Siting Transmission Corridors—
A Real Life Game of Chutes and Ladders*
Oh, for the simplicity of **Chutes and Ladders**!

Despite electricity’s fundamental role in our way of life, the policies affecting the movement of electricity from generation to end-use are complex, disjointed, burdensome, outdated, and at various times redundant or conflicting.

As America strives to meet its citizens’ demand for more electricity, it encounters federal, state, and local policies that govern the development of transmission corridors and the power lines that are built within them. They are both obstacles and opportunities—chutes and ladders—in our efforts to power the American economy and way of life.

No matter how we generate electricity—coal, natural gas, nuclear, water, wind, or solar—we must be able to efficiently deliver it to the consumer. Energy entrepreneurs, transmission developers, public utilities, and federal and state regulators are all engaged in getting power from the generator to the consumer. While they may all differ on the specifics of siting these transmission lines, proponents and opponents agree—load growth,
As America strives to meet its energy needs, the policies affecting construction permits, wildlife protection, property rights, and other concerns must all be addressed before lines can be built.

While the childhood game of *Chutes and Ladders* can provide hours of fun and relies on luck, the real life challenge of *Siting Transmission Corridors* can take years of skillful navigation with tens of millions of dollars, thousands of manufacturing and construction jobs, and the reliability of our electrical grid all at stake.

In the game, a ladder enables a player to advance quickly through the maze; a chute sends him backward. Players move their game pieces through a series of consecutively numbered spaces, with the goal of being the first to finish.

In *Siting Transmission Corridors*, the goal is to overcome financial and regulatory challenges in order to gain final approval for construction of a transmission line. Ladders include minimal environmental impacts, use of advanced technology, and demonstrable reliability gains. Chutes, on the other hand, could be rejections by federal, state, or local agencies; financing risks; rate denials; and litigation.

So, grab a marker and wind your way through *Siting Transmission Corridors*. You will see that establishing a national transmission siting policy for planning, permitting, and payment would ensure that we climb more ladders and slide down fewer chutes.
Transmission Planning

Transmission corridors move electricity from generating sources to the electrical distribution grid. Current transmission lines are overburdened and their locations reflect an outdated energy paradigm. Energy demand is growing and new generating capacities are poised to meet that demand. Ideally, one solution would be to transmit more power through existing corridors. But current infrastructure simply cannot accommodate this increase. In addition, renewable energy sources are often located in remote areas, far from existing transmission lines.

The first ladder to climb, then, is that of transmission planning, with each rung defined by a permit. Are new lines needed? Are potential savings greater than costs? Which utilities are involved? Does this require authorization or cooperation by regional or interstate authorities? Does the project face siting, technology, or financing risks? Are non-transmission alternatives available? Can energy storage or demand response strategies be implemented?

Delays in these responses are akin to waiting your turn in Chutes and Ladders. Considering that each permit may take one to six months, the wait between turns can add up to years.
The Federal Energy Regulatory Commission (FERC), an independent agency that regulates the interstate transmission of natural gas, oil, and electricity, must first determine if the proposed line is the result of a fair and open planning process. It provides regulatory certainty through consistent approaches and timely actions.

But the process isn’t easy. It may involve corporate mergers, acquisitions, and transactions; licensures and inspections; mandatory reliability standards; and countless environmental matters.

There are also areas outside of FERC’s jurisdiction: state public utility commissions and rural electric cooperatives; regulation of retail electricity; power marketing agencies; construction of generation facilities; and regulation by other agencies, like the Nuclear Regulatory Commission.

By its very nature, approval is an arduous, multi-year process full of ladders that reach from one approval process to another, as well as chutes that result from unanticipated costs, actions by interstate planning authorities, or court challenges that can drive a circular process lasting years.

In 2009, for example, the U.S. Court of Appeals for the Fourth Circuit ruled that federal law does not apply to a state’s authority to make decisions on major interstate transmission lines within its borders. The U.S. Supreme Court declined to hear an appeal, generating uncertainty over FERC’s authority to override a state’s denial of a siting permit.

Federal Agency Approvals

No matter how cost-effective and equitable any federal agency’s management practices may be, plotting a course through this matrix of federal agency approvals is tedious and time-consuming. Each rung of this ladder may initiate critical adjustments to planning, cost allocation, and siting processes. These changes require an applicant to re-evaluate if it is worthwhile to continue moving ahead with the project.

Transmission Siting

Three to five years later, after obtaining all federal approvals, the final challenge is crossing non-federal land. State properties and private land issues can lead to purchased rights, eminent domain, and even more court challenges. Building interstate and interregional transmission facilities can take years.

As with any game, there may be bonus rounds and extra turns: favorably litigated outcomes, attractive rates, or tax incentives.

Winning the Game

Siting Transmission Corridors is not child’s play.

We need a clear national policy that is up to the task of modernizing our electrical infrastructure, improving its capacity, increasing its reliability and security, and diversifying our energy portfolio.

NEMA supports greater federal authority in the siting of transmission corridors, as well as lead agency status for FERC in the federal environmental review process.
Federal Agency Approvals

Here’s where the game gets interesting. What is the potential environmental impact? Do transmission lines cross navigable waters or protected habitats? Is approval needed by the Army Corps of Engineers or Bureau of Land Management? Will construction require explosives? Environmental impact statements alone can mire a project for years.

A clear, nationwide transmission policy will streamline the approval processes, facilitate construction, and create domestic jobs.

*Chutes and Ladders is a trademark of Hasbro, Inc. for its board game.