

128 FERC ¶ 61,039
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Sudeen G. Kelly, Marc Spitzer,
and Philip D. Moeller.

Carolina Power & Light Company	Docket No. ER99-2311-010
Florida Power Corporation	Docket No. ER97-2846-013
Duke Energy Carolinas, LLC	Docket No. ER07-188-005
Entergy Services, Inc	Docket No. ER91-569-043
Entergy Power Ventures, LP	Docket No. ER02-862-011
EWO Marketing, LP	Docket No. ER01-666-011
Entergy Power, Inc.	Docket No. ER91-569-043
LG&E Energy Marketing Inc.	Docket No. ER94-1188-045
Louisville Gas & Electric Company	Docket No. ER99-1623-014
Kentucky Utilities Company	Docket No. ER98-4540-014
Western Kentucky Energy Corporation	Docket No. ER98-1279-016
South Carolina Electric & Gas Company	Docket No. ER96-1085-013
Southern Company Services, Inc.	Docket No. ER96-780-020
Alabama Power Company	
Georgia Power Company	
Gulf Power Company	
Mississippi Power Company	
Southern Power Company	
(collectively, Southern Companies)	
Tampa Electric Company	Docket No. ER99-2342-012

ORDER ON SIMULTANEOUS TRANSMISSION IMPORT
LIMIT STUDIES FOR THE SOUTHEAST REGION

(Issued July 16, 2009)

1. In September 2008, Carolina Power & Light Co., Florida Power Corporation, Duke Energy Carolinas, LLC, Entergy Services, Inc., Entergy Power Ventures, LP, EWO Marketing, LP, Entergy Power, Inc., LG&E Energy Marketing Inc., Louisville Gas & Electric Company, Kentucky Utilities Company, Western Kentucky Energy Corporation, South Carolina Electric & Gas Company, Southern Company Services, Inc., Alabama Power Company, Georgia Power Company, Gulf Power Company, Mississippi Power Company, Southern Power Company, and Tampa Electric Company (collectively, Southeast Transmission Owners) filed updated market power analyses in accordance with the reporting schedule adopted in Order No. 697.¹ In this order, the Commission adjusts the Simultaneous Transmission Import Limit (SIL) studies provided by the Southeast Transmission Owners as part of their updated market power analyses,² and adopts the Commission-adjusted SIL study results when analyzing updated market power analyses for the Southeast region.

2. The Southeast Transmission Owners submitted updated market power analyses on or before September 2, 2008. In December 2008, Commission Staff, acting under delegated authority, requested additional information relating to the updated market power analyses. Specifically, because there were conflicting results on the SIL values among the Southeast Transmission Owners, Commission Staff requested information relating to the SIL studies submitted as part of the updated market power analyses. Commission Staff requested that the Southeast Transmission Owners submit electronic copies of their seasonal models along with all associated support data files used in the SIL studies, and also asked the Southeast Transmission Owners to: (1) examine their subsystem files to identify and correct missing first tier areas, (2) examine their monitor and contingency files to ensure that first tier area contingencies are represented and complete and that the contingency files include applicable operating guide and re-dispatch procedures, (3) provide a list of all historical assumptions used to develop each seasonal base case model, (4) limit generation scaling to available uncommitted

¹ *Market-Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities*, Order No. 697, FERC Stats. & Regs. ¶ 31,252, *clarified*, 121 FERC ¶ 61,260 (2007), *order on reh'g*, Order No. 697-A, FERC Stats. & Regs. ¶ 31,268, *clarified*, 124 FERC ¶ 61,055, *order on reh'g*, Order No. 697-B, FERC Stats. & Regs. ¶ 31,285 (2008), Order No. 697-C, FERC Stats. & Regs. ¶ 31,291 (2009).

² The updated market power analyses themselves are being addressed in separate orders in the relevant dockets being issued simultaneously with this order.

generation, and (5) make adjustments to factor in the net area interchange³ to determine the final SIL value. Commission Staff also requested that the Southeast Transmission Owners revise their SIL studies and calculate new SIL values for most markets. On or before January 21, 2009, the Southeast Transmission Owners submitted additional data in response to the Commission Staff's December 2008 letter.

