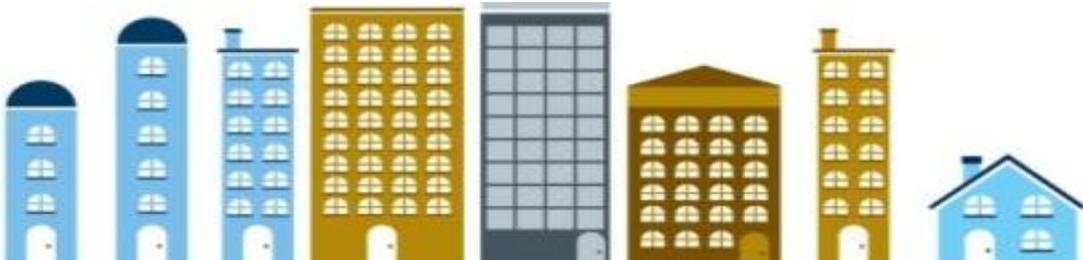


Performance Based Regulation Renewal Fixed/Variable Rate Analysis

EPCOR Water Services
December 2020



Background

Utility Committee motion:

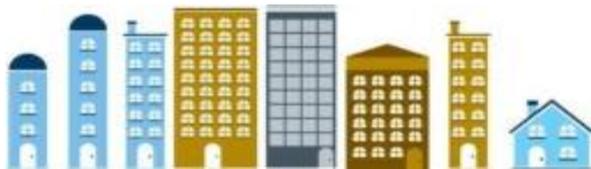
“That Administration work with EPCOR on the following: Possible changes to rate structures to deal with changes in volume.”

Sources and Impact of Volume Change

- Long-term decline in water consumption driven by changes in technology
- Increased awareness of conservation
- Weather related seasonal fluctuations
- Volume changes impact the utility’s revenue stability
 - Short term year over year weather related variances
 - Longer term by the continued decline in water consumption – ultimately, longer-term financial performance can be challenged because the utility’s costs are largely fixed

Means to Address Volume Changes

- Fixed/variable components of their rate structure
- Deferral accounts/ revenue adjustment mechanisms

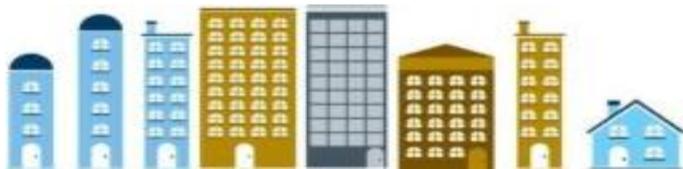


Current Fixed/Variable Split

Revenue - Fixed/Variable Split (2017-2021 PBR Actual and Forecast)

Utility	Fixed	Variable
Water	15.1%	84.9%
Wastewater	16.9%	83.1%
Drainage - Sanitary	32.0%	68.0%
Drainage - Storm	100.0%	0.0%
Drainage - Total	55.5%	44.5%

- Drainage Services – 2013 Cost of Services Study updated the drainage rate structure to increase the fixed revenue component from 15% to 30%.



Comparison to Other Communities

2019 Average Residential Bill - Comparison (15m³)

Municipality	Fixed	Variable	Total Bill	Fixed Percentage
Spruce Grove	-	51.53	51.53	0%
Sherwood Park	5.36	38.25	43.61	12%
Edmonton	6.63	31.87	38.50	17%
Vancouver	8.25	17.98	26.23	31%
Sturgeon County	21.00	45.75	66.75	31%
Saskatoon	11.89	23.18	35.07	34%
Winnipeg	16.50	27.30	43.80	38%
Calgary	15.36	24.00	39.36	39%
St Albert	16.33	25.05	41.38	39%
Regina	24.90	29.70	54.60	46%
Average				30%

Average fixed rate for communities above EWSI = 37%

Revenue Requirement Composition

Water – 2019 Revenue Requirement (\$ M)

Item	\$		%
	System	In-City	
Fixed			
Operating Expenses (Total System)	87.80		
In City Share at 81.4%		71.47	38.5%
Other Revenue		-5.50	-3.0%
Depreciation and Amortization		28.40	15.3%
Return on Rate Base Financed by Equity		34.40	18.5%
Return on Rate Base Financed by Debt		29.00	15.6%
Total		157.77	84.9%
Variable - Total System			
Power and Other Utilities	10.30		
Chemicals	11.70		
Franchise Fees Variable	12.50		
Total	34.50		
In City Share at 81.4%		28.08	15.1%
In-City Total			
		185.85	100.0%

Wastewater – 2019 Revenue Requirement (\$ M)

Item	\$	%
Fixed		
Operating Expenses (Total System)	37.72	41.0%
Other Revenue	-6.90	-7.5%
Depreciation and Amortization	18.00	19.5%
Return on Rate Base Financed by Equity	11.50	12.5%
Return on Rate Base Financed by Debt	19.30	21.0%
Total	79.62	86.4%
Variable - Total System		
Power and Other Utilities	5.30	
Chemicals	1.20	
Franchise Fees Variable	5.98	
Total	12.48	13.6%
In-City Total		
	92.10	100.0%

- Water and Wastewater revenue requirements are comprised of predominantly fixed components - they do not increase or decrease with the volume of water produced/treated in a year.

