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

**FOR  
May 2024**

Prepared by:

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## I. OVERVIEW

This is the May 2024 Auditor report 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 every 15 minutes. It uses available transmission capability (ATC) of the SEEM members under a transmission service designed for SEEM, called Non-Firm Energy Exchange Transmission Service (NFEETS). It has operated since November 2022 and now has 24 members.<sup>1</sup>

Trading volumes in May were 70,000 MWh, comparable to the 71,000 MWh in April and close to the 12-month rolling average of 72,000 MWh. Trading among SEEM members relies on individual transmission segments connecting the members and trades may span multiple segments. Transmission availability on individual segments varied widely. For many segments capacity is available in every interval. For other segments, availability is zero in many intervals. Considering all intervals and segments, 5 percent of the time availability was zero and 94 percent of the time a segment was available and no cleared transaction utilized it. Overall, this indicates widely-available transmission. Due to transmission loss costs, transmission constraints, and participant-specific constraints, about 20,000 MWh of potential economic exchanges were left uncleared in May, roughly what it has been in recent months. As explained herein, these are uncleared offers and bids in the same interval where the offer price was less than the bid price by more than the average cost of losses.

SEEM is governed by the SEEM Membership Board. The automated architecture of SEEM was developed and is operated by Hartigen, 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.

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<sup>1</sup> The initial 18 members are: Alabama Power Company; Georgia Power Company; Mississippi Power Company; Associated Electric Cooperative, Inc.; Dalton Utilities; Dominion Energy South Carolina, Inc.; Duke Energy Carolinas, LLC; Duke Energy Progress, LLC; Louisville Gas & Electric Company and Kentucky Utilities Company; North Carolina Municipal Power Agency Number 1; PowerSouth Energy Cooperative; North Carolina Electric Membership Corporation; Tennessee Valley Authority; Georgia System Operations Corporation; Georgia Transmission Corporation; Municipal Electric Authority of Georgia; Oglethorpe Power Corporation; and South Carolina Public Service Authority. The Florida member joining in June 2023 are: Seminole Electric Cooperative; Tampa Electric Company; Duke Energy Florida; Florida Power Corporation; TEA Gainesville Regional Utilities; and TEA JEA.

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). the purpose of Section II of this report is to fulfil our responsibility to report on the reliability and accuracy of the SEEM system to the Board. Regarding complaints from participants to the Board, we were not directed by the Board to investigate any such complaints 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 received no inquiries in May.

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 have 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 SEEM data that supports the calculation of these screens. Apart from screening the network map and the participant-specific constraints (described below), the screens are calculated daily, and we have developed data processing procedures for each of the daily screens. 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 network 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 linked 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. To monitor the map over time, we use the SEEM model's static path configuration database that is used by the model to assess possible paths associated with the sources and sinks offered and bid in each interval. We save a snapshot of this database and compare 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. There were changes to participant-specific constraints among a number of participants in May to temporarily restrict trading partners. We find it consistent with our observations in prior months.

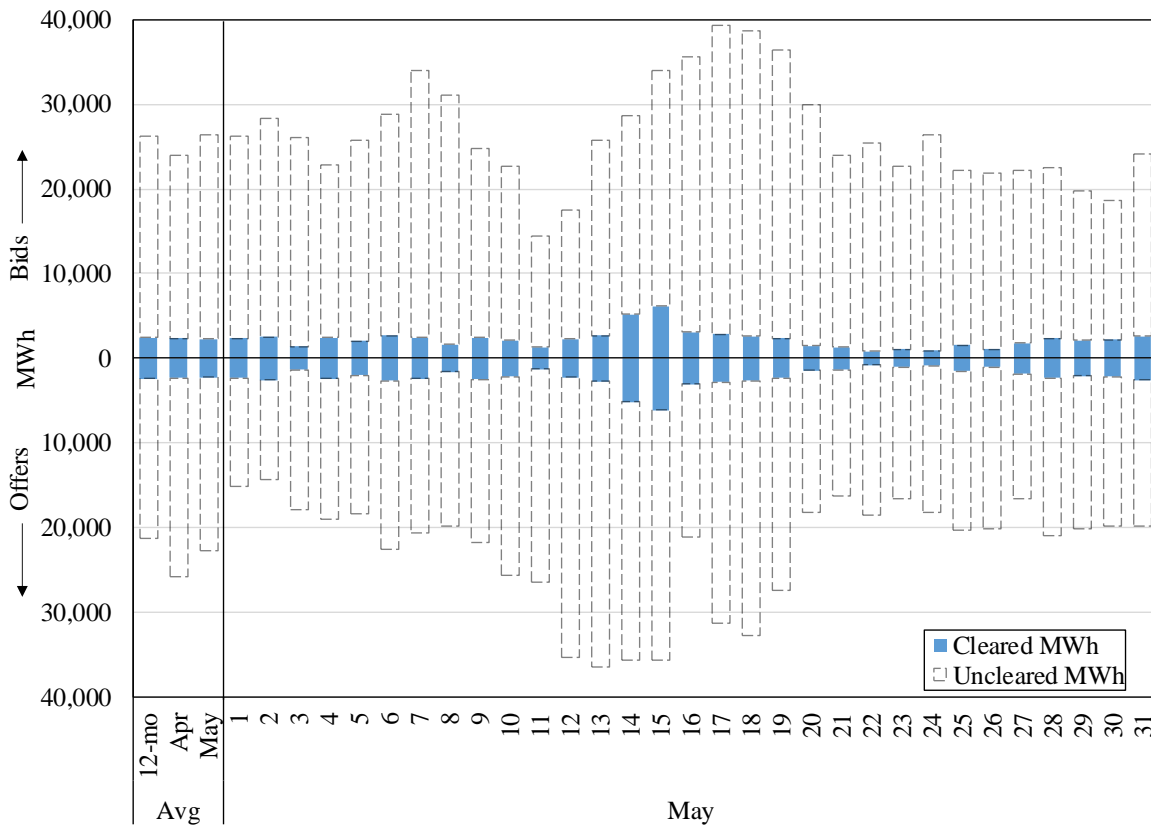
## B. Market Activity

In this section, we summarize and discuss SEEM operations and outcomes to illuminate any potential operating or market issues. Our evaluation is in two principal 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

SEEM cleared 71,000 MWh of energy in May, which is slightly lower than April (but down from the an all-time high in March of over 100,000 MWh). Figure 1 shows the daily SEEM bids and offers for May. Each bar represents the daily total MWh 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 left side columns show activity relative to the previous month and relative to the 12-month rolling average.

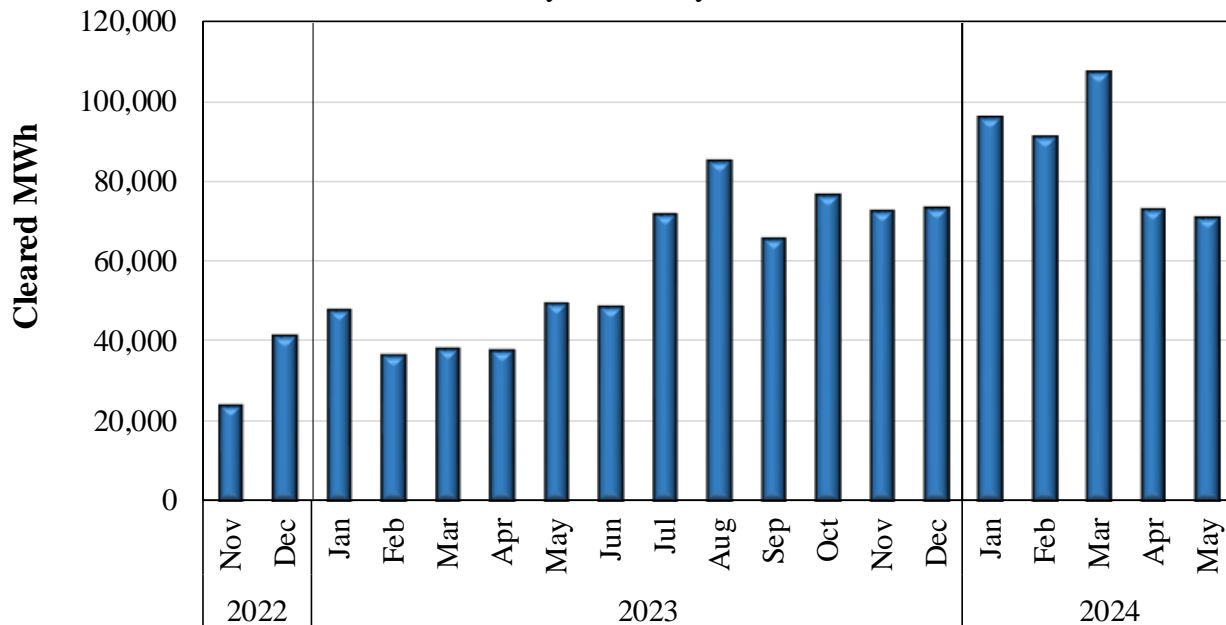
**Figure 1: Daily Bids and Offers**  
May 2024



As the left-side monthly and the 12-month average bars show, total liquidity (cleared and uncleared bids and offers) was comparable to April’s level and roughly equal to the 12-month average.

Figure 2 shows the cleared trades on an historical monthly basis. It shows a general increase in cleared volumes, especially in July during the Florida participants’ first full month of trading. Volumes continued to increase in the first three months of 2024. The increase indicates increased interest and confidence in the market, although volumes declined in April and May.

