SASKATCHEWAN RATE REVIEW PANEL ROUND TWO INTERROGATORY RESPONSES

[2018 Rate Application]





SRRP R2 Q1 Reference: SRRP Q1

- a) Please provide an illustrative example of the impact on SaskPower's income statement (including comprehensive income) and statement of financial position as a result of adopting IFRS 9.
- b) Please confirm which years in the financial summary provided on page 26 of the application reflect the adoption of IFRS 9. For any years that do not reflect the adoption of IFRS 9, please provide an estimate of the impact on the operating income and return on equity figures if IFRS 9 had been adopted for those years.

Response:

a) Statement of Comprehensive Income and Statement of Financial Position illustrative examples follow below:

Statement of Comprehensive Income							
	Three months ended June 30, 201						
	Adop	otion of	Witho	ithout adop-			
(in millions)	IFI	RS 9	tion	of IFRS 9	Ch	ange	
Revenue							
Saskatchewan electricity sales	\$	593	\$	593	\$	-	
Exports		3		3		-	
Net costs from electricity trading		(1)		(1)		-	
Other rev enue		21		21		-	
	\$	616	\$	616	\$	-	
Expense							
Fuel and purchased power	\$	147	\$	152	\$	(5)	
Operating, maintenance and administration		173		173		-	
Depreciation and amortization		131		131		-	
Finance charges		104		104		-	
Taxes		18		18		-	
Other expenses		6		6		-	
	\$	579	\$	584	\$	(5)	
Operating income	\$	37	\$	32	\$	5	
Unrealized market value adjustments		(2)		5		(7)	
Netincome	\$	35	\$	37	\$	(2)	
Other comprehensive income		(15)		(17)		2	
Comprehensive income	\$	20	\$	20	\$	-	



Statement of Financial Position							
	As at June 30, 2017						
	Ad	option of	With	out adop-			
(in millions)		IFRS 9	tion	n of IFRS 9	Change	ł.	
Assets							
Current assets							
Cash and cash equivalents	\$	1	\$	1	-		
Accounts receivable and unbilled revenue		454		455		(1)	
Inv entory		221		221	-		
Prepaid expenses		15		15	-	,	
Risk management assets		8		8		-	
		699		700		(1)	
Property, plant and equipment		9,577		9,577	-		
Intangible assets		50		50	-	,	
Debt retirement funds		612		612	-		
Investments accounted for using equity method		38		38		-	
Other assets		2		2		-	
Total assets	\$	10,978	\$	10,979	\$	(1)	
Current liabilities							
Accounts payable and accrued liabilities	\$	430	\$	430	-		
Accrued interest		60		60	-		
Risk management liabilities		136		136	-		
Short-term advances		1,039		1,039	-		
Current portion of long-term debt		5		5	-		
Current portion of finance lease obligations		14		14	-		
		1,684		1,684	-		
Long-term debt		5,453		5,453	-		
Finance lease obligations		1,110		1,110	-		
Employee benefits		254		254	-		
Provisions		217		217	-		
Total liabilities		8,718		8,718	-		
Equity							
Retained earnings		1,650		1,638		12	
Accumulated other comprehensive loss		(50)		(37)	((13)	
Equity advances		660		660	-	(1)	
Total liabilities and equity	¢	2,200	\$	2,201	¢	(1)	
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b) The forecasted statement of income for the 2017-18, 2018-19, and 2019-20 fiscal years reflects the adoption of IFRS 9. SaskPower has not recalculated the impact upon adoption of IFRS 9 on prior years as the new accounting standard has been adopted prospectively. However, in theory the adoption of IFRS 9 has allowed for unrealized market value adjustments on natural gas hedges and debt retirement funds to now be recognized through other comprehensive income.

It should be noted that SaskPower's rate applications have always been developed on operating income, which excludes the impact of unrealized market value gains/losses. As a result, the adoption of IFRS 9 will have no material impact on SaskPower's rate application.



SRRP R2 Q2 Reference: SRRP Q3 and SRRP 9

Please update the table provided in SRRP Q3 to include the impact of each scenario on SaskPower's interest coverage ratio and free cash flow indicators as described in the response to SRRP Q9.

Response:

The following table has been updated to include both the interest coverage ratio and the free cash flow indicators as described in the response to SRRP Q9:

		Α	В		С		D		E	
	2017/18	2018/2019	2017/18	2018/2019	2017/18	2018/2019	2017/18	2018/2019	2017/18	2018/2019
Rate Increase	5.0%	0.0%	4.0%	0.0%	2.5%	0.0%	1.0%	0.0%	0.0%	0.0%
Revenue Lift	10.1	121.7	8.2	98.5	5.1	61.5	2.0	24.6	-	-
Sales Revenue	2,428.7	2,566.6	2,423.9	2,543.3	2,420.8	2,506.4	2,417.8	2,469.5	2,415.7	2,444.9
Operating Income	159.9	209.7	157.8	186.4	154.8	149.5	151.7	112.6	149.7	88.0
Return on Equity	6.9%	8.5%	6.8%	7.6%	6.7%	6.1%	6.6%	4.7%	6.5%	3.7%
% Debt	75.8%	75.3%	75.9%	75.6%	75.9%	76.0%	75.9%	76.3%	75.9%	76.5%
Interest Coverage Ratio	2.8	2.9	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.6
Free Cash Flow	56.5%	64.9%	56.3%	62.9%	56.0%	59.7%	55.8%	56.5%	55.6%	54.0%



SRRP R2 Q3 Reference: SRRP Q4

- a) Please update the schedule provided in the response to indicate what portion of the property, plant and equipment in each category (generation, leased assets, transmission, distribution, other) has been fully depreciated.
- b) Please provide examples of the major categories of assets included in the 'other category' and explain how they are treated for cost of service purposes.
- c) Please provide a description of the transfers listed in the schedule.

Response:

a)

Fully Depreciated Plant in Service March 31, 2017 (millions)

Generation	\$ 691
Leased Assets	-
Transmission	33
Distribution	35
Other	254
Total	\$ 1,013

b) Major categories included in "other" are coal reserves, buildings, vehicles and equipment, computer development and equipment, communication, protection and control, tools, furniture and equipment, land and Shand Greenhouse.

As per pages 14 and 15 of the 2018 Fiscal Test Embedded Cost of Service report, these items are treated for cost of services purposes as follows:

Coal reserves:

SaskPower coal reserves are functionalized to the load and losses subfunctions within the generation function.

Buildings:

The functionalization of the SaskPower head office building is based on floor space analysis. All other buildings are functionalized using the square footage attached to each cost centre. The asset values for buildings are then prorated to sub-functions within each function using operating, maintenance and administration (OM&A) expense.

Shand Greenhouse:

The Shand Greenhouse assets are functionalized to generation. The subfunctionalization is the same as the total for all SaskPower generation.



Unused land:

The functionalization and sub-functionalization of unused land is done using OM&A expense.

Office furniture & equipment:

The functionalization and sub-functionalization is the same as for buildings.

Vehicles & equipment:

The functionalization of vehicles and equipment is based on the vehicles and equipment asset summary report by profit center. The asset values for vehicles and equipment are then prorated to sub-functions within each function using OM&A expense.

Computer development & equipment:

The functionalization of computer development and equipment is done in two steps. In the first step, the asset value for computer development and equipment is divided into mainframe systems and desktop. In the second step, the main frame assets (software and hardware) is functionalized on an application by application basis and desktop assets (hardware and software) are functionalized using the number of employees. The asset values for computer development and equipment are then prorated to sub-functions within each function using OM&A expense.

Communication, protection & control equipment:

Communication, protection & control equipment is functionalized to generation, transmission, distribution and customer services based on an evaluation of each type of asset and using advice from SaskPower's Transmission Services staff.

Tools & equipment:

The functionalization of tools and equipment is based on the asset history by function report. The asset values for tools and equipment are then prorated to sub-functions within each function using OM&A expense.

c) Transfers are expenditures moving from construction in progress to in-service tangible assets and intangible assets.



SRRP R2 Q4 Reference: SRRP Q5

Please update the table provided in the response to include any expected payments to the province from grants in lieu of taxes as discussed in the response to first round question SRRP Q84.

Response:

Payments to the Province of Saskatchewan

(millions)

	20	13	20	14	201	5-16	201	6-17	201	17-18	201	8-19
Water Rentals	\$	21	\$	23	\$	17	\$	19	\$	26	\$	21
Corporate Capital Tax		32		35		39		46		46		50
Coal Royalties		24		28		40		32		35		35
Dividends		-		-		-		-		-		21
Grants in lieu of taxes *		-		-		-		-		19		
Total Payments to the Province of Saskatchewar	\$	77	\$	86	\$	96	\$	97	\$	125	\$	128

* The proposed regulations are intended to provide an interim solution only for the 2017-18 year.



SRRP R2 Q5 Reference: SRRP Q7

- a) Please update the table provided in the response to include the potential impact on net income of a federal carbon pricing program being implemented in 2017/18 and 2018/19.
- b) Please update the table provided in the response to include the potential impact of losing one of SaskPower's largest industrial customers.

