MONTHLY AUDIT REPORT ON THE SOUTHEAST ENERGY EXCHANGE MARKET

FOR February 2024

Prepared by:



Independent Market Auditor

March 24, 2024



I. OVERVIEW

This is the Auditor report for the month of February 2024 on the Southeast Energy Exchange Market (SEEM). SEEM is a regional energy market that uses a centralized intra-hour energy exchange to create bilateral trade 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.¹

Trading volumes decreased but remained near all-time highs in February, decreasing from 95,000 MWh in January to 90,000 MWh in February. This was substantially above the 12-month rolling average of 64,000 MWh. Trading among SEEM members relies on individual transmission segments connecting the members and trade 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, ten percent of the time availability was zero. Due to transmission constraints, transmission loss costs, and participant-specific constraints, about 20,000 MWh of potential economic exchanges were left uncleared in February, 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.

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

¹ 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.



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 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 February.

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 February 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 February 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 small number of participants in February to temporarily restrict trading partners. This small number of changes among participants is consistent with our observation 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 90,000 MWh of energy in February, which is second only to the all-time high volume in January 2024. Figure 1 shows the daily SEEM bids and offers for February. 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.

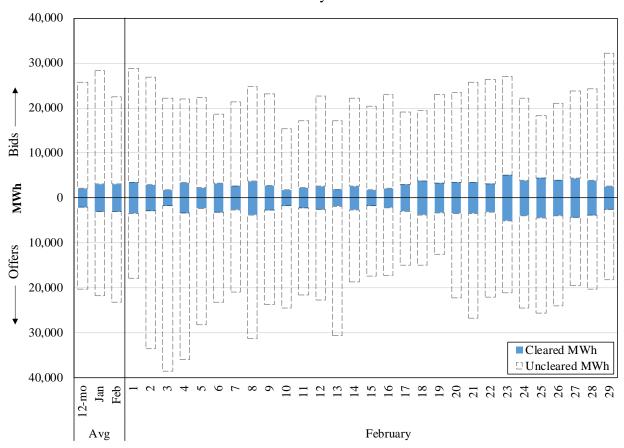


Figure 1: Daily Bids and Offers February 2024



As the left-side monthly and the 12-month average bars show, total liquidity (cleared and uncleared bids and offers) was slightly lower in February and roughly equal to the 12-month average.

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 2 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.

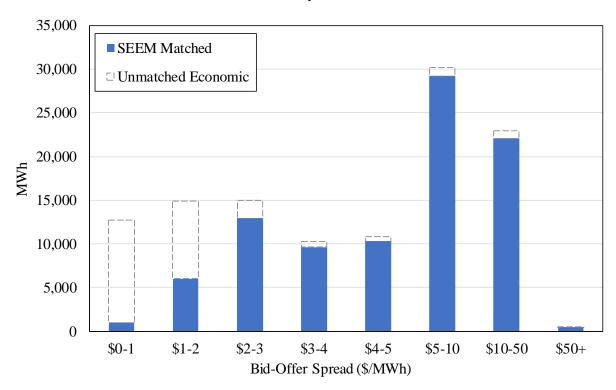


Figure 2: Cleared and Uncleared Economic MatchesFebruary 2024

The average cost of losses the SEEM system is about \$2/MWh. About 20,000 MWh of uncleared bids/offers could settle at a price that could pay the average \$2/MWh losses (the sum of the transparent bars for spreads \$2 or less). In January, the amount was 17,000 MWh. Without a complex simulation, there is not a straightforward way to determine why these bids and offers did



not clear. Among the possibilities are 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.

Our next evaluation is a monthly comparison of bids, offers, and prices and is shown in Figure 3.

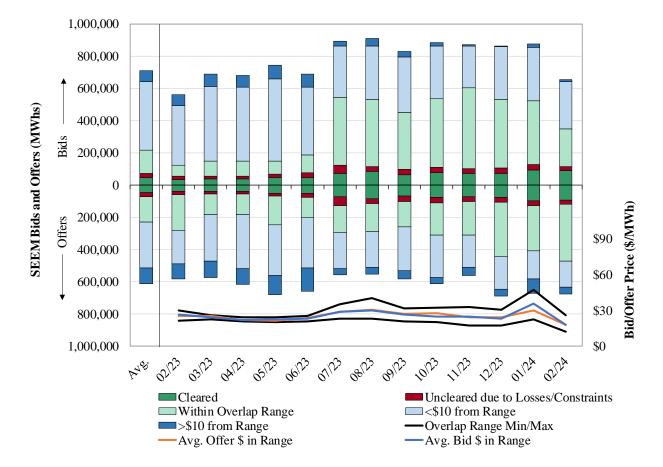


Figure 3: Bid and Offer Evaluation

Each bar represents a month's volume and is divided to show separate volumes of cleared bids/offers (dark green) and various categories of uncleared bids and offers. The red segment shows uncleared economic bids and offers. These are the uncleared bids and offers identified in Figure 2. The light green bars show bids and offers that were not cleared but were within the indicated cleared bid-offer spread – i.e., bids that are higher than the lowest cleared bid and offers that are lower than the highest cleared offer. In this group, there are no corresponding counterparties that would comprise an economic match in an interval even though the participant's bid (offer) is greater (less) than an offer (bid) matched during the interval. These cases arise due to an economic counterparty having already been matched to another counterparty with greater savings. For example, consider an interval where the lowest-matched offer was \$30 and the highest-matched bid was \$45. An offer of \$40 may remain unmatched because a bid of



\$43 was matched to an offer of \$39. Ignoring loss costs and SEEM constraints, an offer of \$40 would be matched to a bid of \$43 but SEEM would match the \$43 offer to \$39 bid instead.

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 – participants likely do not expect these to clear. The bid-offer spread is shown in the black lines in the bottom panel of the figure along with lines showing the averages of bid and offers in the cleared range. Because the bulk of uncleared bids and offers are separated by wide spreads (light green, light blue, and dark blue), liquidity will improve if these spreads close.

Figure 4 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.

