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By Electronic Submission

Comments on draft *National Electric
Transmission Study*
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Re: Draft National Electric Transmission Congestion Study
Comments of Southern Company Services, Inc.

Southern Company Services, Inc. (“SCS”), as agent for Alabama Power Company, Georgia Power Company, Gulf Power Company and Mississippi Power Company (collectively, “Southern Companies”), appreciates this opportunity to provide these comments to the Department of Energy (“DOE”) as it finalizes this cycle’s National Electric Transmission Congestion Study.¹ Southern Companies repeat their continued support of DOE’s efforts in preparing such studies in fulfillment of DOE’s statutory requirements under Section 216 of the Federal Power Act (“FPA”), 16 U.S.C. § 824p. In Southern Companies’ view, DOE has discharged its statutory obligations admirably in its previous congestion studies (in 2006 and 2009) and has done so again in the Draft Congestion Study with regard to its findings regarding the Southeast – the region in which Southern Companies have franchised service territories and own, operate, and maintain a significant electric transmission system.

¹ Southern Companies are providing these comments in accordance with DOE’s request for comments made in its “Draft for Public Comment, National Electric Transmission Congestion Study,” at ii, 88 (August 2014), available at: <http://www.energy.gov/node/942311> (“Draft Congestion Study”) and in DOE’s request for written comments that was published in the Federal Register on August 19, 2014. See 79 F.R. 49076.

As with the 2006 and 2009 studies, Southern Companies participated in a pre-study workshop coordinated by DOE (the December 6, 2011 Philadelphia workshop)² and worked with DOE and its vendor as well as with other Southeastern utilities in the preparation of supporting information to facilitate DOE's preparation of this cycle's transmission congestion study.³ In addition, as noted in Appendix B to the Draft Congestion Study, Southern Companies provided comments on January 31, 2012 ("Initial Comments") in response to an initial request by DOE for comments concerning its preparation of its congestion study for this cycle.⁴

In these comments, Southern Companies respond to the specific findings made in the Draft Congestion Study regarding the Southeast and the particular comments sought by DOE in the Draft Congestion Study.⁵ In addition, Southern Companies are also hereby providing several clarifying comments in an effort to improve the accuracy of the final congestion study to be issued for this cycle.

I. The Draft Congestion Study's Findings Regarding the Southeast are Accurate and Appropriate.

First and foremost, Southern Companies commend DOE for reaching the appropriate conclusions regarding its congestion findings in the Southeast. The Draft Congestion Study provides:

The Department's findings regarding congestion in the Southeast are:

- There are no clear trends in the application of administrative congestion management procedures over the period 2006-2011 with the exception of an increase in level 5 TLR called by ICTE.

² As noted in Appendix A to the Draft Congestion Study, Mr. Jim Busbin of SCS participated as in Panel II at the December 6, 2011 Philadelphia workshop. However, while Southern Companies thus participated in DOE's Congestion Study Workshops held in 2011, the list of "Organizations Participating in Congestion Study Workshops" provided at Appendix A of the Draft Congestion Study omits Southern Companies.

³ As discussed further below, information that Southern Companies provided to DOE is being resubmitted and is attached as Exhibit A hereto.

⁴ Among other things, Southern Companies' Initial Comments provide a description of Southern Companies (Initial Comments, at 2), an overview of the 2006 and 2009 Congestion Studies' findings regarding the Southeast (*id.*, at 2-3), an overview of developments in the Southeast since 2009 and how this region remains free of significant economic or reliability congestion (*id.*, at 3-4), a caution concerning the use of projected forecasted data (*id.*, at 5), a discussion concerning the potential impact of certain EPA rules (*id.*, 5-6), an overview of sources of publicly available data DOE could use to develop the congestion study, a discussion regarding the appropriate definition of "congestion" and the study metrics employed in the 2009 Study (*id.*, at 10-13), and an explanation regarding how EIPC's stakeholder-driven analyses and sensitivities for far-distant time periods have little bearing or probative value for DOE's preparation of its congestion studies (*id.*, at 13-14).

The discussions and explanations in those Initial Comments remain germane to DOE's finalization of the transmission congestion study for this cycle. Rather than repeat those comments here, Southern Companies incorporate them by reference.

⁵ See Draft Congestion Study, at 86-88.

- There are no reports of persistent transmission constraints within the region.
- Transmission is being built in coordination with generation additions following longstanding planning practices overseen by state and regional protocols.⁶

As a transmission service provider, load-serving entity, regulated utility, and otherwise an owner, operator, and user of an expansive transmission system in the Southeast, Southern Companies concur with these findings and respectfully submit that they are the consensus of other significant market participants and State regulators in this region. While Southern Companies have some recommended edits to certain of the discussions in the Draft Congestion Study regarding the Southeast, from a big picture perspective, the Draft Congestion Study's findings are appropriate and correct regarding the general lack of significant congestion and constraints in the Southeast.

Importantly, and as discussed further below, DOE was able to make these appropriate and correct findings using publicly available data through the use of existing sources and through outreaches to the States, Regional Reliability Entities ("RREs"), and stakeholders.

II. Southern Companies' Responses to Questions Specifically Raised in the Draft Congestion Study

While inviting comments on any aspect of the Draft Congestion Study, DOE specifically sought comments regarding several specific topics.⁷ The following provides Southern Companies' feedback regarding these significant matters.

A. Additional Legislative Authority to Pursue "Better Data" is Neither Necessary Nor Appropriate, and Annual Congestion Reports, Likewise, are Not Helpful.

DOE first seeks comments on its reliance on publicly available data and on certain "actions the Department intends to take to improve data quality and availability in the future."⁸ With regard to the additional data-related actions that DOE states its intent to pursue, the Draft Congestion Study states a "Need for Better Transmission Data"⁹ and discusses several factors that has led it to conclude have made it difficult to "compare" congestion nationally.¹⁰ The Draft Congestion Study then states broader national challenges that also support further data

⁶ Draft Congestion Study, at xxiii, 84-85.

⁷ *Id.*, at 86-88.

⁸ *Id.*, at 86.

⁹ *Id.*, at xxiii.

¹⁰ *Id.*, at xxiii-xxiv, 12-13.

acquisition and sharing, with DOE then stating a “belie[f] that new authorization may assist in structuring and guiding this data collection and data-sharing process...”¹¹ The Draft Congestion Study then discusses several broad “types of data that could be covered in such a legislative proposal...”¹²

As discussed above, DOE has reached the appropriate conclusions regarding congestion in the Southeast and has done so using publicly available information. This demonstrates not only that the continued use of publicly available information is appropriate but that the calls for better data and new legislative authority are neither appropriate nor needed for DOE to fulfill its FPA Section 216 duties.

The Draft Congestion Study’s call for new legislation and better transmission data should be evaluated in the context of FPA Section 216 and the role played by DOE’s triennial congestion studies. FPA Section 216 serves two purposes -- the coordination of federal transmission siting authorities and the provision to the Federal Energy Regulatory Commission (“FERC”) “backstop” transmission siting authority in certain limited circumstances.¹³ The function of DOE’s performance of the triennial congestion studies serves as a reasonable check and balance to the backstop transmission siting authority that FPA Section 216 provides to FERC. Specifically, running through FPA Section 216’s prescribed steps for FERC to exercise its backstop siting authority, DOE is to first perform its triennial congestion studies.¹⁴ Based upon such a study, DOE may, if certain findings and consultations are made, “designate any geographical area experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers as a national interest electric transmission corridor” (“NIETC.”)¹⁵ Only following the performance of a national transmission congestion study and the actual designation of a NIETC may FERC’s backstop transmission siting authority be pursued for a particular transmission project within that NIETC. In addition, that backstop authority may only be exercised following essentially a failure to have the project sited by State authorities (who retain primary authority over transmission siting) and only if FERC makes certain, specified findings.

