

May 21, 2019

Doreen Friis Regulatory Affairs Officer/Clerk Nova Scotia Utility and Review Board 1601 Lower Water Street, 3<sup>rd</sup> Floor P.O. Box 1692, Unit "M" Halifax, NS B3J 3S3

Dear Ms. Friis:

## Re: P-887 FAM19 - Fuel Adjustment Mechanism (FAM) Monthly Report – April 2019

Please find enclosed Nova Scotia Power's FAM Monthly report for April 2019. The confidential versions of the report and the FAM Calculation Model have been uploaded to the Board's confidential website.

The 2019 Base Cost of Fuel was ordered to be between \$671.1M and \$731.8M, with the higher amount recognizing the election of the Consumer Advocate and Small Business Advocate to assign a January 1, 2020 start date to the delivery of Maritime Link Nova Scotia Block energy. Table 1a and Report M2 use a 2019 BCF of \$731.8M ("FAM Budget"). AA and BA information in Report M2 is compared against the amounts presented in the AA/BA filing on January 21, 2019.

High level adjustments were made to the 2019 BCF Refresh Budget filed May 27, 2016, to arrive at the \$671.1M and \$731.8M BCF figures, meaning detailed fuel cost information is not available for comparison. As a result, all fuel cost variance analysis is based on the 2019 BCF Refresh Budget of \$653.7M ("BCF Refresh Budget"). This includes Figure 1 and 2, Table 1b, Table 2, Table 3, as well as reports M1, M6, and M7.

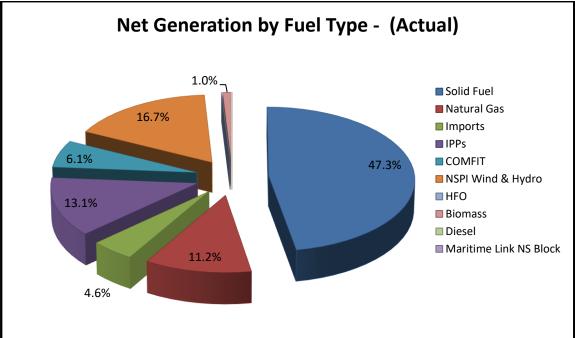
Report M3 includes NS Power's updated expectations of future month FAM Balances as per NS Power's internal 2019 Q1 Forecast completed in February 2019.

May 21, 2019 D. Friis

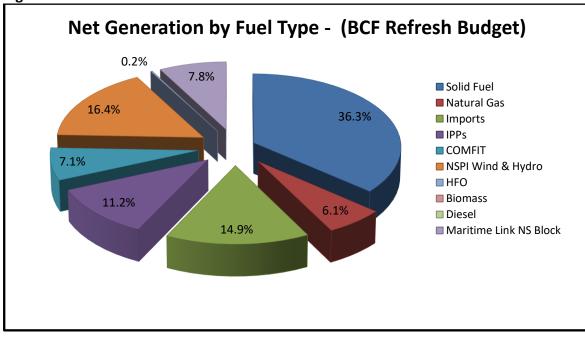
# April 2019 Results

As shown in Figure 1 and Figure 2 below, in April there was increased generation from solid fuel, natural gas and IPPs offset by decreased generation from imports and Maritime Link NS Block. There was an overall decrease in generation compared to budget due to lower load.









## Table 1a

FAM (Over)/Under-Recovery (in \$ millions)											
Actual FAM Budget Variance											
Total fuel and purchased power	\$50.8	\$57.9	(\$7.1)								
Fuel adjustments	(\$4.2)	(\$4.7)	\$0.5								
Total Adjusted Fuel Costs	\$46.7	\$53.2	(\$6.6)								
Revenue	(\$47.7)	(\$47.4)	(\$0.3)								
FAM (Over)/Under Recovery	(\$1.0)	\$5.9	(\$6.9)								

Figures presented are rounded to one decimal place which may cause rounding differences on some line items. Figures are presented as follows: (Favorable)/Unfavorable in the variance column. FAM Budget reflects the 2019 BCF Compliance filing (CA/SBA Request) of \$731.8M.

