MONTHLY AUDIT REPORT ON THE SOUTHEAST ENERGY EXCHANGE MARKET

May 2023

Prepared by:

POTOMAC ECONOMICS

Independent Market Auditor

June 27, 2023

I. OVERVIEW

This is the Auditor report for the month of May 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 trading 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) of the SEEM members. The trades are cleared 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 SEEM 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 results 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 May 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 May and therefore we 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. During May, two participants made changes to allow trading with seven counterparties on a temporary basis. No participants changed any maximum price constraints.

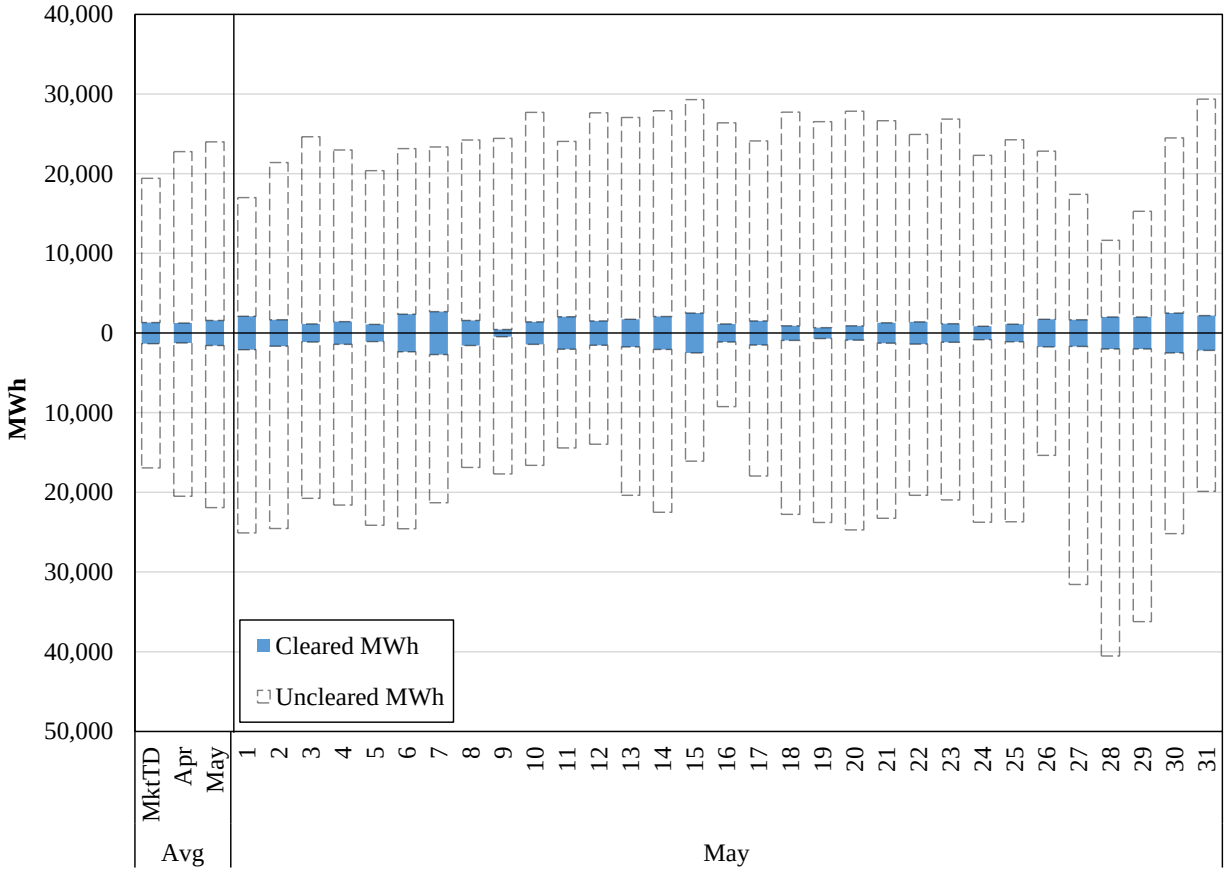
B. Market Activity

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 for May. Each bar represents the daily total volume 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 bids and below the offers are the uncleared bids and offers. 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 – May 2023 average.

Figure 1: Daily Bids and Offers
May 2023



The average daily bid and offer quantities were higher in May than in April and higher than the MktTD average. This continues the overall trend of increased participation since the SEEM opening in November. Average cleared volumes were also slightly higher in May and higher than the MktTD average. As the left-side monthly and MktTD bars show, total liquidity (bids and offers) has increased more than cleared activity.

