Technical Consultant's Final Report

To the Delaware Public Service Commission

Delmarva Power & Light's 2024 Request for Proposals for

Full Requirements Wholesale Electric Supply for Standard Offer Service

February 21, 2024

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I. Executive Summary

A. Introduction

The Delaware Public Service Commission (DE PSC) retained The Liberty Consulting Group, Inc. (Liberty) to monitor Delmarva Power & Light's (Delmarva) 2024 Request for Proposals (RFP) for Full Requirements Supply for its Standard Offer Service (SOS). Liberty presents this report to the DE PSC with its findings on the process and the auction results of the RFP.

Liberty is based in Lebanon, PA and has been providing regulatory consulting services to the energy industry since 1987. Its consultants are experts in electric utility operations and regulatory issues. Liberty has provided energy procurement monitoring services in multiple state jurisdictions and a broad range of procurement formats.

B. Results

Delmarva performed two auction sessions for the 2024 RFP. Tranche 1 was held on November 6, 2023, and Tranche 2 was held on January 29, 2024. This 2024 RFP procured supply for all four of Delmarva's retail customer classes as follows:

Table 1: SOS Supply Delivery Periods by Customer Class

Customer Type	Term (years)	Delivery Period
Residential and Small Commercial & Industrial (RSCI)	2	06/01/2024 – 05/31/2026
Medium General Service – Secondary (MGS)	1	06/01/2024 – 05/31/2025
Large General Service – Secondary (LGS)	1	06/01/2024 – 05/31/2025
General Service – Primary (GS-P)	1	06/01/2024 – 05/31/2025

Overall, Delmarva's RFP was a success and resulted in prices reflective of market conditions. Participation was satisfactory and fostered a competitive bidding process. The RFP process was run successfully from start to finish. The processes were carried out as expected and the Enel X auction platform performed as expected. The ultimate winning bids were consistent with regional market conditions.

Average winning bid prices for both the 2023 and 2024 RFPs are shown in Table 2 (average of all blocks in all tranches for each year), along with the actual and percentage change in prices. Year over year, the weighted average auction prices were substantially lower for all customer classes, largely due to lower wholesale energy prices.

Table 2: Weighted Average Winning Bid Price by Delivery Year ($/MWh)

Customer Type	2023	2024	Change	% Change
RSCI	84.35	69.90	(14.45)	-17.1%
MGS	77.61	67.44	(10.17)	-13.1%
LGS	102.20	88.03	(14.17)	-13.9%
GS-P	98.02	79.58	(18.44)	-18.8%

The customer bill impacts of the winning wholesale energy prices are estimated by Delmarva to be as follows in Table 3. More detail on these estimated impacts is provided in Section III: Auction Results & Prices.

Table 3: Estimated Average Monthly Customer Bill and Impact per Delmarva[1]

Class	02/01/2024	06/01/2024	$ Change	% Change
Res (840 kWh)	$147.43	$152.67	$5.24	3.6%
SGS-ND	$138 - $591	$143 - $613	$4.57 - $21.91	3.3% - 3.7%
MGS	$495 - $9,467	$461 - $8,680	($34.83) – ($786.59)	(7.0%) - (8.3%)
LGS	$10,005 - $116,654	$9,186 - $106,832	($820) - ($9,822)	(8.2%) - (8.4%)
GS-P	$994 - $225,039	$972 - $195,841	($21) – ($29,198)	(2.1%) – (13.0%)

C. Findings & Conclusions

Liberty monitored the auction process in its entirety. Pre-bid monitoring included reviews of announcements, bidder communication, bidder certification, bid system training, energy and capacity markets, and bid system performance. Bid day monitoring included remote monitoring of the auction, verification of bids, notification of winners, and contract signing.

Liberty has concluded that each element of the entire process, including both the Tranche 1 and Tranche 2 auctions, was run professionally and resulted in bids that were consistent with expectations based on market conditions. The Enel X auction platform performed as expected, with no issues. However, Liberty is concerned with the lack of competition in for LGS and GS-P blocks.

II. RFP Overview

Since 2006, Delmarva has performed an RFP to procure wholesale electricity to serve its Standard Offer Service (SOS) customers. SOS customers receive comprehensive default electricity service from Delmarva vs. a non-utility, third party supply for generation. Each year, blocks of power to meet the SOS load are purchased from the winning bidders in this multi-tranche auction. The process consists of two tranches, the first of which is in November and the second in late January or early February. If required, a third tranche is available—a rare occurrence—and in this year's process a third tranche was not needed[2]. The final bid plans defining blocks were provided by Delmarva and are shown in Appendix 1 (Tranche 1) and Appendix 2 (Tranche 2).

[1]These comparisons are estimates and are subject to change as the annual adjustments to transmission, procurement cost, renewable energy portfolio standards, Qualified Fuel Cell Provider Projects-Renewable Capable Power Production, and reasonable allowance for retail margin are not yet included for the supply year beginning 06/01/2024.

