

# UPDATE ON 2009 NATIONAL ELECTRIC TRANSMISSION CONGESTION STUDY

by  
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The Federal Power Act requires the U. S. Department of Energy (DOE) to publish a study of electric transmission congestion every three years. The first study was issued in August of 2006. The study, due in 2009, is looking at how to determine significant transmission congestion using publicly available data. DOE is also interested in identifying effective methods for distinguishing congestion caused by technical limits on line loading and contractual or other business limits that are resulting in transmission congestion. The request for written comments and notice of technical workshops was published in the Federal Register on Wednesday, June 4, 2008<sup>1</sup>.

## BACKGROUND

The Energy Policy Act of 2005 (EPACT 2005) charged DOE with identifying electricity transmission congestion. The 2006 Congestion study looked at congestion on all grids nationwide except the portion of the grid in Texas covered by the Electricity Reliability Council of Texas (ERCOT).<sup>2</sup> See below for the map showing the North American Reliability Corporation (NERC) interconnections<sup>3</sup>. EPACT 2005 also authorized the Secretary of the Department of Energy (Secretary) to designate geographic areas where transmission congestion occurs as National Interest Electric Transmission Corridors (National Corridors). The designation indicates that a transmission congestion problem exists and affects customers to the point that there is a national interest in eliminating it. The designation does not preempt State authority but it does provide the first step toward Federal Government siting authority. This means that if an applicant does not receive approval from a State to site a proposed new transmission facility in a National Corridor within a year, the applicant may then apply to the Federal Energy Regulatory Commission (FERC) for a permit to construct the facility.

DOE was charged with providing a backstop authority, a safety net, to be used as a method to analyze transmission requirements from a national perspective. DOE conducted a National Electric Transmission Study and identified the Southwest and Mid-Atlantic as having critical transmission congestion and constraint problems. Determining where to site transmission facilities is very important to the people who live and work near those facilities.

