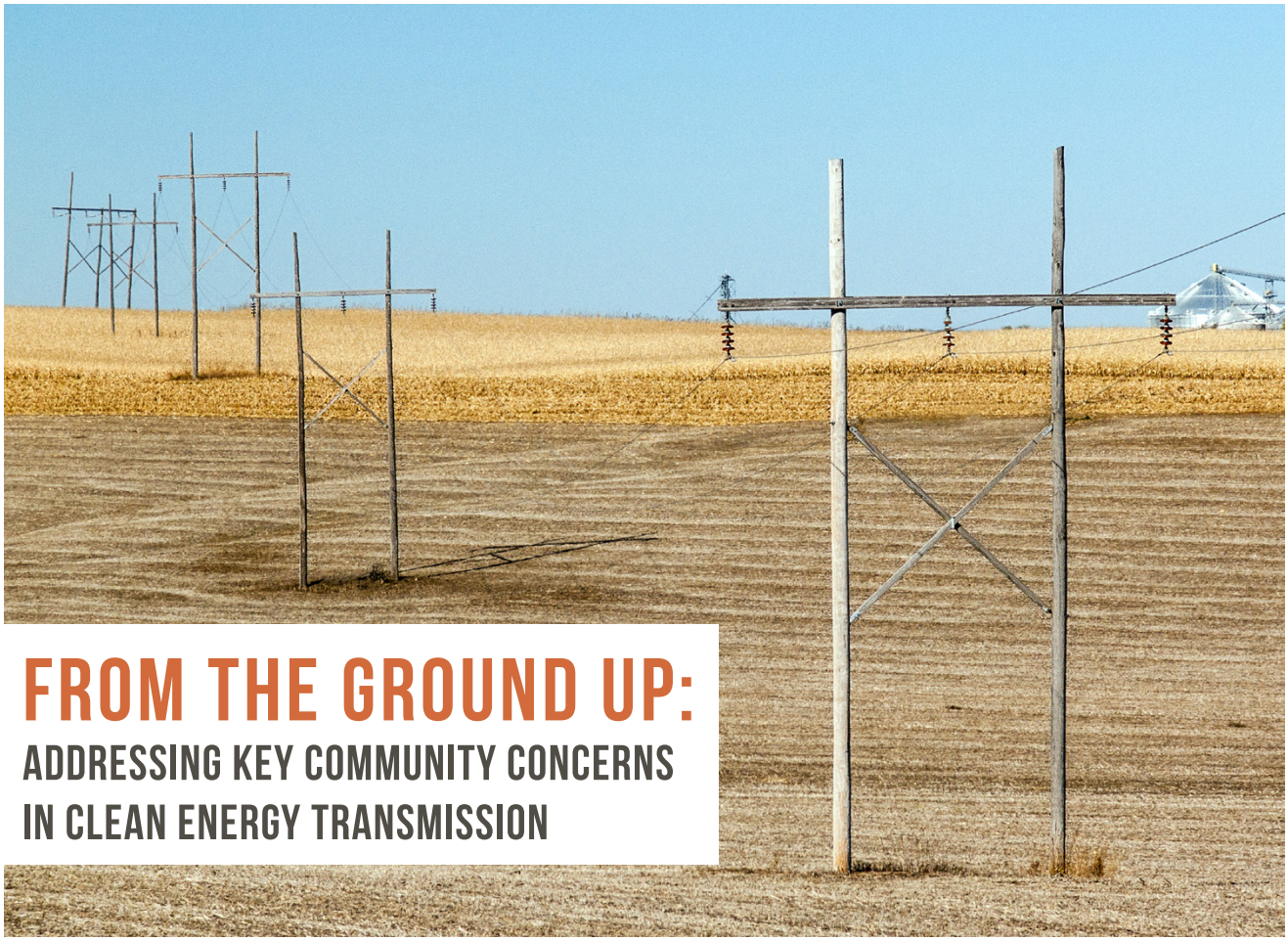

FROM THE GROUND UP:

ADDRESSING KEY COMMUNITY CONCERNS IN CLEAN ENERGY TRANSMISSION

a report by **LU NELSEN**
and the CENTER *for* RURAL AFFAIRS

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ABSTRACT

Several advocates and organizations have examined the need for improved electric transmission in the United States. However, few advocates have formally acknowledged the clash that arises between communities and developers throughout the siting, routing, and construction process. In this paper, local media sources were gathered from several states, focusing on transmission projects and the reactions of community members to those projects. Analysis of these sources identified six common issues that surround transmission development in each case: agriculture, conservation, health, eminent domain, need, and fairness. After identifying these issues and their causes, this paper proposes a set of solutions using existing developer practices and current state policy as a basis. Chief among these suggestions is increased communication between communities, landowners, and developers; and employing feedback to change regulatory policy governing the siting, routing, and construction of transmission projects.

