MONTHLY AUDIT REPORT ON THE SOUTHEAST ENERGY EXCHANGE MARKET

FOR

January 2024

Prepared by:

POTOMAC ECONOMICS

Independent Market Auditor

February 29, 2024

I. OVERVIEW

This is the Auditor report for the month of January 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 increased and reached an all-time in January, increasing from 73,000 MWh in December to 95,000 MWh in January. This was substantially above the 12-month rolling average of 62,000 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 17,000 MWh of potential economic exchanges were left uncleared in January, 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 January.

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 January 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 January 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 January 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 95,000 MWh of energy in January, which is the highest volume since SEEM began. Figure 1 shows the daily SEEM bids and offers for January. 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
January 2024
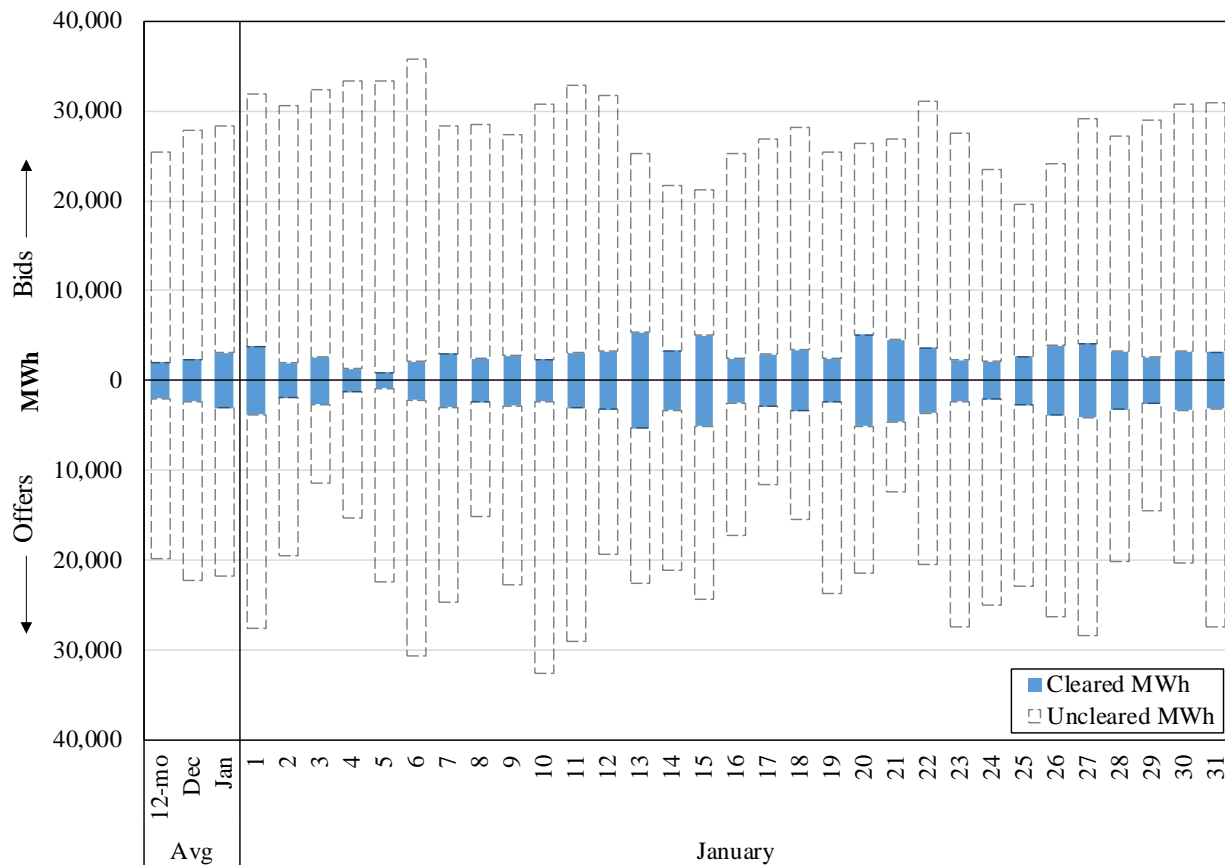
As the left-side monthly and the 12-month average bars show, total liquidity (cleared and uncleared bids and offers) between December and January was roughly equal, but January was

greater than the 12-month average monthly average. Much of the volume increase relative to the 12-month average is linked to the new participants that started trading at the end of June.

