

Final Report of the Technical Monitoring Consultant on DPL 2023 FP-SOS RFP

Presented to the
Delaware Public Service Commission
March 8, 2023

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Executive Summary

Siemens PTI has completed its monitoring activities as the Technical Monitoring Consultant for Delmarva Power & Light's (DPL) 2023 Auction event, which solicited bids for the Fixed Price - Standard Offer Service (FP-SOS)

Highlights of the 2023 RFP:

- The 2023 RFP procured 13 blocks of energy in three tranches totaling 592.1 MW of load
 - Tranche 1 auction took place on November 28, 2022
 - Tranche 2 auction took place on January 30, 2023
 - Tranche 3 auction took place on February 13, 2023
- The auction process was conducted in a manner consistent with the RFP guidelines end-to-end
- Unawarded blocks from Tranche 1 were re-auctioned in Tranche 2; unawarded blocks from Tranche 2 were re-auctioned in Tranche 3
- Winning bids were significantly higher than in the 2022 RFP, due to higher energy prices and increased risk premium for unhedgeable risk included by suppliers in their bids
- Winning bid prices for all blocks in the 2023 Auction were consistent with the existing market conditions and were based on a fair and competitive auction process

Number and Size of Blocks Procured by Customer Class

The 2023 RFP procured 19 blocks of energy in three tranches totaling 592.1 MW of load

Tranche 1	Term (months)	Blocks	Block Size (MW)	Total MW
Residential & Small Commercial & Industrial (RSCI)	24	4	53.1	212.4
Medium General Service – Secondary (MG-S)	12			
Large General Service – Secondary (LG-S)	12			
General Service – Primary (GS-P)	12			
Total		4		212.4
Tranche 2	Term (months)	Blocks	Block Size (MW)	Total MW
Residential & Small Commercial & Industrial (RSCI)	24	4	53.4	213.6
Medium General Service – Secondary (MG-S)	12	3	44.2	132.6
Large General Service – Secondary (LG-S)	12			
General Service – Primary (GS-P)	12			
Total		7		346.2
Tranche 3	Term (months)	Blocks	Block Size (MW)	Total MW
Large General Service – Secondary (LG-S)	12	1	11.5	11.5
General Service – Primary (GS-P)	12	1	22.0	22.0
Total		2		33.5

Level of Participation – Number of Bidders

The level of participation in the 2023 RFP was lower than in previous years, but still enough to ensure a competitive bidding process

Count	2017	2018	2019	2020	2021	2022	2023
Expression of Interest (EOI)	12	12	10	12	13	12	10
Eligible Bidders	8	7	7	9	9	8	7
Actual	6	6	6	9	9	8	5

Results: Bid Activity

Tranche	Block	Bidders	Bids
1	RSCI - Block 1	4	9
	RSCI - Block 2	4	9
	RSCI - Block 3	4	10
	RSCI - Block 4	4	8
	<i>MG-S – Block 1</i>	3	4
	<i>MG-S – Block 2</i>	3	6
	<i>LG-S</i>	-	-
	<i>GS-P</i>	-	-
2	RSCI - Block 1	4	13
	RSCI - Block 2	4	7
	RSCI - Block 3	4	9
	RSCI - Block 4	4	6
	MG-S – Block 1	4	6
	MG-S – Block 2	3	5
	MG-S – Block 3	3	5
	<i>LG-S</i>	1	1
	<i>GS-P</i>	1	1
3	LG-S	2	4
	GS-P	2	4

Note: In italic are number of bidders and bids that were auctioned but not awarded in Tranche 1 and Tranche 2, respectively, due to lack of competitiveness. Those blocks and were re-bid in subsequent tranches.



Results: Winning Bidders

Winning Bidders
Constellation Energy Generation, LLC
DTE Energy Trading, Inc.
NextEra Energy Marketing, LLC
Vitol, Inc.

