



## VALUATION SERIES

No. 45 / FEBRUARY 2021

PUBLIC CHOICE ALTERNATIVES

# Abundant Natural Gas, Ample Opportunity

A VALUATION & STRATEGIC APPRAISAL  
OF SASKENERGY

BY IAN MADSEN



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## EXECUTIVE SUMMARY

**NOTE:** This valuation used financial data from the fiscal year 2019 and earlier, *before* the COVID-19 pandemic and recession. Timing and strength of the recovery is uncertain.

SaskEnergy is the Crown gas utility owned entirely by the provincial government of Saskatchewan. No other provincial government in Canada owns a gas utility, other than the Centra Gas division of Manitoba Hydro.

Using an **intrinsic value method**, with fully taxed net income as a proxy for free cash flow (free cash flow is negative, and projected to remain so), the entity's value is estimated from a minimum of \$1.03B to a maximum of \$7.22B, with a tighter, more plausible range of a median (midpoint of all the relevant values) of 1.81B to a mean (simple average of all the relevant values) of \$2.32B. (Please see Table 3, Page 8.)

Under the **market-based valuation system**, using seven standard valuation metrics (Trailing P/E; Forward P/E, P/Sales, P/BV; EV/Rev, EV/EBITDA, P/CF: Trailing and Forward Price to Earnings [Net Income]; Price/Sales; Price/Book Value; Enterprise Value to Revenue; Enterprise Value to Earnings Before Interest, Taxes & Depreciation & Amortization; Price/Operating Cash Flow), the current value ranges from \$1.04B to \$2.53B, with a mean of \$2.0B and a mean of \$2.27B. (Please see Page 9.)

The company has negative free cash flow and positive operating and profit-based returns on assets, equity and capital employed. Similar utility-like companies usually pay a dividend to investors. The company is showing insufficient free cash flow to pay a dividend, but its net income and zero debt level shows it could do so; a plan to provide one would make its public market flotation more successful. (Several large airports around the world are already publicly listed and traded; others are owned by other investors, so divestment is quite normal.)

Scenario experiments in this study indicate that SaskEnergy should restrain its capital expenditure plans, *or, much, if not all of the first sale proceeds of treasury shares in a partial divestiture might or should be used to fund SaskEnergy's imminent and more farther-future-oriented capital expenditures and not go to government coffers.*

Table 1, next page, is a summary table of the average estimated value of the utility under both the intrinsic value and the market value method, assuming: no reduction of projected capital expenditure; reduction of one quarter of interest-bearing debt; and, finally, reduction of one half of interest-bearing debt. The current and projected capital expenditure remain. NOTE: The Intrinsic, Discounted Free Cash Flow values use Net Income as a substitute for Free Cash Flow, because the latter is currently and forecast to be negative, and thus unusable.

Table 1

**Comparison of Different Scenarios Applied to Intrinsic Value and Market Value of SaskEnergy**

Figures in \$B.	Intrinsic Value (Discounted Projected Free Cash Flows)			Market Value (Average of Mean & Median)		
	Case 1	Case 2	Case 3	Case 1	Case 2	Case 3
	No Reduction in Debt	1/4 Reduction in Debt	1/2 Reduction in Debt	No Reduction in Debt	1/4 Reduction in Debt	1/4 Reduction in Debt
Gross Value (Average of Mean & Median)	\$ 2.065	\$ 2.727	\$ 2.945	\$ 2.137	\$ 2.305	\$ 2.595
Less Proceeds Used to Retire Debt Level	\$ 0.000	\$ 0.444	\$ 0.887	\$ 0.000	\$ 0.444	\$ 0.887
Net Value	\$ 2.065	\$ 2.283	\$ 2.058	\$ 2.137	\$ 1.861	\$ 1.708

Calculations used models incorporating financial results from Annual Reports, key financial statistics from peer companies.

Note: Conceptually, Fully Taxed Net Income as equal to Fully Taxed Free Cash Flow when Capital Expenditure is exactly equal to DD&A plus other non-cash charges.

In these experiments, value is maximized according to the intrinsic model capital expenditure is reduced by a quarter. Relatively low interest rates make the reduction in expenses comparatively small in improving the valuation. The market valuation method also shows substantial improvement when debt is reduced further. Serious consideration should be given to using initial public offering, 'IPO'

proceeds to lower the debt level of the company, or to lower its debt level prior to offering the company for sale. Caution: Use of Net Income as a substitute for Free Cash Flow greatly flatters the company. If it cannot at some point in the future sustainably generate free cash flow, its ability to remain a going concern could eventually become questionable.

**Alternative Scenario: Reducing the Projected Trajectory of Capital Expenditures**

Below is a summary table of the average estimated value of SaskEnergy under both the intrinsic value and the market value method, assuming reduction of one half of interest-bearing debt in all cases, and, in turn, reducing capital expenditures by

50 percent, and then 75 percent. Such a drastic reduction as 75 percent may put the safety and efficiency of the operation in question, so this is just a 'thought experiment', to see how much it could improve the valuation of the company.

Table 2

**Summary**

Figures in \$B.	Intrinsic Value (All using Discounted Free Cash Flow, NOT Net Income)						Market Value (Average of Mean & Median)					
	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
	As Is; No Debt Reduction	No Capex Reduction; 1/4 Debt Reduction	No Capex Reduction; 1/2 Debt Reduction	25% Capex Reduction; 1/2 Debt Reduction	50% Capex Reduction; 1/2 Debt Reduction	75% Capex Reduction; 1/2 Debt Reduction	As Is; No Debt Reduction	No Capex Reduction; 1/4 Debt Reduction	No Capex Reduction; 1/2 Debt Reduction	25% Capex Reduction; 1/2 Debt Reduction	50% Capex Reduction; 1/2 Debt Reduction	75% Capex Reduction; 1/2 Debt Reduction
Gross Value (Average of Mean & Median)	-\$ 3.690	-\$ 3.472	-\$ 3.707	-\$ 0.783	\$ 2.141	\$ 4.445	\$ 2.137	\$ 2.305	\$ 2.595	\$ 2.597	\$ 2.479	\$ 2.624
Less Proceeds Used to Retire Debt Level	\$ 0.000	\$ 0.444	\$ 0.887	\$ 0.887	\$ 0.887	\$ 0.887	\$ 0.000	\$ 0.444	\$ 0.887	\$ 0.887	\$ 0.887	\$ 0.887
Net Value	-\$ 3.690	-\$ 3.915	-\$ 4.594	-\$ 1.670	\$ 1.254	\$ 3.558	\$ 2.137	\$ 1.861	\$ 1.708	\$ 2.710	\$ 1.592	\$ 1.737

Calculations used models incorporating financial results from Annual Reports, key financial statistics from peer companies. Note: Intrinsic Values are all negative because Free Cash Flow is negative (Net Income, which is positive, is not used here). Market Value counterintuitively declines as Capex is cut because one valuation metric became usable (P/FCF), but had a low value.

Under these various scenarios, value is maximized according to the intrinsic model when projected capex is reduced by three quarters. In practice, this could endanger the safety, capacity, and reliability of the company's system. Yet a reduction of one half may be practical. Using the market comparison method, value also increases as capex is reduced. Serious consideration should be given to reducing any planned capital expenses for SaskEnergy. The firm's leverage is substantial. While it could still increase, the firm is already showing financial strains.

**Caveat:** This report is nothing approaching a prospectus. Only an intensive, meticulously minute appraisal of all of SaskEnergy's assets, including its physical assets, all its accounts and hidden assets and liabilities, plus all its contractual, legal, and regulatory obligations, would give an accurate valuation of the company, albeit still dependent on subjective reasoning and assumptions. Even then it would not necessarily indicate what magnitude of proceeds could or would be garnered in a divestment. The estimates, projections, observations, or analyses herein are neither definitive nor authoritative. Other analysts may have valid, alternative ways of scrutinizing and valuing SaskEnergy.

## INTRODUCTION

### History of SaskEnergy, Its Current State, and Operating Status

The precursor to SaskEnergy was created in 1951 as a division of the existing Saskatchewan Power Commission (which later became SaskPower) by the provincial government to extend natural gas distribution to towns and small communities that were not already serviced by existing utilities. At that time there were few nearby supplies of natural gas within the province.<sup>1</sup>

The present company is a Crown corporation entirely owned by the provincial government of Saskatchewan and headquartered in the provincial capital, the city of Regina.

