (88 online and 297 offline), with an average size of 50 acres and an indicated total of 19,250 acres. Since online sales averaged 62.84 acres, offline sales must therefore average 46.20 acres. For rural land, these are very small sizes.

We also know that the data averages 55% woodland and 45% open land. However, wetland acreage overlaps woodland and open land, with an average of 3.8 acres of wetland, or approximately 7.6% of the site. Thus, we have a definitional problem; the author identifies three types

of land (woodland, open land and wetland), but allocates 100% (45% + 55%) of the usage to only two types. If the study included other types of land categories the analysis is further compounded. Additionally, the exhibits at the end of the article suggest building improvements are located on some of the data sites, but there are no comments regarding improvements in the analysis or how they were treated. Is a building site considered open space? Building sites typically reduce tillable acreage and impact value.

Based on unadjusted sale prices and indicated average sizes, the price per acre for the online sales equates to \$1,898.48 (\$119,301/62.84 acres), while that of offline sales is \$2,198.94 (\$101,591/46.20 acres). Even before adjustments, the data reflects an impact of -15.8% for online sales on a per acre basis for the entire property, not just the easement area. In fact, when the original adjustments are applied to the properties on a per acre basis, (\$1,898.48 per acre less 13.1% for online sales and \$2,198.94 per acre plus 4.6% for offline sales), there is an overall impact of -28.3%.

Given the issues described, it appears that the article is biased toward the electric utility industry. It appears opportunistic at a time when major power lines are either being planned or are under construction in Wisconsin and other parts of the Midwest. I think full disclosure is in order regarding funding, as well as all participants' relationships to the electric utility industry.

The unfortunate part of this article is that other appraisers and right of way professionals may try to use this in their own work without understanding the questions raised here. If I were on the witness stand in an eminent domain case and had relied on this article, I can only imagine how a sharp lawyer might discredit my appraisal opinion on cross examination. Ultimately, I believe Dr. Jackson's article demonstrates a much higher level of impact on value from electrical transmission lines than he concluded.



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John is Vice President, Director of Special Projects for the Shenehon Company. He specializes in complex valuation projects that require both a theoretical and practical approach. John has testified at the Minnesota State Legislature for changes in eminent domain laws to create fairness in the condemnation process.