Suppliers for the 2023 FP-SOS 2023 and Awarded Load Allocation

Suppliers that Expressed Interest	24-mth RSCI	MG-S	LG-S	GS-P
AEP Energy Partners, Inc.	-	-	-	-
Axpo US LLC	-	-	-	-
Boston Energy Trading and Marketing, LLC	-	-	-	-
Constellation Energy Generation, LLC	37.5%	33.3%	100.0%	100%
DTE Energy Trading, Inc.	25.0%	-	-	-
Hartree Partners, LP	-	-	-	-
NextEra Energy Marketing, LLC	25.0%	66.7%	-	-
Shell Energy North America (US), L.P.	-	-	-	-
TransAlta Energy Marketing (U.S.) Inc.	-	-	-	-
Vitol Inc.	12.5%	-	-	-
Total	100.0%	100.0%	100.0%	100.0%

Results: Weighted Average Winning Bid Prices by Delivery Year

Class	2022	2023	Change	% Change
RSCI	\$63.95	\$84.33	\$20.38	31.87%
MG-S	\$62.43	\$77.61	\$14.88	23.72%
LG-S	\$63.98	\$102.20	\$38.22	59.74%
GS-P	\$61.50	\$98.02	\$36.52	59.38%

Results: Estimated Monthly Customer Bill Impacts for Plan Year 2023 - 2024, as of 03/03/2023 (provided by Delmarva)

Class	Average Monthly Annualized Bill		\$ Change per Bill	% Change per Bill
	As of 3/1/2023 ¹	6/1/2023 ²		
Res (844 kWh)³	\$126.33	\$138.45	\$12.12	9.59%
SGS-ND³	\$118 to \$446	\$130 to \$498	\$11.77 to \$51.65	9.95% to 11.58%
MGS	\$492 to \$8,351	\$551 to \$9,516	\$58.27 to \$1,165.38	11.83% to 13.96%
LGS	\$7,831 to \$98,270	\$10,048 to \$124,693	\$2,217 to \$26,422	26.80% to 29.10%
GS-P	\$820 to \$190,526	\$863 to \$248,807	\$42 to \$58,282	5.18% to 32.71%