SaskEnergy has about 390,000 residential, farm, commercial and industrial customers, all in the province. 93 percent of Saskatchewan communities are served by the company.<sup>2</sup>

SaskEnergy describes its structure thusly:

SaskEnergy's corporate structure consists of SaskEnergy plus four wholly owned subsidiaries: TransGas Limited, Bayhurst Gas Limited, Many Islands Pipe Lines (Canada) Limited and Saskatchewan First Call Corporation. In addition, SaskEnergy conducts operations through its indirectly held subsidiary corporation BG Storage Inc.<sup>3</sup>

SaskEnergy was split from SaskPower, another Crown corporation, during the administration of Grant Devine and his Conservative Party in the late 1980's, with a view to sell the gas company to the public. However, this became controversial, and the idea was shelved and not pursued by later governments.<sup>4</sup>

One of the rationales for keeping SaskEnergy and other Crown corporations in the Regina fold was that the surpluses they generate would contribute to provincial government revenues and offset deficits. However, any "profits" are illusory when free cash flow of an entity such as SaskEnergy is negative, as it is, and it must then borrow money to finance capital spending.<sup>5</sup>

## INTRINSIC VALUE: VALUATION OF SASKENERGY AS A BUSINESS, IN ITS CURRENT STATE

For the intrinsic value, projecting future cash flow growth, and bringing it to a net present value, a relatively conservative approach was taken which could undervalue the company (please see Table 1). A simple capitalization perpetuity formula was used, which is appropriate for a mature entity with no obvious potential mortality date forecastable. The company's free cash flow nominal (i.e., not adjusted for inflation) growth rate range was held within a restrained 2 to 4 percent range, and the required rate of return or cost of capital range was from 6 to 9 percent.

The entity could theoretically have higher growth in the future, despite recent turmoil, so a modest growth rate was considered reasonable. Its cost of capital, given low expectations, the quality of its assets, and high current (at the time) valuations in the stock market, could well be lower than the range used (and thus raise its estimated value), although there is also a chance that interest rates and the rate of return investors demand on equity (share) investment could increase.

The statutory tax rate used in calculations may be

lower in the future, as there is continued global pressure to lower corporate tax rates, exemplified by the drop in US corporation income tax rates, the slow decrease of rates in Quebec, new cuts in Australia, and a more ambitious schedule of decreases announced by the government in Alberta.

The proprietary model used in projecting the line items that determine the various inputs into the intrinsic value employ calculations based on recent and historic trends in those line items. Then the model uses formulas to project the line item numbers for the following year. All main constituent line-item factors that determine net income, operating, and free cash flow were projected on the basis of historic behaviour and mathematical analysis.

Using this method, the calculations estimate a minimum of \$103M to a maximum of \$618M, with a tighter, more plausible range of a median (midpoint of all relevant values) of \$180M to a mean (simple average of all relevant values) of \$222M. However, as projected free cash flow is actually *negative*, this valuation is *not* entirely robust.

Table 3								
Intrinsic Value, 2019; Net Income as Proxy for Discounted Free Cash Flow								
<b>CASE 1: Present Value of Projected Federal Government Cash Outlays for FY2020 and Beyond</b>								
<b>METHOD 1: Projected Fully Taxed Free Cash Flow (Actual Net Income) for FY2021 (\$B)</b>								
Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return [ $r$ ] = Growth Rate [ $g$ ])								
Projected Fully Taxed Free Cash Flow FY2021 (\$B): \$ 0.072								
Matrix Values (\$B) $g==v$ ; $r==>$	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	11.00%	
0.00%	\$ 1.81	\$ 1.44	\$ 1.20	\$ 1.03	\$ 0.90	\$ 0.80	\$ 0.72	
1.00%	\$ 2.41	\$ 1.81	\$ 1.44	\$ 1.20	\$ 1.03	\$ 0.90	\$ 0.80	
2.00%	\$ 3.61	<b>\$ 2.41</b>	<b>\$ 1.81</b>	<b>\$ 1.44</b>	<b>\$ 1.20</b>	\$ 1.03	\$ 0.90	
3.00%	\$ 7.22	<b>\$ 3.61</b>	<b>\$ 2.41</b>	<b>\$ 1.81</b>	<b>\$ 1.44</b>	\$ 1.20	\$ 1.03	
4.00%	--	<b>\$ 7.22</b>	<b>\$ 3.61</b>	<b>\$ 2.41</b>	<b>\$ 1.81</b>	\$ 1.44	\$ 1.20	
5.00%	-\$ 7.22	--	\$ 7.22	\$ 3.61	\$ 2.41	\$ 1.81	\$ 1.44	
6.00%	-\$ 3.61	\$ 7.22	--	\$ 7.22	\$ 3.61	\$ 2.41	\$ 1.81	
7.00%	-\$ 2.41	-\$ 3.61	\$ 7.22	--	\$ 7.22	\$ 3.61	\$ 2.41	
	Minimum		Maximum		Median		Mean (Average)	
Value (\$B)	\$ 1.03		\$ 7.22		\$ 1.81		\$ 2.32	

Note: 'g' is Growth Rate in Free Cash Flow or Proxy, 'r' is the Required Rate of Return; Bold font figures are used in the Mean, Median, Minimum and Maximum determinations.

Source: Company financial reports; financial model using company financial data, projections.



## MARKET-BASED VALUE: VALUATION OF SASKENERGY USING STOCK MARKET AND FINANCIAL METRICS

As there are only a few gas-focused utilities in Canada, American examples were also used. Please see the details of the models' results in Table 4.

As noted in the Executive Summary, using seven standard valuation metrics (Trailing and Forward Price/Earnings; Price/Sales; Price/Book Value; Enterprise Value to Revenue; Enterprise Value to

Earnings Before Interest, Taxes & Depreciation & Amortization [EV/EBITDA]; Price/Operating Cash Flow), the current value ranges from \$1.04B to \$2.53B, with a with a more plausible range of a mean (simple average) of \$2.00B and a median (midpoint of the field of values) of \$2.27B.

Table 4							
Market Valuation, As Is							
Method 2: SaskEnergy Projections are for FY2020; Fully Taxed							
Valuation metrics applied to SaskEnergy, ie. Market Value of Common Equity. Figures in \$B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price Operating Cash Flow
Average Six Canadian Utility Companies with Large Gas Divisions	\$ 1.52	\$ 1.51	\$ 2.07	\$ 1.76	\$ 1.89	\$ 1.02	\$ 2.14
Average Eight Canadian Utility Companies	\$ 1.06	\$ 3.58	\$ 1.77	\$ 1.93	\$ 0.95	\$ 2.24	\$ 2.39
Average Eighteen U.S.-Listed Natural Gas Dominated Utility Companies	\$ 0.84	\$ 1.54	\$ 0.84	\$ 1.54	\$ 1.93	\$ 1.12	\$ 2.50
Average of All Above	\$ 1.04	\$ 1.99	\$ 2.53	\$ 2.32	\$ 2.27	\$ 1.38	\$ 2.50

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.

Market Value Using Comparable Companies and Seven Viable Valuation Ratios				
	Minimum	Maximum	Median	Mean (Average)
Market Value (\$B)	\$ 1.04	\$ 2.53	\$ 2.27	\$ 2.00

Source: Calculations based on annual report financial data; comparison company data from Capital IQ via Yahoo!Finance.

## FINANCIAL PERFORMANCE OF SASKENERGY, TRENDS IN SAME

SaskEnergy has generally not been able to cover its capital spending with its cash generation, whether measured by Earnings Before Interest, Taxes and Depreciation and Amortization (EBITDA), or by Operating Cash Flow. It has filled the gap by borrowing, which puts the ultimate owners, taxpayers and citizens, at risk. Please see Table 5, below.

<b>Financial Coverage</b>											
Year Ending 31 December (\$M)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Debt/Equity	247%	245%	231%	202%	195%	219%	236%	210%	185%	173%	180%
EBITDA/Interest+Capex	143%	91%	124%	165%	148%	40%	165%	228%	158%	150%	91%
Fully Taxed Operating Cash Flow/Interest+Capex	39%	99%	161%	102%	153%	106%	176%	125%	133%	109%	95%

Source: Annual Reports, Company Financial Statements. Debt and Equity are the averages for each year. Taxes calculated using the historic federal and provincial rates in each year.

As shown in Table 6, below, SaskEnergy's returns on assets, equity, and capital employed have generally improved over the past eleven years, until recently, whether the numerator in the ratios is net income or operating cash flow. However, free cash flow has not deteriorated markedly, which is a concern.