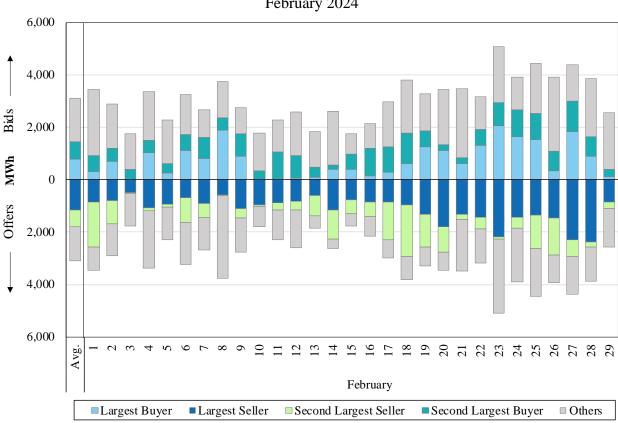


Figure 4: Volumes of Matched Bids and Offers
February 2024

The figure shows certain buyers and sellers comprise significant shares of the transaction activity. For the month, 36 percent of the sales were made by a single seller and 24 percent of the



purchases were made by a single buyer. Since June when new participants joined, these concentration statistics generally have fallen.

2. Network Usage

In this subsection, we report on the usage of the SEEM network. Figure 5 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 in many hours. The superimposed lines over the bars show the price spread over each month. Lower natural gas prices resulted in relatively lower settlement prices in February.

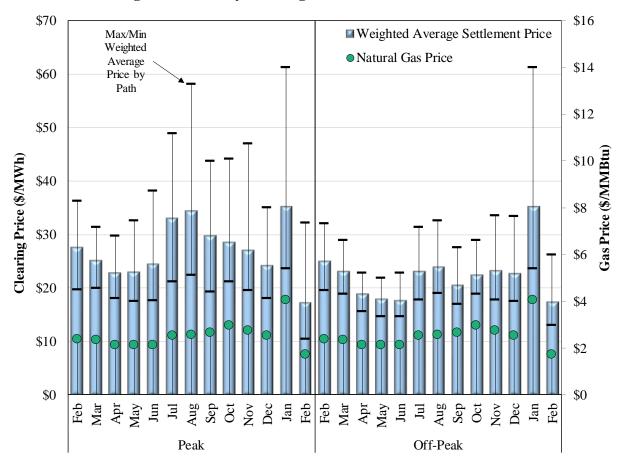


Figure 5: Monthly Clearing Prices and Natural Gas Costs

We evaluate the price spreads in more detail in the following two figures. Figure 6 shows the average daily peak-hour prices for February and the prices on the highest-priced and lowest-priced paths for each day. Figure 7 is the same figure but for off-peak hours. The figures shown in the left column are the February prices compared to the previous month. It shows the average prices are slightly higher than the prices in January and higher than the 12-month average.



Figure 6: Average SEEM Clearing Prices: System-Wide and by Path Peak Hours – February 2024

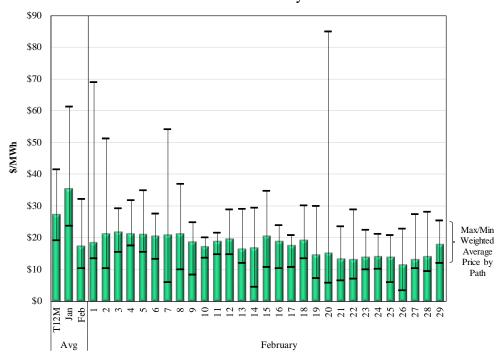
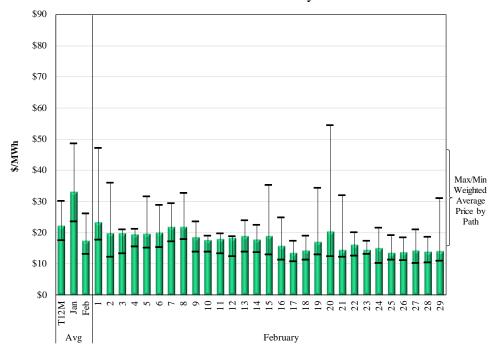


Figure 7: Average SEEM Clearing Prices: System-Wide and by Path Off-Peak Hours – February 2024





The two figures show that February was a calm month for pricing, both relative to January and relative to 12-month averages. The two figures also show that the value of transactions can vary significantly by path, 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 unique segments used in SEEM. We evaluated data including 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.

In addition to the ATC and schedule volumes, 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);
- (2) Fully Used, ATC was used up for the interval;²
- (3) Unavailable, no ATC;³ 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 32 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.

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

³ ATC was less than 4 MW at the start of the interval.



