MONTHLY AUDIT REPORT ON THE SOUTHEAST ENERGY EXCHANGE MARKET

FOR

March 2024

Prepared by:



Independent Market Auditor

April 26, 2024



I. OVERVIEW

This is the Auditor report for the month of March 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 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.¹

Trading volumes reached an all-time high in March, increasing from 90,000 MWh in February to 107,000 MWh in March. 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 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, six percent of the time availability was zero. Due to transmission constraints, transmission loss costs, and participant-specific constraints, about 21,000 MWh of potential economic exchanges were left uncleared in March, 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

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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). 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 March.

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 March 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 March 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 March 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 107,000 MWh of energy in March, which is an all-time high, exceeding the recent all-time high set in January 2024. Figure 1 shows the daily SEEM bids and offers for March. 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.

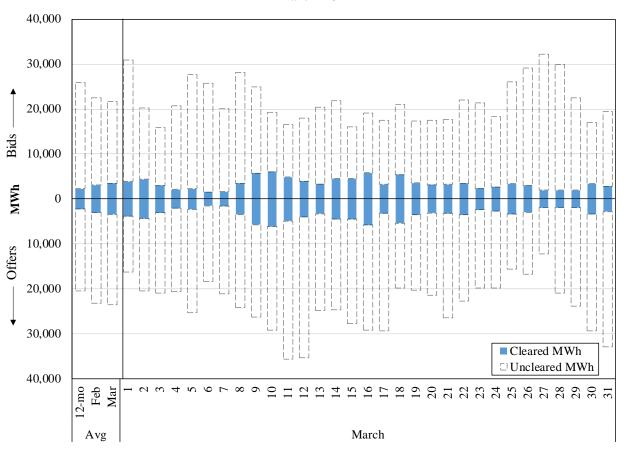


Figure 1: Daily Bids and Offers
March 2024



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

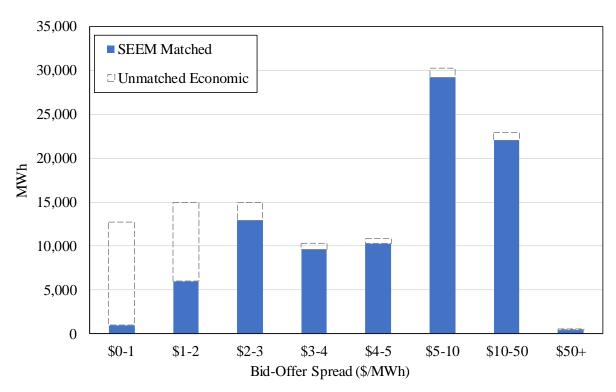


Figure 2: Cleared and Uncleared Economic Matches
March 2024

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 February, the amount was also about 20,000 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.

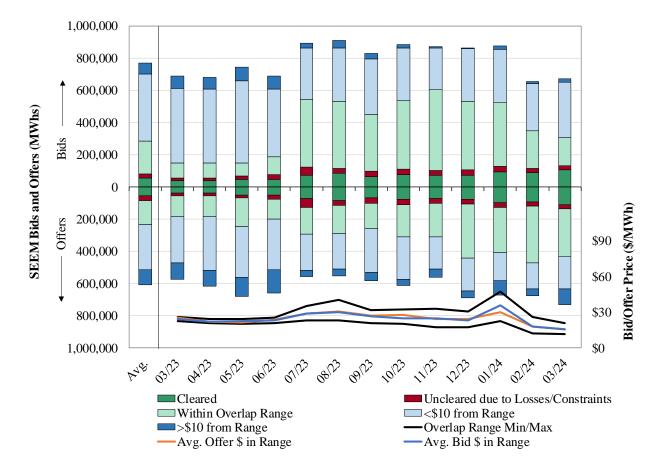


Figure 3: Bid and Offer Evaluation

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. Spreads have closed since summer and liquidity has improved, with cleared traded reach all-time highs.

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.

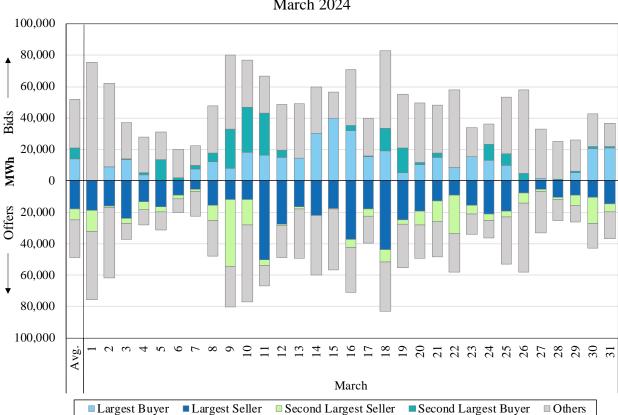


Figure 4: Volumes of Matched Bids and Offers
March 2024



The figure shows certain buyers and sellers comprise significant shares of the transaction activity. For the month, 39 percent of the sales were made by a single seller and 30 percent of the purchases were made by a single buyer.

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. The superimposed lines over the bars show the price spread over each month. Lower natural gas prices resulted in relatively lower settlement prices in March.

