

the *TRANSMISSION* line

» COST ALLOCATION

Spanning 164,000 miles, the nation's highly integrated system of transmission lines and control facilities connects more than 750,000 megawatts (MW) of electrical energy to millions of customers across the country. Thanks to the physics of electricity and the engineering innovations of the 20th century, whether you live in a town of 18 or eight million, you benefit from the grid.

But today's grid is bearing an increasingly heavy load. New technologies mean Americans use electricity for more and more of their daily tasks. In fact, Americans consume much more energy than they did when the grid was built and are expected to increase their consumption another 31 percent by 2035.¹

The heavy burden of the grid affects consumers and businesses. High regional congestion costs and other inefficiencies of the grid are costing consumers billions of dollars every year and the money lost due to inefficiency and congestion costs could be saved by upgrades or expansions of the nation's over-stressed transmission infrastructure.

While many agree that the time has come to start building more efficient and reliable transmission, there is disagreement on how it should be paid for.

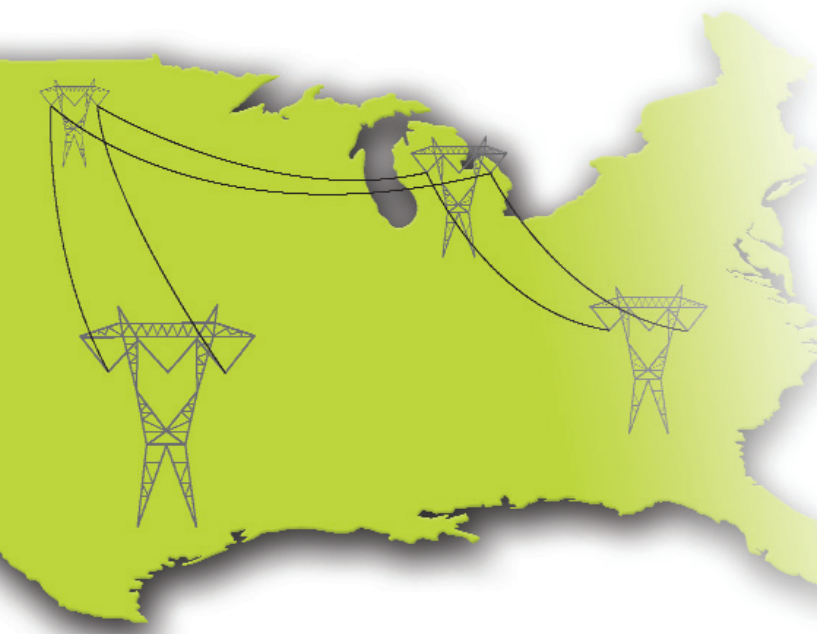
The national transmission network is highly integrated, making it virtually impossible to determine exactly who benefits at different times of the year, let alone the day. It is for this reason that transmission costs have generally been allocated to large groups of users (utility service territories or market regions), rather than individual customers.

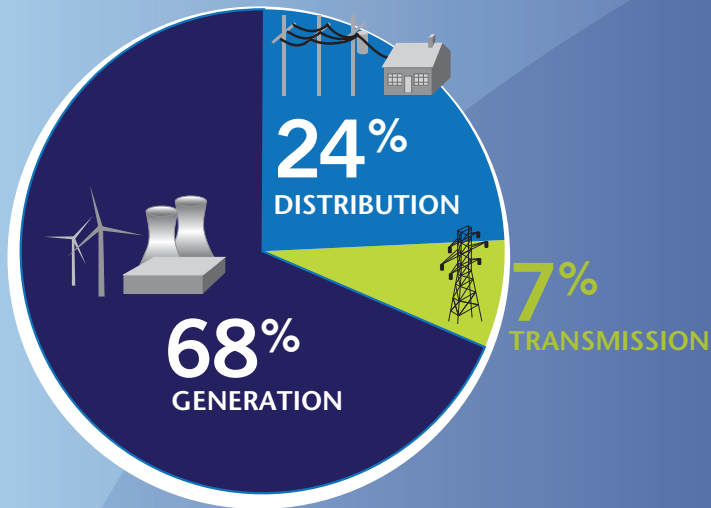
Benefits of New Transmission

Right now, our nation's energy grid forces consumers to pay for increasingly expensive power while keeping cheaper alternatives out of the market. While the grid has expanded over the last century to accommodate our growing population and needs, a legacy of outdated lines and generating stations remain operational, creating a fragile patchwork.

Demand is constantly fluctuating across the grid and areas of increased demand create congestion in the transmission system. In order to meet increasing demand, an increasingly diverse energy mix will need to be tapped.

