MONTHLY AUDIT REPORT ON THE SOUTHEAST ENERGY EXCHANGE MARKET

March 2023

Prepared by:

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Independent Market Auditor

April 25, 2023

I. OVERVIEW

This is the Auditor report for the month of March 2023 on the Southeast Energy Exchange Market (SEEM). SEEM is a regional energy market that uses a centralized intra-hour energy exchange to create bilateral trades among its various participants. The automated market accepts bids and offers from the SEEM members and clears individual bilateral trades every 15 minutes using available transmission capability (ATC). The cleared trades are matched to maximize the trading benefit among all participants. The 15-minute trading extends the prevailing hour-ahead bilateral trading in the region and allows for fuller utilization of the transmission system.

SEEM was created and is governed by the SEEM Membership Board. The automated architecture of SEEM was developed and is operated by Hartigen and who also serves as the SEEM Administrator. Our auditing role is directed by the Membership Board in accordance with elements specified in the Market Rules as developed by the Membership Board and approved by the Federal Energy Regulatory Commission (FERC). The results of our auditing are reported to the Membership Board through submission of this Monthly Report. We also have a duty under the Market Rules to respond to inquiries made by regulators and other oversight authorities, including FERC. We received no such inquiries during the period of this report.

The SEEM auditing framework is based on the provisions of the SEEM Market Rules Section VI.D. (Auditing Process). These duties are in four main categories. The first duty is to analyze SEEM input, constraints, and matching results to determine if it operates in accordance with the SEEM Rules (SEEM Rules Sections VI.D.1, VI.D.1.4). This is the main day-to-day auditing work and represents most of the activities reported herein.

A second auditing responsibility is ensuring participants have access to SEEM data in accordance with the SEEM Rules (Sections VI.D.2). Access to SEEM data involves allowing each SEEM participant to review its own bids and offers and to view matches made by the system. We are in receipt of the bid and offer data and have verified that this data is available daily.

A third area of responsibility is to report to the Membership Board regarding (1) the reliability and accuracy of the SEEM System, and (2) any complaints received from a Participant to the Membership Board and to investigate further any such complaint at the Board's direction (SEEM Rules Sections VI.D.3, VI.D.1.5). Section II of this report fulfils our duty to report on the reliability and accuracy of the SEEM system to the Board. Regarding reporting on complaints from participants, we did not receive any during the period of this report.

Finally, we have the duty to respond to written questions from Participants, FERC, NERC, state commissions in the region, Tennessee Valley Authority's Inspector General, and any other applicable regulators that oversee the electric operations of any Member regarding the integrity of

the matching process (SEEM Rules Sections VI.D.6). We did not receive any such requests during the period of this report.

In the remainder of the report (Section II), we provide the result of our analysis of the first main area of responsibility: to analyze of input, constraints, and matching results to determine whether SEEM operates in accordance with the SEEM Rules. This is in two main parts. First, we review various daily screens that ensure specific inputs, constraints, and energy exchanges have met certain validation metrics. Second, we review the economic activity in SEEM to provide insight into its functioning and performance.

II. AUDITING RESULTS

In this section, we discuss the results of our monthly auditing. In subsection A, we show the results of our daily screening. In subsection B, we present an overview of the economic activity.

A. Market Operation Screens

We calculate screens, metrics, and other analyses on a daily basis using market data and other data to meet the auditing obligations in the Market Rules. The screens and metrics are developed in accordance with specific Market Rules requirements and are divided into three main categories:

- Verification of bid/offer parameters;
- Evaluation of SEEM matching; and
- Verification of SEEM System Constraints.

The following three subsections describe the screens used for our auditing. Unless otherwise indicated, these screens are calculated daily for all fifteen-minute intervals.

1. Bid/Offer Parameters

The following screens audit the information provided in participant bids and offers.

- Offers (bids) from a participant must have Participant-Specific Constraints identifying at least three other non-affiliated Participants that can be matched as counterparties;
- All offers and bids properly must include a source or sink;
- Each offer and bid must a delivery interval;
- Bids and offers must be 4 MW increments;
- "All or Nothing Selection" must be indicated; and
- The Network Map must be accurate (monthly).

2. Matching

The following screens are used to audit the SEEM matches:

- Match price must not exceed the bid price and must be greater than the offer price;
- Buyer and seller must be distinct participants;
- Participant-specific constraints must be check for any changes (monthly);
- SEEM benefit calculation must be verified;
- Any maximum offer price declared must bind the transaction; and
- Each match must have a NERC Tag.

3. Constraints

The following screens audit the SEEM constraints.

- Transaction volume must not exceed offer or bid volume;
- The SEEM algorithm must only make energy exchanges that yield positive benefits to both buyer and seller; and
- Transaction volume over each segment must not exceed the segment ATC.

We have data transfer and storage architecture in place to receive data from the SEEM market to support the calculation of these screens. We have developed data processing procedures for each one of the daily screens listed above. We applied the screens to the March SEEM data and found that in all intervals the screens have indicated that requirements have been met.

For the monthly audit of the system map, we use the initial map developed by Hartigen and the SEEM working groups as a basis for comparing subsequent maps. This map is an electronic file of all sources, sinks, balancing areas, and SEEM transmission segments that comprise the SEEM system. A SEEM segment is an interface between two balancing areas and in many cases is synonymous with the path used by the system. In some cases, the segments are strung together to allow SEEM matches across multiple systems, forming a multi-segment path. The SEEM model allows any number of SEEM segments to be linked in order to find a beneficial trade.

By using this initial map as a basis of comparison, we will take advantage of the lengthy technical process used by SEEM and the SEEM members to develop the map and assume it is accurate. It would not be practicable to replicate this initial map. The SEEM model uses a static path configuration database to retrieve possible paths associated with the sources and sinks offered and bid in each interval. We saved a snapshot of this database and compared it to the path configuration database used at the start of each month. We identify and evaluate any changes. We found no changes in March and therefore can conclude the network map is accurate for the current sources and sinks participating in SEEM.

In a similar fashion, we evaluate changes to participant-specific constraints. These are counterparties and balancing areas acceptable to each participant for trades in SEEM, as well as any maximum price constraints. In each interval SEEM uses a set of participant-specific constraints for all participant bids and offers. We check each participant for any excluded sellers or buyers and any max price constraints and identify any constraints that changed during the month. There was one participant-specific constraint change whereby a participant added a counterparty as buyer and seller. No participants changed any change maximum price constraints.