<b>Capital Efficiency Performance Metric</b>											
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Return on Assets Using Fully Taxed Net Income</b>											
EBITDA (\$M)	\$ 67.89	\$ 27.01	\$ 18.98	\$ 78.11	\$ 57.67	-\$ 24.09	\$ 81.03	\$ 106.58	\$ 105.12	\$ 121.18	\$ 31.39
Average Assets (\$M)	\$ 1,574	\$ 1,616	\$ 1,784	\$ 1,981	\$ 2,122	\$ 2,294	\$ 2,415	\$ 2,478	\$ 2,597	\$ 2,813	\$ 3,080
RoA, EBITDA	4.31%	1.67%	1.06%	3.94%	2.72%	-1.05%	3.36%	4.30%	4.05%	4.31%	1.02%
<b>Return on Assets Using Fully Taxed Operating Cash Flow</b>											
Fully Taxed Net Income (\$M)	\$ 57.89	\$ 175.01	\$ 187.98	\$ 143.11	\$ 222.67	\$ 256.91	\$ 317.03	\$ 185.58	\$ 273.12	\$ 235.18	\$ 258.39
Average Assets (\$M)	\$ 1,574	\$ 1,616	\$ 1,784	\$ 1,981	\$ 2,122	\$ 2,294	\$ 2,415	\$ 2,478	\$ 2,597	\$ 2,813	\$ 3,080
RoA, NI	3.68%	10.83%	10.54%	7.23%	10.49%	11.20%	13.13%	7.49%	10.52%	8.36%	8.39%
<b>Return on Assets Using Fully Taxed Free Cash Flow</b>											
Fully Taxed Operating Cash Flow (\$M)	\$ 31.89	\$ 66.01	\$ 37.98	-\$ 37.89	\$ 1.67	-\$ 26.09	\$ 76.03	-\$ 12.42	\$ 15.12	-\$ 35.82	-\$ 82.61
Average Assets (\$M)	\$ 1,574	\$ 1,616	\$ 1,784	\$ 1,981	\$ 2,122	\$ 2,294	\$ 2,415	\$ 2,478	\$ 2,597	\$ 2,813	\$ 3,080
RoA, OCF	2.03%	4.09%	2.13%	-1.91%	0.08%	-1.14%	3.15%	-0.50%	0.50%	-1.27%	-2.68%
<b>Return on Equity Using Fully Taxed Net Income</b>											
Fully Taxed Free Cash Flow (\$M)	\$ 67.89	\$ 27.01	\$ 18.98	\$ 78.11	\$ 57.67	-\$ 24.09	\$ 81.03	\$ 106.58	\$ 105.12	\$ 121.18	\$ 31.39
Average Assets (\$M)	\$ 454	\$ 469	\$ 539	\$ 656	\$ 721	\$ 720	\$ 718	\$ 800	\$ 912	\$ 1,032	\$ 1,100
RoE, FCF	14.95%	5.77%	3.52%	11.91%	8.00%	-3.35%	11.29%	13.33%	11.53%	11.74%	2.85%
<b>Return on Equity Using Fully Taxed Operating Cash Flow</b>											
EBITDA (\$M)	\$ 57.89	\$ 175.01	\$ 187.98	\$ 143.11	\$ 222.67	\$ 256.91	\$ 317.03	\$ 185.58	\$ 273.12	\$ 235.18	\$ 258.39
Average Equity (\$M)	\$ 454	\$ 469	\$ 539	\$ 656	\$ 721	\$ 720	\$ 718	\$ 800	\$ 912	\$ 1,032	\$ 1,100
RoE, EBITDA	12.75%	37.36%	34.88%	21.82%	30.90%	35.68%	44.15%	23.21%	29.96%	22.79%	23.50%
<b>Return on Equity Using Fully Taxed Free Cash Flow</b>											
Fully Taxed Net Income (\$M)	\$ 31.89	\$ 66.01	\$ 37.98	-\$ 37.89	\$ 1.67	-\$ 26.09	\$ 76.03	-\$ 12.42	\$ 15.12	-\$ 35.82	-\$ 82.61
Average Equity (\$M)	\$ 454	\$ 469	\$ 539	\$ 656	\$ 721	\$ 720	\$ 718	\$ 800	\$ 912	\$ 1,032	\$ 1,100
RoE, NI	7.02%	14.09%	7.05%	-5.70%	0.23%	-3.62%	10.59%	-1.55%	1.66%	-3.47%	-7.51%

Source: Company Financial Statements. Taxes were calculated using current federal and provincial rates applied retroactively for comparability.

## STRATEGIES AND ALTERNATIVES FOR COMMERCIALIZATION, DIVESTITURE, OR PRIVATIZATION

### Partial Divestment

Quite often when a state-owned enterprise is divested or 'privatized', it is not done entirely at once. This is because it may not be possible to sell the whole company into the stock market and get the maximum price for the seller, especially if the firm has assets in the billions of dollars, or if there are unusual aspects to the nature of the company, or problematic circumstances in which it operates. Hence, an initial, small minority allotment of shares are sold to help establish at least a crude market valuation of the company's shares as they become openly traded.

However, having a majority stake retained by a government introduces some doubt about the true independence and commercial status of the

partially divested firm. There could be fear on the part of investors that politicians may interfere with the strategy or operations of the firm. This could result in there being a discount that the firm's shares suffer in the market. While there are no current signs of government meddling or public controversies, various 'stakeholders' may intervene, which potentially or theoretically can complicate partial or total sale of the operation.

Selling part or all of SaskEnergy, with much of the proceeds used to finance capital expenditures, would make it healthier, and allow it to fetch a higher price upon its sale; all after a recovery when the pandemic has subsided and air travel resumes strong growth. Two different scenarios were explored. For reference, the three scenarios are laid out in the simple table below.

<b>Table 7</b>			
<b>3 Cases: Debt Level As Is; One Quarter of Long-Term Debt Gone; Half of Long-Term Debt Retired</b>			
<b>Retirement of Debt Scenarios Assumed to Occur in Fiscal Year 2020.</b>			
Note: The assumption was made that no other Net Debt Addition or Redemption would occur in 2020.			
<b>All Figures \$B</b>	<b>Current: No Debt Retirement</b>	<b>Case 1 One Quarter Long-Term Debt Retired</b>	<b>Case 2 Half Long-Term Debt Retired</b>
Total Liabilities	\$ 2.2511	\$ 1.8076	\$ 1.3640
Total Assets	\$ 3.4233	\$ 3.4233	\$ 3.4233
Shareholders Equity	\$ 1.1722	\$ 1.6158	\$ 2.0593
Total Interest-Bearing Debt	\$ 1.7741	\$ 1.3306	\$ 0.8870
Total Interest Expenses	-\$ 0.0418	-\$ 0.0314	-\$ 0.0209
EBITDA	\$ 0.2780	\$ 0.2780	\$ 0.2780
DD&A	\$ 0.1159	\$ 0.1159	\$ 0.1159
EBIT	\$ 0.1620	\$ 0.1620	\$ 0.1620
Interest Income	\$ 0.0000	\$ 0.0000	\$ 0.0000
Interest Expense	-\$ 0.0418	-\$ 0.0314	-\$ 0.0209
Pre-Tax Income	\$ 0.1202	\$ 0.1307	\$ 0.1411
Income Tax (Combined 27%)	\$ 0.0325	\$ 0.0353	\$ 0.0381
Net Income	\$ 0.0878	\$ 0.0954	\$ 0.1030
Operating Cash Flow	\$ 0.2300	\$ 0.2376	\$ 0.2473
Capital Expenditures	-\$ 0.3591	-\$ 0.3591	-\$ 0.3591
Free Cash Flow	-\$ 0.1291	-\$ 0.1214	-\$ 0.1138