[2] A Third Tranche was necessary in 2006 and in 2023.

Blocks are bid for Residential, Small Commercial, and Industrial (RSCI), Medium General Service (MGS), Large General Service (LGS) and General Service-Primary (GS-P). Auctions for each block are held electronically with a web-based platform provided by Enel X. Bidders apply for approval, and approved bidders are granted access to and training on the Enel X platform. Tables 4 and 5 display the quantity and size of each block by customer class for Tranche 1 and 2, respectively, totaling approximately 571 MW for the year.

Table 4: Tranche 1 Block Summary

Service Type	Blocks	MW Per Block	Total MW
RSCI	4	54.2	216.7
MGS	2	36.6	73.3
LGS	1	11.5	11.5
GS-P	1	15.9	15.9
Total			**317.3**

Table 5: Tranche 2 Block Summary

Service Type	Blocks	MW Per Block	Total MW
RSCI	4	54.2	216.7
MGS	1	36.6	36.6
Total			**253.3**

One of the keys to a competitive RFP for power is active participation from power suppliers. To ensure adequate participation, Delmarva announces its RFP by issuing a press release to media channels and directly to known suppliers. As a result, thirteen companies submitted expressions of interest in this RFP, and nine ultimately became eligible. Table 6 displays historical participation since 2019, up to and including this most recent auction.

Table 6: Bidder Participation

Participants	2019	2020	2021	2022	2023	2024
EOIs	10	12	13	12	10	17
Eligible Bidders	7	9	9	8	7	8
Actual Bidders	6	9	9	8	4	7

Table 7 lists the suppliers who successfully bid (won) any of the blocks in Tranche 1 or 2. Five companies won blocks in this year's tranches as compared to four in the 2023 procurement.

Table 7: Tranche 1 & 2 Winning Bidders

Company
Axpo
Constellation
DTE
Hartree
Vitol

Table 8 displays the percentage of MWs served for the 2024 delivery period, which includes RSCI blocks won in 2023 and 2024.

Table 8: Suppliers for 2024 Delivery Period and Percentage of Load Served

Supplier	RSCI	MGS	LGS	GS-P	Total
Axpo	12.5%				10.8%
Constellation	31.3%	100.0%	100.0%	100.0%	40.7%
DTE	18.8%				16.2%
Hartree	12.5%				10.8%
NextEra[3]	12.5%				10.8%
Vitol	12.5%				10.8%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

The results in Table 8 show supplier diversity in the RSCI class, with six different companies serving RSCI load. Constellation (formerly Exelon) serves all MGS, LGS, and GS-P load.

III. Auction Results & Prices

A. Bid Activity

In both Tranche 1 and Tranche 2, participation was adequate and resulted in competitive auctions. The auction process itself promotes competition due to Enel X's auction platform. It provides real-time bidder feedback to induce competitive bidding behavior. The bid activity for Tranche 1 and Tranche 2 is displayed in Tables 9 and 10, respectively.

[3]NextEra did not win any blocks in 2024 but won two blocks in 2023 applicable to both the 2023 and 2024 delivery periods.

Table 9: Tranche 1 Bid Activity

Class/Block	Bidders	Bids
RSCI – Block 1	6	17
RSCI – Block 2	6	13
RSCI – Block 3	6	16
RSCI – Block 4	6	18
MGS – Block 1	5	10
MGS – Block 2	5	9
LGS	1	1
GS-P	1	1

Table 10: Tranche 2 Bid Activity

Class/Block	Bidders	Bids
RSCI – Block 1	6	21
RSCI – Block 2	6	15
RSCI – Block 3	5	12
RSCI – Block 4	5	13
MGS	5	12

