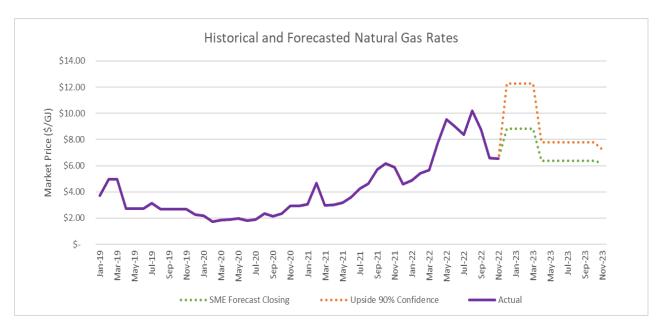
## **Appendix 1 – Supporting Information**

Section 1 - Forecast 2022-2023 Natural Gas Rates



Section 2 - Review of Natural Gas Strategy for 2023

The following hedging scenarios were analyzed for 2023 natural gas purchasing:

Table 1: Natu	ıral Gas 2023 Procur	to No-Hedging Scenario (Benefit) <sup>3</sup>			
Date of Analysis	Scenario	Percentage of Hedging	Duration	SME Closing Market (Index) Price <sup>1</sup>	Upside 90% Confidence Market (Index) Price <sup>2</sup>
	Hedging 9 Months	25%	Jul 22 to Mar 23	\$21,200	(\$197,300)
Jun 2022	Hedging 21 Months	25%	Jul 22 to Mar 24	\$46,400	(\$256,100)
Dec 2022	Hedging 12 Months	44%	Apr 23 to Mar 24	(\$19,100)	(\$193,100)
RiskSensor	Model	10%	90%		

- SME Closing Market price refers to a business as usual scenario when the forecast was prepared which incorporated the market conditions at the time.
- 2. Upside 90% Confidence market price is the highest forecast price based on the closing price at the time of the preparation of the forecast.
- 3. The forecasted costs presented for each hedging scenario, are the costs anticipated for the duration mentioned, based on each of the prices described above.

As can be seen from Section 1 and Table 1, all hedging scenarios were showing benefits if prices were towards the high index price. Both the June 2022 and December 2022 forecasts from the SME indicated high price volatility, resulting in the City procuring the 21 months

hedging option at 25% volume and 12 months hedging option at 44% volume respectively. As a result, 67% of the total natural gas volume in 2023 was hedged to provide budget protection against the high index scenario in a highly volatile market.

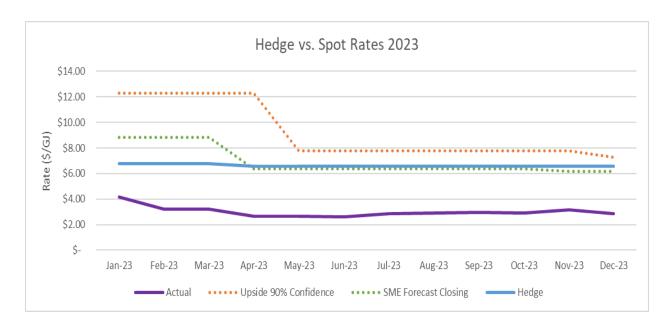
## Forecast and Actual Conditions

Natural gas prices are impacted by supply and demand factors. To anticipate natural gas prices, volatility and evaluate hedging options, the following factors provided by the SME were reviewed in 2023:

Table 2: Natural Gas 2023 SME Forecast vs Actual

	Forecast Conditions	Status	Actual Conditions	Status
Storage	Storage levels to be slightly below the 5 year average.	Normal	Storage levels remained above the 5 year average at Dawn	High
Production Levels	Production to increase to pre-pandemic levels from 2022 into 2023.	Normal	Production mostly on par with the past year and has returned to pre pandemic levels.	Normal
Demand	Natural gas exports were expected to remain around the 2022 levels with slight domestic increase.	Normal	Demand was lower due to higher than anticipated storage levels in 2023.	Low
Weather	Weather forecasts indicated colder than normal winter conditions 2022 into 2023.	Low	The weather conditions were milder than forecast throughout Canada.	High

Additionally, persistent geopolitical conditions and explosion at a Texas LNG plant caused prices to increase significantly in the latter half of 2022, and were projected to remain elevated into 2023. The annual average hedge rate that the City paid for natural gas delivered to Dawn (transportation included) was \$6.615/GJ. This rate was in line or slightly lower than the SME forecast closing rate as shown below.



Section 3 - Review of Natural Gas Strategy for 2024

For the period from November 2023 to October 2024 period the market factors were reviewed in 2023 to anticipate natural gas prices, volatility, and evaluate hedging options:

	2024 Forecast Conditions
	Storage levels are expected to remain high in 2024 due to higher than
Storage - High	normal storage levels. Levels at the end of 2023 were 19% greater than
	2022 and 13% more than the 5 year average.
Production	Production increased to pre-pandemic levels and expected to increase
Levels -	slightly (1% increase) only gradually through the remainder of 2023 into
Normal	2024.
Demand –	Natural gas exports are expected to grow again from 2023 to 2024.
	Domestic use is expected to remain essentially unchanged in 2024 as
Normal to High	compared to 2023.
Weather - Mild	Weather forecasts indicate that generally winter temperatures are expected
Weather - Willu	to the warmer than usual.