### Table 1b

FAM (Over)/Under-Recovery (in \$ millions)											
	Actual	BCF Refresh Budget	Variance								
Total fuel and purchased power	\$50.8	\$53.6	(\$2.7)								
Fuel adjustments	(\$4.2)	(\$3.4)	(\$0.8)								
Total Adjusted Fuel Costs	\$46.7	\$50.2	(\$3.5)								
Revenue	(\$47.7)	(\$45.7)	(\$2.0)								
FAM (Over)/Under Recovery	(\$1.0)	\$4.5	(\$5.5)								

Figures presented are rounded to one decimal place which may cause rounding differences on some line items. Figures are presented as follows: (Favorable)/Unfavorable in the variance column. BCF Refresh Budget reflects the 2019 BCF Refresh filing of \$653.7M.

In April, there was a variance of (\$5.5) million in the (over)/under-recovery as compared to the BCF Refresh Budget (\$1.0 million actual over-recovery as compared to \$4.5 million under-recovery in the BCF Refresh Budget).

Decreased Port Hawkesbury Paper (PHP) load served by NS Power generation resulted in \$0.5 million lower fuel costs than the BCF Refresh Budget. Please note that PHP load is included in the total fuel and purchased power BCF Refresh Budget. Fuel costs for PHP are recovered from the mill under its Load Retention Tariff. As such, PHP's fuel costs have no impact on FAM customers. Information about PHP sales can be found in Report M8.

Excluding PHP, domestic load was approximately 6.8 GWh higher than the BCF Refresh Budget, resulting in an increase to fuel costs of \$0.2 million. Export costs were higher than the FAM Budget by \$0.2 million.

The April variance between the actual total fuel and purchased power cost and the FAM Refresh Budget total fuel and purchased power costs (excluding load and PHP fuel cost) is favorable by \$2.7 million. The following table sets out the components of the variance between actual fuel and purchased power cost as compared to the BCF Refresh Budget.

## Table 2

Fuel and Purchased Power Variance (in \$ millions)									
	Actual vs BCF Refresh Budget								
Purchased power pricing and mix	(\$1.3)								
Maritime Link Assessment	(\$4.6)								
Natural gas, HFO, and LFO pricing and mix	\$1.6								
Generation Mix	\$2.4								
Plant Performance	(\$0.8)								
Total excluding load and PHP fuel costs	(\$2.7)								

Figures presented in Table 2 are rounded to one decimal place which may cause rounding differences on some line items. Figures are presented as follows: (Favorable)/Unfavorable. FAM Budget reflects the 2019 BCF Refresh filing of \$653.7M.

As shown in Table 3 below, natural gas consumption was higher than budget. This was as a result of increased natural gas dispatch compared to the BCF Refresh Budget primarily due to favorable pricing relative to other generation sources, as well as increased dispatch due to the later start date for Maritime Link NS Block as compared to the BCF Refresh budget.

### Table 3

	Variance from BCF Refresh Budget
Natural gas consumption (MMBtu)	486,321
Natural gas price (\$/MMBtu)	\$1.42

Variances are against the FAM Budget which reflects the 2019 BCF Refresh filing of \$653.7M. Positive numbers reflect amounts higher than forecast; Negative numbers reflect amounts lower than forecast.

Per the UARB Order dated September 11, 2017 regarding the NSPML Interim Cost Assessment (M07718), NS Power was to return the \$36 million of Maritime Link depreciation and deferred financing amortization costs collected in 2018, plus interest, to customers. As of April 30, 2019, \$34.4 million has been returned to customers.

As of April 30, 2019, the 2019 Maritime Link depreciation and deferred financing amortization costs collected through BCF rates totals \$21.0 million.

May 21, 2019 D. Friis

Please contact me with any questions or concerns with respect to the FAM Monthly report for April 2019.

Sincerely,

Juide Halbort

Nicole Godbout Director, Regulatory

c. Intervenors – P-887

Encl.