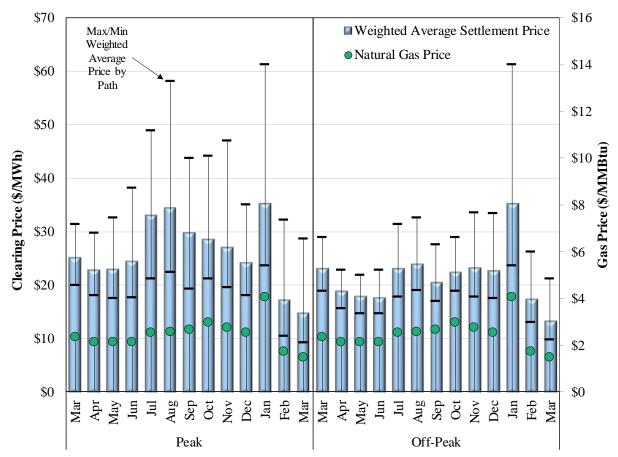


Figure 5: Monthly Clearing Prices and Natural Gas Costs

The figure shows that March prices declined, both relative to February and compared to the previous 12-month period. The figure also shows 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 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 SegmentsMarch 2024

		ATC		11100101	Loading	Partially	Used	Fully U	Jsed	Unavai	lable	Uncleared	
Segment	Min	Median	Max	MWhs		Intervals	%	Intervals	%	Intervals	%	Intervals	%
F/FPC/FPC-SOCO//	0	288	370	41,219	0.204934	1,345	45%	132	4%	4	0%	1491	50%
P/LGEE/TVA-LGEE//	0	1,419	1,424	32,026	0.031832	1,035	35%	1	0%	8	0%	1928	65%
SS/SOCO/FL-TVA/MULTIPATHALIAS/	393	976	1,284	22,939	0.032112	884	30%	0	0%	0	0%	2088	70%
S/TVA/SOCO-LGEE//	0	714	2,533	18,928	0.03558	725	24%	14	0%	720	24%	1513	51%
F/TEC/TEC-FPC//	0	1,754	2,702	13,757	0.010926	940	32%	0	0%	8	0%	2024	68%
S/TVA/SOCO-TVA//	0	2,356	2,932	12,117	0.006955	445	15%	0	0%	8	0%	2519	85%
F/FPC/TEC-SOCO//	0	285	370	10,207	0.051102	688	23%	53	2%	28	1%	2203	74%
SS/SOCO/FL-SOCO//	393	976	1,284	9,604	0.013432	880	30%	0	0%	0	0%	2092	70%
S/TVA/TVA-LGEE//	0	613	2,765	8,148	0.016814	286	10%	20	1%	728	25%	1938	65%
S/CPL/CPLE-DUK//	1,165	5,928	8,005	8,001	0.001929	323	11%	0	0%	0	0%	2649	89%
F/JEA/SOCO-JEA//	179	553	822	6,779	0.016866	1,076	36%	0	0%	0	0%	1896	64%
S/CPL/DUK-CPLE//	337	3,178	6,819	6,460	0.002738	603	20%	0	0%	0	0%	2369	80%
S/DUK/SOCO-CPLE//	0	1,787	2,220	4,902	0.003917	587	20%	0	0%	22	1%	2363	80%
S/MEAG/FPC-MEAG//	0	108	224	4,043	0.054753	294	10%	80	3%	189	6%	2409	81%
F/FPC/SOCO-FPC//	0	363	527	3,962	0.016037	496	17%	39	1%	76	3%	2361	79%
S/DUK/CPLE-TVA//	96	692	692	3,831	0.007603	138	5%	2	0%	0	0%	2832	95%
SS/SOCO/SOCO-TVA//	794	1,817	2,687	3,799	0.002909	119	4%	0	0%	0	0%	2853	96%
SS/SOCO/FL-DUK/MULTIPATHALIAS/	0	366	866	3,658	0.012821	404	14%	24	1%	50	2%	2494	84%
SS/SOCO/SOCO-DUK//	0	366	866	3,599	0.012613	391	13%	32	1%	50	2%	2499	84%
SS/SOCO/TVA-SOCO//	879	1,516	1,571	3,570	0.003323	122	4%	0	0%	0	0%	2850	96%
F/FPC/TEC-FPC//	0	1,804	2,751	3,550	0.002739	491	17%	0	0%	8	0%	2473	83%
S/SC/SOCO-SC//	0	628	1,720	3,531	0.00709	368	12%	7	0%	668	22%	1929	65%
SS/SOCO/SOCO-FL//	591	1,200	1,622	3,504	0.003998	436	15%	0	0%	0	0%	2536	85%
S/TVA/TVA-SOCO//	0	2,920	2,935	3,501	0.001636	118	4%	0	0%	16	1%	2838	95%
S/TVA/TVA-DUK//	0	355	430	3,275	0.012506	85	3%	1	0%	16	1%	2870	97%
S/TVA/DUK-LGEE//	0	355	355	3,258	0.017844	131	4%	9	0%	720	24%	2112	71%
SS/SOCO/SOCO-SOCO//	40,439	44,230	44,230	3,209	0.000098	203	7%	0	0%	0	0%	2769	93%
S/SC/DUK-SC//	0	1,396	2,694	2,376	0.002398	254	9%	4	0%	160	5%	2554	86%
S/AECI/TVA-AECI//	0	237	913	2,331	0.008826	77	3%	42	1%	1,133	38%	1720	58%
S/DUK/DUK-SOCO//	0	1,966	2,335	2,224	0.002197	196	7%	0	0%	476	16%	2300	77%
S/DUK/CPLE-SOCO//	0	2,035	2,335	2,187	0.001943	209	7%	1	0%	462	16%	2300	77%
S/MEAG/SOCO-MEAG//	2,575	3,025	3,225	2,172	0.000976	195	7%	0	0%	0	0%	2777	93%

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 March, there were 713,280 segment intervals.⁴ The two circumstances (Cases (2) and (3)) when a segment is constrained occurred in more than 40,000 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

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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 March, SEEM operated in all intervals.



over that segment. These cases represent over 650,000 segment intervals or 91 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 (39,994 or about six percent of the time). The third most common case was "Partially Used" (Case 1), where the segment was partially used (19,471 or about 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 (833).

Table 2: Summary of All SegmentsMarch 2024

Segment	Cas Partiall		Cas Fully	se 2 Used	Cas Unava		Case 4 Uncleared		
	Intervals	"	Intervals		Intervals	%	Intervals	%	
All Segments	19,475	2.7%	833	0.1%	39,994	5.6%	652,978	91.5%	

Measuring transmission capacity congestion by adding Case 2 and 3, the percentage of constrained segment intervals was stable (5.7 percent in March, about the same percentage as in February).