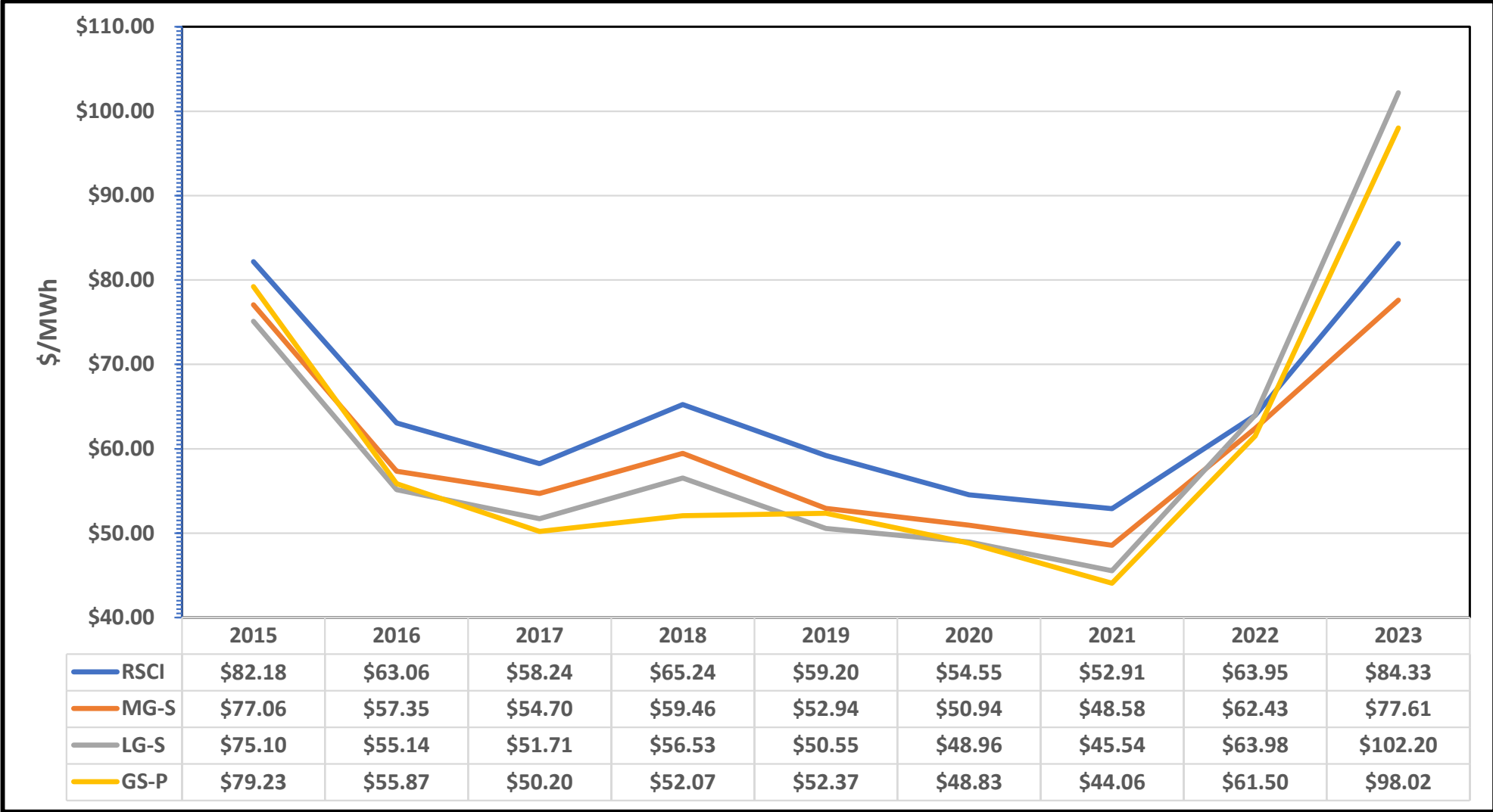
Note 1: Distribution rates in docket 20-0149, effective 9/17/2021; Transmission rates as of 9/13/2022; and Distribution System Improvement Charge (DSIC) percentage as of 1/1/2023.

Note 2: 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 6/1/2023

Note 3: For Residential and Small Commercial and Industrial, due to the use of a "Capacity Proxy Price" for the 2023/2024 PJM Capacity Auction and then the auction price coming in lower, we have included a credit of \$6.79/MWh in each block price from the 2022 Supplier auction.