Response:

	Business Plan Sensitivity Analysis										
	Assur	nptions		NI	mpact	NI	Impact				
Item	2017-18	2018-19	Sensitivity Analysis (in \$millions)	1	7/18	-	18/19				
Revenue											
Rate Increase (%)	5.0%	0.0%	1% change in the rate increase assumption	\$	24	\$	25				
Sask Sales Growth (%)	1.9%	1.2%	100 GWh change in power customer consumption	\$	5	\$	5				
			100 GWh change in residential power consumption	\$	14	\$	14				
			0% Load Growth	\$	31	\$	20				
			2% Reduction in domestic sales	\$	33	\$	34				
Exports & Trading Margin (Millions \$)	\$5	\$7	\$10 million change in export sales	\$	5	\$	5				
Fuel & Purchased Power											
Natural Gas Price (\$/GJ)	\$ 4.14	\$ 3.88	\$1 / GJ change in the natural gas price assumption	\$	24	\$	32				
Hydro Generation (GWh)	4,530	3,634	10% change in the hydro assumption	\$	13	\$	13				
Coal Generation (GWh)	10,918	11,138	10% change in the coal generation assumption	\$	14	\$	14				
Capital											
Capital Spending (Millions \$)	\$1,121	\$ 1,112	\$100 million change in capital budget	\$	7	\$	7				
Short-Term Interest Rates	0.5%	0.8%	1% change in short-term interest rates	\$	11	\$	12				
Long-Term Interest Rates	3.1%	3.3%	1% change in interest rate assumption	\$	4	\$	4				
Other											
a) Carbon tax*			Implementation of Federal Carbon Pricing Backstop in July 2018	\$	-	\$	139				
b) Loss of large industrial customer			Assumed loss of a 70% load factor, 50,000 kVa per year industrial customer	\$	11	\$	11				

* The implementation of a carbon tax is not part of this rate application. The Provincial government has given no indication that it will comply with any form of Federal carbon tax, including the Federal Carbon Pricing Backstop proposal. The Federal Carbon Pricing Backstop's assumed implementation date of July 2018 is purely speculative. The impact to net income is also speculative and could fluctuate significantly if any of the carbon tax revenue was reinvested in SaskPower to help it achieve its emissions targets.



SRRP R2 Q6

Reference: SRRP Q9

- a) Please provide SaskPower's actual interest coverage ratio for the last five years based on both the EBIT method and the EBITDA method. Please provide the calculations of these indicators for each year.
- b) Please comment on the reasons for any differences between actual interest coverage ratios and SaskPower's target ratios.

Response:

a)							
Interest Coverage Ratio - EBIT	Mar-17	Dec-15	Dec-14	D)ec-13	D	ec-12
Operating Income	46	104	43	\$	167	\$	129
Finance charges	416	362	326		262		205
Debt retirement fund earnings	(13)	(28)	(18)		(18)		(22)
Interest income	-	(1)	-		-		-
Total EBIT	449	437	351		411		312
Interest on long-term debt	257	238	217	\$	191	\$	180
Interest on finance lease	166	165	165		119		55
Interest on short-term debt	6	6	7		8		5
Other interest & charges	-	1	1		1		-
Total Interest Expense	429	410	390	\$	319	\$	240
	1.05	1.07	0.90		1.29		1.30

Interest Coverage Ratio - EBITDA	Mar-17	Dec-15	Dec-14	Dec-13	Dec-12
Operating Income	46	104	43	\$ 167	\$ 129
Finance charges	416	362	326	262	205
Debt retirement fund earnings	(13)	(28)	(18)	(18)	(22)
Interest income	-	(1)	-	-	-
Depreciation	494	452	389	355	316
Total EBITDA	943	889	740	766	628
Interest on long-term debt	257	238	217	\$ 191	\$ 180
Interest on finance lease	166	165	165	119	55
Interest on short-term debt	6	6	7	8	5
Other interest & charges	-	1	1	1	-
Total Interest Expense	429	410	390	\$ 319	\$ 240
	2.20	2.17	1.90	2.40	2.62

b) The interest coverage ratio is tracked, however is not included within SaskPower's Corporate Balanced Scorecard. Therefore, no targets have been approved. Any variances from the implied Business Plan targets would largely be the result of fluctuating operating income.



SRRP R2 Q7 Reference: SRRP Q10 – Equity Advances

- a) Please provide an explanation of the \$660 million in equity advances shown in the total equity calculation. Please include in the discussion the date or dates of the advances and the context in which the advancements were made.
- b) Please provide additional information on the free cash flow indicator and earned value management indicators including how they will be calculated; any targets that are being considered; and forecasts for 2017/18 & 2018/19 if available.

Response:

- a) SaskPower has received equity advances from Crown Investments Corporation (CIC) of Saskatchewan in the amounts of \$600 million in 1989 and \$60 million in 1992. The advances reflect an equity investment in SaskPower by CIC.
- b) Free cash flow

A free cash flow metric will be included in SaskPower's 2018-19 Business Plan, and will be calculated as follows:

Operating cash flow / capital expenditures

Per SaskPower's 2018-19 Business Plan, targets and forecasts for SaskPower's free cash flow metric are as follows:

Free cash flow calculation	<u>2017-18</u>	<u>2018-19</u>
Operating cash flow Capital expenditures	701.6 1,059.2	699.7 928.4
Operating cash flow / capital expenditures	66.2%	75.4%

Earned Value Management

The Earned Value Management metric is a proposed new addition to SaskPower's Corporate Balanced Scorecard for fiscal 2018-19.

The metric will measure the percentage of applicable projects with a result greater than or equal to 1 for two separate indices: the Cost Performance Index (CPI) and the Schedule Performance Index (SPI). A result of \geq 1 indicates the project is on track.

Applicable projects include all projects active in the current year, within the operation portfolio, with total approved spending of \geq \$5 million, excluding programs.



The indices will be calculated for each applicable project as follows:

Cost Performance Index (CPI) = EV/AC

Schedule Performance Index (SPI) = EV/PV

Where:

Earned Value (EV) = actual completion % * BAC Actual completion % = milestone completion % Budget at Completion (BAC) = SAP total budget Actual Cost (AC) = costs in SAP at reporting date Planned Value (PV) = planned completion % * BAC Planned completion % = Where project should be based on approved schedule %

Each month all project milestones are updated with percentage complete per milestone. All budgeting and scheduling is done by the milestone and the actuals are compared to budget using the formulas above.



SRRP R2 Q8 Reference: SRRP Q11

For the statement of cash flow provided for actual and forecast years 2014 – 2018/19 please provide a break-out of any interest paid that is capitalized in each year (or confirm if interest paid excludes capitalized interest).

Response:

The following table provides the interest capitalized that was included in interest paid for the years 2014 to 2016-17, as well as forecasted amounts for the 2017-18 and 2018-19.

Interest Capitalized (\$ millions)

	2014	2015-16	2016-17	2017-18	2018-19
Interest capitalized	(62)	(25)	(15)	(23)	(34)



SRRP R2 Q9 Reference: SRRP Q20 & 21 – Depreciation, Supplementary Information on Depreciation and SRRP Q13 from 2016 Rate **Application**

- a) Please provide a schedule of all asset life changes SaskPower has implemented since the 2010 depreciation study and the cumulative annual impact on 2017/18 depreciation expense.
- b) Please itemize the number of asset life changes SaskPower has implemented that involved extending service lives (rather than shortening them) since the 2010 depreciation study.

Response:

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	Revised	Previous	Revised	Previous		Cumulative
	Retirement	Retirement	Depreciation	Depreciation		Annual Impact
Depreciable Property Group	Date	Date	Rate	Rate	Change	\$ (000's)
Shand Carbon Capture Test Facility	2019	2020	30.07%	20.00%	10.07%	\$ 6,910
Boundary Dam Unit 4	2021	2021	12.38%	9.27%	3.11%	\$ 7,397
Boundary Dam Unit 5	2024	2022	6.34%	6.70%	-0.36%	\$ 919
Boundary Dam Unit 6	2027	2023	4.74%	6.86%	-2.12%	\$ (1,322)
Poplar River Unit 1	2029	2028	4.95%	4.96%	-0.01%	\$ 899
Poplar River Unit 2	2029	2026	4.85%	5.61%	-0.76%	\$ 19
Poplar River Common	2029	N/A	5.58%	3.33%	2.25%	\$ 3,647
Landis	2021	2020	7.03%	7.14%	-0.11%	\$ 550
Meadow Lake	2021	2020	7.01%	7.15%	-0.14%	\$ (4)
Queen Elizabeth Unit 3	2023	2022	13.11%	13.30%	-0.19%	\$ (25)
					Total	\$ 18 991

	Revised	Previous				
	Average	Average	Revised	Previous		Cumulative
	Service Life	Service Life	Depreciation	Depreciation		Annual Impact
Depreciable Property Group	(years)	(years)	Rate	Rate	Change	\$ (000's)
Gas Turbines Combuster and Compressor	5 - 25	15 - 25	4.00 - 20.00%	4.00 - 6.67%	0.00 - 13.33%	\$ 6,049
Anodes & Coating	15	45 - 50	6.67%	2.00 - 2.22%	4.45 - 4.67%	\$ 4,149
Stub & Treat Wood Poles	15	35	6.67%	2.86%	3.81%	\$ 3,023
Grid Automation	15	35	6.67%	2.86%	3.81%	\$ 855
Station Automation	15	20 - 35	6.67%	2.86 - 5.00%	1.67 - 3.81%	\$ 524
Transformer Automation	15	50	6.67%	2.00%	4.47%	\$ 178
Overhead Switching Station Conductors & Devices	25	40	4.00%	2.50%	1.50%	\$ 313
Surface Stone & Fencing	20	40	5.00%	2.50%	2.50%	\$ 115
Generation - Controls and Protection	15	25	6.67%	4.00%	2.67%	\$ 4,701
Vehicles - Power Operated	15	20	6.00%	4.50%	1.50%	\$ 164
Vehicles - Track Mounted	15	25	6.00%	3.60%	2.40%	\$ 264
		•		•	Total	\$ 20,335

TOTAL INCREASE TO 2017-18 DEPRECIATION EXPENSE \$

39,326

- b) There were none. The asset life changes SaskPower has implemented since the
 - 2010 depreciation study have all served to shorten the service lives.