INTRODUCTION

THE NATION'S MOST ABUNDANT WIND RESOURCES RESIDE IN THE REMOTE REGIONS OF THE UPPER MIDWEST AND GREAT PLAINS. RESIDENTS OF THESE AREAS ROUTINELY ENJOY THE BENEFITS OF WIND PRODUCTION IN THE FORM OF LEASE PAYMENTS, JOBS, ECONOMIC DEVELOPMENT, AND TAX REVENUE. BUT THESE SAME LIGHTLY POPULATED COMMUNITIES DEMAND ONLY A SMALL AMOUNT OF ELECTRICITY, MAKING IT IMPERATIVE THAT A NEW GENERATION OF TRANSMISSION INFRASTRUCTURE BE PUT IN PLACE TO MOVE THIS ENERGY FROM WHERE IT'S PRODUCED TO WHERE IT'S NEEDED MOST.

Historically transmission lines were built primarily to serve population. Because the Upper Midwest and Great Plains feature low population densities, large amounts of transmission infrastructure was not needed. But today that's changed. In 2012 the United States installed more than 13 gigawatts (GW) of new wind projects, qualifying this technology as the largest source of new electricity generation capacity nationwide (Woody, 2013). At the same time, investments in transmission infrastructure continue to lag, remaining the single biggest impediment to further industry growth.

Despite its importance to a thriving wind industry, and in turn thriving rural communities, local citizens often oppose newly announced transmission projects. Every community and landowner holds a different set of concerns, primarily focused on the practices of transmission developers, but threads can be identified. Identification of these commonalities can help utilities, community members, and advocates all more efficiently navigate the difficult process of siting and approving proposed lines, resulting in projects that meet the needs of all involved.

REVIEW

TRANSMISSION PROJECT STAKEHOLDERS—INCLUDING LANDOWNERS AND LOCAL COMMUNITIES—DO NOT TEND TO FALL INTO CONVENIENT CATEGORIES OF SUPPORT OR OPPOSITION TO PROPOSED LINES. MORE OFTEN THAN NOT, THEY INITIALLY REMAIN NEUTRAL OR SKEPTICAL, BUT DO NOT DIRECTLY SUPPORT OR OPPOSE A PROJECT. INSTEAD, THEY OFFER UP DIFFERING CONCERNS ABOUT THE PROJECT AND AWAIT ANSWERS BEFORE TAKING A POSITION. IDENTIFYING AND CATEGORIZING THESE CONCERNS CAN HELP STAKEHOLDERS BETTER UNDERSTAND WHICH ISSUES DESERVE INCREASED FOCUS AND WHICH ELEMENTS WILL BE MOST CONTROVERSIAL. IN THIS SECTION, IDENTIFIED THEMES WILL BE HIGHLIGHTED AND EXPLAINED, PROVIDING SOME INSIGHT INTO THE VARIOUS CONCERNS THAT CAN FIT WITHIN EACH RUBRIC.

AGRICULTURE EFFECTS

This theme is fairly standardized; focusing on the effects transmission development can have on agricultural operations. Often this centers on land that may be taken out of production, or the likelihood of a proposed project hindering routine procedures such as irrigation or spraying crops. This category also includes issues that revolve around falling property values for farmland and the effect of electric transmission lines on livestock. In the gathered articles, 54% of all noted concerns or issues from stakeholders related to agriculture.

CONSERVATION

Conservation varies greatly as an issue. Often it focuses on protecting natural resources, or the aesthetic beauty of areas near proposed projects. This category also includes concerns regarding culturally sensitive areas, or area attractions that can draw tourists to communities. Some stakeholders also maintain natural ecosystems on their land and show concern that they would lose those areas. Stakeholders noted conservation issues in 23% of observed media.