New transmission development benefits the entire grid. By investing in new transmission, we will open up energy markets to competition, increase reliability and efficiency, link us to new forms of power and promote economic growth while lowering prices for consumers and businesses. »»





Cost of Transmission

Transmission costs are the smallest part of a consumer's electric bill – less than 10 percent on average – and new transmission provides tremendous value for consumers and businesses by allowing access to competitive wholesale markets, promoting competition and lowering prices for electric generation. In contrast, electric generation by utilities makes up about two-thirds of a consumer electric bill – a significant portion of the bill that would shrink if energy markets were more competitive.

New Rules for Paying for Transmission

While our nation's electricity transmission system is governed by a patchwork of local, state and federal regulations, FERC has the ultimate task of assigning a fair way to allocate the cost of new facilities.

In July 2011, FERC issued reforms to the cost allocation process with the introduction of Order 1000. Commissioners emphasized the need to enhance the grid's ability to support wholesale power markets and to ensure Americans have reliable transmission service at just and reasonable rates as key reasons for the new rule.

One of the most important basic tenets of the new rule is the focus on aligning costs with benefits. The rule states that costs must be "roughly commensurate with estimated benefits and those that receive no benefits should not be allocated costs." This simple principle has put many stakeholders at ease by ensuring that ratepayers would not be held responsible for transmission infrastructure they did not benefit from.

The Order also contained specific requirements regarding how new lines are paid for. These principles were intended to provide regions with guidance on developing methodologies that met their needs. They include:

- 1. Each public utility transmission provider must participate in a regional transmission planning process that has a regional cost allocation method for new transmission facilities selected in the regional transmission plan for purposes of cost allocation. The method must satisfy six regional cost allocation principles.***
- 2. Public utility transmission providers in neighboring transmission planning regions must have a common interregional cost allocation method for new interregional transmission facilities that the regions determine to be efficient or cost-effective. The method must satisfy six similar interregional cost allocation principles.***
- 3. Participant-funding of new transmission facilities is permitted, but is not allowed as the regional or interregional cost allocation method.²***

This new rule has been heralded by some as a game changer for grid development. For the first time, it marries cost allocation of transmission with planning of transmission. It requires planners to work more collaboratively within their own region, and with neighboring regions to develop long term, cost-effective plans for new transmission infrastructure.

This is a common sense reform that will tear down two of the largest impediments to transmission development – planning and cost allocation. When merging the two vital components of grid development, FERC Commissioners emphasized regional flexibility to ensure that, when a region identifies grid improvements that they want and need, they should have a process for paying for those projects.

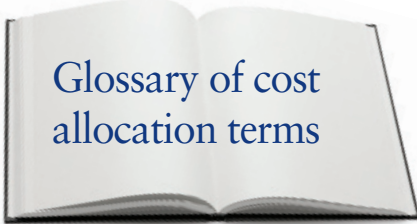
In addition, the rule does not dictate a "one size fits all" approach, but instead asks regions to develop their own plans that fit their own unique needs. The rule also acknowledges the nation's evolving mix of generation resources, and the effect that evolution is having on the grid. Due in part to the reality that more than half the states in the U.S. have some form of renewable portfolio standard, and many have requirements to use local renewable resources; the rule was designed to give regions the tools they need to access those often remote fuel sources. While this reality was given consideration, Commissioners reiterated the rule was "technology-neutral" and did not favor one generation source over another, but instead intended to set up a process that could achieve the best outcomes for ratepayers.

Under the rule, every public utility transmission provider is required to file a plan that ensures they comply with Order 1000 by late 2012. Plans that ensure compliance with the planning and cost allocation provisions at the interregional level are required by mid 2013.

Many believe Order 1000 will allow for a more strategically designed grid that will build robust competitive energy markets and lower electricity prices. With an eye toward regional planning processes and cost allocation and trusting the wisdom of local stakeholders, the rule was designed to overcome the challenges experienced by grid planners and give them the tools they need to modernize the country's electricity infrastructure. >>

Quote from FERC Chairman Jon Wellinghoff:

"The central theme of Order No. 1000's cost allocation principles is that those who benefit should pay and those who do not benefit should not pay. Order No. 1000 limits a region's identification of beneficiaries to the region in which the proposed transmission facility would be located. Order No. 1000 establishes six regional cost allocation principles: (1) costs must be allocated in a manner that is at least "roughly commensurate" with estimated benefits; (2) those that receive no benefit from transmission facilities must not be involuntarily allocated the costs of those facilities; (3) benefit-to-cost thresholds must not be excessive such that they exclude projects with significant net benefits; (4) costs cannot be allocated outside a region unless the other region agrees; (5) cost allocation methods and identification of beneficiaries must be transparent; and (6) different allocation methods can apply to different types of transmission facilities."







