
**MONTHLY AUDIT REPORT ON THE
SOUTHEAST ENERGY EXCHANGE MARKET**

February 2023

Prepared by:



Independent Market Auditor

March 30, 2023

I. OVERVIEW

This is the Auditor report for the month of February 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 fulfills 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 February 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 three changes in February. These changes were the result of an assessment made by service providers under the Georgia Interconnected Transmission Service (GITS) tariff. The SEEM administrator agreed with GITS providers (GTC, MEAG, and SOCO) that certain internal GTC paths were functionally identical. In particular the following paths were removed: GTC-MEAG-SOCO because it was identical to GTC-SOCO; GTC-SOCO-MEAG because it was identical to GTC-SOCO; and MEAG-SOCO-GTC because it was identical to SOCO-GTC. We find this action reasonable 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. No participants changed the set of eligible counterparties nor did any change maximum price constraints.

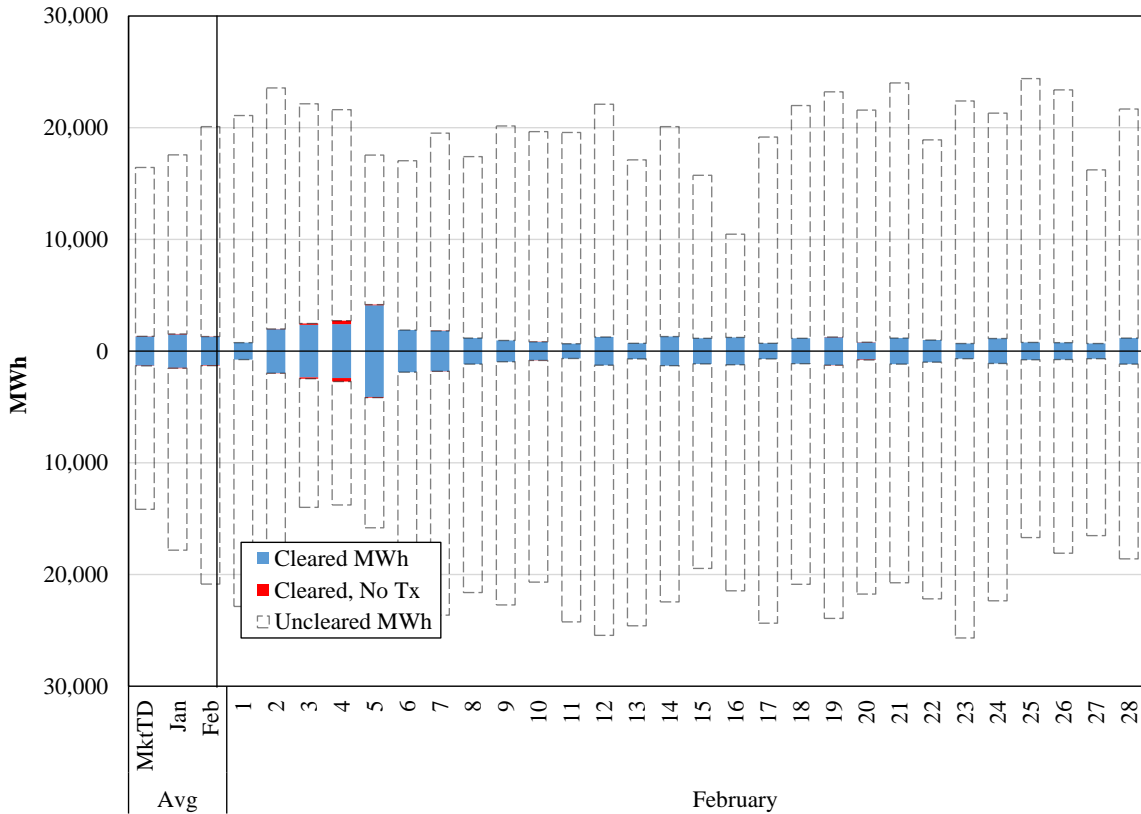
B. Market Activity

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 bids and offers. The figure also shows the volume of transactions depicted in red, which represents a very small volume of cleared matches that failed transmission scheduling. Figure 1 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 – December 2022 average). The February bid and offer quantities as well as the cleared transactions were slightly higher than in December as well as slightly higher than the MktTD average. This indicates that SEEM activity has been increasing.

