

November 12, 2019

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

Re: Q3 2019 FAM Report

Dear Ms. Friis:

Enclosed is the non-confidential version of the Q3 2019 FAM Report.

The confidential version of this report as well as the FAM Data Cart Index, containing confidential and non-confidential information, and the Q3 2019 Natural Gas Market Update have been uploaded to the Board's confidential website.

The confidential report is covered by the 2019 FAM Confidentiality Undertaking.

Please contact us if you have any questions.

Yours truly,



Brian Curry
Senior Regulatory Counsel

Encl.

c. Judith Ferguson
David Landrigan
Nicole Godbout
FAM Intervenors

Nova Scotia Power Inc.
Quarterly FAM Reporting
As of September 30, 2019

NON-CONFIDENTIAL



(Note - Figures presented reflect whole numbers which may cause \$0.1M or 1% in rounding differences on some line items.)

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Foreign Currency Exchange Program

	2019	2020	2021	2022
<u>\$US Dollar (\$Millions)</u>				
Hedged - \$	\$233	\$168	\$70	\$38
Open - \$	\$13	\$46	\$131	\$141
Total Requirement	\$246	\$214	\$201	\$179
Hedged - \$ Rate	1.2430	1.3146	1.3288	1.3266
Open - \$ Forecasted Rate	1.3200	1.3100	1.3300	1.3500
Total - \$ Blended Rate	1.2470	1.3136	1.3296	1.3450
Hedge %	95%	79%	35%	21%
Open %	5%	21%	65%	79%

Foreign Currency Exchange Program - New Contract Details

Value Date	USD Amount	Rate	CDN Amount	Execution Date
11 Jan 2021	\$5,000,000	1.32410	\$6,620,500	24 Sep 2019
10 Feb 2021	\$5,000,000	1.32440	\$6,622,000	24 Sep 2019
25 Jan 2022	\$5,000,000	1.32634	\$6,631,700	24 Sep 2019
25 Feb 2022	\$5,000,000	1.32663	\$6,633,150	24 Sep 2019