Options to Adjust Fixed Percentage

- **20% Fixed Revenue** –fixed fee increased uniformly until fixed revenue averages 20.0%
 - 35% increase to the fixed service charges for Water ratepayers - all customer classes
 - 19% increase to the fixed service charges for Wastewater ratepayers - all customer classes
 - Corresponding decrease in variable charges.
- **25% Fixed Revenue** – fixed fee increased uniformly until fixed revenue averages 25.0%
 - 70% increase to the fixed service charges for Water ratepayers – all customer classes
 - 52% increase to the fixed service charges for Wastewater ratepayers – all customer classes
 - Corresponding decrease in variable charges.

Water

Customer Class	Current Rates	Scenario 1 20% Fixed	Scenario 2 25% Fixed
Residential	19.5%	25.8%	32.2%
Multi-Res	4.6%	6.1%	7.6%
Commercial	10.4%	13.9%	17.4%
Total	15.1%	20.0%	25.0%

Wastewater

Customer Class	Current Rates	Scenario 1 20% Overall	Scenario 2 25% Overall
Residential	25.9%	29.9%	36.4%
Multi-Res	1.2%	1.5%	2.0%
Commercial	4.6%	5.6%	7.3%
Total	16.9%	20.0%	25.0%

Impact of Moving to 25% Fixed

General

- Alignment with costs of service principles - charging higher fixed charges to all customers (including lower volume) is a better reflection of the cost of providing service given large majority of the cost are fixed
- Greater alignment with comparable communities
- Modest increase revenue stability - 5.7% decline in revenue variability (\$2.8 m in water and \$1.5m in wastewater) (over 2017-2021 PBR term)
- Impact on conservation programs is seen as very limited – as both water and wastewater remain at relatively low fixed rate

Customer Impact – Average Residential Bill

Water

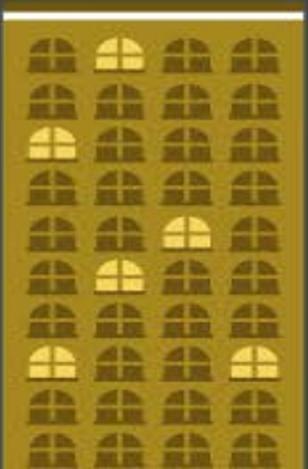
Consumption	Current Rates	Scenario 1 20% Fixed	Scenario 2 25% Fixed
Low (5m ³)	N/A	1.71	3.42
Medium (15m ³)	N/A	0.01	0.02
High (40m ³)	N/A	(4.66)	(9.33)
Fixed Portion of 15m ³ Bill	18%	25%	31%

Wastewater

Consumption	Current Rates	Scenario 1 20% Fixed	Scenario 2 25% Fixed
Low (5m ³)	N/A	0.70	1.87
Medium (15m ³)	N/A	0.35	0.95
High (40m ³)	N/A	(0.50)	(1.35)
Fixed Portion of 15m ³ Bill	24.8%	28.9%	35.5%



Questions?



Supplemental Slides

Water - Average Bill Changes

Multi-residential

	Current Rates	Scenario 1 20% Fixed	Scenario 2 25% Fixed
Low (50m ³)	N/A	18.74	37.47
Medium (500m ³)	N/A	6.84	13.67
Medium (2,000m ³)	N/A	(27.49)	(54.97)
High (4,000m ³)	N/A	(70.25)	(140.51)
Fixed Portion of 500m ³ Bill	6%	8%	11%

Commercial

Consumption	Meter Size	Current Rates	Scenario 1 20% Fixed	Scenario 2 25% Fixed
10 m ³	15mm	N/A	1.90	3.80
50 m ³	15mm	N/A	(0.59)	(1.18)
50 m ³	25mm	N/A	3.21	6.42
500 m ³	25mm	N/A	(24.82)	(49.64)
100 m ³	40mm	N/A	6.43	12.86
500 m ³	40mm	N/A	(18.48)	(36.96)
500 m ³	80mm	N/A	6.87	13.75
3,000 m ³	80mm	N/A	(110.83)	(221.66)
20,000 m ³	150mm	N/A	(661.97)	(1,323.95)
50,000 m ³	150mm	N/A	(1,759.77)	(3,519.54)

Wastewater - Average Bill Changes

Multi-residential

	Current Rates	Scenario 1 20% Fixed	Scenario 2 25% Fixed
Low (50m ³)	N/A	(0.85)	(2.27)
Medium (500m ³)	N/A	(16.29)	(43.65)
Medium (2,000m ³)	N/A	(67.75)	(181.59)
High (4,000m ³)	N/A	(136.36)	(365.50)
Fixed Portion of 500m ³ Bill	1.0%	1.2%	1.6%

Commercial

Consumption	Meter Size	Scenario 1 20% Fixed	Scenario 2 25% Fixed
10 m ³	N/A	0.42	1.13
50 m ³	N/A	(0.68)	(1.82)
100 m ³	N/A	(2.06)	(5.52)
500 m ³	N/A	(13.08)	(35.06)
3,000 m ³	N/A	(81.96)	(219.68)
20,000 m ³	N/A	(487.98)	(1,307.99)
50,000 m ³	N/A	(1,127.46)	(3,022.06)