## ALTERNATIVE SCENARIO 1: One Quarter of Interest-Bearing Debt Cut

Table 8								
Intrinsic Value, One Quarter of Interest-Bearing Debt Cut								
<b>CASE 2: Projected Fully Taxed Free Cash Flow for Company FY2021 (\$B), One Quarter Long-Term Debt Retired</b>								
Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return ['r'] = Growth Rate ['g'])								
Projected Fully Taxed Free Cash Flow (Actual Net Income) for FY2021 (\$B): \$ 0.095								
Matrix Values (\$B) g==v; r==>	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	
0.00%	\$ 2.38	\$ 1.91	\$ 1.59	\$ 1.36	\$ 1.19	\$ 1.06	\$ 0.95	
1.00%	\$ 3.18	\$ 2.38	\$ 1.91	\$ 1.59	\$ 1.36	\$ 1.19	\$ 1.06	
2.00%	\$ 4.77	<b>\$ 3.18</b>	<b>\$ 2.38</b>	<b>\$ 1.91</b>	<b>\$ 1.59</b>	<b>\$ 1.36</b>	<b>\$ 1.19</b>	
3.00%	\$ 9.54	<b>\$ 4.77</b>	<b>\$ 3.18</b>	<b>\$ 2.38</b>	<b>\$ 1.91</b>	<b>\$ 1.59</b>	<b>\$ 1.36</b>	
4.00%	--	<b>\$ 9.54</b>	<b>\$ 4.77</b>	<b>\$ 3.18</b>	<b>\$ 2.38</b>	<b>\$ 1.91</b>	<b>\$ 1.59</b>	
5.00%	-\$ 9.54	--	\$ 9.54	\$ 4.77	\$ 3.18	\$ 2.38	\$ 1.91	
6.00%	-\$ 4.77	-\$ 9.54	--	\$ 9.54	\$ 4.77	\$ 3.18	\$ 2.38	
7.00%	-\$ 3.18	-\$ 4.77	-\$ 9.54	--	\$ 9.54	\$ 4.77	\$ 3.18	
		Minimum	Maximum	Median	Mean (Average)			
Gross Value (\$B)	\$ 1.363	\$ 9.538	\$ 2.385	\$ 3.069				
Minus Sales Proceeds Used to Retire 1/4 Long-Term Debt	\$ 0.444	\$ 0.444	\$ 0.444	\$ 0.444				
Net Value	\$ 0.919	\$ 9.095	\$ 1.941	\$ 2.625				

Source: Calculations from model derived from company annual reports.

This Scenario One for the intrinsic value yields (net of the amount of proceeds used to extinguish one quarter of the firm's long-term debt) a minimum of \$919M to a maximum of \$9.095B, with a more

plausible range of a median (midpoint of the array of projected values) of \$1.941B to a mean (simple average) of \$2.625B. Using the proceeds to lower debt improves the valuation slightly.

Table 9

**Market Value, One Quarter Cut to Interest-Bearing Debt****CASE 1: SaskEnergy Projections are for FY2019; Fully Taxed, Debt Free**

Valuation metrics applied to SaskEnergy, ie. Market Value of Common Equity. Figures in \$B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price Operating Cash Flow
Average Six Canadian Utility Companies with Large Gas Divisions	\$ 2.07	\$ 1.48	\$ 3.37	\$ 2.59	\$ 2.20	\$ 1.33	\$ 1.96
Average Eight Canadian Utility Companies	\$ 1.77	\$ 3.50	\$ 2.35	\$ 2.84	\$ 1.27	\$ 2.55	\$ 2.20
Average Eighteen U.S.-Listed Natural Gas Dominated Utility Companies	\$ 1.87	\$ 1.48	\$ 1.87	\$ 1.48	\$ 2.84	\$ 1.43	\$ 2.27
Average of All Above	\$ 2.48	\$ 2.03	\$ 2.00	\$ 3.51	\$ 2.48	\$ 1.61	\$ 2.27

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.

**Market Value Using Comparable Companies and Seven Viable Valuation Ratios**

	Minimum	Maximum	Median	Mean (Average)
Gross Value (\$B)	\$ 1.61	\$ 3.51	\$ 2.27	\$ 2.34
Minus Proceeds of Sale Used to Extinguish 1/4 Long-Term Debt (\$B)	\$ 0.44	\$ 0.44	\$ 0.44	\$ 0.44
Total Market Value (\$B)	\$ 1.17	\$ 3.07	\$ 1.83	\$ 1.90

Source: Calculations based on annual report financial data; comparison company data from Capital IQ via Yahoo!Finance.

This Alternative Scenario One for the market value method yields a minimum of \$1.17B to a maximum of \$3.07B, with a more plausible range of a median (midpoint of the array of projected

values) of \$1.83B to a mean (simple average) of \$1.90B. The lowering of debt does not appreciably improve the valuation; in fact, it lowers it in this scenario.

## ALTERNATIVE SCENARIO 2: One Half Cut to Interest-Bearing Debt

Table 10

### Intrinsic Value, One Half Cut to Interest-Bearing Debt

#### CASE 2: Present Value of Projected Fully Taxed Free Cash Flow for FY2021 (\$B); Half of Long-Term Debt Retired

Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return ['r'] = Growth Rate ['g'])

Projected Fully Taxed Free Cash Flow for FY2021 (\$B): \$ 0.103

Matrix Values (\$B) g==v; r==>	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%
0.00%	\$ 2.58	\$ 2.06	\$ 1.72	\$ 1.47	\$ 1.29	\$ 1.14	\$ 1.03
1.00%	\$ 3.43	\$ 2.58	\$ 2.06	\$ 1.72	\$ 1.47	\$ 1.29	\$ 1.14
2.00%	\$ 5.15	<b>\$ 3.43</b>	<b>\$ 2.58</b>	<b>\$ 2.06</b>	<b>\$ 1.72</b>	<b>\$ 1.47</b>	\$ 1.29
3.00%	\$ 10.30	<b>\$ 5.15</b>	<b>\$ 3.43</b>	<b>\$ 2.58</b>	<b>\$ 2.06</b>	<b>\$ 1.72</b>	\$ 1.47
4.00%	--	<b>\$ 10.30</b>	<b>\$ 5.15</b>	<b>\$ 3.43</b>	<b>\$ 2.58</b>	<b>\$ 2.06</b>	\$ 1.72
5.00%	-\$ 10.30	--	\$ 10.30	\$ 5.15	\$ 3.43	\$ 2.58	\$ 2.06
6.00%	-\$ 5.15	-\$ 10.30	--	\$ 10.30	\$ 5.15	\$ 3.43	\$ 2.58
7.00%	-\$ 3.43	-\$ 5.15	-\$ 10.30	--	\$ 10.30	\$ 5.15	\$ 3.43
		Minimum	Maximum	Median	Mean (Average)		
Gross Value (\$B)		\$ 1.47	\$ 10.30	\$ 2.58	\$ 3.31		
Minus Sale Proceeds Used to Retire Half Long-Term Debt		\$ 0.89	\$ 0.89	\$ 0.89	\$ 0.89		
Net Value (\$B)		\$ 0.58	\$ 9.41	\$ 1.69	\$ 2.43		

Source: Calculations from model derived from Company Annual Reports.

This Alternative Scenario yields (net of the amount of proceeds used to extinguish one half of the firm's long-term debt) a minimum of \$58M to a maximum of \$9.41B, with a more plausible range of a median (midpoint of the array of projected values) of \$1.69B to a mean (simple average) of \$2.43B.

Table 11

**Market Value, One Half of Interest-Bearing Debt Cut****CASE 2: SaskEnergy Projections are for FY2021; Fully Taxed, Debt Free**

Valuation metrics applied to SaskEnergy, ie. Market Value of Common Equity. Figures in \$B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price Operating Cash Flow
Average Six Canadian Utility Companies with Large Gas Divisions	\$ 2.07	\$ 1.58	\$ 3.64	\$ 3.30	\$ 2.65	\$ 1.77	\$ 2.03
Average Eight Canadian Utility Companies	\$ 1.77	\$ 3.73	\$ 2.54	\$ 3.61	\$ 1.71	\$ 3.00	\$ 2.27
Average Eighteen U.S.-Listed Natural Gas Dominated Utility Companies	\$ 1.87	\$ 1.60	\$ 2.02	\$ 1.60	\$ 3.61	\$ 1.87	\$ 2.38
Average of All Above	\$ 2.53	\$ 2.08	\$ 2.48	\$ 4.34	\$ 3.03	\$ 2.14	\$ 2.38

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.

**Market Value Using Comparable Companies and Seven Viable Valuation Ratios**

	Minimum	Maximum	Median	Mean (Average)
Gross Value (\$B)	\$ 2.08	\$ 4.34	\$ 2.48	\$ 2.71
Minus Proceeds of Sale Used to Extinguish 1/4 Long-Term Debt (\$B)	\$ 0.89	\$ 0.89	\$ 0.89	\$ 0.89
Total Market Value (\$B)	\$ 1.19	\$ 3.45	\$ 1.59	\$ 1.82

Source: Calculations based on annual report financial data; comparison company data from Capital IQ via Yahoo!Finance.