When viewed in this statutory context, which Southern Companies submit is the only appropriate context to review DOE’s congestion study and data acquisition efforts, DOE has been able to more than adequately satisfy its FPA Section 216 duties to perform its transmission congestion studies and NIETC-related determinations using currently available, public information and through outreaches to the States, RREs, and stakeholders. Based upon the information available to DOE through these sources, DOE was more than able to determine that no NIETC designations were necessary or appropriate based upon the 2009 Congestion Study,

¹¹ *Id.*, at xxv, 14.

¹² *Id.*

¹³ 16 U.S.C. § 824p.

¹⁴ 16 U.S.C. § 824p(a)(1).

¹⁵ 16 U.S.C. § 824p(a)(2)(4).

and has made the appropriate congestion-related determinations (at least for the Southeast) in the Draft Congestion Study. And the bottom-line is that, as shown through DOE's congestion study analyses, transmission constraints and congestion have not reached such a problematic level as to justify FERC using its backstop siting authority under FPA Section 216 and thereby essentially supplanting a State's primary siting authority. Indeed, Chapter 4 of the Draft Congestion Study discusses that while 2000-2006 was a period of relatively low levels of investment in transmission infrastructure, the rate of transmission investment has since "risen noticeably," thereby indicating that needed transmission infrastructure is being added pursuant to existing State-regulated processes.¹⁶

Moreover, while the Draft Congestion Study discusses some recent developments that might lead to increasing constraints and congestion in the future, such as certain recently issued Environmental Protection Agency's rules and generation retirements,¹⁷ if significant constraints or congestion arise due to such trends or other developments, then DOE will have more than sufficient data and informational sources to make such a determinations for purposes of the triennial transmission congestion studies. Indeed, if congestion and constraints arise that are of such severity as to justify the designation of NIETCs, such congestion and constraints will necessarily be significant and hence readily apparent through existing sources. Additional legislation and "better" or more uniform data will not be necessary to make such determinations.

Furthermore, it is important to remember that FPA Section 216 does not direct DOE to find any single (or set of) nationally uniform transmission constraint and congestion metrics, which almost seems to be the intent in the Draft Congestion Study's call for new legislative authority. Instead, Section 216 requires DOE in the performance of its transmission congestion studies and designation of NIETC efforts to make any determinations "in consultation with affected States;" "[a]fter considering ... recommendations from interested parties (including an opportunity for comment from affected States);" and "in consultation with any appropriate regional entity..."¹⁸ These directives indicate that Congress does not want the rote, nation-wide application of only certain metrics using only uniform data, but instead directs DOE to engage in regionally appropriate dialogues, data-collections, and analyses in making its constraint and congestion determinations.

In addition to being contrary to the FPA Section 216 statutory scheme, the Draft Congestion Study's apparent desire to have essentially uniform data and metrics is not practical. This is demonstrated by the simple fact that even though the nation's different regional transmission organizations ("RTOs") and independent system operators ("ISOs") all apply some form of congestion pricing mechanism/measurement, they do not, by any means, do so on a uniform or consistent basis. Indeed, a review of the Draft Congestion Study's discussions of those markets in its Chapters 5 and 6 establish the great variety of congestion mechanisms used

¹⁶ See Draft Congestion Study, at 24-27.

¹⁷ See *id.*, at 27-34.

¹⁸ 16 U.S.C. § 824p(a)(1)-(3).

by the different RTOs and ISOs. If the RTOs and ISOs have not found it practical to set-up on a single (or set of) consistent congestion measurements after years of use, it is unreasonable for the Draft Congestion Study to indicate the need to do so,¹⁹ especially when viewed in the above-discussed context of FPA Section 216's provision of limited backstop siting authority to FERC.

The foregoing leads to the inevitable conclusion that the Draft Congestion Study's call for better data goes beyond FPA Section 216. For example, one of the types of information that the Draft Congestion Study discusses pursuing is the "Price spreads between nodes across existing seams..."²⁰ While not completely clear exactly what is contemplated concerning such a metric, for physical transmission markets, such as the Southeast, taken to an extreme obtaining that type of data might be construed to require the creation of the type of nodal pricing used in certain RTO/ISO locational marginal pricing ("LMP") markets. Such a market restructuring effort would go well beyond FPA Section 216's limited focus of when it might be appropriate to provide FERC backstop transmission siting authority.

In fact, the Draft Congestion Study is candid that the more uniform data and metrics that it seeks are for reasons beyond the performance of FPA Section 216's required transmission congestion study metrics. The Draft Congestion Study states that the "congestion-related data challenges ... are only part of a *broader set of data problems*..."²¹ The Draft Congestion Study then lists several "challenges and complexities" that will be faced by "[t]he planners and operators of tomorrow's electricity systems..."²² However, such planners and operators, such as Southern Companies, have more than adequate institutional and informational means to obtain and develop the data they need to address tomorrow's challenges. The more uniform data and metrics contemplated by the Draft Congestion Study simply would not help but instead would prove to be burdensome distractions.

The Congestion Study also announces that DOE intends to work with the Energy Information Administration and FERC to "prepare an annual report on publicly available data and information on transmission matters, including congestion."²³ While this effort is undoubtedly well intentioned, such annual congestion-related reports are not required by FPA Section 216 and would not be helpful. Tracking congestion year-to-year is not meaningful and may appear to show an indication of congestion that in actuality may just reflect temporary nuances in system conditions, such as outages associated with interconnecting new generating facilities or significant transmission lines. Rather than performing such congestion studies on an

¹⁹ It bears emphasizing that, as discussed further in Section III.B below, congestion pricing metrics in the Southeast have no practical value because this region is characterized by a "physical" transmission market in which the transmission system is planned and expanded with the intent that transmission service will be provided to customers who have made long-term transmission commitments *without* congestion or constraint.

²⁰ Draft Congestion Study, at xxv, 14.

²¹ *Id.*, at xxiv, 13 (emphasis added).

²² *Id.*

²³ *Id.*, at iii, 7.

annual basis, the current three year cycle provides the appropriate perspective for identifying and analyzing significant, on-going congestion. Accordingly, DOE should refrain from pursuing those annual congestion studies.

While calling for “better transmission data,” it bears noting that the Draft Congestion Study did not utilize all of the data that was provided. Specifically, and as explained in the introduction to these comments, Southern Companies and several other large Southeastern transmission providers worked with DOE and its vendor to develop congestion- and constraint-related data for the Southeast’s physical transmission markets. For ease of reference, the information that Southern Companies provided is being resubmitted as Exhibit A to these comments. That information was provided in October 2012, and consisted of data involving transmission loading relief (“TLR”) procedures, percentage of transactions curtailed for both imports and exports for transmission service providers, transfer capability, denials of long-term firm transmission service, and transmission expansion information. Other than the TLR and transmission expansion information, the Draft Congestion Study does not appear to reflect the other data that was provided, which Southern Companies respectfully submit provide relevant information concerning the degree of congestion and constraints for the Southeast’s, physical transmission markets.

B. The Draft Congestion Study Does Not Support the Designation of Any NIETCs (at Least Not in the Southeast).

The Draft Congestion Study also requests “feedback on whether the study’s findings warrant consideration of National Corridors.”²⁴ The Draft Congestion Study’s findings for the Southeast of “no clear trends in the application of administrative congestion management procedures,” “no reports of persistent transmission constraints,” and “transmission is being built in coordination with generation additions,”²⁵ establish that no NIETC should be designated in the Southeast. Reinforcing that no such designation would be appropriate for the Southeast is that there are no major transmission siting difficulties encountered in this region under existing State-regulated processes.