SRRP R2 Q10 Reference: SRRP Q20 & 21 – Depreciation

- a) Please provide the book value and remaining unamortized value of the Shand carbon capture test facility.
- b) Please describe how the facility is currently being used by SaskPower.
- c) Please elaborate on how SaskPower determined the remaining economic life of the Shand carbon capture test facility and discuss how that differs from the remaining service life of the facility?
- d) Please provide the estimated impact on 2017/18 and 2018/19 depreciation expense of adopting the shorter economic life of the facility.
- e) Would SaskPower revisit the economic life assumptions for the facility in the event a new client for the facility is found as discussed in the response to first round question SRRP Q35?

Response:

a) As at March 31, 2017:

(millions)

		Accumulated	
Description	Acquisition value	depreciation	Book value
Shand Carbon Capture Test Facility	\$ 68.6	(27.3)	\$ 41.3

- b) SaskPower has joined with an external partner to perform tests with the goal of minimizing the cost of amine use in the existing carbon capture process at the Boundary Dam Integrated Carbon Capture & Storage Demonstration Project. This is a non-revenue generating arrangement.
- c) The remaining economic life of the Shand Carbon Capture Test Facility was based on the Joint Agreement with our testing partner.
- d) The estimated impact on 2017-18 and 2018-19 depreciation expense is a \$7.4 million per year increase.
- e) Yes.



SRRP R2 Q11 Reference: SRRP Q20 & 21 – Coal Generation

- a) Please provide the book value and remaining unamortized value of each of SaskPower's coal generation facilities.
- b) Please provide an estimate of the total impact of all changes to coal generation service lives since the 2010 depreciation study; and separately the incremental portion proposed in the current application, on 2017/18 and 2018/19 depreciation expense.
- c) Has SaskPower considered other potential financial treatment for the unamortized portion of coal generation? For example, a deferral treatment, or treatment of these costs as a shareholder expense?
- d) Has SaskPower reviewed how other utilities in the US and Canada have treated such costs or plan to treat such costs in the future? Please discuss.
- e) Does SaskPower consider its coal generation assets would meet the test of "extraordinary retirements" meaning "retirements from causes not reasonably assumed to have been anticipated or contemplated in prior depreciation or amortization provisions" as defined in Alberta Utilities Commission Decision 2013-417 on Utility Asset Disposition?.¹ Why or why not?

Response:

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(in thousands)						
Coal Plant	Acqu M	uisition Cost @ arch 31, 2017	Αςςι	mulated Depreciation @ March 31, 2017	N	et Book Value @ March 31, 2017
Boundary Dam (excludes Unit #3) Poplar River Shand	\$	826,233 975,381 690,354	\$	(437,123) (596,695) (449,288)	\$	389,110 378,686 241,066
Total Coal Generation Facilities	Ś	2.491.968	Ś	(1.483.106)	Ś	1.008.862



Coal Plant	Total Deprecia Sir Deprec 2010	Impact on ation Expense nce 2010 tiation Study vs 2016/17	Increme Deprecia 2017/1	ntal Impact on ation Expense 8 vs 2016/17	Incren Depre 2018	nental Impact on eciation Expense 8/19 vs 2017/18
Boundary Dam (excludes Unit #3)	\$	5,730	\$	6,716	\$	(921)
Poplar River		(859)		5,572		(89)
Shand		3,063		206		(1,329)
	\$	7,934	\$	12,494	\$	(2,339)

Note: The above table reflects the impact on depreciation expense due to depreciation study changes as well as any annual capital additions made to these coal generation assets.

- c) No. SaskPower's financial statements are prepared in accordance with International Financial Reporting Standards. As such, rate regulated accounting practices are not followed.
- d) Same as c)
- e) Same as c)



SRRP R2 Q12 Reference: SRRP Q20 & 21

- a) Does SaskPower's current depreciation expense include decommissioning and/or salvage costs related to the planned retirement of coal generation assets?
 - i. If yes, please indicate the portion of depreciation expense for 2017/18 and 2018/19 that relates to decommissioning and/or salvage costs.
 - ii. If no, please provide an estimate of the total dollar value of decommissioning and/or salvage costs SaskPower anticipates it will incur related to the retirement of coal generation facilities. Please indicate how SaskPower plans to address these costs.
- b) Please indicate whether SaskPower has completed any Asset Retirement Obligation/Decommissioning studies for its coal generation facilities and provide the date of the most recent studies.

Response:

- a) Yes.
 - i. The 2017-18 and 2018-19 forecasted depreciation for decommissioning of coal generation assets is \$2.3 million annually.
- b) SaskPower's last external Asset Retirement Obligation/Decommissioning Study for its coal generation facilities was completed in December 2014 by KGS Group Ltd. Decommissioning estimates are reviewed internally on an annual basis for reasonability.



SRRP R2 Q13 Reference: SRRP Q21

For SaskPower's proposed asset componentization related to steel and wood pole testing, and surface and stone fencing please:

- i. Provide additional information on how SaskPower determined the appropriate service lives for these asset categories, including actual retirements by vintage if possible.
- ii. Indicate what asset category previously included these assets.
- iii. Discuss whether the removal of these asset components affects the service life estimates of the remaining assets in the old categories.

Response:

i) The change in average service lives (ASLs) for these asset categories is based on discussions with subject experts in the transmission and distribution operating areas. The rationale for choosing these ASLs is based on past experience and future expectations regarding the life expectancy of these asset categories as follows:

Surface stone: The effectiveness of the surface stone deteriorates over time due to the infiltration of blown dirt and vegetation, as well as the constant ramming of the stone into the substrate due to vehicle traffic. Based on past experience, surface stone lasts approximately 20 years.

Fencing: The foundation component is the major attributing factor in determining the ASL. Foundations are expected to last 20 years. Due to the soil and weather conditions (freeze/thaw cycles, foundations for fences do not last as long the other components and therefore need to be replaced after 20 years.

Anodes & coating: Anodes and coating provide corrosion protection for weathering steel structures. Anodes and coating by industry standard tend to last approximately 15 years, depending on environmental conditions, soil conditions and maintenance practices.

Stub & treat poles: Wood pole life remedial treatment typically lasts 10-12 years, depending on the decay zone. Stubbing is a life extension means that is expected to provide an additional 10 – 20 years of life. Blending these life expectancies together, a 15 year ASL was calculated.



ii)

New Asset Category	New ASL	Old Asset Category	Old ASL
Surface Stone & Fencing	20	Site Base (or recently referred to as site improvement	40 :s)
Stub & Treat Poles	15	Overhead Distribution	35
Anodes & Coating	15	Wood Structures Steel Structures	45 50

Costs related to these asset categories would have previously been expensed. Changes in the ASL are due to new asset categories being created for these costs and the assignment of an appropriate ASL based on the life expectancy of these assets.

iii) The removal of these asset components does not affect the service life estimates of the remaining assets in the old categories.



SRRP R2 Q14 Reference: SRRP Q21 Gas turbine overhauls

Please provide an estimate of any reductions to OM&A forecasts in 2017/18 and 2018/19 as a result of capitalizing the hot gas path and major overhauls.

Response:

The impact in 2017-18 is \$0. SaskPower started capitalizing the costs of the hot gas path and major overhaul inspections prior to this business plan cycle. As a result, the OM&A forecast was not reduced in 2017-18.



SRRP R2 Q15 Reference: SRRP Q27

Please confirm if the forecast net sales from trading for 2017/18 provided in the response (\$1.358 million) is a more current forecast than the one provided in the application at page 26 (\$0.5 million). If not, please provide an explanation for the difference between the forecasts.

Response:

The \$1.358 million that was identified in interrogatory SRRP Q27 was the budget amount for fiscal 2017-18. The budget amount was set at the time the SaskPower Business Plan for fiscal 2017-18 was prepared, which was almost one year ago. The \$0.5 million is a revised and more up-to-date forecast.



SRRP R2 Q16 Reference: SRRP Q41

- a) Please confirm if the columns labelled "current month" in the tables represent the last month of the applicable fiscal year? If not, please explain what month or time period is included in the 'current month' column.
- b) Please confirm if the net generation and purchased power figure for 2009 (19,864.2 GWh) includes the wind generation of 578.6 GWh.

Response:

- a) Confirmed. The columns labelled "current month" in the tables represent the last month of the applicable fiscal year.
- b) The net generation and purchased power figure for 2009 (19,864.2 GWh) includes wind. Wind was listed in both the "other" category and in the "wind" category in error. However, wind was only counted once. As a result, the total of 19,864.2 GWh is correct.



SRRP R2 Q17Reference: SRRP Q41 – Other Fuel and
Purchased Power unit cost

Please provide an explanation for the variance between actual and budget unit costs as well as high unit cost each year for Other Generation based on the table below (calculated based on 2014, 2015 and 2016/17 data provided in the response to SRRP Q41).

	2014	2015	2016/17
Expense (\$thousands)			
Budget	5,499	8,931	7,962
Actual	18,969	5,989	6,983
Volumes (GWh)			
Budget	84.2	12.9	6.3
Actual	29.4	1.4	7.6
Unit Cost (\$/MWh)			
Budget	65.31	692.33	1,263.81
Actual	645.20	4,277.86	918.82

Response:

A response has been submitted to the Saskatchewan Rate Review Panel for its review. However, the response contains confidential information and cannot be submitted publicly.