This Alternative Scenario Two for the market value method yields (net of the amount of proceeds used to extinguish one half of the firm's long-term debt) a minimum of \$1.19B to a maximum of \$3.45B, with a more plausible range of a median (midpoint of the array of projected values) of \$1.59B to a

mean (simple average) of \$1.82B. Lowering debt and interest costs to raise the valuation is insufficient to offset the cost of paying down the debt. For easier comparison, the three cases are presented together in Table 12, next page.

Table 12

**Comparison of Different Scenarios Applied to Intrinsic Value and Market Value of SaskEnergy**

Figures in \$B.	Intrinsic Value (Discounted Projected Free Cash Flows)			Market Value (Average of Mean & Median)		
	Case 1	Case 2	Case 3	Case 1	Case 2	Case 3
	No Reduction in Debt	1/4 Reduction in Debt	1/2 Reduction in Debt	No Reduction in Debt	1/4 Reduction in Debt	1/4 Reduction in Debt
Gross Value (Average of Mean & Median)	\$ 2.065	\$ 2.727	\$ 2.945	\$ 2.137	\$ 2.305	\$ 2.595
Less Proceeds Used to Retire Debt Level	\$ 0.000	\$ 0.444	\$ 0.887	\$ 0.000	\$ 0.444	\$ 0.887
Net Value	\$ 2.065	\$ 2.283	\$ 2.058	\$ 2.137	\$ 1.861	\$ 1.708

Calculations used models incorporating financial results from Annual Reports, key financial statistics from peer companies. Note: Conceptually, Fully Taxed Net Income as equal to Fully Taxed Free Cash Flow when Capital Expenditure is exactly equal to DD&A plus other non-cash charges.

It is apparent that, whether or not share issue proceeds are used to pay down debt is not necessarily sufficient to improve valuation, by either method. However, a more sophisticated sensitivity analysis could determine a different

proportion. Generally, the lower the debt load and interest burden, the more attractive and salable the company will be, which may be something that is hinted at in the analyses above, but needs further examination.



## ALTERNATIVE SCENARIO 3: 50% Reduction of Interest-Bearing Debt; 50%, then 75% Cut to Capex

As heavy capital expenditures are increasing SaskEnergy's cost of doing business, lowering its competitiveness, and consequently lowering its potential valuation, additional experiments were conducted: reduction of the expense in three separate cases.

To illustrate the high rates of capital expenditure versus the very gradual increases in both volumes shipped and capacity of the company's pipeline and transmission network, please see Table 13, below. Capital spending growth is far higher than any other growth rates at the firm.

Table 13

### Transmission Volumes, Customer Numbers, Pipeline Length, and Capital Spending

	2009	2010	2011	2012	2013	2014	2016	2017	2018	2019	2020	Compound Annual Growth Rate
<b>Transmission Volumes (petajoules)</b>												
Domestic	205	215	226	237	265	275	280	308	325	362	364	
Export	62	24	5	4	3	7	24	18	25	33	37	
Total	267	239	231	241	268	282	304	326	350	395	401	
Percent Change		-10.49%	-3.35%	4.33%	11.20%	5.22%	7.80%	7.24%	7.36%	12.88%	1.52%	4.15%
<b>Number of Customers</b>												
Distribution	347,327	352,560	358,363	365,749	373,436	380,768	386,886	390,886	394,592	397,367	399,826	
Percent Change		1.65%	2.06%	2.10%	1.98%	1.61%	1.03%	0.95%	0.70%	0.62%	1.41%	
Transmission	132	135	137	148	153	153	123	117	119	119	118	
Percent Change		2.27%	1.48%	8.03%	3.38%	0.00%	-19.61%	4.83%	1.71%	0.00%	-0.84%	-1.11%
<b>Pipeline (km)</b>												
Distribution	67,045	67,342	67,692	68,092	68,612	69,015	69,547	69,870	70,180	70,707	70,995	
Percent Change		0.52%	0.59%	0.78%	0.59%	0.77%	0.46%	0.44%	0.75%	0.41%	0.59%	
Transmission	14,548	14,638	14,797	14,979	15,042	15,174	15,155	15,228	15,127	15,090	15,169	
Percent Change		0.62%	1.09%	1.29%	0.42%	0.88%	-0.12%	0.48%	-0.66%	-0.24%	0.52%	0.42%
<b>Capital Spending (\$M)</b>												
	\$ 26	\$ 108	\$ 150	\$ 181	\$ 221	\$ 283	\$ 241	\$ 198	\$ 258	\$ 271	\$ 341	29.3%
Percent Change		319.23%	37.61%	20.67%	22.10%	28.09%	-14.84%	-17.84%	30.30%	5.04%	25.88%	

Table 14

**Three Cases: Capex As Is; and One Quarter, Half, 75% Cuts to Capital Expenses (\$B)**

<b>All figures \$B</b>	<b>Case 1: Current No Debt Retirement 2021=v</b>	<b>Case 2: Retirement of 1/4 L-T Debt 2021=v</b>	<b>Case 3: Retirement of 1/2 L-T Debt 2021=v</b>	<b>Case 4: Retirement of 1/2 L-T Debt 25% Reduction in Capex 2021=v</b>	<b>Case 2: Retirement of 1/2 L-T Debt 50% Reduction in Capex 2021=v</b>	<b>Case 2: Retirement of 1/2 L-T Debt 75% Reduction in Capex 2021=v</b>
Total Liabilities	\$ 2.251	\$ 1.808	\$ 1.364	\$ 1.364	\$ 1.364	\$ 1.364
Total Assets	\$ 3.423	\$ 3.423	\$ 3.423	\$ 3.423	\$ 3.423	\$ 3.423
Shareholders Equity	\$ 1.172	\$ 1.616	\$ 2.059	\$ 2.059	\$ 2.059	\$ 2.059
Total Interest-Bearing Debt	\$ 1.774	\$ 1.331	\$ 0.887	\$ 0.887	\$ 0.887	\$ 0.887
Total Interest Expenses	-\$ 0.042	-\$ 0.031	-\$ 0.021	-\$ 0.021	-\$ 0.021	-\$ 0.021
EBITDA	\$ 0.278	\$ 0.278	\$ 0.278	\$ 0.278	\$ 0.278	\$ 0.278
DD&A	\$ 0.116	\$ 0.116	\$ 0.116	\$ 0.116	\$ 0.116	\$ 0.116
EBIT	\$ 0.162	\$ 0.162	\$ 0.162	\$ 0.162	\$ 0.162	\$ 0.162
Interest Income	\$ 0.000	\$ 0.000	\$ 0.000	\$ 0.000	\$ 0.000	\$ 0.000
Interest Expense	-\$ 0.042	-\$ 0.031	-\$ 0.021	-\$ 0.021	-\$ 0.021	-\$ 0.021
Pre-Tax Income	\$ 0.120	\$ 0.131	\$ 0.141	\$ 0.141	\$ 0.141	\$ 0.141
Income Tax (Combined 27%)	\$ 0.032	\$ 0.035	\$ 0.038	\$ 0.038	\$ 0.038	\$ 0.038
Net Income	\$ 0.088	\$ 0.095	\$ 0.103	\$ 0.103	\$ 0.103	\$ 0.103
Operating Cash Flow	\$ 0.230	\$ 0.238	\$ 0.245	\$ 0.245	\$ 0.245	\$ 0.245
Capital Expenditures	-\$ 0.359	-\$ 0.359	-\$ 0.359	-\$ 0.269	-\$ 0.180	-\$ 0.090
Free Cash Flow	-\$ 0.129	-\$ 0.121	-\$ 0.114	-\$ 0.024	-\$ 0.066	-\$ 0.155

Source: Company Financial Statements. Taxes were calculated using current federal and provincial rates applied retroactively for comparability.