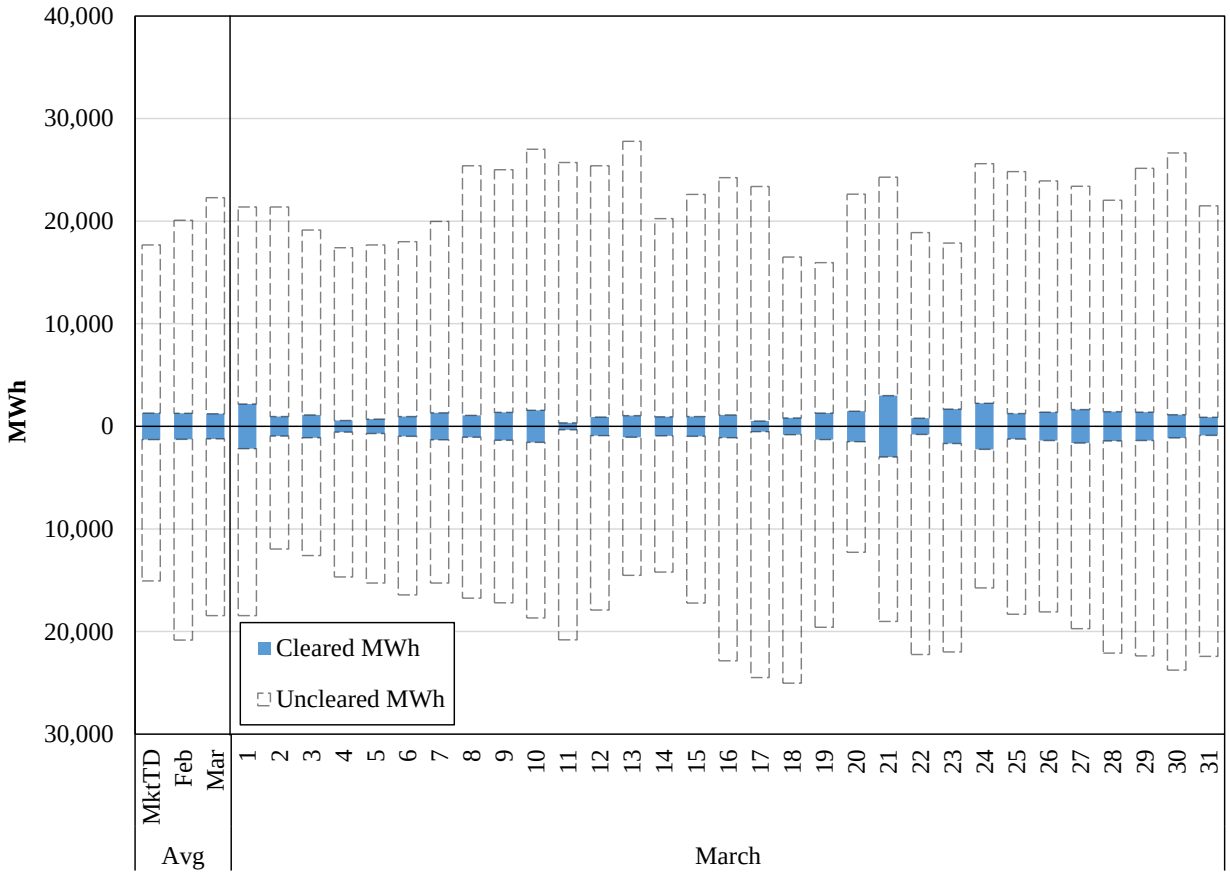
B. Market Activity

In this section, we summarize and discuss SEEM operations and outcomes. This discussion is intended to illuminate system operations and outcomes. Our discussion is in two main areas. First, is an overall review of the market trading, including volumes, prices, and characteristics of participation. Second is an evaluation of network usage, focusing on the key transmission paths and constraints.

1. Market Outcomes

Figure 1 illustrates daily SEEM bids and offers. Each bar represents a day of SEEM activity. The bids and offers are divided between cleared bids to buy (blue bar above the x axis) and cleared offers to sell (blue bars below the x axis). The transparent bar stacked above the offers and below the bids are the uncleared offers and bids. The figure also shows activity relative to the previous month and relative to the market to date (MktTD). MktTD is the monthly average of all months since SEEM began in November 2022, which is the November 2022 – March 2023 average. The March bid quantities were slightly higher than in February, while offer quantities were slightly lower. Both bid and offer quantities for March were higher than the MktTD average, but cleared volumes were lower than in February and lower than the MktTD average. Even though bids and offers have generally increased since market opening, this is the second consecutive month with declining cleared volumes.

Figure 1: Daily Bids and Offers
March 2023



Daily cleared transactions ranged as high as 2,992 MWh (on March 21), and as low as 350 MWh (on March 11).[1] There are uncleared bids and offers with economic overlap in the sense that bid price > offer price. However, only a small number of these bids and offers are separated by more than the average cost of losses. This means most of these apparently economic uncleared bids/offers could not settle at a price that would pay for transmission losses. Only about 1600 MWh of bids/offers could settle at a price that could pay the average $5/MWh losses. Without a complex simulation, there is not a straightforward way to determine why this small amount did not clear, but among the possibilities is transmission constraints and the need for segments that had higher cost of losses. With only 1,600 MWh of uncleared bid-offer pairs, this means that 96 percent of economic matches were cleared. As we discuss further in Table 1 below, the transmission data also suggests that the uncleared bids and offers generally fail to clear because the bids and offers do not coincide, rather than due to unavailable transmission capability on the SEEM segments.

[1] We report our volumes in MWh. Each match is for 15-minutes, so a match of 4 MW is one MWh.

There are also rare instances when transactions are matched but fail to clear the transmission scheduling process. These instances are attributable to occasional delays in approving transmission service requests (TSRs), so the tag is denied for being late. It may also result from insufficient ATC when the TSR is processed. SEEM downloads ATC values from OASIS twice an hour, so it is possible that real-time changes occur that result in insufficient ATC by the time the TSR is submitted. These failed transactions were less than 1/10 percent of the total bid/offered quantities.

Figure 2 shows more detail on the matched bid and offers by showing the matches by market participant. Like the prior figure, the bars above the x axis are cleared bids and the bars below are cleared offers. The bars in this figure are divided by participant, each color corresponds to a different participant (whether the participant is a buyer or seller). We do not reveal the identity of the participants in order to respect commercial sensitivity.