B. Prices

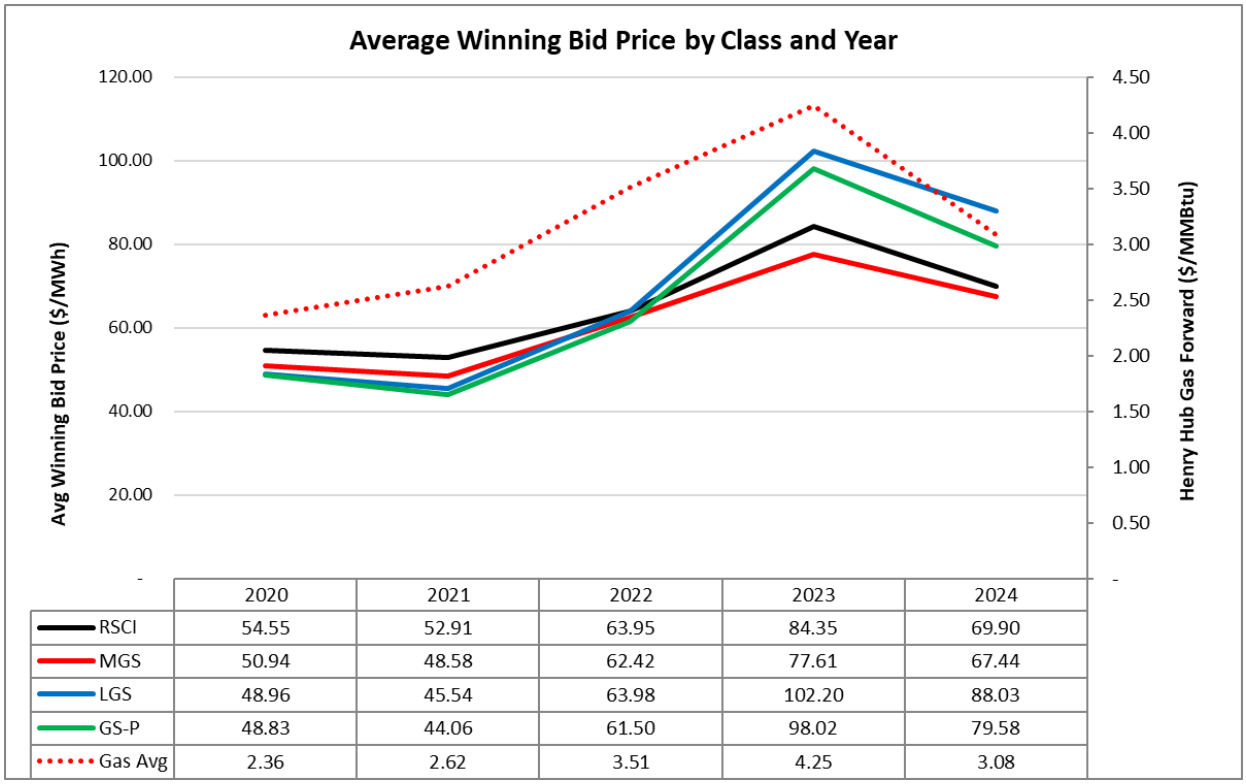
Winning bid prices for the last three delivery years for each customer class are provided in Table 11, as well as the change in prices between 2023 and 2024. Average winning prices for all blocks in 2024 were lower than those of 2023.

Table 11: Weighted Average Winning Bid Prices ($/MWh)

Customer Class	2022	2023	2024	2023-24 Change	2023-24 % Change
RSCI	63.95	84.35	69.90	(14.45)	-17.1%
MGS	62.42	77.61	67.44	(10.17)	-13.1%
LGS	63.98	102.20	88.03	(14.17)	-13.9%
GS-P	61.50	98.02	79.58	(18.44)	-18.8%

Liberty has compiled a historical view of winning bids for the last ten years to put perspective on current prices vs. historical results, displayed in Chart 1.

Chart 1: Weighted Average Winning Bid Prices ($/MWh) and Gas Price Reference ($/MMBtu)



	2020	2021	2022	2023	2024
RSCI	54.55	52.91	63.95	84.35	69.90
MGS	50.94	48.58	62.42	77.61	67.44
LGS	48.96	45.54	63.98	102.20	88.03
GS-P	48.83	44.06	61.50	98.02	79.58
Gas Avg	2.36	2.62	3.51	4.25	3.08

Key points from this graphic:

- The low points on this chart from 2021 were the lowest prices in the history of the DE SOS
- Winning bid prices generally correlate to natural gas prices
- Historically, LGS and GS-P blocks have been lower priced than RSCI and MGS blocks due to the higher load factors of the former, but this switched in 2023 and 2024, driven by substantially higher risk of LGS and GS-P customer migration from SOS to third party suppliers (TPS)

C. Rate Impacts

To gauge the impact of the most recent auction on its SOS customers, Delmarva has provided the estimated changes to average monthly customer bills by customer class. It is important to note that these are estimates and should not be construed as exact or guaranteed results as the impacts are based only on the wholesale prices of the winning bids. The results of this analysis, displayed in Table 12, are consistent with the bid price results displayed in Table 11. It is important to note that RSCI bills will increase despite having lower 2024 winning bids than the 2023 winning bids. This is due to the two-year delivery term for RSCI, which reflects the 2024 average RSCI price of $69.90 per MWh replacing the lower 2022 value of $63.95 per MWh. MGS, LGS, and GS-P are expected to decrease.

Table 12: Estimated Average Monthly Customer Bill and Impact Per Delmarva

Class	02/01/2024[4]	06/01/2024[5]	$ Change	% Change
Res (840 kWh)[6]	$147.43	$152.67	$5.24	3.6%
SGS-ND[7]	$138 - $591	$143 - $613	$4.57 - $21.91	3.3% - 3.7%
MGS	$495 - $9,467	$461 - $8,680	($34.83) – ($786.59)	(7.0%) - (8.3%)
LGS	$10,005 - $116,654	$9,186 - $106,832	($820) - ($9,822)	(8.2%) - (8.4%)
GS-P	$994 - $225,039	$972 - $195,841	($21) – ($29,198)	(2.1%) – (13.0%)

IV. Market Analysis

A. Overview

As stated earlier in this report, the winning bid prices reflected market conditions. Liberty has collected market information on energy, capacity, and fuel prices to assess the key drivers of bidder behavior.