Nova Scotia Power Inc. Monthly FAM Reporting For the Period Ended April 30, 2019

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### Nova Scotia Power Inc. Monthly FAM Reporting Summary of Fuel Costs For the Period Ended April 30, 2019 (millions of dollars)

	Current Mon	th		Year-t	o-D	ate		2019 E	Budget
							<u> </u>	Full Year	% of Budget
	Actual		<u>Budget</u>	Actual		<u>Budget</u>		Budget	<u>Spent</u>
Fuel for Generation - Domestic Load									
Solid Fuel	\$ 13.5	\$	10.6	\$ 80.1	\$	64.6	\$	152.9	52.4%
Natural Gas	6.4		2.7	26.4		6.1		19.6	134.7%
Biomass	0.4		0.2	1.7		0.7		2.7	63.0%
Bunker C	0.0		0.1	3.6		9.5		12.3	29.3%
Furnace	0.5		0.1	1.4		0.7		1.7	82.4%
Diesel	0.0		0.0	0.8		0.0		0.0	0.0%
Additives	1.4		0.9	6.4		5.6		13.0	49.2%
Subtotal	\$ 22.2	\$	14.6	\$ 120.4	\$	87.2	\$	202.2	59.5%
Import Purchases	2.3		5.3	12.9		15.5		62.4	20.7%
Maritime Link	9.1		13.7	36.9		54.7		164.0	22.5%
Non-Wind IPP Purchases	0.8		2.8	4.0		12.1		33.6	11.9%
Wind Purchases	8.4		7.0	33.0		30.1		81.5	40.5%
COMFIT Purchases	7.8		10.1	30.0		38.2		108.9	27.5%
Fuel for Resale Net Margin	(0.0)		0.0	0.0		0.0		0.0	0.0%
Exports	0.2		0.0	5.8		0.0		0.0	0.0%
Fuel and Purchased Power	\$ 50.7	\$	53.5	\$ 242.9	\$	237.7	\$	652.6	37.2%
Water Royalties	0.1		0.1	0.3		0.4		1.1	27.3%
Total Fuel and Purchased Power	\$ 50.8	\$	53.6	\$ 243.3	\$	238.0	\$	653.7	37.2%
Less: Load Retention Revenue	(3.9)		(3.2)	(18.3)		(13.8)		(39.2)	46.7%
Total Fuel and Purchased Power Less LRT Revenue	\$ 46.9	\$	50.4	\$ 225.0	\$	224.3	\$	614.5	36.6%
Less: Export Revenues	(0.0)		(0.1)	(7.0)		(1.5)		(2.5)	280.0%
Less: 1PT RTP	(0.0)		(0.0)	(0.1)		(0.0)		(0.3)	33.3%
Less: Shore Power	(0.0)		0.0	(0.0)		0.0		(0.0)	0.0%
Less: Back Up / Top Up	(0.1)		0.0	(0.3)		0.0		0.0	0.0%
Less: GRLF Fuel Costs	(0.2)		(0.1)	(0.3)		(0.1)		(0.5)	60.0%
Loss / (Gain): Foreign exchange - Fuel Other	0.0		0.0	0.0		0.0		0.0	0.0%
Net Fuel and Purchased Power	\$ 46.7	\$	50.2	\$ 217.2	\$	222.6	\$	611.1	35.5%
Total System Requirements (GWh)	929.1		936.7	4,394.6		4,369.7		11,331.1	38.8%
Less: Export Sales and Attributed Losses	(1.1)		(2.0)	(81.4)		(31.5)		(50.0)	162.8%
Less: GRLF Requirements	(2.7)		(1.8)	(4.9)		(7.5)		(23.9)	20.5%
Less: Load Retention	(79.9)		(89.3)	(297.8)		(337.1)		(1 <i>,</i> 058.3)	28.1%
Less: Shore Power	(0.0)		0.0	(0.0)		0.0		(1.0)	0.0%
Less: 1PT RTP	(0.2)		(0.1)	(1.1)		(0.4)		(9.8)	11.2%
Less: Back Up / Top Up	(1.5)		0.0	(5.8)		0.0		0.0	0.0%
Less: Losses*	(55.5)		(58.3)	(271.9)		(300.8)		(725.6)	37.5%
Total FAM Sales	788.2		785.2	3,731.8		3,692.4		9,462.5	39.4%

Figures presented are rounded to one decimal place which may cause \$0.1M in rounding differences on some line items.

The FAM Budget reflects the 2019 BCF Refresh filing of \$653.7M.

\*Includes losses for all customer classes, with the exception of Export Sales.