Figure 2: Volumes of Matched Bids and Offers
March 2023

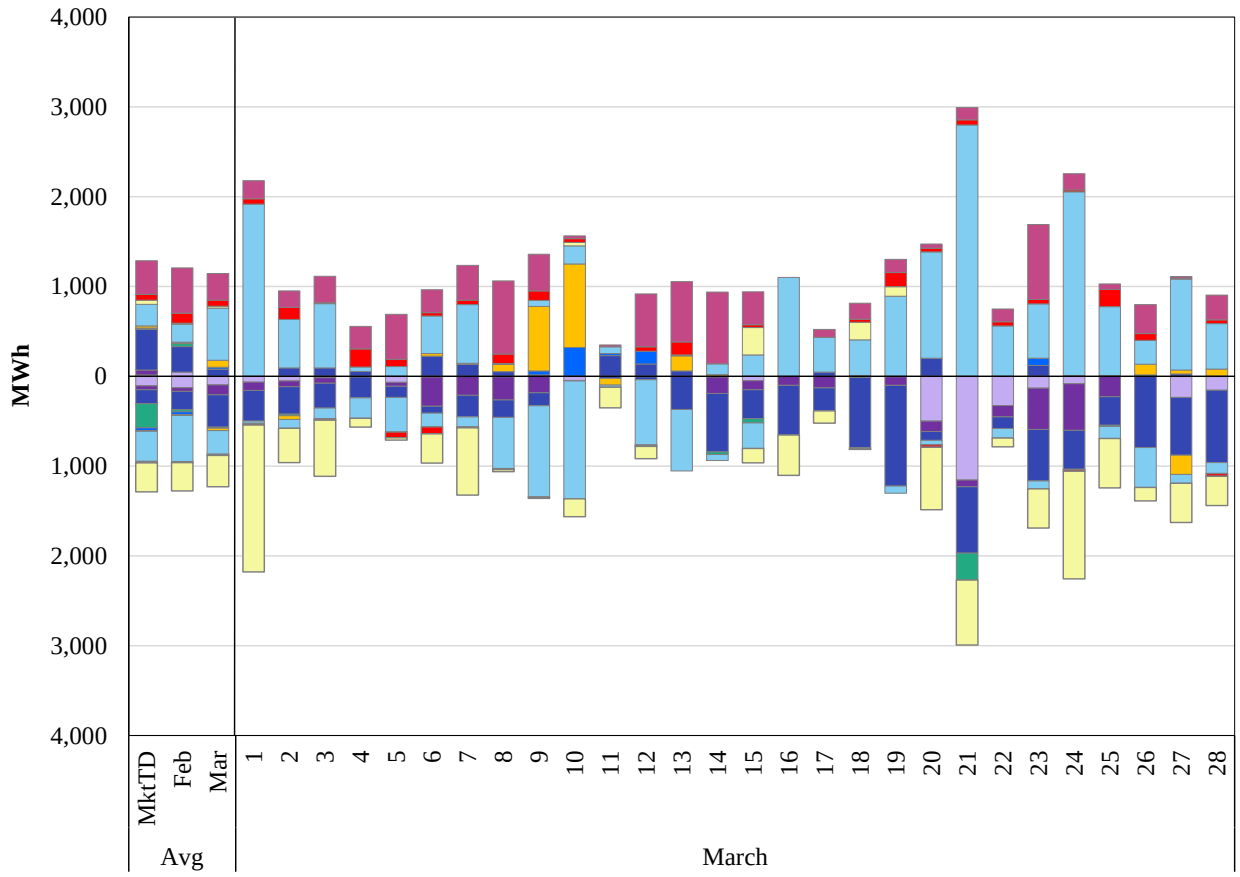
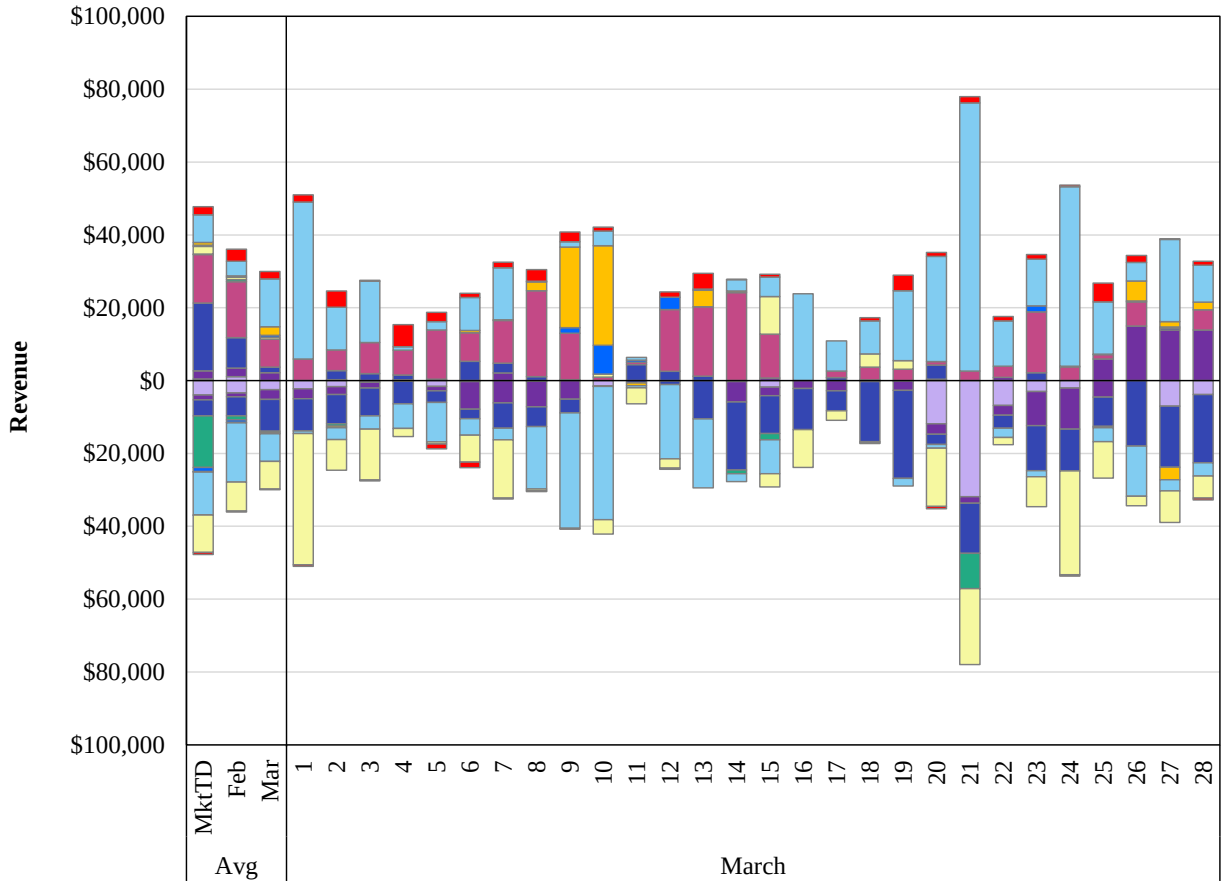