**Figure 2: Volume of Cleared Trades**  
January 2023 -May 2024



Our next evaluation is a monthly comparison of bids, offers, and prices and is shown in Figure 3. It shows the monthly total activity in the SEEM market, including both cleared and uncleared bids and offers. The purpose is to summarize the trends in market liquidity. The dark green bars are the cleared bids and offers. The rest of the bar segments are various categories of uncleared bids and offers:

- The red segment shows uncleared economic bids and offers. These transactions appear to be profitable, but do not clear because of the cost of losses or a constraint (explained more below).
- The light green bars show bids and offers that were not cleared but were within the indicated cleared bid-offer spread – i.e., from the lowest cleared offer to the highest cleared bid. Bids and offers in this group do not clear because there are not sufficient counterparties to clear all of them – i.e., the counterparty bids/offers that could be economic have already been matched to another bid/offer with greater savings.
- The light blue bars show bids/offers within \$10 of the overlap range (\$10 or less outside the cleared bid-offer range).

- The dark blue bars show bids/offers greater than \$10 of the overlap range – i.e., offers to sell that are >\$10 higher than this highest bid or offers to buy energy <\$10 less than the lowest supply offer. Participants likely do not expect these to clear.

Because the uncleared bids and offers in the blue bars are unlikely to clear, a movement of these quantities closer to the expected clearing range signals an improvement in market liquidity.

**Figure 3: Bid and Offer Evaluation**

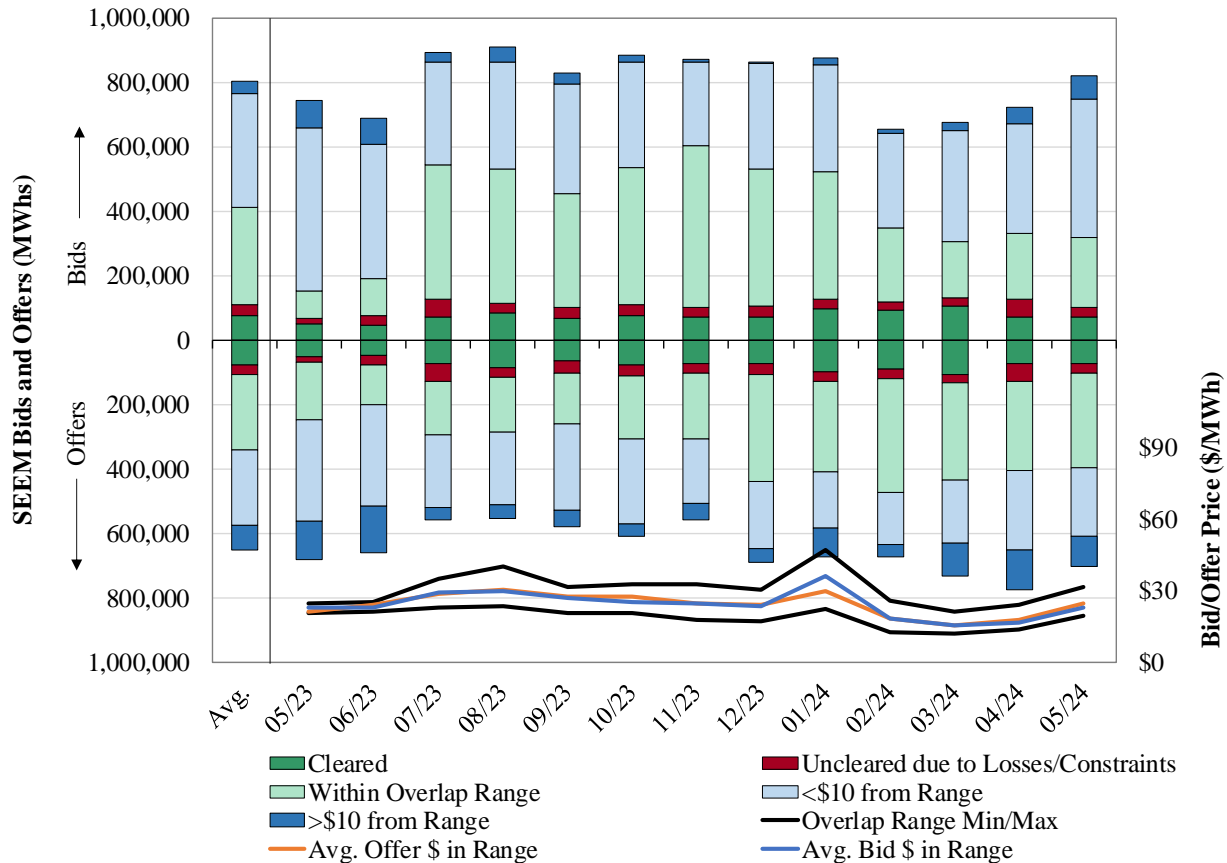


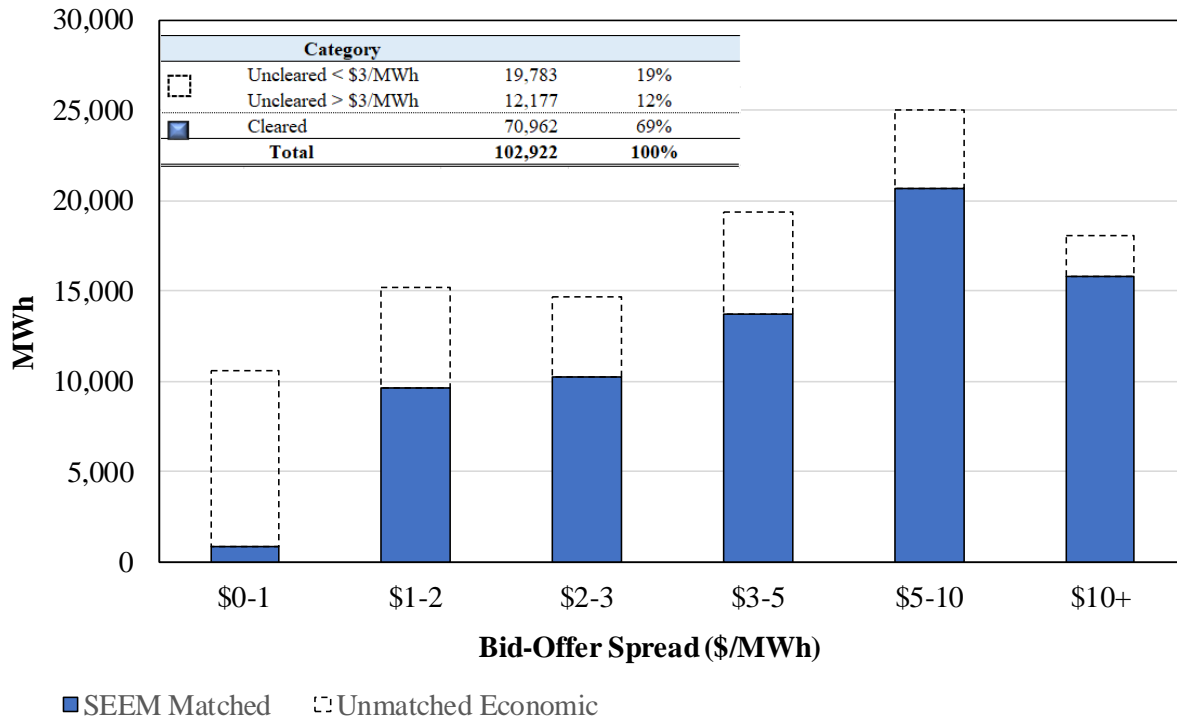
Figure 3 shows that, not surprisingly, bid and offer volume increased substantially when Florida participants joined fully in July 2023. Since the end of 2023, liquidity declined slightly, even though cleared matches increased somewhat. Overall, these trends are positive.

Like in previous months, we 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 were uncleared bids whose bid price was greater than some uncleared offer prices in the same interval. Of course, most economic uncleared matches have a small bid-offer spread, and likely are not matched due to transmission losses that render the trade uneconomic. However, there are some economic uncleared matches with substantial spreads. Figure 4 shows a summary of the cleared and uncleared matches. Each stacked bar shows the SEEM matches (blue bar) and the economic



unmatched (transparent bar) at the given bid-offer spread. For example, the first blue bar shows SEEM matches where bids exceed offers by up to \$1 – there are very few because that spread would not pay most transmission loss cost. The transparent box shows considerable uncleared economic bids and offers that did not clear at spreads up to \$1.

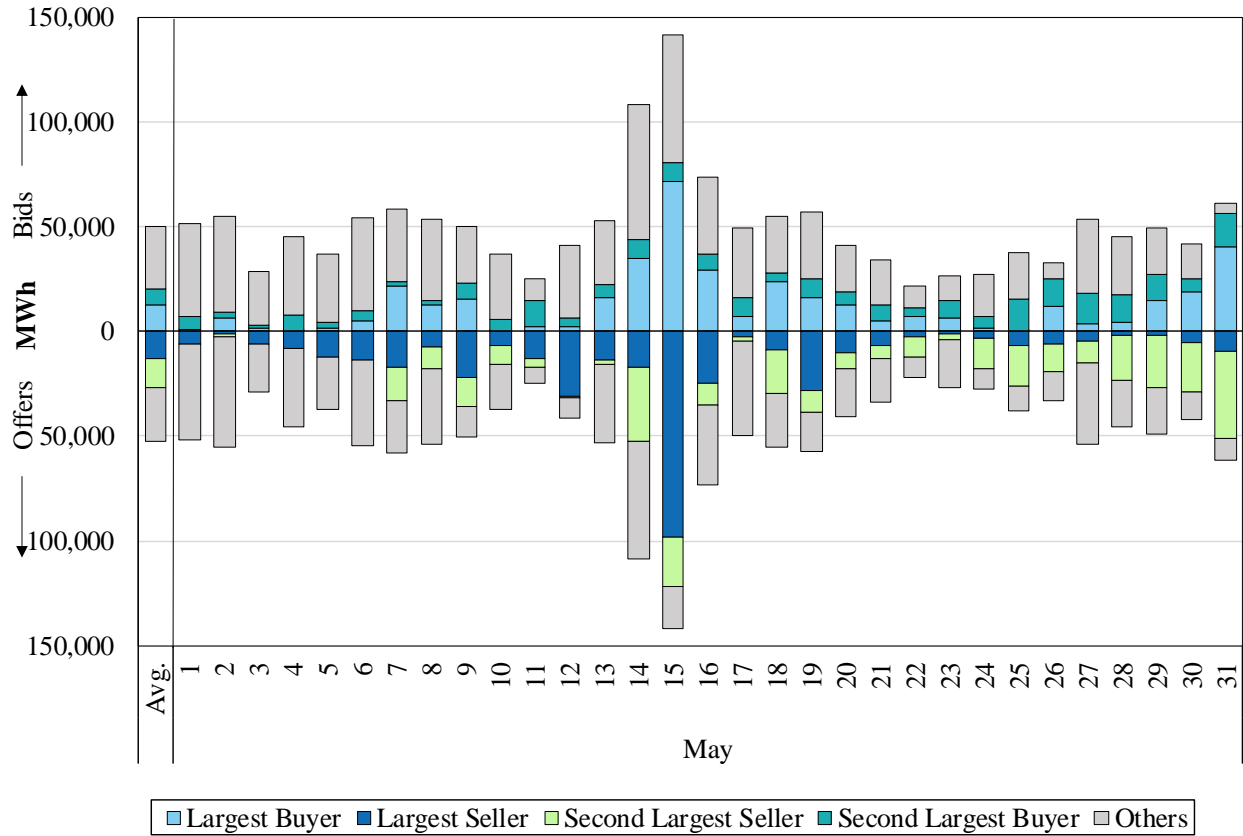
**Figure 4: Cleared and Uncleared Economic Matches**  
May 2024