HEALTH

This category shows little variance, primarily differing on what may be affected by transmission lines instead of differing on the effects themselves. Stakeholders wonder about the safety of transmission lines being located on their property or near to their homes, as well as what those lines could mean to

other living things in the area. Health concerns in some form were noted in 16% of the gathered articles.

EMINENT DOMAIN

Once again, variance in concerns is very limited here. Many are simply alarmed about the possibility of private utilities exercising eminent domain powers. *Black's Law Dictionary* defines eminent domain as the inherent power of a governmental entity to take privately owned property, especially land, and convert it to public use, subject to reasonable compensation for the taking (Garner, 2006). As transmission serves a public need, utilities and developers serve as agents of the government and can receive this power. Reviewing local media, stakeholders had a 17% mention rate for eminent domain issues.

OPENNESS AND FAIR DEALING

Concerns that mention issues of openness and fair dealing underscore many of the remaining issues expressed by stakeholders. These often target the process and interactions used in siting or constructing transmission projects. Some examples include fair compensation, making easement agreements more open, and the way developers interact with the public at open house meetings. Issues of fairness or openness occurred in 40% of observed media.

NEED

Among opponents, a common theme is the belief that a developer has not shown that the transmission project is needed in the first place. These concerns tend to focus on whether the new project will truly address reliability issues in the grid. Alternatively, some argue that new projects could harm the grid or unduly burden communities that will benefit less from the project than others. Articles had a 26% mention rate about questions or concerns relating to need for projects.

MISCELLANEOUS

As not all concerns seem to fit with a common theme and do not appear with great enough numbers to warrant a specialized category, they are collected under miscellaneous. A few of the issues that are gathered here include compensation for roads that may be damaged during construction, stakeholders wishing to amend proposed lines, or stakeholders that wish to completely redraw the project route. The various miscellaneous issues occurred 32% of the time when combined into the larger category.

METHODOLOGY

Content analysis focused on regional, state, and local news sources. Articles and releases that covered individual transmission projects and public reaction to those projects were chosen. The sample was narrowed to 100 discrete media pieces, examining a total of 14 different transmission projects. Each piece was then analyzed and organized based on the clear concerns identified within. Those concerns were used to inform the common themes used in the review section, and to provide data that gives insight into the general views of stakeholders.

Monticello-St. Cloud	Illinois Rivers
Fargo-St. Cloud	CapX2020
Bemidji-Grand Rapids	Hampton-La Crosse
Reynolds-Topeka	Plains and Eastern
Grain Belt Express	Brookings-Hampton
Rock Island Clean Line	Center-Grand Forks
Badger-Coulee	Gateway Power

ANALYSIS

ESTABLISHING COMMON THEMES AND ANALYZING THE DIVERGENT RHETORIC USED IN THE EXPRESSION OF EACH OF THOSE THEMES ALLOWS US TO DEVELOP A GREATER UNDERSTANDING OF STAKEHOLDER ISSUES. IDENTIFYING NOT ONLY REGIONAL VARIATIONS BUT ALSO THE CONSEQUENCES OF A DEVELOPER'S APPROACH TO THE SITING, ROUTING, AND CONSTRUCTION OF EACH LINE CREATES A FOUNDATION ON WHICH EACH STAKEHOLDER CAN BETTER ACKNOWLEDGE THE PERSPECTIVE OF THE OTHER. SPECIFIC ARTICLES ARE CITED THROUGHOUT IN ORDER TO PROVIDE A REPRESENTATIVE SAMPLE OF THE UNIQUE, AND AT TIMES DIVERSE, ISSUES FALLING WITHIN EACH INDIVIDUAL CATEGORY.

AGRICULTURE EFFECTS

One of the most prevalent concerns is the potential threat that transmission projects pose to agricultural operations. The possibility of hampering one's ability to irrigate or spray crops, the loss of special certifications for land and livestock, the threat of plummeting land values due to transmission projects, and taking land out of production due to complications all populate this thread. Perceived threats to the livelihood of farmers and ranchers tend to be the loudest of concerns surrounding transmission projects.

Much of this relates to conflicting or difficult to locate information relating to transmission line impact on agricultural operations. In some instances, as can be seen in "Landowners group wants Clean Line transmission line stopped", these impacts can be overstated or simply assumed by landowners. One landowner in the article expresses concern due to the amount of pregnant animals he has on his land each year, but he only worries that the line could have some kind of effect on them (Kessinger, June 2013).