Delmarva FP-SOS Procurement Price History By Auction Year



Conclusions

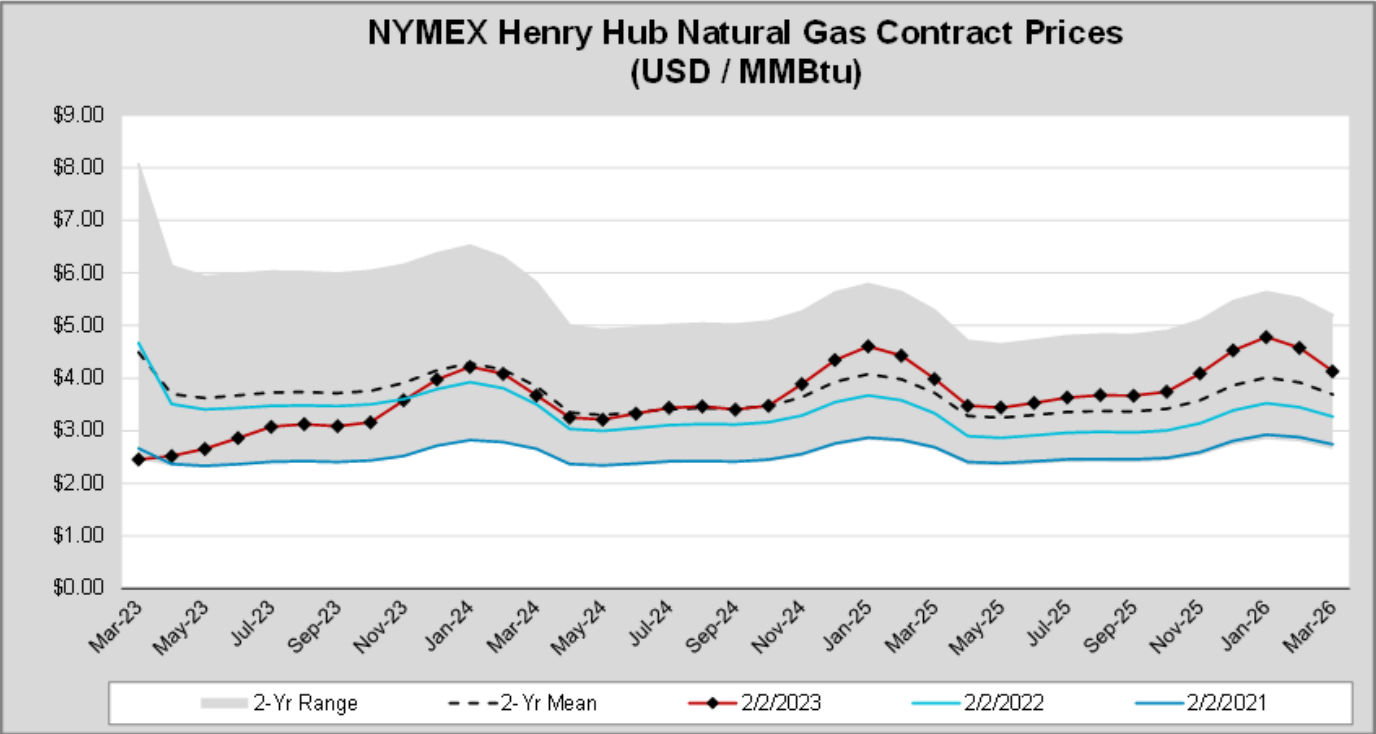
Siemens PTI concludes the following:

- Energy market prices have increased and witnessed elevated levels of volatility during calendar year 2022
- Since mid-December 2022, forward prices for both natural gas and power have been decreasing significantly
- Opening bid prices for all three tranches were set at levels that reflected the market and encouraged greater supplier participation
- The entire auction process was conducted in a manner consistent with the RFP guidelines end-to-end
- The actual auction was well run on the Enel X auction platform and given the level of participation from suppliers led to a competitive outcome
- Winning bid prices for all blocks were in line with the existing market conditions and the risks perceived by suppliers
- Winning bids and were based on competitive auction processes

| Appendix

Energy Markets Assessment

Natural Gas Market Forward Outlook



Natural gas prices at the US benchmark point (Henry Hub) were at very high levels, coupled with elevated levels of price volatility, throughout calendar year 2022.