B. Energy Market

The outlook for regional energy prices was slightly lower in Tranche 2 as compared to Tranche 1 based on forward prices. The market for energy in PJM is currently stable, and futures prices reflect seasonal patterns and growth rates that are to be expected.

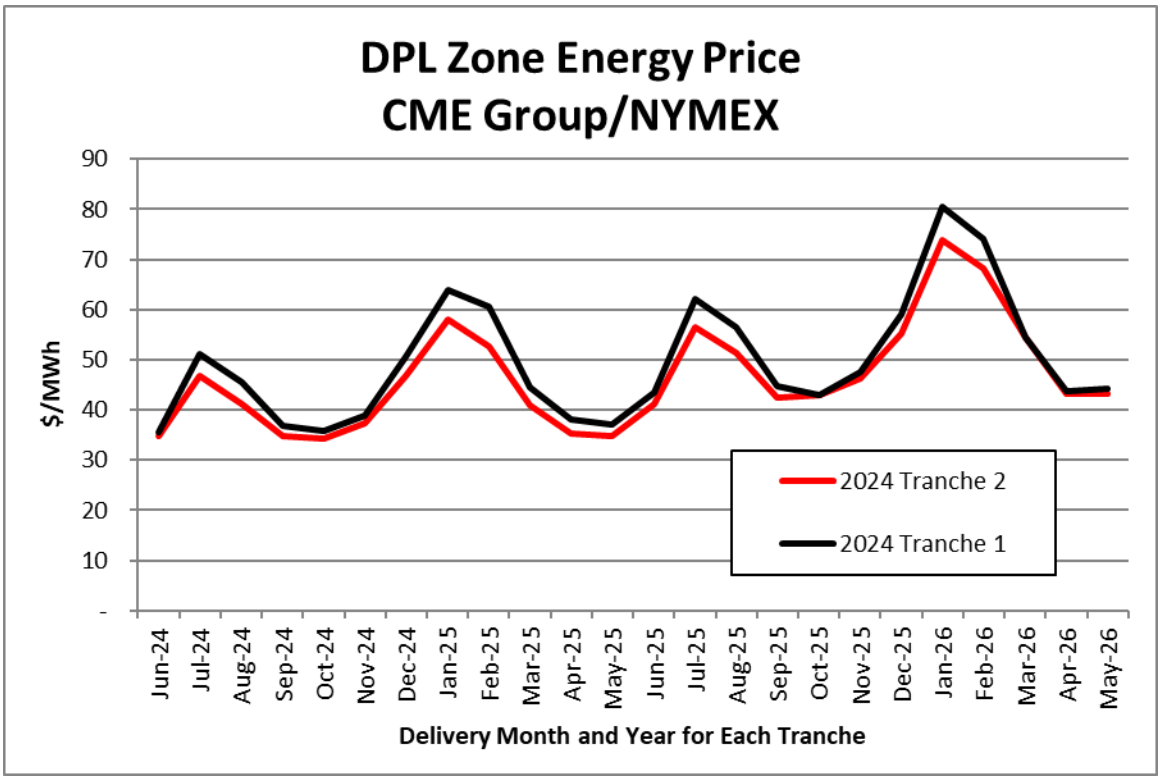
[4] Distribution rates in docket 22-0897 Current Interim Rates , effective 7/15/2023; transmission rates as of 01/01/2024; and DSIC % as of 1/1/2024.

[5] These comparisons are estimates and are likely to change as the annual updates to transmission, procurement cost, renewable energy portfolio standards, Qualified Fuel Cell Provider Projects-Renewable Capable Power Production and reasonable allowance for retail margin are not yet included for the supply year beginning 6/1/2024.

[6] For Residential and Small Commercial, due to the use of a "Capacity Proxy Price" for the 2024/ 2025 PJM Capacity Auction and then the auction price coming in lower, we have included a credit of $0.20 / MWH in each block price from the 2023 Supplier auction. The two year averaging function saved customers from a larger increase last year, which is now included in this year's average.

Chart 2 displays round the clock (RTC) prices for the two-year delivery period for the DPL Zone. It highlights the difference in energy price expectations between the tranches. The source for all energy prices is OTC Global Holdings via the SNL Energy Database.

Chart 2: Energy Forward Prices – RTC Avg – DPL Zone



C. Fuel Market Outlook

As an extension of Liberty's review of energy forwards, we also reviewed the underlying fuel markets that drive energy prices by assessing fuel forward markets. Liberty has reviewed forward prices for natural gas, the primary fuel commodity for generating units that set market clearing prices in PJM. Chart 3 displays the outlook for gas prices at the Transco Zone 6 Non-NY delivery point. Forward prices were slightly lower than those in Tranche 1, which was reflected in the DPL Zone energy prices in Chart 2. The forward prices for both gas and power are plotted together in Chart 4, which shows the tight correlation between gas and energy market prices.