To understand why economic bids and offers may not have cleared, it is useful to examine the bid-offer spread. Average loss charges are roughly \$2 per MWh, although some potential economic matches would incur higher loss costs. Therefore, in the inset table, we divide totals between bid-offer spreads above and below \$3 per MWh. Those below \$3 are very likely to have not cleared because of the costs of losses, well most of those that did not clear at spreads above \$3 likely did not clear because of transmission constraints or participant constraints. The inset table also shows that over the entire period, 69 percent of the economic transactions cleared. The costs of transmission losses were likely the most significant factor that prevented transactions from clearing. This is because in each of the periods most of the uncleared economic transactions were those with spreads less than \$3 per MWh.

Figure 5 shows more detail on the matched bids and offers by showing the matches by the largest market participants. 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 the top two participants and then all the rest.

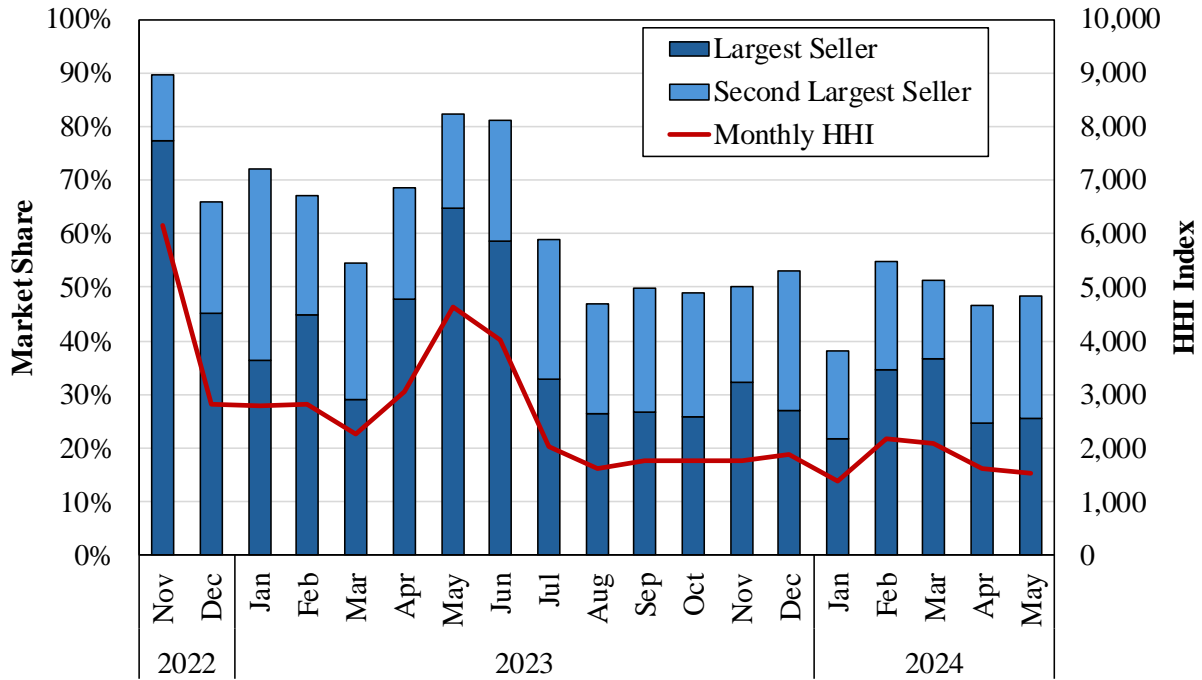
**Figure 5: Volumes of Matched Bids and Offers**  
May 2024



The figure shows certain buyers and sellers comprise significant shares of the transaction activity. For the month, 26 percent of the sales were made by a single seller and 26 percent of the purchases were made by a single buyer.

In the next figures, we present a time series of market shares and concentration. Economists measure market shares to get a general view of the competitiveness of a market. It is not determinative of the existence of market power, but it is useful for an overall view. Figure 5 shows the monthly share of matched transaction of the largest two sellers along with the Herfindahl Hirschmann Index (HHI), defined below. The bars in this figure stack the two top sellers during the month.

**Figure 6: Seller Market Share Statistics**  
November 2022 – May 2024

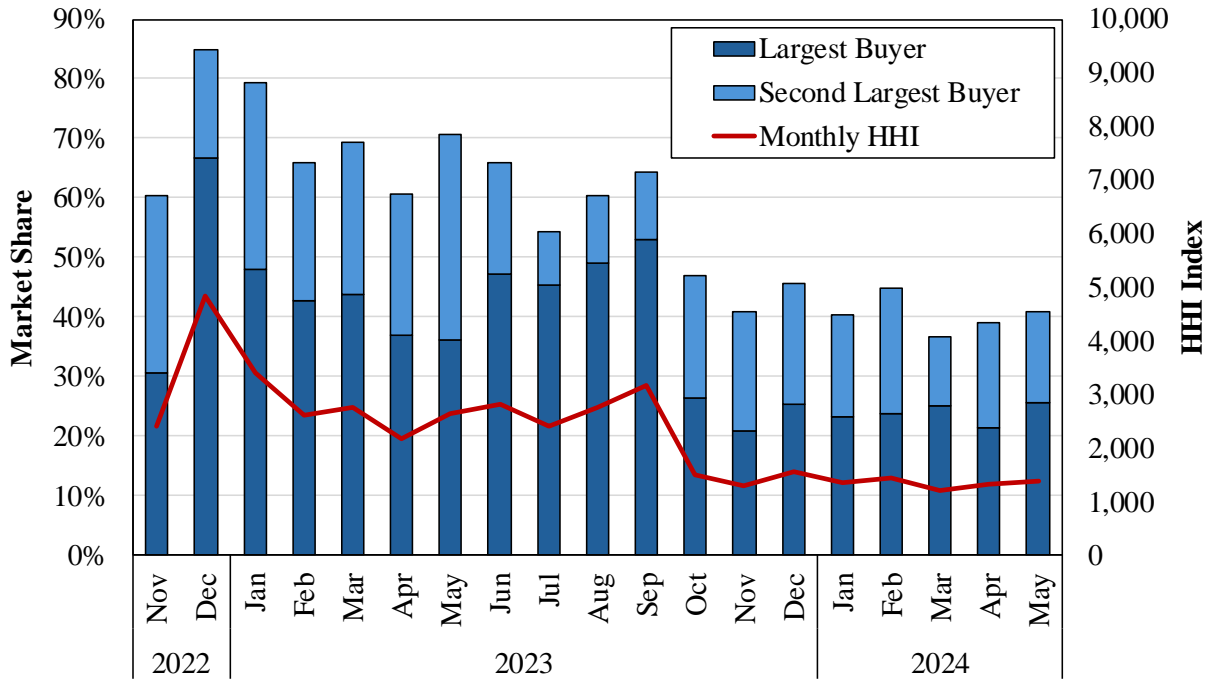


Not surprisingly, the share of the top seller, as well as the share of the top two, declined once the Florida participants full joined in July 2023. The chart also shows the HHI has declined. The HHI is a measure of market concentration and is used to determine market competitiveness, often on a relative basis over time or as a result of structural changes like a merger or divestiture. It is calculated by squaring the market share of each firm competing in a market and then summing the resulting numbers. It can range from close to 0 to 10,000, with lower values indicating a less concentrated market. A single-seller monopoly market would have an HHI of 10,000 = 100 x 100. A perfectly competitive market where no firm has an appreciable market share, the HHI is close to 0. The US antitrust agencies (FTC and DOJ) consider markets with:

- HHI greater than 1800 to be highly concentrated;
- one with an HHI between 1000 and 1800 to be moderately concentrated; and
- one with an HHI less than 1000 to be unconcentrated.

The HHI indicates that the SEEM market has highly-concentrated in most months. However, the HHI has come down since July and has remained close to 1800. Although this is close to the highly-concentrated range, it has been falling and the correlation of prices with fuel prices indicates that the market has performed competitively. Figure 7 shows the buyer concentration.