Utilities and developers often try to address these concerns, but the effort is often lackluster—it can be easily passed over as an unwarranted claim, or the information that is presented is not effective at addressing the concern. Clean Line has tried, in other instances, pointing to research from the University of Wisconsin that establishes no negative effect on livestock from transmission lines (Hart, 2013).

Other contentious issues revolve around land use, specifically when it comes to leasing easements to developers. Lease agreements can be written in such a way that landowners lose the guarantee of using property in the future, as utilities or developers often retain a right to use land after construction to perform maintenance.

Developers attempt to mitigate or address these concerns in various ways, but the potential harms that unfavorable siting could have on each landowner causes the issue to persist, with many landowners showing concern that they will have transmission structures running through their fields. Running parallel to these agricultural concerns are those pertaining to preservation and conservation.

CONSERVATION

The issue of conservation primarily relates to the environmental impact that a transmission line will have on particularly sensitive areas. In some cases, however, cultural concerns have also been noted by communities, and cited as reasons for a transmission project to change routes. The cultural relevance or natural beauty of an area is often enough for many to oppose a transmission project that will go near these

sites, as it threatens a delicate ecosystem--ecological or social. With a 23% mention rate, it ranks third overall among stakeholder issues, and often overlaps with the top issue of agricultural concerns.

The impact of a line on tourism to an area of cultural or environmental significance can drive this worry further, as it threatens to impact places that stand to suffer economic deficiencies if tourism decreases. As stated earlier, transmission lines often run through rural areas, and tourism often adds welcome revenue to the local economies of such communities. Natural beauty and cultural significance are important to these areas not only because of potential tourist dollars, but because stakeholders in these areas often choose to reside in rural areas to incorporate some of these aspects into their everyday lives.

Some prime examples are "Indians Lose Bid to Stop Minnesota Power Line" (Anderson, 2011) and "Badger Coulee route ruffles feathers in Cashton" (Jasperson-Robson, 2012) which note the cultural significance that may be impacted by a transmission project. In the former, a local Native American tribe expresses concern that a project could threaten hunting and fishing grounds, while the latter worries not only about how a transmission project will affect a local Amish community, but also how that project being so close to that community could hurt tourism. Other examples can be found in "Property owners frustrated by power grid update" (Wilson, 2011), where a landowner cites the fact that a transmission line would take out some mature oaks on his property, and "Transmission Proposal Raises Concerns" (Kessinger, Feb. 2013) that has a landowner voicing concern for a conservation area that she maintains on her property, which she requires for the grazing of her certified organic cattle.

Combining these economic, conservation, and aesthetic concerns makes this issue more complex. Addressing these concerns can be difficult for stakeholders, as these areas do not always possess protected status, and the importance of these places may only be common knowledge at the local level. Even then, the status of some places may be subjective, making it difficult for developers to anticipate the existence of conservation areas before the public involvement stage of a project.

EMINENT DOMAIN

Landowners often voice concerns relating to the use of eminent domain by transmission developers[1]. Questions of fairness and project necessity permeate the discussion, as not all stakeholders are convinced of the value of a project or whether the need for the project has been fairly assessed. Projects often face opposition from some communities and landowners because their need is not a local concern, as is mentioned in "Locals react to RICL plan" (Kromphardt, Oct. 2012). The power they carry is from an outside point, and it will be delivered to another point removed from their communities, which divorces local communities from the "necessity and benefit" of projects.

Confusion also surrounds the actual process of eminent domain—especially because utilities as private entities can wield the power—making the issue a difficult one for each developer to address. Eminent domain is not commonly associated with private entities, and this leads to some consternation amongst the landowners that find themselves in the path of projects proposed by corporations and not government entities. "Farm Bureau against Clean Line pow-

1 Advocates hear about this issue from stakeholders at meetings and community engagement, often with greater frequency than is observed in local media.

er project" (Giuliani, 2012) and "County board member opposes transmission line route" (Currie, 2012) provide an example of how the law is often misunderstood, and how private developers can agitate concerns over eminent domain by requesting the authority to use it.[2]

HEALTH EFFECTS

Uncertainty over the health effects of living or raising livestock near transmission lines raises other issues for developers when dealing with communities and landowners. As an attorney points out in "Badger Coulee route ruffles feathers in Cashton", concerns are not just limited to the possible health effects, but also to other complications that could arise from the presence of potential electromagnetic field (EMF) interference and stray voltage (Jasperson-Robson, 2012).