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). All segments shown reported ATC of 0 in one or more intervals during the month (ATC Min=0). N 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).

Table 3: Most Constrained SEEM SegmentsMarch 2024

G		ATC			Loading	Partially	Used	Fully U	Jsed	Unavailable		Uncleared	
Segment	Min	Median	Max	MWhs	Ü	Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/MEAG/MEAG-SCEG//	0	4	15	3	0.00099	0	0%	2	0%	1,461	49%	1509	51%
F/JEA/SEC-JEA/SSN-JEA/	0	439	589	0	0	0	0%	0	0%	1,276	43%	1696	57%
SS/SOCO/FL-SCEG/MULTIPATHALIAS/	0	21	125	1,380	0.055633	117	4%	84	3%	1,191	40%	1580	53%
SS/SOCO/DUK-SCEG/MULTIPATHALIAS/	0	21	125	0	0	0	0%	0	0%	1,191	40%	1781	60%
SS/SOCO/SC-SCEG/MULTIPATHALIAS/	0	21	125	0	0	0	0%	0	0%	1,191	40%	1781	60%
SS/SOCO/SOCO-SCEG//	0	21	125	135	0.005442	21	1%	5	0%	1,191	40%	1755	59%
SS/SOCO/TVA-SCEG/MULTIPATHALIAS/	0	21	125	42	0.001693	2	0%	0	0%	1,191	40%	1779	60%
SS/GTC/GTC-SCEG//	0	18	68	71	0.004825	3	0%	7	0%	1,154	39%	1808	61%
S/AECI/TVA-AECI//	0	237	913	2,331	0.008826	77	3%	42	1%	1,133	38%	1720	58%
S/TVA/AECI-LGEE//	0	123	409	87	0.001049	6	0%	4	0%	1,102	37%	1860	63%
S/SCEG/SOCO-SCEG//	0	428	2,182	1,533	0.003177	200	7%	7	0%	752	25%	2013	68%
S/TVA/TVA-LGEE//	0	613	2,765	8,148	0.016814	286	10%	20	1%	728	25%	1938	65%
S/TVA/SOCO-LGEE//	0	714	2,533	18,928	0.03558	725	24%	14	0%	720	24%	1513	51%
S/TVA/DUK-LGEE//	0	355	355	3,258	0.017844	131	4%	9	0%	720	24%	2112	71%
S/TVA/CPLW-LGEE//	0	276	276	1,605	0.010975	64	2%	1	0%	720	24%	2187	74%
S/SC/SOCO-SC//	0	628	1,720	3,531	0.00709	368	12%	7	0%	668	22%	1929	65%
S/DUK/SC-CPLW//	0	243	554	0	0	0	0%	0	0%	645	22%	2327	78%
S/SC/CPLE-SC//	0	732	2,091	950	0.001642	96	3%	6	0%	640	22%	2230	75%
S/MEAG/MEAG-SC//	0	39	63	84	0.003206	3	0%	6	0%	580	20%	2383	80%