Chart 3: Dominion Hub Natural Gas Forward Prices

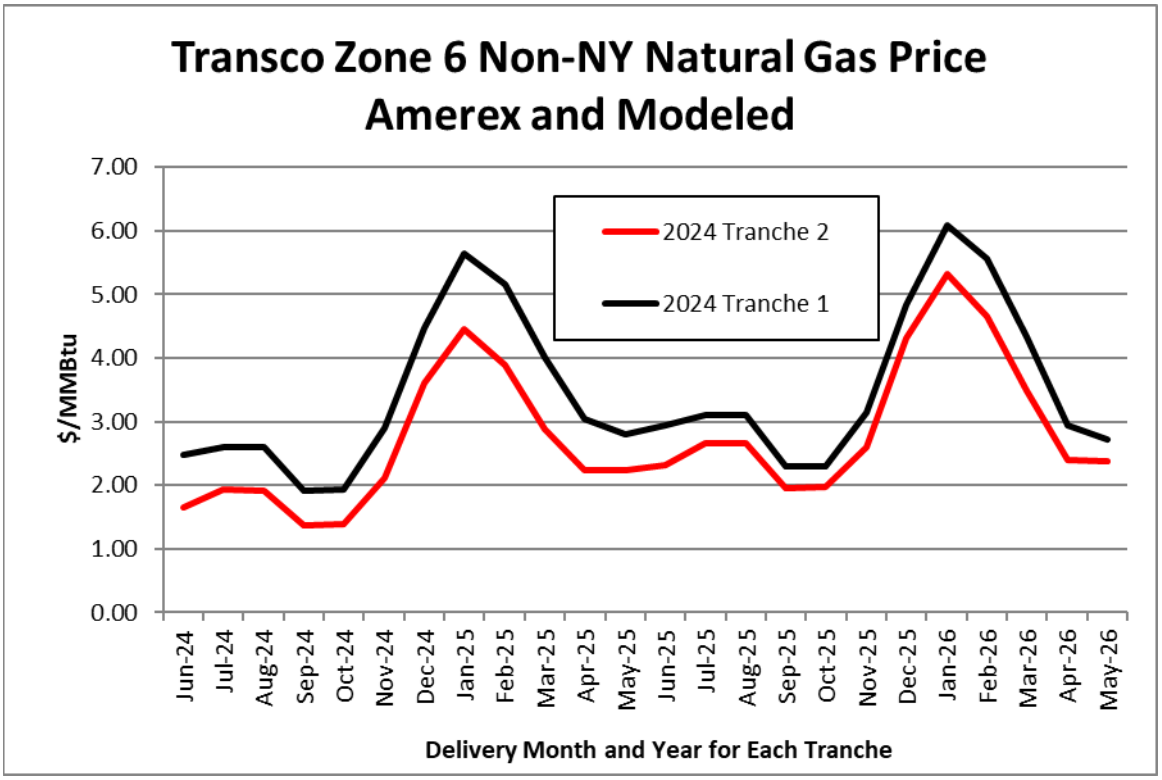
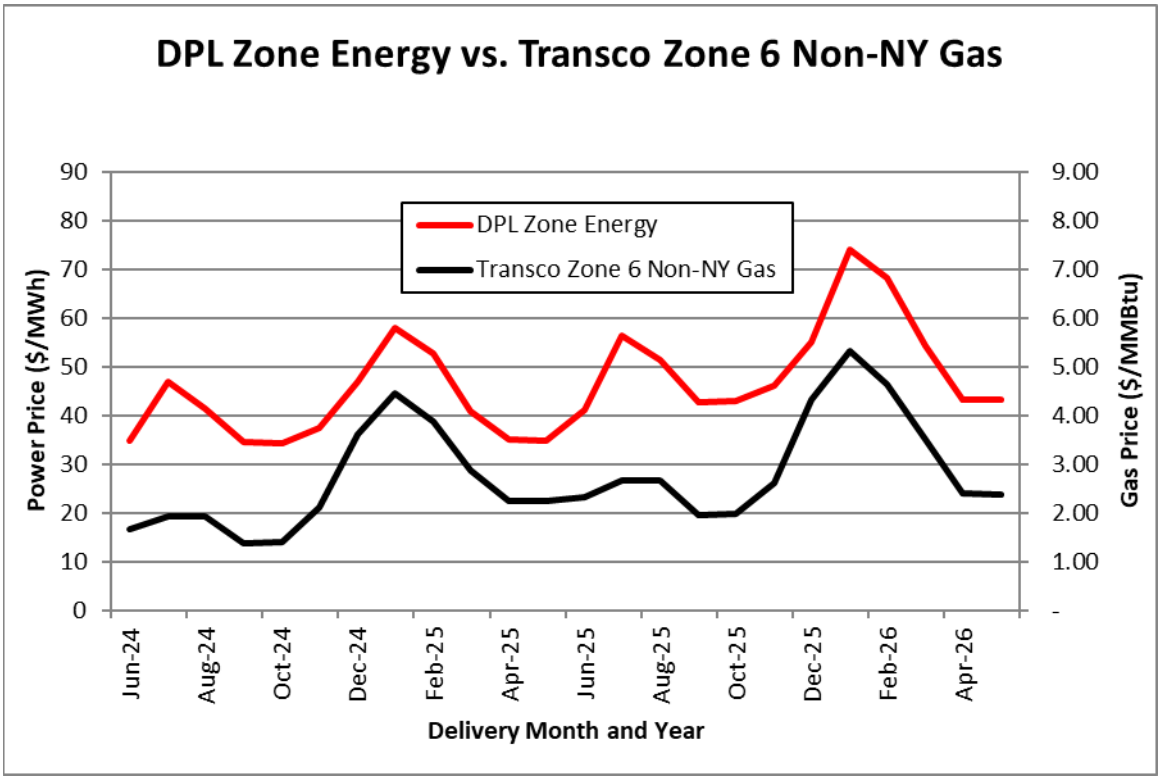