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
January 2024
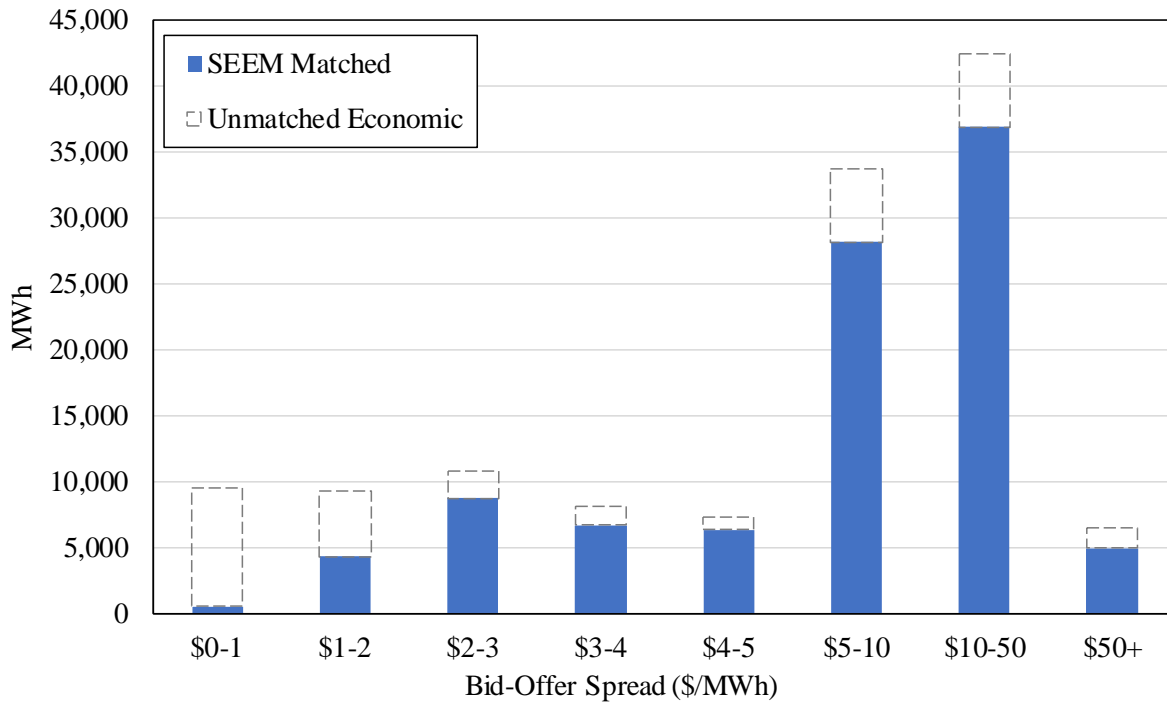
The average cost of losses the SEEM system is about $2/MWh. About 17,000 MWh of uncleared bids/offers could settle at a price that could pay the average $2/MWh losses (the sum of the transparent bars for spreads greater than $2). In December, the amount was 15,000 MWh. Without a complex simulation, there 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
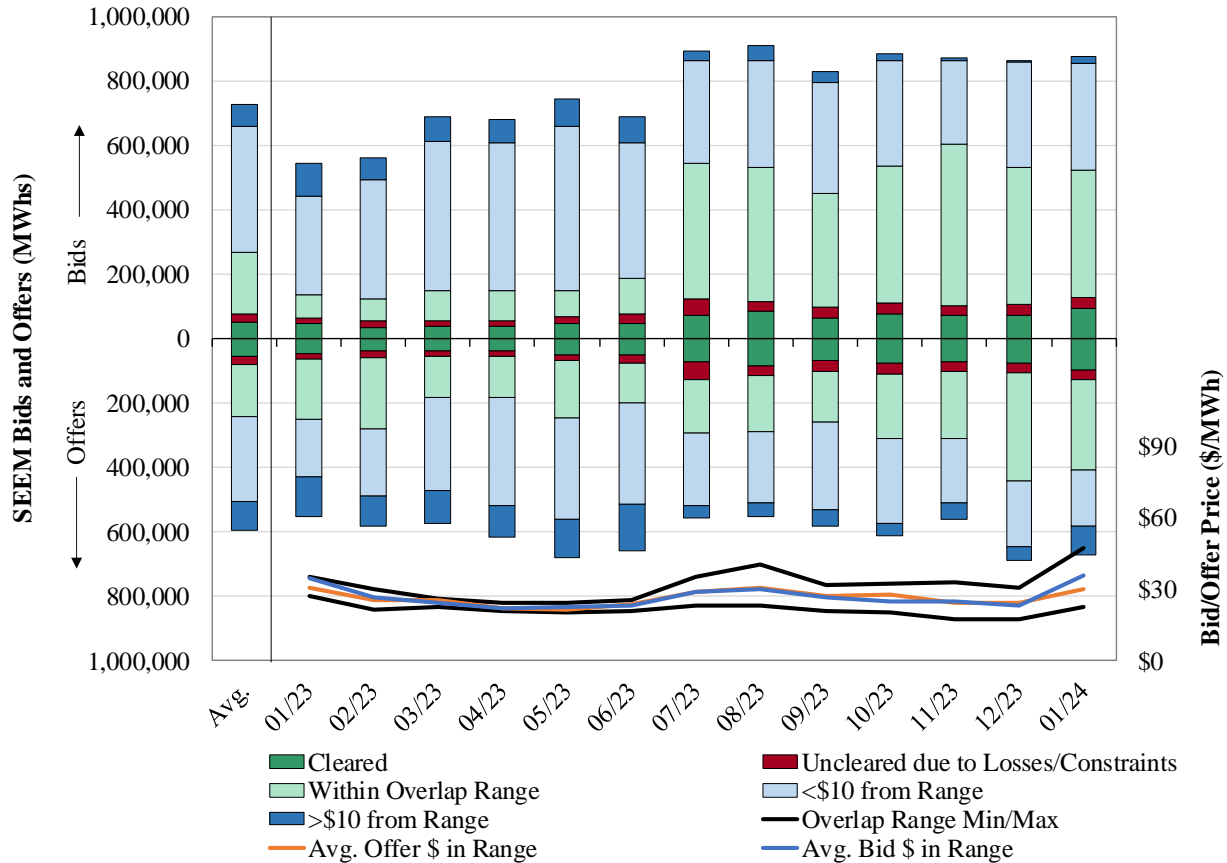
Each bar represents a month's volume and is divided to show volume of cleared bids/offers (dark green) and various categories of uncleared bids and offers. The red segment shows uncleared economic bids and offers. These are the uncleared bids and offers identified in Figure 2. The light green bars show 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
January 2024
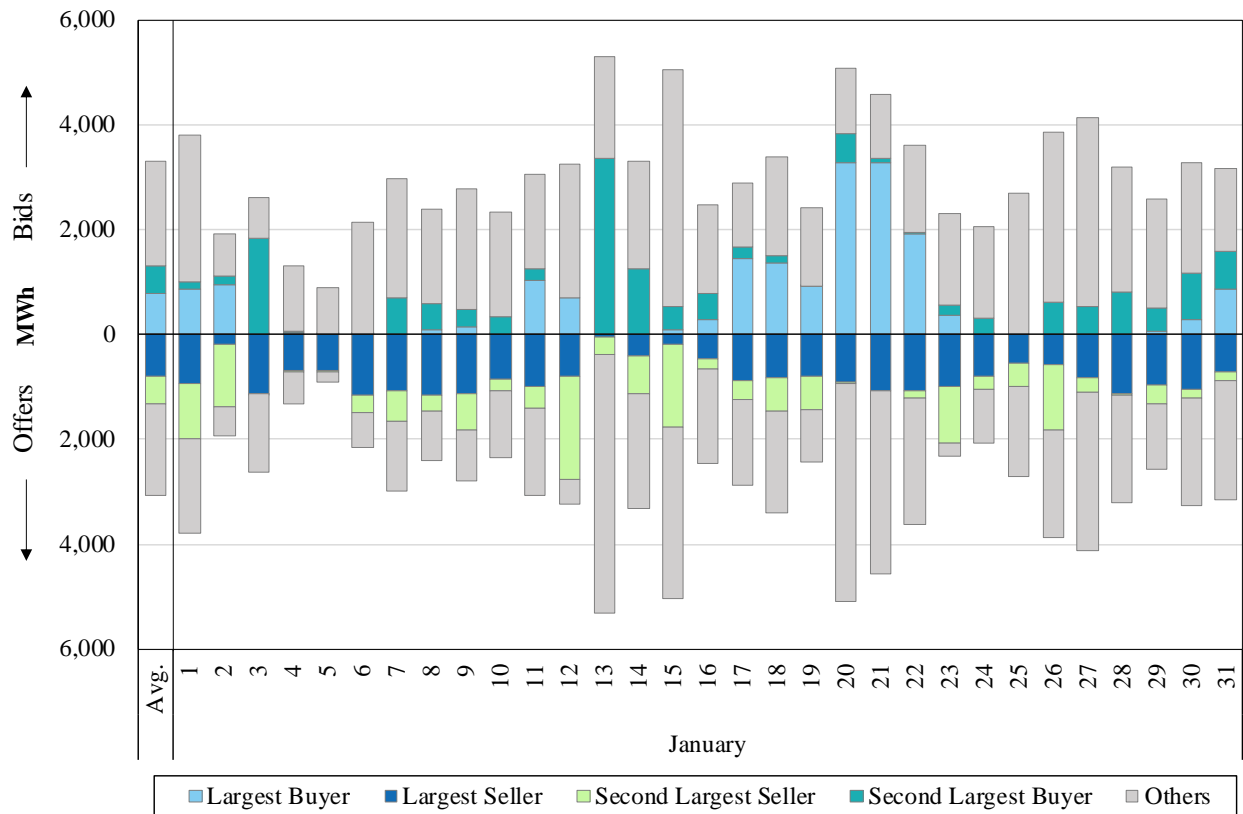
The figure shows certain buyers and sellers comprise significant shares of the transaction activity. For the month, 19 percent of the sales were made by a single seller and 26 percent of the

purchases were made by a single buyer. Since June when new participants joined, these concentration statistics 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. High natural gas prices resulted in relatively high average settlement prices in January.