**Figure 7: Buyer Market Share Statistics**  
November 2022 – May 2024

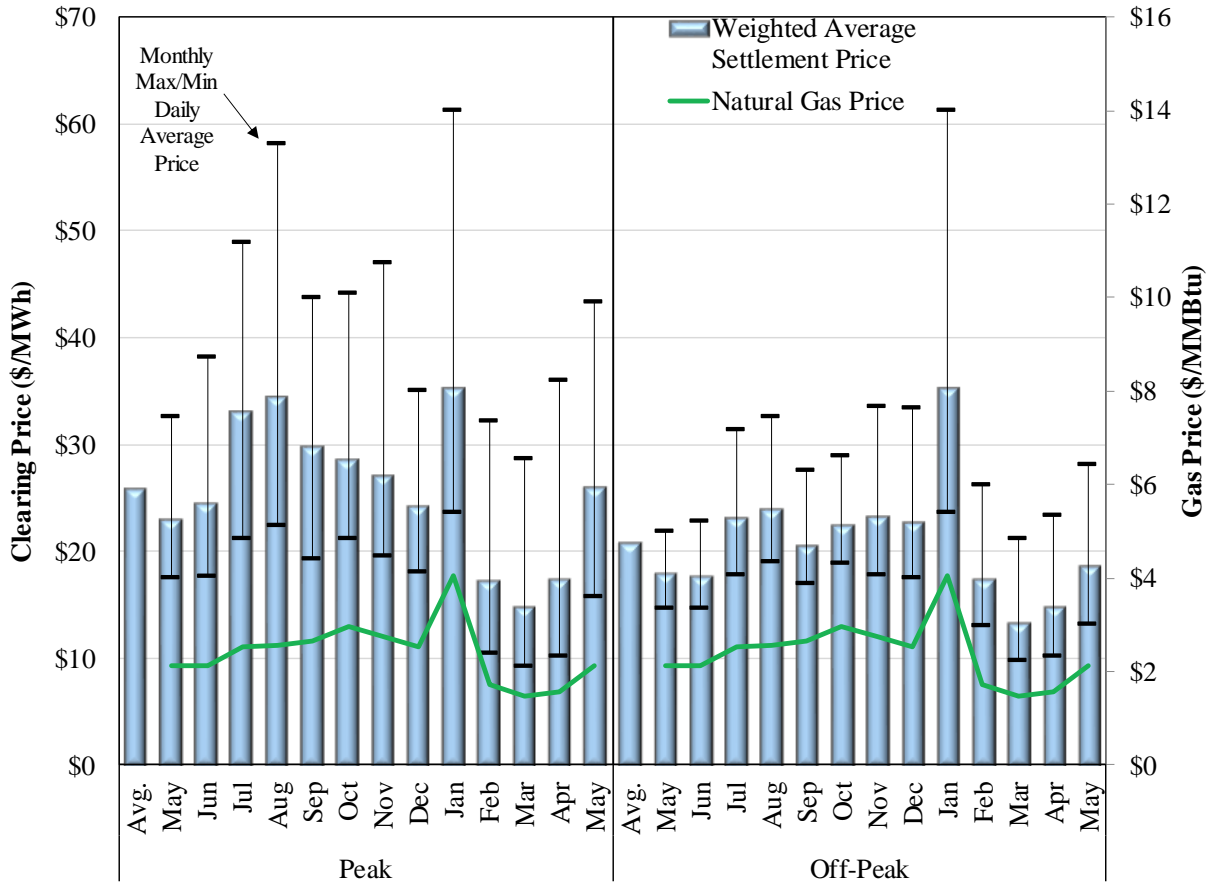


The statistics show a trend similar to the seller market shares. The entry of Florida participants coincided with a decline in buyer concentration, although there was a two-month lag in the decline in the share of the largest buyers. These declines, together with the uptrend in matched trades are indicative of a market evolving to greater liquidity and competitiveness.

## 2. Network Usage

In this subsection, we report on the usage of the SEEM network. Figure 8 shows monthly SEEM clearing prices, natural gas costs, and average daily minimum and maximum prices in peak and off-peak hours during the month. The figure shows that prices are correlated with natural gas costs, which is the marginal fuel in many hours and strongly influences the value of power. The superimposed lines over the bars show the price spread over each month.

Figure 8: Monthly Clearing Prices and Natural Gas Costs



The figure shows that peak prices rose in May, relative to April and were in line with the 12-month average. Off peak prices also rose, but remained below the previous 12-month period. The whisker bars for each month show that the value of transactions can vary significantly, mainly because transmission constraints can contribute to higher prices between different locations. 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. SEEM trades among participants using ATC. We gathered ATC and trading statistics for all SEEM segments available to the model. There are 240 segments used in SEEM for which an ATC value is posted. There are another 111 segments for which no ATC is posted. These are segments that were available on an unlimited basis.<sup>2</sup> We calculate total segment (MWh) usage and for segments with ATC values, we report the median, maximum, and minimum ATC values over all intervals for each segment.

<sup>2</sup> It is not unusual for transmission paths to have no ATC value posted, and not just for the SEEM transmission service (NFEETS), but also longer-term service.

For these “ATC segments,” we are also able to 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.

In addition to schedule volumes and the ATC statistics, we also calculate 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 or total MWs cleared on a segment without ATC);
- (2) Fully Used, ATC was used up for the interval;<sup>3</sup>
- (3) Unavailable, no ATC;<sup>4</sup> and
- (4) Uncleared (no schedules on the segment).

In reporting the usage of each segment, we refer to a “segment-interval” which is an observation in a single interval on one segment. Table 1 shows an excerpt of our statistics. The table displays the 23 segments that had at least 2,000 MWh of transactions scheduled during the month. The full data for all segments is provided in Appendix A. When ATC is listed as “None” this means there was no ATC posted.

**Table 1: Statistics for Most Utilized SEEM Segments**  
May 2024

Segment	ATC			Loading		Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
F/FPC/FPC-SOCO//	0	0	291	11,296	16.36%	301	10%	104	3%	1,616	54%	955	32%
S/TVA/TVA-SOCO//	0	2,905	2,935	10,473	0.49%	316	11%	0	0%	3	0%	2,657	89%
F/JEA/SOCO-JEA//	0	493	797	9,240	2.61%	1,327	45%	13	0%	52	2%	1,584	53%
S/CPL/CPL-SEEG//	1,336	5,401	7,179	8,112	0.21%	536	18%	0	0%	0	0%	2,440	82%
S/DUK/CPL-SEEG//	0	1,334	2,335	7,027	0.79%	488	16%	18	1%	337	11%	2,133	72%
F/TEC/TEC-FPC//	0	1,511	3,484	6,403	0.53%	399	13%	0	0%	28	1%	2,549	86%
S/DUK/TVA-DUK//	0	692	692	6,271	1.39%	183	6%	12	0%	184	6%	2,597	87%
S/TVA/TVA-DUK//	0	355	355	6,124	2.62%	174	6%	11	0%	289	10%	2,502	84%
S/SC/SOCO-SC//	0	1,276	2,491	5,394	0.57%	345	12%	1	0%	118	4%	2,512	84%
SS/SOCO/FL-SOCO//	225	511	1,155	5,019	1.27%	428	14%	0	0%	0	0%	2,548	86%
S/CPL/CPL-SEEG//	1	363	404	3,856	1.48%	284	10%	7	0%	2	0%	2,683	90%
SS/SOCO/SOCO-SOCO//	40,703	44,230	44,230	3,758	0.01%	175	6%	0	0%	0	0%	2,801	94%
F/FPC/TEC-SOCO//	0	0	291	3,691	5.44%	189	6%	29	1%	1,628	55%	1,130	38%
S/CPL/CPL-SC//	892	2,653	4,311	3,503	0.17%	241	8%	0	0%	0	0%	2,735	92%
SS/SOCO/FL-SC/MULTIPATHALIAS/	34	239	476	3,184	1.90%	212	7%	20	1%	0	0%	2,744	92%
S/SEEG/CPL-SEEG//	0	377	504	3,073	1.22%	269	9%	0	0%	84	3%	2,623	88%
F/FPC/TEC-FPC//	0	1,578	3,533	2,712	0.22%	331	11%	0	0%	24	1%	2,621	88%
S/SC/CPL-SC//	0	1,258	2,853	2,437	0.27%	195	7%	0	0%	66	2%	2,715	91%
S/SEEG/SOCO-SEEG//	0	789	2,389	2,344	0.39%	265	9%	0	0%	145	5%	2,566	86%
SS/SOCO/DUK-SOCO//	0	677	1,063	2,210	0.50%	107	4%	8	0%	20	1%	2,841	95%
S/DUK/DUK-SOCO//	0	747	2,323	2,155	0.33%	472	16%	1	0%	395	13%	2,108	71%
SS/SOCO/SOCO-FL//	-101	813	1,840	2,027	0.35%	302	10%	0	0%	3	0%	2,671	90%

<sup>3</sup> ATC less the MW schedule was less than 4 MW (i.e., no additional SEEM transaction could be cleared).

<sup>4</sup> ATC was less than 4 MW at the start of the interval.

The “Uncleared” category indicates that among these most utilized segments, many of them have over 90 percent of their intervals uncleared. There are, however, numerous instances when segments are constrained. A constrained segment is one where either (1) the segment is completely used by SEEM (“Fully Used” column in the table) or (2) ATC is insufficient (less than 4 MW) prior to SEEM matching (the “Unavailable” column in the table).

Table 2 show the summary usage for all segments. During the month, total segment intervals is the product of all 351 segments and the number of intervals during the month. In May, there were 1,044,576 segment intervals.<sup>5</sup> The two circumstances (Cases (2) and (3)) when a segment is constrained occurred in more than 49,000 segment-intervals and almost always because the ATC was insufficient to schedule (i.e., ATC < 4 MW) rather than because it is fully used by a SEEM match. The most common case in the data was “Uncleared” (Case 4), where ATC was available or there was no ATC posted, but the segment was not used because no beneficial transactions were cleared by the SEEM model over that segment. These cases represent over 980,000 segment intervals or 94 percent of all segment-intervals. The second most common case was case “Unavailable” (Case 3), where ATC was not sufficient to clear any SEEM transactions (48,954 or about 5 percent of the time). The third most common case was “Partially Used” (Case 1), where the segment was partially used (14,170 or about 1.4 percent of the time). Finally, in a small number of intervals, the Segment ATC was “Fully Used” (Case 2), where the segment was completely scheduled in the interval (689).