Table 1: Statistics for Most Utilized SEEM SegmentsFebruary 2024

G .		ATC			Loading	Partially	Used	Fully U	Jsed	Unavailable		Unclea	ared
Segment	Min	Median	Max	MWhs	U	Intervals	%	Intervals	%	Intervals	%	Intervals	%
F/TEC/TEC-FPC//	1,316	2,246	3,437	33,750	0.021914	2,314	83%	0	0%	0	0%	470	17%
F/FPC/TEC-SOCO//	0	315	370	22,146	0.109698	1,788	64%	5	0%	116	4%	875	31%
F/FPC/FPC-SOCO//	0	315	370	18,704	0.093004	913	33%	20	1%	128	5%	1723	62%
S/SC/SOCO-SC//	0	1,410	1,905	13,781	0.015654	1,138	41%	2	0%	26	1%	1618	58%
F/FPC/TEC-FPC//	1,365	2,296	3,486	11,604	0.007370	1,544	55%	0	0%	0	0%	1240	45%
S/TVA/TVA-DUK//	120	430	430	10,597	0.035963	298	11%	1	0%	0	0%	2485	89%
S/CPL/DUK-CPLE//	0	3,024	8,047	10,314	0.004802	433	16%	1	0%	21	1%	2329	84%
SS/SOCO/FL-SOCO//	457	1,100	1,369	9,415	0.012827	905	33%	0	0%	0	0%	1879	67%
SS/SOCO/FL-SC/MULTIPATHALIAS/	0	124	466	8,490	0.083215	681	24%	87	3%	645	23%	1371	49%
SS/SOCO/FL-DUK/MULTIPATHALIAS/	0	574	1,079	8,102	0.021063	519	19%	11	0%	8	0%	2246	81%
S/DUK/SOCO-DUK//	0	1,713	2,220	7,499	0.006629	316	11%	4	0%	38	1%	2426	87%
F/JEA/SOCO-JEA//	302	626	837	7,415	0.017484	1,090	39%	0	0%	0	0%	1694	61%
S/DUK/TVA-CPLE//	0	692	692	5,379	0.011960	150	5%	1	0%	61	2%	2572	92%
S/DUK/TVA-DUK//	0	692	692	5,141	0.011336	132	5%	14	1%	38	1%	2600	93%
S/TVA/TVA-SOCO//	1,686	2,920	2,930	4,482	0.002215	166	6%	0	0%	0	0%	2618	94%
SS/SOCO/TVA-SOCO//	865	1,324	1,493	4,159	0.004617	153	6%	0	0%	0	0%	2631	95%
SS/SOCO/FL-TVA/MULTIPATHALIAS/	457	1,100	1,369	4,055	0.005525	203	7%	0	0%	0	0%	2581	93%
P/LGEE/TVA-LGEE//	793	1,421	1,424	3,941	0.004062	171	6%	0	0%	0	0%	2613	94%
S/SCEG/SOCO-SCEG//	0	1,324	2,488	3,461	0.003941	320	11%	4	0%	40	1%	2420	87%
SS/SOCO/SOCO-FL//	805	1,263	1,509	3,452	0.003967	391	14%	0	0%	0	0%	2393	86%
F/FPC/SOCO-FPC//	0	343	480	3,310	0.014360	356	13%	1	0%	40	1%	2387	86%
SS/SOCO/FL-SCEG/MULTIPATHALIAS/	2	125	154	3,210	0.041964	283	10%	39	1%	15	1%	2447	88%
S/DUK/SOCO-CPLE//	0	1,710	2,220	2,934	0.002605	270	10%	0	0%	61	2%	2453	88%
S/SC/DUK-SC//	0	1,688	2,409	2,905	0.002545	353	13%	2	0%	15	1%	2414	87%
S/TVA/SOCO-TVA//	1,615	2,746	2,940	2,732	0.001488	116	4%	0	0%	0	0%	2668	96%
S/MEAG/FPC-MEAG//	0	54	202	2,261	0.058885	140	5%	125	4%	92	3%	2427	87%
S/TVA/SOCO-LGEE//	0	725	2,940	2,242	0.003857	93	3%	12	0%	90	3%	2589	93%
SS/SOCO/SOCO-DUK//	0	581	1,107	2,186	0.005547	180	6%	4	0%	8	0%	2592	93%
S/CPL/TVA-DUK//	0	308	308	2,051	0.009792	82	3%	2	0%	7	0%	2693	97%
S/TVA/TVA-CPLW//	194	308	308	2,043	0.009620	81	3%	1	0%	0	0%	2702	97%
S/DUK/SOCO-SC//	0	1,531	2,220	2,018	0.001988	223	8%	0	0%	45	2%	2516	90%
S/DUK/CPLW-CPLE//	0	336	1,093	1,871	0.007376	72	3%	1	0%	42	2%	2669	96%

These statistics indicate that among these most utilized segments, ATC remains available for SEEM trades. For example, many of the top-utilized paths 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 240 segments and the number of intervals during the month. In February, there were 668,160 segment intervals.⁴ The two circumstances (Cases (2) and (3)) when a segment is constrained occurred in almost 23,000 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, but the segment was not used because no beneficial transactions were cleared by the SEEM model over

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⁴ The maximum number of segment intervals in a month is (240 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 February, SEEM operated in all intervals.



that segment. These cases represent over 625,000 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 (22,499 or about three percent of the time). The third most common case was "Partially Used" (Case 1), where the segment was partially used (19,321 or 3 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 (455).

Table 2: Summary of All Segments February 2024

	Cas	se 1	Cas	se 2	Cas	se 3	Case 4			
Segment	Partiall	y Used	Fully	Used	Unava	ilable	Uncleared			
	Intervals	%	Intervals	%	Intervals	%	Intervals	%		
All Segments	19,321	2.9%	455	0.1%	22,499	3.4%	625,885	93.7%		

Measuring transmission capacity congestion by adding Case 2 and 3, the percentage of constrained segment intervals was stable (3 percent in February versus about 4 percent in January).

Further insight on constrained segments can be gained from Table 3. It shows the segments most often unavailable to SEEM (i.e., unavailable at least 20 percent of the intervals). There are some segments where ATC is 0 in many intervals during the month, and so there is no activity occurring. For the other segments, like in previous months, these frequently-unavailable paths are in many intervals unused when they are available (as indicated by the "Uncleared" column).

Table 3: Most Constrained SEEM SegmentsFebruary 2024

Comment		ATC			Loading	Partially	Used	Fully U	Jsed	Unavai	lable	Unclea	ared
Segment	Min	Median	Max	MWhs		Intervals	%	Intervals	%	Intervals	%	Intervals	%
F/JEA/SEC-JEA/SSN-JEA/	0	0	0	0	N/A	0	0%	0	0%	2,784	100%	0	0%
S/AECI/TVA-AECI//	0	0	943	32	0.000645	3	0%	0	0%	2,539	91%	242	9%
S/TVA/AECI-LGEE//	0	1	473	0	0.000000	0	0%	0	0%	1,689	61%	1095	39%
S/TVA/AECI-CPLW//	0	1	308	0	0.000000	0	0%	0	0%	1,605	58%	1179	42%
S/TVA/AECI-DUK//	0	1	430	0	0.000000	0	0%	0	0%	1,605	58%	1179	42%
S/TVA/AECI-SOCO//	0	1	473	60	0.000706	8	0%	0	0%	1,605	58%	1171	42%
S/TVA/AECI-TVA//	0	1	473	0	0.000000	0	0%	0	0%	1,605	58%	1179	42%
SS/SOCO/SCEG-SC/MULTIPATHALIAS/	0	124	208	19	0.000255	2	0%	0	0%	645	23%	2137	77%
SS/SOCO/FL-SC/MULTIPATHALIAS/	0	124	466	8,490	0.083215	681	24%	87	3%	645	23%	1371	49%
SS/SOCO/DUK-SC/MULTIPATHALIAS/	0	124	466	0	0.000000	0	0%	0	0%	645	23%	2139	77%
SS/SOCO/SOCO-SC//	0	124	466	1,728	0.016937	123	4%	25	1%	645	23%	1991	72%
SS/SOCO/TVA-SC/MULTIPATHALIAS/	0	124	466	62	0.000608	5	0%	3	0%	645	23%	2131	77%
SS/GTC/GTC-SC//	0	96	270	198	0.002878	5	0%	14	1%	560	20%	2205	79%