Figure 5: Monthly Clearing Prices and Natural Gas Costs
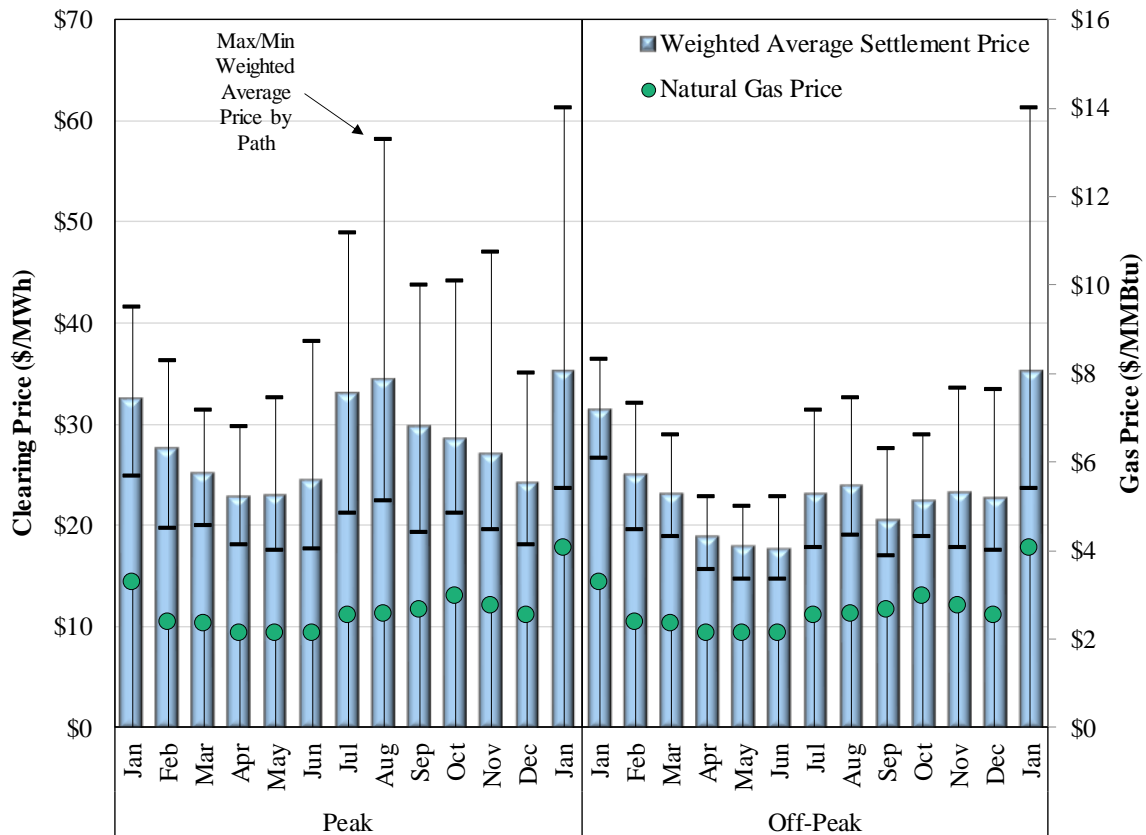
We evaluate the price spreads in more detail in the following two figures. Figure 6 shows the average daily peak-hour prices for January and the prices on the highest-priced and lowest-priced paths for each day. Figure 7 is the same figure but for off-peak hours. The figures shown in the left column are the January prices compared to the previous month. It shows the average prices are slightly higher than the prices in December and higher than the 12-month average.

Figure 6: Average SEEM Clearing Prices: System-Wide and by Path
Peak Hours – January 2024
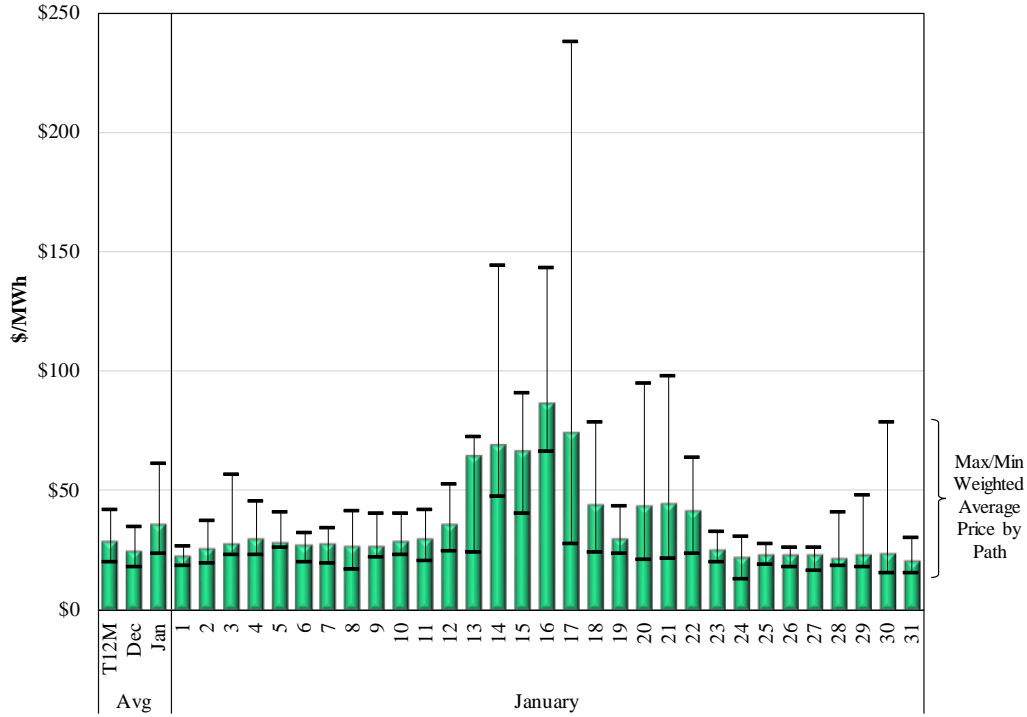
Figure 7: Average SEEM Clearing Prices: System-Wide and by Path
Off-Peak Hours – January 2024
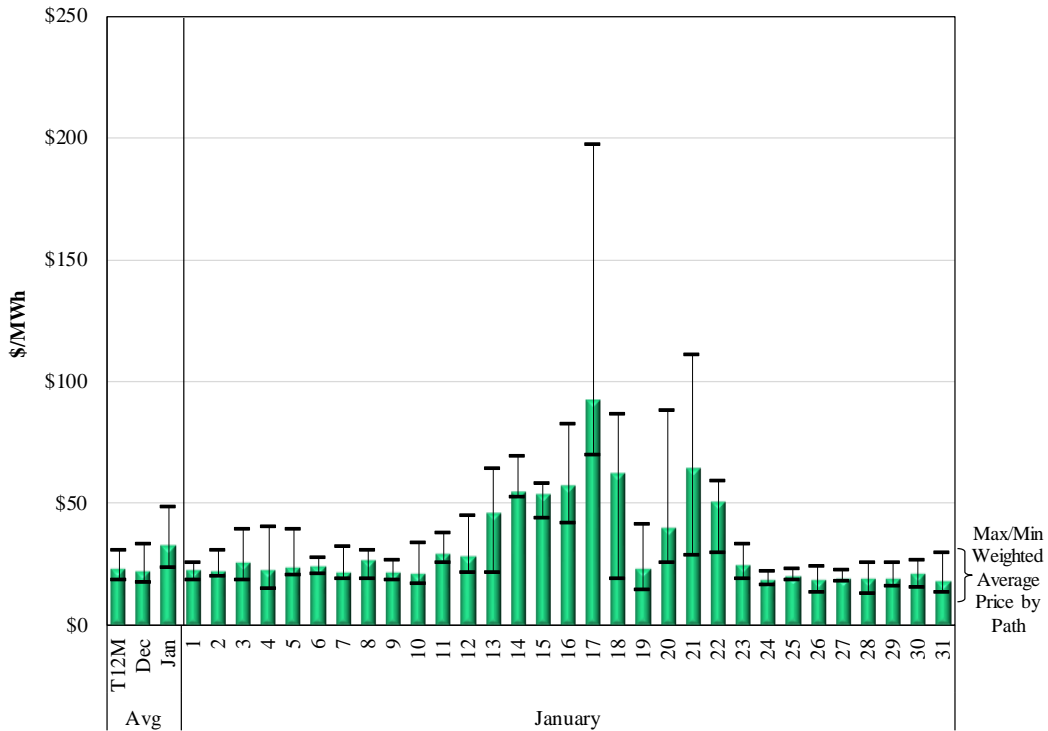
Both figures show increases in prices during winter storm Heather in the middle of January. This is not surprising given natural gas price spikes and generator outages. It does not appear, however, that participants look to the SEEM in extreme load events. Bid and offer data in Figure 1 indicates that during the storm period, both bid and offer volume declined.