We have evaluated the uncleared bids and offers and found a notable volume of uncleared bids and offers with economic overlap in the sense that in an interval there are bids whose price is greater than some offer prices in the same interval. Some of this is possible due to transmission constraints and some economic uncleared matches may exist because due to the cost of transmission losses that may render a trade uneconomic. Minding transmission losses, we found a much smaller volume of 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 5,500 MWh of bids/offers could settle at a price that could pay the average $2/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 to use segments that had higher-than-average cost of losses. Counterparty constraints could also explain unmatched bids and offers. With 5,500 MWh of uncleared economic bid-offer pairs, this means that 90 percent of economic matches were cleared. Relative to uncleared offers, only about one percent of the uncleared offers were economic.

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 bids 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
May 2023

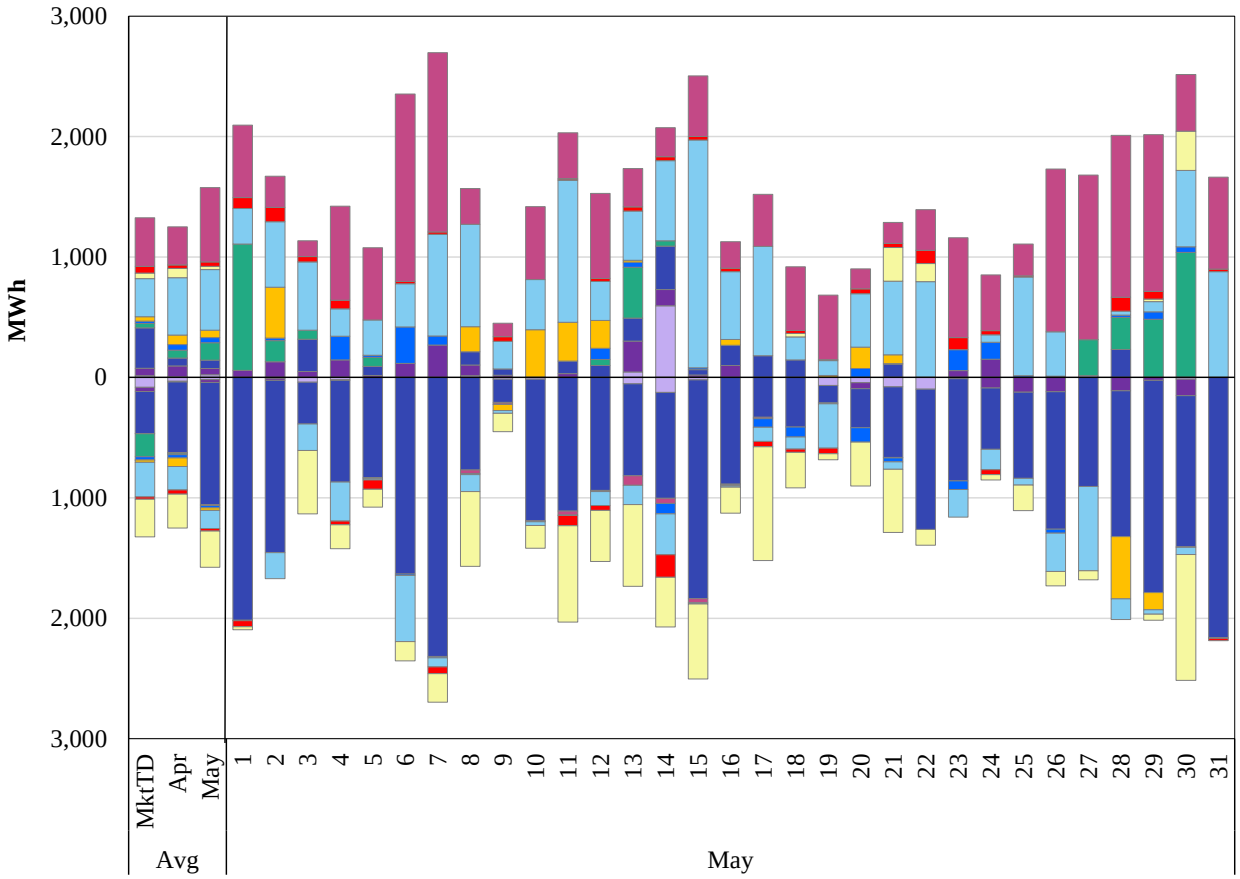
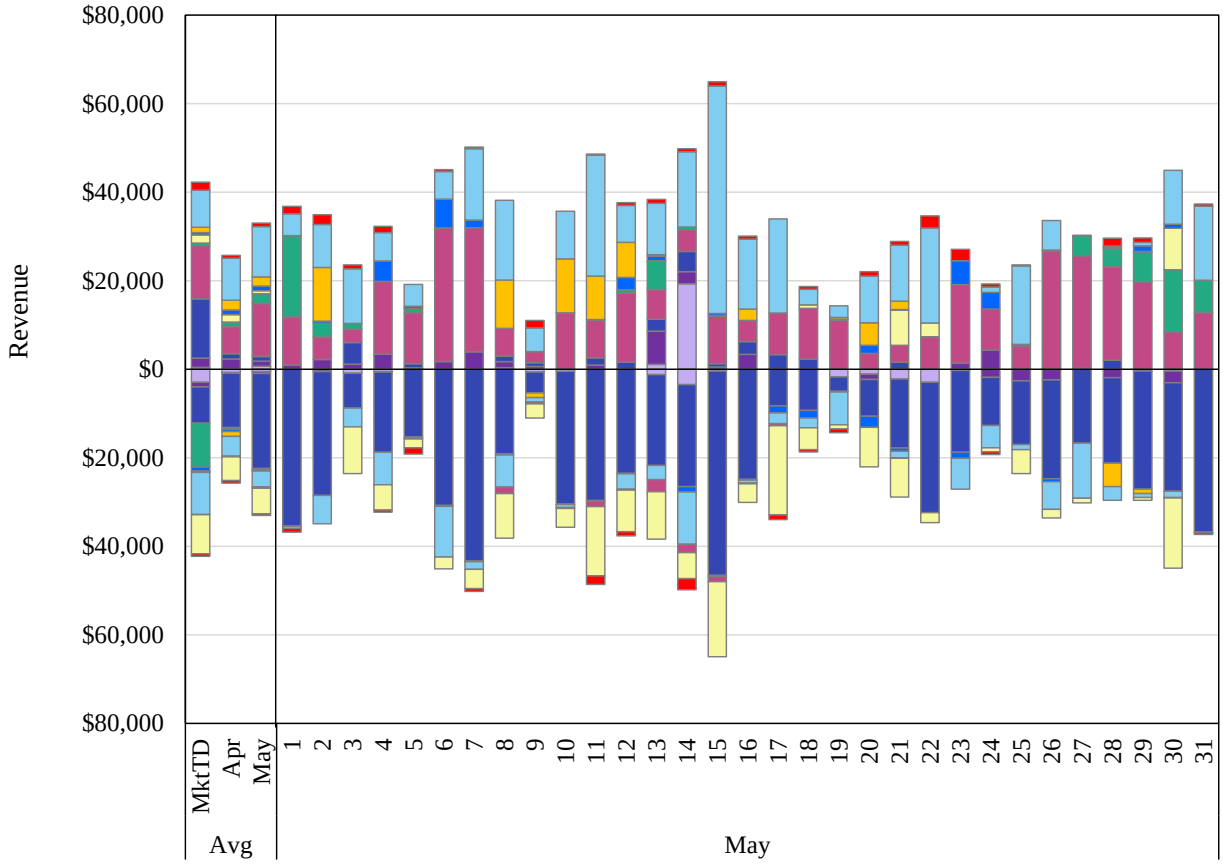