SRRP R2 Q18 Reference: SRRP Q46 – Variance analysis

- a) Please provide a schedule that shows the calculation of the price, volume and mix variances for each fuel type, preferably in excel format.
- b) Please provide the same schedule for the last five actual years.
- c) Please elaborate on how SaskPower determines the 'standard price'.

Response:

Attached are schedules that show the calculation of the price, volume and mix variances for each fuel type for the years 2013 – 2016/17.

The "standard price" is the budgeted price weighted by the actual fuel mix.

FUEL AND PURCHASED POWER VARIANCE ANALYSIS December 31, 2012 (s,000)

Standard Price/GWh (\$000's) 9.72 9.36 0.42 1.18 0.82 0.74 22.24 . S (0.18) 1.28 3.49 7.62 0.22 (0.27) 9.27 Variance (\$000's) . ഗ Price Variance Budget Price/GWh (\$000's) 18.10 0.00 81.08 4.28 99.44 23.38 43.32 39.84 Ь S Actual Price/GWh (\$000's) 0.00 19.38 84.57 108.71 4.50 43.05 47.46 23.19 ഗ -2.70% -0.02% 0.76% 4.66% 0.05% -2.78% 0.03% Variance Mix Variance Budget % of Total GWh 54.51% 2.21% 14.51% 0.69% 25.14% 2.41% 0.54% 100.00% Actual % of Total GWh 22.44% 51.73% 2.45% 0.51% 2.96% 19.16% 0.74% 100.00% (9.1) (10.4) (750.6)(785.7) 150.9 921.5 (1,024.3) 6.5 Actual Budget Generation Variance GWh GWh GWh Volume Variance 122.9 505.1 3,318.9 157.3 5,752.4 12,470.6 552.0 22,879.2 656.0 4,240.4 4,966.7 11,446.3 541.6 113.8 163.8 22,128.6 (341) 11,012 (3,877) 4,864 2,164 \$ (35,400) (21, 578)Total Variance (\$000's) ŝ **Total Variance** \$ 249,220 20,124 14,198 15,642 225,701 9,965 534,850 2012 Budget (\$000's) S \$ 213,820 9,624 31,136 19,062 17,806 \$ 513,272 221,824 2012 Actual (\$000's) Net Fuel & Purchase Power Wind - Purchased Power

Wind SaskPower

Imports Hydro Other

Fuel/Source

Gas Coal

	Fuel and Purchased Power V. (\$000's)	ariance Analysis	
012 Budgeted Expense			\$ 534,850
olume Variance	(Actual Gen - Budgeted Gen) * Budget Price	\$ (17,547) Favourable	
lix Variance	(Standard Price - Budget Price) * Actual Gen	(25,169) Favourable	
rice Variance	(Actual Price - Standard Price) * Actual Gen	21,138 Unfavourable	
otal Variance		\$ (21,578) Favourable	(21,578) Favourable
012 Actual Expense			\$ 513,272

FUEL AND PURCHASED POWER VARIANCE ANALYSIS December 31, 2013

Standard Price/GWh (\$000's) 9.46 0.43 1.18 0.91 9.39 1.01 22.37 . S (0.02) 3.12 7.16 0.66 0.52 3.60 0.37 Variance (\$000's) . ഗ Price Variance Budget Price/GWh (\$000's) 20.20 0.00 83.25 4.74 113.39 33.65 49.79 23.21 Ь S Actual Price/GWh (\$000's) 0.00 86.38 4.72 114.05 37.25 20.56 23.74 56.94 60 -2.76% -0.01% 1.14% 5.05% -0.03% -3.31% -0.07% Variance Mix Variance Budget % of Total GWh 1.23% 14.17% 0.92% 30.66% 50.15% 2.35% 0.52% 100.00% Actual % of Total GWh 27.90% 46.84% 2.28% 0.51% 2.37% 19.21% 0.89% 100.00% (4.3) (740.3)(931.0) (24.2)1,122.2 (10.8) (328.6)259.8 Actual Budget Generation Variance GWh GWh GWh Volume Variance Budget 288.4 3,326.6 217.0 7,199.9 552.1 122.7 11,776.9 23,483.6 6,459.6 10,845.9 527.9 118.4 548.2 4,448.8 206.2 23,155.0 (14,832) (1,088) 16,859 5,217 12 4,507 Total Variance (\$000's) \$ (1,661) S **Total Variance** \$ 242,272 14,358 15,765 24,605 10,215 237,869 545,084 2013 Budget (\$000's) ഗ \$ 240,611 31,217 20,982 23,517 \$ 549,591 223,037 10,227 2013 Actual (\$000's) Net Fuel & Purchase Power Wind - Purchased Power

Wind SaskPower

Imports Hydro Other

Fuel/Source

Gas Coal

	Fuel and Purchased Power V (\$000's)	ariance Analysis	
013 Budgeted Expense			\$ 545,084
olume Variance	(Actual Gen - Budgeted Gen) * Budget Price	\$ (7,627) Favourable	
lix Variance	(Standard Price - Budget Price) * Actual Gen	(19,418) Favourable	
rice Variance	(Actual Price - Standard Price) * Actual Gen	31,552 Unfavourable	
otal Variance		\$ 4,507 Unfavourable	e 4,507 Unfavourable
013 Actual Expense			\$ 549,591

(s,000)

FUEL AND PURCHASED POWER VARIANCE ANALYSIS December 31, 2014

Standard Price/GWh (\$000's) 0.45 0.99 0.56 10.47 9.95 1.94 24.57 0.22 . Ю (00.0) (8.55) (2.60) 3.07 2.25 6.02 471.82 1.34 Variance (\$000's) . Ь Price Variance 0.00 85.15 4.93 85.72 173.38 35.62 22.81 56.89 24.98 Budget Price/GWh (\$000's) Ь G, Actual Price/GWh (\$000's) 24.15 83.13 0.00 4.93 88.22 645.20 41.64 27.23 48.34 60 0.00% 2.73% 4.59% -0.10% -0.23% -5.75% -0.15% -1.08% Variance Mix Variance Budget % of Total GWh 0.76% 15.50% 0.36% 30.47% 49.38% 2.35% 0.53% 0.67% 100.00% Actual % of Total GWh 43.63% 2.19% 0.52% 3.40% 20.09% 0.65% 0.13% 29.39% 100.00% (1.4) (280.5)(38.2) (24.7) (54.8) (80.3) 640.0 (1,391.9) Actual Budget Generation Variance GWh GWh GWh 1,061.2 Volume Variance Budget 124.0 156.7 177.9 84.2 7,163.8 11,610.6 552.0 3,644.9 23,514.1 6,883.3 513.8 122.6 7.96.7 4,706.1 153.2 29.4 10,218.7 23,423.8 (2, 515)5,226 4,370 31,446 (18,053) 29,601 257 Total Variance (\$000's) 50,332 ю ശ Total Variance 2014 Budget (\$000's) 8,915 17,986 15,250 14,599 10,559 \$ 255,199 264,881 587,389 \$ 286,645 10,816 38,516 23,212 12,735 18,969 246,828 \$ 637,721 2014 Actual (\$000's)

	Fuel and Purchased Power V (\$000's)	ariance Analysis	
2014 Budgeted Expense			\$ 587,389
Volume Variance	(Actual Gen - Budgeted Gen) * Budget Price	\$ (2,256) Favourab	Ð
Mix Variance	(Standard Price - Budget Price) * Actual Gen	(9,582) Favourab	Ð
Price Variance	(Actual Price - Standard Price) * Actual Gen	62,169 Unfavour	able
Total Variance		\$ 50,332 Unfavour.	able 50,332 Unfavourable
2014 Actual Expense			\$ 637,721

(s,000)

Net Fuel & Purchase Power Wind - Purchased Power Wind SaskPower Fuel/Source Waste Heat Imports Hydro Other Coal Gas

FUEL AND PURCHASED POWER VARIANCE ANALYSIS December 31, 2015 (000's)

Standard Price/GWh (\$000's) 0.69 11.93 10.49 0.77 0.74 0.51 0.23 25.35 . ŝ 3.29 2.58 0.05 (0.84) 0.03 21.69 304.70 Variance (\$000's) 1.97 . Ь Price Variance 5.15 93.22 Actual Budget Price/GWh Price/GWh (\$000's) (\$000's) 35.51 35.94 86.23 22.61 3,973.16 25.42 . Ь 95.79 5.20 27.39 35.54 25.90 57.63 85.40 4,277.86 • ഗ ഗ 1.74% (%90.0) (%60.0) (0.23%) (0.10%) (0.05%) (%00.0) (0.23%) (%66.0) Variance Mix Variance Actual Budget % of Total % of Total GWh GWh 2.37% 0.83% 3.12% 14.65% 0.68% 0.05% 0.01% 31.86% 46.44% 100.00% 33.59% 46.37% 2.14% 0.74% 14.43% 0.01% 2.13% 0.59% 0.00% 100.00% Actual Budget Generation Variance Generation CaWh GWh (79.9) (58.0) (21.9) (238.3) (74.0) (11.0) (0.5) 367.6 (23.7) (139.7) Volume Variance 7,608.6 566.8 197.2 3,499.6 744.0 163.6 11.0 11,090.7 1.9 23,883.4 7,976.2 3,425.6 508.8 175.3 139.9 11,010.8 505.7 1. 4 23,743.7 (1, 590)(205) 34,420 (2,161) (1,382) (1,560)Total Variance (\$000's) 13,292 2,406 43,220 ю **Total Variance** 270,183 18,382 14,108 7,549 250,797 26,738 18,008 1,382 607,147 Budget (\$000's) 2015 မ ഗ 283,475 285,217 16,792 29,144 17,803 11,947 5,989 650,367 2015 Actual (\$000's) ю ഗ Fuel and Purchase Power Wind - Purchased Power Wind SaskPower Fuel/Source Waste Heat Imports Hydro Other Other