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-intervals" which is an observation in a single interval on one segment. Table 1 shows an excerpt of our statistics. The table displays the 39 segments that had more than 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 Segments

January 2024

Segment	ATC			MWhs	Loading Factor	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max			Intervals	%	Intervals	%	Intervals	%	Intervals	%
F/TEC/TEC-FPC//	527	2,244	2,985	25,237	0.015310	2,384	80%	0	0%	0	0%	592	20%
F/FPC/FPC-SOCO//	0	188	332	14,286	0.129219	677	23%	78	3%	850	29%	1371	46%
F/FPC/TEC-FPC//	576	2,293	3,034	13,721	0.008143	1,893	64%	0	0%	0	0%	1083	36%
F/FPC/TEC-SOCO//	0	188	332	11,516	0.104164	1,298	44%	132	4%	850	29%	696	23%
SS/SOCO/FL-SOCO//	-5	795	1,202	11,474	0.019994	1,004	34%	2	0%	11	0%	1959	66%
P/LGEE/LGEE-TVA//	223	1,623	1,623	10,244	0.008816	263	9%	0	0%	0	0%	2713	91%
F/JEA/SOCO-JEA//	271	684	841	9,037	0.018571	1,267	43%	0	0%	0	0%	1709	57%
S/CPL/DUK-CPLE//	675	3,702	7,841	8,474	0.002926	442	15%	0	0%	0	0%	2534	85%
F/FPC/SOCO-FPC//	0	399	480	8,466	0.030187	411	14%	48	2%	20	1%	2497	84%
SS/SOCO/SOCO-FL//	824	1,410	1,568	8,319	0.008088	643	22%	0	0%	0	0%	2333	78%
S/SC/SOCO-SC//	3	1,499	2,237	8,160	0.007184	596	20%	1	0%	1	0%	2378	80%
S/TVA/LGEE-SOCO//	0	2,870	2,983	5,368	0.003001	139	5%	1	0%	242	8%	2594	87%
S/SC/SC-SOCO//	339	2,980	3,742	4,977	0.002291	314	11%	0	0%	0	0%	2662	89%
S/DUK/SOCO-DUK//	0	1,737	2,220	4,542	0.003659	274	9%	2	0%	15	1%	2685	90%
SS/SOCO/FL-SC/MULTIPATHALIAS/	-5	204	768	4,445	0.027044	412	14%	40	1%	104	3%	2420	81%
S/CPL/CPLE-DUK//	745	4,927	7,795	4,416	0.001334	203	7%	0	0%	0	0%	2773	93%
SS/SOCO/SOCO-DUK//	-183	833	1,153	4,115	0.007486	320	11%	0	0%	15	1%	2641	89%
S/DUK/SOCO-CPLE//	0	1,770	2,220	4,052	0.003164	344	12%	0	0%	25	1%	2607	88%
S/DUK/TVA-DUK//	0	692	692	4,016	0.008321	94	3%	13	0%	19	1%	2850	96%
SS/SOCO/TVA-SOCO//	1,124	1,427	1,500	3,995	0.003757	83	3%	0	0%	0	0%	2893	97%
S/TVA/SOCO-TVA//	0	2,087	2,940	3,511	0.002589	211	7%	0	0%	260	9%	2505	84%
S/TVA/TVA-DUK//	0	430	430	3,356	0.011363	102	3%	2	0%	90	3%	2782	93%
S/TVA/LGEE-DUK//	0	430	430	3,206	0.011420	103	3%	21	1%	242	8%	2610	88%
S/DUK/CPLE-SOCO//	1,009	2,157	2,335	2,965	0.001874	185	6%	0	0%	0	0%	2791	94%
SS/SOCO/SC-FL/MULTIPATHALIAS/	297	522	605	2,896	0.007989	216	7%	0	0%	0	0%	2760	93%
SS/SOCO/SOCO-SC//	0	206	876	2,790	0.015874	191	6%	15	1%	93	3%	2677	90%
S/CPL/TVA-DUK//	0	308	308	2,548	0.011426	102	3%	21	1%	18	1%	2835	95%
F/TEC/FPC-TEC//	0	1,964	2,910	2,363	0.001678	220	7%	0	0%	4	0%	2752	92%
S/DUK/TVA-CPLE//	0	692	692	2,361	0.004886	99	3%	8	0%	18	1%	2851	96%
S/DUK/CPLW-CPLE//	0	407	1,243	2,117	0.006248	104	3%	1	0%	4	0%	2867	96%
SS/SOCO/FL-TVA/MULTIPATHALIAS/	-5	795	1,202	2,067	0.003629	179	6%	0	0%	11	0%	2786	94%
SS/SOCO/SOCO-SOCO//	41,450	44,197	44,197	2,025	0.000062	115	4%	0	0%	0	0%	2861	96%
S/CPL/CPLE-SC//	227	3,285	4,420	2,007	0.000861	119	4%	0	0%	0	0%	2857	96%
S/SC/CPLE-SC//	550	1,868	3,423	2,007	0.001417	119	4%	0	0%	0	0%	2857	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 January, there were 714,240 segment intervals.[4] The two circumstances (Cases (2) and (3)) when a segment is constrained occurred in over 30,000 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

---

[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 January, SEEM operated in all intervals.

segment was not used because no beneficial transactions were cleared by the SEEM model over that segment. These cases represent over 660,000 segment intervals or 93 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 (30,352 or about four percent of the time). The third most common case was "Partially Used" (Case 1), where the segment was partially used (20,265 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 (710).

Table 2: Summary of All Segments
January 2024

Segment	Case 1 Partially Used		Case 2 Fully Used		Case 3 Unavailable		Case 4 Uncleared	
	Intervals	%	Intervals	%	Intervals	%	Intervals	%
All Segments	20,265	2.8%	710	0.1%	30,352	4.2%	662,913	92.8%

Measuring transmission capacity by adding Case 2 and 3, the percentage of constrained segment intervals was stable (4 percent in December 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 Segments
January 2024

Segment	ATC Min	ATC Median	ATC Max	MWhs	Loading Factor	Partially Used Intervals	%	Fully Used Intervals	%	Unavailable Intervals	%	Uncleared Intervals	%
F/JEA/SEC-JEA/SSN-JEA/	0	0	0	0	N/A	0	0%	0	0%	2,976	100%	0	0%
S/SCEG/SOCO-SCEG//	0	0	2,714	755	0.002131	74	2%	2	0%	1,743	59%	1157	39%
S/TVA/AECI-CPLW//	0	1	308	17	0.000226	4	0%	0	0%	1,655	56%	1317	44%
S/TVA/AECI-DUK//	0	1	430	26	0.000273	6	0%	0	0%	1,655	56%	1315	44%
S/TVA/AECI-SOCO//	0	1	473	39	0.000405	4	0%	4	0%	1,655	56%	1313	44%
S/TVA/AECI-LGEE//	0	2	473	0	0.000000	0	0%	0	0%	1,626	55%	1350	45%
S/TVA/AECI-TVA//	0	2	473	3	0.000030	0	0%	3	0%	1,594	54%	1379	46%
S/DUK/SCEG-CPLW//	0	227	554	0	0.000000	0	0%	0	0%	865	29%	2111	71%
S/DUK/SC-CPLW//	0	213	554	0	0.000000	0	0%	0	0%	862	29%	2114	71%
F/FPC/SEC-SOCO/SSO-SOCO/	0	146	332	0	0.000000	0	0%	0	0%	850	29%	2126	71%
F/FPC/TEC-SOCO//	0	188	332	11,516	0.104164	1,298	44%	132	4%	850	29%	696	23%
F/FPC/FPC-SOCO//	0	188	332	14,286	0.129219	677	23%	78	3%	850	29%	1371	46%
F/FPC/GVL-SOCO//	0	188	332	0	0.000000	0	0%	0	0%	850	29%	2126	71%
F/FPC/SEC-SOCO/SSN-SOCO/	0	188	332	0	0.000000	0	0%	0	0%	850	29%	2126	71%
S/DUK/SOCO-CPLW//	0	258	554	2	0.000010	1	0%	0	0%	794	27%	2181	73%