Figure 2 shows certain buyers and sellers comprise significant shares of the transaction activity. About 50 percent of the sales were made by a single participant and the two largest sellers accounted for 70 percent of the volume. On the buyer side, the largest buyer accounted for 38 percent of the cleared volume and the top two buyers accounted for 63 percent. Our findings in previous months indicate that the most active participants vary from month-to-month, both in identity and sales share, as can be observed by the left bar charts showing monthly and Market-to-Date (MktTD) averages.

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.

Figure 3: Revenues of Matched Transactions
May 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 May 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.

The figures show in the left column the May prices compared to the previous period. It shows the average prices for both peak and off peak have stayed even or declined relative to April and relative to the MktTD average. This continues a downward price trend since the market opening. Some of this price decline is likely the result of lower natural gas prices and the moving into the shoulder peak season.

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

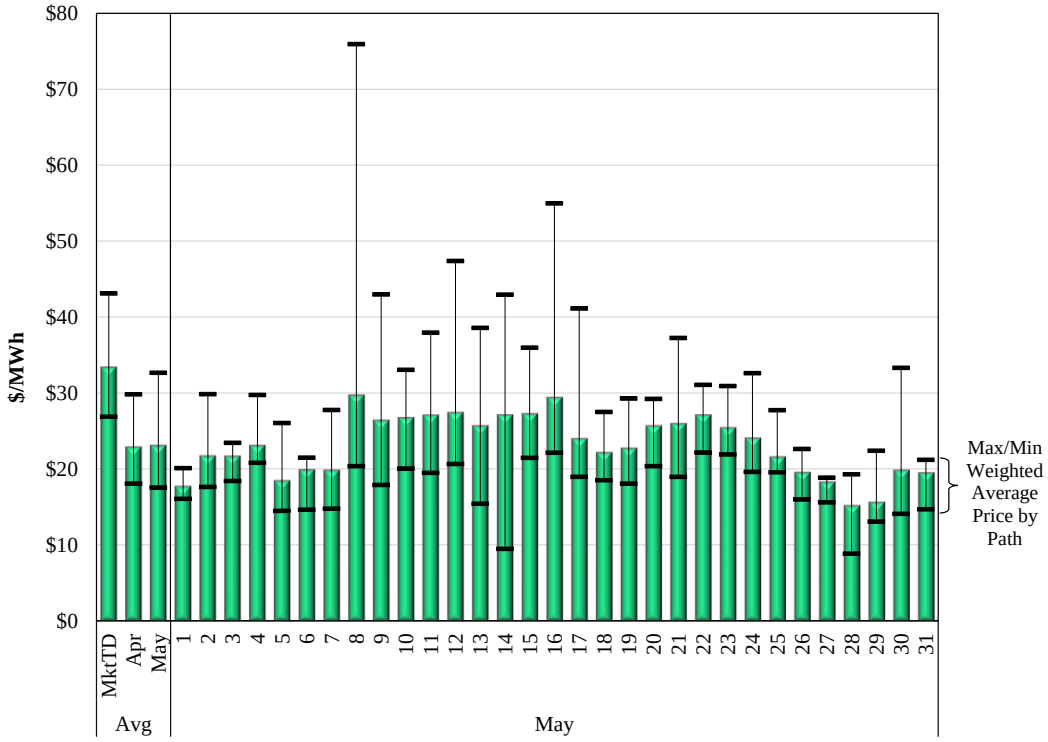
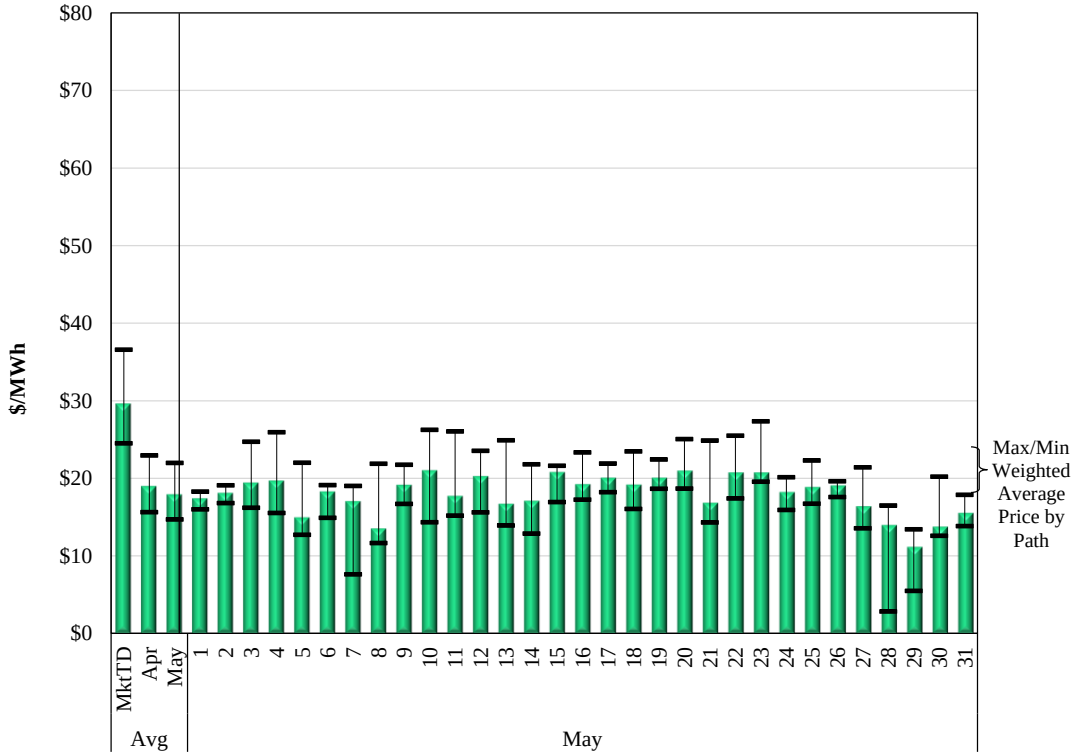


Figure 5: Average SEEM Clearing Prices: System-Wide and by Path
Off-Peak Hours – May 2022



The two figures show that the value of transactions can vary significantly by path. This 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 "loading factor" based on the scheduled transactions and ATC on the segment during each 15-minute interval. It is the portion of the path used in that interval relative to the maximum amount that could have been used based on the ATC.

Table 1 shows an excerpt of our statistics. The table displays the 21 segments that had more than 1,000 MWh of transactions scheduled during the month. The full data for all segments with at least 20 MWh scheduled during the month is provided in Appendix A. In addition to the ATC and schedule volumes, 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;[1]

(3) Unavailable, no ATC;[2] and

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

In reporting the usage of each segment, we refer to a "segment-intervals" which is an observation in a single interval on one segment. During the month, total segment intervals is the product of all 180 segments and the number of intervals during the month. In May, there were 535,680.[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. These cases represent 493,424 segment intervals or 92 percent of all

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

[2] ATC was less than 4 MW at the start of the interval.