Figure 1: Daily Bids and Offers
February 2023



Bids and offers were notably higher in February compared to previous months. Nonetheless, cleared transactions were slightly lower than in January and were about average for the market history (Market-to-Date (MktTD)). Daily cleared transactions ranged as high as 4,104 MWh (on February 5), and as low as 659 MWh (on February 11).¹

As we discuss further in Table 1 below, the data 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.

Figure 1 also shows instances when transactions are matched but fail to clear the transmission scheduling process (shown in red). These rare 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.

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

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
February 2023

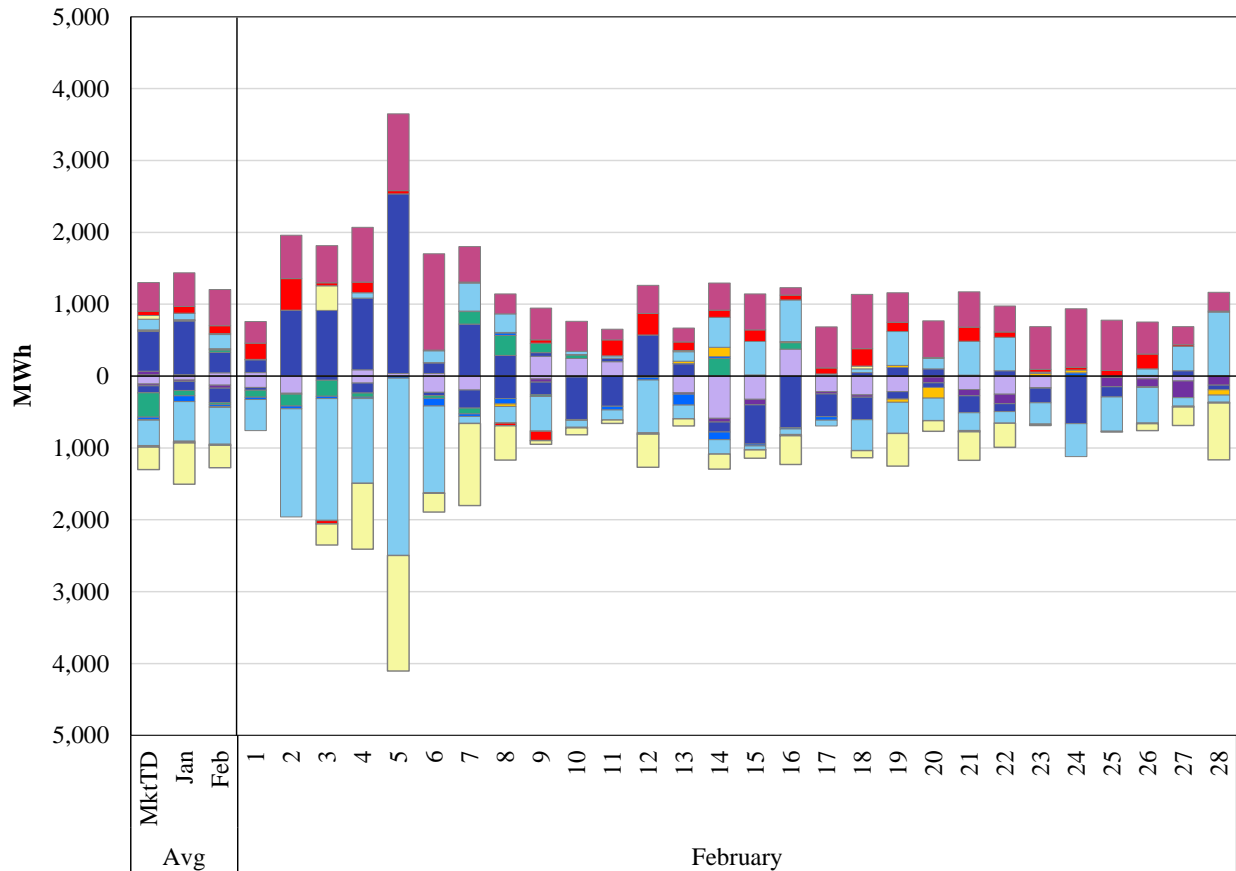
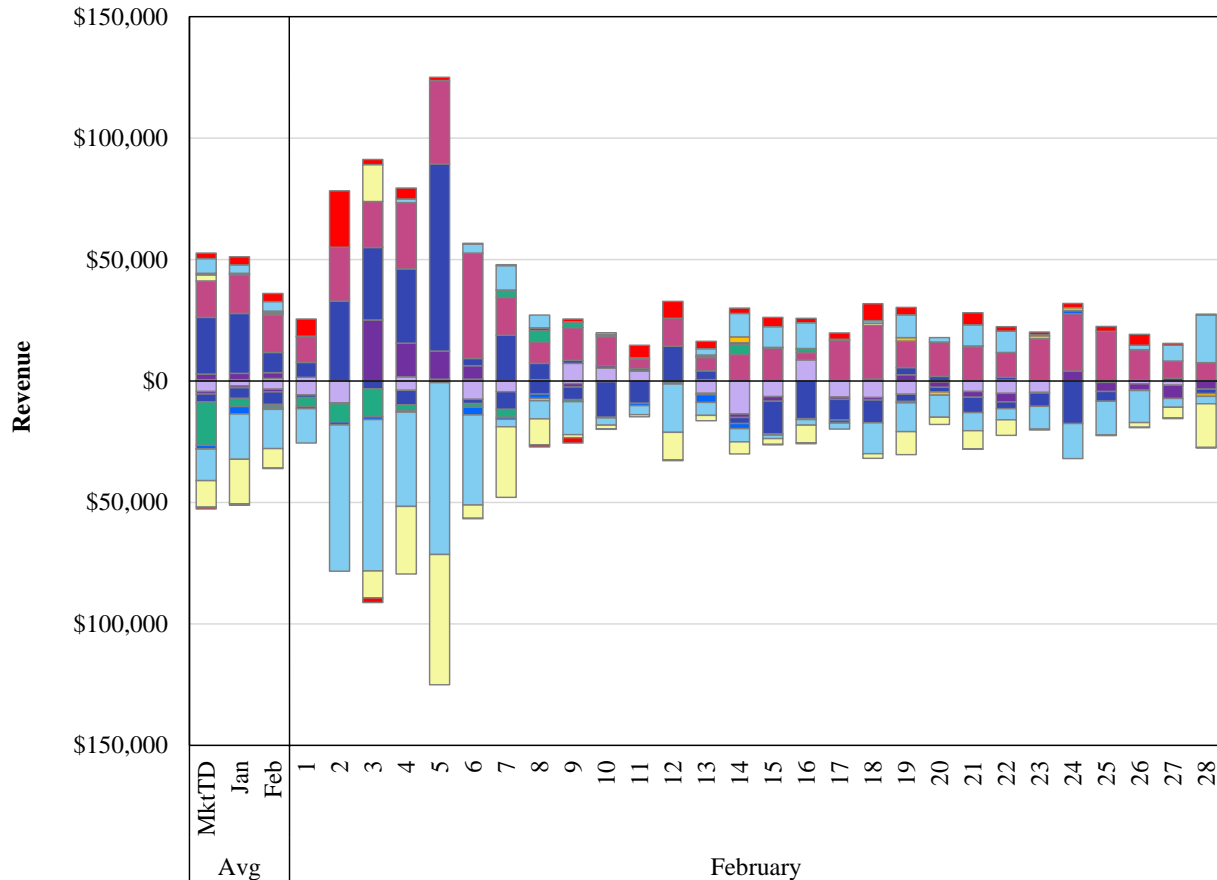