Glossary of cost allocation terms




Below are five commonly-used methodologies to allocate and recover costs from transmission customers:

1. **License plate (LP):** each utility recovers the costs of its own transmission investments (usually located within its footprint).
2. **Beneficiary pays:** various formulas that allocate costs of transmission investments to pricing zones that benefit from a project, even if the project is not owned by transmission owners in these pricing zones. TOs then recover allocated costs in their LP tariffs from own customers.
3. **Postage stamp:** transmission costs are recovered uniformly from all loads in a defined market area (e.g., RTO-wide in ERCOT and CAISO).
 - In some cases (e.g., SPP, MISO, PJM) cost of certain project types are allocated uniformly to TOs, who then recover these allocated costs in their LP tariffs.
4. **Direct assignment:** transmission costs associated with generation interconnection or other transmission service requests are fully or partially assigned to requesting entity.
5. **Merchant cost recovery:** the project sponsors recover the cost of the investment outside regulated tariffs (e.g., via negotiated rates with specific customers); largely applies to direct current lines where transmission use can be controlled.

RTO COST ALLOCATION PRACTICES

Cost allocation practices differ across all regions of the country and within regions based on how a project is classified – for the reliability of the grid, or for the economic benefit of consumers. Here are brief descriptions of the cost allocation methodologies currently in place in regional wholesale markets. Note that some of these methodologies are under review.

RTO/ISO	Reliability Projects	Economic Projects
 <p>Midwest Independent System Operator</p>	<p>Projects 345kV and above:</p> <ul style="list-style-type: none"> • 20% of costs go to all of the MISO zones, pro rata based on load • 80% of costs go to the MISO zones designated as beneficiaries based on a power flow analysis <p>Projects 100-345 kV:</p> <ul style="list-style-type: none"> • 100% of costs go to the MISO zones designated as beneficiaries based on a power flow analysis <p>Projects below 100kV:</p> <ul style="list-style-type: none"> • Paid for by the local zone in which the facility is located 	<p>All projects that pass threshold:</p> <ul style="list-style-type: none"> • 20% of the costs go to all MISO zones • 80% to MISO sub-regional zones based on the benefits
 <p>Southwest Power Pool</p>	<ul style="list-style-type: none"> • 1/3 of the costs go to all SPP zones • Assuming the project is more than 60kV, and costs more than \$100,000 and is located in the base plan, 2/3 of the cost are allocated to the zones that benefit 	<p>Projects 345kV and above:</p> <ul style="list-style-type: none"> • If portfolio benefits are greater than costs in all zones, the costs are spread across all SPP zones (a new Highway/Byway methodology was approved in July 2010) • Individual Projects <ul style="list-style-type: none"> - Allocated as agreed among project sponsors - Sponsors get transmission revenues for use by others
 <p>New York Independent System Operator</p>	<p>Allocation depends on whether need is local, bounded, or statewide</p> <ul style="list-style-type: none"> • NYC and Long Island pay 100% of projects to meet local reliability needs • Remaining statewide needs allocated to zones based on peak load • Remaining need allocated to zones that fail a reliability test 	<ul style="list-style-type: none"> • Eligible project costs are allocated to zones by current and future prices, and allocated within zones by load • To be eligible for cost sharing, a project must pass three tests: <ul style="list-style-type: none"> - Cost greater than \$25 million - Benefits are greater than costs - 80% of the beneficiaries vote for it
 <p>Pennsylvania-New Jersey-Maryland Regional Transmission Organization</p>	<p>New facilities 500kV and above</p> <ul style="list-style-type: none"> • Shared by all PJM systems <p>New facilities less than 500kV</p> <ul style="list-style-type: none"> • Allocated to zones based on power flow analysis of beneficiaries 	<p>New facilities 500kV and above</p> <ul style="list-style-type: none"> • Shared by all PJM systems

RTO	All Projects
 <p>New England Independent System Operator</p>	<p>Allocate costs across the NE-ISO foot print if the project is:</p> <ul style="list-style-type: none"> • 115kV and above • In the regional system plan <p>“Excess” costs of projects over \$500,000 elective, local benefit, and merchant transmission costs are directly assigned.</p>
 <p>California Independent System Operator</p>	<p>Projects 200kV and above</p> <ul style="list-style-type: none"> • 100% of cost recovered through a uniform transmission rate per kW. <p>Projects below 200kV</p> <ul style="list-style-type: none"> • Recovered in the subregion
 <p>ERCOT (most of Texas)</p>	<p>Projects 60kV and above</p> <ul style="list-style-type: none"> • Recovered through an ERCOT-wide postage stamp rate



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- 2 FERC, <http://www.ferc.gov/industries/electric/indus-act/trans-plan.asp>