#### **Base Fuel Component (BCF)**

base ruei component (bcr)		
	<u>Actual</u>	<u>Budget</u>
2019 Beginning BCF Balance	-	-
(Over)/Under-recovered Prior to Current Month	(8.20)	14.09
(Over)/Under-recovered in Current Month	(1.00)	5.86
Balance Yet to be Recovered	(9.19)	19.95
(Over)/Under-recovery- Remainder of the Year	N/A	74.09
Interest on BCF Balance	(0.14)	0.28
Actual Adjustment Component (AA)		
	<u>Actual</u>	<b>Budget</b>
2019 Beginning AA Balance	15.30	15.30
Recovered/(Refunded) Prior to Current Month	(20.70)	(23.11)
Opening Balance as of April 1, 2019	35.99	38.41
Recovered/(Refunded) in Current Month	(13.75)	(12.78)
Closing Balance as of April 30, 2019	49.74	51.19
Recovered/(Refunded) Remainder of the Year	N/A	-
Interest on AA Balance	0.71	0.73
Balancing Adjustment Component (BA)		
	<u>Actual</u>	<b>Budget</b>
2019 Beginning BA Balance	(176.62)	(176.62)
Recovered/(Refunded) Prior to Current Month	-	-
Non-fuel amounts applied to FAM prior to current period	(5.52)	(0.05)
Opening Balance as of April 1, 2019	(182.13)	(176.67)
Recovered/(Refunded) in Current Month	-	-
Non-fuel amounts applied to FAM in current period	-	-
Closing Balance as of April 30, 2019	(182.13)	(176.67)
Recovered/(Refunded) Remainder of the Year	N/A	0.16
Interest on BA Balance	(4.09)	(4.03)
FAM Deferral (Over)/Under-Recovery	(145.11)	(108.55)

Figures presented are rounded to two decimal places which may cause \$0.01M in rounding differences on some line items.

The FAM Budget reflects AA/BA filing on January 21, 2019.

Commentary for Month:

The opening April 1, 2019 FAM BA balance increased by an additional \$5.46M from the closing BA balance as of March 31, 2019 that was provided in NS Power's March 2019 FAM Report. This amount represents the earnings above the allowable ROE range in Q1 2019. The \$5.46M amount was not included in the March 2019 monthly report as the report was filed prior to the release of NS Power's 2019 Q1 financial statements.

#### NSPI (FAM) M-3 NON CONFIDENTIAL

#### Nova Scotia Power Inc. Monthly FAM Reporting 2019 Total Accumulated Unrecovered FAM Balance For the Period Ended April 30, 2019 (millions of dollars)

Month	BA Total	AA Total	BCF Va	riance	Accumulated	Total
wonth	Outstanding	Outstanding	To Current Month	Current Month	Interest	Outstanding
January	(176.6)	19.3	0.0	(2.8)	(0.9)	(161.1)
February	(176.6)	19.3	(2.8)	(2.3)	(1.8)	(164.3)
March	(182.1)	36.0	(5.2)	(3.0)	(2.7)	(157.1)
April	(182.1)	49.7	(8.2)	(1.0)	(3.5)	(145.1)
May	(182.1)	49.7	(9.2)	1.7	(4.3)	(144.2)
June	(182.2)	49.7	(7.5)	2.2	(5.1)	(142.9)
July	(182.2)	49.7	(5.3)	7.3	(5.9)	(136.3)
August	(182.2)	49.7	2.0	6.7	(6.6)	(130.3)
September	(182.2)	49.7	8.7	10.7	(7.2)	(120.4)
October	(182.2)	49.7	19.4	11.5	(7.8)	(109.5)
November	(182.2)	49.7	30.9	7.4	(8.3)	(102.6)
December	(182.3)	49.7	38.2	5.0	(8.9)	(98.2)

Figures presented are rounded to one decimal place which may cause \$0.1M in rounding differences on some line items

Future months reference the NS Power Q1 Forecast from February 2019.

Nova Scotia Power Inc. Monthly FAM Reporting Fuel Policies and Organizational Changes For the Period Ended April 30, 2019

<u>Fuel Manual Updates</u> No Fuel Manual updates to report.

<u>POA Updates</u> No POA updates to report.

**Organizational Updates** 

A Gas Marketer resigned their position effective April 3, 2019.