III. CONCLUSION

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

	ATC ATC			1 Obuge 111		Partially Used		Fully Used		Unavailable		Umalaamad	
Segment		ATC			Loading	•		1				Uncleared	
	Min	Median	Max	MWhs	Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	
F/FPC/FPC-SOCO//	0	288	370	41,219	0.204934	1,345	45%	132	4%	4	0%	1491	50%
P/LGEE/TVA-LGEE//	0	1,419	1,424	32,026	0.031832	1,035	35%	1	0%	8	0%	1928	65%
SS/SOCO/FL-TVA/MULTIPATHALIAS/	393	976	1,284	22,939	0.032112	884	30%	0	0%	0	0%	2088	70%
S/TVA/SOCO-LGEE//	0	714	2,533	18,928	0.03558	725	24%	14	0%	720	24%	1513	51%
F/TEC/TEC-FPC//	0	1,754	2,702	13,757	0.010926	940	32%	0	0%	8	0%	2024	68%
S/TVA/SOCO-TVA//	0	2,356	2,932	12,117	0.006955	445	15%	0	0%	8	0%	2519	85%
F/FPC/TEC-SOCO//	0	285	370	10,207	0.051102	688	23%	53	2%	28	1%	2203	74%
SS/SOCO/FL-SOCO//	393	976	1,284	9,604	0.013432	880	30%	0	0%	0	0%	2092	70%
S/TVA/TVA-LGEE//	0	613	2,765	8,148	0.016814	286	10%	20	1%	728	25%	1938	65%
S/CPL/CPLE-DUK//	1,165	5,928	8,005	8,001	0.001929	323	11%	0	0%	0	0%	2649	89%
F/JEA/SOCO-JEA//	179	553	822	6,779	0.016866	1,076	36%	0	0%	0	0%	1896	64%
S/CPL/DUK-CPLE//	337	3,178	6,819	6,460	0.002738	603	20%	0	0%	0	0%	2369	80%
S/DUK/SOCO-CPLE//	0	1,787	2,220	4,902	0.003917	587	20%	0	0%	22	1%	2363	80%
S/MEAG/FPC-MEAG//	0	108	224	4,043	0.054753	294	10%	80	3%	189	6%	2409	81%
F/FPC/SOCO-FPC//	0	363	527	3,962	0.016037	496	17%	39	1%	76 0	3%	2361	79%
S/DUK/CPLE-TVA//	96 794	692 1,817	692	3,831	0.007603	138 119	5%	0	0% 0%	0	0% 0%	2832 2853	95%
SS/SOCO/SOCO-TVA//			2,687	3,799	0.002909		4%						96%
SS/SOCO/FL-DUK/MULTIPATHALIAS/	0	366 366	866 866	3,658 3,599	0.012821 0.012613	404 391	14% 13%	24 32	1% 1%	50 50	2% 2%	2494 2499	84% 84%
SS/SOCO/SOCO-DUK//	879				0.012613			0	0%	0	0%	2850	
SS/SOCO/TVA-SOCO// F/FPC/TEC-FPC//		1,516	1,571	3,570		122	4%						96%
	0	1,804	2,751	3,550	0.002739	491	17%	0	0%	8	0%	2473	83%
S/SC/SOCO-SC//	0	628	1,720	3,531		368	12%	7	0%	668	22%	1929	65%
SS/SOCO/SOCO-FL//	591	1,200	1,622	3,504	0.003998	436	15%	0	0%	0	0%	2536	85%
S/TVA/TVA-SOCO//	0	2,920	2,935	3,501	0.001636	118	4%	0	0%	16	1%	2838	95%
S/TVA/TVA-DUK//	0	355	430	3,275	0.012506	85 131	3%	9	0% 0%	16 720	1% 24%	2870	97%
S/TVA/DUK-LGEE//	40,439	355 44,230	355 44,230	3,258 3,209	0.017844 0.000098	203	4% 7%	0	0%	0	0%	2112 2769	71% 93%
SS/SOCO/SOCO-SOCO// S/SC/DUK-SC//	0	1,396	2,694	2,376	0.000098	254	9%	4	0%	160	5%	2554	86%