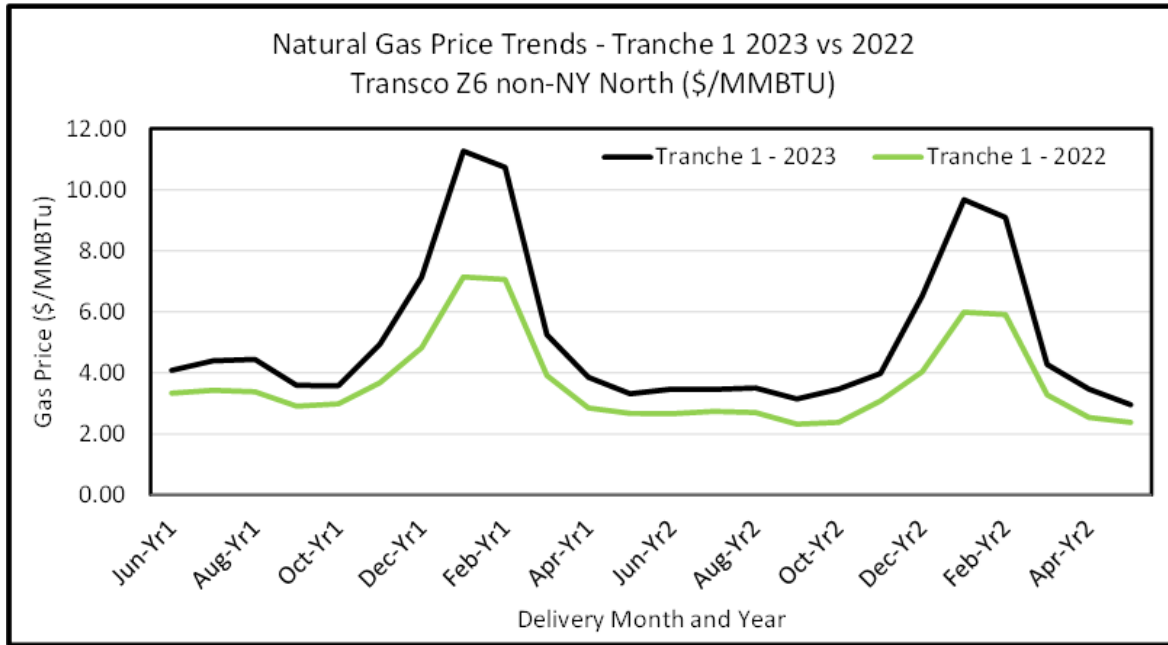
Starting with the last two weeks of 2022, forward prices have dropped significantly, especially for near term deliveries.

Storage levels that were depleted last year are now at levels equal to 5-year mean and forecasted to increase above the 5-year mean during 2023 (U.S. Energy Information Administration).