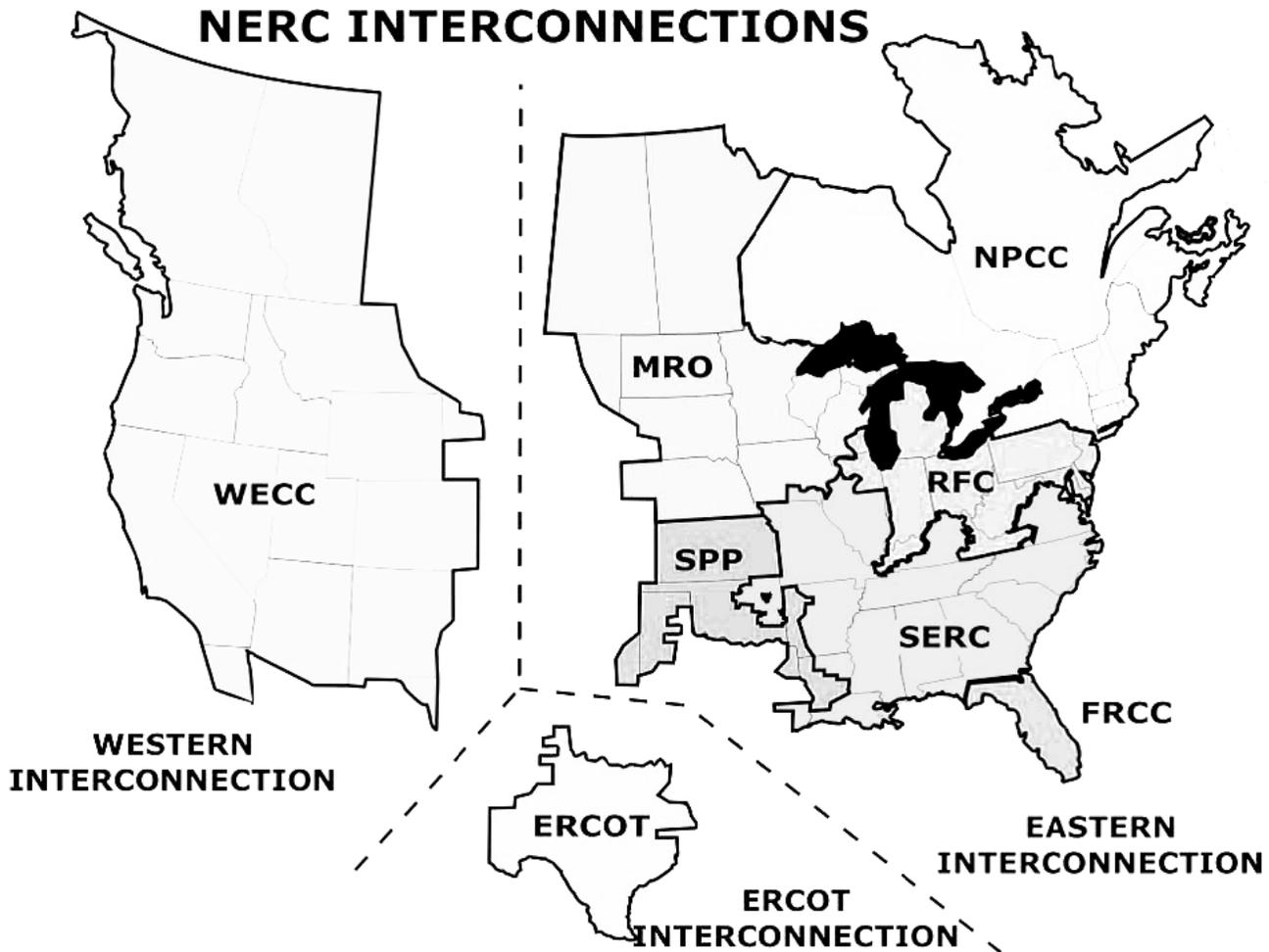
Many “interested parties” filed comments opposing the concept of National Corridors. DOE responded to the principal concerns of the interested parties in their October 2, 2007 report, however, they were virtually unchanged from those presented in the Draft report.

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<sup>1</sup> [http://congestion09.anl.gov/documents/docs/FR\\_Notice\\_4\\_June\\_08.pdf](http://congestion09.anl.gov/documents/docs/FR_Notice_4_June_08.pdf), accessed 11/12/2009.

<sup>2</sup> Section 1221 of the Energy Policy Act of 2005 added provisions to the Federal Power Act (FPA) including FPA section 216(a) which requires the Secretary of Energy to conduct a study of electric transmission congestion within one year from the date of enactment of EPAct 2005 and every three years thereafter. FPA Section 216 does not apply to the portion of Texas covered by ERCOT.

<sup>3</sup> The regional reliability organizations under FPA section 215 are Florida Reliability Coordinating Council, the Midwest Reliability Organization, the Northeast power Coordinating Council, Reliability First Corporation, SERC Reliability Corporation, the Southwest Power Pool, the Texas Regional Entity, and the western Electricity Coordinating Council.



The designations are not intended to thwart state and local transmission planning.<sup>4</sup> Designation of a National Corridor does not:

- Mandate that additional transmission facilities must be built
- Direct anyone to build a transmission facility
- Preclude local generation, demand response and energy conservation as ways to resolve the congestion
- Determine a preferred route for a transmission solution
- Represent a siting decision

On October 5, 2007, the Department of Energy (DOE) published a National Electric Transmission Congestion Report and Order in which it designated the Mid-Atlantic National Interest Electric Transmission Corridor and the Southwest Area National Interest Electric Transmission Corridor. The

<sup>4</sup> Under FPA section 216 (b)(1), FERC jurisdiction is triggered only when either: the State does not have authority to site the project; the State lacks the authority to consider the interstate benefits of the project; the applicant does not qualify for a State permit because it does not serve end-use customers in the State; the State has withheld approval for more than one year; or the State has conditioned its approval in such a manner that the project will not significantly reduce congestion or is not economically feasible.

states affected by the Mid-Atlantic Area National Corridor are Delaware, Washington DC, Maryland, New Jersey, New York, Ohio, Pennsylvania, Virginia, and West Virginia. California and Arizona are affected by the Southwest Area National Corridor. The National Corridor designations went into effect October 5, 2007 and will remain in effect until October 7, 2019 unless the designations are rescinded or renewed.