Nova Scotia Power Inc. Monthly FAM Reporting Mercury Abatement Program For the Period Ended April 30, 2019 *(millions of dollars)* 

			Curre	nt Month		Year-to-Date				
Generating Unit	Additive Type	Quantity		Cost	<u>\$/MWh</u>	Quantity	Cost	<u>\$/MWh</u>		
Lingan - Unit 1	Powder Activated Carbon		kgs				kgs			
Lingan - Unit 2	Powder Activated Carbon		kgs				kgs			
Lingan - Unit 3	Powder Activated Carbon		kgs				kgs			
Lingan - Unit 4	Powder Activated Carbon		kgs				kgs			
Point Tupper	Powder Activated Carbon		kgs				kgs			
Trenton 5	Powder Activated Carbon		kgs				kgs			
Trenton 6	Powder Activated Carbon		kgs				kgs			
Lingan	Calcium Chloride		L				L			
Point Tupper	Calcium Chloride		L				L			
Trenton	Calcium Chloride		L				L			
Total Costs - Powder	Activated Carbon	288,909	kgs	\$0.62	4	1,879,706	kgs \$4.066	5		
Total Costs - Calcium	Chloride	55,325	L	\$0.02	0	452,833	L \$0.166	5		
Total Mercury Sorben	t Costs			\$0.64	4		\$4.232	2		

<sup>a</sup> Calculated using actual MWh produced by unit.

#### Commentary for the month:

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			in		
	NSPI Environmental Rep	Limit = 65 kg (c)	ions (a)		
Month	Reported this month (d)	Reported last month	Variance	Reason for variance	2018 Actuals (e)
Jan	8.2	8.2			8.6
Feb	8.1	8.1			7.1
Mar	11.3	11.1	0.2	Estimated data updated with actual data	6.5
Apr	5.5				5.2
May					
Jun					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
Year to Date (f)	33.1	27.4	0.2		27.4

<sup>b</sup> As reported by NSPI's Environmental Services.

 $^{\rm c}$  Province of Nova Scotia Air Quality Regulations - Schedule C section 3(2).

d This value is an estimate based on incomplete laboratory results and consumption figures. Environmental Services will finalize this result next quarter.

<sup>e</sup> Shown for comparative purposes

f Figures presented are rounded to one decimal place which may cause \$0.1M in rounding differences on some line items