III. CONCLUSION

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

Segment	ATC			MWhs	Loading Factor	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max			Intervals	%	Intervals	%	Intervals	%	Intervals	%
F/TEC/TEC-FPC//	527	2,244	2,985	25,237	0.015310	2,384	80%	0	0%	0	0%	592	20%
F/FPC/FPC-SOCO//	0	188	332	14,286	0.129219	677	23%	78	3%	850	29%	1371	46%
F/FPC/TEC-FPC//	576	2,293	3,034	13,721	0.008143	1,893	64%	0	0%	0	0%	1083	36%
F/FPC/TEC-SOCO//	0	188	332	11,516	0.104164	1,298	44%	132	4%	850	29%	696	23%
SS/SOCO/FL-SOCO//	-5	795	1,202	11,474	0.019994	1,004	34%	2	0%	11	0%	1959	66%
P/LGEE/LGEE-TVA//	223	1,623	1,623	10,244	0.008816	263	9%	0	0%	0	0%	2713	91%
F/JEA/SOCO-JEA//	271	684	841	9,037	0.018571	1,267	43%	0	0%	0	0%	1709	57%
S/CPL/DUK-CPLE//	675	3,702	7,841	8,474	0.002926	442	15%	0	0%	0	0%	2534	85%
F/FPC/SOCO-FPC//	0	399	480	8,466	0.030187	411	14%	48	2%	20	1%	2497	84%
SS/SOCO/SOCO-FL//	824	1,410	1,568	8,319	0.008088	643	22%	0	0%	0	0%	2333	78%
S/SC/SOCO-SC//	3	1,499	2,237	8,160	0.007184	596	20%	1	0%	1	0%	2378	80%
S/TVA/LGEE-SOCO//	0	2,870	2,983	5,368	0.003001	139	5%	1	0%	242	8%	2594	87%
S/SC/SC-SOCO//	339	2,980	3,742	4,977	0.002291	314	11%	0	0%	0	0%	2662	89%
S/DUK/SOCO-DUK//	0	1,737	2,220	4,542	0.003659	274	9%	2	0%	15	1%	2685	90%
SS/SOCO/FL-SC-MULTIPATHALIAS/	-5	204	768	4,445	0.027044	412	14%	40	1%	104	3%	2420	81%
S/CPL/CPLE-DUK//	745	4,927	7,795	4,416	0.001334	203	7%	0	0%	0	0%	2773	93%
SS/SOCO/SOCO-DUK//	-183	833	1,153	4,115	0.007486	320	11%	0	0%	15	1%	2641	89%
S/DUK/SOCO-CPLE//	0	1,770	2,220	4,052	0.003164	344	12%	0	0%	25	1%	2607	88%
S/DUK/TVA-DUK//	0	692	692	4,016	0.008321	94	3%	13	0%	19	1%	2850	96%
SS/SOCO/TVA-SOCO//	1,124	1,427	1,500	3,995	0.003757	83	3%	0	0%	0	0%	2893	97%
S/TVA/SOCO-TVA//	0	2,087	2,940	3,511	0.002589	211	7%	0	0%	260	9%	2505	84%
S/TVA/TVA-DUK//	0	430	430	3,356	0.011363	102	3%	2	0%	90	3%	2782	93%
S/TVA/LGEE-DUK//	0	430	430	3,206	0.011420	103	3%	21	1%	242	8%	2610	88%
S/DUK/CPLE-SOCO//	1,009	2,157	2,335	2,965	0.001874	185	6%	0	0%	0	0%	2791	94%
SS/SOCO/SC-FL-MULTIPATHALIAS/	297	522	605	2,896	0.007989	216	7%	0	0%	0	0%	2760	93%
SS/SOCO/SOCO-SC//	0	206	876	2,790	0.015874	191	6%	15	1%	93	3%	2677	90%
S/CPL/TVA-DUK//	0	308	308	2,548	0.011426	102	3%	21	1%	18	1%	2835	95%
F/TEC/FPC-TEC//	0	1,964	2,910	2,363	0.001678	220	7%	0	0%	4	0%	2752	92%
S/DUK/TVA-CPLE//	0	692	692	2,361	0.004886	99	3%	8	0%	18	1%	2851	96%
S/DUK/CPLW-CPLE//	0	407	1,243	2,117	0.006248	104	3%	1	0%	4	0%	2867	96%
SS/SOCO/FL-TVA/MULTIPATHALIAS/	-5	795	1,202	2,067	0.003629	179	6%	0	0%	11	0%	2786	94%
SS/SOCO/SOCO-SOCO//	41,450	44,197	44,197	2,025	0.000062	115	4%	0	0%	0	0%	2861	96%
S/CPL/CPLE-SC//	227	3,285	4,420	2,007	0.000861	119	4%	0	0%	0	0%	2857	96%
S/SC/CPLE-SC//	550	1,868	3,423	2,007	0.001417	119	4%	0	0%	0	0%	2857	96%
S/CPL/SC-CPLE//	0	1,462	2,895	1,961	0.001769	199	7%	0	0%	3	0%	2774	93%
SS/SOCO/FL-DUK/MULTIPATHALIAS/	-183	747	1,118	1,944	0.003978	221	7%	9	0%	26	1%	2720	91%
F/JEA/JEA-SOCO//	0	477	695	1,900	0.006103	222	7%	87	3%	40	1%	2627	88%
F/FPC/SOCO-TEC//	0	399	480	1,742	0.006229	159	5%	1	0%	24	1%	2792	94%
SS/SOCO/DUK-SOCO//	341	905	983	1,727	0.002695	86	3%	1	0%	0	0%	2889	97%
S/AECI/TVA-AECI//	0	550	943	1,670	0.004642	67	2%	31	1%	84	3%	2794	94%
S/TVA/TVA-SOCO//	0	2,884	2,973	1,665	0.000877	62	2%	0	0%	218	7%	2696	91%
S/DUK/DUK-SOCO//	0	2,152	2,335	1,577	0.001006	342	11%	0	0%	5	0%	2629	88%
SS/SOCO/SC-SOCO//	297	522	605	1,516	0.004182	110	4%	0	0%	0	0%	2866	96%
S/TVA/LGEE-CPLW//	0	308	308	1,493	0.007164	82	3%	2	0%	242	8%	2650	89%
S/MEAG/FPC-MEAG//	0	47	203	1,430	0.033971	120	4%	48	2%	286	10%	2522	85%
S/CPL/SCEG-CPLE//	0	709	835	1,375	0.002560	161	5%	0	0%	42	1%	2773	93%
S/MEAG/SOCO-MEAG//	2,662	3,092	3,292	1,303	0.000572	111	4%	0	0%	0	0%	2865	96%
SS/SOCO/DUK-FL/MULTIPATHALIAS/	341	905	983	1,279	0.001996	224	8%	0	0%	0	0%	2752	92%
S/SC/SC-CPLE//	0	2,721	4,198	1,161	0.000558	135	5%	0	0%	4	0%	2837	95%
S/SCEG/DUK-SCEG//	0	179	536	1,091	0.008269	144	5%	16	1%	270	9%	2546	86%
S/TVA/TVA-CPLW//	0	308	308	1,035	0.004667	51	2%	0	0%	70	2%	2855	96%
S/SCEG/SOCO-CPLE//	0	671	872	993	0.002012	95	3%	0	0%	40	1%	2841	95%
S/SCEG/CPLE-SCEG//	0	418	678	933	0.002885	91	3%	0	0%	6	0%	2879	97%
S/DUK/CPLE-TVA//	0	692	692	920	0.001981	50	2%	0	0%	9	0%	2917	98%
S/SCEG/SC-SCEG//	0	6,086	6,234	873	0.000240	98	3%	0	0%	2	0%	2876	97%
S/SC/SOCO-CPLE//	0	2,284	2,824	797	0.000479	71	2%	0	0%	1	0%	2904	98%
S/CPL/CPLE-SCEG//	0	476	602	767	0.002065	59	2%	0	0%	4	0%	2913	98%
S/SCEG/SOCO-SCEG//	0	0	2,714	755	0.002131	74	2%	2	0%	1,743	59%	1157	39%
S/DUK/SOCO-SCEG//	0	181	679	738	0.003722	103	3%	2	0%	11	0%	2860	96%
SS/SOCO/SOCO-TVA//	133	1,949	2,907	717	0.000521	41	1%	0	0%	0	0%	2935	99%