Figure 2 shows certain buyers and sellers comprise significant shares of the transaction activity. About 40 percent of the sales were made by a single participant and the two largest sellers accounted for 75 percent of the volume. On the buyer side, the largest buyer accounted for 50 percent of the cleared volume and the top two buyers accounted for 80 percent. These statistics provide a view into the character of SEEM participation and activity but are not a basis for drawing conclusions regarding the performance of the SEEM at this stage of development. The most active participants also varied month-to-month. Since the start of the market in November, the most active seller was involved in 27 percent of the transactions (compared to 40 percent for the most active seller in January and 38 percent in February).

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
February 2023



2. Network Usage

In this subsection, we report the average transaction prices and evaluate the usage of different segments of the SEEM network. Figure 4 shows the average daily peak-hour prices for February. Figure 5 is the same figure but for off-peak hours. The bars show the average daily price for SEEM transactions on all paths. Vertical lines in the figures show the range of daily weighted average prices for the highest-priced and lowest-priced paths for each day.

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

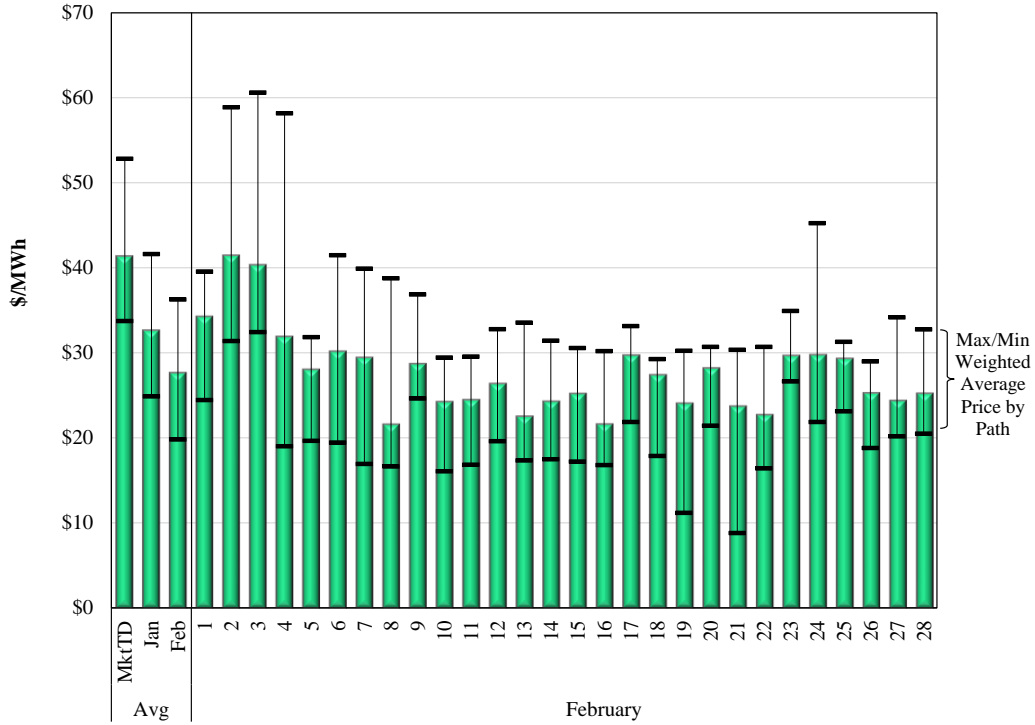
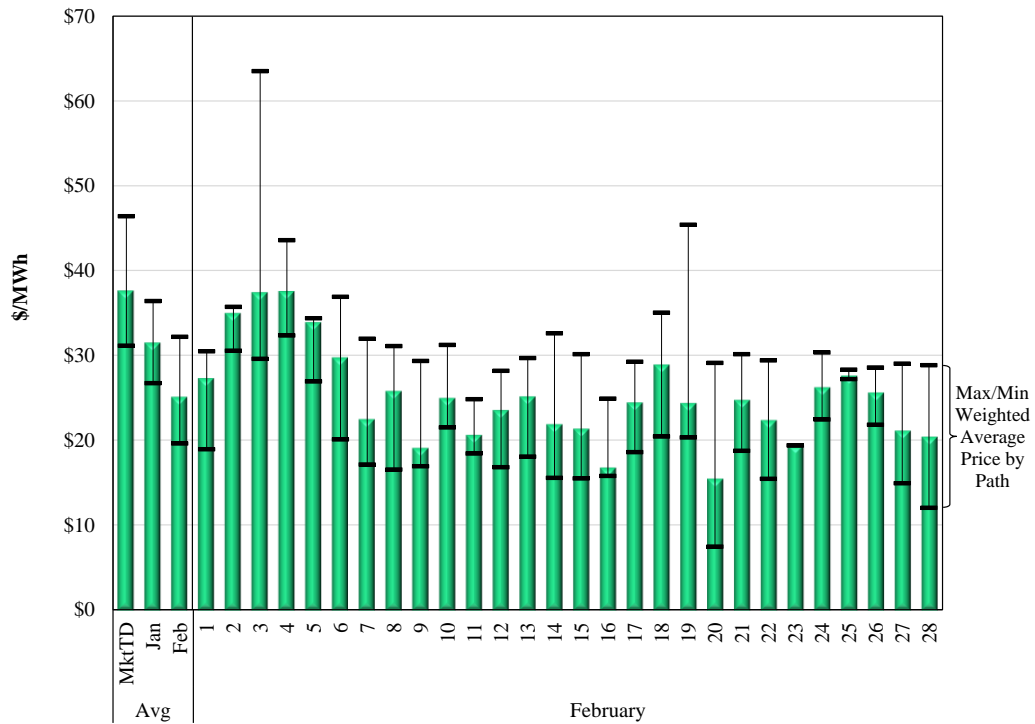