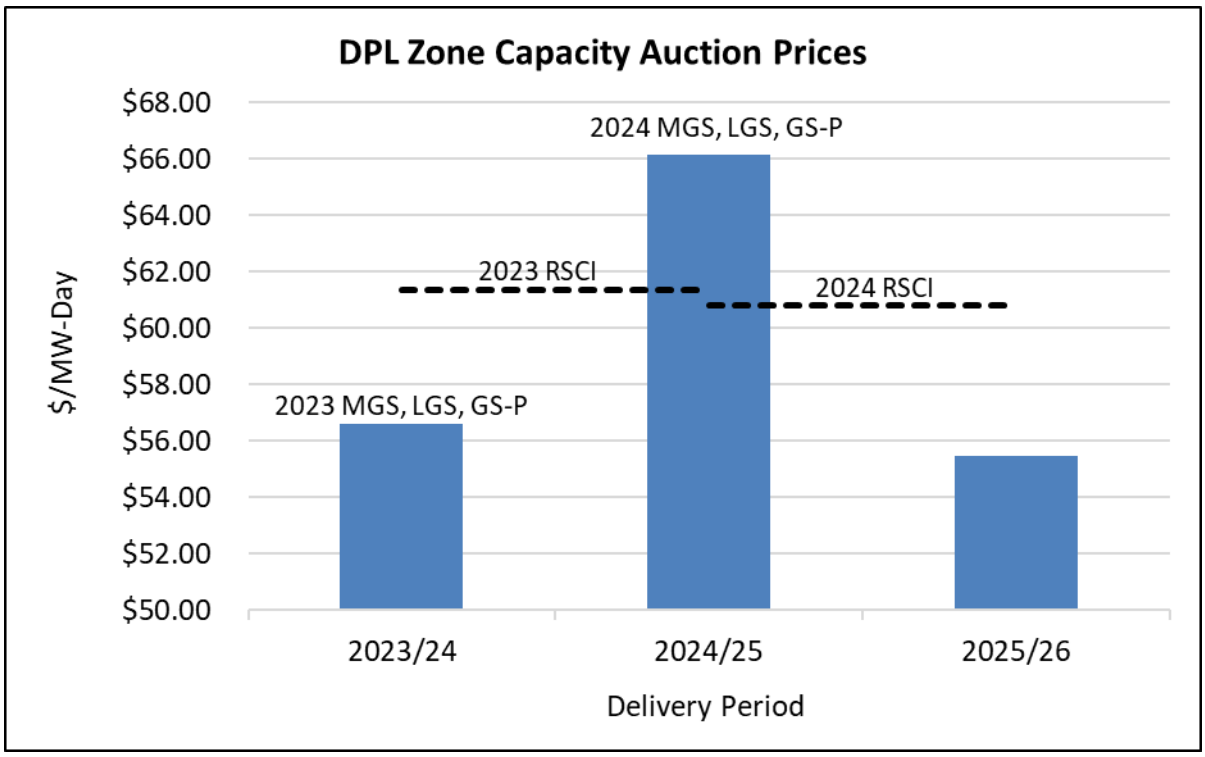
Chart 4: Gas Forward Prices vs. Power Forward Prices



D. Capacity Market

PJM capacity prices are set through auctions and prices (in $/MW-day) are set for annual delivery periods commencing June 1 of each year. Chart 5 shows capacity prices for the years relevant to this SOS auction's delivery periods and how they affect each year and type of auction block. This year, the capacity prices for RSCI are both the 2024/25 and 2025/26 prices. The 2025/26 price is a proxy price in lieu of an actual auction price to be determined at a later date. Last year's RSCI bids were based on the 2023/24 and 2024/25 prices. Based on this, the average capacity prices applicable to the two-year RSCI blocks is relatively unchanged since 2023/24 and 2025/26 proxy prices are similar. The 2024/25 single-year capacity price applicable to MGS, LGS, and GS-P realized an increase year over year.