III. CONCLUSION

We reviewed the operation of SEEM for February 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 -- February 2024

		ATC		Taribar		Partially Used		Fully Used		Unavailable		Uncleared	
Segment	Min	Median	Max	MWhs	Loading Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	%
F/TEC/TEC-FPC//	1,316	2,246	3,437	33,750	0.021914	2,314	83%	0	0%	0	0%	470	17%
F/FPC/TEC-SOCO//	0	315	370	22,146	0.109698	1,788	64%	5	0%	116	4%	875	31%
F/FPC/FPC-SOCO//	0	315	370	18,704	0.093004	913	33%	20	1%	128	5%	1723	62%
S/SC/SOCO-SC//	0	1,410	1,905	13,781	0.015654	1,138	41%	2	0%	26	1%	1618	58%
F/FPC/TEC-FPC//	1,365	2,296	3,486	11,604	0.007370	1,544	55%	0	0%	0	0%	1240	45%
S/TVA/TVA-DUK//	120	430	430	10,597	0.035963	298	11%	1	0%	0	0%	2485	89%
S/CPL/DUK-CPLE//	0	3,024	8,047	10,314	0.004802	433	16%	1	0%	21	1%	2329	84%
SS/SOCO/FL-SOCO//	457	1,100	1,369	9,415	0.012827	905	33%	0	0%	0	0%	1879	67%
SS/SOCO/FL-SC/MULTIPATHALIAS/	0	124	466	8,490	0.083215	681	24%	87	3%	645	23%	1371	49%
SS/SOCO/FL-DUK/MULTIPATHALIAS/	0	574	1,079	8,102	0.021063	519	19%	11	0%	8	0%	2246	81%
S/DUK/SOCO-DUK//	0	1,713	2,220	7,499	0.006629	316	11%	4	0%	38	1%	2426	87%
F/JEA/SOCO-JEA//	302	626	837	7,415	0.017484	1,090	39%	0	0%	0	0%	1694	61%
S/DUK/TVA-CPLE//	0	692	692	5,379	0.011960	150	5%	1	0%	61	2%	2572	92%
S/DUK/TVA-DUK//	0	692	692	5,141	0.011336	132	5%	14	1%	38	1%	2600	93%
S/TVA/TVA-SOCO//	1,686	2,920	2,930	4,482	0.002215	166	6%	0	0%	0	0%	2618	94%
SS/SOCO/TVA-SOCO//	865	1,324	1,493	4,159	0.004617	153	6%	0	0%	0	0%	2631	95%
SS/SOCO/FL-TVA/MULTIPATHALIAS/	457	1,100	1,369	4,055	0.005525	203	7%	0	0%	0	0%	2581	93%
P/LGEE/TVA-LGEE//	793	1,421	1,424	3,941	0.004062	171	6%	0	0%	0	0%	2613	94%
S/SCEG/SOCO-SCEG//	0	1,324	2,488	3,461	0.003941	320	11%	4	0%	40	1%	2420	87%
SS/SOCO/SOCO-FL//	805	1,263	1,509	3,452	0.003967	391	14%	0	0%	0	0%	2393	86%
F/FPC/SOCO-FPC//	0	343	480	3,310	0.014360	356	13%	1	0%	40	1%	2387	86%
SS/SOCO/FL-SCEG/MULTIPATHALIAS/	2	125	154	3,210	0.041964	283	10%	39	1%	15	1%	2447	88%
S/DUK/SOCO-CPLE//	0	1,710	2,220	2,934	0.002605	270	10%	0	0%	61	2%	2453	88%
S/SC/DUK-SC//	0	1,688	2,409	2,905	0.002545	353	13%	2	0%	15	1%	2414	87%
S/TVA/SOCO-TVA//	1,615	2,746	2,940	2,732	0.001488	116	4%	0	0%	0	0%	2668	96%
S/MEAG/FPC-MEAG//	0	54	202	2,261	0.058885	140	5%	125	4%	92	3%	2427	87%
S/TVA/SOCO-LGEE//	0	725	2,940	2,242	0.003857	93	3%	12	0%	90	3%	2589	93%