Appendix A (continued)

Segment	ATC			MWhs	Loading Factor	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max			Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/SC/DUK-SC//	497	1,721	2,818	713	0.000552	149	5%	0	0%	0	0%	2827	95%
S/TVA/DUK-AECI//	0	430	430	700	0.002908	41	1%	5	0%	415	14%	2515	85%
SS/SOCO/FL-SCEG/MULTIPATHALIAS/	-5	119	166	677	0.008282	76	3%	20	1%	29	1%	2851	96%
SS/SOCO/TVA-FL/MULTIPATHALIAS/	824	1,343	1,493	645	0.000646	33	1%	0	0%	0	0%	2943	99%
F/FPC/FPC-TEC//	0	2,004	2,950	621	0.000431	64	2%	0	0%	4	0%	2908	98%
S/SCEG/SCEG-SOCO//	0	3,688	6,413	620	0.000233	82	3%	0	0%	32	1%	2862	96%
S/TVA/SOCO-AECI//	0	686	686	598	0.001569	40	1%	4	0%	539	18%	2393	80%
SS/GTC/GTC-SOCO//	20,000	20,000	20,000	555	0.000037	20	1%	0	0%	0	0%	2956	99%
S/CPL/DUK-TVA//	88	308	308	544	0.002384	34	1%	0	0%	0	0%	2942	99%
S/DUK/CPLE-CPLW//	0	337	554	542	0.002381	33	1%	0	0%	640	22%	2303	77%
S/MEAG/MEAG-SOCO//	2,444	2,644	3,042	537	0.000270	28	1%	0	0%	0	0%	2948	99%
S/DUK/SC-DUK//	0	1,622	2,916	537	0.000445	39	1%	0	0%	8	0%	2929	98%
S/MEAG/DUK-MEAG//	47	124	224	530	0.005113	53	2%	3	0%	0	0%	2920	98%
S/SC/SC-DUK//	614	2,464	3,510	524	0.000288	42	1%	0	0%	0	0%	2934	99%
SS/SOCO/TVA-DUK/MULTIPATHALIAS/	-183	833	1,153	512	0.000931	21	1%	1	0%	15	1%	2939	99%
S/SC/SOCO-SCEG//	342	1,424	2,140	485	0.000442	54	2%	0	0%	0	0%	2922	98%
SS/GTC/GTC-DUK//	0	472	690	469	0.001398	29	1%	0	0%	50	2%	2897	97%
S/TVA/DUK-TVA//	0	430	430	441	0.001635	39	1%	1	0%	114	4%	2822	95%
S/DUK/CPLW-DUK//	0	396	1,243	422	0.001282	19	1%	1	0%	5	0%	2951	99%
S/DUK/DUK-SC//	716	2,007	2,887	417	0.000281	118	4%	0	0%	0	0%	2858	96%
SS/GTC/SC-GTC//	56	197	229	404	0.002950	22	1%	2	0%	0	0%	2952	99%
S/SC/SC-SCEG//	358	2,983	4,657	389	0.000173	45	2%	0	0%	0	0%	2931	98%
S/TVA/CPLW-AECI//	0	308	308	372	0.001914	25	1%	0	0%	389	13%	2562	86%
S/SCEG/SCEG-CPLE//	0	671	872	366	0.000758	66	2%	0	0%	40	1%	2870	96%
S/MEAG/MEAG-DUK//	0	104	190	353	0.004713	32	1%	4	0%	84	3%	2856	96%
SS/GTC/GTC-TVA//	304	586	699	329	0.000775	15	1%	0	0%	0	0%	2961	100%
S/MEAG/MEAG-JEA//	0	249	321	327	0.001918	50	2%	0	0%	18	1%	2908	98%
S/MEAG/MEAG-FPC//	0	249	321	310	0.001818	37	1%	0	0%	18	1%	2921	98%
S/DUK/SOCO-SC//	0	1,551	2,220	296	0.000253	37	1%	0	0%	3	0%	2936	99%
SS/GTC/SOCO-GTC//	11,427	13,099	14,336	241	0.000025	19	1%	0	0%	0	0%	2957	99%
SS/SOCO/SCEG-SOCO//	3	208	208	238	0.001711	20	1%	0	0%	34	1%	2922	98%
SS/SOCO/SCEG-FL/MULTIPATHALIAS/	3	208	208	228	0.001639	40	1%	2	0%	34	1%	2900	97%
S/SC/SCEG-SC//	872	1,198	2,170	215	0.000237	23	1%	0	0%	0	0%	2953	99%
S/SCEG/SCEG-SC//	0	4,449	6,126	215	0.000072	23	1%	0	0%	50	2%	2903	98%
SS/SOCO/TVA-SCEG/MULTIPATHALIAS/	0	119	166	209	0.002520	24	1%	6	0%	18	1%	2928	98%
S/DUK/TVA-SCEG//	0	181	681	192	0.001023	25	1%	5	0%	25	1%	2921	98%
S/MEAG/TVA-MEAG//	0	75	212	187	0.002979	12	0%	2	0%	6	0%	2956	99%
S/CPL/DUK-SCEG//	0	476	602	184	0.000495	34	1%	0	0%	4	0%	2938	99%
SS/SOCO/SOCO-SCEG//	0	119	166	184	0.002219	26	1%	12	0%	18	1%	2920	98%
S/DUK/DUK-SCEG//	0	182	682	177	0.000889	43	1%	0	0%	11	0%	2922	98%
S/TVA/LGEE-TVA//	0	3,000	3,000	177	0.000088	9	0%	0	0%	24	1%	2943	99%
SS/GTC/GTC-SC//	0	226	354	173	0.001060	12	0%	1	0%	120	4%	2843	96%
S/TVA/CPLW-TVA//	0	308	308	172	0.000755	9	0%	0	0%	18	1%	2949	99%
S/MEAG/SC-MEAG//	0	75	111	145	0.002756	8	0%	6	0%	24	1%	2938	99%
S/MEAG/GTC-MEAG//	1,740	2,070	2,295	143	0.000093	16	1%	0	0%	0	0%	2960	99%
SS/GTC/GTC-JEA//	709	931	995	141	0.000204	21	1%	0	0%	0	0%	2955	99%
S/DUK/DUK-TVA//	0	692	692	135	0.000291	27	1%	0	0%	12	0%	2937	99%
S/DUK/DUK-CPLE//	226	3,514	7,395	128	0.000049	26	1%	0	0%	0	0%	2950	99%
SS/GTC/GTC-MEAG//	9,699	9,999	9,999	122	0.000016	8	0%	0	0%	0	0%	2968	100%
S/DUK/SCEG-DUK//	0	669	748	117	0.000236	24	1%	0	0%	40	1%	2912	98%
S/SCEG/SCEG-DUK//	0	770	1,006	100	0.000182	26	1%	0	0%	40	1%	2910	98%
SS/SOCO/TVA-SC/MULTIPATHALIAS/	0	206	876	99	0.000563	7	0%	2	0%	93	3%	2874	97%
P/LGEE/TVA-LGEE//	535	1,421	1,424	99	0.000095	3	0%	0	0%	0	0%	2973	100%
S/TVA/TVA-LGEE//	0	2,525	3,000	99	0.000061	3	0%	0	0%	28	1%	2945	99%
S/MEAG/MEAG-SC//	0	28	39	97	0.005102	8	0%	14	0%	36	1%	2918	98%
S/MEAG/MEAG-GTC//	2,376	2,601	2,901	96	0.000049	5	0%	0	0%	0	0%	2971	100%
SS/GTC/FPC-GTC//	0	212	631	90	0.000500	7	0%	0	0%	174	6%	2795	94%
S/AECI/AECI-TVA//	0	101	854	85	0.000500	20	1%	1	0%	321	11%	2634	89%
SS/GTC/MEAG-GTC//	8,499	8,599	8,899	80	0.000012	4	0%	0	0%	0	0%	2972	100%
SS/GTC/GTC-FPC//	709	931	995	67	0.000097	7	0%	0	0%	0	0%	2969	100%