## ALTERNATIVE SCENARIO 4: Interest-Bearing Debt Cut by Half; Capex Cut by 25%

Table 15

### Intrinsic Value; Interest-Bearing Debt Cut by Half; Capex Cut by 25%

#### CASE 2: Present Value of Projected Fully Taxed Free Cash Flow for FY2020 (\$B); Half of Long-Term Debt Retired

Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return ['r'] = Growth Rate ['g'])

Projected Fully Taxed Free Cash Flow (Actually Net Income) for FY2021 (\$B): \$ 0.0024

Matrix Values (\$B) g=v; r=>	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%
0.00%	-\$ 0.60	-\$ -0.48	-\$ 0.40	-\$ 0.34	-\$ 0.30	-\$ 0.27	-\$ 0.24
1.00%	-\$ 0.80	-\$ 0.60	-\$ 0.48	-\$ 0.40	-\$ 0.34	-\$ 0.30	-\$ 0.27
2.00%	-\$ 1.20	-\$ <b>0.80</b>	-\$ <b>0.60</b>	-\$ <b>0.48</b>	-\$ <b>0.40</b>	-\$ <b>0.34</b>	-\$ 0.30
3.00%	-\$ 2.40	-\$ <b>1.20</b>	-\$ <b>0.80</b>	-\$ <b>0.60</b>	-\$ <b>0.48</b>	-\$ <b>0.40</b>	-\$ 0.34
4.00%	--	-\$ <b>2.40</b>	-\$ <b>1.20</b>	-\$ <b>0.80</b>	-\$ <b>0.60</b>	-\$ <b>0.48</b>	-\$ 0.40
5.00%	\$ 2.40	--	-\$ 2.40	-\$ 1.20	-\$ 0.80	-\$ 0.60	-\$ 0.48
6.00%	\$ 1.20	\$ 2.40	--	-\$ 2.40	-\$ 1.20	-\$ 0.80	-\$ 0.60
7.00%	\$ 0.80	\$ 1.20	\$ 2.40	--	-\$ 2.40	-\$ 1.20	-\$ 0.80
		Minimum	Maximum	Median	Mean (Average)		
Gross Value (\$B)		-\$ 2.40	-\$ 0.34	-\$ 0.60	-\$ 0.77		
Minus Sale Proceeds Used to Retire Half Long-Term Debt		\$ 0.89	\$ 0.89	\$ 0.89	\$ 0.89		
Net Value (\$B)		-\$ 3.29	-\$ 1.23	-\$ 1.49	-\$ 1.66		

Source: Calculations from model derived from company annual reports, valuation model formulas.

Using this method, SaskEnergy's free cash flow remains negative, as does the estimated value of the entity. Lowering capital expenditures does *not* improve the company's valuation significantly.

Table 16

### Market Value, Next Year: Interest-Bearing Debt Cut by Half; Capex Cut by 25%

#### CASE 2: Present Value of Projected Fully Taxed Free Cash Flow for FY2020 (\$B); Half of Long-Term Debt Retired

Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return ['r'] = Growth Rate ['g'])

Projected Fully Taxed Free Cash Flow for FY2021 (\$B): \$ 0.0024

Matrix Values (\$B) g=v; r=>	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%
0.00%	-\$ 0.60	-\$ -0.48	-\$ 0.40	-\$ 0.34	-\$ 0.30	-\$ 0.27	-\$ 0.24
1.00%	-\$ 0.80	-\$ 0.60	-\$ 0.48	-\$ 0.40	-\$ 0.34	-\$ 0.30	-\$ 0.27
2.00%	-\$ 1.20	-\$ <b>0.80</b>	-\$ <b>0.60</b>	-\$ <b>0.48</b>	-\$ <b>0.40</b>	-\$ <b>0.34</b>	-\$ 0.30
3.00%	-\$ 2.40	-\$ <b>1.20</b>	-\$ <b>0.80</b>	-\$ <b>0.60</b>	-\$ <b>0.48</b>	-\$ <b>0.40</b>	-\$ 0.34
4.00%	--	-\$ <b>2.40</b>	-\$ <b>1.20</b>	-\$ <b>0.80</b>	-\$ <b>0.60</b>	-\$ <b>0.48</b>	-\$ 0.40
5.00%	\$ 2.40	--	-\$ 2.40	-\$ 1.20	-\$ 0.80	-\$ 0.60	-\$ 0.48
6.00%	\$ 1.20	\$ 2.40	--	-\$ 2.40	-\$ 1.20	-\$ 0.80	-\$ 0.60
7.00%	\$ 0.80	\$ 1.20	\$ 2.40	--	-\$ 2.40	-\$ 1.20	-\$ 0.80
		Minimum	Maximum	Median	Mean (Average)		
Gross Value (\$B)		-\$ 2.40	-\$ 0.34	-\$ 0.60	-\$ 0.77		
Minus Sale Proceeds Used to Retire Half Long-Term Debt		\$ 0.89	\$ 0.89	\$ 0.89	\$ 0.89		
Net Value (\$B)		-\$ 3.29	-\$ 1.23	-\$ 1.49	-\$ 1.66		

Source: Calculations from model derived from company annual reports.

Using this method, the calculations estimate a minimum of negative \$3.29B to a maximum of negative \$1.23B, with a tighter, more plausible range of a median (midpoint of all relevant values) of negative \$1.49B to a mean (simple average of all relevant values) of negative \$1.66B.

## ALTERNATIVE SCENARIO 5: 50% Reduction of Interest-Bearing Debt; Half Cut to Projected Capital Expenditure

Table 17

### Intrinsic Value Method; 50% Reduction of Interest-Bearing Debt; Half Cut to Projected Capex

#### Method 1: Present Value, of Projected Fully Taxed Free Cash Flow for FY2020, One Quarter of Long-Term Debt Retired

Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return [ $r$ ] = Growth Rate [ $g$ ])

Projected Fully Taxed Net Income as a Proxy for Free Cash Flow for FY2021 (\$B): \$ 0.066

Matrix Values (\$B) $g==v; r==>$	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	
0.00%	\$ 1.64	\$ 1.31	\$ 1.10	\$ 0.94	\$ 0.82	\$ 0.73	\$ 0.66	
1.00%	\$ 2.19	\$ 1.64	\$ 1.31	\$ 1.10	\$ 0.94	\$ 0.82	\$ 0.73	
2.00%	\$ 3.29	<b>\$ 2.19</b>	<b>\$ 1.64</b>	<b>\$ 1.31</b>	<b>\$ 1.10</b>	<b>\$ 0.94</b>	\$ 0.82	
3.00%	\$ 6.57	<b>\$ 3.29</b>	<b>\$ 2.19</b>	<b>\$ 1.64</b>	<b>\$ 1.31</b>	<b>\$ 1.10</b>	\$ 0.94	
4.00%	--	<b>\$ 6.57</b>	<b>\$ 3.29</b>	<b>\$ 2.19</b>	<b>\$ 1.64</b>	<b>\$ 1.31</b>	\$ 1.10	
5.00%	-\$ 6.57	--	\$ 6.57	\$ 3.29	\$ 2.19	\$ 1.64	\$ 1.31	
6.00%	-\$ 3.29	-\$ 6.57	\$ --	\$ 6.57	\$ 3.29	\$ 2.19	\$ 1.64	
7.00%	-\$ 2.19	-\$ 3.29	-\$ 6.57	\$ --	\$ 6.57	\$ 3.29	\$ 2.19	
		Minimum		Maximum		Median		Mean (Average)
Gross Value (\$B)		\$ 0.94		\$ 6.57		\$ 1.64		\$ 2.11
Minus Sale Proceeds Used to Retire Half Long-Term Debt		\$ 0.89		\$ 0.89		\$ 0.89		\$ 0.89
Net Value (\$B)		\$ 0.05		\$ 5.69		\$ 0.76		\$ 1.23

Source: Calculations from model derived from Company Annual Reports.

Using this method, the calculations show a (midpoint of all relevant values) of \$760M to a minimum of \$50M to a maximum of \$5.69B, with a tighter, more plausible range of a median mean (simple average of all relevant values) of \$1.23B.

Table 18

**Market Value Method; 50% Reduction of Interest-Bearing Debt; Half Cut to Projected Capex****CASE 1: SaskEnergy Projections are for FY2020; Fully Taxed, Debt Free**

Valuation metrics applied to SaskEnergy, Market Value of Common Equity. 1/4 L-T Debt Ext. Figures in \$B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price to Operating Cash Flow	Price to Free Cash Flow
Average Six Canadian Utility Companies with Large Gas Divisions	\$ 3.64	\$ 1.60	\$ 2.07	\$ 3.30	\$ 2.65	\$ 1.77	\$ 2.03	\$ 1.18
Average Eight Canadian Utility Companies	\$ 2.54	\$ 3.78	\$ 1.77	\$ 3.61	\$ 1.71	\$ 3.00	\$ 2.27	\$ 2.19
Average Eighteen U.S.-Listed Natural Gas Dominated Utility Companies	\$ 2.02	\$ 1.62	\$ 2.02	\$ 1.62	\$ 3.61	\$ 1.87	\$ 2.38	\$ 1.25
Average of All Above	\$ 2.48	\$ 2.11	\$ 2.53	\$ 4.34	\$ 3.03	\$ 2.14	\$ 2.38	\$ 1.25

**Market Value Using Comparable Companies and Seven Viable Valuation Ratios**

	Minimum	Maximum	Median	Mean (Average)
Gross Value (\$B)	\$ 1.25	\$ 4.34	\$ 2.43	\$ 2.53
Minus Proceeds of Sale Used to Extinguish 1/4 Long-Term Debt (\$B)	\$ 0.89	\$ 0.89	\$ 0.89	\$ 0.89
Total Market Value (\$B)	\$ 0.36	\$ 3.45	\$ 1.54	\$ 1.64

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.