For more information and to view maps of the National Corridors, visit:

<http://www.oe.energy.gov/nietc.htm>.

## COMMENTS FROM TECHNICAL WORKSHOPS RELATING TO LOUISIANA

DOE, in preparing for the 2009 congestion study, asked for comments on what publicly-available data and information should be considered and what type of analysis should be performed to identify the transmission congestion. The 2006 study identified some areas in Louisiana experiencing congestion and the July 29, 2008 pre-congestion study regional workshop for the 2009 national Electric Congestion Study in Atlanta, Georgia<sup>5</sup> addressed some of the Louisiana congestion problems.

Transmission congestion occurs when the flow of electricity on a transmission line is restricted or constrained by either the physical capacity of the line or by operational restrictions designed to protect the security and reliability of the transmission grid. Transmission congestion has a cost. Congestion forces electricity to be purchased from a more expensive source because a constraint prevents access to cheaper sources. However, it is not always cost-effective to eliminate the congestion because the investment in the transmission grid can be substantial.

Mr. George Bartlett, Director of Transmission Operations for Entergy Services, participated and his comments and the written comments submitted by Entergy stated that Entergy does not view congestion as a reliability issue but rather as an economic issue. Entergy stated that the existence of congestion on a transmission system does not equate to a lack of reliability. A cause of congestion on the Entergy transmission system is merchant generation. They feel that the cost of transmission upgrades falls to their customers or Independent Power Producers (IPPs) and that the resulting benefit is not always sufficient to justify that cost.

Mr. Terry Huval with the Lafayette Utility System and Lafayette, Louisiana stated that their cost structure and service reliability were impacted by transmission congestion. Lafayette owns 741 MW of generation capacity but relies on the transmission lines of other providers (Entergy and Cleco) to deliver the electricity.<sup>6</sup> They feel that it is not right for the transmission owner to plan and design a system that assumes that other users of the lines will re-dispatch their units to manage congestion. He suggested that congress consider changing the ownership of the transmission lines from the current model which has the transmission lines owned by vertically integrated utility companies to a model with either stand alone transmission companies or joint transmission ownership.

Jennifer Vosberg with NRG stated that they have four generating units in Louisiana and are dependent on Entergy for transmission. She focused on recent Transmission Loading Relief Orders (TLRs) in the

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<sup>5</sup> A transcript of the Atlanta Georgia workshop is available at [http://www.congestion09.anl.gov/documents/docs/Transcript\\_Pre\\_2009\\_Congestion\\_Study\\_Atlanta.pdf](http://www.congestion09.anl.gov/documents/docs/Transcript_Pre_2009_Congestion_Study_Atlanta.pdf), accessed 11/16/2009.

<sup>6</sup> Plans are in place for new transmission in Lafayette in the next five years.

Entergy region and offered that DOE should use the NERC TLR web and its TLR data and logs for information.

Since the 2006 study was issued the Southwest Power Pool (SPP), in the role of Independent Coordinator of Transmission (ICT), administers Entergy's Open-Access Transmission Tariff (OATT). The OATT is the transmission for wholesale customers that use the Entergy transmission system. SPP also evaluates potential transmission projects.

DOE's Office of Electricity Delivery and Energy Reliability maintains a web site that is the online source for information on the congestion study and can be found at <http://www.congestion09.anl.gov/>.