[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 May, SEEM operated in all intervals.

segment-intervals. The second most common case was case (3), where ATC was not sufficient to clear any SEEM transactions (35,617). The third most common case was case (1), intervals where the segment was partially used (6,533). Finally, in a small number of intervals, case (2) prevailed where the segment was completely scheduled in the interval (106).

Table 1: Most Utilized SEEM Segment Statistics

Segment	ATC				Loading	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/CPL/CPLE-SC//	0	2,481	4,319	14,582	0.81%	845	*28%*	8	*0%*	291	*10%*	1832	*62%*
S/SC/CPLE-SC//	0	1,889	2,664	14,421	1.09%	849	*29%*	0	*0%*	224	*8%*	1903	*64%*
S/CPL/CPLE-DUK//	0	5,677	6,677	13,112	0.38%	475	*16%*	5	*0%*	32	*1%*	2464	*83%*
SS/SOCO/DUK-SOCO//	2	874	1,121	8,535	1.34%	303	*10%*	7	*0%*	2	*0%*	2664	*90%*
S/DUK/CPLE-SOCO//	0	2,061	2,335	8,321	0.56%	325	*11%*	0	*0%*	14	*0%*	2637	*89%*
SS/SOCO/TVA-SOCO//	367	986	1,192	6,740	0.93%	218	*7%*	0	*0%*	0	*0%*	2758	*93%*
S/TVA/TVA-SOCO//	0	2,905	3,000	6,281	0.31%	195	*7%*	0	*0%*	104	*3%*	2677	*90%*
P/LGEE/TVA-LGEE//	0	1,396	1,424	4,531	0.47%	189	*6%*	0	*0%*	25	*1%*	2762	*93%*
S/DUK/CPLE-TVA//	0	692	692	2,736	0.54%	112	*4%*	0	*0%*	20	*1%*	2844	*96%*
S/SC/SOCO-SC//	0	1,565	2,119	2,580	0.24%	167	*6%*	0	*0%*	35	*1%*	2774	*93%*
S/DUK/DUK-SOCO//	0	1,951	2,335	2,429	0.19%	109	*4%*	0	*0%*	42	*1%*	2825	*95%*
S/TVA/DUK-LGEE//	0	355	355	2,279	0.90%	95	*3%*	0	*0%*	96	*3%*	2785	*94%*
SS/SOCO/SOCO-SC//	-127	321	850	2,152	0.76%	133	*4%*	3	*0%*	40	*1%*	2800	*94%*
S/SC/DUK-SC//	1,521	1,834	2,619	1,894	0.13%	169	*6%*	0	*0%*	0	*0%*	2807	*94%*
S/DUK/TVA-DUK//	0	692	692	1,649	0.38%	56	*2%*	1	*0%*	282	*9%*	2637	*89%*
S/TVA/TVA-DUK//	0	355	355	1,607	0.64%	49	*2%*	0	*0%*	120	*4%*	2807	*94%*
S/TVA/TVA-LGEE//	0	1,094	2,749	1,413	0.18%	61	*2%*	0	*0%*	124	*4%*	2791	*94%*
SS/GTC/DUK-GTC//	0	578	705	1,309	0.30%	63	*2%*	1	*0%*	8	*0%*	2904	*98%*
S/DUK/CPLE-SC//	0	1,998	2,880	1,224	0.09%	55	*2%*	0	*0%*	334	*11%*	2587	*87%*
S/DUK/SOCO-DUK//	0	1,657	2,170	1,213	0.12%	157	*5%*	0	*0%*	381	*13%*	2438	*82%*
SS/SOCO/SOCO-DUK//	114	686	950	1,126	0.23%	173	*6%*	0	*0%*	0	*0%*	2803	*94%*

These statistics indicate that among these most utilize segments, ATC remains available for SEEM trades. For example, the top paths have over 60 percent of their intervals uncleared. 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 36,000 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 20 percent of the intervals). Like in previous months, the TVA-AEC segment was the most constrained segment with unavailable ATC 77 percent of the time. Nonetheless, in 21 percent of the intervals when ATC was available, the path remained largely unused.