Coal Gas

	ruei and ruchased rower var (\$000's)		
2015 Budgeted Expense			\$ 607,147
/olume Variance	(Actual Gen - Budgeted Gen) * Budget Price	\$ (3,551) Favourable	
Mix Variance	(Standard Price - Budget Price) * Actual Gen	(1,600) Favourable	
Price Variance	(Actual Price - Standard Price) * Actual Gen	48,372 Unfavourable	
Total Variance		\$ 43,220 Unfavourable	43,220 Unfavourable
2015 Actual Expense			\$ 650,367

FUEL AND PURCHASED POWER VARIANCE ANALYSIS March 31, 2017 (s,000)

Fuel/Source

Coal Gas

Waste Heat

Other

Imports Hydro

Standard Price/GWh (\$000's) 0.86 0.90 0.79 25.44 11.16 11.24 0.49 . . ω 0.28 2.17 12.75 (1.12) 0.75 2.86 0.01 Variance (\$000's) . Ь Price Variance 89.14 26.39 25.28 5.45 Actual Budget Price/GWh Price/GWh (\$000's) (\$000's) 31.38 96.54 45.76 . . ഗ 27.14 25.56 58.50 5.45 34.24 98.71 88.01 • . ഗ ŝ (0.62%) (0.41%) (0.01%) 1.94% (0.15%) 0.01% (0.11%) (0.64%) Variance Mix Variance Actual Budget % of Total % of Total GWh GWh 36.44% 44.56% 2.25% 0.90% 2.60% 12.52% 0.71% 0.03% 100.00% 35.81% 44.14% 2.14% 0.89% 1.96% 14.46% 0.03% 100.00% 0.55% Actual Budget Generation Variance Generation CaWh GWh (198.2) (157.3) (29.8) (2.4) (158.7) 457.2 (38.2) 1.3 (126.1) Volume Variance 3,067.5 8,927.1 552.0 220.4 637.2 173.2 6.3 10,916.0 24,499.7 8,728.9 218.0 135.0 7.6 10,758.7 522.2 478.5 3,524.7 24,373.6 14,846 (1,163) (947) (626) Total Variance (\$000's) 18,740 241 2,511 (3,557) . ю **Total Variance** 280,118 16,714 21,277 29,156 15,439 7,962 646,597 275,931 2016/17 Budget (\$000's) မ сo 661,443 21,518 6,983 298,858 274,984 27,993 19,225 11,882 Actual (\$000's) 2016/17 ഗ ω Fuel and Purchase Power Wind - Purchased Power Wind SaskPower

		liance Aliarysis	
2016/17 Budgeted Expense			\$ 646,597
Volume Variance	(Actual Gen - Budgeted Gen) * Budget Price	\$ (3,328) Favourable	
Mix Variance	(Standard Price - Budget Price) * Actual Gen	(23,237) Favourable	
Price Variance	(Actual Price - Standard Price) * Actual Gen	41,411 Unfavourable	
Total Variance		\$ 14,846 Unfavourable	14,846 Unfavourable
2016/17 Actual Expense			\$ 661,443

FUEL AND PURCHASED POWER VARIANCE ANALYSIS 2016/17 Actual vs 2017/18 Business Plan (000's)

	F	otal Variance	_	lov	ume Varianc	e	ž	x Variance			Price Va	iriance		
	2017/18 BP	2016/17	Total	2017/18 BP	2016/17		2017/18 BP	2016/17		2017/18 BF	2016	117		Standard
Fuel/Source	BP (\$000's)	Actual (\$000's)	Variance (\$000's)	Generation GWh	Generation GWh	Variance GWh	% of Total % GWh	6 of Total GWh	Variance	Price/GWh (\$000's)	h Price/ (\$00	GWh Va 0's) (\$	riance 000's)	Price/GWh (\$000's)
Gas	\$ 260,400	\$ 298,858	\$ (38,458)	7,936.0	8,728.9	(792.9)	31.81%	35.81%	(4.00%)	\$ 32.81	\$	34.24 \$	(1.43)	10.89
Coal	282,700	274,984	7,716	10,918.0	10,758.7	159.3	43.76%	44.14%	(0.38%)	25.89	0	25.56	0.33	11.19
Wind SaskPower*	•			529.0	522.2	6.8	2.12%	2.14%	(0.02%)					
Wind - Purchased Power*	22,000	21,518	482	222.0	218.0	4.0	0.89%	0.89%	(%00.0)	99.10	с, С	98.71	0.39	0.88
Imports	28,200	27,993	207	637.0	478.5	158.5	2.55%	1.96%	0.59%	44.27	ì	58.50	(14.23)	1.49
Hydro	25,700	19,225	6,475	4,530.0	3,524.7	1,005.3	18.16%	14.46%	3.70%	5.67	~	5.45	0.22	0.99
Other	26,300	18,865	7,435	176.0	142.6	33.4	0.71%	0.59%	0.12%	149.43	1	32.29	17.14	0.93
Fuel and Purchase Power	\$ 645,300	\$ 661,443	\$ (16,143)	24,948.0	24,373.6	574.4	100.00%	100.00%		\$ 25.87	\$	27.14 \$	(1.27)	\$ 26.37
* An error was discovered in	a the response		146 regardin	a wind den	eration in h	oth 2016-	17 and 2017	-18 It has		rected in th	aic table	The erro		

An error was discovered in the response to SKRY C46 regarding wind generation in both ZU16-17 and ZU17-18. It has been corrected in this table. The error caused a slight adjustment to fuel variance due to price, mix and volume as reported in the rate application. The correct price, mix and volume variances are reported below.

2016/17 Actual Expense			\$ 661,443
Volume Variance	(Actual Gen - Budgeted Gen) * Budget Price	\$ 15,588 Unfavourable	
Mix Variance	(Standard Price - Budget Price) * Actual Gen	(19,094) Favourable	
Price Variance	(Actual Price - Standard Price) * Actual Gen	(12,637) Favourable	
Total Variance		\$ (16,143) Favourable	(16,143) Favourable
2016/17 BP Expense			\$ 645,300



SRRP R2 Q19 Reference: SRRP Q51

Please confirm if the 'variance from market' figure indicates the difference between SaskPower's actual cost of gas (including hedging) and what SaskPower's cost of gas would have been if it had been prevailing market prices. If not, please elaborate on the calculation of the 'variance from market figure'.

Response:

The variance from market includes the settlement from financial swap transactions as well as the variance in the actual cost of physical purchase transactions as compared to the cost of gas if the same volume had been purchased at prevailing market prices.



SRRP R2 Q20 Reference: SRRP Q54

Please provide an electronic copy of the Christensen Associates report referenced in part (b) of the response.

Response:

The report has been provided to the Saskatchewan Rate Review Panel. However, because it contains proprietary information, it cannot be made public.



SRRP R2 Q21 Reference: SRRP Q55

Please expand the table provided in the response to part A to indicate the kWh generated per MJ of fuel.

Response:

- A) Average heat values
 - i) Coronach area

Year		2015	2016	2017	2018	2019
Heat value	MJ/Mg	13,163	13,216	13,554	13,695	13,423
	kWh/MJ	0.0933	0.0928	0.0900	0.0887	0.0916

ii) Estevan area

Year		2015	2016	2017	2018	2019
Heat value	MJ/Mg	16,031	15,806	15,668	15,844	15,837
	kWh/MJ	0.0796	0.0807	0.0839	0.0816	0.0803



SRRP R2 Q22 Reference: SRRP Q57

If the equivalency agreement proceeds as currently proposed, please discuss the potential impact (increase or decrease) on SaskPower's net income in 2017/18 and 2018/19.

Response:

SaskPower's rate application and financial projections assume the Equivalency Agreement (EA) proceeds as currently proposed. As the final approvals of this EA are not expected until late 2018, there will be no impact on SaskPower's net income in 2017-18 and 2018-19.

In the event that the EA is rejected, SaskPower would be required to increase its depreciation expense by approximately \$43 million per year in 2018-19 and 2019-20 in order to fully depreciate Boundary Dam Power Station Units #4 and #5. In addition to increased depreciation costs, SaskPower would also be required to replace its coal generation (lowest cost) with natural gas generation, resulting in increased fuel and purchased power costs.



SRRP R2 Q23 Reference: SRRP Q59

Please indicate the total capital costs incurred to date related to the Tazi Twé project and how SaskPower intends to treat those costs in the event SaskPower decides not to proceed with the project or delays the project significantly.

Response:

SaskPower had invested approximately \$34 million over the past five years in feasibility studies and engineering to develop the technical and economic aspects of the Tazi Twé Hydroelectric Project. This amount reflects the complex nature of the project, including its remote location in northern Saskatchewan, unique ownership structure, plans to build entirely on First Nations land, and comprehensive environmental and public consultation requirements.

In the second quarter of 2017-18, SaskPower recognized a \$30 million loss as a result of a decision to defer development of the Tazi Twé Hydroelectric Project until there is a viable business case. The loss is recorded as part of other expenses on the Condensed Consolidated Statement of Income and includes the book value of all capitalized project development costs associated with the project.



SRRP R2 Q24 Reference: SRRP Q68

- a) Please provide an updated version of the table that calculates the OM&A per customer account using average or mid-year customer counts for both the actuals and forecasts.
- b) Please provide an estimate of the impact of the reclassification of ICCS grant funding on the 2010 OM&A forecast.