#### Nova Scotia Power Inc. Monthly FAM Reporting Volume and Pricing Summary For the Period Ended April 30, 2019

Solid Fuel Consumption Costs (\$)         Solid Fuel Price (\$/MWhu)         Solid Fuel Price (\$/MWhu)         Solid Fuel Price (\$/MWhu)         Natural Gas Consumption Costs (\$)         Natural Gas Consumption Costs (\$)         Biomass Consumption (MMBtu)         Biomass Price (\$/MWh)         Bunker Consumption Costs (\$)         Bunker Consumption Costs (\$)         Bunker Consumption Costs (\$)         Bunker Consumption (MMBtu)         Bunker Consumption (MMBtu)         Bunker Price (\$/MMBtu)         Light Fuel OII Consumption (MMBtu)         Light Fuel OII Consumption (MMBtu)         Light Fuel OII Consumption (MMBtu)         Light Fuel OII Price (\$/MWh)         Imported Power Volume (MWh)         Imported Power Volume (MWh)         IpP Purchases Volumes (MWh)         Wind Purchase Volumes (MWh)         Wind Purchase Volumes (MWh) <th></th> <th colspan="2">Current Month</th> <th>Year-to</th> <th colspan="3">2019 Budget</th>		Current Month		Year-to	2019 Budget		
Solid Fuel Consumption Costs (\$)         Solid Fuel Price (\$/MWhu)         Solid Fuel Price (\$/MWhu)         Solid Fuel Price (\$/MWhu)         Natural Gas Consumption Costs (\$)         Natural Gas Consumption Costs (\$)         Biomass Consumption (MMBtu)         Biomass Price (\$/MWh)         Bunker Consumption Costs (\$)         Bunker Consumption Costs (\$)         Bunker Consumption Costs (\$)         Bunker Consumption (MMBtu)         Bunker Consumption (MMBtu)         Bunker Price (\$/MMBtu)         Light Fuel OII Consumption (MMBtu)         Light Fuel OII Consumption (MMBtu)         Light Fuel OII Consumption (MMBtu)         Light Fuel OII Price (\$/MWh)         Imported Power Volume (MWh)         Imported Power Volume (MWh)         IpP Purchases Volumes (MWh)         Wind Purchase Volumes (MWh)         Wind Purchase Volumes (MWh) <th></th> <th><u>Actual</u></th> <th><u>Budget</u></th> <th><u>% Change</u></th> <th><u>Actual</u></th> <th><u>Budget</u></th> <th>-</th>		<u>Actual</u>	<u>Budget</u>	<u>% Change</u>	<u>Actual</u>	<u>Budget</u>	-
Solid Fuel Consumption (MMBtu)         Solid Fuel Price (S/MWh)         Natural Gas         Natural Gas Consumption (MMBtu)         Natural Gas Price (S/MWh)         Biomass Price (S/MWh)         Biomass Consumption Costs (S)         Biomass Consumption Costs (S)         Biomass Consumption (MMBtu)         Biomass Consumption (MMBtu)         Biomass Consumption Costs (S)         Biomass Price (S/MWh)         Bunker Consumption Costs (S)         Bunker Consumption (MMBtu)         Bunker Consumption Costs (S)         Bunker Price (S/MWh)         Uight Fuel Oil Consumption Costs (S)         Light Fuel Oil Consumption MMBtu)         Bunker Price (S/MWh)         Imported Power Volume (MWh)         Imported Power Volume (MWh)         Imported Power Volume (MWh)         Imported Power Price (S/MWh)         Vind IPP Purchases         Vind IPP Conchase Volumes (MWh)         Wind Purchase Volumes (MWh)         COMFIT Purchase Volumes (MWh)	Solid Fuel						
Solid Fuel Price (\$/MMBtu)         Solid Fuel Price (\$/MWh)         Natural Gas Consumption Costs (\$)         Natural Gas Price (\$/MWh)         Biomass Consumption (MMBtu)         Biomass Consumption Costs (\$)         Biomass Consumption (MMBtu)         Biomass Consumption (MMBtu)         Biomass Consumption Costs (\$)         Biomass Price (\$/MWh)         Biomass Consumption Costs (\$)         Biomass Price (\$/MMBtu)         Biomass Price (\$/MMBtu)         Biomass Price (\$/MMBtu)         Biomese Price (\$/MMBtu)         Bunker Consumption Costs (\$)         Bunker Consumption (MMBtu)         Bunker Consumption Costs (\$)         Bunker Consumption Costs (\$)         Bunker Price (\$/MWh)         Bunker Price (\$/MWh)         Bunker Price (\$/MWh)         Light Fuel OI         Light Fuel OI Price (\$/MWh)         Imported Power Volume (MWh)         Imported Power Volume (MWh)         Imported Power Volume (MWh)         Imported Power Solumes (MWh)         IPP Purchase Volumes (MWh)         Wind Purchase Volumes (MWh)         Wind Purchase Volumes (MWh)         COMFIT Purchase Volumes (MWh)	-						