Using this method, the calculations estimate a minimum of \$36M to a maximum of \$3.45B, with a tighter, more plausible range of a median (midpoint of all relevant values) of \$360M to a

mean (simple average of all relevant values) of \$3.45B. Cutting capital expenditures has a major positive effect on valuation.

## ALTERNATIVE SCENARIO 6: 50% Cut in Interest-Bearing Debt; 75% Cut to Projected Capex

Table 19								
Intrinsic Value Method; 50% Cut in Interest-Bearing Debt; 75% Cut to Capex								
<b>Method 1: Present Value, of Projected Fully Taxed Free Cash Flow for FY2020, One Half of Long-Term Debt Retired</b>								
Present Value of Discounted Free Cash Flow = Estimated Next Year Free Cash Flow (Required Rate of Return ['r'] = Growth Rate ['g'])								
Projected Fully Taxed Free Cash Flow for FY2021 (\$B): \$ 0.155								
Matrix Values (\$B) g==v; r==>	4.00%	5.00%	6.00%	7.00%	8.00%	9.00%	10.00%	
0.00%	\$ 3.89	\$ 3.11	\$ 2.59	\$ 2.22	\$ 1.94	\$ 1.73	\$ 1.55	
1.00%	\$ 5.18	\$ 3.89	\$ 3.11	\$ 2.59	\$ 2.22	\$ 1.94	\$ 1.73	
2.00%	\$ 7.77	\$ <b>5.18</b>	\$ <b>3.89</b>	\$ <b>3.11</b>	\$ <b>2.59</b>	\$ <b>2.22</b>	\$ 1.94	
3.00%	\$ 15.55	\$ <b>7.77</b>	\$ <b>5.18</b>	\$ <b>3.89</b>	\$ <b>3.11</b>	\$ <b>2.59</b>	\$ 2.22	
4.00%	--	\$ <b>15.55</b>	\$ <b>7.77</b>	\$ <b>5.18</b>	\$ <b>3.89</b>	\$ <b>3.11</b>	\$ 2.59	
5.00%	-\$ 15.55	--	\$ 15.55	\$ 7.77	\$ 5.18	\$ 3.89	\$ 3.11	
6.00%	-\$ 7.77	-\$ 15.55	\$ --	\$ 15.55	\$ 7.77	\$ 5.18	\$ 3.89	
7.00%	-\$ 5.18	-\$ 7.77	-\$ 15.55	\$ --	\$ 15.55	\$ 7.77	\$ 5.18	
		Minimum	Maximum	Median	Mean (Average)			
Gross Value (\$B)		\$ 2.22	\$ 15.55	\$ 3.89	\$ 5.00			
Minus Proceeds of Sale Used to Extinguish 1/2 Long-Term Debt (\$B)		\$ 0.89	\$ 0.89	\$ 0.89	\$ 0.89			
Net Value (\$B)		\$ 1.33	\$ 14.66	\$ 3.00	\$ 4.12			

Source: Calculations from model derived from company annual reports.

Using this method, the calculations estimate a minimum of \$1.33M to a maximum of \$14.66B, with a tighter, more plausible range of a median (midpoint of all relevant values) of \$3.0B to a mean (simple average of all relevant values) of \$4.12B. Cutting capital expenditures further has a major positive effect on valuation.

Table 20

**Market Value Method; 50% Cut of Interest-Bearing Debt; 75% Cut to Capex**

**CASE 2: SaskEnergy Projections are for FY2020; Fully Taxed, Debt Free**

Valuation metrics applied to SaskEnergy, Market Value of Common Equity, 1/4 L-T Debt Ext. Figures in \$B.	Trailing P/E (Market Value to Estimated Net Income)	Forward P/E (Market Value to Estimated Net Income)	Price to Sales	Price to Book Value	Enterprise Value/Revenue (subtracting Net Debt)	Enterprise Value/EBITDA (subtracting Net Debt)	Price to Operating Cash Flow	Price to Free Cash Flow
Average Six Canadian Utility Companies with Large Gas Divisions	\$ 2.07	\$ 1.60	\$ 3.64	\$ 3.30	\$ 2.65	\$ 1.77	\$ 2.03	\$ 2.79
Average Eight Canadian Utility Companies	\$ 1.77	\$ 3.78	\$ 2.54	\$ 3.61	\$ 1.71	\$ 1.87	\$ 2.27	\$ 5.17
Average Eighteen U.S.-Listed Natural Gas Dominated Utility Companies	\$ 2.02	\$ 1.62	\$ 2.02	\$ 1.62	\$ 3.61	\$ 1.87	\$ 2.38	\$ 2.95
Average of All Above	\$ 2.53	\$ 2.11	\$ 2.48	\$ 4.34	\$ 3.03	\$ 2.14	\$ 2.38	\$ 2.95

**Market Value Using Comparable Companies and Seven Viable Valuation Ratios**

	Minimum	Maximum	Median	Mean (Average)
Gross Value (\$B)	\$ 2.11	\$ 4.34	\$ 2.50	\$ 2.74
Minus Proceeds of Sale Used to Extinguish 1/4 Long-Term Debt (\$B)	\$ 0.89	\$ 0.89	\$ 0.89	\$ 0.89
Total Market Value (\$B)	\$ 1.22	\$ 3.45	\$ 1.62	\$ 1.86

Source: Capital IQ via Yahoo!Finance, additional material from BMO-Investorline, Valuation model formulae.

Using this method, the calculations estimate a minimum of \$1.22B to a maximum of \$3.45B, with a tighter, more plausible range of a median (midpoint of all relevant values) of \$1.62B to a mean (simple average of all relevant values) of \$1.86B. For easier comparison, the various cases are presented together in the following table:

Table 21

**Comparison of Different Scenarios Applied to Intrinsic Value and Market Value of SaskEnergy**

<b>Intrinsic Value (All using Discounted Free Cash Flow, Not Net Income)</b>						
Figures in \$B.	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
	As Is, No Reduction in Debt	25% Reduction in Debt, No Capex Reduction	50% Reduction in Debt, No Capex Reduction	50% Reduction in Debt, Capex Reduction 25%	50% Reduction in Debt, Capex Reduction 50%	50% Reduction in Debt, Capex Reduction 75%
Gross Value (Average of Mean & Median)	-\$ 3.690	-\$ 3.472	-\$ 3.707	-\$ 0.783	\$ 2.141	\$ 4.445
Less Proceeds Used to Reduce Debt Level	\$ 0.000	\$ 0.444	\$ 0.887	\$ 0.887	\$ 0.887	\$ 0.887
Net Value	-\$ 3.690	-\$ 3.915	-\$ 4.594	-\$ 1.670	\$ 1.254	\$ 3.558
<b>Market Value</b>						
Figures in \$B.	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
	As Is, No Reduction in Debt	25% Reduction in Debt, No Capex Reduction	50% Reduction in Debt, No Capex Reduction	50% Reduction in Debt, Capex Reduction 25%	50% Reduction in Debt, Capex Reduction 50%	50% Reduction in Debt, Capex Reduction 75%
Gross Value (Average of Mean & Median)	\$ 2.137	\$ 2.305	\$ 2.595	-\$ 1.374	\$ 2.479	\$ 2.624
Less Proceeds Used to Reduce Debt Level	\$ 0.000	\$ 0.444	\$ 0.887	\$ 0.887	\$ 0.887	\$ 0.887
Net Value	\$ 2.137	\$ 1.861	\$ 1.708	-\$ 2.261	\$ 1.592	\$ 1.737

Calculations used models incorporating financial results from annual reports, key financial statistics from peer companies.