Generation and Purchased Power Statistics

	Q1		Q2		Q3		Q4		Current period Year-to-date	Prior period Year-to-date	Budget* Year-to-date
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget			
Net Generation (MWh)											
Lingan											
Unit #1											
Gross	263,738	237,284	139,430	112,963	168,244	43,984	-	78,117	571,413	362,664	394,231
Station Service	(15,568)	-	(9,951)	-	(12,120)	-	-	-	(37,639)	(24,202)	-
Net	248,170	237,284	129,479	112,963	156,124	43,984	-	78,117	533,774	338,463	394,231
Unit #2											
Gross	227,314	-	80,025	-	87,572	-	-	0	394,910	294,933	-
Station Service	(14,051)	-	(6,221)	-	(7,047)	-	-	-	(27,318)	(19,793)	-
Net	213,263	-	73,804	-	80,525	-	-	0	367,592	275,139	-
Unit #3											
Gross	269,300	230,491	70,557	114,565	179,325	151,558	-	168,123	519,181	574,123	496,614
Station Service	(16,970)	-	(5,131)	-	(13,374)	-	-	-	(35,474)	(41,359)	-
Net	252,330	230,491	65,426	114,565	165,951	151,558	-	168,123	483,707	532,764	496,614
Unit #4											
Gross	291,161	298,863	88,937	167,629	190,700	98,954	-	192,332	570,798	544,317	565,446
Station Service	(18,007)	-	(6,137)	-	(14,534)	-	-	-	(38,679)	(39,492)	-
Net	273,153	298,863	82,800	167,629	176,166	98,954	-	192,332	532,120	504,824	565,446
Pt. Aconi											
Gross	291,378	352,699	322,776	209,539	241,707	295,526	-	294,884	855,862	925,971	857,764
Station Service	(32,402)	-	(34,454)	-	(28,436)	-	-	-	(95,292)	(99,807)	-
Net	258,976	352,699	288,322	209,539	213,271	295,526	-	294,884	760,570	826,164	857,764
Pt. Tupper											
Gross	317,774	248,281	23,059	180,099	273,607	139,005	-	232,235	614,440	782,239	567,386
Station Service	(15,714)	-	(1,215)	-	(14,424)	-	-	-	(31,353)	(44,810)	-
Net	302,060	248,281	21,844	180,099	259,182	139,005	-	232,235	583,087	737,429	567,386
Trenton											
Unit #5											
Gross	287,735	102,488	191,957	107,384	-	66,876	-	37,364	479,692	432,529	276,748
Station Service	(19,426)	-	(14,204)	-	(1,607)	-	-	-	(35,237)	(33,906)	-
Net	268,309	102,488	177,753	107,384	(1,607)	66,876	-	37,364	444,455	398,623	276,748
Unit #6											
Gross	329,659	300,848	279,555	80,448	79,794	119,438	-	229,032	689,008	785,395	500,734
Station Service	(20,816)	-	(19,585)	-	(7,914)	-	-	-	(48,315)	(56,777)	-
Net	308,843	300,848	259,970	80,448	71,880	119,438	-	229,032	640,693	728,619	500,734
Point Tupper Biomass											
Gross	21,844	1,166	36,049	774	27,213	4,089	-	2,596	85,106	152,471	6,029
Station Service	(6,414)	-	(6,753)	-	(6,048)	-	-	-	(19,215)	(23,932)	-
Net	15,431	1,166	29,295	774	21,165	4,089	-	2,596	65,891	128,539	6,029
Tufts Cove											
Unit #1											
Gross	33,564	32,628	16,671	2,243	53,061	16,582	-	-	103,296	126,976	51,453
Station Service	(2,773)	-	(1,698)	-	(3,919)	-	-	-	(8,390)	(9,836)	-
Net	30,791	32,628	14,973	2,243	49,142	16,582	-	-	94,906	117,140	51,453
Unit #2											
Gross	23,551	33,707	21,879	66,609	76,292	26,237	-	6,979	121,723	231,401	126,554
Station Service	(1,738)	-	(1,607)	-	(4,625)	-	-	-	(7,969)	(13,945)	-
Net	21,814	33,707	20,273	66,609	71,667	26,237	-	6,979	113,753	217,455	126,554
Unit #3											
Gross	152,147	64,374	183,835	6,615	167,943	6,066	-	15,221	503,925	534,341	77,054
Station Service	(8,932)	-	(9,639)	-	(8,718)	-	-	-	(27,289)	(27,121)	-
Net	143,215	64,374	174,197	6,615	159,225	6,066	-	15,221	476,637	507,220	77,054
LM 6000 (Tufts Cove #4)											
Gross	32,207	15,617	51,253	23,544	68,524	26,901	-	29,217	151,984	174,623	66,061
Station Service	(3,374)	-	(3,894)	-	(4,498)	-	-	-	(11,766)	(11,582)	-
Net	28,833	15,617	47,359	23,544	64,026	26,901	-	29,217	140,218	163,041	66,061
LM6000 (Tufts Cove #5)											
Gross	36,206	17,847	64,217	23,330	62,299	33,178	-	30,316	162,723	172,625	74,355
Station Service	-	-	(597)	-	(142)	-	-	-	(739)	(1,243)	-
Net	36,206	17,847	63,620	23,330	62,157	33,178	-	30,316	161,984	171,382	74,355
LM6000 (Tufts Cove #6)											
Gross	16,184	9,504	32,126	12,214	37,293	17,446	-	17,305	85,603	79,861	39,164
Station Service	-	-	-	-	-	-	-	-	-	-	-
Net	16,184	9,504	32,126	12,214	37,293	17,446	-	17,305	85,603	79,861	39,164