Source of chart data: CME Group (NYMEX), Siemens PTI



Natural Gas Market Forward Outlook

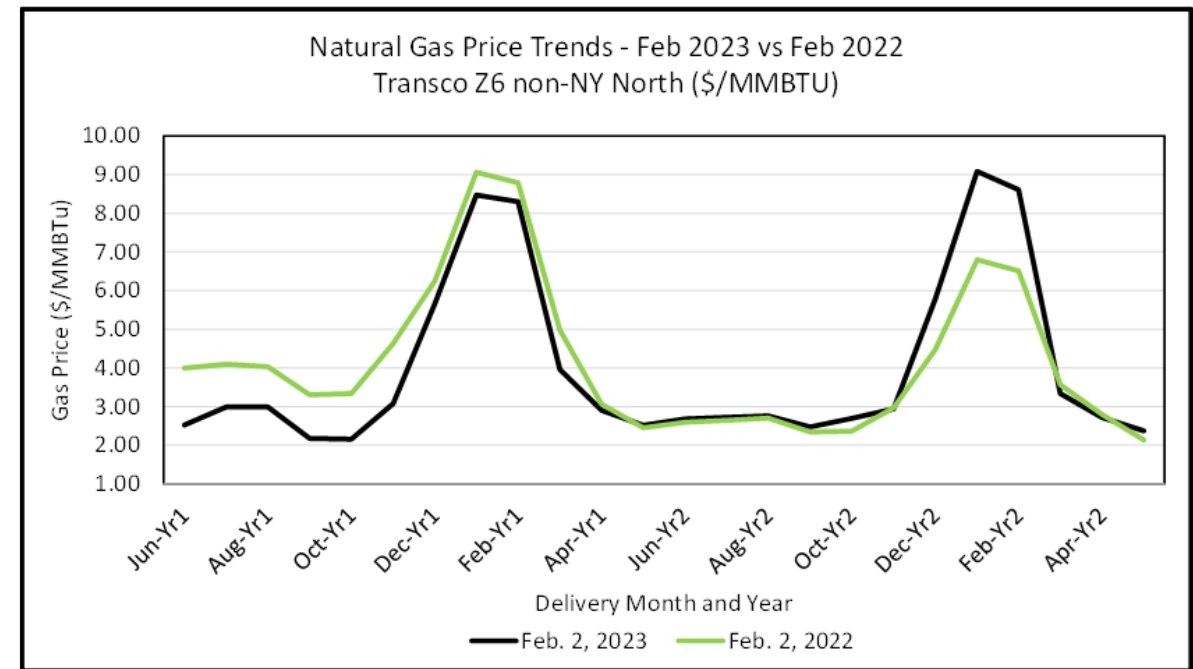


In November 2022, at the time of Tranche 1 auction, the forward curve at Transco Zone 6 non-NY North was in backwardation, and significantly higher than the corresponding curve in previous year.

Winter months were significantly higher as markets were still building in a premium for winter uncertainty., due to structural changes in fundamentals.

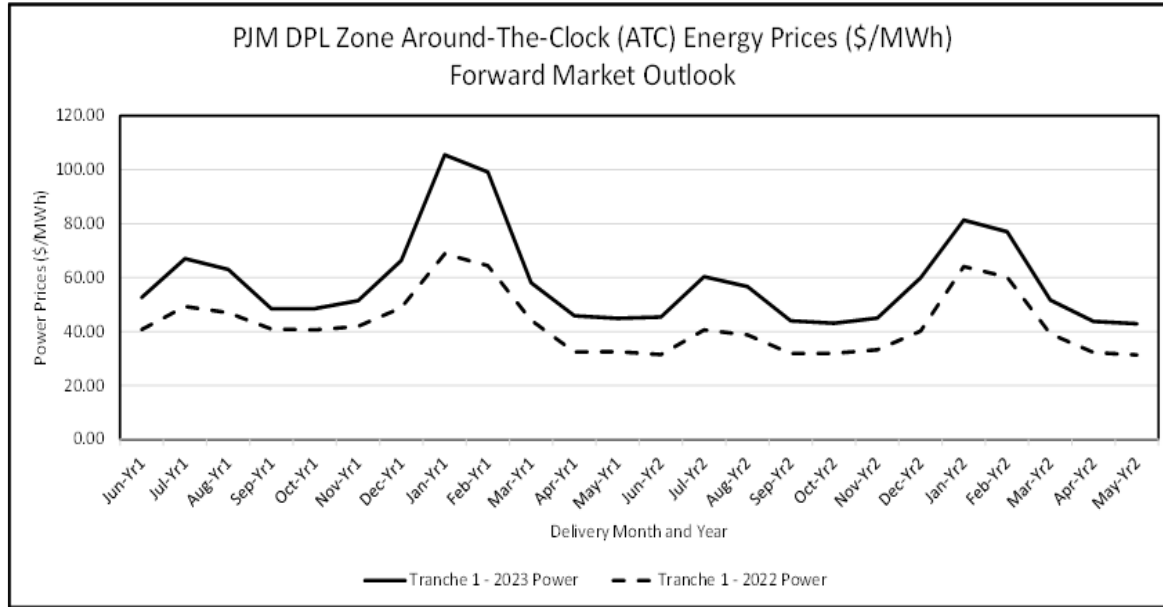
In contrast, the gas forward curve in February 2023, close to the Tranche 3 date, was lower for Year 1 of monthly deliveries (June 2023 – May 2024) than the corresponding 2022 gas curve and trended upward for higher prices in Year 2 than previous year.

The forward curve for natural gas at Transco Zone 6 non-NY North is currently in contango.