Figure 5: Average SEEM Clearing Prices: System-Wide and by Path
Off-Peak Hours – February 2022



The figures show in the left column the February prices compared to the previous periods. It shows the average prices for both peak and off peak have declined relative to January 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 26 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 February, there were 483,840.³ 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 (465,266 segment intervals). The second most common case was case (3), where ATC was not sufficient to clear any SEEM transactions (11,923). The third most common case was case (1), intervals where the segment was partially

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 February, SEEM operated in all intervals.

used (6,324). Finally, in a small number of intervals, case (2) prevailed where the segment was completely scheduled in the interval (327).

Table 1: Most Used SEEM Segment Statistics

Segment	ATC			MWhs	Loading Factor	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max			Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/SC/SOCO-SC//	435	1,321	1,811	9,443	1.09%	819	30%	0	0%	0	0%	1869	70%
SS/SOCO/SOCO-SC//	0	170	373	7,369	6.42%	585	22%	87	3%	38	1%	1978	74%
S/CPL/DUK-CPLE//	413	3,234	6,856	5,155	0.24%	146	5%	0	0%	0	0%	2542	95%
SS/SOCO/TVA-SOCO//	471	943	1,192	4,584	0.71%	202	8%	0	0%	0	0%	2486	92%
S/TVA/TVA-SOCO//	0	2,864	2,965	3,940	0.22%	147	5%	0	0%	212	8%	2329	87%
S/AECI/AECI-TVA//	0	451	1,112	3,556	1.51%	297	11%	1	0%	530	20%	1860	69%
S/TVA/TVA-DUK//	0	430	430	3,279	1.32%	99	4%	0	0%	264	10%	2325	87%
S/TVA/AECI-SOCO//	0	56	473	2,698	4.55%	144	5%	103	4%	480	18%	1961	73%
SS/SOCO/SOCO-SOCO//	40,466	43,556	43,556	2,601	0.01%	216	8%	0	0%	0	0%	2472	92%
S/DUK/TVA-CPLE//	0	397	681	2,561	0.87%	71	3%	13	0%	19	1%	2585	96%
S/CPL/CPLE-SC//	699	4,428	4,428	2,226	0.09%	211	8%	0	0%	0	0%	2477	92%
S/SC/CPLE-SC//	791	1,471	2,038	2,224	0.22%	210	8%	0	0%	0	0%	2478	92%
SS/SOCO/SOCO-SCEG//	0	122	151	2,180	2.69%	167	6%	25	1%	10	0%	2486	92%
SS/SOCO/SOCO-DUK//	342	900	1,216	1,916	0.32%	112	4%	0	0%	0	0%	2576	96%
S/MEAG/SOCO-MEAG//	2,700	3,000	3,080	1,865	0.09%	132	5%	0	0%	0	0%	2556	95%
S/CPL/TVA-DUK//	0	308	308	1,838	0.92%	53	2%	13	0%	36	1%	2586	96%
S/DUK/CPLW-CPLE//	0	279	742	1,811	0.89%	64	2%	1	0%	17	1%	2606	97%
S/SC/DUK-SC//	738	1,412	2,114	1,785	0.19%	245	9%	0	0%	0	0%	2443	91%
S/TVA/TVA-CPLW//	0	308	308	1,665	0.93%	56	2%	0	0%	327	12%	2305	86%
S/SCEG/SOCO-SCEG//	0	1,390	2,675	1,547	0.16%	170	6%	0	0%	2	0%	2516	94%
S/AECI/TVA-AECI//	0	611	1,112	1,303	0.51%	61	2%	0	0%	1,084	40%	1543	57%
S/CPL/CPLE-DUK//	1,861	5,831	8,127	1,265	0.03%	59	2%	0	0%	0	0%	2629	98%
S/DUK/DUK-SC//	0	2,706	2,880	1,154	0.07%	162	6%	0	0%	4	0%	2522	94%
SS/SOCO/TVA-SC/MULTIPATHALIAS/	0	170	373	1,118	0.97%	112	4%	8	0%	38	1%	2530	94%
S/DUK/SOCO-DUK//	0	1,775	2,119	1,074	0.10%	50	2%	0	0%	210	8%	2428	90%
S/DUK/TVA-DUK//	0	397	681	1,053	0.36%	27	1%	3	0%	5	0%	2653	99%

Overall, these statistics indicate that many segments remain available for SEEM trades. The data is not sufficient to determine if this idle capability is due to a lack of valuable trades being available or due to early-stage inexperience.