Figure 2 shows certain buyers and sellers comprise significant shares of the transaction activity. About 40 percent of the sales were made by a single participant and the two largest sellers accounted for 65 percent of the volume. On the buyer side, the largest buyer accounted for 39

percent of the cleared volume and the top two buyers accounted for 62 percent. The most active participants vary from month-to-month, both in identify and sales share.

Figure 3 is similar to Figure 2, but shows the revenues of matched transactions rather than the volumes. These are highly correlated with the transaction volumes shown in Figure 2. This suggests prices are not widely different among different matched transactions.

Figure 3: Revenues of Matched Transactions
March 2023



2. Network Usage

In this subsection, we report on the usage of the SEEM network. Figure 4 shows the average daily peak-hour prices for March and the prices on the highest-priced and lowest-priced paths for each day. Figure 5 is the same figure but for off-peak hours.

Figure 4: Average SEEM Clearing Prices: System-Wide and by Path
Peak Hours – March 2023

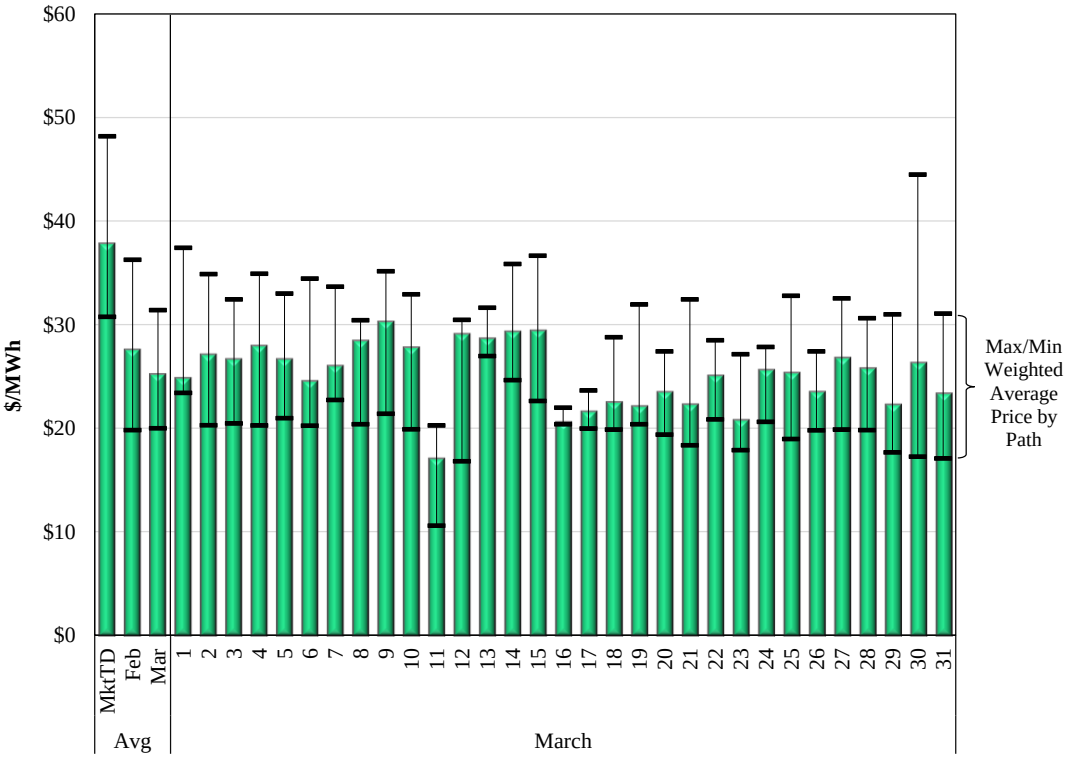
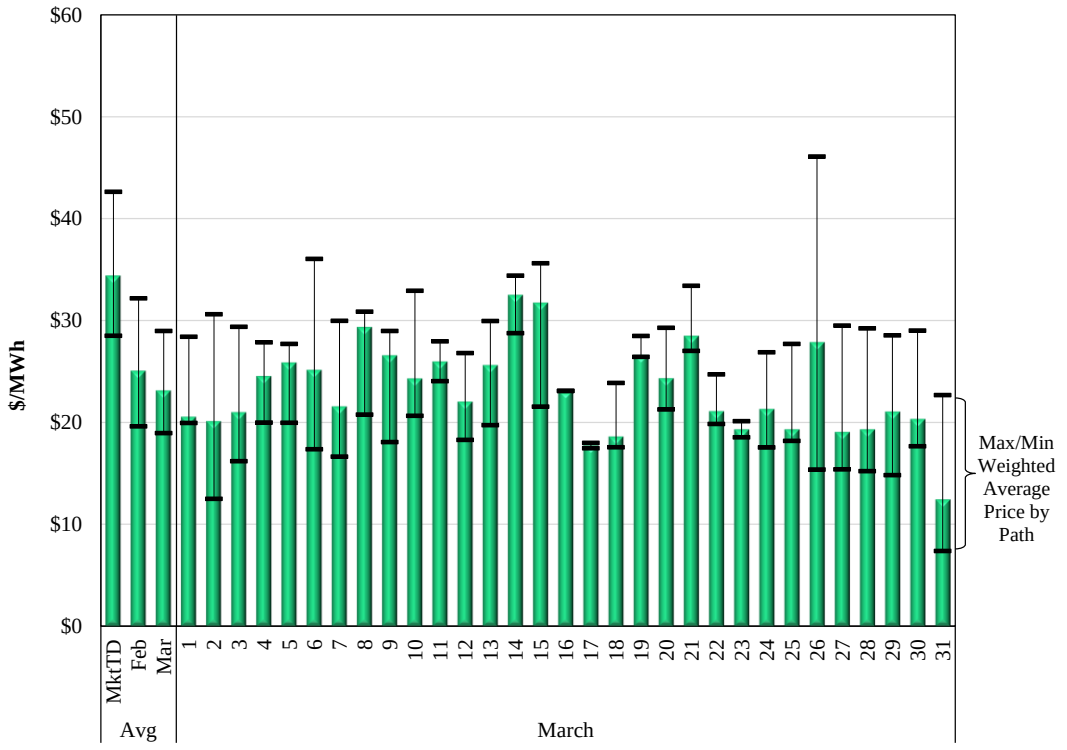