## DISRUPTIONS FROM EVOLVING COMPETITIVE, ECONOMIC, AND TECHNOLOGICAL FORCES

While natural gas consumption in Saskatchewan seems to be only growing very slowly, and roughly in proportion to population growth, there is potential which is not being exploited. Although the present forces and trends are against fossil fuels, largely due to the accepted wisdom of climate change activists being adopted by federal, provincial, and, indeed, most other politicians around the globe, natural gas is seen as far more benign than coal, as it produces about half as much carbon dioxide emissions per unit of energy, and about three quarters as much as gasoline, diesel, jet fuel or diesel oil. It can also be converted to hydrogen for fuel cells, or for burning in conventional engines and turbines, with the CO<sub>2</sub> sequestered or combined into cement or other materials. Fortunately, Saskatchewan has abundant natural gas reserves in the Bakken formation, which it shares with North Dakota; and that state, Montana, and the province of Alberta have additional supplies of the fuel, which should not run out for several decades. To illustrate this, the utility sold about 5.7 billion cubic metres of gas in fiscal 2019-20, whereas reserves in the Bakken in the province alone are an estimated 'expected' 3.0 trillion cubic metres.<sup>6</sup>

There is also potential for natural gas-fired power generation, and storage, to be an enabler of green energy, in that it can fill in for when wind or sun are insufficient to meet electricity demand. This is disfavoured by green activists, and may only be of tangential benefit to SaskEnergy, versus SaskPower, the electrical power monopoly.



## READYING SASKENERGY FOR SALE

Infrastructure investments usually pay a dividend to their investors. The utility is showing sufficient income statement accounting-based net income to pay a small dividend, but, given current modest operating cash generation, and its ambitious capital spending program, investors may not consider the dividend sustainable. So, some investors that like a substantial and growing dividend may not find SaskEnergy attractive once its shares are floated, if its Board decides that it cannot currently afford such a dividend. The company has negative free cash flow but more satisfactory returns on assets, equity, and capital employed (Please see Table 6, p 10). There may need to be operational improvement to expand margins before any equity is sold to the public so that higher value can be realized in any such sale.

The company's capital expenditure program does not obvious seem justified to improve operational capability or capacity, which is growing only very slowly. Given its need to borrow to fund this program, serious examination of the option of slashing capital expenditures to better live within its means should be considered, whether the company is sold off or not.

## CONCLUSION

In general, entirely private sector companies tend to perform better than those within the government orbit or ownership. Crown ownership of a company exposes taxpayers, citizens, and even customers and suppliers to the risks of business, economic, and technological trends that are unnecessary to experience; that is what private investors, whether institutional, individual, or corporate, undertake in nearly every sector of the economy. There is opportunity for a gas utility in the new energy economy that is evolving, but also danger, and higher costs that could be passed on to consumers, or taxpayers. Fossil fuels are under attack, and could conceivably face a forcible phase-out, putting the provincial government in an untenable position with an expensive stranded or wasting asset.

Risk of the potentially fatal forces of the climate change movement, or the more normal risk of bad corporate governance, can only be guaranteed if SaskEnergy is totally removed from politicians' clutches; i.e., if it is fully divested to other, private sector investors. Saskatchewan taxpayers and citizens should get out of this potentially hazardous investment while they can still realize some money, which can be used to pay down the debt that the COVID-19 lockdowns imposed on the provincial government, or to improve health or education facilities or services. To wait yet more years, let alone decades, invites an unwanted reckoning that could make the entire entity worthless.

## ENDNOTES

1. See <http://publications.gov.sk.ca/documents/310/93859-MiscRep95-14.pdf>, p. 11.
2. See [https://www.saskenergy.com/about\\_saskenergy/default.asp](https://www.saskenergy.com/about_saskenergy/default.asp).
3. See [https://www.saskenergy.com/about\\_saskenergy/companyinfo.asp](https://www.saskenergy.com/about_saskenergy/companyinfo.asp).
4. See <https://leaderpost.com/opinion/columnists/mandryk-stopping-saskenergy-privatization-30-years-ago-right-decision/>.
5. See <https://www.yorktonthisweek.com/opinion/gov-t-taking-crown-dividends-makes-no-sense-1.23894074>.
6. See <https://www.cer-rec.gc.ca/en/data-analysis/energy-commodities/crude-oil-petroleum-products/report/2015-bakken/index.html>.

## APPENDIX 1:

### RATIONALE FOR DIVESTITURE OR PRIVATIZATION

While it is up to the people through their elected representatives to decide if a Crown corporation or other government agency or entity should be sold or otherwise privatized and the proceeds used for the benefit of all citizens and taxpayers, there are some established reasons to embark on such a path, some or all of which are cited for divestiture of such enterprises but may not be applicable in any single, specific case.

1. The government has no mandate to own or run a commercial enterprise. The provision of citizens' safety, security and justice is the government's primary role, and its involvement in the economy should generally not extend beyond this.
2. Regulation can usually accomplish any public policy reason for direct involvement in an industry. If regulation is not easily feasible, then a direct contract or subsidy to any affected individuals, entity or entities may be more efficient or effective and less economically disruptive or costly.
3. If a government-controlled or sponsored enterprise has a monopoly position, near-monopoly, or effective monopoly in a line or lines of business or businesses, then opportunities are lost in one or more commercial or potentially commercial sectors for entrepreneurs and investors to try to create and grow businesses to enrich and sustain themselves, employees, suppliers, and others.
4. A monopoly, near-monopoly, or effective monopoly market position by a government-owned or sponsored entity could result in far higher prices for customers, the general public, or a section of the public, than would be the case in a fully competitive marketplace for the industry involved.
5. A government-owned or -sponsored enterprise may compete directly against private sector firms, which are owned by or employ citizens, or against individual citizens, all of whom the government is supposed to serve, not disadvantage.
6. The government-owned or -sponsored enterprise may compete unfairly against its private sector rivals in that it had or has access to lower-cost government-sourced and -guaranteed capital (debt). It may have a much larger debt component in its capital versus that which would be tolerated in the private sector. Thus, it may not have to meet high standards for profit and cost control, allowing it to offer lower than true free market-based competitive pricing.
7. Government-owned firms may not need to pay provincial or federal income taxes. This can allow such firms to supply goods or services more cheaply than the private sector companies they are competing with.
8. Government-owned or -sponsored enterprises may not have any kind of profit orientation or target, may be used as public policy vehicles and may be given preference in their activities or even in their transgressions, such as labour or environmental abuses.
9. Government-owned or -sponsored enterprises, by virtue of being public sector vehicles overseen by bureaucrats and politicians, may be places where favoured individuals find employment, particularly at management levels.
10. Since profit is a secondary goal of a government-owned or -sponsored enterprise, it is difficult to evaluate the effectiveness, efficiency or productivity of the enterprise or its employees. Consequently, these employees and assets may not be very productive or effective.

11. Government-owned or -sponsored enterprises are often creations of certain time-fixed circumstances and outlive whatever use or public policy role their creators may have conceived. Often, advances in technology; the modernization of transport, telecommunication or information technology; the evolution of the economy and available products and services and the increasing standard of living make these enterprises potentially obsolete. In the private sector, firms and individuals must adapt and evolve, or decline.
12. Government-owned or -sponsored enterprises perpetuate their possibly obsolete existences by virtue of the constituencies that build up around them: employees, managers, directors and bureaucrats, customers, suppliers and associated advocates or consultants. They can lobby to keep the enterprise going, despite dysfunction or losses. They are far more motivated to do so than are the taxpayers, whose average cost is much less per person and may be indirect, hidden or difficult to calculate.
13. Because they are not profit-oriented, government-owned or -sponsored enterprises are usually less efficient, and thus they lower the overall efficiency of the entire economy. This can make a whole nation less competitive than its global rivals are, whether nations or individual companies. The effects are worse the greater the government involvement in the economy. When taken to its most extreme, as happened in 20th-century communist nations, the countries were unable to compete against capitalist companies, despite their immense direct and indirect subsidies, government support and the lack of profit requirement.
14. Funds tied up in the capital of government-owned or -sponsored enterprises could be used to reduce government debt or lower taxes on individuals or corporations, which they could then spend or invest as they freely choose, and thus they could inject money back into the economy in more lucrative and more constructive ways.
15. Governments, generally, have a poor record of picking winners, or creating or owning enterprises that have market-competitive profitability, or attractive returns on assets, equity, or even returns that exceed governments' own cost of debt service. If, rarely, they actually do, it generally turns out that they have been provided unusually good market, operational, regulatory, or other conditions not available to other, investor-owned firms.
16. The greater the number and size of government owned or government sponsored enterprises in an economy, the greater the size and power of the government, which is usually the largest single entity in society, increasing the dangers of abuse of power, including injuring individual citizens, companies, or groups. Effective capacity of opposition or recourse against this power diminishes as the portion of the economy the government occupies increases.