SS/SOCO/SOCO-DUK//	0	581	1,107	2,186	0.005547	180	6%	4	0%	8	0%	2592	93%
S/CPL/TVA-DUK//	0	308	308	2,051	0.009792	82	3%	2	0%	7	0%	2693	97%
S/TVA/TVA-CPLW//	194	308	308	2,043	0.009620	81	3%	1	0%	0	0%	2702	97%
S/DUK/SOCO-SC//	0	1,531	2,220	2,018	0.001988	223	8%	0	0%	45	2%	2516	90%
S/DUK/CPLW-CPLE//	0	336	1,093	1,871	0.007376	72	3%	1	0%	42	2%	2669	96%
SS/SOCO/SOCO-SC//	0	124	466	1,728	0.016937	123	4%	25	1%	645	23%	1991	72%
S/CPL/CPLE-DUK//	1,546	5,951	8,047	1,621	0.000412	117	4%	0	0%	0	0%	2667	96%
S/TVA/TVA-LGEE//	0	620	2,971	1,602	0.003167	62	2%	21	1%	90	3%	2611	94%
S/DUK/CPLE-SOCO//	1,438	2,253	2,335	1,552	0.001004	117	4%	0	0%	0	0%	2667	96%
S/MEAG/SOCO-MEAG//	2,735	3,073	3,135	1,432	0.000676	157	6%	0	0%	0	0%	2627	94%
SS/SOCO/SOCO-SOCO//	41,424	44,230	44,230	1,401	0.000046	105	4%	0	0%	0	0%	2679	96%
S/SC/SCEG-SC//	758	1,162	2,171	1,358	0.001655	151	5%	0	0%	0	0%	2633	95%
S/SC/CPLE-SC//	0	1,854	2,687	1,282	0.001021	118	4%	0	0%	15	1%	2651	95%
SS/GTC/GTC-DUK//	0	413	696	1,220	0.004610	44	2%	0	0%	60	2%	2680	96%
S/SCEG/SCEG-SC//	0	696	6,123	1,220	0.000821	136	5%	2	0%	227	8%	2419	87%
S/CPL/CPLE-SC//	0	4,420	4,420	1,205	0.000481	109	4%	0	0%	7	0%	2668	96%
S/SCEG/SCEG-SOCO//	0	3,101	99,999	1,205	0.000479	171	6%	0	0%	24	1%	2589	93%
SS/SOCO/DUK-FL/MULTIPATHALIAS/	615	980	995	1,174	0.001801	194	7%	0	0%	0	0%	2590	93%
S/DUK/DUK-SOCO//	0	2,243	2,335	1,160	0.000771	226	8%	0	0%	35	1%	2523	91%
S/DUK/DUK-SC//	0	2,213	2,813	887	0.000609	157	6%	0	0%	67	2%	2560	92%
S/MEAG/DUK-MEAG//	69	133	206	828	0.008684	92	3%	0	0%	0	0%	2692	97%
SS/SOCO/SCEG-FL/MULTIPATHALIAS/	84	208	208	782	0.005699	128	5%	0	0%	0	0%	2656	95%
SS/GTC/GTC-SOCO//	20,000	20,000	20,000	700	0.000050	35	1%	0	0%	0	0%	2749	99%
S/CPL/SCEG-CPLE//	0	835	835	610	0.001088	106	4%	0	0%	17	1%	2661	96%
F/TEC/FPC-TEC//	0	1,891	2,587	476	0.000371	43	2%	0	0%	4	0%	2737	98%
SS/SOCO/DUK-SOCO//	615	991	995	395	0.000605	37	1%	0	0%	0	0%	2747	99%
S/SCEG/SCEG-CPLE//	0	671	711	391	0.000924	84	3%	0	0%	30	1%	2670	96%
F/JEA/JEA-SOCO//	396	699	856	385	0.000820	91	3%	0	0%	0	0%	2693	97%
F/FPC/FPC-TEC//	0	1,932	2,627	325	0.000248	29	1%	0	0%	4	0%	2751	99%
S/SCEG/DUK-SCEG//	0	177	369	303	0.002477	54	2%	2	0%	23	1%	2705	97%
SS/GTC/GTC-FPC//	537	892	984	244	0.000397	26	1%	0	0%	0	0%	2758	99%
S/DUK/SOCO-SCEG//	0	184	208	242	0.001923	35	1%	0	0%	3	0%	2746	99%
SS/SOCO/SOCO-SCEG//	2	125	154	240	0.003137	30	1%	1	0%	15	1%	2738	98%