Figure 5: Average SEEM Clearing Prices: System-Wide and by Path
Off-Peak Hours – March 2022



The figures show in the left column the March prices compared to the previous period. It shows the average prices for both peak and off peak have declined relative to February and relative to the market-to-date average. The two figures show that the value of transactions can vary significantly by path. This likely is the result of certain paths linking areas where the most beneficial trades occur – paths linking low-cost to high-cost areas. Transmission constraints can contribute to higher prices between such areas. If a constraint prevents higher total flows between two (beneficial trading) areas, the average transaction price will be higher than if sufficient transmission capability was available to allow all beneficial trades to clear between the areas.

Accordingly, we evaluate SEEM transactions by path segments. We gathered ATC and trading statistics for the 180 SEEM segments available to the model. The data includes the median, maximum, and minimum ATC values over all intervals for each segment, as well as the total MWh that cleared over each segment. We calculate a "load factor" based on the scheduled transactions and ATC on the segment during each 15-minute interval.

Table 1 shows an excerpt of our statistics. The table displays the 22 segments that had more than 1,000 MWh of transactions scheduled during the month. The full data for all segments with more than 10 MWh scheduled during the month is provided in Appendix A. In addition to the ATC and schedule values, the Table also shows how each segment was utilized by interval during the Month, *to wit*, the interval was either:

(1) Partially used (MWs cleared were less than ATC);

(2) Fully Used, ATC was used up for the interval;[2]

(3) Unavailable ATC (ATC was less than 4 MW at the start of the interval); and

(4) Uncleared (no schedules on the segment).

In reporting the usage of each segment, we refer to segment-intervals, which are calculated as the product of all 180 segments and the number of intervals during the month. In March, there were 534,960.[3] Of this total, the most common case in the data was case (4), where ATC was available, but the segment was not used because there were no beneficial transactions that could be cleared by the SEEM model over the intervals (507,044 segment intervals). This is 95 percent of all segment-intervals. The second most common case was case (3), where ATC was not sufficient to clear any SEEM transactions (21,602). The third most common case was case (1),

[2] ATC less the MW schedule was less than 4 MW (i.e., no additional SEEM transaction could be cleared).

[3] The maximum number of segment intervals in a month is (180 segment x 4 intervals x 24 hours x #days in the month). This is the maximum because occasionally the system requires shutting down for short periods to perform upgrades and other patches. In March, SEEM operated in all but 4 intervals.

intervals where the segment was partially used (5,373). Finally, in a small number of intervals, case (2) prevailed where the segment was completely scheduled in the interval (221).

Table 1: Most Used SEEM Segment Statistics

Segment	ATC				Loading	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
SS/SOCO/TVA-SOCO//	313	941	1,192	11,271	1.59%	362	12%	0	0%	0	0%	2606	88%
S/TVA/TVA-SOCO//	0	2,920	2,930	8,999	0.45%	277	9%	0	0%	140	5%	2551	86%
S/CPL/CPLE-DUK//	1,439	5,143	7,438	5,172	0.15%	184	6%	0	0%	0	0%	2784	94%
S/DUK/CPLE-SOCO//	944	2,038	2,335	4,608	0.31%	162	5%	0	0%	0	0%	2806	94%
SS/SOCO/DUK-SOCO//	27	781	1,062	4,364	0.78%	132	4%	4	0%	0	0%	2832	95%
SS/SOCO/SOCO-SOCO//	40,573	43,556	43,556	3,851	0.01%	173	6%	0	0%	0	0%	2795	94%
S/SC/SOCO-SC//	0	947	1,740	3,537	0.63%	299	10%	5	0%	572	19%	2092	70%
SS/SOCO/SOCO-SC//	1	302	612	3,245	1.64%	240	8%	24	1%	4	0%	2700	91%
S/AECI/AECI-TVA//	0	501	719	3,018	0.93%	206	7%	8	0%	136	5%	2618	88%
S/TVA/AECI-SOCO//	0	136	409	2,781	2.93%	102	3%	78	3%	340	11%	2448	82%
S/CPL/CPLE-SC//	0	1,788	4,428	2,657	0.20%	226	8%	1	0%	420	14%	2321	78%
S/SC/CPLE-SC//	0	1,337	2,142	2,605	0.32%	221	7%	2	0%	532	18%	2213	74%
S/CPL/CPLE-SCEG//	0	412	484	2,311	1.01%	204	7%	1	0%	576	19%	2187	74%
S/SC/SCEG-SC//	831	1,162	1,677	2,285	0.26%	240	8%	0	0%	0	0%	2728	92%
SS/GTC/SOCO-GTC//	12,626	13,033	14,179	2,061	0.02%	73	2%	0	0%	0	0%	2895	97%
S/TVA/TVA-DUK//	0	355	355	1,725	0.87%	72	2%	3	0%	572	19%	2321	78%
S/SCEG/SCEG-SOCO//	1,041	2,734	5,658	1,722	0.08%	201	7%	0	0%	0	0%	2767	93%
SS/SOCO/SCEG-SOCO//	61	183	213	1,683	1.23%	174	6%	4	0%	0	0%	2790	94%
S/SCEG/CPLE-SCEG//	0	475	675	1,521	0.47%	166	6%	0	0%	156	5%	2646	89%
S/SCEG/SCEG-SC//	869	4,744	6,172	1,464	0.04%	202	7%	0	0%	0	0%	2766	93%
S/DUK/TVA-DUK//	0	447	692	1,277	0.36%	55	2%	1	0%	42	1%	2870	97%
S/MEAG/SOCO-MEAG//	2,600	2,900	3,075	1,027	0.05%	53	2%	0	0%	0	0%	2915	98%

Overall, these statistics indicate that many segments remain available for SEEM trades (95 percent). There are, however, numerous instances when segments are constrained. A constrained segment is one where either ATC is insufficient (less than 4 MW) prior to SEEM matching, or the segment is completely used by SEEM in at least one interval during the hour. These two circumstances (Cases (2) and (3)) occur in over 21,823 segment-intervals and almost always because the ATC is insufficient to schedule (i.e., ATC < 4 MW) rather than because it is filled by a SEEM match.