Despite the general availability of segment capacity, there are 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 12,000 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. The data cannot reveal the extent to which these instances of insufficient ATC was constraining SEEM matches. This is because we cannot observe if SEEM would have matched a transaction had the ATC been available during that interval.

Some insight can be gained from Table 2, below. 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 40 percent of the time. The AEC-CPLW was the second most constrained segment. Moreover, the seven top constrained segments were all AEC interface constraints. 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. Transmission capacity constraints were roughly the same between January and February (as measured by number of constrained segment intervals). Because trading volumes were comparable between the two months, this continues to support the observation from last month’s report that ATC is a determinant of market liquidity.

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	611	1,112	1,303	0.51%	61	2%	0	0%	1,084	40%	1543	57%
S/TVA/AECI-CPLW//	0	56	308	121	0.23%	8	0%	1	0%	611	23%	2068	77%
S/TVA/AECI-DUK//	0	56	430	578	1.04%	56	2%	12	0%	548	20%	2072	77%
S/AECI/AECI-TVA//	0	451	1,112	3,556	1.51%	297	11%	1	0%	530	20%	1860	69%
S/TVA/AECI-LGEE//	0	56	473	120	0.21%	2	0%	7	0%	516	19%	2163	80%
S/TVA/AECI-SOCO//	0	56	473	2,698	4.55%	144	5%	103	4%	480	18%	1961	73%
S/TVA/AECI-TVA//	0	61	473	39	0.06%	0	0%	3	0%	332	12%	2353	88%
S/TVA/TVA-CPLW//	0	308	308	1,665	0.93%	56	2%	0	0%	327	12%	2305	86%
S/MEAG/MEAG-DUK//	0	102	167	0	0.00%	0	0%	0	0%	311	12%	2377	88%
S/TVA/SOCO-CPLW//	0	308	308	2	0.00%	1	0%	0	0%	295	11%	2392	89%
S/TVA/LGEE-CPLW//	0	308	308	50	0.03%	2	0%	0	0%	271	10%	2415	90%
S/TVA/TVA-DUK//	0	430	430	3,279	1.32%	99	4%	0	0%	264	10%	2325	87%