Even with numerous studies showing that there are likely no negative consequences to living near transmission lines—though these often reference the health of livestock, as is the case in the earlier example of "Farmers, power developer at odds over high-voltage line"—the matter is still mentioned by stakeholders regularly. Developers cite such studies at open house meetings, and attempt to avoid siting a line too near to housing, but the concern remains (Hart, 2013).

OPENNESS AND FAIRNESS

Instances of concern for the openness and honesty of a utility or developer have been a recurring issue. Although it is difficult to determine whether this helps drive the prevalence of other concerns, the issue flows as an undercurrent in many interviews with landowners. This can take the form of chastising a developer for not being transparent, or a general frustration with the transmission development process.

Transmission projects are required to obtain several layers of approval—often mandating public meetings to address concerns—but many landowners are not otherwise involved outside of these public meetings. Because citizen engagement does not take place at every step of the process, stakeholders can perceive the routing and regulatory approval process to be much more opaque. For many, the routing and development process for a transmission line is an entirely new experience, and it can be difficult to wade through the new information without some guidance. An example of a state's regulatory process is given in Table 1, providing a rundown of the process in South Dakota for the Big Stone South to Brookings project.

Table 1.

The Big Stone South to Brookings project going through the South Dakota state regulatory process.

PROJECT ACTION	ESTIMATED DATE
CapX2020 files a notification intent to apply	(6+ months before permit filing)
Xcel files with SD PUC for the Facility Permit	July 2013
Notice of Public Hearing	Aug. 2013
Public Hearings held	Aug. / Sept. 2013
Public comment period	Oct. 2013
Estimated project approval (Facility Permit granted)	Mar 2013
SD PUC Deadline for project approval	June / July 2014

The developer-stakeholder relationship can compound the problem, as information that they offer can be viewed as questionable. Many appear skeptical when interviewed at open houses, claiming that they are unsure of the accuracy of developer statements on face. Others question the transparency and fairness of developers. A fair number of these landowners are often caught in negotiations for right-of-way or easements, or they point out that there is little reward beyond one-time easement payments, as mentioned in "Wind energy plan tests power of farmers" (Associated Press, April 2013).

The nature of these negotiations can set up a prisoner's dilemma for landowners: the vast majority have no idea whether their neighbors are willing to lease an easement, which price they will agree on, or what the consequences might be if they choose not to lease property to a developer. This makes the negotiation process much less accommodating to individual landowners. This, combined with the intimidating notion of dealing with a corporate developer, can cause many to feel overwhelmed.

NEED

Project need is particularly favored in legal challenges to transmission projects, primarily due to the regulatory processes of states that identify need as

2 In both examples, stakeholder's note that they do not approve of a private developer using eminent domain. Transmission developers must apply for public utility status in most states to make use of eminent domain, and in the process show that projects will serve the public and that they are needed, essentially satisfying the conditions that public entities must in order to use eminent domain.

a key factor. Opponents often use need as a focus to gain traction in communities, often suggesting that individual areas do not have an obvious need for increased transmission and therefore cannot make use of the project. These feelings of extrinsic finality intensify when a project primarily moves power from one location to another without providing an outlet to local communities, and if the benefits for local communities are not entirely clear or immediate.

Prime examples can be found in two lines from Clean Line Energy Partners—the Rock Island and Grain Belt Express transmission projects. A sampling of need-based opposition to these lines can be seen in "Landowners speak up" (Kromphardt, Sept. 2012) and "NE Kansas group fighting power line developer" (Associated Press, May 2013), with the opposition in the first article linked to a lack of demand for renewable energy, and the second article claiming that a line is not needed because renewable energy should be kept local. Although concerns over need can take various forms, they tend to always come back to uniting local communities against a transmission project because that project lacks obviously immediate and tangible benefits for those communities.

Need as a concern often ignores the regulatory process for transmission lines. Transmission developers must apply for a certificate of need, and this process typically involves interacting with the public and demonstrating that a transmission project serves the citizens of that state. The fact that transmission projects must often go through multiple layers of approval and are required to prove need to regulators is often overlooked, or glossed over in favor of shifting focus to local areas that do not appear to need the project. The objection leveled by some groups that transmission projects will actually harm reliability is another example, as seen in "Regulator rejects complaints against power lines for Midwestern wind" (Northey, 2013).