In addition, while Southern Companies have more familiarity regarding the Southeast since this is the region in which they provide transmission service, Southern Companies are not aware of any other region in which an NIETC would be appropriate at this juncture. As indicated above, Chapter 4 of the Draft Congestion Study discusses trends, such as the economic recession and lower demand, increases in energy efficiency, and increases in transmission investment that, for the most part, indicate an overall reduction in the degree of constraints and congestion nationally.²⁶

²⁴ *Id.*, at 86.

²⁵ *Id.*, at xxiii, 84-85.

²⁶ *Id.*, at 16-35

C. FPA Section 216's Backstop Siting Authority, Fortunately, Has Not Proven Necessary

The Draft Congestion Study next “invites comments on the usefulness and relevance of its triennial congestion study and of its authority to designate National Corridors...”²⁷ In response, and as discussed above, DOE’s performance of its triennial congestion studies and NIETC requirements should be viewed in the overall statutory scheme of FPA Section 216. The triennial transmission congestion studies and NIETC designations serve as prerequisites and reasonable checks and balances on FERC’s backstop siting authority, which is appropriate since a FERC exercise of backstop siting authority would be a signal that traditional, State-regulated siting processes have failed to address significant constraints and congestion.²⁸ Fortunately, and again as indicated in the Draft Congestion Study, while the U.S. experienced a trend in decreasing levels of transmission investment prior to the enactment of FPA Section 216 in 2005, that trend has since reversed with there now being increasing levels of transmission investment.²⁹ Stated simply, FPA Section 216’s provision of backstop siting authority to FERC has not proven necessary to-date.

However, the fact that FERC’s backstop siting authority has not proven necessary does not mean that the DOE’s triennial congestion studies and NIETC process have not proven necessary. To the contrary, those processes remain important checks and balances on FERC’s backstop siting authority, which again should only be exercised if existing State-regulated processes have truly failed in light of transmission curtailments and congestion having such significance to be in the national interest. Accordingly, the removal of FPA Section 216’s triennial congestion and NIETC designation requirements should only be explored in the context of also removing FERC’s backstop siting authority.

III. Other Issues Raised by the Draft Congestion Study

While the foregoing addresses the Draft Congestion Study’s major findings made regarding the Southeast and the specific requests for comments made by DOE, the Draft Congestion Study also raises several other matters that Southern Companies address below in an effort to improve the accuracy and clarity of the final congestion study to be issued for this cycle.

A. Compliance with Reliability Requirements Does Not Cause Constraints or Congestion.

On at least a couple of occasions in the Draft Congestion Study, there are references to “constraints result from compliance with reliability rules.”³⁰ While Southern Companies believe

²⁷ *Id.*, at 86.

²⁸ *See* 16 U.S.C. § 824p(a)-(b).

²⁹ Draft Congestion Study, at 24-27.

³⁰ *See id.*, at xi-xii, 10-11.

they understand the point that DOE is trying to make (in that maintaining reliability necessary requires limitations on facility usage), Southern Companies are concerned that these type of statements may be misleading and lead to confusion by indicating (and even stating) that compliance with reliability criteria causes constraints. Taken to their logical conclusion, these statements would lead one to believe that constraints could be avoided by simply disregarding NERC's reliability standards and other reliability criteria, which would not be the case (or otherwise recommended).

In an effort to avoid such potential confusion, Southern Companies recommend that the pertinent discussion at pages xi and 10-11 be revised in the nature shown below:

“Transmission constraints and congestion are related but distinctly different concepts. The term ‘transmission constraint’ may refer to:

- 1) The physical rating of an element of the transmission system (either an individual piece of equipment, such as a transformer, or a group of closely related pieces, such as the conductors of a line that links one substation to another) ~~that limits power flows;~~
- 2) An operational limit (e.g., thermal, voltage, stability) imposed on an element (or group of elements) to maintain protect reliability in the event of system contingencies; or
- 3) A limit in the amount of physical ~~The lack of adequate~~ transmission system capacity available to deliver electricity from areas of potential sources of generation (~~either from new sources or re-routed flows from existing sources when other plants are retired~~) to areas of loads while meeting reliability criteria for system contingencies ~~without violating reliability rules.~~

Transmission constraints establish the levels at which the power system may be operated in a safe, reliable, and secure manner consistent with reliability standards, ~~as defined above in (1), are a result of many factors including load level, generation dispatch, and facility outages. Jointly, these conditions establish a specific level or limit — as in (2) — to maximum permissible flow over the affected element(s), in order to comply with reliability rules and standards established to ensure that the grid is operated in a safe and secure manner.~~ Reliability standards developed by the North American Electric Reliability Corporation (NERC) and approved by FERC specify how equipment or facility ratings should be calculated ~~respected~~ to avoid exceeding thermal, voltage, and stability limits following credible contingencies. Transmission operating limits, which constrain throughput on affected

transmission elements or paths, are observed~~identified~~ to maintain reliable operating levels consistent with NERC reliability standards~~comply with these rules and practices~~. Thus, ~~it is commonly thought that~~ transmission constraints ~~indicate reliability problems, in fact, reflect a transmission flow threshold necessary to maintain reliability~~ ~~constraints result from compliance with reliability rules~~. However, ~~w~~When constraints frequently limit desired flows, transmission enhancements may be warranted to enable the desired level of flow~~or when these limits are violated so as not to shed firm load, they may indicate reliability problems that warrant mitigation.~~”

B. Physical Transmission Markets are Not More Opaque than RTOs; Instead, Rather than Buying and Selling Congestion Products Using LMP Mechanisms as is Done in RTOs, the Non-RTOs Plan and Expand Their Transmission Systems with the Aim that Firm Transmission Service Will be Provided *Without Congestion or Constraint*.

1. Physical Transmission Markets are Not More Opaque

One of the more troubling aspects of the Draft Congestion Study is its statement that “the non-market regions are more opaque – buyers and sellers there collect less data and share little of what they collect.”³¹ This statement is not correct. To the contrary, tremendous amounts of information about buyers’ and sellers’ wholesale sales are publicly available on the FERC-regulated Electronic Quarterly Reports (“EQR”) and tremendous amounts of information about transmission requests and reservations are publicly available on the FERC-regulated Open Access Same-Time Information Systems (“OASIS”).

What the Draft Congestion Study might be attempting to convey is that physical transmission markets are not congestion management markets that yield tremendous amounts of information about the buying and selling of congestion-related products, such as those involved in LMP markets administered by RTOs. However, rather than using LMP markets to price congestion as done in certain RTO markets, non-RTOs operate physical transmission markets in which the transmission systems are generally planned, expanded and operated with the aim that those long-term firm service commitments will be served *without congestion or constraint*.³² In such physical transmission markets, if a transmission customer wants to receive service without congestion or constraint, then all that it has to do is commit to the long-term firm transmission service necessary to so expand and maintain the transmission system. Accordingly, since a primary objective of the transmission planning and expansion in physical transmission markets is

³¹ Draft Congestion Study, at xxxiii, 12.

³² See Eastern Interconnection States’ Planning Council, “Market Structures and Transmission Planning Processes in the Eastern Interconnection,” at 6, 34, 64 (2012), available at: <http://communities.nrii.org/documents/68668/2fba6d8e-2775-4a9b-a731-969eb820d14a> (“EISPC Paper”).

to allow firm transmission customers to receive service without congestion, congestion costs are neither calculated nor imposed.

Accordingly, the fact that physical transmission markets do not make publicly available data regarding buyers and sellers buying and selling congestion-related products is because there are no such products or transactions. It is not that non-RTO are more “opaque;” it is that such buying and selling of congestion products has no meaning for physical transmission markets since an aim of transmission planning and expansion is to allow for the provision of long-term firm transmission service *without* congestion or constraint.