Appendix A (continued)

		ATC	x pper	luix A	(conti	Partially	Llead	Fully U	lead	Unavailable		Uncleared	
Segment	Min	Median	Max	MWhs	Loading Factor	Intervals	%	Intervals	% %	Intervals	%	Intervals	%
SS/GTC/SOCO-GTC//	12,665	13,202	14,402	237	0.000026	10	0%	0	0%	0	0%	2774	100%
SS/GTC/GTC-JEA//	537	892	984	235	0.000382	34	1%	0	0%	0	0%	2750	99%
S/SCEG/SOCO-CPLE//	0	671	711	233	0.000516	31	1%	0	0%	30	1%	2723	98%
S/CPL/SC-CPLE//	0	1,395	3,001	219	0.000211	12	0%	0	0%	22	1%	2750	99%
SS/SOCO/TVA-FL/MULTIPATHALIAS/	805	1,235	1,476	212	0.000253	34	1%	0	0%	0	0%	2750	99%
SS/GTC/GTC-SC//	0	96	270	198	0.002878	5	0%	14	1%	560	20%	2205	79%
SS/SOCO/SCEG-SOCO//	84	208	208	197	0.001436	25	1%	0	0%	0	0%	2759	99%
P/LGEE/LGEE-TVA//	1,372	1,623	1,623	195	0.000173	31	1%	0	0%	0	0%	2753	99%
S/MEAG/MEAG-SC//	0	57	73	188	0.005855	17	1%	3	0%	206	7%	2558	92%
S/TVA/LGEE-SOCO//	1,532	2,920	2,930	179	0.000088	27	1%	0	0%	0	0%	2757	99%
S/SC/SOCO-CPLE//	0	2,235	2,581	165	0.000123	10	0%	0	0%	47	2%	2727	98%
S/DUK/SCEG-DUK//	0	669	669	160	0.000352	14	1%	4	0%	21	1%	2745	99%
S/DUK/CPLW-DUK//	0	329	1,093	159	0.000641	6	0%	4	0%	24	1%	2750	99%
S/MEAG/SCEG-MEAG//	18	24	24	159	0.009957	20	1%	20	1%	0	0%	2744	99%
F/FPC/SOCO-TEC//	0	343	480	151	0.000655	14	1%	0	0%	40	1%	2730	98%
S/MEAG/MEAG-DUK//	7	114	148	145	0.001941	19	1%	0	0%	0	0%	2765	99%
S/DUK/DUK-CPLE//	0	3,475	5,772	142	0.000063	38	1%	0	0%	39	1%	2707	97%
SS/SOCO/TVA-SCEG/MULTIPATHALIAS/	2	125	154	130	0.001699	7	0%	5	0%	15	1%	2757	99%
S/SCEG/SOCO-SC//	0	3,741	6,123	125	0.000048	15	1%	0	0%	18	1%	2751	99%
S/MEAG/MEAG-FPC//	123	272	309	124	0.000678	15	1%	0	0%	0	0%	2769	99%
SS/SOCO/SOCO-TVA//	1,530	2,746	3,428	117	0.000063	4	0%	0	0%	0	0%	2780	100%
S/MEAG/MEAG-JEA//	123	272	309	108	0.000590	20	1%	0	0%	0	0%	2764	99%
SS/GTC/GTC-MEAG//	9,739	9,999	9,999	107	0.000015	7	0%	0	0%	0	0%	2777	100%
S/CPL/CPLE-SCEG//	0	602	602	98	0.000242	13	0%	0	0%	6	0%	2765	99%
S/MEAG/GTC-MEAG//	1,810	2,070	2,345	95	0.000067	6	0%	0	0%	0	0%	2778	100%
S/SCEG/CPLE-SCEG//	0	418	722	93	0.000324	11	0%	2	0%	22	1%	2749	99%
SS/GTC/GTC-TVA//	185	663	797	91	0.000206	6	0%	0	0%	0	0%	2778	100%
SS/SOCO/TVA-DUK/MULTIPATHALIAS/	0	581	1,107	88	0.000223	7	0%	0	0%	8	0%	2769	99%
S/SCEG/SCEG-DUK//	0	763	942	88	0.000191	12	0%	0	0%	70	3%	2702	97%
S/SCEG/SOCO-DUK//	0	767	942	74	0.000140	7	0%	0	0%	12	0%	2765	99%
S/CPL/SCEG-SC//	543	835	835	69	0.000121	8	0%	0	0%	0	0%	2776	100%
S/DUK/DUK-SCEG//	0	184	208	65	0.000521	23	1%	0	0%	35	1%	2726	98%
SS/SOCO/TVA-SC/MULTIPATHALIAS/	0	124	466	62	0.000608	5	0%	3	0%	645	23%	2131	77%
S/MEAG/MEAG-TVA//	19	123	175	61	0.000816	5	0%	1	0%	0	0%	2778	100%
S/AECI/AECI-TVA//	0	100	769	60	0.000402	8	0%	0	0%	69	2%	2707	97%
S/TVA/AECI-SOCO//	0	1	473	60	0.000706	8	0%	0	0%	1,605	58%	1171	42%
S/SCEG/DUK-CPLE//	2	177	369	58	0.000467	2	0%	1	0%	1	0%	2780	100%
S/DUK/SC-DUK//	0	1,314	2,916	56	0.000054	3	0%	4	0%	53	2%	2724	98%
SS/GTC/GTC-SCEG//	9	68	85	51	0.001190	12	0%	0	0%	0	0%	2772	100%
S/SC/SC-SOCO//	805	3,221	3,723	49	0.000023	8	0%	0	0%	0	0%	2776	100%
S/CPL/DUK-TVA//	0	308	308	49	0.000230	2	0%	0	0%	12	0%	2770	100%
S/DUK/CPLE-CPLW//	0	521	554	49	0.000171	2	0%	0	0%	197	7%	2585	93%
S/TVA/CPLW-LGEE//	0	308	308	49	0.000245	2	0%	0	0%	90	3%	2692	97%
S/DUK/TVA-SC//	0	692	692	48	0.000106	2	0%	0	0%	28	1%	2754	99%
S/SC/DUK-CPLE//	3,325	3,579	3,867	48	0.000019	2	0%	0	0%	0	0%	2782	100%
S/TVA/DUK-LGEE//	0	430	430	48	0.000176	12	0%	0	0%	90	3%	2682	96%
SS/GTC/FPC-GTC//	1	454	861	40	0.000131	2	0%	0	0%	4	0%	2778	100%
S/DUK/SOCO-TVA//	331	692	692	40	0.000083	10	0%	0	0%	0	0%	2774	100%
S/DUK/TVA-SCEG//	13	184	208	37	0.000294	3	0%	0	0%	0	0%	2781	100%
S/MEAG/MEAG-SOCO//	2,601	2,661	2,911	34	0.000018	4	0%	0	0%	0	0%	2780	100%
S/AECI/TVA-AECI//	0	0	943	32	0.000645	3	0%	0	0%	2,539	91%	242	9%
S/SCEG/SC-SCEG//	0	3,242	4,586	31	0.000015	5	0%	0	0%	6	0%	2773	100%
S/SC/SOCO-SCEG//	1,028	1,503	2,218	31	0.000030	5	0%	0	0%	0	0%	2779	100%
S/SC/SOCO-DUK//	0	2,278	2,581	31	0.000020	6	0%	0	0%	22	1%	2756	99%
S/TVA/SOCO-AECI//	0	686	686	30	0.000070	2	0%	0	0%	36	1%	2746	99%
S/SC/SC-DUK//	0	2,627	3,373	25	0.000015	1	0%	0	0%	18	1%	2765	99%
S/MEAG/JEA-MEAG//	0	54	202	25	0.000651	8	0%	0	0%	92	3%	2684	96%
S/DUK/CPLW-SCEG//	0	184	208	21	0.000168	1	0%	0	0%	3	0%	2780	100%
S/DUK/CPLE-TVA//	652	692	692	20	0.000042	3	0%	0	0%	0	0%	2781	100%
S/MEAG/SC-MEAG//	30	46	113	20	0.000540	2	0%	0	0%	0	0%	2782	100%



Appendix A (continued)