Solid Fuel Price (\$/MWh)         Natural Gas Consumption Costs (\$)         Natural Gas Consumption (MMBtu)         Natural Gas Price (\$/MMBtu)         Natural Gas Price (\$/MWh)         Biomass Consumption (MMBtu)         Biomass Consumption (MMBtu)         Biomass Consumption (MMBtu)         Biomass Price (\$/MWh)         Bunker Consumption (MMBtu)         Bunker Consumption Costs (\$)         Bunker Consumption (MMBtu)         Bunker Consumption (MMBtu)         Bunker Consumption Costs (\$)         Bunker Consumption (MMBtu)         Bunker Consumption (MMBtu)         Bunker Consumption Costs (\$)         Bunker Consumption Costs (\$)         Bunker Consumption (MMBtu)         Bunker Consumption (MMBtu)         Bunker Consumption (MMBtu)         Bunker Consumption (MMBtu)         Bunker Price (\$/MWh)         Uight Fuel Oil         Light Fuel Oil Consumption Costs (\$)         Light Fuel Oil Price (\$/MWh)         Imported Power Volume (MWh)         Imported Power Volume (MWh)         IPP Purchase Volumes (MWh)         IPP Purchase Volumes (MWh)         Wind Purchase Volumes (MWh)         Wind Purchase Volumes (MWh)         COMFIT         COMFIT P	-						
Natural Gas         Natural Gas Consumption (MMBtu)         Natural Gas Price (S/MMBtu)         Natural Gas Price (S/MMBtu)         Natural Gas Price (S/MMBtu)         Biomass         Biomass Consumption Costs (S)         Biomass Price (S/MBtu)         Bunker Consumption Costs (S)         Bunker Consumption Costs (S)         Bunker Consumption Costs (S)         Light Fuel Oil         Light Fuel Oil Consumption Costs (S)         Light Fuel Oil Consumption (MMBtu)         Light Fuel Oil Consumption MMBtu)         Light Fuel Oil Consumption (MMBtu)         Light Fuel Oil Price (S/MWh)         Imported Power Volume (MWh)         Imported Power Volume (MWh)         Imported Power Price (S/MWh)         Vind PP Purchases         IPP Purchase Price (S/MWh)         Wind Purchase Price (S/MWh)         Wind Purchase Price (S/MWh)         Wind Purchase Price (S/MWh)							
Natural Gas Consumption (Costs (\$)         Natural Gas Price (\$/MBku)         Natural Gas Price (\$/MBku)         Natural Gas Price (\$/MBku)         Biomass         Biomass Consumption Costs (\$)         Biomass Price (\$/MBku)         Bunker Consumption Costs (\$)         Bunker Consumption (MMBku)         Bunker Price (\$/MMBku)         Bunker Price (\$/MMBku)         Bunker Price (\$/MMBku)         Light Fuel Oil         Light Fuel Oil Consumption Costs (\$)         Light Fuel Oil Consumption Costs (\$)         Light Fuel Oil Price (\$/MWBku)         Light Fuel Oil Price (\$/MWBku)         Light Fuel Oil Price (\$/MWBku)         Imported Power Volume (MWh)         Imported Power Volume (MWh)         IPP Purchases Volumes (MWh)         Wind Purchase Volumes (MWh)         Wind Purchase Volumes (MWh)         Wind Purchase Volumes (MWh)         COMFIT         COMFIT	Solid Fuel Price (\$/MWh)						
Natural Gas Consumption (MMBtu)         Natural Gas Price (\$/MWh)         Biomass         Biomass Consumption Costs (\$)         Biomass Price (\$/MMBtu)         Bunker Consumption Costs (\$)         Bunker Consumption (MMBtu)         Bunker Price (\$/MMBtu)         Light Fuel Oil Consumption Costs (\$)         Light Fuel Oil Consumption (MMBtu)         Light Fuel Oil Consumption (MMBtu)         Light Fuel Oil Price (\$/MWh)         Imported Power Volume (MWh)         Imported Power Volume (MWh)         Imported Power Price (\$/MWh)         Wind Purchases         Wind Purchase Volumes (MWh)	Natural Gas						
Natural Gas Price (\$/MMBtu)         Natural Gas Price (\$/MWh)         Biomass Consumption Costs (\$)         Biomass Consumption (MMBtu)         Biomass Price (\$/MMBtu)         Biomass Price (\$/MMBtu)         Biomass Price (\$/MMBtu)         Biomass Price (\$/MWh)         Bunker Consumption Costs (\$)         Bunker Consumption (MMBtu)         Bunker Price (\$/MWh)         Light Fuel Oil         Light Fuel Oil Consumption Costs (\$)         Inght Fuel Oil Price (\$/MWh)         Imports         Imported Power Volume (MWh)         IPP Purchases Volumes (MWh)         IPP Purchase Volumes (MWh)         Wind Purchase Volumes (MWh)	Natural Gas Consumption Costs (\$)						
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COMFIT Purchase Volumes (MWh)	wind Purchase Price (\$/IVIVVII)						
	<u>COMFIT</u>						
COMFIT Purchase Price (\$/MWh) The FAM Budget reflects the 2019 BCF Refresh filing of \$653.7M.	COMFIT Purchase Price (\$/MWh)						

