

Transmission Growth in the US

March 2009

RECENT TRENDS

In 2003, the U.S. transmission grid consisted of nearly 160,000 miles of high voltage transmission lines. By 2007, approximately **4,000** more miles of transmission were added to the system. Transmission additions planned over the next five years are nearly three times this amount.

The North American Electric Reliability Corporation (NERC) reports -- in their *2008 Long-Term Reliability Assessment* -- that approximately **11,000** transmission miles are planned with in-service dates between 2008 and 2012.

In addition to meeting conventional transmission needs, utilities and transmission providers are spurred by a desire to tap into wind, solar and other renewable resources. For example, there are two major transmission projects in the west planned for completion in 2014 to integrate renewable resources. Each of these 1000-plus mile lines will facilitate the delivery of 3000 MW of primarily wind generation from the northern plains to load centers in the southwest.

TRANSMISSION EXPANSION THROUGHOUT THE US

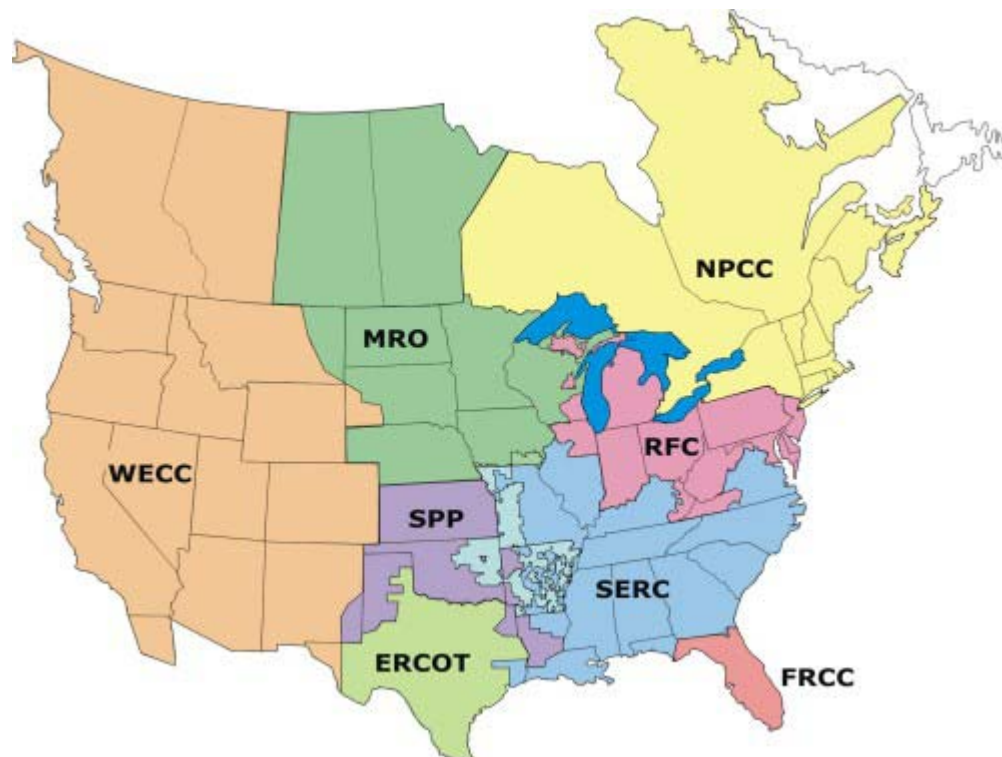
The following table is based on data contained in the NERC *2008 Long-Term Reliability Assessment* issued in October 2008.

It depicts existing transmission as well as expected transmission **additions** for each of the 8 NERC Regional Reliability Councils during the period from 2008 to 2012. It does not reflect the significant number of upgrades to the existing system.

Planned Transmission Circuit Miles > 200 kV

	<u>2007 Existing</u>	<u>2008-2012 Additions</u>
Electric Reliability Council of Texas (ERCOT)	8,792	269
Florida Reliability Coordinating Council (FRCC)	7,201	349
Midwest Reliability Organization (MRO)	15,939	1,075
Northeast Power Coordinating Council (NPCC)	6,805	252
Reliability First Corporation (RFC)	26,203	1,471
SERC Reliability Corporation (SERC)	32,295	1,676
Southwest Power Pool (SPP)	7,683	672
Western Electricity Coordinating Council (WECC)	<u>59,061</u>	<u>5,305</u>
Total-US	163,979	11,069

Source: 2008 NERC Long-Term Reliability Assessment



TRANSMISSION PLANNING PROCESS

The expansion and development of the US transmission system (cited above) is coordinated through a nationwide network of **regional planning processes and organizations**.

This collaborative geographically-based system allows transmission providers to identify the most economical and efficient transmission expansion and upgrades needed to serve customers and to comply with reliability standards.

These processes also enable providers to achieve applicable renewable portfolio and greenhouse gas reduction goals and standards.

These planning processes take place at the local, sub-regional and regional levels. These processes have been developed to reflect **regional practices and differences** and enjoy wide regional support throughout the nation.

The Federal Energy Regulatory Commission's Order 890 mandates that each transmission provider implement a coordinated, **open**, **transparent**, and participatory planning process with its transmission customers and other interested parties.

The process must meet Order 890's nine planning principles and allow for stakeholders, customers, environmental groups, other transmission providers and generation developers to identify needs and interests --and to review and comment on proposed plans.

This ultimately results in planning processes that are developed based on accountability to consumers and responsiveness to regional and local opportunities and constraints -- while meeting applicable environmental, reliability and safety standards.