3. Because there remained widely inconsistent results among the Southeast Transmission owners' SIL values, on April 9, 2009, Commission Staff issued a second letter requesting additional information relating to the SIL studies. Specifically, Commission Staff requested that the Southeast Transmission Owners provide Open Access Same-Time Information System (OASIS) cases and associated support data files used in SERC Reliability Council (SERC) intra-regional OASIS studies from the relevant time period and season. Furthermore, Commission Staff requested information on how each Southeast Transmission Owner selected the limiting constraint for each SIL value and asked each Southeast Transmission Owner to document whether it followed actual OASIS practices in performing the submitted SIL studies and to document where those practices conflict with Appendix E of the Commission's order in *AEP Power Marketing, Inc.*, 107 FERC ¶ 61,018 (2004) (April 14 Order), which provided direction on how to perform a SIL study. On or before May 8, 2009, the Southeast Transmission Owners submitted timely filings in response to Commission Staff's April 9, 2009 letter.

4. Despite two rounds of responses by the Southeast Transmission Owners to Commission Staff's data requests, there remain large variations among the Southeast Transmission Owners' revised SIL values. For example, five of the Southeast Transmission Owners submitted revised SIL studies for the Southern Companies' balancing authority area. These five revised SIL studies for the Southern Companies' balancing authority area yielded the following ranges of SIL values: Winter - 1,800 MW to 11,528 MW; Spring - 1,800 MW to 8,006 MW; Summer - 1,300 MW to 8,865 MW; and Fall - 1,065 MW to 10,300 MW.⁴

5. For the reasons below, the Commission finds that the Southeast Transmission Owners have not conducted their SIL studies in accordance with the intent of Appendix E

³ Net area interchange is the sum of a study area's scheduled energy transactions that is subtracted from the SIL study results to determine the SIL value.

⁴ A chart comparing the revised SIL results submitted by the Southeast Transmission Owners with the Commission-adjusted SIL study results for the relevant balancing authorities is attached as Appendix A. The Appendix shows that the Commission-adjusted SIL result is higher than the SIL results of some of the Southeast Transmission Owners and lower than the SIL results submitted by other Southeast Transmission Owners.

of the April 14 Order and Order No. 697, and because of this, as well as the wide variations in the resulting SIL values, the Commission has made adjustments, as described below, to the SIL studies submitted by the Southeast Transmission Owners. The Commission has made these adjustments to ensure that its review of the updated market power analyses of sellers in the Southeast region is based on accurate and consistent SIL values for the respective balancing authority areas.

6. In studying the transmission import limits from neighboring first-tier markets, the Southeast Transmission Owners' SIL studies do not reasonably reflect the OASIS practices, as intended based on prior Commission orders. For example, in Order No. 697 the Commission stated that:

[S]ellers shall use the same OASIS methods and studies used historically by sellers (in determining simultaneous operational limits on all transmission lines and monitored facilities) to estimate import limits from aggregated first-tier control areas into the study area. In this sense, sellers are modeling first-tier balancing authority areas as if they are the transmission operator/security coordinator (monitoring reliability) operating an OASIS for the aggregated first-tier footprint. We recognize that sellers are not the balancing authority area operators of first-tier balancing authority areas and in some instances, sellers may not be familiar with all aspects of their first-tier balancing authority areas' transmission system limits. However, sellers should be familiar with major constraints, path limits, and delivery problems in these neighboring transmission systems. If a seller participates in regional planning studies and day-to-day coordination with neighboring first-tier balancing authority areas then this will provide a reasonable basis for including transmission system constraints of first-tier balancing authority areas in SIL study calculations. In using OASIS practices the SIL study shall capture real-life physical limitations of first-tier balancing authority areas that impede power flowing from remote first-tier resources into the seller's study.⁵

7. The Commission intended that, in performing SIL studies, applicants should follow OASIS practices historically used by the study area and aggregated first-tier balancing authority areas. However, in performing their SIL studies, the Southeast Transmission Owners did not follow the OASIS practices of the first-tier balancing authority areas as the Commission intended, which is one reason why the SIL values provided by the Southeast Transmission Owners vary so widely.