The incidence of transmission capacity constraints increased between April and May (as measured by the percentage of constrained segment intervals). Because trading volumes were higher in May, 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				Loading	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/AECI/TVA-AECI//	0	0	731	670	0.80%	44	*1%*	0	*0%*	2,301	*77%*	631	*21%*
S/TVA/AECI-CPLW//	0	9	276	0	0.00%	0	*0%*	0	*0%*	1,464	*49%*	1512	*51%*
S/CPL/DUK-TVA//	0	176	276	574	0.56%	26	*1%*	1	*0%*	1,408	*47%*	1541	*52%*
S/TVA/TVA-CPLW//	0	264	276	0	0.00%	0	*0%*	0	*0%*	1,292	*43%*	1684	*57%*
S/TVA/LGEE-CPLW//	0	264	276	0	0.00%	0	*0%*	0	*0%*	1,276	*43%*	1700	*57%*
S/TVA/SOCO-CPLW//	0	264	276	0	0.00%	0	*0%*	0	*0%*	1,272	*43%*	1704	*57%*
S/TVA/CPLW-LGEE//	0	276	276	486	0.41%	19	*1%*	0	*0%*	1,268	*43%*	1689	*57%*
S/TVA/DUK-CPLW//	0	264	276	0	0.00%	0	*0%*	0	*0%*	1,252	*42%*	1724	*58%*
S/CPL/CPLW-TVA//	0	162	276	0	0.00%	0	*0%*	0	*0%*	1,215	*41%*	1761	*59%*
S/TVA/CPLW-DUK//	0	276	276	0	0.00%	0	*0%*	0	*0%*	1,212	*41%*	1764	*59%*
S/TVA/CPLW-TVA//	0	276	276	0	0.00%	0	*0%*	0	*0%*	1,212	*41%*	1764	*59%*
S/TVA/CPLW-AECI//	0	276	276	88	0.07%	8	*0%*	0	*0%*	1,212	*41%*	1756	*59%*
S/TVA/CPLW-SOCO//	0	276	276	0	0.00%	0	*0%*	0	*0%*	1,212	*41%*	1764	*59%*
S/CPL/TVA-CPLW//	0	274	276	0	0.00%	0	*0%*	0	*0%*	1,103	*37%*	1873	*63%*
S/CPL/TVA-DUK//	0	276	276	0	0.00%	0	*0%*	0	*0%*	888	*30%*	2088	*70%*
S/CPL/CPLE-SCEG//	0	297	412	813	0.50%	92	*3%*	7	*0%*	729	*25%*	2148	*72%*
S/MEAG/MEAG-DUK//	0	41	144	125	0.39%	9	*0%*	6	*0%*	660	*22%*	2301	*77%*
S/MEAG/MEAG-SC//	0	64	92	105	0.30%	7	*0%*	5	*0%*	660	*22%*	2304	*77%*