III. CONCLUSION

We reviewed the operation of SEEM for February 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 MWhs	Factor	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max			Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/SC/SOCO-SC//	435	1,321	1,811	9,443	1.09%	819	30%	0	0%	0	0%	1869	70%
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S/SC/CPLE-SC//	791	1,471	2,038	2,224	0.22%	210	8%	0	0%	0	0%	2478	92%
SS/SOCO/SOCO-SCEG//	0	122	151	2,180	2.69%	167	6%	25	1%	10	0%	2486	92%
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S/DUK/DUK-SC//	0	2,706	2,880	1,154	0.07%	162	6%	0	0%	4	0%	2522	94%
SS/SOCO/TVA-SC/MULTIPATHALIAS//	0	170	373	1,118	0.97%	112	4%	8	0%	38	1%	2530	94%
S/DUK/SOCO-DUK//	0	1,775	2,119	1,074	0.10%	50	2%	0	0%	210	8%	2428	90%
S/DUK/TVA-DUK//	0	397	681	1,053	0.36%	27	1%	3	0%	5	0%	2653	99%
P/LGEE/TVA-LGEE//	894	2,401	2,417	969	0.06%	45	2%	0	0%	0	0%	2643	98%
S/CPL/SCEG-CPLE//	0	704	704	862	0.20%	45	2%	0	0%	92	3%	2551	95%
S/SCEG/SOCO-CPLE//	399	672	816	845	0.19%	44	2%	0	0%	0	0%	2644	98%
SS/SOCO/SOCO-TVA//	903	1,850	2,258	827	0.07%	40	1%	0	0%	0	0%	2648	99%
S/DUK/DUK-SOCO//	1,281	2,195	2,335	822	0.06%	113	4%	0	0%	0	0%	2575	96%
S/SC/SCEG-SC//	933	1,159	1,581	794	0.10%	129	5%	0	0%	0	0%	2559	95%
S/DUK/SOCO-CPLE//	0	1,767	2,119	708	0.07%	31	1%	1	0%	227	8%	2429	90%
S/SCEG/SCEG-SC//	1,779	6,144	6,207	707	0.02%	115	4%	0	0%	0	0%	2573	96%
P/LGEE/LGEE-TVA//	0	2,618	2,618	678	0.04%	54	2%	0	0%	29	1%	2605	97%
S/MEAG/DUK-MEAG//	0	143	251	670	0.67%	59	2%	4	0%	12	0%	2613	97%
S/TVA/DUK-AECI//	0	430	430	650	0.23%	26	1%	0	0%	60	2%	2602	97%
SS/SOCO/DUK-SOCO//	0	813	979	583	0.11%	45	2%	0	0%	8	0%	2635	98%
S/TVA/AECI-DUK//	0	56	430	578	1.04%	56	2%	12	0%	548	20%	2072	77%
S/DUK/DUK-TVA//	0	692	692	544	0.12%	25	1%	0	0%	7	0%	2656	99%
S/DUK/CPLE-SOCO//	1,281	2,195	2,335	518	0.04%	31	1%	0	0%	0	0%	2657	99%
S/CPL/DUK-TVA//	0	308	308	495	0.24%	21	1%	1	0%	30	1%	2636	98%
S/DUK/CPLE-CPLW//	47	554	554	491	0.14%	21	1%	0	0%	0	0%	2667	99%
S/MEAG/TVA-MEAG//	4	55	172	461	1.12%	36	1%	17	1%	0	0%	2635	98%
S/TVA/SOCO-AECI//	0	686	686	458	0.11%	27	1%	0	0%	204	8%	2457	91%
S/TVA/LGEE-SOCO//	0	2,864	3,000	447	0.03%	41	2%	0	0%	176	7%	2471	92%
S/SCEG/SCEG-SOCO//	1,712	4,047	7,082	409	0.02%	66	2%	0	0%	0	0%	2622	98%
S/DUK/TVA-SC//	0	397	681	400	0.14%	53	2%	0	0%	5	0%	2630	98%

Appendix A (continued)