8. In order to correct for this deficiency, the Commission notes that most of the Southeast Transmission Owners are members of SERC and participate in SERC Near-

⁵ Order No. 697, FERC Stats. & Regs. ¶ 31,252 at n.361.

Term Study Group Seasonal OASIS Studies (SERC Seasonal OASIS Studies), which are intra-regional studies performed by SERC members with the participation of the Southeast Transmission Owners using their respective OASIS practices. Thus, the Commission hereby relies on a SIL study that makes adjustments to apply OASIS practices as represented in the SERC Seasonal OASIS Studies.⁶ Specifically, the Commission makes SIL study adjustments utilizing the seasonal model and associated contingency file and monitored element files associated with the SERC Seasonal OASIS Study support data. The associated monitored element file and contingency file are required input data for each seasonal SIL study. The monitored element file is a listing of transmission equipment that must be monitored for overloads during generation scaling for non-contingency and single-contingency conditions for that market for each season.⁷ Similarly, the contingency file is a listing of transmission equipment that is removed from service one-at-a-time during each model run, with each removal representing a single-contingency condition. Each such model run therefore incrementally scales generation, while taking into account each single contingency condition while monitoring relevant transmission elements for overloads. The Commission-adjusted SIL study used the contingency and monitored data files for the balancing authority areas being studied.

9. The Southeast Transmission Owners also made other errors in calculating their SIL values. For example, certain of the Southeast Transmission Owners failed to follow

⁶ Whereas the Commission used the available SERC regional OASIS monitor and contingency files to estimate the SIL values for the balancing authority areas within SERC, we applied a somewhat different methodology for the non-SERC balancing authority areas, where such data was not in the record. For the non-SERC balancing authority areas, we performed the SIL studies using the industry standard technique of monitoring all transmission equipment above 100 kV. This technique sequentially removes from service (or puts into “outage status”) each piece of transmission equipment during generation scaling, to check for overloads in the transmission system. This approach for the non-SERC balancing authority areas is a conservative application of the guidance in the Appendix E of the April 14 Order, 107 FERC ¶ 61,018, which states “[t]he applicant shall also apply an aggregation of all internal/external contingency facilities and all monitored/limiting facilities that were used historically to approximate area-area transmission availability.”

⁷ Generation scaling is a power flow study option that can simultaneously increase in one area and decrease in another area the output of generation to maintain generation balance in the model. Generation scaling in the first-tier area incrementally increases the output of available uncommitted generation. Generation scaling in the study area incrementally decreases the output of on-line generators. A “single contingency condition” is the unexpected failure of a single system component, such as a generator, transmission line, circuit breaker, switch or other electrical equipment.

SIL study requirements that SIL values cannot exceed the load in the study area⁸ or exceed the available uncommitted generation in the first-tier area.⁹ These errors result in SIL values that incorrectly state the amount of supply that can reach the market being studied. In contrast, the Commission-adjusted SIL studies recognize these limitations, and therefore provide SIL values that more accurately state the amount of supply that can reach the market being studied. In addition, certain of the Southeast Transmission Owners incorrectly applied, by adding rather than subtracting, net area interchange to their SIL study results, thereby producing incorrect SIL values. Net area interchange is the sum of a study area's scheduled energy transactions that is subtracted from the SIL study results to determine the SIL value. The Commission correctly applied net area interchange, thus providing more accurate SIL values.

10. Finally, we combine the Electric Energy Inc. (Electric Energy) and Tennessee Valley Authority (TVA) balancing authority areas into a single geographic market for the SIL studies. There is only one generating plant in the Electric Energy balancing authority area and only one customer that can be served directly from the Electric Energy balancing authority area. The customer, United States Enrichment Corporation's Paducah Gaseous Diffusion Plant (Paducah Plant), can be served by either the Electric Energy or TVA systems and is able to switch between suppliers on short notice, with no physical limitations (e.g., binding transmission constraints) to prevent the plant from accessing either system to meet demand. Treating the Electric Energy balancing authority area as the relevant geographic market ignores the fact that the Paducah Plant can be served from either Electric Energy or TVA balancing authority areas at the customer's discretion and understates the bulk power supply alternatives available to the Paducah Plant load. Therefore, we determine that the Electric Energy and TVA