Chart 5: Capacity Prices ($/MW-day)



Bidders use $/MW-day capacity auction prices to create a capacity component (in $/MWh) of their SOS bid prices. The calculation is a function of the conversion factors between the two units and the load factor for each class (which change from year to year). Lower load factor customer classes like RSCI feel a greater impact from capacity prices than high load factor GS-P customers, since they have fewer MWh over which to spread their demand-based capacity charges. Based on historical load factors of the DPL customer classes, every $1 change in capacity auction prices translates to approximately $0.07-$0.10/MWh.

E. Ancillary Services Market

Ancillary service-related costs are reflected by the bidders, but do not make up a large portion of or impact on SOS prices. Ancillary services were essentially unchanged during this auction period and are

relatively insignificant when compared to Capacity and Energy prices. This parameter did not have a material impact on the auction results.

V. Process Analysis

Liberty was assigned the task of monitoring Delmarva's RFP process through specific administrative requirements. The following is an assessment of each area:

A. Notification of the RFP to the Market

To ensure adequate participation, Delmarva announced its RFP by issuing a press release to media channels and directly to regional energy suppliers, displayed in Appendix 3. It included basic information to prospective bidders and instructions for acquiring more information and registering on Delmarva's RFP website. As a result, seventeen companies submitted expressions of interest in this RFP, eight ultimately became eligible, and seven bid on blocks. Liberty finds that this task was performed to expectations.

B. Information Dispersal

Delmarva provided all materials for expressing interest and registering for the auction on its RFP website. Once approved, bidders were able to acquire all key administrative, technical, and schedule information. Liberty finds that information was disseminated appropriately and that the website, as a foundation for communication, worked according to plan. Delmarva also held a webinar on the entire RFP process. The webinar included a review of changes since the previous RFP and instructions for all aspects of RFP participation.

C. Determination of Applicant Eligibility

Interested bidders were required to submit to Delmarva their Credit Application, Confidentiality Agreement, PJM certification, and FERC certification by the deadline. It was ultimately determined that eight of the seventeen interested parties became eligible to bid. Liberty finds that this eligibility process was performed to standards.

D. Bid Ranking

On auction day, each block is made available to bid at 10 AM. The first RSCI block auction ends at 10:30 am, and subsequent block auctions end every ten minutes after that. Each of the RSCI blocks was offered first, followed in order my MGS, LGS, and finally the GS-P block (LGS and GS-P are only applicable to Tranche 1).

Liberty monitored the auctions remotely, along with Enel X representatives and DE PSC Staff. All viewed the auction through the Enel X platform with full access. After all of the auctions ended, Liberty reviewed each bid with Delmarva and confirmed the winning bid, the organization, and the price.

E. The Awarding of Transactions

After the completion of each tranche, and review between Delmarva and Liberty, Delmarva contacted each bidder. Winning bidders were notified and were provided with contracts reflecting their organization, block size and winning bid price.

F. Full Requirements Service Agreement Signing

Delmarva worked with each winning bidder to complete the Full Requirements Service Agreements and provided copies of each executed agreement to Liberty for review. On the Wednesday after each auction, Liberty presented the auction results to the DE PSC, and these were subsequently approved.

VI. Conclusions

Liberty has concluded that all processes, including both the Tranche 1 and Tranche 2 auctions, were run professionally and resulted in bids that were consistent with expectations based on market conditions. However, based on the low level of participation in the LGS and GS-P block auctions, particularly in light of last year's need for a third tranche, Liberty recommends that Delmarva be compelled to investigate ways to increase competition and/or mitigate potential adverse impacts of limited competition, particularly for LGS and GS-P blocks.

Appendix 1: Tranche 1 Final Bid Plan

Delmarva DE SOS RFP 2024
Tranche 1

	as of:	10/30/2023
	SOS	**Eligible**
Service Type	**PLC (MW)**	**PLC (MW)**
Residential and Small Commercial & Industrial	866.5	951.4
Medium General Service -Secondary	112.9	237.1
Large General Service -Secondary	9.1	72.8
General Service - Primary	16.8	113.0
Total	**1005.3**	**1374.3**