Segment	ATC			Loading MWhs	Factor	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max			Intervals	%	Intervals	%	Intervals	%	Intervals	%
SS/SOCO/SCEG-SOCO//	0	195	213	302	0.23%	45	2%	0	0%	12	0%	2631	98%
S/TVA/CPLW-LGEE//	0	308	308	296	0.15%	13	0%	0	0%	135	5%	2540	94%
S/TVA/SOCO-TVA//	0	2,940	2,940	293	0.02%	11	0%	0	0%	20	1%	2657	99%
S/TVA/TVA-LGEE//	0	672	2,581	290	0.06%	12	0%	0	0%	232	9%	2444	91%
S/DUK/CPLW-TVA//	82	692	692	256	0.06%	12	0%	0	0%	0	0%	2676	100%
S/CPL/CPLW-SCEG//	0	484	484	251	0.08%	30	1%	0	0%	5	0%	2653	99%
S/SCEG/CPLW-SCEG//	0	475	748	246	0.08%	29	1%	0	0%	6	0%	2653	99%
S/DUK/SOCO-SC//	0	1,782	2,119	231	0.02%	39	1%	0	0%	210	8%	2439	91%
S/CPL/SC-CPLW//	0	1,336	2,880	210	0.02%	11	0%	0	0%	39	1%	2638	98%
S/SC/SOCO-CPLW//	0	1,884	2,454	210	0.02%	11	0%	0	0%	20	1%	2657	99%
S/TVA/CPLW-AECI//	0	308	308	195	0.10%	8	0%	0	0%	111	4%	2569	96%
SS/GTC/GTC-SOCO//	20,000	20,000	20,000	172	0.00%	12	0%	0	0%	0	0%	2676	100%
SS/SOCO/TVA-SCEG/MULTIPATHALIA	0	122	151	165	0.20%	17	1%	0	0%	10	0%	2661	99%
SS/GTC/SOCO-GTC//	12,892	13,363	14,011	147	0.00%	19	1%	0	0%	0	0%	2669	99%
S/SCEG/DUK-SCEG//	0	326	527	146	0.07%	32	1%	0	0%	6	0%	2650	99%
SS/GTC/DUK-GTC//	12	549	616	136	0.04%	39	1%	0	0%	0	0%	2649	99%
S/DUK/DUK-SCEG//	0	262	263	133	0.08%	30	1%	0	0%	40	1%	2618	97%
S/TVA/SOCO-LGEE//	0	810	2,923	132	0.02%	6	0%	0	0%	204	8%	2478	92%
S/TVA/DUK-LGEE//	0	430	430	131	0.05%	7	0%	0	0%	160	6%	2521	94%
S/MEAG/MEAG-TVA//	0	97	113	130	0.22%	1	0%	5	0%	192	7%	2490	93%
S/TVA/AECI-CPLW//	0	56	308	121	0.23%	8	0%	1	0%	611	23%	2068	77%
S/TVA/AECI-LGEE//	0	56	473	120	0.21%	2	0%	7	0%	516	19%	2163	80%
S/TVA/LGEE-DUK//	0	430	430	116	0.04%	7	0%	0	0%	196	7%	2485	92%
S/MEAG/MEAG-SOCO//	2,521	2,601	2,901	114	0.01%	11	0%	0	0%	0	0%	2677	100%
S/MEAG/SCEG-MEAG//	16	21	23	101	0.71%	10	0%	15	1%	0	0%	2663	99%
S/MEAG/MEAG-SC//	0	63	70	91	0.24%	11	0%	2	0%	116	4%	2559	95%
S/TVA/SOCO-DUK//	0	430	430	87	0.03%	2	0%	0	0%	232	9%	2454	91%
S/SCEG/SOCO-SC//	520	4,118	6,183	87	0.00%	14	1%	0	0%	0	0%	2674	99%
SS/GTC/GTC-SC//	0	241	328	79	0.06%	13	0%	0	0%	120	4%	2555	95%
S/DUK/DUK-CPLW//	0	2,692	6,058	75	0.00%	30	1%	0	0%	17	1%	2641	98%
SS/SOCO/TVA-DUK/MULTIPATHALIAS	342	845	1,081	70	0.01%	5	0%	0	0%	0	0%	2683	100%
S/TVA/LGEE-TVA//	0	3,000	3,000	65	0.00%	6	0%	0	0%	20	1%	2662	99%
S/TVA/LGEE-CPLW//	0	308	308	50	0.03%	2	0%	0	0%	271	10%	2415	90%
S/DUK/TVA-SOCO//	0	397	681	41	0.01%	4	0%	0	0%	5	0%	2679	100%
S/SCEG/SCEG-DUK//	482	683	874	41	0.01%	17	1%	0	0%	0	0%	2671	99%
S/TVA/AECI-TVA//	0	61	473	39	0.06%	0	0%	3	0%	332	12%	2353	88%
SS/GTC/GTC-MEAG//	1,549	2,049	2,089	39	0.00%	4	0%	0	0%	0	0%	2684	100%
S/DUK/SCEG-DUK//	0	663	664	33	0.01%	15	1%	0	0%	198	7%	2475	92%
S/DUK/CPLW-DUK//	4	275	721	27	0.01%	1	0%	0	0%	0	0%	2687	100%
SS/GTC/GTC-SCEG//	16	63	110	24	0.06%	2	0%	0	0%	0	0%	2686	100%
S/TVA/DUK-TVA//	0	430	430	19	0.01%	4	0%	0	0%	60	2%	2624	98%
S/MEAG/MEAG-GTC//	2,551	2,641	2,961	18	0.00%	4	0%	0	0%	0	0%	2684	100%
SS/GTC/GTC-TVA//	180	458	666	15	0.00%	2	0%	0	0%	0	0%	2686	100%
S/MEAG/MEAG-SCEG//	11	13	17	14	0.15%	1	0%	4	0%	0	0%	2683	100%
S/DUK/SOCO-SCEG//	0	262	263	13	0.01%	3	0%	0	0%	241	9%	2444	91%
SS/GTC/GTC-DUK//	3	517	785	13	0.00%	3	0%	0	0%	4	0%	2681	100%
S/SCEG/SCEG-CPLW//	399	672	816	12	0.00%	2	0%	0	0%	0	0%	2686	100%
SS/GTC/MEAG-GTC//	789	829	1,329	10	0.00%	2	0%	0	0%	0	0%	2686	100%