Further insight on constrained segments can be gained from Table 2. It shows the segments most often unavailable to SEEM (i.e., unavailable at least 10 percent of the intervals). Like in previous months, the TVA-AEC segment was the most constrained segment with unavailable ATC 89 percent of the time. The AEC-LGE segment was the second most constrained. Moreover, many of the top constrained segments involve AEC and TVA, like in previous months.

These top constraints were also relatively active in intervals when they did have ATC available, indicating greater availability may increase the cleared transactions in SEEM. The incidence of transmission capacity constraints increased between February and March (as measured by number of constrained segment intervals). Because trading volumes were comparable between the two months, the increased frequency of transmission constraints does not appear to significantly affect liquidity. Moreover, as we explained above, only a very small portion of economic exchanges were uncleared.

Table 2: Most Constrained SEEM Segments

Segment	ATC			MWhs	Loading Factor	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max			Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/AECI/TVA-AECI//	0	0	983	15	0.03%	1	0%	0	0%	2,646	89%	321	11%
S/TVA/AECI-LGEE//	0	51	409	0	0.00%	0	0%	0	0%	816	27%	2152	72%
S/CPL/TVA-DUK//	0	276	308	75	0.05%	6	0%	0	0%	702	24%	2260	76%
S/TVA/TVA-LGEE//	0	445	2,826	45	0.01%	3	0%	0	0%	600	20%	2365	80%
S/CPL/CPLE-SCEG//	0	412	484	2,311	1.01%	204	7%	1	0%	576	19%	2187	74%
S/CPL/DUK-SCEG//	0	412	484	0	0.00%	0	0%	0	0%	576	19%	2392	80%
S/TVA/TVA-DUK//	0	355	355	1,725	0.87%	72	2%	3	0%	572	19%	2321	78%
S/SC/SOCO-SC//	0	947	1,740	3,537	0.63%	299	10%	5	0%	572	19%	2092	70%
S/TVA/TVA-CPLW//	0	276	276	70	0.04%	5	0%	0	0%	568	19%	2395	81%
S/SC/DUK-SC//	0	1,292	2,025	865	0.11%	105	4%	2	0%	545	18%	2316	78%
S/SC/SOCO-CPLE//	0	1,956	2,609	180	0.02%	6	0%	0	0%	538	18%	2424	82%
S/SC/SOCO-DUK//	0	2,009	2,609	0	0.00%	0	0%	0	0%	537	18%	2431	82%
S/TVA/SOCO-LGEE//	0	525	2,826	0	0.00%	0	0%	0	0%	536	18%	2432	82%
S/SC/CPLE-SC//	0	1,337	2,142	2,605	0.32%	221	7%	2	0%	532	18%	2213	74%
S/TVA/DUK-LGEE//	0	355	355	0	0.00%	0	0%	0	0%	528	18%	2440	82%
S/CPL/DUK-SC//	0	1,453	4,195	0	0.00%	0	0%	0	0%	525	18%	2443	82%
S/SCEG/DUK-SCEG//	0	325	428	155	0.08%	22	1%	0	0%	516	17%	2430	82%
S/SCEG/SOCO-SCEG//	0	881	2,148	856	0.14%	108	4%	0	0%	516	17%	2344	79%
S/SCEG/SOCO-CPLE//	0	672	1,016	60	0.02%	6	0%	0	0%	516	17%	2446	82%
S/SCEG/SOCO-SC//	0	2,161	6,178	103	0.01%	8	0%	1	0%	514	17%	2445	82%
S/TVA/TVA-AECI//	0	622	622	0	0.00%	0	0%	0	0%	508	17%	2460	83%
S/TVA/CPLW-LGEE//	0	276	276	0	0.00%	0	0%	0	0%	504	17%	2464	83%
S/CPL/TVA-CPLW//	0	276	308	0	0.00%	0	0%	0	0%	489	16%	2479	83%
S/CPL/CPLE-SC//	0	1,788	4,428	2,657	0.20%	226	8%	1	0%	420	14%	2321	78%
S/TVA/AECI-CPLW//	0	136	276	0	0.00%	0	0%	0	0%	368	12%	2600	87%
S/TVA/AECI-DUK//	0	136	355	189	0.20%	20	1%	20	1%	368	12%	2560	86%
S/CPL/CPLW-TVA//	0	276	308	0	0.00%	0	0%	0	0%	363	12%	2605	88%
SS/GTC/SCEG-GTC//	0	94	110	115	0.19%	14	0%	4	0%	362	12%	2588	87%
S/TVA/SOCO-AECI//	0	622	622	15	0.00%	1	0%	0	0%	352	12%	2615	88%
S/TVA/AECI-SOCO//	0	136	409	2,781	2.93%	102	3%	78	3%	340	11%	2448	82%
S/CPL/CPLW-DUK//	0	690	1,399	0	0.00%	0	0%	0	0%	329	11%	2639	89%
S/MEAG/MEAG-DUK//	0	101	207	52	0.08%	7	0%	4	0%	288	10%	2669	90%

III. CONCLUSION

We reviewed the operation of SEEM for March 2023. We have developed operational procedures to validate the market rules and constraints of SEEM. All of our screens have been validated and we conclude the SEEM operated within the rules and constraints. We also have evaluated the SEEM outcomes and have not identified significant operating issues.