S/AECI/TVA-AECI//	0	237	913	2,370	0.002398	77	3%	42	1%	1,133	38%	1720	58%
S/DUK/DUK-SOCO//	0	1,966	2,335	2,331	0.008820	196	7%	0	0%	476	16%	2300	77%
S/DUK/CPLE-SOCO//	0	2,035	2,335	2,187	0.002197	209	7%	1	0%	462	16%	2300	77%
S/MEAG/SOCO-MEAG//	2,575	3,025	3,225	2,172	0.001943	195	7%	0	0%	0	0%	2777	93%
S/DUK/TVA-DUK//	0	692	692	1,991	0.003962	48	2%	1	0%	18	1%	2905	98%
S/CPL/DUK-TVA//	0	276	308	1,978	0.003902	72	2%	8	0%	10	0%	2882	97%
S/DUK/CPLE-CPLW//	0	361	554	1,956	0.0079	76	3%	1	0%	350	12%	2545	86%
S/TVA/SOCO-AECI//	0	622	686	1,942	0.004588	107	4%	0	0%	12	0%	2853	96%
S/DUK/SOCO-SC//	0	917	2,220	1,911	0.002647	207	7%	5	0%	449	15%	2311	78%
S/SCEG/DUK-SCEG//	0	186	319	1,795	0.013524	213	7%	12	0%	104	4%	2643	89%
S/DUK/SOCO-SCEG//	0	187	213	1,660	0.015142	203	7%	0	0%	512	17%	2257	76%
SS/SOCO/FL-SC/MULTIPATHALIAS/	-200	50	331	1,650	0.023312	129	4%	115	4%	519	17%	2209	74%
S/TVA/CPLW-LGEE//	0	276	276	1,605	0.010975	64	2%	1	0%	720	24%	2187	74%
SS/SOCO/DUK-FL/MULTIPATHALIAS/	172	910	1,052	1,566	0.002374	257	9%	0	0%	0	0%	2715	91%
S/SCEG/SOCO-SCEG//	0	428	2,182	1,533	0.003177	200	7%	7	0%	752	25%	2013	68%
S/DUK/TVA-CPLE//	0	692	692	1,503	0.002971	56	2%	0	0%	6	0%	2910	98%
SS/SOCO/FL-SCEG/MULTIPATHALIAS/	0	21	125	1,380	0.055633	117	4%	84	3%	1,191	40%	1580	53%
S/TVA/DUK-TVA//	40	355	430	1,340	0.005138	59	2%	3	0%	0	0%	2910	98%
F/JEA/JEA-SOCO//	275	825	1,058	1,267	0.002079	297	10%	0	0%	0	0%	2675	90%
S/DUK/DUK-TVA//	0	692	692	1,263	0.00322	52	2%	0	0%	457	15%	2463	83%
SS/GTC/GTC-SOCO//	20,000	20,000	20,000	1,199	0.000081	64	2%	0	0%	0	0%	2908	98%
F/TEC/FPC-TEC//	33	1,871	2,797	1,185	0.000861	110	4%	0	0%	0	0%	2862	96%
SS/GTC/GTC-TVA//	0	474	710	1,176	0.003588	56	2%	0	0%	4	0%	2912	98%
SS/GTC/GTC-FPC//	195	804	1,019	1,053	0.001804	91	3%	0	0%	0	0%	2881	97%
F/FPC/FPC-TEC//	73	1,912	2,837	1,037	0.000737	92	3%	0	0%	0	0%	2880	97%
S/MEAG/DUK-MEAG//	0	136	170	977	0.010543	78	3%	4	0%	7	0%	2883	97%
S/DUK/SOCO-DUK//	0	1,858	2,220	975	0.000765	95	3%	0	0%	34	1%	2843	96%
S/SC/CPLE-SC//	0	732	2,091	950	0.001642	96	3%	6	0%	640	22%	2230	75%
S/CPL/SCEG-CPLE//	248	637	637	924	0.002061	110	4%	0	0%	0	0%	2862	96%
S/SCEG/SCEG-CPLE//	278	671	905	924	0.001856	110	4%	0	0%	0	0%	2862	96%
SS/SOCO/DUK-SOCO//	172	939	1,052	909	0.001363	41	1%	0	0%	0	0%	2931	99%
S/CPL/CPLE-SCEG//	0	404	404	899	0.003323	92	3%	0	0%	41	1%	2839	96%



Appendix A (continued)