Response:

Attached is an updated table that calculates the OM&A per customer account using average customer counts. The table based on forecasted customer totals was not adjusted, as the figures were already based on average customer counts. However, the ICCS grant funding adjustment requested in question (b) has been updated in the table below.

		O	M&A/Cu	stomer						
	Actual									
	2007	2008	2009	2010	2011	2012	2013	2014	2015/16	2016/17
OM&A (\$ millions)	416	427	495	512	577	616	618	656	637	675
Average Saskatchewan customer accounts	448,641	455,860	463,668	470,168	477,496	486,298	495,745	506,410	516,843	524,902
OM&A per Saskatchewan customer account	927.2	936.7	1,067.6	1,089.0	1,208.4	1,266.7	1,246.6	1,295.4	1,232.5	1,286.0

	Forecast									
	2007	2008	2009	2010	2011	2012	2013	2014	2015/16	2016/17
OM&A (\$ millions)	386	441	493	501	609	582	615	647	672	702
Total of Saskatchewan customer accounts	441,907	446,214	458,951	469,351	481,185	478,753	496,895	503,951	518,879	523,351
OM&A per Saskatchewan customer account	872.8	989.2	1,074.2	1,067.6	1,266.5	1,216.3	1,238.1	1,284.1	1,295.1	1,341.4



SRRP R2 Q25 Reference: SRRP Q77

- a) Please explain the difference between gains/losses on retirement, gains/losses on disposal and loss on impairment of assets.
- b) How does SaskPower forecast gains/loss on retirement and gain/loss on disposal?
- c) Please explain the forecast increase of environmental expense compared to actuals

Response:

a) Gains/loss on retirement = write-down of the remaining net book value upon normal retirement of an asset at the end of its useful/economic life.

Gain/loss on disposal = cost of removing and disposing of an asset.

Impairment loss = early or unexpected write-down of an asset as a result of an event that results in an asset no longer providing future economic value.

b) Budgets for gains and losses on asset retirements and disposals are based primarily on historic averages. Starting in 2010, with the adoption of IFRS the Corporation was required to identify each asset being retired – including generation and transmission assets – and retire the value of these assets from SaskPower's balance sheet. Since that time, gains and losses on asset retirements have averaged \$16 million per year, with a low of \$3 million in 2011 and a high of \$26 million in 2016-17. For gains and losses on asset disposals, the average annual expense since 2010 is \$4 million.

Depending on the timing of certain environmental expenses (see the response in c. below) management expects to reallocate some of the budget dollars included in environmental expenses to gains and losses on asset retirements to reflect the trend that has occurred in recent years.

It is important to note that as our annual capital expenditures continue to average approximately \$1 billion, gains and losses on asset retirements and disposals will also increase.

c) The increase in environmental expenses, compared to prior year actuals, is due to a provision being established for the continued clean-up at the Estevan Generating Station.



SRRP R2 Q26 Reference: SRRP Q78

- a) Based on its current capital plan, when does SaskPower anticipate the need to increase its total borrowing capacity?
- b) Please discuss what approvals and processes would be required to extend SaskPower's borrowing authority?

Response:

- a) SaskPower does not anticipate requiring an increase to its total borrowing authority over the current approved business plan's time horizon, which extends to March 31, 2027.
- b) SaskPower's total borrowing authority is set in *The Power Corporation Act*. As a result, it requires legislative approval to be changed. Before SaskPower requests any legislative change to its total borrowing authority, it discusses the change with Crown Investments Corporation of Saskatchewan and the Saskatchewan Ministry of Finance to ensure that they have no major concerns. Approval is subsequently sought from SaskPower's Board of Directors to move forward with the legislative change.



SRRP R2 Q27 Reference: SRRP Q80

Please update the response to include the forecast operating income for 2017/18 and 2018/19 consistent with the most recent version of SaskPower's business plan.

Response:

The following table shows the calculation of the operating return on equity for the years 2014 to 2016-17 and the forecasted amounts for 2017-18 and 2018-19.

	2014	2	2015-16	2	2016-17	2	017-18	2	018-19
Operating Income	\$ 43	\$	64	\$	46	\$	160	\$	210
Equity advances	660		660		660		660		660
Retained earnings	1,521		1,547		1,603		1,762		1,951
Accumulated OCI	(3)		(61)		(22)		(50)		(50)
Average Equity	\$ 2,201	\$	2,154	\$	2,194	\$	2,307	\$	2,467
Operating Return on Equity	2.0%		2.9%		2.1%		6.9%		8.5%

Return on Equity (Operating) (millions)



SRRP R2 Q28 Reference: SRRP Q97 & Q100

Please explain how customer contributions towards customer connect capital expenditures are treated in the cost of service study.

Response:

As per adoption of IFRS, contributions in aid of construction and reconstruction are now recognized immediately as Other Income when the related fixed asset is available for use and is functionalized to transmission and distribution within cost of service as an offset to expenses within those functions.

Please see Schedule 1.6," Functionalization of Financial Account Details – Other Income" from the 2018 Fiscal Test Embedded Cost of Service Report for further details. It shows that of the \$50 million in projected customer contribution revenue in 2017-18, \$12.7 and \$42.3 million have been allocated to offset expenses to the transmission and distribution functions, respectively.



SRRP R2 Q29 Reference: SRRP Q102

- a) Please discuss whether the methodology changes described in part A) of the response to first round question SRRP 102 were required in order to implement the new load forecast software or if they were changes or improvements that SaskPower would have made regardless of the change in load forecast software.
- b) Please confirm if the methodology changes described in part A) of the response to SRRP Q102 represent all of the changes between the "new methodology forecast" and "old methodology forecast" provided in part C) of the response to SRRP Q102.
- c) Please comment on the reasons for the variances in the Residential forecast between the two methods provided in part C of the response to SRRP Q102. Does SaskPower believe further refinement to the forecast method for residential customers is required?

Response:

- a) The new software has made the process of testing new variables to apply to our forecast more efficient. These variables are statistically tested, yielding improvements to the components originally used in our forecast.
- b) SaskPower confirms that all methodology changes were listed in the original answer.
- c) The reason for the variance between the two methods in part C of SRRP Q102 is due to a higher use per customer. In part, this is driven by the difference in the weather inputs between the old and new methods.

In the old method, 30 years of weather was averaged and then used as the forecast. This resulted in a lower weather-driven impact. In the new method, weather is calculated by ordering it by season and smoothing it. Our company believes that this is a better indicator for our weather forecast. SaskPower does not believe that further refinement to the forecast method for Residential customers is required.



SRRP R2 Q30 Reference: SRRP Q105

Please provide the actual Saskatchewan provincial population and population growth rate for the last 5 years.

Response:

Please see the table below, which shows the actual Saskatchewan provincial population and population growth rate for the last five years:

Year	Quantity (000's)	Change (%)
2012	1,086	
2013	1,105	1.75%
2014	1,121	1.47%
2015	1,132	0.98%
2016	1,151	1.62%

Source: Economic Review, Bureau of Statistics, Government of Saskatchewan



SRRP R2 Q31 Reference: SRRP Q108

- a) Please indicate the first year that SaskPower implemented the forecast method for Power customers that included comparing customer forecasts with government or industry production forecasts.
- b) Please elaborate on how the adjustments to incorporate government or industry production forecasts are made with an illustrative example.

Response:

- a) SaskPower has been comparing customer forecasts with industry production forecasts and government production forecasts since 1999. In 2013, the decision to apply more weighting to industry and government production forecasts was made to increase SaskPower's forecast accuracy in the Power customer class.
- b) Potash will be used as an example of how SaskPower incorporates government or industry production forecasts into its final, published forecast.

The "Driver Based" forecast is derived by using government projections of potash production and applying an energy intensity factor based on historical data to calculate a 30-year annual energy forecast for the sector.

The production forecast is then compared to the "Customer Based" forecast using information obtained directly from SaskPower's potash customers. SaskPower meets with each potash customer annually and records future load growth plans.

Once completed, SaskPower examines the variance between these two forecasts and distributes the difference based on a three-year historical weighted average of energy sales to each potash customer. Please see the graph below that shows the comparison of the two forecasts:





SRRP R2 Q32 Reference: SRRP Q112 Demand Side Management

- a) Please provide additional details on the Walk Through Assessment Program, including how many customers from each customer class have participated to date.
- b) Please indicate the number of customers who have participated in the Industrial Energy Optimization Program to date.

Response:

a) The Walk Though Assessment Program, which launched in 2016, provides qualified Saskatchewan businesses with an in-person assessment of their facilities' energy (power and natural gas) consumption. To qualify, the facility must use between 300,000 – 600,000 kWh/year, be greater than 15,000 ft² and not have a manufacturing process as its primary use of power. Each participant receives a facility specific power consumption report, a comparison to similar facilities, a list of the top saving opportunities and information about available SaskPower incentive programs that may provide additional cost savings. SaskPower also covers 90% of the costs associated with the assessment.

To participate in the program, customers must submit an application form, their 12 most recent natural gas bills and a cheque to cover the application fee. To date, 27 assessments, with 18 unique customers, have been completed. A breakdown of assessments and customers per class/category is presented below.