III. CONCLUSION

We reviewed the operation of SEEM for May 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	%
Segment	ATC				Loading	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
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SS/SOCO/TVA-SOCO//	367	986	1,192	6,740	0.93%	218	7%	0	0%	0	0%	2758	93%
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S/TVA/DUK-LGEE//	0	355	355	2,279	0.90%	95	3%	0	0%	96	3%	2785	94%
SS/SOCO/SOCO-SC//	-127	321	850	2,152	0.76%	133	4%	3	0%	40	1%	2800	94%
S/SC/DUK-SC//	1,521	1,834	2,619	1,894	0.13%	169	6%	0	0%	0	0%	2807	94%
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SS/GTC/DUK-GTC//	0	578	705	1,309	0.30%	63	2%	1	0%	8	0%	2904	98%
S/DUK/CPLE-SC//	0	1,998	2,880	1,224	0.09%	55	2%	0	0%	334	11%	2587	87%
S/DUK/SOCO-DUK//	0	1,657	2,170	1,213	0.12%	157	5%	0	0%	381	13%	2438	82%
SS/SOCO/SOCO-DUK//	114	686	950	1,126	0.23%	173	6%	0	0%	0	0%	2803	94%
SS/SOCO/SOCO-SOCO//	40,524	43,556	43,556	944	0.00%	72	2%	0	0%	0	0%	2904	98%
S/CPL/CPLE-SCEG//	0	297	412	813	0.50%	92	3%	7	0%	729	25%	2148	72%
S/MEAG/DUK-MEAG//	48	195	284	779	0.57%	57	2%	5	0%	0	0%	2914	98%
S/TVA/DUK-TVA//	268	355	355	737	0.28%	19	1%	0	0%	0	0%	2957	99%
S/SCEG/CPLE-SCEG//	0	475	535	676	0.20%	85	3%	0	0%	26	1%	2865	96%
S/AECI/TVA-AECI//	0	0	731	670	0.80%	44	1%	0	0%	2,301	77%	631	21%
S/DUK/DUK-TVA//	0	692	692	649	0.13%	21	1%	0	0%	41	1%	2914	98%
SS/SOCO/SOCO-TVA//	902	2,168	3,055	618	0.04%	44	1%	0	0%	0	0%	2932	99%
S/SCEG/DUK-SCEG//	0	325	427	605	0.27%	84	3%	0	0%	46	2%	2846	96%
S/AECI/AECI-TVA//	0	501	712	598	0.18%	57	2%	1	0%	185	6%	2733	92%
S/CPL/DUK-TVA//	0	176	276	574	0.56%	26	1%	1	0%	1,408	47%	1541	52%
S/DUK/CPLE-CPLW//	0	278	554	549	0.29%	25	1%	1	0%	423	14%	2527	85%
S/DUK/DUK-SC//	0	1,511	2,880	547	0.05%	103	3%	0	0%	61	2%	2812	94%
S/TVA/CPLW-LGEE//	0	276	276	486	0.41%	19	1%	0	0%	1,268	43%	1689	57%
SS/GTC/SOCO-GTC//	12,915	13,421	15,205	462	0.00%	21	1%	0	0%	0	0%	2955	99%
S/TVA/AECI-SOCO//	0	223	409	453	0.28%	29	1%	11	0%	272	9%	2664	90%
S/SC/SCEG-SC//	830	1,289	2,330	400	0.04%	45	2%	0	0%	0	0%	2931	98%
S/TVA/SOCO-LGEE//	0	1,258	2,705	353	0.04%	18	1%	0	0%	100	3%	2858	96%
S/SCEG/SCEG-SC//	1,873	6,140	6,279	330	0.01%	39	1%	0	0%	0	0%	2937	99%
SS/GTC/GTC-SC//	50	317	482	304	0.13%	24	1%	1	0%	0	0%	2951	99%
S/TVA/SOCO-AECI//	0	526	622	303	0.08%	22	1%	0	0%	92	3%	2862	96%
S/SCEG/SOCO-SCEG//	0	989	2,245	297	0.04%	47	2%	0	0%	50	2%	2879	97%
S/DUK/CPLE-SCEG//	0	262	263	282	0.18%	31	1%	1	0%	365	12%	2579	87%
S/TVA/DUK-AECI//	0	355	355	279	0.11%	22	1%	0	0%	4	0%	2950	99%
S/DUK/SCEG-DUK//	0	664	664	278	0.06%	48	2%	0	0%	247	8%	2681	90%
S/MEAG/MEAG-SOCO//	2,396	2,601	2,777	270	0.01%	23	1%	0	0%	0	0%	2953	99%
S/TVA/DUK-SOCO//	268	355	355	248	0.09%	8	0%	0	0%	0	0%	2968	100%
S/MEAG/SOCO-MEAG//	2,824	3,000	3,205	243	0.01%	19	1%	0	0%	0	0%	2957	99%
SS/SOCO/SOCO-SCEG//	-37	158	303	241	0.20%	22	1%	1	0%	366	12%	2587	87%

Appendix A (continued)