2. Rather than Congestion Pricing Metrics, in a Physical Transmission Market, More Appropriate Congestion Metrics are Those that Measure the Transmission System’s Ability to Provide and Maintain Delivery Priority (i.e., Firm Transmission Service) without Congestion or Constraint

As discussed above, seeking to adopt congestion *pricing* metrics for non-LMP markets is meaningless since physical transmission markets do not price transmission congestion but instead seek to prevent such congestion or constraints in the provision of long-term service. Therefore, more meaningful and relevant congestion metrics for a physical transmission market are those that measure the ability of a physical transmission market/system to provide long-term firm transmission service without congestion or constraint. In this regard, information that Southern Companies provided DOE in the course of DOE’s preparing this draft and that is attached hereto as Exhibit A provides several metrics that could be used to measure the ability of a transmission system to provide and maintain firm transmission delivery priority. The “Congestion Considerations in Southeast Physical Transmission Markets” paper (“Physical Markets Paper”) provided in Exhibit A attached hereto discusses the following examples of such delivery priority metrics that could be used:

1. Curtailments.

a. TLRs. Chronic curtailments of firm transactions on the same transmission facility can be indicative of congestion in physical markets. The Draft Congestion Study has appropriately included in its analysis information in this regard. However, emphasis should be provided to TLRs level 5 and above since they involve curtailments of firm transactions. In a physical market, the curtailment of non-firm transactions is not generally indicative of congestion since such service is taken on an “as-available” basis.

b. Percentage of Transactions Curtailed. The percentages of transactions (for both imports and exports) curtailed by the initiating by Reliability Coordinators may be determined using IDC information. While such analysis would provide information for both firm and non-firm transactions, the percentage is typically shown to be so low

for the physical transmission markets in the Southeast as to indicate a lack of overall congestion in this region.³³

2. Transfer Capability. The inability to support long-term firm import and export capability can be indicative of congestion in physical markets, as well as also indicating the potential level of vibrancy of non-firm energy transactions between regions and sub-regions. Information in this regard is publicly available on OASIS. By making such OASIS data queries, graphic and/or tabular pictures of a transmission provider's capability to transfer power into and out of its system can be built.

3. Long-Term Firm Transmission Service Denials. Since the physical transmission markets are largely predicated on the ability of users of the system to be able to obtain long-term firm service so as to receive service without congestion or constraint, the denials of long-term firm transmissions service request can be indicative of congestion. Detailed information regarding service denials is available through OASIS for each public utility transmission service provider.

C. Non-RTOs in the Eastern Interconnection are also Responding to New Challenges Facing the Electric Industry.

In discussing transmission congestion and constraints in the Eastern Interconnection, the Draft Congestion Study begins with an overview that discusses some of the industry-wide changes that have occurred since 2009, including a drop in demand and changes in generation mix and sources associated with lower natural gas pricings, environmental requirements, and renewable portfolio standards.³⁴ The Draft Congestion Report then concludes that "Regions are responding to these challenges, in part, by changing transmission planning processes."³⁵ The report then discusses certain actions being taken by MISO, SPP, and PJM.³⁶

While Southern Companies do not believe it is DOE's intent, the foregoing's line of reasoning would lead one to think that only the referenced RTOs are addressing such issues, or that addressing those issues through modifications in transmission planning processes merit some particular emphasis *vis-à-vis* other means. To provide more balance and accuracy to the Draft Congestion Study's discussion at p. 51, revisions in the nature of the following are recommended:

³³ While the Physical Markets Paper does not discuss this "percentage of transactions curtailed" measurement of congestion, it was described in other materials sent by Southern Companies to DOE.

³⁴ Draft Congestion Study, at 48-51.

³⁵ *Id.*, at 51.

³⁶ *Id.*

“These factors are affecting how transmission systems are planned and are addressed across the Eastern Interconnection in a manner that necessarily reflects regional differences in accordance with market structures and regulatory requirements. While non-RTOs address many of the economic ramifications associated with these changes through their integrated resource planning processes that, in turn, drive their transmission planning processes, some Rregions are responding to these challenges, in part, by changing their transmission planning processes. MISO, SPP, and PJM have...”

D. Clarifying Edits to the Draft Congestion Study’s Discussion of Southeastern Transmission Planning Efforts

The Draft Congestion Study generally provides accurate references to the transmission planning performed by the North Carolina Transmission Planning Collaborative (“NCTPC”) and the Florida Reliability Coordinating Council (“FRCC”), but its description of some of the other transmission planning organizations in the Southeast are not completely accurate.³⁷ Specifically, the Draft Congestion Study indicates that many Southeastern utilities perform their coordinated transmission planning for purposes of Order No. 890 through the Southeast Inter-Regional Participation Process (“SIRPP”), which is really not the case, and fails to identify the actual organization, the Southeastern Regional Transmission Process (“SERTP”), that they do use to perform such coordinated transmission planning.³⁸ In this regard, the SIRPP was formed with the primary scope of providing a means for stakeholders to request up to five (5), hypothetical/economic, interregional transmission planning studies on a yearly basis. As such, the SIRPP performs no substantive transmission planning but only performs such studies described above. In contrast, the SERTP is the transmission planning organization that the several Southeastern transmission owners use to coordinate their transmission planning for purposes of Order Nos. 890 and 1000, with the SERTP having been significantly expanded in June 2014.

To reflect these clarifications, Southern Companies recommend that the pertinent discussion found at page 76 of the Draft Congestion Study be revised to provide in the nature of the following:

³⁷ Draft Congestion Study, at 76.

³⁸ *See id.*

Several Southeastern states encourage or require joint planning. The North Carolina Transmission Planning Collaborative provides an opportunity for utilities to study transmission options and get input from customers, munis and co-ops. The Collaborative has finalized its fifth report, identifying many of the proposed projects from the previous report are underway or completed, and calls for an additional \$296 million in investment by 2021.¹⁶⁴ Within Florida, the FRCC has coordinated transmission planning activities.

Southern Companies, along with the Georgia Transmission Corporation, the Municipal Electric Authority of Georgia, Dalton Utilities, PowerSouth Energy Cooperative, and the South Mississippi Power Association, have participated in the Southeastern Regional Transmission Planning (“SERTP”) process.¹⁶⁵ The SERTP process is a coordinated, open and transparent process that allows for stakeholder (e.g., any interested party) feedback regarding the current ten year transmission expansion plans of these SERTP Sponsors. Effective June 1, 2014, the SERTP has been expanded to include additional FERC-jurisdictional public utilities, municipal and cooperative utilities, and TVA. With this expansion, the SERTP now spans all or portions of fourteen states.¹⁶⁶

¹⁶⁴ Finley, E. (North Carolina Utilities Commission) (2011). “Comments of Ed Finley.” Provided at the United States Department of Energy (2011b). *National Electric Transmission Congestion Study Workshop*. Philadelphia, PA. December 6, 2011, at <http://energy.gov/sites/prod/files/Transcript%20%202012%20National%20Electric%20Transmission%20Congestion%20Study%20Philadelphia%20Workshop.pdf>, p.21; North Carolina Transmission Planning Collaborative, “NCTPC 2011 Collaborative Transmission Plan Update, September 2012,” at http://www.nctpc.org/nctpc/document/REF/2012-09-06/2011_Collaborative_Transmission_Plan_Update_090512.pdf.

¹⁶⁵ <http://www.southeasternrtp.com/>.