⁸ The Commission has explained that the actual peak historical load during the study period is a reasonable upper limit to the simultaneous transmission import capacity into the study area. Order No. 697, FERC Stats. & Regs. ¶ 31,252 at P 361 ("In response to PPL's comments that the SIL should not be limited by load in a balancing authority area, the Commission reiterates that the SIL study is a benchmark of historical conditions, including peak load. It is a study to determine how much competitive supply from remote resources can serve load in the study area.") This is consistent with the approach the Commission took in *Puget Sound Energy, Inc.*, 111 FERC ¶ 61,020, at P 12-13 (2005) where the Commission approved the SIL value from Puget Sound Energy that limited that SIL value to historical peak load.

⁹ April 14 Order, 107 FERC ¶ 61,018, Appendix E (2004) ("In addition, the applicant shall scale up *available* generation in the exporting (aggregated first tier areas) and scale down the study area resources according to the same methods used historically in assessing available transmission for non-affiliate resources.") (Emphasis added).

balancing authority areas should be combined into one relevant geographic market for purposes of this and future market power analyses.¹⁰

11. We find that the Commission-adjusted SIL study values that are reflected in Appendix A, which apply the OASIS practices of the balancing authority areas being studied and correctly apply limitations on SIL values and account for net area interchange, represent a fair assessment of each study area's import capability from its associated first-tier areas and provide a consistent measure by which to evaluate sellers' potential market power in those study areas.

The Commission orders:

The Southeast Transmission Owners' SIL studies are hereby rejected, and the Commission-adjusted SIL study results for the Southeast region are hereby adopted, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

¹⁰ In Order No. 697, the Commission stated that, in assessing whether to expand the default geographic market, the Commission looks for assurance that there are no frequently recurring physical impediments to trade (e.g., frequently binding transmission constraints) within a proposed expanded market that would prevent competing supply in the expanded area from reaching wholesale customers. The Commission also considers evidence that customers can access resources outside of the default geographic market on similar terms and conditions as those inside of the default geographic market. Evidence of active trading throughout the proposed geographic market is also considered. Order No. 697, FERC Stats. & Regs. ¶ 31,252 at P 268-270.

Appendix A

Difference (MW) between the Southeast Transmission Owners (TO) SIL Values and Commission-Adjusted SIL Values