	ATC		idix A (con		Doutielly, Head		Fully U	lead	Unavailable		Uncleared		
Segment	3.42		34	3.4337	Loading			T .					
CAMEACAMEAC CTC//	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals		Intervals	
S/MEAG/MEAG-GTC//	2,326	2,601	2,861	20	0.000011	1	0%	0	0%	0	0%	2783	100%
SS/GTC/MEAG-GTC//	8,599	8,621	8,859	20	0.000003	1	0%	0	0%		0%	2783	100%
SS/SOCO/SCEG-SC/MULTIPATHALIAS/	0	124	208	19	0.000255	2	0%		0%	645	23%	2137	77%
SS/GTC/DUK-GTC//	276	623	625	18	0.000044	2	0%	0	0%	0	0%	2782	100%
S/MEAG/MEAG-SCEG//	6	15	18	17	0.001850	0	0%	5	0%	0	0%	2779	100%
S/TVA/DUK-TVA//	430	430	430	16	0.000053	3	0%	0	0%	0	0%	2781	100%
SS/SOCO/SC-FL/MULTIPATHALIAS/	367	571	571	12	0.000032	4	0%	0	0%	0	0%	2780	100%
S/MEAG/TVA-MEAG//	2	70	170	10	0.000137	1	0%	0	0%	4	0%	2779	100%
S/SCEG/CPLE-SC//	258	418	722	9	0.000031	2	0%	0	0%	0	0%	2782	100%
S/TVA/LGEE-DUK//	120	430	430	8	0.000027	2	0%	0	0%	0	0%	2782	100%
S/TVA/LGEE-CPLW//	194	308	308	8	0.000038	2	0%	0	0%	0	0%	2782	100%
S/CPL/DUK-SC//	0	3,038	4,420	8	0.000004	2	0%	0	0%	48	2%	2734	98%
S/SC/SC-CPLE//	0	3,357	4,536	6	0.000003	2	0%	0	0%	27	1%	2755	99%
S/DUK/DUK-TVA//	0	692	692	6	0.000013	3	0%	0	0%	39	1%	2742	98%
S/CPL/DUK-SCEG//	0	602	602	4	0.000010	2	0%	0	0%	21	1%	2761	99%
S/SCEG/DUK-SC//	0	177	369	4	0.000032	2	0%	0	0%	7	0%	2775	100%
S/DUK/CPLE-DUK//	0	4,238	6,795	3	0.000001	0	0%	1	0%	10	0%	2773	100%
S/CPL/SCEG-DUK//	543	835	835	3	0.000005	1	0%	0	0%	0	0%	2783	100%
S/TVA/DUK-AECI//	0	430	430	2	0.000007	1	0%	0	0%	36	1%	2747	99%
S/DUK/SCEG-SOCO//	492	669	669	2	0.000004	1	0%	0	0%	0	0%	2783	100%
SS/SOCO/SC-SOCO//	367	571	571	0	0.000000	0	0%	0	0%	0	0%	2784	100%
SS/GTC/SC-GTC//	139	216	216	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/SC/SC-SCEG//	961	3,227	4,095	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/TVA/CPLW-AECI//	0	308	308	0	0.000000	0	0%	0	0%	36	1%	2748	99%
S/TVA/LGEE-TVA//	2,988	3,000	3,000	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/TVA/CPLW-TVA//	208	308	308	0	0.000000	0	0%	0	0%	0	0%	2784	100%
SS/SOCO/SCEG-TVA/MULTIPATHALIAS/	84	208	208	0	0.000000	0	0%	0	0%	0	0%	2784	100%
SS/GTC/JEA-GTC//	1	454	861	0	0.000000	0	0%	0	0%	4	0%	2780	100%
SS/GTC/SCEG-GTC//	14	114	114	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/SC-TVA//	163	692	692	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/SCEG-TVA//	492	669	669	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/TVA-SOCO//	92	692	692	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/TVA/AECI-DUK//	0	1	430	0	0.000000	0	0%	0	0%	1,605	58%	1179	42%
S/SCEG/CPLE-SOCO//	0	418	722	0	0.000000	0	0%	0	0%	8	0%	2776	100%
S/TVA/AECI-CPLW//	0	1	308	0	0.000000	0	0%	0	0%	1,605	58%	1179	42%
S/TVA/SOCO-DUK//	120	430	430	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/CPLW-SOCO//	0	344	1,093	0	0.000000	0	0%	0	0%	3	0%	2781	100%
SS/SOCO/SCEG-DUK/MULTIPATHALIAS/	0	208	208	0	0.000000	0	0%	0	0%	8	0%	2776	100%
S/TVA/SOCO-CPLW//	194	308	308	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/TVA/AECI-TVA//	0	1	473	0	0.000000	0	0%	0	0%	1,605	58%	1179	42%
S/CPL/SC-DUK//	145	2,953	4,654	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/SOCO-CPLW//	0	452		0	0.000000	0		0	0%	249	9%	2535	91%
SS/GTC/TVA-GTC//			554			0	0%	0					
	179	328	353	0	0.000000		0%		0%	0	0%	2784	100%
S/SCEG/SC-SOCO//	692	5,681	6,302	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/TVA/LGEE-AECI//	0	686	686	0	0.000000	0	0%	0	0%	36	1%	2748	99%
S/DUK/SC-CPLE//	0	1,857	2,916	0	0.000000	0	0%	0	0%	33	1%	2751	99%
S/SC/DUK-SCEG//	1,530	1,986	3,672	0	0.000000	0	0%	0	0%	0	0%	2784	100%
SS/SOCO/SC-TVA/MULTIPATHALIAS/	367	571	571	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/SCEG-CPLE//	0	669	669	0	0.000000	0	0%	0	0%	33	1%	2751	99%
S/DUK/SCEG-SC//	492	669	669	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/SC/CPLE-SOCO//	3,029	3,452	4,039	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/CPL/SC-SCEG//	402	602	602	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/SC-SCEG//	13	184	208	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/CPLE-SCEG//	13	184	208	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/CPLE-SC//	0	2,622	2,813	0	0.000000	0	0%	0	0%	28	1%	2756	99%
S/SCEG/CPLE-DUK//	0	418	722	0	0.000000	0	0%	0	0%	8	0%	2776	100%
S/TVA/DUK-SOCO//	430	430	430	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/TVA/CPLW-SOCO//	208	308	308	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/SCEG/DUK-SOCO//	2	177	369	0	0.000000	0	0%	0	0%	1	0%	2783	100%
SS/SOCO/DUK-TVA/MULTIPATHALIAS/	615	991	995	0	0.000000	0	0%	0	0%	0	0%	2784	100%



Appendix A (continued)