**Table 2: Summary of All Segments**  
May 2024

Segment	Case 1		Case 2		Case 3		Case 4	
	Partially Used		Fully Used		Unavailable		Uncleared	
	Intervals	%	Intervals	%	Intervals	%	Intervals	%
All Segments	14,170	1.4%	689	0.1%	48,954	4.7%	980,763	93.9%

Measuring transmission capacity congestion by adding Case 2 and 3, the percentage of constrained segment intervals was stable (5 percent in May, lower than the 9 percent in April). Overall, these results indicate that transmission was generally available to facilitate economic transactions in the SEEM region. As we discussed above, transmission loss costs were likely the main factor in preventing economic trades from being consummated than transmission constraints.

<sup>5</sup> The maximum number of segment intervals in a month is (351 segments 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. There are 10 Seminole Electric Cooperative segments not yet available in the model. Once included, the total will be 361.

Further insight on constrained segments can be gained from Table 3. It shows the segments most often unavailable to SEEM (i.e., unavailable in at least 1,000 intervals). All segments shown reported ATC of 0 in one or more intervals during the month (ATC Min=0). In most intervals there was at least some cleared trades. Like in previous months, these frequently-unavailable paths are in many intervals unused when they are available (as indicated by the “Uncleared” column). Overall, the evaluation of individual segments indicates the system is largely unconstrained for SEEM activity.

**Table 3: Most Constrained SEEM Segments**  
May 2024

Segment	ATC			Loading		Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
F/FPC/SEC-SOCO/SSO-SOCO/	0	0	291	0	0.00%	0	0%	0	0%	1,640	55%	1336	45%
F/FPC/TEC-SOCO//	0	0	291	3,691	5.44%	189	6%	29	1%	1,628	55%	1130	38%
F/FPC/FPC-SOCO//	0	0	291	11,296	16.36%	301	10%	104	3%	1,616	54%	955	32%
F/FPC/SEC-SOCO/SSN-SOCO/	0	0	291	0	0.00%	0	0%	0	0%	1,616	54%	1360	46%
F/FPC/GVL-SOCO//	0	0	279	0	0.00%	0	0%	0	0%	1,616	54%	1360	46%
S/TVA/AECI-LGEE//	0	0	409	0	0.00%	0	0%	0	0%	1,529	51%	1447	49%
S/TVA/DUK-LGEE//	0	18	355	12	0.01%	6	0%	0	0%	1,446	49%	1524	51%
S/AECI/TVA-AECI//	0	684	950	247	0.08%	18	1%	0	0%	1,396	47%	1562	52%
S/TVA/SOCO-LGEE//	0	52	1,931	51	0.03%	6	0%	0	0%	1,394	47%	1576	53%
S/TVA/TVA-LGEE//	0	47	1,748	1,319	0.78%	43	1%	12	0%	1,394	47%	1527	51%
S/TVA/CPLW-LGEE//	0	68	276	0	0.00%	0	0%	0	0%	1,394	47%	1582	53%
S/DUK/CPLW-SCEG//	0	105	164	0	0.00%	0	0%	0	0%	1,213	41%	1763	59%
S/DUK/DUK-SCEG//	0	108	164	186	0.32%	52	2%	0	0%	1,177	40%	1747	59%
S/DUK/SOCO-SCEG//	0	105	164	292	0.52%	40	1%	1	0%	1,165	39%	1770	59%
S/DUK/CPLW-SCEG//	0	109	164	4	0.01%	1	0%	0	0%	1,157	39%	1818	61%
S/DUK/TVA-SCEG//	0	109	164	22	0.04%	6	0%	0	0%	1,157	39%	1813	61%
S/DUK/SC-SCEG//	0	109	164	0	0.00%	0	0%	0	0%	1,157	39%	1819	61%



### III. CONCLUSION

We reviewed the operation of SEEM for May 2024. We have developed operational procedures to validate the market rules and constraints of SEEM. All 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 -- May 2024

Segment	ATC			Loading MWs Factor	Partially Used		Fully Used		Unavailable		Uncleared		
	Min	Median	Max		Intervals	%	Intervals	%	Intervals	%	Intervals	%	
S/SC/SOCO-SC//	0	1,276	2,491	5,394	0.57%	345	12%	1	0%	118	4%	2512	84%
SS/SOCO/FL-SOCO//	225	511	1,155	5,019	1.27%	428	14%	0	0%	0	0%	2548	86%
S/CPL/CPL-SC//	1	363	404	3,856	1.48%	284	10%	7	0%	2	0%	2683	90%
SS/SOCO/SOCO-SOCO//	40,703	44,230	44,230	3,758	0.01%	175	6%	0	0%	0	0%	2801	94%
F/FPC/TEC-SOCO//	0	0	291	3,691	5.44%	189	6%	29	1%	1,628	55%	1130	38%
S/CPL/CPL-SC//	892	2,653	4,311	3,503	0.17%	241	8%	0	0%	0	0%	2735	92%
SS/SOCO/FL-SC/MULTIPATHALIAS/	34	239	476	3,184	1.90%	212	7%	20	1%	0	0%	2744	92%
S/SCEG/CPL-SC//	0	377	504	3,073	1.22%	269	9%	0	0%	84	3%	2623	88%
F/FPC/TEC-FPC//	0	1,578	3,533	2,712	0.22%	331	11%	0	0%	24	1%	2621	88%
S/SC/CPL-SC//	0	1,258	2,853	2,437	0.27%	195	7%	0	0%	66	2%	2715	91%
S/SCEG/SOCO-SCEG//	0	789	2,389	2,344	0.39%	265	9%	0	0%	145	5%	2566	86%
SS/SOCO/DUK-SOCO//	0	677	1,063	2,210	0.50%	107	4%	8	0%	20	1%	2841	95%
S/DUK/DUK-SOCO//	0	747	2,323	2,155	0.33%	472	16%	1	0%	395	13%	2108	71%
SS/SOCO/SOCO-FL//	-101	813	1,840	2,027	0.35%	302	10%	0	0%	3	0%	2671	90%
S/MEAG/FL-SC//	None	None	None	1,908	0.00%	342	11%	0	0%	0	0%	2634	89%
S/TVA/SOCO-TVA//	0	2,440	2,940	1,898	0.11%	84	3%	0	0%	15	1%	2877	97%
SS/GTC/FL-SC//	0	433	669	1,891	0.63%	98	3%	1	0%	2	0%	2875	97%
SS/SOCO/FL-FL/MULTIPATHALIAS/	-101	568	1,024	1,846	0.49%	311	10%	16	1%	23	1%	2626	88%
S/MEAG/SOCO-JEA//	None	None	None	1,624	0.00%	243	8%	0	0%	0	0%	2733	92%
F/FPC/SOCO-FPC//	0	140	476	1,602	1.21%	218	7%	23	1%	908	31%	1827	61%
SS/GTC/SOCO-GTC//	12,952	14,152	15,000	1,575	0.02%	86	3%	0	0%	0	0%	2890	97%
P/LGEE/LGEE-TVA//	0	1,623	1,623	1,543	0.14%	165	6%	0	0%	9	0%	2802	94%
S/MEAG/FPC-SC//	None	None	None	1,466	0.00%	143	5%	0	0%	0	0%	2833	95%
S/MEAG/SOCO-MEAG//	2,870	3,135	3,236	1,450	0.06%	101	3%	0	0%	0	0%	2875	97%
SS/SOCO/FL-SCEG/MULTIPATHALIAS/	0	89	167	1,428	2.66%	93	3%	77	3%	456	15%	2350	79%
S/AECI/AECI-TVA//	0	129	585	1,412	1.16%	129	4%	13	0%	647	22%	2187	73%
P/LGEE/TVA-LGEE//	0	1,396	1,424	1,382	0.14%	59	2%	0	0%	38	1%	2879	97%
S/MEAG/FL-SC//	0	101	229	1,376	1.65%	91	3%	35	1%	68	2%	2782	93%
S/TVA/TVA-LGEE//	0	47	1,748	1,319	0.78%	43	1%	12	0%	1,394	47%	1527	51%
S/SCEG/CPL-SC//	0	377	504	1,279	0.48%	104	3%	2	0%	40	1%	2830	95%
S/TVA/AECI-SOCO//	0	128	409	1,197	1.29%	107	4%	25	1%	204	7%	2640	89%
SS/SOCO/FL-TVA/MULTIPATHALIAS/	225	511	1,155	1,168	0.30%	49	2%	0	0%	0	0%	2927	98%
S/TVA/LGEE-SOCO//	0	2,828	2,828	1,154	0.06%	124	4%	0	0%	23	1%	2829	95%
S/SCEG/SCEG-SOCO//	212	3,230	7,556	1,104	0.04%	127	4%	0	0%	0	0%	2849	96%
S/SC/CPL-SC//	0	2,821	3,656	1,064	0.06%	50	2%	0	0%	52	2%	2874	97%
SS/GTC/GTC-SOCO//	20,000	20,000	20,000	1,009	0.01%	32	1%	0	0%	0	0%	2944	99%
F/JEA/JEA-SOCO//	176	479	831	968	0.26%	207	7%	0	0%	0	0%	2769	93%
S/MEAG/FPC-MEAG//	0	62	224	930	1.61%	45	2%	27	1%	124	4%	2780	93%
S/MEAG/MEAG-SOCO//	2,500	2,601	2,866	808	0.04%	47	2%	0	0%	0	0%	2929	98%
S/FL-SC/FL-SC//	0	692	692	807	0.16%	40	1%	1	0%	24	1%	2911	98%
SS/GTC/SCEG-GTC//	68	94	138	793	1.10%	62	2%	7	0%	0	0%	2907	98%
S/CPL/FL-SC//	0	3,238	6,121	760	0.03%	174	6%	0	0%	11	0%	2791	94%
SS/SOCO/SCEG-SOCO//	1	173	255	724	0.56%	45	2%	8	0%	5	0%	2918	98%
SS/GTC/FPC-GTC//	0	321	727	706	0.29%	39	1%	0	0%	4	0%	2933	99%
SS/SOCO/SC-SOCO//	127	272	490	678	0.32%	22	1%	3	0%	0	0%	2951	99%
S/TVA/FL-SC//	0	355	355	672	0.28%	30	1%	0	0%	172	6%	2774	93%
SS/GTC/TVA-GTC//	42	222	361	660	0.39%	55	2%	0	0%	0	0%	2921	98%
S/TVA/FL-SC//	0	355	355	646	0.26%	79	3%	1	0%	99	3%	2797	94%
S/FL-SC/CPL-SC//	0	770	2,220	632	0.09%	135	5%	0	0%	511	17%	2330	78%
S/MEAG/TVA-MEAG//	36	48	88	607	1.60%	33	1%	39	1%	0	0%	2904	98%
S/CPL/TVA-FL-SC//	0	276	276	583	0.29%	67	2%	1	0%	2	0%	2906	98%
S/FL-SC/FL-SC//	0	692	692	545	0.12%	78	3%	1	0%	172	6%	2725	92%