Appendix A (continued)

Segment	ATC			MWhs	Loading Factor	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max			Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/SC/SOCO-DUK//	511	2,301	2,824	52	0.000030	2	0%	0	0%	0	0%	2974	100%
S/SCEG/SOCO-DUK//	0	771	1,006	52	0.000091	3	0%	0	0%	4	0%	2969	100%
SS/SOCO/SCEG-TVA/MULTIPATHALIAS/	3	208	208	52	0.000375	6	0%	0	0%	34	1%	2936	99%
SS/GTC/JEA-GTC//	0	212	631	47	0.000261	7	0%	0	0%	174	6%	2795	94%
S/MEAG/MEAG-TVA//	0	125	192	46	0.000544	2	0%	2	0%	8	0%	2964	100%
SS/GTC/DUK-GTC//	16	569	618	44	0.000114	5	0%	0	0%	0	0%	2971	100%
SS/GTC/SCEG-GTC//	75	114	114	40	0.000508	3	0%	0	0%	0	0%	2973	100%
S/TVA/AECI-SOCO//	0	1	473	39	0.000405	4	0%	4	0%	1,655	56%	1313	44%
S/DUK/SC-TVA//	0	692	692	39	0.000084	5	0%	0	0%	12	0%	2959	99%
S/MEAG/SCEG-MEAG//	16	24	24	35	0.002127	5	0%	5	0%	0	0%	2966	100%
S/DUK/SCEG-TVA//	0	668	692	35	0.000079	6	0%	0	0%	51	2%	2919	98%
S/DUK/TVA-SOCO//	0	692	692	28	0.000058	4	0%	1	0%	4	0%	2967	100%
S/TVA/AECI-DUK//	0	1	430	26	0.000273	6	0%	0	0%	1,655	56%	1315	44%
S/MEAG/JEA-MEAG//	0	47	203	24	0.000570	1	0%	16	1%	286	10%	2673	90%
S/SCEG/CPLE-SOCO//	226	418	678	18	0.000055	2	0%	0	0%	0	0%	2974	100%
S/TVA/AECI-CPLW//	0	1	308	17	0.000226	4	0%	0	0%	1,655	56%	1317	44%
S/SCEG/DUK-CPLE//	0	185	536	16	0.000110	1	0%	0	0%	20	1%	2955	99%
S/TVA/SOCO-DUK//	0	430	430	15	0.000056	1	0%	0	0%	294	10%	2681	90%
S/DUK/SOCO-TVA//	0	692	692	12	0.000026	1	0%	0	0%	8	0%	2967	100%
S/DUK/CPLW-SOCO//	0	416	1,243	9	0.000026	1	0%	0	0%	4	0%	2971	100%
SS/SOCO/SCEG-DUK/MULTIPATHALIAS/	-183	208	208	8	0.000059	2	0%	0	0%	49	2%	2925	98%
S/MEAG/MEAG-SCEG//	0	14	19	7	0.000737	0	0%	3	0%	96	3%	2877	97%
S/DUK/TVA-SC//	0	692	692	6	0.000012	1	0%	0	0%	14	0%	2961	100%
S/SC/DUK-CPLE//	3,451	3,611	4,045	6	0.000002	1	0%	0	0%	0	0%	2975	100%
SS/GTC/GTC-SCEG//	12	68	90	5	0.000107	1	0%	0	0%	0	0%	2975	100%
S/TVA/SOCO-CPLW//	0	308	308	3	0.000015	1	0%	0	0%	260	9%	2715	91%
S/TVA/AECI-TVA//	0	2	473	3	0.000030	0	0%	3	0%	1,594	54%	1379	46%
S/CPL/SC-DUK//	552	2,620	4,654	3	0.000001	1	0%	0	0%	0	0%	2975	100%
S/DUK/SOCO-CPLW//	0	258	554	2	0.000010	1	0%	0	0%	794	27%	2181	73%
SS/GTC/TVA-GTC//	151	337	353	1	0.000004	1	0%	0	0%	0	0%	2975	100%
S/SCEG/SC-SOCO//	4,600	6,090	6,237	1	0.000000	1	0%	0	0%	0	0%	2975	100%
S/SCEG/SOCO-SC//	750	6,120	6,313	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/TVA/DUK-LGEE//	0	430	430	0	0.000000	0	0%	0	0%	114	4%	2862	96%
S/TVA/LGEE-AECI//	0	686	686	0	0.000000	0	0%	0	0%	389	13%	2587	87%
S/DUK/SC-CPLE//	157	2,730	2,916	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/SC/DUK-SCEG//	540	1,892	4,045	0	0.000000	0	0%	0	0%	0	0%	2976	100%
SS/SOCO/SC-TVA/MULTIPATHALIAS/	133	522	605	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/DUK/SCEG-CPLE//	0	669	748	0	0.000000	0	0%	0	0%	39	1%	2937	99%
S/DUK/SCEG-SC//	318	669	748	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/SC/CPLE-SOCO//	2,912	3,434	3,899	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/CPL/SC-SCEG//	276	476	602	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/DUK/CPLE-DUK//	0	3,391	6,212	0	0.000000	0	0%	0	0%	1	0%	2975	100%
S/SCEG/DUK-SC//	0	186	536	0	0.000000	0	0%	0	0%	16	1%	2960	99%
S/DUK/SC-SCEG//	0	182	682	0	0.000000	0	0%	0	0%	7	0%	2969	100%
S/CPL/SCEG-DUK//	0	709	835	0	0.000000	0	0%	0	0%	39	1%	2937	99%
S/DUK/CPLE-SCEG//	0	182	682	0	0.000000	0	0%	0	0%	11	0%	2965	100%
S/CPL/DUK-SC//	204	3,116	4,420	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/DUK/CPLE-SC//	949	2,569	2,887	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/SCEG/CPLE-DUK//	226	418	678	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/TVA/DUK-SOCO//	0	430	430	0	0.000000	0	0%	0	0%	114	4%	2862	96%
S/DUK/SCEG-SOCO//	318	669	748	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/DUK/CPLW-SCEG//	0	181	681	0	0.000000	0	0%	0	0%	15	1%	2961	100%
S/TVA/CPLW-SOCO//	0	308	308	0	0.000000	0	0%	0	0%	18	1%	2958	99%
S/SCEG/DUK-SOCO//	0	186	536	0	0.000000	0	0%	0	0%	16	1%	2960	99%
SS/SOCO/DUK-TVA/MULTIPATHALIAS/	133	888	983	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/DUK/DUK-CPLW//	0	422	554	0	0.000000	0	0%	0	0%	451	15%	2525	85%
F/FPC/GVL-FPC//	0	350	413	0	0.000000	0	0%	0	0%	4	0%	2972	100%
F/FPC/FPC-GVL//	115	187	301	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/TEC-FPC/TEC-FPCS/	576	2,293	3,030	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/TEC/SEC-FPC/SSO-FPC/	74	397	729	0	0.000000	0	0%	0	0%	0	0%	2976	100%