A: SIL Values Submitted by the Southeast TOs (in response to the December 2008 Deficiency Letters)						B: Commission-Adjusted SIL Values				C: Difference in MWs (A-B)			
Balancing Authority (BA)	Winter	Spring	Summer	Fall	Filer	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall
1 AEC (Alabama Electric Cooperative)	(986)	(193)	(782)	(32)	Southern	1,094	837	991	821	2,080	1,030	1,773	853
2 AECl (Associated Elec Coop, Inc)	6,644	16,235	771	4,521	Entergy	1,210	2,204	1,279	2,554	(5,434)	(14,031)	508	(1,967)
3 AMRN (Ameren Transmission)	7,653	22,702	2,563	5,914	Entergy	8,180	3,950	3,740	6,213	527	(18,752)	1,177	299
4 CLECO (Central Louisiana Electric Corr	(465)	1,062	1,168	845	Entergy	560	947	1,083	0	1,025	(115)	(85)	(845)
5 CPLE (Progress Energy Carolinas East	5,594	3,233	2,888	4,288	Duke	5,931	7,261	4,325	6,864	337	4,028	1,437	2,576
6 CPLE (Progress Energy Carolinas East	5,013	4,784	3,420	3,431	SCE&G	5,931	7,261	4,325	6,864	918	2,477	905	3,433
7 CSWS (Central and Southwest)	3,454	3,717	2,815	2,622	Entergy	4,042	3,430	1,733	1,693	588	(287)	(1,082)	(929)
8 DUK (Duke Energy Carolinas)	4,617	2,379	2,775	4,735	CPL	4,244	1,940	2,896	4,146	(373)	(439)	121	(589)
9 DUK (Duke Energy Carolinas)	5,055	2,618	2,791	4,891	Duke	4,244	1,940	2,896	4,146	(811)	(678)	105	(745)
10 DUK (Duke Energy Carolinas)	3,235	3,908	2,306	4,628	Southern	4,244	1,940	2,896	4,146	1,009	(1,968)	590	(482)
11 DUK (Duke Energy Carolinas)	5,043	4,299	3,295	6,394	SCE&G	4,244	1,940	2,896	4,146	(799)	(2,359)	(399)	(2,248)
12 EDE (Empire District Electric Company)	312	428	229	(70)	Entergy	803	778	126	502	491	350	(103)	572
13 EEI (Electric Energy, Inc.)	1,895	(116)	(195)	587	E.ON								
14 EES (Entergy)	2,101	1,237	2,762	3,769	Entergy	3,103	1,545	3,544	3,953	1,002	308	782	184
15 EES (Entergy)	2,498	1,363	367	862	Southern	3,103	1,545	3,544	3,953	605	182	3,177	3,091
16 EKPC (East Kentucky Power Coop)	512	1,332	1,254	1,549	E.ON	1,089	638	1,243	1,681	577	(694)	(11)	132
17 FMPP (Florida Municipal Power Pool)	0	758	0	0	Tampa	191	127	158	156	191	(631)	158	156
18 FPC (Florida Power Corporation)	2,612	1,566	2,493	3,035	Tampa	2,249	3,400	2,199	4,435	(363)	1,834	(294)	1,400
19 FPC (Florida Power Corporation)	1,628	1,586	2,313	1,446	Southern	2,249	3,400	2,199	4,435	621	1,814	(114)	2,989
20 FPL (Florida Power & Light)	3,594	4,186	1,890	4,572	Southern	6,013	4,512	5,216	5,745	2,419	326	3,326	1,173
21 FPL (Florida Power & Light)	4,006	3,539	4,262	3,842	Tampa	6,013	4,512	5,216	5,745	2,007	973	954	1,903
22 FRCC (Peninsular Florida)	3,700	3,600	3,600	3,600	Southern	4,146	4,062	3,972	4,143	446	462	372	543
23 JEA (Jacksonville Elec Authority)	(587)	164	(413)	(268)	Southern	1,537	2,233	1,337	1,367	2,124	2,069	1,750	1,635
24 LAGN (Louisiana Generating LLC)	(503)	(614)	(815)	(966)	Southern	1,385	697	0	0	1,888	1,311	815	966
25 OKGE (Oklahoma Gas & Electric)	3,129	2,820	(374)	(277)	Entergy	1,314	405	72	290	(1,815)	(2,415)	446	567
26 OVEC (Ohio Valley Electric Corporator	4,411	2,947	2,315	3,585	E.ON	35	35	35	35	(4,376)	(2,912)	(2,280)	(3,550)
27 RCID (Reedy Creek Improvement Dist)	160	178	190	181	Tampa	156	153	193	127	(4)	(25)	3	(54)
28 SC (Santee Cooper)	2,333	2,333	2,067	1,562	CPL	1,101	1,601	1,566	963	(1,232)	(732)	(501)	(599)
29 SC (Santee Cooper)	2,752	2,391	2,387	1,991	SCE&G	1,101	1,601	1,566	963	(1,651)	(790)	(821)	(1,028)
30 SC (Santee Cooper)	1,067	1,519	(307)	909	Southern*	1,101	1,601	1,566	963	34	82	1,873	54
31 SC (Santee Cooper)	2,529	2,503	1,704	2,004	Duke	1,101	1,601	1,566	963	(1,428)	(902)	(138)	(1,041)
32 SCEG (South Carolina Elec & Gas)	2,866	2,306	2,093	1,154	SCE&G	1,524	836	1,221	1,372	(1,342)	(1,470)	(872)	218
33 SCEG (South Carolina Elec & Gas)	1,700	2,179	1,221	1,305	CPL	1,524	836	1,221	1,372	(176)	(1,343)	0	67
34 SCEG (South Carolina Elec & Gas)	1,594	2,108	942	1,242	Duke	1,524	836	1,221	1,372	(70)	(1,272)	279	130
35 SCEG (South Carolina Elec & Gas)	(636)	107	(1,047)	867	Southern	1,524	836	1,221	1,372	2,160	729	2,268	505