Segment	ATC				Loading	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/DUK/DUK-SCEG//	0	262	263	234	0.14%	43	1%	0	0%	215	7%	2718	91%
SS/GTC/GTC-DUK//	0	379	597	233	0.09%	8	0%	0	0%	24	1%	2944	99%
SS/SOCO/SCEG-SOCO//	2	128	207	189	0.21%	15	1%	8	0%	12	0%	2941	99%
S/CPL/DUK-CPLE//	0	3,828	6,857	182	0.01%	32	1%	0	0%	5	0%	2939	99%
S/SCEG/SOCO-DUK//	0	684	928	174	0.03%	19	1%	0	0%	2	0%	2955	99%
S/SCEG/SCEG-DUK//	582	684	928	160	0.03%	37	1%	0	0%	0	0%	2939	99%
S/DUK/SOCO-CPLE//	0	1,840	2,170	155	0.01%	22	1%	0	0%	137	5%	2817	95%
SS/GTC/GTC-SOCO//	20,000	20,000	20,000	150	0.00%	14	0%	0	0%	0	0%	2962	100%
S/SCEG/SCEG-SOCO//	1,286	3,255	7,129	147	0.01%	23	1%	0	0%	0	0%	2953	99%
S/SC/SC-SOCO//	1,383	3,132	3,753	136	0.01%	26	1%	0	0%	0	0%	2950	99%
S/MEAG/MEAG-DUK//	0	41	144	125	0.39%	9	0%	6	0%	660	22%	2301	77%
SS/SOCO/DUK-SCEG/MULTIPATHALIA	-37	158	303	118	0.10%	15	1%	0	0%	368	12%	2593	87%
S/TVA/AECI-DUK//	0	223	355	115	0.07%	14	0%	3	0%	292	10%	2667	90%
S/SC/CPLE-DUK//	3,386	3,624	3,872	115	0.00%	7	0%	0	0%	0	0%	2969	100%
S/MEAG/MEAG-SC//	0	64	92	105	0.30%	7	0%	5	0%	660	22%	2304	77%
SS/SOCO/SC-SOCO//	100	384	528	104	0.04%	8	0%	1	0%	0	0%	2967	100%
S/MEAG/MEAG-TVA//	0	122	181	98	0.15%	7	0%	1	0%	526	18%	2442	82%
S/SCEG/SC-SCEG//	287	2,600	6,100	97	0.01%	19	1%	0	0%	0	0%	2957	99%
S/SC/CPLE-SOCO//	2,865	3,455	3,832	90	0.00%	7	0%	0	0%	0	0%	2969	100%
S/TVA/CPLW-AECI//	0	276	276	88	0.07%	8	0%	0	0%	1,212	41%	1756	59%
S/DUK/SOCO-TVA//	192	692	692	86	0.02%	6	0%	0	0%	0	0%	2970	100%
S/SC/SC-SCEG//	1,111	3,357	6,100	82	0.00%	15	1%	0	0%	0	0%	2961	100%
S/DUK/SC-TVA//	192	692	692	72	0.01%	9	0%	0	0%	0	0%	2967	100%
S/SCEG/CPLE-SC//	30	475	535	70	0.02%	6	0%	0	0%	0	0%	2970	100%
S/SCEG/CPLE-SOCO//	259	475	535	67	0.02%	12	0%	0	0%	0	0%	2964	100%
S/DUK/TVA-SC//	0	692	692	65	0.01%	6	0%	0	0%	372	13%	2598	87%
SS/GTC/TVA-GTC//	83	237	280	65	0.04%	4	0%	0	0%	0	0%	2972	100%
SS/GTC/SC-GTC//	38	145	199	65	0.06%	13	0%	0	0%	0	0%	2963	100%
S/DUK/SOCO-SC//	0	1,747	2,170	61	0.01%	11	0%	0	0%	432	15%	2533	85%
S/MEAG/MEAG-GTC//	2,311	2,694	2,920	60	0.00%	3	0%	0	0%	0	0%	2973	100%
SS/GTC/MEAG-GTC//	789	904	8,792	60	0.01%	3	0%	0	0%	0	0%	2973	100%
S/DUK/TVA-CPLE//	0	692	692	59	0.01%	11	0%	0	0%	14	0%	2951	99%
S/TVA/SOCO-DUK//	0	355	355	55	0.02%	10	0%	0	0%	92	3%	2874	97%
SS/SOCO/TVA-DUK/MULTIPATHALIAS	114	686	911	55	0.01%	2	0%	0	0%	0	0%	2974	100%
S/CPL/DUK-SC//	530	2,857	4,319	51	0.00%	6	0%	0	0%	0	0%	2970	100%
S/MEAG/TVA-MEAG//	37	80	223	50	0.07%	2	0%	3	0%	0	0%	2971	100%
S/MEAG/MEAG-SCEG//	0	18	33	50	0.35%	2	0%	14	0%	340	11%	2620	88%
S/TVA/SOCO-TVA//	1,199	2,211	3,000	49	0.00%	5	0%	0	0%	0	0%	2971	100%
S/DUK/SCEG-SOCO//	518	664	664	47	0.01%	7	0%	0	0%	0	0%	2969	100%
S/CPL/SCEG-CPLE//	0	517	632	46	0.01%	9	0%	0	0%	93	3%	2874	97%
S/SCEG/SCEG-CPLE//	612	672	888	46	0.01%	9	0%	0	0%	0	0%	2967	100%
S/DUK/SOCO-SCEG//	0	262	263	45	0.03%	5	0%	0	0%	489	16%	2482	83%
S/SC/SC-DUK//	1,163	2,656	3,768	43	0.00%	15	1%	0	0%	0	0%	2961	100%
S/DUK/SC-SCEG//	18	262	263	40	0.02%	4	0%	0	0%	0	0%	2972	100%
S/MEAG/SC-MEAG//	8	38	118	33	0.09%	1	0%	6	0%	0	0%	2969	100%
S/TVA/AECI-TVA//	0	223	409	30	0.02%	2	0%	0	0%	176	6%	2798	94%
S/DUK/SC-DUK//	0	1,501	2,920	29	0.00%	8	0%	0	0%	224	8%	2744	92%
S/CPL/SC-CPLE//	0	1,731	2,864	28	0.00%	6	0%	0	0%	72	2%	2898	97%
S/DUK/SC-CPLW//	0	260	554	25	0.01%	1	0%	0	0%	177	6%	2798	94%
SS/SOCO/SC-TVA/MULTIPATHALIAS/	100	384	528	24	0.01%	4	0%	0	0%	0	0%	2972	100%
S/SC/SOCO-CPLE//	0	2,081	2,806	22	0.00%	5	0%	0	0%	3	0%	2968	100%
SS/GTC/GTC-TVA//	84	609	732	20	0.00%	2	0%	0	0%	0	0%	2974	100%