¹⁶⁶ As expanded, the SERTP now includes Southern Companies (Alabama Power, Georgia Power, Gulf Power and Mississippi Power); Associated Electric Cooperative, Inc.; Dalton Utilities; Georgia Transmission Corporation; the Municipal Electric Authority of Georgia; PowerSouth Energy Cooperative; the Tennessee Valley Authority; Louisville Gas & Electric and Kentucky Utilities; and Ohio Valley Electric Cooperative. SMEPA has since joined MISO.

The ~~Southeast also conducts cooperative planning pursuant to FERC Order 890—the~~ lead utilities in the Southeast have also created the Southeast Inter-Regional Participation Process as a vehicle to support “a more open, transparent and coordinated transmission planning process” between the utilities and their stakeholders.”¹⁶⁷ The SIRPP sponsor group has included ~~the~~ Southern Company, Duke Energy Carolinas, South Carolina Electric & Gas, the Entergy Companies, and the Tennessee Valley Authority. Since 2008, This group has conducted ~~regionalized interregional~~ economic planning studies requested by stakeholders that identify the transmission impacts and requirements to move large amounts of power significantly above and beyond existing firm commitments and forecasted reliability needs. of major load flow opportunities, using common models and assumptions, since 2008.

~~FERC Orders 1000 and 1000-A require all utilities to participate in cooperative regional planning efforts. A large group of Southeastern utilities is developing a regional planning proposal to expand the southeast regional transmission planning process to include FERC-jurisdictional, municipal and cooperative utilities and TVA spanning all or parts of twelve states.¹⁶⁸ The utilities submitted compliance filings in February 2013 (for the regional requirement) and July 2013 (for the interregional requirement) identifying this region as the Order 1000 entity.~~

¹⁶⁷ Southeast Inter-Regional Participation Process (2012). Website accessed August 2012, at <http://www.southeastirpp.com>.

¹⁶⁸ ~~Southern Company (Alabama Power, Georgia Power, Gulf Power and Mississippi Power), Associated Electric Cooperative, Dalton GA Utilities, Georgia Transmission Corporation, the Municipal Electric Authority of Georgia, PowerSouth Energy Cooperative, the South Mississippi Electric Power Association, the Tennessee Valley Authority, Louisville Gas & Electric and Kentucky Utilities, and Ohio Valley Electric Cooperative.~~

IV. CONCLUSION

Southern Companies reiterate their support for DOE as it finalizes this cycle's National Electric Transmission Congestion Study. If there is anything that Southern Companies can do to support DOE in its efforts, feel free to contact us.

Sincerely,

/s/Andrew W. Tunnell

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EXHIBIT A

**“Congestion Considerations in Southeast Physical
Markets”**

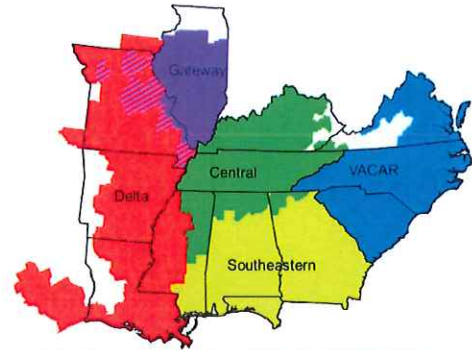
Congestion Considerations in Southeast Physical Markets

Purpose

This paper provides an explanation of how Physical Markets for transmission service work in the southeast and also provides sources of public information for consideration in assessing potential congestion in the region. This paper is not intended to provide an assessment of congestion in the southeast.

Overview of the Southeastern Sub-region of SERC

As one of five sub-regions within the SERC Regional Reliability Organization, the Southeastern Sub-region regularly and proactively expands its transmission system to provide Long-Term Firm (LTF) physical transmission delivery services in support of Integrated Resource Planning (IRP) activities conducted by Load Serving Entities (LSEs) within the states in the sub-region and also in support of LTF service commitments with transmission customers. The Southeastern Sub-region coordinates its transmission planning activities extensively with neighboring regions resulting in a reliable, robust transmission network in the southeast.



As shown in Figure 1, the bulk transmission system within SERC includes more than 100,000 miles of transmission lines operated at a voltage level of 100 kV or greater. SERC, which encompasses the fourth largest geographic footprint of the eight NERC Regional Entities, has the highest number of circuit miles in the Eastern Interconnection.

The Southeastern Sub-region is planned and built to provide safe and reliable power deliveries from generation resources to customer loads while enabling the economic dispatch of generation with minimal congestion. Planning of the system is closely coordinated with numerous Load Serving Entities (LSEs) within the service territory and with nine neighboring transmission systems.

	Existing						Total
	100-120 kV	121-150 kV	151-199 kV	200-299 kV	300-399 kV	400-599 kV	
Central	361.0	1,803.0	13,396.0	155.0	863.0	2,523.0	19,101.0
Delta	5,980.0	2,621.0	3,461.0	2,400.0	758.0	2,086.0	17,306.0
Gateway	0.0	4,872.0	1,019.0	138.0	1,871.0	0.0	7,900.0
Southeastern	17,025.0	0.0	726.0	7,829.0	0.0	2,092.0	27,672.0
VACAR	17,361.0	135.0	153.0	13,633.0	0.0	3,408.0	34,690.0
SERC	40,727.0	9,431.0	18,755.0	24,155.0	3,492.0	10,109.0	106,669.0
Additions (2012-2016)							
	100-120 kV	121-150 kV	151-199 kV	200-299 kV	300-399 kV	400-599 kV	Total
Central	0.0	1.0	137.6	0.0	11.5	23.0	173.1
Delta	415.6	33.4	181.8	115.0	147.6	0.0	893.4
Gateway	0.0	66.0	24.0	0.0	264.0	0.0	354.0
Southeastern	247.8	0.0	31.0	265.8	0.0	106.0	650.6
VACAR	101.0	0.0	17.0	487.2	0.0	4.0	609.2
SERC	764.4	100.4	391.4	868.0	423.1	133.0	2,680.2
Additions (2017-2021)							
	100-120 kV	121-150 kV	151-199 kV	200-299 kV	300-399 kV	400-599 kV	Total
Central	0.0	14.8	9.0	0.0	0.0	0.0	23.8
Delta	85.0	21.0	20.2	14.0	0.0	0.0	140.2
Gateway	0.0	39.0	0.0	0.0	312.0	0.0	351.0
Southeastern	63.0	0.0	0.0	194.0	0.0	0.0	257.0
VACAR	14.0	0.0	0.0	261.0	0.0	15.0	290.0
SERC	162.0	74.8	29.2	469.0	312.0	15.0	1,062.0
Total Additions (2012-2021)							

Figure 1: SERC Transmission Line Circuit Miles (100kV and above)
 Request RRS 2012 Annual Report at:
<http://www.serc1.org/Application/DocumentFolderView.aspx?P=SERC%5cSERC%20Publications%5cOrderPublications>

The Southeastern Sub-region of SERC contains three NERC Balancing Areas: the Southern Balancing Area (SBA) with a peak load ~48,000 MWs, the Power South Balancing Area (~1,890 MWs), and the SMEPA Balancing Area (~840 MWs). The largest of the three, the SBA, encompasses over 122,000 square miles in Alabama, Georgia, Mississippi, and the panhandle of Florida, comprises over 27,000 miles of transmission lines and maintains more than 60 tie lines with which to interface with neighboring regions. Major transmission tie lines in the sub-region, those operated at a voltage level of 230kV or 500kV, are shown below in Table 1.

The SBA includes the transmission facilities of Southern Company affiliates Alabama Power, Georgia Power, Gulf Power, and Mississippi Power, and also those of Dalton Utilities, Georgia Transmission Corporation, and the Municipal Electric Authority of Georgia. The SBA is planned and operated as a single Balancing Area, meaning that the bulk power facilities perform as a single, aggregated system even though the ownership of individual facilities varies. The SBA is also closely planned and coordinated with the SMEPA and Power South systems to ensure sufficient transfer capabilities with those systems to enable uncongested access to their network resources and loads.