MISCELLANEOUS

As mentioned earlier, miscellaneous is a category that is intentionally broad, acting as a catch-all for any issues that do not appear with enough frequency to warrant categorization or are difficult to fit within a particular category. There are concerns and issues in this category that do receive enough attention in the press to make them useful for analysis, and that can possibly inform future transmission work with landowners and communities.

A prime example is the move by the town of Onalaska, which requested a $2 million bond from developers of the CapX2020 project over a five year period in order to pay for any possible damage to roads as a result of the project. Heavy traffic due to construction by developers was cited as a concern for Onalaska, as the increase in traffic and size of equipment could negatively impact the roads of this community. Xcel—one of the developers of the project—has given such bonds in the past, but the amount requested by Onalaska is apparently larger than the norm (Geyer, 2013).

Some communities choose to challenge the preferred or selected routes for a project on various grounds, even if the proposed routes might be the paths that carry fewer impacts. In one such instance, another community—Oronoco Township—attempted to challenge the preferred route, offering a route that they themselves preferred to the one offered by the developer (Boese, 2012).

Developers are sometimes amenable to changes that are proposed by local communities and landowners, however. This is the case in "10 route changes approved for CapX2020 line" (McClathcy-Tribune, 2011), wherein developers of a portion of the CapX project accepted 11 changes to an approved route based on landowner requests. As the title suggests, not all of the changes were immediately approved--this shows another difficulty for developers and utilities, in that they must often seek approval for changes to a route even if they are requested by stakeholders.

RECOMMENDATIONS

ANALYSIS DEMONSTRATES THE EXISTENCE OF SEVERAL BASIC, COMMON ISSUES THAT MUST BE ADDRESSED. THE BELOW RECOMMENDATIONS CONFRONT THESE ISSUES BY FORMING OVERARCHING SUGGESTIONS AND STRATEGIES FOR HANDLING UNIQUE, INDIVIDUAL CONCERNS. EACH PARTY INVOLVED IN THE SITING, ROUTING, AND CONSTRUCTION OF NEWLY PROPOSED TRANSMISSION PROJECTS CAN BENEFIT GREATLY FROM UNDERSTANDING THE DYNAMICS AT PLAY.

- Responding to these overriding issues will allow developers to maximize project efficiency and improve interactions with landowners and affected communities.

- Understanding these concerns will help organizations work alongside stakeholders to implement policies that result in transmission being built in a manner that is sympathetic to community concerns.

- Landowners or community members concerned about the impact a given proposal may have locally can use this analysis to guide their approach and better understand the perspective of others involved.

OUTREACH

One of the easiest recommendations for developers to implement is to increase the frequency of open houses and public meetings. Many of the issues that are found in these articles result from a lack of information—either because it is not provided to landowners and communities, or due to the fact that it is infrequently presented to these stakeholders. Developer open houses present a prime opportunity to not just educate stakeholders on a specific project, but to also answer questions and address concerns at a personal level.

As is mentioned in "Locals react to RICL plan" (Kromphardt, 2012), "10 route changes approved for CapX2020 line" (McClatchy-Tribune, 2011), and "Landowners group wants Clean Line transmission line stopped" (Kessinger, 2013); these open houses not only provide developers with a chance to personally interact with stakeholders, but to spread information through local media that covers these events and integrate feedback into the routing process. Currently, open house meetings are treated as an obligatory event by many developers, something they must do to fulfill a regulatory requirement. Others only use open houses to assist in the routing process, using landowner feedback to try and minimize siting conflicts.

The latter is certainly valuable, but open houses need not stop there. Open houses and informational meetings present an opportunity to present all available information to community members, and hear or dis-

cuss the concerns of communities directly. Holding such meetings earlier and more often during the routing process is an easy measure that transmission developers can adopt, one that approaches stakeholder concerns proactively rather than retroactively.

Outreach can continue once the official open house period has ended as well. As is mentioned in the Miscellaneous portion of the previous section, landowners can provide valuable input even after siting has concluded and approval has been granted for a project.

Improving the online presence of projects is an easy step for developers. Many of the listed transmission projects have websites that list out-of-date information as the top links in their news section, or list substandard or inaccessible information—i.e. without an explanation of procedural steps or laying out a clear timeline for the project.