Appendix A (continued)

Segment	ATC			Loading		Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
SS/SOCO/SOCO-SC//	34	246	580	505	0.27%	49	2%	0	0%	0	0%	2927	98%
S/SCEG/DUK-SCEG//	0	125	270	504	0.55%	86	3%	6	0%	39	1%	2845	96%
S/CPL/DUK-SCEG//	0	363	404	498	0.19%	76	3%	0	0%	13	0%	2887	97%
S/DUK/SOCO-DUK//	0	1,189	2,220	470	0.06%	61	2%	0	0%	458	15%	2457	83%
S/MEAG/FPC-SOCO//	None	None	None	464	0.00%	71	2%	0	0%	0	0%	2905	98%
SS/SOCO/SCEG-FL/MULTIPATHALIAS//	-101	171	255	461	0.36%	92	3%	0	0%	9	0%	2875	97%
S/SC/DUK-SC//	0	2,479	3,330	455	0.02%	101	3%	1	0%	13	0%	2861	96%
SS/GTC/SC-GTC//	62	103	185	422	0.53%	33	1%	6	0%	0	0%	2937	99%
SS/SOCO/SOCO-DUK//	0	453	923	411	0.12%	91	3%	0	0%	1	0%	2884	97%
S/TVA/TVA-CPLW//	0	276	276	395	0.20%	19	1%	1	0%	15	1%	2941	99%
S/MEAG/MEAG-JEA//	0	138	214	382	0.41%	58	2%	1	0%	217	7%	2700	91%
S/DUK/CPLW-DUK//	0	1,020	1,243	364	0.06%	19	1%	0	0%	272	9%	2685	90%
SS/SOCO/FL-DUK/MULTIPATHALIAS//	0	351	702	363	0.14%	77	3%	0	0%	1	0%	2898	97%
SS/GTC/GTC-FPC//	0	646	1,157	343	0.08%	13	0%	0	0%	4	0%	2959	99%
S/CPL/DUK-TVA//	0	276	276	316	0.18%	31	1%	0	0%	329	11%	2616	88%
S/DUK/DUK-SC//	0	975	2,762	313	0.04%	82	3%	1	0%	169	6%	2724	92%
SS/GTC/GTC-TVA//	148	519	721	313	0.08%	13	0%	0	0%	0	0%	2963	100%
SS/GTC/GTC-SC//	0	265	386	295	0.15%	20	1%	0	0%	4	0%	2952	99%
S/DUK/SOCO-SCEG//	0	105	164	292	0.52%	40	1%	1	0%	1,165	39%	1770	59%
S/MEAG/MEAG-FPC//	0	138	214	290	0.31%	26	1%	1	0%	217	7%	2732	92%
SS/SOCO/SOCO-SCEG//	0	89	167	281	0.52%	23	1%	16	1%	456	15%	2481	83%
S/TVA/LGEE-DUK//	0	355	355	278	0.11%	39	1%	0	0%	55	2%	2882	97%
S/MEAG/SCEG-MEAG//	0	20	29	263	1.72%	8	0%	50	2%	8	0%	2910	98%
S/DUK/CPLW-CPLW//	0	454	454	260	0.09%	25	1%	0	0%	3	0%	2948	99%
S/SC/SC-SOCO//	0	2,545	3,449	253	0.01%	36	1%	0	0%	120	4%	2820	95%
S/MEAG/MEAG-TVA//	3	115	153	249	0.29%	20	1%	1	0%	4	0%	2951	99%
SS/GTC/GTC-JEA//	0	646	1,157	248	0.06%	35	1%	0	0%	4	0%	2937	99%
S/AECI/TVA-AECI//	0	684	950	247	0.08%	18	1%	0	0%	1,396	47%	1562	52%
S/SCEG/SC-SCEG//	0	1,290	3,901	244	0.02%	38	1%	0	0%	24	1%	2914	98%
SS/GTC/FPC-SCEG//	None	None	None	237	0.00%	63	2%	0	0%	0	0%	2913	98%
S/SCEG/SCEG-DUK//	143	728	854	237	0.04%	33	1%	0	0%	0	0%	2943	99%
S/CPL/SCEG-CPLE//	0	618	637	230	0.06%	54	2%	0	0%	231	8%	2691	90%
S/MEAG/TVA-JEA//	None	None	None	226	0.00%	38	1%	0	0%	0	0%	2938	99%
S/DUK/CPLW-CPLE//	0	1,023	1,243	219	0.04%	49	2%	0	0%	403	14%	2524	85%
S/DUK/DUK-CPLE//	0	1,368	4,048	218	0.02%	43	1%	0	0%	261	9%	2672	90%
S/SC/SOCO-SCEG//	0	1,460	2,132	210	0.02%	31	1%	0	0%	64	2%	2881	97%
SS/GTC/JEA-GTC//	0	321	727	199	0.08%	46	2%	0	0%	4	0%	2926	98%
S/SC/SC-DUK//	161	2,253	3,012	198	0.01%	22	1%	0	0%	0	0%	2954	99%
S/MEAG/DUK-FPC//	None	None	None	196	0.00%	56	2%	0	0%	0	0%	2920	98%
SS/GTC/GTC-DUK//	0	287	587	191	0.10%	14	0%	0	0%	118	4%	2844	96%
S/DUK/TVA-CPLE//	0	692	692	189	0.04%	44	1%	0	0%	230	8%	2702	91%
S/DUK/DUK-SCEG//	0	108	164	186	0.32%	52	2%	0	0%	1,177	40%	1747	59%
S/MEAG/TVA-DUK//	None	None	None	181	0.00%	15	1%	0	0%	0	0%	2961	99%
S/MEAG/FPC-TVA//	None	None	None	172	0.00%	24	1%	0	0%	0	0%	2952	99%
S/SCEG/SCEG-CPLE//	139	632	1,007	172	0.04%	33	1%	0	0%	0	0%	2943	99%
S/SC/SCEG-SC//	1,397	2,086	2,702	172	0.01%	27	1%	0	0%	0	0%	2949	99%
S/MEAG/MEAG-SC//	0	57	82	168	0.42%	16	1%	11	0%	249	8%	2700	91%
SS/SOCO/SOCO-TVA//	717	2,161	2,877	164	0.01%	18	1%	0	0%	0	0%	2958	99%
S/SCEG/SCEG-SC//	322	3,829	6,173	160	0.01%	24	1%	0	0%	0	0%	2952	99%
S/MEAG/FPC-SCEG//	None	None	None	156	0.00%	76	3%	0	0%	0	0%	2900	97%
S/MEAG/MEAG-GTC//	2,451	2,676	2,958	156	0.01%	9	0%	0	0%	0	0%	2967	100%
S/TVA/CPLW-SOCO//	0	276	276	153	0.07%	18	1%	0	0%	3	0%	2955	99%
S/TVA/SOCO-AECI//	0	622	622	153	0.03%	14	0%	0	0%	100	3%	2862	96%
S/MEAG/JEA-MEAG//	0	62	299	150	0.26%	23	1%	5	0%	124	4%	2824	95%
S/MEAG/FPC-DUK//	None	None	None	148	0.00%	28	1%	0	0%	0	0%	2948	99%
SS/GTC/MEAG-GTC//	8,504	8,674	9,050	147	0.00%	6	0%	0	0%	0	0%	2970	100%
S/TVA/AECI-DUK//	0	128	355	147	0.16%	29	1%	0	0%	240	8%	2707	91%
SS/GTC/GTC-SCEG//	0	49	91	144	0.47%	4	0%	8	0%	384	13%	2580	87%
S/DUK/SCEG-DUK//	0	648	650	143	0.05%	19	1%	4	0%	209	7%	2744	92%
S/DUK/SC-SOCO//	0	1,916	2,335	139	0.01%	14	0%	1	0%	285	10%	2676	90%

Appendix A (continued)