The Southeastern Sub-region physically connects with three other SERC sub-regions; Delta, Central, and VACAR, and with the Florida Reliability Coordination Council (FRCC). The interfaces with these regions are closely planned and coordinated with large transfer capabilities being maintained to serve LTF commitments and reliability margins. In addition to sub-regional transmission planning assessments, SERC transmission owners perform annual SERC-wide reliability “stress tests” to assess potential constraints to intra-regional transfers.

Table 1 Interconnections at 500 & 230 KV

Interface	Tie Line	KV	MVA
Central			
TVA	Bradley – Conasauga	500	2598
TVA	West Vernon – Caledonia	500	2598
TVA	Miller – East Point	500	2119
TVA	Rock Spring – East Dalton	230	602
TVA	Loopers Farm Bus	230	1195
Delta			
EES	Daniel – McKnight	500	1800
EES	Logtown West – French Branch	230	797
EES	Hattisburg SS – Angie	230	463
FRCC			
FPL	Hatch – Duval	500	2598
FPL	Thalman – Duval	500	2598
FPL	Kingsland – Yulee	230	497
PEF	ERCO – Suwannee	230	463
PEF	Callaway – Port Saint Joe	230	433
TAL	South Bainbridge – Sub 20	230	459
VACAR			
Duke	South Hall – Oconee	500	3063

SCEG	Vogtle – Savannah River Services	230	1020
SCPSA	McIntosh – Purrysburg	230	1144
SEPA	Lexington – Russell Dam	230	596
SEPA	Anthony Shoals – Russell Dam	230	596
SEPA	Hartwell Energy – Hartwell Dam	230	662

Congestion Considerations in Firm Physical Service Markets

In the Southeastern Sub-region, transmission service is required for all deliveries of power. To obtain firm transmission service, the transmission system must be physically capable of reliably delivering the requested transfer. If sufficient physical delivery capability does not exist, the transmission system must be expanded to provide for firm physical delivery. The firm, physical transmission service market in the SBA differs fundamentally from an LMP market.

Congestion cost is an integral component of an LMP market. In an LMP market, generators are paid based upon where they inject power into the system, with congestion costs being calculated and applied to generator prices to discourage injections which exacerbate transmission constraints. A conscious choice is made to price and utilize congestion as an alternative to transmission expansion. From an economic perspective, the recognition of congestion as a component in pricing is desired in an LMP market to the extent it is cheaper than transmission expansion. The transmission system in an LMP market area is not expanded to provide firm physical delivery if congestion based dispatch offers a less expensive option.

Conversely, in the firm, physical markets of the Southeastern Sub-region, a choice of paying congestion costs in lieu of transmission expansion is not available. Congestion costs are not calculated because they have no meaning or impact outside of an LMP market construct. Rather, Load Serving Entities (LSEs) select generation resources during the course of their Integrated Resource Planning (IRP) processes, which are performed in accordance with “duty to serve” obligations under state laws or other requirements. IRP decisions are based upon the total, delivered costs of resources, including addressing transmission congestion, thus significantly influencing the siting and selection of generation resources. Network Resource selections made by LSEs must be integrated with LTF physical service and are thus largely unexposed to curtailment risk from a planning standpoint. Similarly, requests by market participants for LTF transmission service also require the transmission expansion necessary to provide uncongested service. In all cases, the transmission system is planned and expanded to provide uncongested, LTF physical service to the extent future conditions can be forecast.

Metrics in Physical Markets

In Physical Markets, transmission service should be highly dependable so that LSEs and other Transmission Customers can access the economic benefits of their resource decisions and ensure adequacy and reliability of supply. Transmission customers need be assured that their transmission service will be reliably and dependably available to deliver their energy transactions with few interruptions.

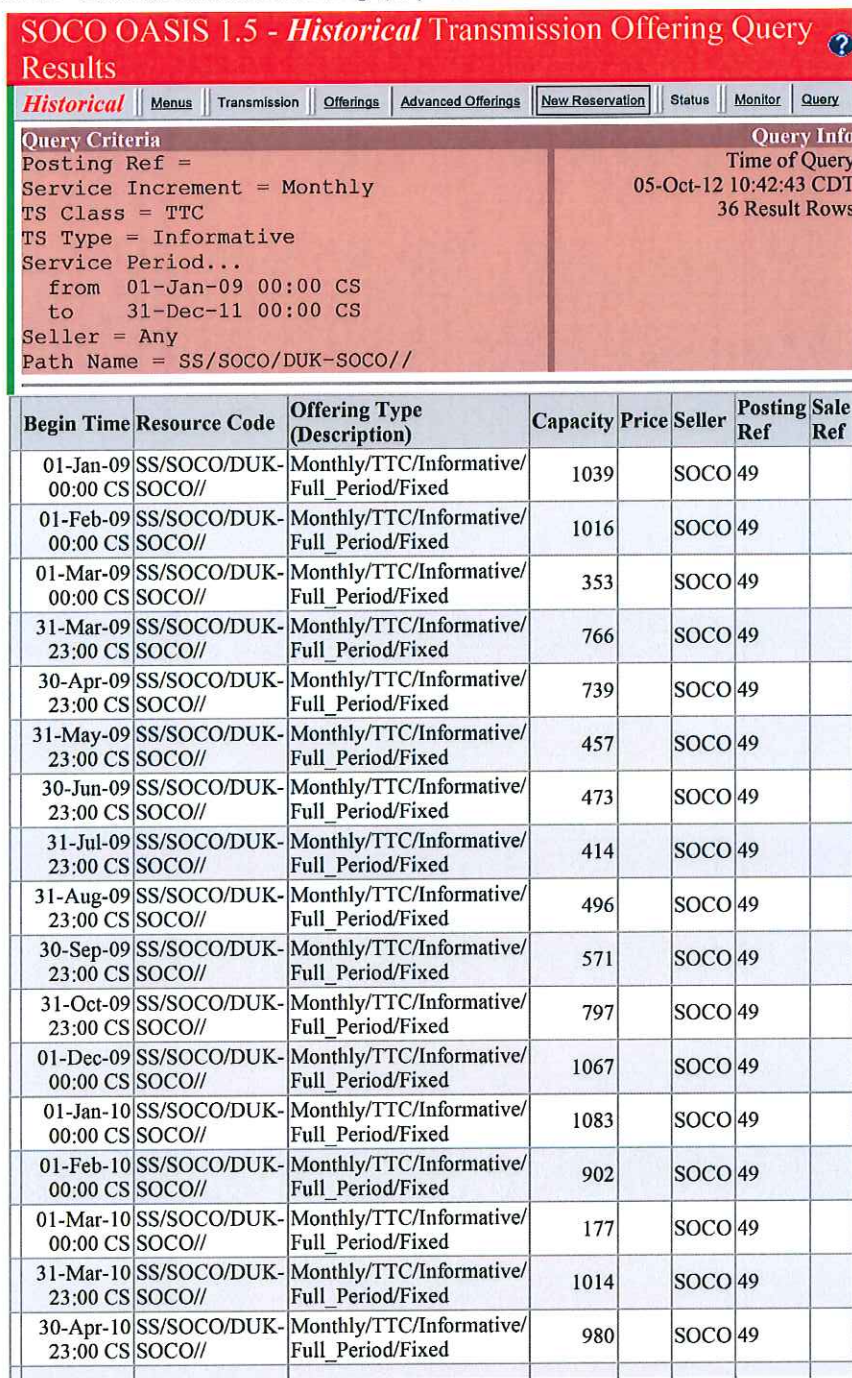
A wide range of detailed data and metrics are available which are indicative of robust, reliable transmission services in Physical Markets that are generally free of recurring congestion. We will highlight several of these metrics; to include transfer capability, curtailment history, long-term firm (LTF) service denials, and transmission expansion, and provide source links to their relative publicly available data.