Appendix A (continued)

Segment	ATC			MWhs	Loading Factor	Partially Used		Fully Used		Unavailable		Uncleared	
	Min	Median	Max			Intervals	%	Intervals	%	Intervals	%	Intervals	%
S/SCEG/CPLE-SC//	226	418	678	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/SOCO-SEC/SOCO-SSN/	0	399	480	0	0.000000	0	0%	0	0%	20	1%	2956	99%
F/FPC/GVL-FPC/GVL-FPCS/	0	350	413	0	0.000000	0	0%	0	0%	4	0%	2972	100%
F/TEC/SEC-TEC/SSO-TEC/	74	397	729	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/FPC-SEC/FPC-SSN/	297	970	1,190	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/SEC-FPC/SSO-FPCS/	311	651	1,068	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/SOCO-FPC/SOCO-FPCS/	0	399	480	0	0.000000	0	0%	0	0%	36	1%	2940	99%
F/JEA/SOCO-SEC/SOCO-SSN/	524	524	524	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/SCEG/SC-CPLE//	411	671	872	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/SC/DUK-SOCO//	1,471	3,433	3,780	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/TVA/DUK-CPLW//	0	308	308	0	0.000000	0	0%	0	0%	114	4%	2862	96%
S/TVA/CPLW-LGEE//	0	308	308	0	0.000000	0	0%	0	0%	18	1%	2958	99%
F/FPC/GVL-TEC//	0	351	414	0	0.000000	0	0%	0	0%	4	0%	2972	100%
S/CPL/DUK-CPLW//	371	864	930	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/DUK/SC-SOCO//	441	1,971	2,335	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/CPL/SCEG-SC//	461	709	835	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/SEC-FPC/SSN-FPCS/	0	358	926	0	0.000000	0	0%	0	0%	44	1%	2932	99%
S/DUK/CPLW-TVA//	0	374	692	0	0.000000	0	0%	0	0%	8	0%	2968	100%
S/CPL/CPLW-TVA//	0	308	308	0	0.000000	0	0%	0	0%	8	0%	2968	100%
F/FPC/SEC-SOCO/SSN-SOCO/	0	188	332	0	0.000000	0	0%	0	0%	850	29%	2126	71%
S/DUK/CPLW-SC//	0	403	1,243	0	0.000000	0	0%	0	0%	4	0%	2972	100%
F/FPC/SEC-GVL/SSN-GVL/	111	183	298	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/TEC/TEC-SEC/TEC-SSO/	264	447	684	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/JEA/SEC-SOCO/SSN-SOCO/	0	477	637	0	0.000000	0	0%	0	0%	40	1%	2936	99%
S/CPL/TVA-CPLW//	0	308	308	0	0.000000	0	0%	0	0%	39	1%	2937	99%
F/FPC/SEC-TEC/SSN-TEC/	0	792	1,343	0	0.000000	0	0%	0	0%	4	0%	2972	100%
F/FPC/TEC-GVL//	111	183	298	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/FPC-FPC/FPC-FPCS/	2,238	3,235	3,855	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/SC/SCEG-CPLE//	0	2,868	3,186	0	0.000000	0	0%	0	0%	1	0%	2975	100%
S/SC/SCEG-DUK//	1,249	3,049	3,242	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/TEC-SEC/TEC-SSN/	197	975	1,189	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/SCEG/SC-DUK//	408	771	1,006	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/SC/SCEG-SOCO//	1,878	3,066	3,186	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/SEC-FPC/SSO-FPC/	311	651	1,068	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/SEC-SOCO/SSO-SOCO/	0	146	332	0	0.000000	0	0%	0	0%	850	29%	2126	71%
F/FPC/SEC-FPC/SSN-FPC/	0	358	926	0	0.000000	0	0%	0	0%	44	1%	2932	99%
F/FPC/GVL-SOCO//	0	188	332	0	0.000000	0	0%	0	0%	850	29%	2126	71%
F/FPC/GVL-SEC/GVL-SSN/	224	357	409	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/SEC-GVL/SSO-GVL/	74	172	298	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/JEA/JEA-SEC/JEA-SSN/	318	518	518	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/FPC/SEC-TEC/SSO-TEC/	74	397	778	0	0.000000	0	0%	0	0%	0	0%	2976	100%
F/JEA/SEC-JEA/SSN-JEA/	0	0	0	0	N/A	0	0%	0	0%	2,976	100%	0	0%
F/FPC/SOCO-GVL//	0	179	297	0	0.000000	0	0%	0	0%	20	1%	2956	99%
F/FPC/SEC-SEC/SSO-SSN/	74	397	778	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/CPL/CPLW-DUK//	47	1,180	1,652	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/DUK/SC-CPLW//	0	213	554	0	0.000000	0	0%	0	0%	862	29%	2114	71%
S/DUK/SCEG-CPLW//	0	227	554	0	0.000000	0	0%	0	0%	865	29%	2111	71%
S/DUK/TVA-CPLW//	0	338	554	0	0.000000	0	0%	0	0%	633	21%	2343	79%
S/SC/CPLE-DUK//	3,325	3,759	3,919	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/SC/CPLE-SCEG//	557	1,928	4,655	0	0.000000	0	0%	0	0%	0	0%	2976	100%
S/TVA/AECI-LGEE//	0	2	473	0	0.000000	0	0%	0	0%	1,626	55%	1350	45%
S/TVA/CPLW-DUK//	0	308	308	0	0.000000	0	0%	0	0%	52	2%	2924	98%
S/TVA/SOCO-LGEE//	0	1,600	2,740	0	0.000000	0	0%	0	0%	260	9%	2716	91%
S/TVA/TVA-AECI//	0	686	686	0	0.000000	0	0%	0	0%	389	13%	2587	87%
SS/GTC/GTC-GTC//	25,135	25,835	25,835	0	0.000000	0	0%	0	0%	0	0%	2976	100%
SS/SOCO/DUK-SC/MULTIPATHALIAS/	0	206	876	0	0.000000	0	0%	0	0%	93	3%	2883	97%
SS/SOCO/DUK-SCEG/MULTIPATHALIAS/	0	119	166	0	0.000000	0	0%	0	0%	18	1%	2958	99%
SS/SOCO/SC-DUK/MULTIPATHALIAS/	-183	522	605	0	0.000000	0	0%	0	0%	15	1%	2961	100%
SS/SOCO/SC-SCEG/MULTIPATHALIAS/	0	119	166	0	0.000000	0	0%	0	0%	18	1%	2958	99%
SS/SOCO/SCEG-SC/MULTIPATHALIAS/	0	152	208	0	0.000000	0	0%	0	0%	127	4%	2849	96%