Segment	ATC			Loading		Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/DUK/SOCO-SC//	0	1,083	2,220	133	0.02%	18	1%	0	0%	341	11%	2617	88%
S/MEAG/SC-MEAG//	13	22	81	123	0.72%	3	0%	25	1%	0	0%	2948	99%
S/CPL/SC-CPLE//	0	1,614	2,829	119	0.01%	25	1%	0	0%	212	7%	2739	92%
S/TVA/CPLW-TVA//	0	276	276	118	0.06%	10	0%	0	0%	19	1%	2947	99%
S/TVA/LGEE-CPLW//	0	276	276	111	0.06%	27	1%	0	0%	23	1%	2926	98%
S/MEAG/SCEG-JEA//	None	None	None	96	0.00%	24	1%	0	0%	0	0%	2952	99%
S/MEAG/MEAG-DUK//	0	50	119	95	0.27%	8	0%	6	0%	732	25%	2230	75%
S/DUK/SCEG-SOCO//	0	341	650	94	0.03%	8	0%	2	0%	293	10%	2673	90%
S/SCEG/SOCO-CPLE//	0	632	1,007	90	0.02%	28	1%	0	0%	28	1%	2920	98%
S/DUK/TVA-SOCO//	0	692	692	88	0.02%	10	0%	0	0%	285	10%	2681	90%
S/SC/SOCO-CPLE//	0	2,305	2,686	88	0.01%	19	1%	0	0%	74	2%	2883	97%
SS/SOCO/SC-FL/MULTIPATHALIAS/	-101	252	490	82	0.04%	12	0%	0	0%	3	0%	2961	99%
SS/GTC/GTC-MEAG//	9,548	9,924	9,999	68	0.00%	8	0%	0	0%	0	0%	2968	100%
S/MEAG/MEAG-SCEG//	0	10	19	68	1.05%	0	0%	23	1%	768	26%	2185	73%
S/TVA/AECI-CPLW//	0	128	276	68	0.08%	17	1%	2	0%	204	7%	2753	93%
S/MEAG/SOCO-FPC//	None	None	None	62	0.00%	15	1%	0	0%	0	0%	2961	99%
S/DUK/DUK-CPLW//	0	444	454	56	0.02%	6	0%	0	0%	33	1%	2937	99%
S/TVA/SOCO-LGEE//	0	52	1,931	51	0.03%	6	0%	0	0%	1,394	47%	1576	53%
S/TVA/DUK-AECI//	0	355	355	49	0.02%	5	0%	0	0%	149	5%	2822	95%
S/MEAG/JEA-DUK//	None	None	None	47	0.00%	15	1%	0	0%	0	0%	2961	99%
S/TVA/CPLW-AECI//	0	276	276	45	0.02%	3	0%	0	0%	32	1%	2941	99%
S/MEAG/JEA-TVA//	None	None	None	38	0.00%	5	0%	0	0%	0	0%	2971	100%
S/MEAG/TVA-FPC//	None	None	None	37	0.00%	8	0%	0	0%	0	0%	2968	100%
S/DUK/SC-DUK//	0	1,750	2,897	36	0.00%	5	0%	0	0%	194	7%	2777	93%
S/SC/SC-SCEG//	1,402	2,622	4,238	34	0.00%	7	0%	0	0%	0	0%	2969	100%
S/MEAG/GTC-MEAG//	1,625	1,995	2,220	33	0.00%	3	0%	0	0%	0	0%	2973	100%
S/CPL/SCEG-DUK//	498	618	637	32	0.01%	7	0%	0	0%	0	0%	2969	100%
S/DUK/CPL-DUK//	0	3,084	7,235	32	0.00%	7	0%	0	0%	158	5%	2811	94%
S/MEAG/GTC-DUK//	None	None	None	31	0.00%	3	0%	0	0%	0	0%	2973	100%
S/MEAG/JEA-SC//	None	None	None	27	0.00%	9	0%	0	0%	0	0%	2967	100%
SS/SOCO/SC-TVA/MULTIPATHALIAS/	127	272	490	26	0.01%	3	0%	0	0%	0	0%	2973	100%
S/TVA/SOCO-DUK//	0	355	355	25	0.01%	5	0%	0	0%	67	2%	2904	98%
S/DUK/SC-TVA//	0	692	692	25	0.01%	3	0%	0	0%	18	1%	2955	99%
SS/SOCO/SCEG-DUK/MULTIPATHALIAS/	0	173	255	24	0.02%	3	0%	0	0%	6	0%	2967	100%
S/MEAG/JEA-SOCO//	None	None	None	24	0.00%	5	0%	0	0%	0	0%	2971	100%
S/SCEG/SOCO-SC//	0	1,597	3,562	23	0.00%	4	0%	0	0%	113	4%	2859	96%
SS/SOCO/DUK-SCEG/MULTIPATHALIAS/	0	89	167	22	0.04%	4	0%	0	0%	465	16%	2507	84%
S/DUK/TVA-SCEG//	0	109	164	22	0.04%	6	0%	0	0%	1,157	39%	1813	61%
S/SC/SC-CPLE//	0	2,724	3,853	20	0.00%	6	0%	0	0%	20	1%	2950	99%
S/MEAG/DUK-SCEG//	None	None	None	20	0.00%	7	0%	0	0%	0	0%	2969	100%
S/MEAG/SCEG-FPC//	None	None	None	18	0.00%	4	0%	0	0%	0	0%	2972	100%
S/SC/DUK-SOCO//	0	3,400	3,682	18	0.00%	1	0%	0	0%	2	0%	2973	100%
SS/GTC/SOCO-JEA//	None	None	None	18	0.00%	3	0%	0	0%	0	0%	2973	100%
SS/GTC/JEA-SCEG//	None	None	None	16	0.00%	12	0%	0	0%	0	0%	2964	100%
S/DUK/CPL-SC//	0	1,381	2,762	14	0.00%	1	0%	0	0%	52	2%	2923	98%
S/MEAG/DUK-SOCO//	None	None	None	12	0.00%	1	0%	0	0%	0	0%	2975	100%
S/TVA/DUK-LGEE//	0	18	355	12	0.01%	6	0%	0	0%	1,446	49%	1524	51%
S/SC/SCEG-CPLE//	0	2,824	3,096	11	0.00%	1	0%	0	0%	20	1%	2955	99%
S/DUK/SCEG-SC//	0	649	650	9	0.00%	1	0%	0	0%	8	0%	2967	100%
S/SCEG/SOCO-DUK//	0	728	854	9	0.00%	1	0%	0	0%	4	0%	2971	100%
SS/GTC/DUK-JEA//	None	None	None	9	0.00%	1	0%	0	0%	0	0%	2975	100%
SS/GTC/MEAG-SCEG//	None	None	None	9	0.00%	3	0%	0	0%	0	0%	2973	100%
S/TVA/SOCO-CPLW//	0	276	276	9	0.00%	3	0%	0	0%	15	1%	2958	99%
SS/GTC/TVA-SCEG//	None	None	None	8	0.00%	3	0%	0	0%	0	0%	2973	100%
S/MEAG/DUK-SC//	None	None	None	7	0.00%	2	0%	0	0%	0	0%	2974	100%
S/MEAG/SOCO-SCEG//	None	None	None	7	0.00%	5	0%	0	0%	0	0%	2971	100%
S/MEAG/JEA-SCEG//	None	None	None	7	0.00%	3	0%	0	0%	0	0%	2973	100%
SS/GTC/FPC-SOCO//	None	None	None	6	0.00%	1	0%	0	0%	0	0%	2975	100%
SS/SOCO/DUK-SC/MULTIPATHALIAS/	0	241	580	4	0.00%	1	0%	0	0%	20	1%	2955	99%
S/MEAG/SC-JEA//	None	None	None	4	0.00%	2	0%	0	0%	0	0%	2974	100%

Appendix A (continued)