An example of a transmission project that presents a clean and interactive design for users is the Big Stone South to Ellendale project site (http://bssetransmissionline.com). This line, being developed by Otter Tail Power and Xcel Energy, utilizes some techniques that help draw in the user, rather than simply presenting the information on the page.

INFORMATION SHARING

One step developers can take toward better involving stakeholders is to mirror the actions of advocates, providing fact sheets on the regulatory process that is required by the state. Table 2 shows an example from a fact sheet provided by CapX2020.

Table 2.

A selected section from a fact sheet for the CapX2020 project, providing a summary of the regulatory process in Minnesota.

REGULATORY PROCESS

The CapX2020 utilities were granted a Certificate of Need (CN) from the Minnesota Public Utilities (MN PUC) on April 16, 2009 for the three 345 kV projects. A separate CN application for the 230 kV transmission line was unanimously approved on July 9, 2009.

North Dakota, South Dakota and Wisonsin regulators determine whether portions of the proposed lines in their states are needed.

AGRICULTURAL CONCERNS

Many agricultural concerns can be attended to by working with landowners at the aforementioned meetings, but there are other approaches that developers can use to address concerns from communities and landowners. An example is a recent development from Clean Line Energy Partners, who signed an agreement with the Illinois Department of Agriculture to mitigate certain impacts that construction may have on agricultural land. In this case Clean Line agreed to use monopole structures to minimize land taken out of production, and to limit the impact to soil and drainage systems (Giuliani, 2013).

CONSERVATION

Working with state and local government, communities and landowners, and an assortment of advocacy groups to confront issues and concerns is a valuable method for project planners. This avenue connects developers with the groups and individuals that can help implement the most effective impact mitigation efforts. But this is not limited to common agricultural concerns; working directly with stakeholder groups and government has the potential to assist conservation efforts as well.

Using information gathered from communities and landowners, developers can form lists of locations that they should attempt to avoid when siting a line. This can make it easier to mitigate impacts to local areas of importance during the siting and construction process. A stronger dialogue with communities and landowners will help developers better understand specific conservation concerns. Such communication has the potential to make the siting process easier by providing clarification as to the areas that should be avoided and which practices will do the least amount of harm.

Open databases of locally valued species of flora and fauna would be helpful for developers and advocates alike in identifying key considerations in siting. Developers can easily miss out on concerns that may be localized, such as areas or species that may hold special significance to communities. While the public participation model should help alert developers to these local concerns, an open database would allow greater access for stakeholders to alert developers to conservation concerns.

HEALTH

Methods for addressing health concerns are much harder to come by, as it often becomes a battle between which source is to be believed over another. Most can

do little more than present whatever information supports their position, which tends to be of little use.

Perhaps the only way to mitigate concerns over health effects is to make a concerted effort during siting to keep the line as far from residences as possible. For example, Nebraska Public Power District mentioned in a May 2013 open house that it sought to not site a transmission project within 300 feet of homes (NPPD, 2013). Advocates and utilities could seek to codify a specific requirement for siting transmission projects that would attempt to keep transmission projects from getting too near to homes.

COMPENSATION

One source of community dissatisfaction results from inadequate landowner compensation, either in the initial negotiations or through eminent domain. Landowners currently tend to receive one lump sum when signing lifetime easement agreements with transmission developers. Compared to other structures—like wind turbines, which provide annual payments to landowners—transmission projects are not nearly as appealing to landowners. Relying on eminent domain to overcome this shortfall begets community unrest, creates project delays, and can dramatically increase project cost.

Given the fact that voluntarily acquisition is one of the best ways to belay concerns over the use of eminent domain, it is in the interest of developers to make easement agreements as appealing as possible to landowners. Clean Line Energy Partners is attempting to make their easement agreements more appealing by providing the option for landowners to receive annual payments rather than a single lump sum. This not only makes easement agreements more palatable, but also to provides landowners a stake in the project's success (Haugen, 2013).

EMINENT DOMAIN

Concerns over eminent domain may be more difficult for developers to affect directly without policy change at the legislative or regulatory level. However, changing negotiation tactics and simplifying easement agreements can go a long way toward making landowners more comfortable with the eminent domain process. Educating landowners on when eminent domain is used, and how the process works—noting the different levels of approval a developer or utility must go through in order to invoke this tool—would help alleviate some of the anxiety inherent in the process.