	Assessments	Customers*
Schools (elementary/secondary)	13	5
Government/Crown	4	3
Property management/office	4	4
Hotel	1	1
Restaurant/pub	1	1
Implement sales	1	1
Grocery	1	1
Religious institution	1	1
Airport	1	1

*Note: If assessment number is greater than customers, more than one assessment was completed with the same customer at multiple facilities

b) The Industrial Energy Optimization Program is offered to SaskPower's largest industrial and manufacturing customers. The program assists industrial facilities in identifying, developing and implementing projects that reduce energy waste and lower electrical demand. The program provides financial incentives and customized technical support to reduce the cost of electricity and associated emissions and improves operational efficiency. To date, the program has 40 participants and has completed 36 projects. The program currently has approximately 65 projects in development or implementation.



SRRP R2 Q33 Reference: SRRP Q121Municipal Surcharge

Please confirm that the \$66.6 million in municipal surcharges does not include amounts related to the grants in lieu of taxes (forecast at \$26.4 million in 2018/19 on page 40 of the application).

Response:

Confirmed. The \$66.6 million in municipal surcharges does not include amounts related to the grants in lieu of taxes.



SRRP R2 Q34 Reference: SRRP Q122

- a) Please confirm who owns the streetlights included in SaskPower's cost of service study? Are these owned by individual municipalities, SaskPower or a combination?
- b) Please indicate who makes the decision to replace streetlights, is this SaskPower's decision or the decision of individual municipalities?
- c) Please provide an updated version of the Table in part (b) of the response assuming farm customers received a rate increase to raise their R/RR ratio to 0.98, with the resulting revenue increase used to decrease the rates for customer classes with R/RR of 1.01.

Response:

- a) SaskPower confirms that SaskPower owns the streetlights included in the Cost of Service Study.
- b) SaskPower makes the decision. The life cycle of streetlights are managed in a similar way to other distribution assets.
- c) Please see the updated table below:

Class of Service	2018F R/RR Ratio (Existing Rates)	2018F Rate Change	2018F R/RR Ratio (Revised Rates)
Residential	0.99	5 2%	0.99
Farms	0.96	7.2%	0.98
Small Commercial	1.01	5.6%	1.01
General Service	1.03	3.5%	1.01
Total Commercial	1.02	4.5%	1.01
Power - Published Rates	1.01	5.0%	1.01
Power - Contract Rates	0.99	4.0%	0.98
Total Power	1.00	4.7%	1.00
Oilfields	1.02	4.3%	1.01
Streetlights	0.81	8.1%	0.82
Reseller	0.99	6.0%	1.00
Total (System)	1.00	5.0%	1.00

Year 2018F Rate Change & R/RR Ratios 5.0% General Rate Increase With Rebalancing Maintenance

The above scenario would:

- Fully implement all of Elenchus' core recommendations from the 2017 Cost of Service Review
- Amalgamate the urban and rural rates for all Residential and Commercial customers (rate simplification)



- Ensure all customer classes' R/RR ratios (with the exception of Streetlights) are within the industry standard of 0.95-1.05
- Fully rebalance the Reseller class due to changes in the cost of service methodology from the 2012 review
- Hold the Streetlight R/RR ratio constant until the impacts of the LED conversion program are known



SRRP R2 Q35 Reference: SRRP Q130 and Q131

- a) Please provide a sample calculation showing how the data in Q131 are used to calculate the SaskPower SAIDI and SAIFI information provided in the response to Q130.
- b) For the data in Q131, please provide a breakout of the planned transmission outages.
- c) With reference to the data in Q131, please provide a working definition or example of the types of outages included in each category.
- d) With reference to the data provided in Q131, for each of the transmission and distribution outages please indicate which categories of outages SaskPower considers to be controllable to some degree versus which categories SaskPower considers to be uncontrollable by SaskPower.
- e) Please provide an explanation for the table Transmission: Component Outages for why there is a consistent increase in the cause "Human Element" over the time period 2012 to 2016/17.
- f) Please describe the procedures SaskPower uses to inform customers of planned transmission and distribution outages.

Response:

 a) For transmission, the annual "grand total" number of interruptions or duration of interruptions from the data provided for Q131 would be divided by the number of Bulk Electrical Service Delivery Points (BESDP) to calculate SAIDI and SAIFI, respectively:

	2013	2014	2015
Transmission			
Duration	46,451	63,801	45,836
BESDP	302	306	326
SAIDI	154	209	141
Interruptions	620	1,048	777
BESDP	302	306	326
SAIFI	2.05	3.42	2.38

In 2015 and prior years, the outage log was continually updated as new information became available, while the transmission SAIDI and SAIFI numbers provided in Q130, which are disclosed in SaskPower's Annual Report and were reported to the Canadian Electricity Association, are as of a cut-off date to allow for timely year-end reporting. As a result, the transmission SAIDI and SAIFI as calculated above are slightly different than those provided in Q130.



	2013	2014	2015
Transmission			
SAIDI (reported)	131	191	144
SAIFI (reported)	1.89	3.60	2.39

For distribution, the annual total hours or interruptions from the data provided for Q131 would be divided by the number total customers served to calculate SAIDI and SAIFI, respectively:

	2013	2014	2015	
Distribution				
Hours	2,916,471	2,526,929	2,632,849	
Customer Accounts	490,612	497,555	507,364	
SAIDI	5.94	5.08	5.19	
Interruptions	1,068,073	1,238,265	1,197,288	
Customer Accounts	490,612	497,555	507,364	
SAIFI	2.18	2.49	2.36	

Note that the total number of customers served is lower than the total number of customer accounts disclosed in SaskPower's Annual Report, as some larger customers are connected directly to transmission lines.

- b) The data provided for Q131 does not include transmission planned outages, as planned outages are not currently included in the calculation of transmission SAIDI and SAIFI due to SaskPower's ability to ensure customers are not without power during the majority of transmission planned outages by rerouting it through a different connection.
- c) Transmission outage categories include:



100	Defective Equipment
101	Deterioration due to age
102	Incorrect manufacturing design
103	Incorrect manufacturing materials
104	Incorrect manufacturing assembly
105	Lack of maintenance
200	Adverse Weather
201	Lightning
202	Rain
203	Freezing rain
204	Ice
205	Snow
206	Wind
207	High ambient temperatures
208	Low ambient temperatures
209	Freezing fog or frost
210	Tornadoes
211	Hail
300	Adverse Environment
301	Salt spray
302	Industrial pollution
303	Humidity
304	Corrosion
305	Vibration
306	Fire
307	Flooding
308	Flying debris
400	System Condition
101	
401	Overvoltage
401	Overvoltage Undervoltage
401 402 403	Overvoltage Undervoltage Switching transient
401 402 403 404	Overvoltage Undervoltage Switching transient Overload
401 402 403 404 405	Overvoltage Undervoltage Switching transient Overload Overfrequency

500	Human Element			
501	Incorrect system records or diagrams			
502	Incorrect use of equipment			
502	Incorrect construction, installation or			
503	maintenance			
504	Incorrect protection setting			
505	Switching error			
506	Testing			
507	Incorrect circuit labeling			
508	Contact (with no damage) by			
	employees or utility contractors			
500	Deliberate damage by employees or			
509	utility contractors			
E10	Accidental damage by employees			
510	or utility contractors			
600	Foreign Interference			
601	Contact (with no damage) by			
	persons other than employees or			
	utility contractors			
602	Deliberate damage by persons other			
002	than employees or utility contractors			
	Accidental damage by persons			
603	other than employees or utility			
	contractors			
604	Contact by vehicles			
605	Contact by animals			
606	Contact by trees			
607	Solar magnetic induction			
608	Birds			
609	Crane			
610	Kite			
611	Plane			
700	Generation Loss			
800	Other			
801	Cause unknown			
802	Down (up) stream fault			
803	Other which is known			



Distribution outage categories include:

0	Unknown	No apparent cause or reason is determined
10	Planned	An outage is required for the purpose of construction or
		preventative maintenance
11	Lightning	A lightning strike has occurred, resulting in an insulation
		flashover
12	lcing	Icing conditions on equipment contributed to the
		outage
13	Other Weather	Heavy rain, strong winds, extreme temperatures, ice
		fog, or hoar frost
14	Trees	Trees or tree limbs growing or falling into energized
		conductors
15	Other Vegetation	Weed growth into a livefront transformer
16	Birds/Animals	Wildlife contacting energized equipment
17	Accident Internal	Caused by SaskPower staff (such as switching errors,
		incorrect use of equipment, contacting energized
		apparatus, etc.)
18	Accident External	Beyond the control of the utility such as vehicle
		accidents, dig-ins, or overhead line contacts
19	Vandalism	Vandalism, sabotage or deliberate damage
20	System Failure	Reflects problems in the bulk electric system (loss of
		transmission supply)
21	Faulty Equipment	Equipment failures such as lightning arrestors,
		transformers, reclosers, regulators, etc.
22	Contamination	Salt spray, high humidity or corrosion
23	Overload	Equipment carrying more current than it is rated for

d) Transmission

In the past, SaskPower has not assessed transmission outages to determine if they were preventable or controllable. Therefore it is difficult to look at the historical data and make that determination. However, in general terms, it is likely that the majority of Human Element and Defective Equipment, as well as some small portion of Foreign Interference and Adverse Environment, may be preventable or controllable. On the other hand, Adverse Weather, System Condition and System Configuration are typically not preventable or controllable.



Distribution

SaskPower has the ability to, and works to, control/mitigate/prevent outages due to:

- Trees and Other Vegetation Through its Vegetation Management Program;
- Lightning Through the installation of lightning arrestors;
- Faulty Equipment Through regular maintenance activities and sustainment investments;
- Vandalism Through security and restricted access;
- Accidental External Through media campaigns communicating safety around electricity; and
- Accidental Internal Through employee training and development, as well as safety procedures.

Other outages due to causes such as Adverse Weather, Icing, and Contamination are typically not preventable or controllable.