	ATC			idix A (coii		Partially Used		Fully Used		Unavailable		Uncleared	
Segment	Min	Median	Max	MWhs	Loading Factor	Intervals	%	Intervals	%	Intervals	%	Intervals	
SS/GTC/FPC-GTC//	0	606	808	897	0.002182	41	1%	4	0%	4	0%	2923	98%
SS/GTC/SOCO-GTC//	12,990	13,876	14,619	746	0.000072	42	1%	0	0%	0	0%	2930	99%
S/CPL/CPLE-SC//	0	2,145	4,420	717	0.000406	78	3%	0	0%	44	1%	2850	96%
SS/GTC/GTC-DUK//	0	289	604	610	0.003018	32	1%	25	1%	95	3%	2820	95%
SS/GTC/GTC-MEAG//	9,445	9,849	9,999	606	0.000083	51	2%	0	0%	0	0%	2921	98%
S/SC/SCEG-SC//	792	1,113	2,176	590	0.000678	74	2%	0	0%	0	0%	2898	98%
SS/GTC/GTC-JEA//	195	804	1,019	556	0.000952	90	3%	0	0%	0	0%	2882	97%
S/SCEG/CPLE-SCEG//	0	418	582	549	0.00261	70	2%	0	0%	572	19%	2330	78%
S/CPL/SC-CPLE//	604	1,582	3,303	533	0.000425	47	2%	0	0%	0	0%	2925	98%
S/CPL/TVA-DUK//	0	276	308	517	0.002556	31	1%	1	0%	3	0%	2937	99%
S/DUK/CPLW-CPLE//	0	674	1,243	503	0.001009	29	1%	1	0%	374	13%	2568	86%
S/TVA/TVA-CPLW//	0	276	308	489	0.002426	25	1%	0	0%	24	1%	2923	98%
S/SCEG/SCEG-SOCO//	416	2,795	6,041	480	0.000224	68	2%	0	0%	0	0%	2904	98%
S/SC/SOCO-CPLE//	0	2,247	2,825	479	0.00035	34	1%	0	0%	166	6%	2772	93%
S/MEAG/GTC-MEAG//	1,479	1,920	2,155	453	0.000323	40	1%	0	0%	0	0%	2932	99%
SS/SOCO/SOCO-SC//	-200	50	331	391	0.005524	31	1%	12	0%	519	17%	2410	81%
SS/GTC/GTC-SC//	0	183	293	343	0.002892	29	1%	2	0%	396	13%	2545	86%
S/CPL/DUK-SC//	0	1,762	4,311	342	0.000259	34	1%	0	0%	3	0%	2935	99%
SS/GTC/DUK-GTC//	71	561	662	334	0.000812	22	1%	0	0%	0	0%	2950	99%
S/DUK/DUK-SC//	0	839	2,724	319	0.000446	47	2%	0	0%	467	16%	2458	83%
S/SCEG/CPLE-SOCO//	0	418	611	301	0.000981	20	1%	7	0%	19	1%	2926	98%
SS/SOCO/SCEG-SOCO//	43	223	264	299	0.001776	34	1%	1	0%	0	0%	2937	99%
S/TVA/DUK-SOCO//	40	355	430	299	0.001146	10	0%	0	0%	0	0%	2962	100%
S/TVA/DUK-AECI//	0	355	430	296	0.001168	16	1%	0	0%	12	0%	2944	99%
S/TVA/SOCO-DUK//	155	355	430	287	0.00109	21	1%	0	0%	0	0%	2951	99%
S/TVA/CPLW-TVA//	128	276	308	255	0.001246	14	0%	0	0%	0	0%	2958	100%
S/SCEG/SC-SCEG//	0	2,685	4,728	252	0.000142	30	1%	3	0%	90	3%	2849	96%
S/DUK/DUK-SCEG//	0	186	213	236	0.002186	37	1%	0	0%	471	16%	2464	83%
S/SCEG/SOCO-SC//	0	1,525	4,969	225	0.000203	37	1%	2	0%	218	7%	2715	91%
S/AECI/AECI-TVA//	0	253	682	217	0.00097	29	1%	2	0%	93	3%	2848	96%
S/SCEG/SCEG-SC//	0	2,955	6,123	213	0.000089	27	1%	0	0%	5	0%	2940	99%
SS/SOCO/DUK-TVA/MULTIPATHALIAS/	172	939	1,052	208	0.000312	9	0%	0	0%	0	0%	2963	100%
SS/GTC/SCEG-GTC//	45	122	145	204	0.002204	20	1%	0	0%	0	0%	2952	99%
S/MEAG/MEAG-TVA//	0	104	153	192	0.002569	9	0%	4	0%	192	6%	2767	93%
SS/GTC/TVA-GTC//	79	354	371	183	0.000734	8	0%	0	0%	0	0%	2964	100%
P/LGEE/LGEE-TVA//	188	1,354	1,623	182	0.000186	13	0%	0	0%	0	0%	2959	100%
S/TVA/LGEE-SOCO//	0	2,828	2,925	182	0.000087	13	0%	0	0%	8	0%	2951	99%
S/MEAG/MEAG-DUK//	0	68	128	178	0.003262	23	1%	3	0%	4	0%	2942	99%
S/SC/SOCO-SCEG//	0	1,443	2,352	172	0.000206	29	1%	0	0%	498	17%	2445	82%
SS/SOCO/TVA-FL/MULTIPATHALIAS/	591	1,175	1,564	156	0.00018	26	1%	0	0%	0	0%	2946	99%
SS/SOCO/SCEG-FL/MULTIPATHALIAS/	43	223	264	152	0.000903	31	1%	0	0%	0	0%	2941	99%
F/FPC/SOCO-TEC//	0	363	527	148	0.0006	13	0%	5	0%	80	3%	2874	97%
SS/GTC/JEA-GTC//	0	606	808	145	0.000353	37	1%	0	0%	4	0%	2931	99%
SS/SOCO/SOCO-SCEG//	0	21	125	135	0.005442	21	1%	5	0%	1,191	40%	1755	59%
S/SC/SC-SOCO//	845	3,204	3,661	130	0.000055	16	1%	0	0%	0	0%	2956	99%
S/MEAG/MEAG-FPC//	14	188	277	121	0.000912	10	0%	1	0%	0	0%	2961	100%
S/DUK/SCEG-SC//	425	669	669	121	0.000247	11	0%	0	0%	0	0%	2961	100%
S/SCEG/CPLE-DUK//	35	418	611	121	0.00039	11	0%	0	0%	0	0%	2961	100%
S/TVA/AECI-SOCO//	0	145	409	120	0.000994	18	1%	0	0%	490	16%	2464	83%
S/DUK/SCEG-DUK//	0	669	669	119	0.000244	11	0%	0	0%	9	0%	2952	99%
S/CPL/DUK-SCEG//	15	404	404	118	0.000429	19	1%	0	0%	0	0%	2953	99%
S/MEAG/TVA-MEAG//	37	197	206	107	0.001659	5	0%	3	0%	0	0%	2964	100%
S/SCEG/DUK-SC//	0	187	417	101	0.000722	9	0%	0	0%	4	0%	2959	100%
S/SC/CPLE-SOCO//	0	3,167	3,891	97	0.000057	5	0%	0	0%	400	13%	2567	86%
S/MEAG/MEAG-JEA//	14	188	277	94	0.000709	16	1%	0	0%	0	0%	2956	99%
S/TVA/CPLW-AECI//	0	276	308	93	0.000464	7	0%	0	0%	12	0%	2953	99%
S/TVA/AECI-LGEE//	0	123	409	87	0.001049	6	0%	4	0%	1,102	37%	1860	63%
S/MEAG/MEAG-SC//	0	39	63	84	0.003206	3	0%	6	0%	580	20%	2383	80%
S/SCEG/SCEG-DUK//	297	757	935	80	0.000143	10	0%	0	0%	0	0%	2962	100%
S/SC/DUK-SCEG//	874	3,231	3,777	80	0.000034	11	0%	0	0%	0	0%	2961	100%