The FAM Budget reflects the 2019 BCF Refresh filing of \$653.7M.

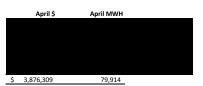
Consumption cost totals above are at the forecasted effective USD rate for the year. These figures do not include the impact of monthly foreign exchange rate variations that are reflected in Summary of Fuel Costs (Report M-1).

### Nova Scotia Power Inc. Monthly FAM Reporting Volume and Pricing Summary For the Period Ended April 30, 2019

Category	Variance from budget	Details
Total Fuel and Purchased Power Expense	5.2% below Budget for the month	
Total System Requirements	0.8% below Budget for the month	
Total FAM Sales	0.4% above Budget for the month	April's 788.2 GWh was more than the FAM Budget of 785.2 GWh
Net Fuel and Purchased Power Costs	7.0% below Budget for the month	April's \$46.7M was less than the FAM Budget of \$50.2M
Purchased Power Costs*	23.4% below Budget for the month	April's \$19.3M was less than the FAM Budget of \$25.2M. This is due to lower COMFIT, non-wind IPP generation, and import purchases.
Solid Fuel Costs	27.4% above Budget for the month	April's \$13.5M was more than the FAM Budget of \$10.6M. Solid Fuel expenditure was primarily higher as a result of increased generation from Solid Fuel.
Natural Gas	137.0% above Budget for the month	April's \$6.4M was more than the FAM Budget of \$2.7M. Although natural gas pricing was higher than budgeted, there was increased natural gas dispatch primarily due to favorable pricing relative to other generation souces, as well as increased dispatch due to the later start date for Maritime Link NS Block.
Biomass Fuel Costs	100.0% above Budget for the month	April's \$0.4M was more than the FAM Budget of \$0.2M.
Heavy Fuel Oil	100.0% below Budget for the month	April's \$0.0M was less than the FAM Budget of \$0.1M.
Mercury Sorbent/Additives	55.6% above Budget for the month	April's \$1.4M was more than the FAM Budget of \$0.9M.
Mercury Emissions	At Budget for the month	April's 5.5kg matched the forecast of 5.5kg.

\* Purchased power costs are exclusive of Maritime Link assessment costs.

Nova Scotia Power Inc. Monthly FAM Reporting Load Retention Tariff Revenue For the Period Ended April 30, 2019



The calculations in this Report and for the purpose of billing PHP in the report period have all been done consistent with the system differential calculation methodology outlined in Confidential Attachment A of the Synapse Audit Report. The individual components of the PHP bill are contained in the table below.

PHP LRT Report											Ex	cess Energy Buyba	ack	
												Total import	Total NSPI paid	
			Energy from Biomass		Environmental				Customer	Adjustments		energy bought	for excess	Buyback Price
Week	Energy Cost (\$)	Total Energy (MWh)	(MWh)	Line Losses (\$)	Adder (\$)	Var OM&G (\$)	Fixed cost (\$)	Var Capital (\$)	charge (\$)	(\$)	Total Billed (\$)	back (MWh)	energy	
25-Mar-2019 to 31-Mar-2019														
01-Apr-2019 to 07-Apr-2019														
08-Apr-2019 to 14-Apr-2019														
15-Apr-2019 to 21-Apr-2019														
22-Apr-2019 to 28-Apr-2019														

The environmental adder costs attributable to PHP's load include the following two components:

1) The costs associated with blending of solid fuels that are directly attributable to PHP's load.

2) The cost of Powder Activated Carbon (PAC) to abate mercury emissions that are directly attributable to PHP's load.

The costs for PAC are now included in the costs of solid fuel that are input into the modeling software used to calculate PHP's actual cost of energy through the differential system cost methodology. The actual costs for PAC are included in the energy component of PHP's weekly bill.

NS Power now calculates the blending component on a month-after basis when actual environmental emissions for the previous month are known. The blending costs are calculated using the existing methodology to calculate the blending component. Moving to a month-after calculation of the blending component allows NS Power to recover PHP's actual costs associated with blending of solid fuels monthly. It also results in NS Power being able to simplify the existing process by not having to complete annual and quarterly forecasts of PHP's blending costs (\$/MMBtu basis) and recovering PHP's costs throughout the year based on a combination of actual and forecast blending costs attributable to PHP's load. It further simplifies the existing process by eliminating the need to complete a true up calculation of PHP's actual blending costs on an annualized basis.

NSPI (FAM) M-8

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