Developers would do well to work with landowners and communities to address these concerns. As mentioned in the analysis section, an important factor in the prisoner's dilemma is that the agent has no knowledge of how others will act, and are forced to take action based on information that is limited and possibly faulty. These situations not only increase anxiety relating to eminent domain, they perpetuate concerns of a lack of fairness or openness that can make future dealings between developers and stakeholders toxic.

Methods to alleviate this anxiety can be gathered from looking at those essential parts of the classic example of game theory noted earlier. Limited knowledge and unverifiable information removes agency from stakeholders, limiting their options and forcing them to act without assurance. Increasing the transparency of negotiations for land and demystifying the contracts used to acquire easements would go a long way in making landowners feel more empowered. A sample of easement purchase calculations is provided in Table 3 on the next page.

Publicly posting a standardized easement agreement for stakeholders to read through and analyze could be a possible step, as well as group negotiations with several stakeholders. The latter could be an unofficial proceeding, treated as a good faith gesture that would show that all those involved would get the same information, or landowners could treat this as an opportunity to collectively bargain as well.

NEED

Concerns over need are more difficult to address than some other stakeholder issues. The concern over need often relates back to a concern over who will ultimately benefit from the project—is a transmission project needed for this area, or is the area merely a means to connect a generating source to a distant community? Localizing benefits of a transmission line can be a difficult task, especially if the developer is not in need of any materials or services that a community can provide.

Another option to address this is to make clear the benefits of improving the aging transmission infrastructure that runs across the country. Showing how upgraded transmission can affect consumer's rates and reliability may be a good tact for developers. Although this doesn't necessarily improve the local economy, it does show stakeholders that they are not taking on a transmission project without any sort of reward.

Table 3.

A easement purchase agreement sample provided by NPPD.

Date 08/05/13 Tract # 07-18-xxxxx

SAMPLE
345kV Easement Payment Calculation Sheet

A.	**Value / Acre**	**$10,000.00**	**/Acre**
B.	**Easement Value** (80% of value per acre of line A above)	**$8,000.00**	**/Acre**
C.	**Easement Acreage** (from easement plat - Exhibit A)	**6.06**	**Acres**
D.	**Payment for Easement = B x C**	**$48,480.00**	
E.	**Structure Payment** **2** pole(s) at **$5,000.00** (equal to ½ of line A above)	**$10,000.00**	
F.	**Total Easement Payment = D + E**	**$58,480.00**	

Easement payment typically processes within 30 days of the date of the completed Easement Document.

Landowner **Nebraska Public Power District**

By _____ **By** _____

Easement area = 6.06 acres

Value range per acre based on the Sales Comparison Approach: $8,000.00 - $10,000.00

Soil Classifications: I, II, III, VI, V, VII, VIII

Topography: Rolling Hills to Steep Slopes

Current Use: Dryland Farm Ground/Irrigated Farm Ground/Pasture

CONCLUSION

ANALYSIS OF ARTICLES ON TRANSMISSION PROJECTS SHOWS THAT THERE IS STILL WORK FOR DEVELOPERS TO DO IN ADDRESSING THE CONCERNS OF STAKEHOLDERS. THE FACT THAT LANDOWNERS AND COMMUNITIES OFTEN CITE ISSUES THAT SHARE COMMON THEMES SHOULD BE A BOON TO PROJECT MANAGERS, AS IT PROVIDES THEM WITH FOCUS AREAS THEY CAN USE TO CRAFT NEW POLICIES AND METHODS THAT WILL ALLEVIATE THESE CONCERNS.

Ultimately, it's clear that developers must go out of their way to communicate openly and often, make the process transparent for stakeholders, and seek to compromise when possible. Interactions with landowners and communities should be seen not only as an opportunity to improve and refine each transmission project, but also as a means to establish ways to modify the transmission regulatory process for the better. Advocates, developers, landowners, and communities all have suggestions for improvement. These groups can cooperate to formulate solutions and work towards incorporating them into the siting, routing, and construction processes.

In order to improve the transmission system in the Midwest and across the country, it is important that developers and advocates confront the concerns of those affected. Infrastructure is important, but it is essential that it be done in partnership with communities. This requires that members of these communities are given the opportunity to add insight to projects. The future of our transmission grid depends on innovation—not just technological, but also in the way that developers interact with communities involved.

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