Source of chart data: CME Group (NYMEX), Siemens PTI

PJM Power Market Forward Outlook

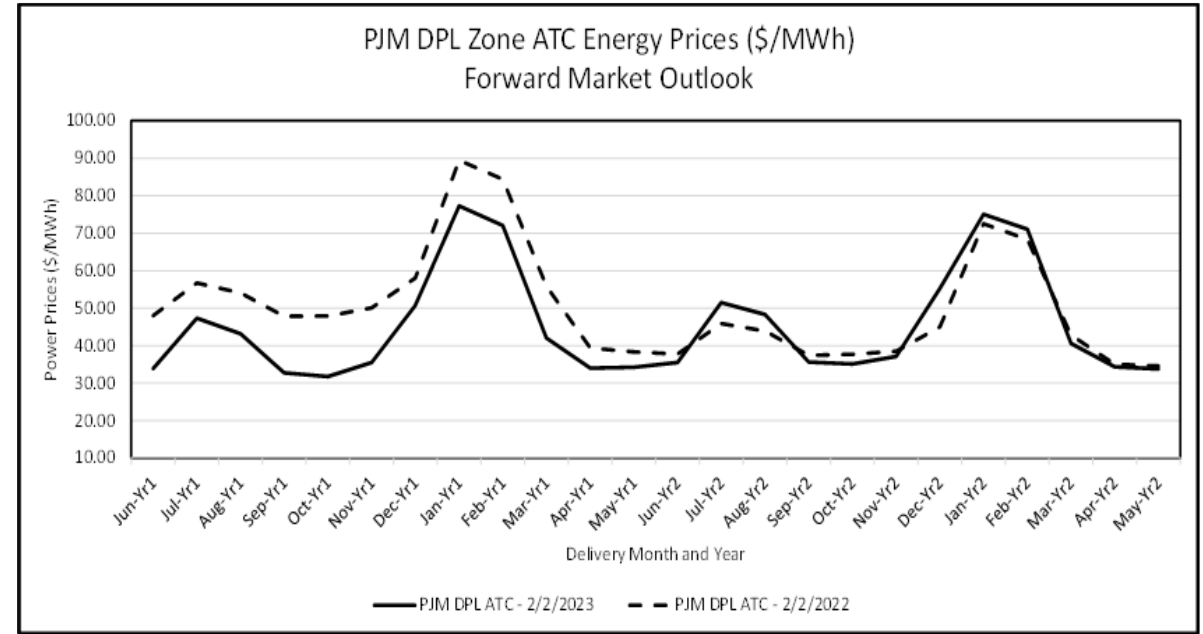


In contrast, by the time of Tranche 3, in February 2023, PJM energy market outlook was highlighted by lower prices for Year 1 of delivery months (June 2023-May 2024) than in the same period during previous year.

The forward curve for PJM ATC DPL Zone become almost flat year over year and later in contango.

In November 2022, at the time of Tranche 1 auction, the forward ATC curve at PJM DPL Zone was in backwardation, and significantly higher than the corresponding curve in previous year.

Winter months were significantly higher, as markets for natural gas were still building in a premium for winter uncertainty, that translated into the power markets as well.



Source of chart data: CME Group (NYMEX), Siemens PTI

PJM Capacity Market

Delivery Period	Jan-20 Auction	Jan-21 Auction	Jan-22 Auction	Feb-23 Auction
June 2020 – May 2021	\$175.11	-	-	
June 2021 – May 2022	\$162.79	\$164.89	-	
June 2022 – May 2023	-	\$151.70*	\$97.75	
June 2023 – May 2024	-	-	\$118.12*	\$56.59
June 2024 – May 2025				\$69.53*

- The 2024-2025 PJM base residual auction for capacity was delayed, so the Commission approved proxy price for capacity was used in all tranches of the DPL 2023 FP-SOS RFP
- The pricing for all blocks in the 2023 RFP was impacted by the capacity prices for the 2023/2004 year
- The pricing for the RSCI blocks was also impacted by 2024-2025 proxy prices

* Highlight indicates Commission approved Proxy Price was used as capacity price for the specific delivery period

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