Appendix A

SEEM Path Usage

Segment	ATC				Loading	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
SS/SOCO/TVA-SOCO//	313	941	1,192	11,271	1.59%	362	*12%*	0	*0%*	0	*0%*	2606	*88%*
S/TVA/TVA-SOCO//	0	2,920	2,930	8,999	0.45%	277	*9%*	0	*0%*	140	*5%*	2551	*86%*
S/CPL/CPLE-DUK//	1,439	5,143	7,438	5,172	0.15%	184	*6%*	0	*0%*	0	*0%*	2784	*94%*
S/DUK/CPLE-SOCO//	944	2,038	2,335	4,608	0.31%	162	*5%*	0	*0%*	0	*0%*	2806	*94%*
SS/SOCO/DUK-SOCO//	27	781	1,062	4,364	0.78%	132	*4%*	4	*0%*	0	*0%*	2832	*95%*
SS/SOCO/SOCO-SOCO//	40,573	43,556	43,556	3,851	0.01%	173	*6%*	0	*0%*	0	*0%*	2795	*94%*
S/SC/SOCO-SC//	0	947	1,740	3,537	0.63%	299	*10%*	5	*0%*	572	*19%*	2092	*70%*
SS/SOCO/SOCO-SC//	1	302	612	3,245	1.64%	240	*8%*	24	*1%*	4	*0%*	2700	*91%*
S/AECI/AECI-TVA//	0	501	719	3,018	0.93%	206	*7%*	8	*0%*	136	*5%*	2618	*88%*
S/TVA/AECI-SOCO//	0	136	409	2,781	2.93%	102	*3%*	78	*3%*	340	*11%*	2448	*82%*
S/CPL/CPLE-SC//	0	1,788	4,428	2,657	0.20%	226	*8%*	1	*0%*	420	*14%*	2321	*78%*
S/SC/CPLE-SC//	0	1,337	2,142	2,605	0.32%	221	*7%*	2	*0%*	532	*18%*	2213	*74%*
S/CPL/CPLE-SCEG//	0	412	484	2,311	1.01%	204	*7%*	1	*0%*	576	*19%*	2187	*74%*
S/SC/SCEG-SC//	831	1,162	1,677	2,285	0.26%	240	*8%*	0	*0%*	0	*0%*	2728	*92%*
SS/GTC/SOCO-GTC//	12,626	13,033	14,179	2,061	0.02%	73	*2%*	0	*0%*	0	*0%*	2895	*97%*
S/TVA/TVA-DUK//	0	355	355	1,725	0.87%	72	*2%*	3	*0%*	572	*19%*	2321	*78%*
S/SCEG/SCEG-SOCO//	1,041	2,734	5,658	1,722	0.08%	201	*7%*	0	*0%*	0	*0%*	2767	*93%*
SS/SOCO/SCEG-SOCO//	61	183	213	1,683	1.23%	174	*6%*	4	*0%*	0	*0%*	2790	*94%*
S/SCEG/CPLE-SCEG//	0	475	675	1,521	0.47%	166	*6%*	0	*0%*	156	*5%*	2646	*89%*
S/SCEG/SCEG-SC//	869	4,744	6,172	1,464	0.04%	202	*7%*	0	*0%*	0	*0%*	2766	*93%*
S/DUK/TVA-DUK//	0	447	692	1,277	0.36%	55	*2%*	1	*0%*	42	*1%*	2870	*97%*
S/MEAG/SOCO-MEAG//	2,600	2,900	3,075	1,027	0.05%	53	*2%*	0	*0%*	0	*0%*	2915	*98%*
SS/SOCO/SOCO-DUK//	243	827	1,176	980	0.16%	110	*4%*	0	*0%*	0	*0%*	2858	*96%*
S/MEAG/DUK-MEAG//	8	137	267	895	0.78%	53	*2%*	3	*0%*	0	*0%*	2912	*98%*
S/SC/DUK-SC//	0	1,292	2,025	865	0.11%	105	*4%*	2	*0%*	545	*18%*	2316	*78%*
S/SCEG/SOCO-SCEG//	0	881	2,148	856	0.14%	108	*4%*	0	*0%*	516	*17%*	2344	*79%*
S/CPL/DUK-CPLE//	0	2,945	6,555	812	0.04%	45	*2%*	0	*0%*	1	*0%*	2922	*98%*
SS/SOCO/SOCO-SCEG//	1	134	183	802	0.87%	86	*3%*	12	*0%*	3	*0%*	2867	*96%*
S/DUK/DUK-SOCO//	417	1,996	2,335	633	0.04%	29	*1%*	0	*0%*	0	*0%*	2939	*99%*
S/SCEG/CPLE-SC//	64	475	675	613	0.17%	29	*1%*	0	*0%*	0	*0%*	2939	*99%*
S/DUK/SOCO-DUK//	0	1,957	2,220	597	0.05%	54	*2%*	0	*0%*	112	*4%*	2802	*94%*
SS/GTC/GTC-SOCO//	20,000	20,000	20,000	514	0.00%	18	*1%*	0	*0%*	0	*0%*	2950	*99%*
S/DUK/TVA-CPLE//	0	447	692	482	0.14%	22	*1%*	3	*0%*	45	*2%*	2898	*98%*
S/TVA/DUK-TVA//	0	355	430	414	0.16%	26	*1%*	0	*0%*	12	*0%*	2930	*99%*
S/DUK/CPLE-TVA//	292	692	692	414	0.08%	26	*1%*	0	*0%*	0	*0%*	2942	*99%*
P/LGEE/LGEE-TVA//	11	1,326	1,623	409	0.05%	28	*1%*	0	*0%*	0	*0%*	2940	*99%*
S/DUK/SOCO-SC//	0	1,990	2,220	371	0.03%	43	*1%*	0	*0%*	78	*3%*	2847	*96%*
S/DUK/DUK-SC//	319	1,978	2,880	369	0.02%	33	*1%*	0	*0%*	0	*0%*	2935	*99%*
S/TVA/LGEE-SOCO//	0	2,828	2,828	352	0.02%	25	*1%*	0	*0%*	52	*2%*	2891	*97%*
SS/SOCO/TVA-SC/MULTIPATHALIAS/	1	302	612	274	0.14%	27	*1%*	2	*0%*	4	*0%*	2935	*99%*
S/DUK/SOCO-CPLE//	0	1,837	2,220	255	0.02%	25	*1%*	0	*0%*	80	*3%*	2863	*96%*
S/MEAG/MEAG-SOCO//	2,526	2,701	2,994	237	0.01%	18	*1%*	0	*0%*	0	*0%*	2950	*99%*
S/SCEG/SCEG-DUK//	482	684	822	206	0.04%	27	*1%*	0	*0%*	0	*0%*	2941	*99%*
SS/SOCO/TVA-DUK/MULTIPATHALIAS	243	817	1,126	201	0.03%	7	*0%*	0	*0%*	0	*0%*	2961	*100%*
S/TVA/AECI-DUK//	0	136	355	189	0.20%	20	*1%*	20	*1%*	368	*12%*	2560	*86%*
S/SC/SOCO-CPLE//	0	1,956	2,609	180	0.02%	6	*0%*	0	*0%*	538	*18%*	2424	*82%*
S/CPL/SC-CPLE//	0	1,654	2,771	180	0.02%	6	*0%*	0	*0%*	24	*1%*	2938	*99%*
S/SCEG/CPLE-SOCO//	95	475	675	177	0.05%	11	*0%*	0	*0%*	0	*0%*	2957	*100%*