Transfer Capability

The inability to support LTF import and export transactions can be indicative of congestion in Physical Markets. The SBA maintains high levels of transfer capabilities with neighboring systems to meet its LTF service obligations. These interface capabilities also provide “headroom” which enables robust bilateral trading in short-term energy markets. Detailed, granular Transfer Capability information in industry standard query format can be found on the Southern Companies’ Open Access Same-time Information System (OASIS) located at <https://www.weboasis.com/OASIS/SOCO/INFO.HTM>

As an example of available total transfer capability data, a ¹partial listing of monthly Southern Companies’ OASIS postings during the period of 1/1/2009 to 12/31/2011 for import capabilities on our Duke - Southern interface is provided on the following page in Figure 2.

¹ There are actually 36 rows of data shown in the complete listing for each directional path on each interface.



<https://www.weboasis.com/OASIS/SOCO/hist/data/TransOfferingQuery?Cmd=Query&POR...> 10/5/2012 10:50:28 AM

Figure 2 – Partial Listing of Historical 2009-2011 Monthly Service Offerings / Duke to Southern Interface

A query of Historical Transmission Offerings on Southern Companies’ OASIS site can be performed by utilizing the following link:

<https://www.weboasis.com/OASIS/SOCO/hist/data/TransOfferingQuery>

and using the Query Criteria shown in the upper portion of Figure 2. Queries for other directional transfer capabilities on any of Southern’s interfaces can be obtained by utilizing similar Query Criteria entries.

The OASIS site also provides numerous reports of summary information such as Transmission Service Request metrics, Daily and Monthly TTC limits to transfer, completed Transmission studies, Designated Network Resources, etc. These can be accessed from the General Information page at:

<https://www.weboasis.com/OASIS/SOCO/INFO.HTM> by using the Information Links found on the page.

Use of this form of OASIS data queries can build graphic and/or tabular “pictures” of a region’s (or sub-region’s in our case) capability to transfer power into and out of its system. We have developed examples in Tables 2 and 3 of how these queries can portray a region’s sustained transfer capability. Table 2 shows our capability to import power over the year 2010. We’ve chosen to provide a quarterly sampling over the year however this data can be developed in more detail over a longer period if desired.

Table 2 – Southern Company 2010 Total Transfer (Import) Capabilities (MWs)

	Jan 2010	Apr 2010	Jul 2010	Oct 2010
Duke ²	1,083	1,014	532	712
SC ²	401	252	153	211
SCEG ²	424	316	214	237
TVA ²	1,523	1,694	1,910	1,911
Entergy	1,543	2,063	2,363	200
FL ²	1,179	1,117	621	1,056
SMEPA	90	140	210	250
Power South	1,887	1,935	1,744	1,896

Table 3 shows similar data in tabular form but reflects our capability to export power to other areas over the year 2010

Table 3 – Southern Company 2010 Total Transfer (Export) Capabilities (MWs)

	Jan 2010	Apr 2010	Jul 2010	Oct 2010
Duke ²	1,070	1,106	1,070	994
SC ²	143	284	252	221
SCEG ²	135	234	200	204
TVA ²	1,456	2,141	1,087	1,222
Entergy	2,233	2,766	1,463	560
FL ²	2,562	2,436	2,437	2,437
SMEPA	430	430	350	350
Power South	1,172	932	961	813

Compilation of data such as this, derived from public OASIS sites, can begin to describe possible congestion issues within a physical market. The maintenance of adequate transfer capabilities ensures an area’s access to other markets. Further investigation would be needed should the data indicate a congestive possibility.

² Note that the total transfer capability values shown for the Duke, SC, SCEG, TVA and FL interfaces are Southern Companies’ ownership shares of the overall total transfer capability. Georgia Transmission Corporation, Municipal Electric Authority of Georgia and City of Dalton Utilities also own shares of the overall total transfer capability on these interfaces.

Curtailement History

Chronic curtailments of firm transactions on the same transmission facility can be indicative of congestion in Physical Markets. Although Physical Markets are planned to not experience curtailments in firm service, actual conditions may differ from forecast assumptions resulting in the need for curtailments to ensure bulk power system reliability. Frequently recurring firm transaction curtailments on a particular transmission facility can be indicative of transmission constraints which may benefit from system expansion.

NERC publicly posts extensive information on transaction curtailment history in its TLR logs at <http://www.nerc.com/filez/Logs/tlrlogs.html>. Table 4 (below) shows the total number of all TLRs issued by Reliability Coordinators(RCs) in the period 1998-(present) 2012. This table is taken from the NERC website using the above link and then accessing the "Trend Charts" page.

Table 4 - All TLRs (from Trend Charts)

	AEP	APS	ICTE	FRCC	IMO	MAIN	MAPP	MECS	MISO	NYIS	ONT	PJM	SOCO	SPP	TVA	VACN	VACS	Total
1998	18	11	44	0	0	106	1	1	0	0	60	27	2	0	5	26	4	305
1999	71	12	31	0	0	150	7	12	0	0	22	1	2	30	3	16	1	358
2000	367	43	44	0	0	307	37	0	0	0	7	0	2	154	68	2	1	1,032
2001	157	68	47	0	0	525	61	25	20	0	26	0	0	85	3	3	0	1,020
2002	124	25	34	0	0	49	0	0	950	0	8	95	0	157	49	3	0	1,494
2003	16	0	95	0	0	46	0	0	1,221	0	45	281	1	228	52	5	0	1,990
2004	0	0	154	1	0	11	0	0	1,281	0	35	429	1	317	74	9	0	2,312
2005	0	0	170	0	0	0	0	0	1,289	0	59	325	0	296	250	3	5	2,397
2006	0	0	222	0	1	0	0	0	800	0	30	136	0	535	176	0	1	1,901
2007	0	0	305	0	0	0	0	0	819	0	52	80	0	1,825	114	0	5	3,200
2008	0	0	353	0	0	0	0	0	599	0	161	150	0	1,879	158	0	0	3,300
2009	0	0	266	0	0	0	0	0	381	109	169	128	0	1,983	59	0	1	3,096
2010	0	0	326	0	0	0	0	0	249	104	100	110	0	1,407	116	0	2	2,414
2011	0	0	274	0	0	0	0	0	143	162	89	62	0	651	202	0	12	1,595
2012	0	0	76	0	0	0	0	0	82	54	40	9	1	241	79	0	7	589
Total	753	159	2,441	1	1	1,194	106	38	7,834	429	903	1,833	9	9,788	1,408	67	39	27,003

The NERC web site provides detailed, granular curtailment data such as; specific facilities that are constrained, times and dates of the transactional curtailments, areas and MWs impacted, curtailment durations, and other factors. A review of firm curtailments (those at TLR³ Level 5 and above) can be readily performed to identify specific facilities, and associated conditions, which are frequently constrained. It should be noted that many factors can and do contribute to firm curtailments which may not warrant transmission expansion, such as unplanned outages, loop flows from other areas, or other unusual system conditions. For this reason, consultation with the associated transmission service providers is a key step in assessing potential constraints. Nonetheless, firm curtailments do provide an objective indicator of when planned transmission services have been physically constrained. It should also be noted that firm curtailments are utilized in LMP markets to address congestion, in addition to dispatch adjustments achieved through LMP congestion pricing.