Appendix A (continued)

STUKENYA-SCO: 0		ATC			(COIIII	Partially	Llead	Fully U	leed.	Unavailable		Uncleared		
SDUENTA-SCE' 0 0 92 972 78 0000215 8 0% 4 0 0% 496 17% 2364 87% SANEAGSCES MEAGA' 0 26 31 77 000395 0 0% 6 0 0% 20 0% 236 100% SSCOSCOLUK/ 37 02523 3,304 76 0000017 0 0% 0 0% 0 0% 236 100% SSCOSCOSCOCO' 3 1 8 08 71 000015 0 0% 0 0% 0 0% 0 0% 0 0% 0 0% 0	Segment	2.51		34	3.4337	Loading			1					
SAMEAGSCES-MEAGN	CADLINATIVA COM													
SECSECDUE/N														
SSUCISCY-TVA/ SSSSCOCO-SCOCO/ 351 591 768 73 0000179 1 0%6 0 0% 3 0%6 291 107% SSGTCG-SCEGV/ 470 318 981 768 73 0000179 1 0%6 0 0% 0% 09 0%2 291 107% SSGTCG-SCEGV/ 470 318 984 71 000028 3 0 0%6 0 0% 0 0% 291 107% SSGTCG-SCEGV/ 470 318 982 3 0 0000025 13 0%6 0 0% 0 0% 2959 107% SSGTCG-SCEGV/ 500 418 582 51 000021 4 0%6 2 0% 40 0 0% 0 0% 2959 107% SSGTCG-DUK/ 500 777 975 985 49 0000025 12 0%6 0 0% 0 0% 29 0% 107% SSGCG-DUK/ 500 488 822 51 000021 4 0%6 2 0% 40 0 0% 0 0% 290 107% SSGCG-DUK/ 500 488 022 47 0001455 4 0%6 2 0% 48 0 0% 216 0 0% 50 0 0% 107% SSSGCOTON-SCEGMULTIPATHALIAS/ 500 59 331 46 000063 3 0% 1 0% 50 0 0% 10 0% 50 0 0% 50 0 07% SSSCCOTON-SCEGMULTIPATHALIAS/ 500 1 231 125 42 0000025 2 0% 0 0 0% 10 0% 50 0 0% 50 0 07% SSCCOCON-SCEGMULTIPATHALIAS/ 500 1 231 125 42 0000025 2 0% 0 0 0% 10 0% 50 0 0% 50 0 0% 50 0 07% SSCCOCON-SCEGMULTIPATHALIAS/ 500 1 231 125 42 0000025 2 0% 0 0 0% 10 0% 50 0 0% 50 0 0% 50 0 0 0% 50 0 0 0									-					
SSSCOCONS-SSCOO" 351 591 788 73 0.000179 1 0% 0 0% 0 0% 0 0% 10 0% 271 10078 SSCTCGTCS-EGG" 0 18 68 71 0.00825 3 0% 7 0% 11.5 0% 10 0% 20 0% 10 0% 50 000025 13 0% 0 0% 0 0% 0 0% 0 0% 50 000025 13 0% 0 0% 0 0% 0 0% 0 0% 50 000025 13 0% 0 0% 0 0% 0 0% 0 0% 50 0% 50 000025 13 0% 0 0% 0 0% 0 0% 10 0% 50 0% 50														
SSCGICCTCSCIGS" 470 31.69 4506 59 0.000028 3 0% 77 0% 1.154 39% 18/88 67% SSCGSC.CPLP! 470 31.69 4506 59 0.000028 13 0% 0 0% 0 0% 0 0% 209 00%														
SSCSCCCPLEY 2.511														
SAMEAGNEAGNCO 2,511 2,711 3,159 56 0,000028 5 0% 0 0% 0 0% 0% 0%														
SSCEGGOCD-UEK// 0 418 882 \$1 0.000021 4 0% 2 0% 465 16% 250 845														
SSCEGIOSCO-DUK/* 0 0 757 935 49 0,000087 2 0 76 0 0 76 2														
SAMEAGIÉRAMEAGI 0 108 244 48 0.00065 12 056 5 056 189 056 2066 9378 0.00065 0.														
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SS/GTC/MEAG-GTC// SS/SOCO/SCEG-SC/MULTIPATHALIAS/ SS/SOCO/SCEG-SC/MULTIPATHALIAS/ SS/SOCO/SCEG-SC/MULTIPATHALIAS/ SS/SOCO/SCEG-SC/MULTIPATHALIAS/ SS/TVA/ALGEE-DUK// O 355 430 0 0 0 0% 0 0% 519 17% 2453 83% 5/TVA/ALGEE-DUK// O 276 308 0 0 0 0 0% 0 0% 12 0% 2960 100% 5/TVA/LGEE-CPLW// S/DUK/CPLE-DUK// O 6,139 7,712 0 0 0 0 0% 0 0% 15 1% 2957 100% 5/CPL/SCEG-DUK// S/CPL/SCEG-DUK// O 6,639 7,712 0 0 0 0 0% 0 0% 15 1% 2957 100% 5/CPL/SCEG-DUK// O 6,639 7,712 0 0 0 0 0% 0 0% 15 1% 2957 100% 5/CPL/SCEG-DUK// O 6,69 669 0 0 0 0 0 0% 0 0% 16 1% 2956 99% 5/SC/SC-SCEG// O 3,768 5,184 0 0 0 0 0% 0 0% 16 1% 2956 99% 5/SC/SC-SCEG// O 3,768 5,184 0 0 0 0 0% 0 0% 188 6% 2784 94% 5/DUK/TVA-SOCO// O 692 692 0 0 0 0% 0 0% 16 1% 2956 99% 5/TVA/AECI-CPLW// O 145 76 0 0 0 0% 0 0% 0 0% 490 16% 2482 84% 5/DUK/CPLW-SOCO// O 655 1,243 0 0 0 0 0% 0 0% 490 16% 2482 84% 5/DUK/CPLW-SOCO// O 655 1,243 0 0 0 0 0% 0 0% 490 16% 2482 84% 5/DUK/CPLW-SOCO// O 145 276 0 0 0 0 0% 0 0% 0 0% 490 15% 2499 84% 5/DUK/CPLW-SOCO// O 145 409 0 0 0 0 0% 0 0% 0 0% 490 15% 2499 84% 5/DUK/CPLW-SOCO// O 145 409 0 0 0 0 0% 0 0% 0 0% 490 15% 2532 85% 5/DUK/SCEG-DUK/// 461 2,684 4,545 0 0 0 0 0% 0 0% 0 0% 429 14% 2533 86% 5/DUK/SOCO-CPLW// O 319 554 0 0 0 0 0% 0 0% 0 0% 429 14% 2543 86% 5/DUK/SOCO-CPLW// O 319 554 0 0 0 0 0% 0 0% 0 0% 429 14% 2543 86% 5/DUK/SOCO-CPLW// O 370 2,535 5,085 6,092 0 0 0 0 0% 0 0% 0 0% 12 0% 2960 100% 5/DUK/SC-CPLE// O 2,771 2,916 0 0 0 0% 0 0% 0 0% 3 0% 2969 100%														
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\$\text{S/SCEG/SC-SOCO}/\text{\frac{2}{535}} \text{\frac{5}{085}} \text{\frac{6}{692}} & 0 & 0 & 0 & 0\times \text{\frac{6}{0}} & 0\times														
S/TVA/LGEE-AECI// 0 622 686 0 0 0 0 0% 0 0% 12 0% 2960 100% S/DUK/SC-CPLE// 0 2,771 2,916 0 0 0 0% 0 0% 3 0% 2969 100%														
S/DUK/SC-CPLE// 0 2,771 2,916 0 0 0 0% 0 0% 3 0% 2969 100%														
	SS/SOCO/SC-TVA/MULTIPATHALIAS/	351	591	768	0	0	0	0%	0	0%	0	0%	2972	100%