Appendix A (continued)

Segment	ATC				Loading	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/SCEG/DUK-SCEG//	0	325	428	155	0.08%	22	1%	0	0%	516	17%	2430	82%
S/MEAG/TVA-MEAG//	0	48	116	140	0.35%	9	0%	9	0%	8	0%	2942	99%
SS/GTC/GTC-SCEG//	0	69	94	134	0.29%	17	1%	0	0%	128	4%	2823	95%
S/CPL/DUK-TVA//	0	276	308	133	0.07%	12	0%	0	0%	30	1%	2926	98%
S/DUK/CPLE-CPLW//	0	474	577	133	0.04%	12	0%	0	0%	1	0%	2955	99%
S/TVA/CPLW-TVA//	276	276	308	133	0.06%	12	0%	0	0%	0	0%	2956	99%
S/DUK/SCEG-DUK//	0	664	664	117	0.02%	13	0%	0	0%	48	2%	2907	98%
SS/GTC/SCEG-GTC//	0	94	110	115	0.19%	14	0%	4	0%	362	12%	2588	87%
SS/GTC/DUK-GTC//	0	494	667	113	0.03%	13	0%	0	0%	16	1%	2939	99%
S/DUK/TVA-SC//	0	447	692	112	0.03%	33	1%	0	0%	38	1%	2897	97%
S/DUK/DUK-SCEG//	0	262	263	110	0.06%	13	0%	0	0%	36	1%	2919	98%
S/SCEG/DUK-SC//	0	325	428	105	0.04%	11	0%	0	0%	16	1%	2941	99%
S/SCEG/SOCO-SC//	0	2,161	6,178	103	0.01%	8	0%	1	0%	514	17%	2445	82%
SS/GTC/TVA-GTC//	0	211	280	99	0.07%	9	0%	3	0%	8	0%	2948	99%
S/DUK/SCEG-SOCO//	308	664	664	89	0.02%	14	0%	0	0%	0	0%	2954	99%
S/MEAG/SCEG-MEAG//	7	20	23	85	0.58%	6	0%	15	1%	0	0%	2947	99%
S/DUK/SOCO-SCEG//	0	262	263	79	0.04%	13	0%	0	0%	111	4%	2844	96%
S/CPL/TVA-DUK//	0	276	308	75	0.05%	6	0%	0	0%	702	24%	2260	76%
S/DUK/CPLW-CPLE//	0	400	1,043	75	0.02%	6	0%	0	0%	33	1%	2929	99%
SS/SOCO/SOCO-TVA//	1,125	1,904	2,528	73	0.01%	5	0%	0	0%	0	0%	2963	100%
S/CPL/SCEG-CPLE//	0	632	704	72	0.02%	8	0%	0	0%	28	1%	2932	99%
S/TVA/TVA-CPLW//	0	276	276	70	0.04%	5	0%	0	0%	568	19%	2395	81%
S/MEAG/MEAG-SC//	0	46	72	67	0.21%	3	0%	9	0%	192	6%	2764	93%
S/DUK/TVA-SCEG//	0	262	263	67	0.04%	6	0%	0	0%	68	2%	2894	97%
SS/GTC/GTC-DUK//	0	520	739	67	0.02%	5	0%	0	0%	8	0%	2955	99%
SS/SOCO/TVA-SCEG/MULTIPATHALIA	1	134	183	65	0.07%	5	0%	0	0%	3	0%	2960	100%
S/SCEG/SOCO-CPLE//	0	672	1,016	60	0.02%	6	0%	0	0%	516	17%	2446	82%
S/SCEG/SC-SCEG//	508	3,352	6,210	59	0.00%	8	0%	0	0%	0	0%	2960	100%
S/MEAG/MEAG-DUK//	0	101	207	52	0.08%	7	0%	4	0%	288	10%	2669	90%
S/SC/SOCO-SCEG//	0	1,058	2,481	51	0.01%	7	0%	0	0%	36	1%	2925	98%
S/TVA/AECI-TVA//	0	139	409	48	0.05%	2	0%	0	0%	216	7%	2750	93%
S/TVA/TVA-LGEE//	0	445	2,826	45	0.01%	3	0%	0	0%	600	20%	2365	80%
P/LGEE/TVA-LGEE//	0	1,406	1,424	45	0.00%	3	0%	0	0%	12	0%	2953	99%
SS/SOCO/SC-SOCO//	244	558	667	44	0.01%	3	0%	0	0%	0	0%	2965	100%
S/SC/CPLE-SOCO//	2,779	3,259	3,869	44	0.00%	3	0%	0	0%	0	0%	2965	100%
S/DUK/TVA-SOCO//	3	447	692	42	0.01%	3	0%	0	0%	2	0%	2963	100%
S/TVA/SOCO-TVA//	1,158	2,678	3,000	40	0.00%	1	0%	0	0%	0	0%	2967	100%
S/TVA/SOCO-DUK//	0	355	355	34	0.01%	6	0%	0	0%	184	6%	2778	93%
S/TVA/LGEE-DUK//	0	355	355	32	0.01%	4	0%	0	0%	84	3%	2880	97%
SS/GTC/GTC-SC//	0	168	339	30	0.02%	5	0%	1	0%	56	2%	2906	98%
S/TVA/LGEE-TVA//	464	2,828	3,000	25	0.00%	1	0%	0	0%	0	0%	2967	100%
SS/SOCO/SCEG-TVA/MULTIPATHALIA	61	183	213	16	0.01%	3	0%	0	0%	0	0%	2965	100%
S/AECI/TVA-AECI//	0	0	983	15	0.03%	1	0%	0	0%	2,646	89%	321	11%
S/TVA/SOCO-AECI//	0	622	622	15	0.00%	1	0%	0	0%	352	12%	2615	88%
SS/GTC/GTC-MEAG//	1,479	1,939	2,089	14	0.00%	2	0%	0	0%	0	0%	2966	100%
S/DUK/CPLE-SC//	1,193	2,594	2,880	13	0.00%	3	0%	0	0%	0	0%	2965	100%
S/SCEG/SCEG-CPLE//	472	672	1,052	12	0.00%	2	0%	0	0%	0	0%	2966	100%
SS/GTC/MEAG-GTC//	789	939	1,399	10	0.00%	1	0%	0	0%	0	0%	2967	100%