- e) Historically, SaskPower did not perform detailed investigations into outage causes or trends, so it is difficult to determine why there has been an increase to Human Element outages. SaskPower is, however, implementing a Root Cause Analysis process, which will be used to investigate outages. Root Cause Analysis will make recommendations and identify action items related to specific events, which are intended to improve future customer service and system performance by enhancing processes and work practises.
- f) SaskPower informs customers of planned transmission and distribution outages using a variety of channels, including the SaskPower App for mobile devices; local radio advertisements; mailed notifications; a dedicated 24-hour outage reporting number (310-2220); and social media, including SaskPower.com, subscriptions to an RSS feed, Twitter, and Facebook.



SRRP R2 Q36 Reference: Supplementary Information: Depreciation

Please provide the supplementary section of the 2010 Depreciation Study with experienced retirements, survivor curves and life tables (sometimes referred to as 'Service Life Statistics' section).

Response:

There is no supplementary section of the 2010 Depreciation Study. The complete report was provided.



SRRP R2 Q37 Reference: Supplementary Information: Electricity sales and generation volumes

Please provide an energy balance schedule (in GWh) that reconciles total domestic sales (page 28 of the application), plus export and/or trading sales, plus line losses, plus energy for corporate use (or station service) with the fuel and purchase power volume figures on page 33 of the application (for example total fuel and purchase power volume of 24,958 GWh in 2017/18) for each of the last three actual years and forecasts for 2017/18 and 2018/19.

Response:

The following table provides a reconciliation between sales volumes and fuel and purchased power volumes:

(in GWh)	2014	2015-16	2016-17	2017-18	2018-19
Domestic Sales, Export Sales, and Line Losses					
Domestic sales					
Residential	3,281	3,067	3,069	3,324	3,372
Farm	1,364	1,256	1,189	1,308	1,288
Commercial	3,788	3,768	3,777	3,915	3,939
Oilfields	3,503	3,453	3,621	3,445	3,538
Power customers	8,178	8,877	9,207	9,218	9,339
Reseller	1,274	1,223	1,219	1,286	1,289
Total Domestic sales	21,389	21,643	22,081	22,496	22,765
Export sales	90	89	176	188	258
Total Sales	21,479	21,732	22,256	22,683	23,023
Fuel and Purchased Power Volume					
Coal	10 290	11 048	10.832	11 021	11 252
Less: Energry for corporate use (interdepartmental use)	(71)	(81)	(73)	(103)	(115)
Net coal	10,219	10,967	10,759	10,918	11,137
Gas	6,883	8,379	8,729	7,936	8,616
Wind	636	682	740	751	803
Hydro	4,706	3,213	3,525	4,530	3,634
Imports	797	375	478	637	565
Other	183	139	143	176	215
Total Fuel and purchased power	23,424	23,755	24,374	24,948	24,970
Line losses	(1,945)	(2,023)	(2,118)	(2,265)	(1,947)
Net Fuel and purchased power	21,479	21,732	22,256	22,683	23,023



SRRP R2 Q38 Reference: Supplementary Information: Cost of Service Study

- a) Please provide a table for each rate class based on a cost of service study that implements the Elenchus recommendations accepted by SaskPower showing:
 - i. The unit costs of customer (\$/customer/month), demand (\$/kVa or kW) and energy (\$/kWh) for each customer class.
 - ii. The proposed rates for each customer class.
 - iii. The ratio of the cost of service unit costs to the proposed rates (expressed as a percentage) for each rate class.
- b) Please discuss whether SaskPower has any rate design policies or guidelines indicating what proportion of average unit costs should be recovered from each of the customer, demand and energy charges.

Response:

- a) Please see the attached Excel file, "SRRP R2 Q38.xls" that shows a unit cost comparison of rates.
- b) SaskPower does have specific guidelines in regards to the treatment and design of electrical tariffs. These guidelines are based on SaskPower's key objectives as outlined on Page five of the 2018 Fiscal Test Embedded Cost of Service Study.

SaskPower attempts to achieve four objectives with every rate application:

- 1) Meet the revenue requirement:
 - Meeting the revenue requirement suggests that SaskPower's customer rates are designed with the purpose to provide sufficient revenue in order to cover both the utility's forecasted annual costs and return on rate base.
- 2) Achieve fairness and equity:
 - SaskPower designs rates to recover the appropriate amount of revenue from each rate code within a class. Rates are also designed to collect the appropriate revenue from each customer within the rate code regardless of the customer's size or load factor. Essentially, this means if a class has a R/RR ratio of 1.01, then the rate will be designed such that the overall rate code and each customer belonging to that rate code provides the same R/RR of 1.01.
- 3) Limit increases to a maximum of 15%:
 - In order to avoid rate shock, SaskPower limits the maximum increase to any single customer or class to 15%, which includes any single component of the rate itself (i.e., basic monthly, energy and demand charges).



- 4) Ensure the proposed rate structures are consistent with the ideal rates calculated within cost of service:
 - To ensure the proposed rates are reflective of those provided by the cost of service, SaskPower attempts to limit the variance of rate components between proposed and ideals to a maximum of 15%. Due to the large degree of variability that can exist within rates codes due to the diversity of the customer loads, SaskPower requires this degree of flexibility in designing its proposed rates to ensure the previous objectives listed above can be met.



SRRP R2 Q39 Reference: Supplementary Information: Integrated Resource Plan Has SaskPower considered any potential future risk of stranded natural gas generation investment, including potentially as a result of new environmental policy requirements? If so, please discuss how this potential risk is considered in SaskPower's integrated resource plan.

Response:

No.



SRRP R2 Q40 Reference: Supplementary Information: Rates

- a) Please provide a description of SaskPower's net metering program, including program eligibility, number of customers currently connected and annual deliveries to SaskPower's system.
- b) Does SaskPower offer standby service rates for customers who install their own generation? If so please, discuss how the rates are calculated and indicate approximately how many customers are currently making use of the standby rates.

Response:

a) Net metering offers all SaskPower customers the opportunity to generate their own grid-connected power using environmentally-preferred technologies up to 100 kW(dc) in capacity size. If more electricity is produced than consumed in the monthly billing period, the net electricity is added to the power grid and banked on the customer's account as kilowatt-hour (kWh) credits to be applied against future consumption.

Any excess kWh credits are carried forward to the next billing period for use within a predetermined 12-month period. Participants are responsible for the preliminary interconnection study fee, bi-directional meter cost, electric permit fee and system installation. The Net Metering Program also offers customers a one-time rebate — equivalent to 20% of eligible costs (equipment and installation) to a maximum payment of \$20,000 — for a new net metering project. The rebate was extended in 2016, and will be available until November 30, 2018.

There are approximately 975 net metering customers across Saskatchewan today, with 766 using solar self-generation and 209 using wind turbine self-generation. As the economics of self-generation continue to improve, it is anticipated that significant growth in customer self-generation will occur in the coming years.

The annual generated electricity from SaskPower net metered customers is 8 million kWh (estimate), reducing annual greenhouse gases (GHG) by 5 million kg of CO2e (estimate). Reduced revenue on net metered generated electricity year-to-date is estimated at \$850,000 based on a blended power rate of farm, rural, and urban customers of \$0.13/kWh.

While net metering provides benefits in terms of renewable energy and customer service options, there are some challenges. In particular, as more customers generate their own power, SaskPower's costs to maintain and operate the grid are spread across a smaller customer base, raising rates (even more) for the remaining customers on the grid.



An internal review of SaskPower's customer self-generation programs is underway to ensure that SaskPower:

- Maintains a cost-effective valuation for the program for all customers;
- Provides equitable opportunities for all customer groups to participate; and
- Manages the volume of grid interconnections in a safe manner.

The review looks at programs available in other jurisdictions, emerging trends, and customer and stakeholder feedback. We are hoping to have the results early in 2018.

b) SaskPower does offer standby service rates for customers who install their own generation and meet the appropriate customer applicability criteria. There are currently twelve customers making use of the standby rates.

Description

Firm standby is basically a reservation of facilities which may or may not be needed, and if needed would generally be used for short time periods (i.e. low annual load factors). Firm standby would generally be considered for a period of one year or longer. SaskPower includes the customer's anticipated standby load in its system plans.

Methodology

All cost of service calculations used to develop standby rates are based on the most current "Test" (forecast) cost of service model and approved Business Plan. All rate base and expenses used to formulate approved published rates (e.g., E08), including return on rate base, are used to produce their corresponding standby rates (e.g., E95), ensuring that if a customer were to consume energy under the standby rate continuously; they would be indifferent to either rate. Standby rates are not designed to be punitive; their purpose is to ensure SaskPower recovers the fixed costs associated with providing and reserving capacity on its system and to recover its variable costs when energy is consumed.

Firm standby requirements are calculated by modeling typical 25, 72 and 138kV customers' maximum demand at a series of low (up to 25%) load factors. The customer's maximum demand is fixed (i.e., nominated); however, the customer's contribution to system peak (coincident) demand increases with load factor. This is based on the premise which is supported by load research that as the customers load factor approaches unity there is a greater chance the load will be on at system peak (Bary Correction). A relationship between the customer's maximum demand, load factor and contribution to coincident peak demand has been developed based on analysis of 3-5 years of load data.



Results

Standby rates consist of a basic charge (\$/cust/month), energy charge (¢/kwh) and a demand charge in \$/kVA per month, which is applied to the customer's maximum nominated demand (take or pay). The energy charge is only enacted if the customer requires electricity in the instance that their own generation fails. The customer must nominate the anticipated maximum demand before taking service so SaskPower can include the load in its system plans.



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