Appendix A (continued)

	ATC			luix A		Partially	Used	Fully Used		Unavailable		Uncleared	
Segment	Min	Median	Max	MWhs	Loading Factor	Intervals	%	Intervals	%	Intervals %		Intervals %	
S/DUK/SCEG-CPLE//	0	669	669	0	0	0	0%	0	0%	3	0%	2969	100%
S/DUK/SC-SCEG//	0	190	214	0	0	0	0%	0	0%	353	12%	2619	88%
S/DUK/CPLE-SCEG//	0	187	213	0	0	0	0%	0	0%	506	17%	2466	83%
S/SCEG/DUK-SOCO//	9	187	417	0	0	0	0%	0	0%	0	0%	2972	100%
F/FPC/GVL-FPC//	136	241	307	0	0	0	0%	0	0%	0	0%	2972	100%
F/FPC/FPC-GVL//	61	151	228	0	0	0	0%	0	0%	0	0%	2972	100%
F/FPC/TEC-FPC/TEC-FPCS/	0	1,804	2,751	0	0	0	0%	0	0%	8	0%	2964	100%
F/TEC/SEC-FPC/SSO-FPC/	0	247	705	0	0	0	0%	0	0%	28	1%	2944	99%
F/FPC/SOCO-SEC/SOCO-SSN/	0	363	504	0	0	0	0%	0	0%	76	3%	2896	97%
F/FPC/GVL-FPC/GVL-FPCS/	136	241	307	0	0	0	0%	0	0%	0	0%	2972	100%
F/TEC/SEC-TEC/SSO-TEC/	0	247	705	0	0	0	0%	0	0%	20	1%	2952	99%
F/FPC/FPC-SEC/FPC-SSN/	385	501	1,279	0	0	0	0%	0	0%	0	0%	2972	100%
F/FPC/SEC-FPC/SSO-FPCS/	0	493	765	0	0	0	0%	0	0%	28	1%	2944	99%
F/FPC/SOCO-FPC/SOCO-FPCS/	0	363	527	0	0	0	0%	0	0%	76	3%	2896	97%
F/JEA/SOCO-SEC/SOCO-SSN/	298	383	522	0	0	0	0%	0	0%	0	0%	2972	100%
S/SCEG/SC-CPLE//	478	671	1,054	0	0	0	0%	0	0%	0	0%	2972	100%
S/SC/DUK-SOCO//	2,859	3,404	3,765	0	0	0	0%	0	0%	0	0%	2972	100%
S/TVA/DUK-CPLW//	40	276	308	0	0	0	0%	0	0%	0	0%	2972	100%
F/FPC/GVL-TEC//	137	241	307	0	0	0	0%	0	0%	0	0%	2972	100%
S/CPL/DUK-CPLW//	197	434	530	0	0	0	0%	0	0%	0	0%	2972	100%
F/FPC/SEC-FPC/SSN-FPCS/	0	147	1,120	0	0	0	0%	0	0%	488	16%	2484	84%
S/DUK/CPLW-TVA//	0	692	692	0	0	0	0%	0	0%	29	1%	2943	99%
S/CPL/CPLW-TVA//	0	276	308	0	0	0	0%	0	0%	26	1%	2946	99%
F/FPC/SEC-SOCO/SSN-SOCO/	0	288	370	0	0	0	0%	0	0%	4	0%	2968	100%
S/DUK/CPLW-SC//	0	607	1,243	0	0	0	0%	0	0%	464	16%	2508	84%
F/FPC/SEC-GVL/SSN-GVL/	57	148	229	0	0	0	0%	0	0%	0	0%	2972	100%
F/TEC/TEC-SEC/TEC-SSO/	0	714	729	0	0	0	0%	0	0%	16	1%	2956	99%
F/JEA/SEC-SOCO/SSN-SOCO/	275	637	637	0	0	0	0%	0	0%	0	0%	2972	100%
S/CPL/TVA-CPLW//	0	276	308	0	0	0	0%	0	0%	31	1%	2941	99%
F/FPC/SEC-TEC/SSN-TEC/	0	1,078	1,436	0	0	0	0%	0	0%	4	0%	2968	100%
F/FPC/TEC-GVL//	0	147	224	0	0	0	0%	0	0%	20	1%	2952	99%
F/FPC/FPC-FPC/FPC-FPCS/	2,914	3,629	4,231	0	0	0	0%	0	0%	0	0%	2972	100%
S/SC/SCEG-CPLE//	1,459	2,254	3,270	0	0	0	0%	0	0%	0	0%	2972	100%
S/SC/SCEG-DUK//	1,599	2,558	3,276	0	0	0	0%	0	0%	0	0%	2972	100%
F/FPC/TEC-SEC/TEC-SSN/	0	500	1,279	0	0	0	0%	0	0%	24	1%	2948	99%
S/SCEG/SC-DUK//	486	757	935	0	0	0	0%	0	0%	0	0%	2972	100%
S/SC/SCEG-SOCO//	2,002	3,056	3,276	0	0	0	0%	0	0%	0	0%	2972	100%
F/FPC/SEC-FPC/SSO-FPC/	0	493	765	0	0	0	0%	0	0%	28	1%	2944	99%
F/FPC/SEC-SOCO/SSO-SOCO/	0	245	351	0	0	0	0%	0	0%	32	1%	2940	99%
F/FPC/SEC-FPC/SSN-FPC/	0	147	1,120	0	0	0	0%	0	0%	488	16%	2484	84%
F/FPC/GVL-SOCO//	0	237	303	0	0	0	0%	0	0%	4	0%	2968	100%
F/FPC/GVL-SEC/GVL-SSN/	140	242	307	0	0	0	0%	0	0%	0	0%	2972	100%
F/FPC/SEC-GVL/SSO-GVL/	0	129	224	0	0	0	0%	0	0%	28	1%	2944	99%
F/JEA/JEA-SEC/JEA-SSN/	233	383	518	0	0	0	0%	0	0%	0	0%	2972	100%
F/FPC/SEC-TEC/SSO-TEC/	0	247	705	0	0	0	0%	0	0%	20	1%	2952	99%
F/JEA/SEC-JEA/SSN-JEA/	0	439	589	0	0	0	0%	0	0%	1,276	43%	1696	57%
F/FPC/SOCO-GVL//	0	134	220	0	0		0%		0%	76	3%	2896 2944	97%
F/FPC/SEC-SEC/SSO-SSN/	0	247	705	0	0	0	0%	0	0%	28	1%		99% 99%
S/CPL/CPLW-DUK// S/DUK/SC-CPLW//	0	791	1,318	0	0	0	0%	0	0%	16	1% 22%	2956 2327	78%
}	0	243	554				0%	0	0%	645			
S/DUK/SCEG-CPLW// S/DUK/TVA-CPLW//	0	284 374	554 554	0	0	0	0% 0%	0	0% 0%	451 355	15% 12%	2521 2617	85% 88%
S/SC/CPLE-SCEG//	0	1,155	3,099	0	0	0	0%	0	0%	498	17%	2474	83%
S/TVA/CPLW-DUK//	128	276	308	0	0	0	0%	0	0%	0	0%	2972	100%
S/TVA/CPLW-DUK// S/TVA/TVA-AECI//	0	622	686	0	0	0	0%	0	0%	20	1%	2972	99%
SS/GTC/GTC-GTC//	25,685	25,835	25,835	0	0	0	0%	0	0%	0	1% 0%	2952	100%
SS/SOCO/DUK-SC/MULTIPATHALIAS/	-200	50	331	0	0	0	0%	0	0%	519	17%	2453	83%
SS/SOCO/DUK-SCEG/MULTIPATHALIAS/	-200	21	125	0	0	0	0%	0	0%	1,191	40%	1781	60%
SS/SOCO/DUK-SCEG/MULTIPATHALIAS/ SS/SOCO/SC-DUK/MULTIPATHALIAS/	0	366		0	0	0	0%	0	0%	50	2%	2922	98%
SS/SOCO/SC-SCEG/MULTIPATHALIAS/			605										
55/50C0/5C-5CEG/MULTIPATHALIAS/	0	21	125	0	0	0	0%	0	0%	1,191	40%	1781	60%