Segment	ATC			Loading MWhs Factor	Partially Used		Fully Used		Unavailable		Uncleared		
	Min	Median	Max		Intervals	%	Intervals	%	Intervals	%	Intervals	%	
S/MEAG/GTC-SCEG//	None	None	None	4	0.00%	2	0%	0	0%	0	0%	2974	100%
S/MEAG/SCEG-TVA//	None	None	None	4	0.00%	1	0%	0	0%	0	0%	2975	100%
S/DUK/CPL-SCEG//	0	109	164	4	0.01%	1	0%	0	0%	1,157	39%	1818	61%
S/DUK/TVA-SC//	0	692	692	4	0.00%	1	0%	0	0%	56	2%	2919	98%
SS/GTC/TVA-JEA//	None	None	None	3	0.00%	1	0%	0	0%	0	0%	2975	100%
SS/SOCO/DUK-TVA/MULTIPATHALIAS/	0	673	1,063	2	0.00%	0	0%	1	0%	20	1%	2955	99%
S/SC/CPL-DUK//	3,233	3,672	3,966	2	0.00%	1	0%	0	0%	0	0%	2975	100%
S/DUK/SCEG-TVA//	0	649	650	2	0.00%	1	0%	0	0%	33	1%	2942	99%
S/SCEG/CPL-DUK//	2	377	504	2	0.00%	1	0%	0	0%	2	0%	2973	100%
S/MEAG/TVA-SCEG//	None	None	None	2	0.00%	1	0%	0	0%	0	0%	2975	100%
SS/SOCO/SCEG-TVA/MULTIPATHALIAS/	1	173	255	0	0.00%	0	0%	0	0%	5	0%	2971	100%
S/SC/SOCO-DUK//	0	2,335	2,686	0	0.00%	0	0%	0	0%	10	0%	2966	100%
S/SC/DUK-CPL-DUK//	3,404	3,698	3,926	0	0.00%	0	0%	0	0%	0	0%	2976	100%
S/SC/SCEG-DUK//	0	3,069	3,193	0	0.00%	0	0%	0	0%	4	0%	2972	100%
SS/SOCO/SCEG-SC/MULTIPATHALIAS/	1	160	224	0	0.00%	0	0%	0	0%	5	0%	2971	100%
S/SC/CPL-SCEG//	0	1,071	2,299	0	0.00%	0	0%	0	0%	64	2%	2912	98%
S/TVA/LGEE-TVA//	0	2,828	2,828	0	0.00%	0	0%	0	0%	23	1%	2953	99%
S/SCEG/SC-SOCO//	1,546	3,778	5,456	0	0.00%	0	0%	0	0%	0	0%	2976	100%
SS/GTC/GTC-GTC//	25,470	25,635	25,835	0	0.00%	0	0%	0	0%	0	0%	2976	100%
S/TVA/CPLW-LGEE//	0	68	276	0	0.00%	0	0%	0	0%	1,394	47%	1582	53%
S/DUK/SOCO-TVA//	0	692	692	0	0.00%	0	0%	0	0%	280	9%	2696	91%
S/TVA/DUK-CPLW//	0	276	276	0	0.00%	0	0%	0	0%	99	3%	2877	97%
S/SCEG/DUK-SC//	0	125	270	0	0.00%	0	0%	0	0%	14	0%	2962	100%
S/TVA/AECL-LGEE//	0	0	409	0	0.00%	0	0%	0	0%	1,529	51%	1447	49%
S/SC/SCEG-SOCO//	0	3,059	3,178	0	0.00%	0	0%	0	0%	174	6%	2802	94%
S/TVA/CPLW-DUK//	0	276	276	0	0.00%	0	0%	0	0%	39	1%	2937	99%
S/SCEG/CPL-SC//	0	377	504	0	0.00%	0	0%	0	0%	66	2%	2910	98%
S/SCEG/SC-DUK//	218	728	854	0	0.00%	0	0%	0	0%	0	0%	2976	100%
S/CPL/DUK-SC//	0	2,145	3,668	0	0.00%	0	0%	0	0%	11	0%	2965	100%
S/SCEG/DUK-SOCO//	0	126	270	0	0.00%	0	0%	0	0%	4	0%	2972	100%
S/DUK/SC-SCEG//	0	109	164	0	0.00%	0	0%	0	0%	1,157	39%	1819	61%
S/DUK/SCEG-CPL//	0	648	650	0	0.00%	0	0%	0	0%	220	7%	2756	93%
F/FPC/FPC-FPC/FPC-FPCS/	1,647	2,605	3,570	0	0.00%	0	0%	0	0%	0	0%	2976	100%
F/FPC/FPC-GVL//	0	195	340	0	0.00%	0	0%	0	0%	12	0%	2964	100%
F/FPC/FPC-SEC/FPC-SSN/	0	1,212	1,873	0	0.00%	0	0%	0	0%	16	1%	2960	99%
F/FPC/FPC-TEC//	0	1,960	3,133	0	0.00%	0	0%	0	0%	16	1%	2960	99%
F/FPC/GVL-FPC//	0	274	441	0	0.00%	0	0%	0	0%	44	1%	2932	99%
F/FPC/GVL-FPC/GVL-FPCS/	0	274	441	0	0.00%	0	0%	0	0%	44	1%	2932	99%
F/FPC/GVL-SEC/GVL-SSN/	148	280	434	0	0.00%	0	0%	0	0%	0	0%	2976	100%
F/FPC/GVL-SOCO//	0	0	279	0	0.00%	0	0%	0	0%	1,616	54%	1360	46%
F/FPC/GVL-TEC//	0	280	434	0	0.00%	0	0%	0	0%	36	1%	2940	99%
F/FPC/SEC-FPC/SSN-FPC/	0	407	1,181	0	0.00%	0	0%	0	0%	400	13%	2576	87%
F/FPC/SEC-FPC/SSN-FPCS/	0	407	1,181	0	0.00%	0	0%	0	0%	400	13%	2576	87%
F/FPC/SEC-FPC/SSO-FPC/	0	490	1,068	0	0.00%	0	0%	0	0%	4	0%	2972	100%
F/FPC/SEC-FPC/SSO-FPCS/	0	490	1,068	0	0.00%	0	0%	0	0%	4	0%	2972	100%
F/FPC/SEC-GVL/SSN-GVL/	0	190	336	0	0.00%	0	0%	0	0%	24	1%	2952	99%
F/FPC/SEC-GVL/SSO-GVL/	0	177	329	0	0.00%	0	0%	0	0%	64	2%	2912	98%
F/FPC/SEC-SEC/SSO-SSN/	0	512	1,007	0	0.00%	0	0%	0	0%	68	2%	2908	98%
F/FPC/SEC-SOCO/SSN-SOCO/	0	0	291	0	0.00%	0	0%	0	0%	1,616	54%	1360	46%
F/FPC/SEC-SOCO/SSO-SOCO/	0	0	291	0	0.00%	0	0%	0	0%	1,640	55%	1336	45%
F/FPC/SEC-TEC/SSN-TEC/	0	758	1,181	0	0.00%	0	0%	0	0%	36	1%	2940	99%
F/FPC/SEC-TEC/SSO-TEC/	0	516	1,007	0	0.00%	0	0%	0	0%	60	2%	2916	98%
F/FPC/SOCO-FPC/SOCO-FPCS/	0	123	476	0	0.00%	0	0%	0	0%	948	32%	2028	68%
F/FPC/SOCO-GVL//	0	118	248	0	0.00%	0	0%	0	0%	960	32%	2016	68%
F/FPC/SOCO-SEC/SOCO-SSN/	0	140	476	0	0.00%	0	0%	0	0%	908	31%	2068	69%
F/FPC/SOCO-TEC//	0	123	476	0	0.00%	0	0%	0	0%	948	32%	2028	68%
F/FPC/TEC-FPC/TEC-FPCS/	0	1,578	3,171	0	0.00%	0	0%	0	0%	24	1%	2952	99%
F/FPC/TEC-GVL//	0	191	335	0	0.00%	0	0%	0	0%	24	1%	2952	99%
F/FPC/TEC-SEC/TEC-SSN/	0	1,086	1,670	0	0.00%	0	0%	0	0%	24	1%	2952	99%
F/JEA/JEA-SEC/JEA-SSN/	59	518	518	0	0.00%	0	0%	0	0%	0	0%	2976	100%

Appendix A (continued)

Segment	ATC			Loading MWhs	Factor	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max			Intervals	%	Intervals	%	Intervals	%	Intervals	%
F/JEA/SEC-JEA/SSN-JEA/	212	589	589	0	0.00%	0	0%	0	0%	0	0%	2976	100%
F/JEA/SEC-SOCO/SSN-SOCO/	202	519	637	0	0.00%	0	0%	0	0%	0	0%	2976	100%
F/JEA/SOCO-SEC/SOCO-SSN/	0	522	522	0	0.00%	0	0%	0	0%	52	2%	2924	98%
F/TEC/FPC-TEC//	0	1,752	2,899	0	0.00%	0	0%	0	0%	20	1%	2956	99%
F/TEC/SEC-FPC/SSO-FPC/	0	501	729	0	0.00%	0	0%	0	0%	88	3%	2888	97%
F/TEC/SEC-TEC/SSO-TEC/	0	504	729	0	0.00%	0	0%	0	0%	60	2%	2916	98%
F/TEC/TEC-SEC/TEC-SSO/	0	475	729	0	0.00%	0	0%	0	0%	20	1%	2956	99%
S/CPL/CPLW-DUK//	0	121	1,008	0	0.00%	0	0%	0	0%	835	28%	2141	72%
S/CPL/CPLW-TVA//	0	101	276	0	0.00%	0	0%	0	0%	844	28%	2132	72%
S/CPL/DUK-CPLW//	202	530	530	0	0.00%	0	0%	0	0%	0	0%	2976	100%
S/CPL/SC-DUK//	152	2,278	4,501	0	0.00%	0	0%	0	0%	0	0%	2976	100%
S/CPL/SCEG-SC//	498	618	637	0	0.00%	0	0%	0	0%	0	0%	2976	100%
S/CPL/SC-SCEG//	1	363	404	0	0.00%	0	0%	0	0%	2	0%	2974	100%
S/CPL/TVA-CPLW//	0	276	276	0	0.00%	0	0%	0	0%	2	0%	2974	100%
S/DUK/CPLW-SC//	0	980	1,243	0	0.00%	0	0%	0	0%	126	4%	2850	96%
S/DUK/CPLW-SCEG//	0	105	164	0	0.00%	0	0%	0	0%	1,213	41%	1763	59%
S/DUK/CPLW-SOCO//	0	836	1,243	0	0.00%	0	0%	0	0%	383	13%	2593	87%
S/DUK/CPLW-TVA//	0	692	692	0	0.00%	0	0%	0	0%	168	6%	2808	94%
S/DUK/SC-CPLE//	0	2,296	2,916	0	0.00%	0	0%	0	0%	217	7%	2759	93%
S/DUK/SC-CPLW//	26	454	454	0	0.00%	0	0%	0	0%	0	0%	2976	100%
S/DUK/SCEG-CPLW//	0	369	454	0	0.00%	0	0%	0	0%	8	0%	2968	100%
S/DUK/SOCO-CPLW//	0	369	454	0	0.00%	0	0%	0	0%	290	10%	2686	90%
S/DUK/TVA-CPLW//	0	454	454	0	0.00%	0	0%	0	0%	3	0%	2973	100%
S/SC/DUK-SCEG//	1,527	2,158	3,897	0	0.00%	0	0%	0	0%	0	0%	2976	100%
S/SCEG/DUK-CPLE//	0	126	270	0	0.00%	0	0%	0	0%	4	0%	2972	100%
S/SCEG/SC-CPLE//	208	632	1,007	0	0.00%	0	0%	0	0%	0	0%	2976	100%
S/TVA/AECI-TVA//	0	128	409	0	0.00%	0	0%	0	0%	204	7%	2772	93%
S/TVA/LGEE-AECI//	0	622	622	0	0.00%	0	0%	0	0%	32	1%	2944	99%
S/TVA/TVA-AECI//	0	622	622	0	0.00%	0	0%	0	0%	194	7%	2782	93%
SS/SOCO/SC-DUK/MULTIPATHALIAS/	0	252	490	0	0.00%	0	0%	0	0%	1	0%	2975	100%
SS/SOCO/SC-SCEG/MULTIPATHALIAS/	0	89	167	0	0.00%	0	0%	0	0%	456	15%	2520	85%