	ATC		IGIA 71	(conti	Partially	Llead	Fully U	Loal	Unavailable		Uncleared		
Segment	24:			2 6 7 7 7	Loading			1		1		1	
C/DLIV/DLIV CDLW//	Min ()	Median 554	Max 554	MWhs 0	0.000000	Intervals	%	Intervals ()	%	Intervals 169	%	Intervals	94%
S/DUK/DUK-CPLW// F/FPC/GVL-FPC//	145	295	425	0	0.000000	0	0%	0	0%	0	0%	2615 2784	100%
F/FPC/FPC-GVL//	0	176	253	0	0.000000	0	0%	0	0%	8	0%	2776	100%
F/FPC/TEC-FPC/TEC-FPCS/	1,365	2,296	3,486	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/TEC/SEC-FPC/SSO-FPC/	268	559	729	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/SOCO-SEC/SOCO-SSN/	0	343	480	0	0.000000	0	0%	0	0%	40	1%	2744	99%
F/FPC/GVL-FPC/GVL-FPCS/	145	295	425	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/TEC/SEC-TEC/SSO-TEC/	268	559	729	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/FPC-SEC/FPC-SSN/	0	612	1,374	0	0.000000	0	0%	0	0%	16	1%	2768	99%
F/FPC/SEC-FPC/SSO-FPCS/	175	466	844	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/SOCO-FPC/SOCO-FPCS/	0	343	480	0	0.000000	0	0%	0	0%	40	1%	2744	99%
F/JEA/SOCO-SEC/SOCO-SSN/	383	498	524	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/SCEG/SC-CPLE//	165	671	831	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/SC/DUK-SOCO//	111	3,446	3,724	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/TVA/DUK-CPLW//	194	308	308	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/GVL-TEC//	147	297	406	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/CPL/DUK-CPLW//	432	930	930	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/SC-SOCO//	213	1,988	2,335	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/SEC-FPC/SSN-FPCS/	0	227	1,700	0	0.000000	0	0%	0	0%	92	3%	2692	97%
S/DUK/CPLW-TVA//	0	351	692	0	0.000000	0	0%	0	0%	3	0%	2781	100%
S/CPL/CPLW-TVA//	0	308	308	0	0.000000	0	0%	0	0%	7	0%	2777	100%
F/FPC/SEC-SOCO/SSN-SOCO/	0	299	370	0	0.000000	0	0%	0	0%	108	4%	2676	96%
S/DUK/CPLW-SC//	0	331	1,093	0	0.000000	0	0%	0	0%	31	1%	2753	99%
F/FPC/SEC-GVL/SSN-GVL/	0	165	248	0	0.000000	0	0%	0	0%	8	0%	2776	100%
F/TEC/TEC-SEC/TEC-SSO/	113	547	729	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/JEA/SEC-SOCO/SSN-SOCO/	0	624	637	0	0.000000	0	0%	0	0%	12	0%	2772	100%
S/CPL/TVA-CPLW//	6	308	308	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/SEC-TEC/SSN-TEC/	0	983	1,492	0	0.000000	0	0%	0	0%	8	0%	2776	100%
F/FPC/TEC-GVL//	0	172	250	0	0.000000	0	0%	0	0%	16	1%	2768	99%
F/FPC/FPC-FPC/FPC-FPCS/	2,431	3,428	3,867	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/SC/SCEG-CPLE//	0	2,638	3,085	0	0.000000	0	0%	0	0%	25	1%	2759	99%
S/SC/SCEG-DUK//	1,717	3,051	3,094	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/TEC-SEC/TEC-SSN/	0	612	1,374	0	0.000000	0	0%	0	0%	16	1%	2768	99%
S/SCEG/SC-DUK//	0	767	942	0	0.000000	0	0%	0	0%	8	0%	2776	100%
S/SC/SCEG-SOCO//	2,201	3,067	3,174	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/SEC-FPC/SSO-FPC/	175	466	844	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/SEC-SOCO/SSO-SOCO/	0	315	370	0	0.000000	0	0%	0	0%	116	4%	2668	96%
F/FPC/SEC-FPC/SSN-FPC/	0	227	1,700	0	0.000000	0	0%	0	0%	92	3%	2692	97%
F/FPC/GVL-SOCO//	0	261	370	0	0.000000	0	0%	0	0%	104	4%	2680	96%
F/FPC/GVL-SEC/GVL-SSN/	153	297	425	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/SEC-GVL/SSO-GVL/	0	172	250	0	0.000000	0	0%	0	0%	16	1%	2768	99%
F/JEA/JEA-SEC/JEA-SSN/	294	492	518	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/FPC/SEC-TEC/SSO-TEC/	268	559	993	0	0.000000	0	0%	0	0%	0	0%	2784	100%
F/JEA/SEC-JEA/SSN-JEA/	0	0	0	0	N/A	0	0%	0	0%	2,784	100%	0	0%
F/FPC/SOCO-GVL//	0	170	247	0	0.000000	0	0%	0	0%	44	2%	2740	98%
F/FPC/SEC-SEC/SSO-SSN/	0	559	993	0	0.000000	0	0%	0	0%	16	1%	2768	99%
S/CPL/CPLW-DUK//	22	747	1,514	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/DUK/SC-CPLW//	0	357	554	0	0.000000	0	0%	0	0%	309	11%	2475	89%
S/DUK/SCEG-CPLW//	0	436	554	0	0.000000	0	0%	0	0%	226	8%	2558	92%
S/DUK/TVA-CPLW//	0	518	554	0	0.000000	0	0%	0	0%	191	7%	2593	93%
S/SC/CPLE-DUK//	3,503	3,791	4,045	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/SC/CPLE-DUK// S/SC/CPLE-SCEG//	1,012	2,065	4,742	0	0.000000	0	0%	0	0%	0	0%	2784	100%
S/TVA/AECI-LGEE//	0	2,063	4,742	0	0.000000	0	0%	0	0%	1,689	61%	1095	39%
S/TVA/CPLW-DUK//	120	308	308	0	0.000000	0	0%	0	0%	0	01%	2784	100%
S/TVA/CPLW-DUK// S/TVA/TVA-AECI//	0			0	0.000000	0	0%	0	0%	36	1%	2748	99%
		686	686	0		0		0	0%	0	0%	2748	
SS/GTC/GTC-GTC//	25,835	25,835 124	25,835	0	0.000000	0	0% 0%	0	0%	645		2139	100%
SS/SOCO/DUK-SC/MULTIPATHALIAS/	0 2	124	466	0	0.000000	0		0	0%	15	23%	2769	77% 99%
SS/SOCO/DUK-SCEG/MULTIPATHALIAS/ SS/SOCO/SC-DUK/MULTIPATHALIAS/	0	513	154 571	0	0.000000	0	0% 0%	0	0%	8	1% 0%	2776	100%
	2			0	0.000000	0		0					99%
SS/SOCO/SC-SCEG/MULTIPATHALIAS/		125	154	U	0.000000	U	0%	U	0%	15	1%	2769	99%