The vast majority of generation resources in the Southeastern Sub-region have LTF service currently or are pursuing LTF service in conjunction with future network resource designations or other contractual commitments. Some resources in the sub-region choose to forego LTF service, either temporarily or indefinitely, and instead utilize short-term service on an "as available" basis. These decisions indicate either 1) short-term service is sufficient to meet their needs, or 2) the resources are unwilling, unavailable, or uneconomic to deliver on an extended basis that would support transmission expansion. For example, a generator may be committed to an LSE in the sub-region as a network resource on a first call basis, but may wish to export to other regions when not being fully utilized. Such opportunity transactions can be accommodated with short-term transmission service on an "as available" basis, but would not warrant

³ TLR = Transmission Loading Relief. TLR procedures are utilized in the Eastern Interconnection in accordance with NERC Reliability Standard "IRO-006-EAST-1 – TLR Procedure for the Eastern Interconnection."

transmission expansion absent a commitment for LTF transmission service. For this reason, the inability to obtain or schedule short-term service is not a meaningful indicator of congestion in planning physical transmission markets as these products are intended chiefly to support opportunity transactions.

LTF Transmission Service Denials

Denials of LTF transmission service requests can be indicative of present or potential future congestion in Physical Markets. In the Southeastern Sub-region, the ability to proactively obtain uncongested LTF service is a key element in the physical transmission service markets. Because all transmission customers can request and subscribe LTF services, every transmission customer has the ability to cause the transmission system to be expanded to address congestion. Detailed, granular information regarding transmission service requests is publicly available through the Open Access Same-time Information System (OASIS) of each transmission provider. For Southern Companies, the production OASIS can be found at: <https://www.weboasis.com/OASIS/SOCO/>. Historical OASIS information can be found at: <https://www.weboasis.com/OASIS/SOCO/hist/>.

As an example of the historical OASIS data available relative to LTF transmission service denials, a query indicates that during the period from 1/1/2009 to 12/31/2011, Southern Companies received 53 LTF service requests and offered service to 52, indicating that 98.1% of requests were offered transmission service. One service request remains actively under Study. During that same period, transmission customers subscribed approximately 42 requests representing 7,424 MWs of LTF transmission service. 10 requests were either withdrawn by the customer or allowed to time out in the OASIS queue by the customer. There were no denials of LTF transmission service requests by Southern Companies in the given period. Detailed studies associated with requests are also available on the OASIS site and provide information such as the specific facilities, costs, and schedules required to provide the requested service at the time the requests were studied.

The process of performing a query of historical OASIS is initiated by accessing the "OASIS Historical Main Menu" at <https://www.weboasis.com/OASIS/SOCO/hist/> and then selecting "Customer Menu." The next step is to select "Query" under Reservation Status. The query criteria used to produce the LTF example and entered on the Query page is as follows:

Historical Query

Select:

- Service Criteria: Yearly, Firm, Network & Point to Point
- Status: Check Accepted, Confirmed, Declined, Queued, Received, Study
- Service Period: 1/1/2009-12/31/25
- Time Queued: 1/1/2009-12/31/2011
- Status: Accepted, Confirmed, Queued, Received, Study, Declined

Only show reservations where...

Customer is NOT SONL

The entered query criteria, as entered on the OASIS page, is shown in the illustration below.

The screenshot shows the 'SOCO OASIS 1.5 - Historical Reservation Status Query' window. The 'Service Criteria' section has 'Any' selected for 'Any', 'Yearly' for 'Type', and 'Full Period' for 'Period'. The 'Status' section has 'Accepted', 'Confirmed', 'Declined', 'Queued', 'Received', and 'Study' checked. The 'Service Period' section has 'From' set to '01/01/2009' and 'To' set to '12/31/2011'. The 'Time Queued' section has 'From' set to '01/01/2009' and 'To' set to '12/31/2011'. The 'Only Show Reservations Where...' section has 'Customer' selected and 'is NOT' checked. A list of reservation types is visible on the right side of the interface, including 'Any', 'AEC', 'AMEA', 'SAAH', 'DALT', 'DEEM', 'DEMS', 'DEMT', 'DESD', 'DOK', 'EES', 'FPC', 'FPL', 'SIC', 'LEA', 'MEAG', 'NTWK', 'SC', 'SEEG', and 'SOHA'.

As can be seen, a vast amount of data can be accessed through OASIS sites for consideration in congestion studies.

Transmission Expansion

Failure to expand the transmission system to integrate resources and meet load serving obligations can be indicative of potential future congestion. The Southeasten Sub-region expands the transmission system regularly and proactively, in advance of the integration of new network resources and other LTF transmission service commitments. As seen in the figure on the following page, Figure 2.2.4, capital expenditures for transmission expansion over the last five years (2007-2011) exceeded \$2.5 billion. [Note: Information such as this can be found on the SERC (RRO) website at:

<http://www.serc1.org/Application/DocumentSearchView.aspx> and pointing to the Reliability Review Subcommittee (RRS) in the drop-down menu. Publications may be ordered by using the "Order Publications" link at:

(<http://www.serc1.org/Documents/SERC/SERC%20Publications/OrderPublications/publication.html>) on the left-side of the RRS page.]

Extensive transmission expansion is underway in the Southeastern Sub-region of SERC over the next five years to integrate two new nuclear units near Augusta, Georgia, a new IGCC plant in Mississippi, and to address major impacts to the operations of existing coal-fired facilities associated with the EPA MATS rule. Approximately 250 transmission projects have been identified, each with a detailed project description given for review, through

the 10 year expansion plans provided on the Southeastern Regional Transmission Planning (SERTP) website at <http://www.southeasternrtp.com/>. The expansion plans and related information are publicly available. Power flow models and other Critical Energy Infrastructure Information is also available, but does require CEII certification.

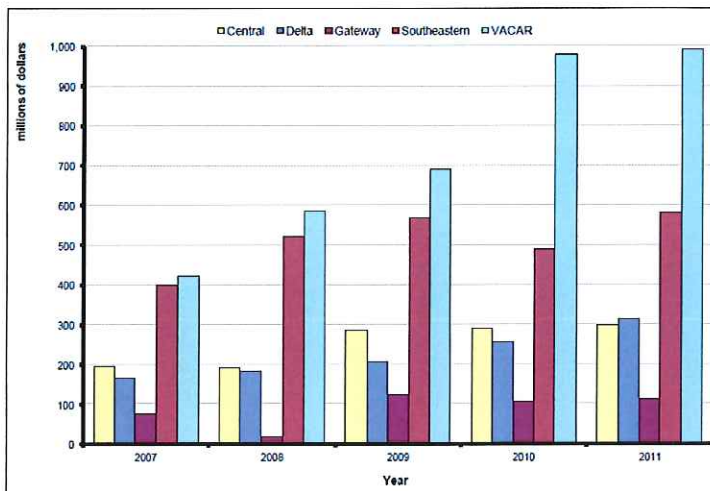


Figure 2.2.4 Actual Transmission Expenditures by Subregion (2007-2011)

Conclusion

The goal of transmission planning in the Southeastern Sub-region is to economically and proactively expand the transmission system to provide reliable, uncongested LTF physical delivery services. The southeast's Physical Markets are fundamentally different from LMP markets and cannot be assessed using congestion cost metrics which are not applicable and therefore unavailable. However, a wide range of publicly available data exists to objectively assess the performance of Physical Markets in addressing congestion. Indicative measures include regular investment in the transmission system in advance of integrating new resources, interfaces maintained at sufficient levels to meet LTF commitments while maintaining reliability margins, and LTF transmission services provided such that transmission customers can schedule transactions with few incidents of curtailments. Southern Companies are willing to assist the DOE in locating public sources of information applicable to Physical Markets and to supplement public information for the DOE to the extent needed to assess congestion in the Southeastern Sub-region of SERC.