	Contract Term	
Service Type	**12 Month**	**24 Month**
	6/1/24-5/31/25	**6/1/24-5/31/26**
Residential and Small Commercial & Industrial		50.0%
Service Classifications: R, R-TOU-ND, SGS-ND, SGS-SH, SGS-WH, OL, ORL, PIV, X.		
Approximate Total PLC		433.3
Block Size %		6.2500%
Approximate Block Size (MW)		54.2
Total Number of Blocks		8
Tranche 1 blocks		4
Tranche 2 blocks		4
Medium General Service - Secondary	100.0%	
Service Classifications: MGS-S		
Approximate Total PLC	112.9	
Block Size %	33.3333%	
Approximate Block Size (MW)	37.6	
Total Number of Blocks	3	
Tranche 1 blocks	2	
Tranche 2 blocks	1	
Large General Service - Secondary	100.0%	
Service Classifications: LGS-S		
Approximate Total PLC	9.1	
Block Size %	100.0%	
Approximate Block Size (MW)	9.1	
Total Number of Blocks	1	
Tranche 1 blocks	1	
General Service - Primary	100.0%	
Service Classifications: GS-P		
Approximate Total PLC	16.8	
Block Size %	100.0%	
Approximate Block Size (MW)	16.8	
Total Number of Blocks	1	
Tranche 1 blocks	1	

Appendix 2: Tranche 2 Final Bid Plan

Delmarva DE SOS RFP 2024
Tranche 2

	as of:	1/19/2024
	SOS	**Eligible**
Service Type	**PLC (MW)**	**PLC (MW)**
Residential and Small Commercial & Industrial	866.7	955.1
Medium General Service -Secondary	109.9	234.3
Large General Service -Secondary	11.5	73.8
General Service - Primary	15.9	109.9
Total	**1004.0**	**1373.1**

	Contract Term	
Service Type	**12 Month**	**24 Month**
	6/1/24-5/31/25	**6/1/24-5/31/26**
Residential and Small Commercial & Industrial		50.0%
Service Classifications: R, R-TOU-ND, SGS-ND, SGS-SH, SGS-WH, OL, ORL, PIV, X.		
Approximate Total PLC		433.4
Block Size %		6.2500%
Approximate Block Size (MW)		54.2
Total Number of Blocks		8
Tranche 1 blocks		4
Tranche 2 blocks		4
Medium General Service - Secondary	100.0%	
Service Classifications: MGS-S		
Approximate Total PLC	109.9	
Block Size %	33.3333%	
Approximate Block Size (MW)	36.6	
Total Number of Blocks	3	
Tranche 1 blocks	2	
Tranche 2 blocks	1	
Large General Service - Secondary	100.0%	
Service Classifications: LGS-S		
Approximate Total PLC	11.5	
Block Size %	100.0%	
Approximate Block Size (MW)	11.5	
Total Number of Blocks	1	
Tranche 1 blocks	1	
General Service - Primary	100.0%	
Service Classifications: GS-P		
Approximate Total PLC	15.9	
Block Size %	100.0%	
Approximate Block Size (MW)	15.9	
Total Number of Blocks	1	
Tranche 1 blocks	1	

Appendix 3: RFP Press Release

delmarva power
AN EXELON COMPANY

delmarva.com

Contact: Candice Womer
Delmarva Power Communications
800-201-5764 (media hotline)

FOR IMMEDIATE RELEASE

Delmarva Power Issues RFP for Wholesale Electric Power for Delaware Customers

NEWARK, Del. (September 18, 2023) — Delmarva Power has announced a Request for Proposals (RFP) to eligible vendors regarding the company's annual wholesale electric power supply procurement. The RFP will allow the company to meet its Standard Offer Service (SOS) obligation in the state of Delaware.

SOS is the market-based, fixed-price of electricity that Delmarva Power buys on behalf of its customers who do not purchase their electricity from competing retail suppliers and who do not choose the option of hourly-priced service.

Delmarva Power is requesting proposals to supply approximately 572 megawatts (MW) of electricity. Peak load contributions by customer class include approximately:

- 430 MW for the combined Residential, Small Commercial and Industrial (RSCI) customers
- 117 MW for the Medium General Service-Secondary (MGS-S) customers
- 9 MW for the Large General Service-Secondary (LGS-S) customers
- 16 MW for the General Service-Primary (GS-P) customers

A pre-bid conference webinar for prospective bidders will be held on September 25. The conference will review the bid schedule, the RFP process improvements and the Delmarva Power bid plan for its Delaware customers, as well as answer questions about the power supply contract.

Additional details regarding the RFP or the pre-bid conference webinar can be found online at delmarva.com.

To learn more about Delmarva Power, visit *The Source,* Delmarva Power's online newsroom. Find additional information by visiting delmarva.com, on Facebook at facebook.com/DelmarvaPower and on Twitter at twitter.com/DelmarvaConnect. Delmarva Power's mobile app is available at delmarva.com/MobileApp.

# # #

Delmarva Power is a unit of Exelon (Nasdaq: EXC), a Fortune 250 company and the nation's largest utility company, serving more than 10 million customers. Delmarva Power provides safe and reliable energy service to approximately 541,000 electric customers in Delaware and Maryland and approximately 138,000 natural gas customers in northern Delaware