Generation and Purchased Power Statistics

	Q1		Q2		Q3		Q4		Current period Year-to-date	Prior period Year-to-date	Budget* Year-to-date
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget			
Total CTs											
Gross	3,348	83	1,066	8	897	-	-	-	5,311	11,445	91
Station Service	(551)	-	(353)	-	(248)	-	-	-	(1,152)	(1,163)	-
Net	2,797	83	713	8	649	-	-	-	4,159	10,282	91
Total Hydro											
Gross	295,120	323,317	352,023	295,005	157,627	93,253	-	265,990	804,770	697,157	711,575
Station Service	(1,787)	-	(2,237)	-	(1,035)	-	-	-	(5,060)	(3,946)	-
Net	293,333	323,317	349,785	295,005	156,592	93,253	-	265,990	799,710	693,211	711,575
Total NSPI Wind											
Gross	78,193	68,504	59,907	61,479	45,110	52,520	-	76,995	183,210	191,309	182,503
Station Service	(48)	-	(6)	-	(7)	-	-	-	(61)	(239)	-
Net	78,145	68,504	59,901	61,479	45,103	52,520	-	76,995	183,149	191,071	182,503
Total Generation											
Gross	2,970,424	2,337,701	2,015,324	1,464,449	1,917,208	1,191,613	-	1,676,705	6,902,956	7,074,379	4,993,764
Station Service	(178,572)	-	(123,683)	-	(128,695)	-	-	-	(430,949)	(453,152)	-
Net	2,791,852	2,337,701	1,891,641	1,464,449	1,788,513	1,191,613	-	1,676,705	6,472,007	6,621,226	4,993,764
Purchases											
Imports	140,800	173,414	228,916	448,996	277,437	598,057	-	352,791	647,153	364,714	1,220,467
Maritime Link	-	376,668	-	221,764	-	223,737	-	329,065	-	-	822,169
IPPI/COMFIT	532,795	545,057	396,286	440,881	291,172	395,955	-	554,094	1,220,253	1,306,419	1,381,893
Total kWh Available	3,465,447	3,432,841	2,516,844	2,576,090	2,357,122	2,409,362	-	2,912,655	8,339,413	8,292,360	8,418,294
Less Export Sales	(76,321)	(29,500)	(7,621)	(2,500)	(20,000)	(1,000)	-	(17,000)	(103,942)	(74,225)	(33,000)
Losses (Export Sales)	(3,896)	-	(247)	-	(893)	-	-	-	(5,036)	(2,583)	-
Net System Requirement	3,385,230	3,403,341	2,508,976	2,573,590	2,336,229	2,408,362	-	2,895,655	8,230,435	8,215,552	8,385,294
Less GRLF requirement	(2,195)	(5,652)	(8,769)	(7,585)	(5,164)	(6,596)	-	(4,088)	(16,129)	(8,072)	(19,833)
Less Load Retention	(217,901)	(247,871)	(205,845)	(268,949)	(665,773)	(272,646)	-	(268,802)	(665,773)	(824,224)	(789,466)
Less Shore Power	-	-	(0)	(91)	(393)	(606)	-	(304)	(393)	(282)	(696)
Less 1PT RTP	(862)	(300)	(2,215)	(2,093)	(4,183)	(3,762)	-	(3,619)	(7,261)	(8,371)	(6,154)
Less Back Up/Top Up	(4,300)	-	(6,470)	-	(8,303)	-	-	-	(19,074)	(19,488)	-
Less Mersey Basic Block	-	-	-	-	-	-	-	-	-	-	-
Less Losses **	(216,420)	(242,434)	(132,015)	(155,236)	(137,651)	(131,401)	-	(196,516)	(486,086)	(475,905)	(529,071)
Net Requirement	2,943,551	2,907,084	2,153,661	2,139,638	1,514,763	1,993,351	-	2,422,326	7,035,721	6,879,210	7,040,073

Note: LM6000 (Tufts Cove #6) budgeted generation is combined with Tufts Cove # 4 and Tufts Cove #5.

*Budget reflects the 2019 BCF Refresh Budget of \$653.7M

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

Mercury Additive Details for Current Quarter and Year to Date

Generating Plant	Additive Type	~ Quarter ~				~ Year To Date ~			
		Quantity	Unit of Measure	Costs [\$]	\$/MWh ^a	Quantity	Unit of Measure	Costs [\$]	\$/MWh ^a
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 (all units)	Calcium Chloride		L				L		
Point Tupper	Calcium Chloride		L				L		
Trenton (all units)	Calcium Chloride		L				L		
Total Costs (Powder Activated Carbon)		941,400	kgs	\$2,360		3,269,079	kgs	\$7,386	
Total Costs (Calcium Chloride)		309,805	L	\$0.115		850,273	L	\$0.314	
Total Costs (All Additives)				\$2.475				\$7.700	

^a Calculated using actual MWh produced by unit.

NSPI Environmental Report for Mercury Emissions^b

Annual Limit = 65 kg^c

Quarter	Reported This Quarter, kg	Reported Last	Variance, kg	Reason for Variance
Q1	27.0	27.6	0.6	Estimated data updated with actual data
Q2	10.3	9.9	-0.4	
Q3	8.5 ^d	0.0	0.0	
Q4	0.0	0.0	0.0	
Year to Date	45.8			

^b As reported by NSPI's Environmental Services.

^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 at year-end.

NSPI Environmental Report for Mercury Diversion Program

	Verified Credits ^e	Unverified Credits	Total Verified + Unverified Credits	Credits Used ^f
2015	2.3		2.3	
2016	19.7		19.7	
2017	44.8		44.8	
2018	58.1		58.1	
Current Yr Q1		2.9	2.9	
Current Yr Q2		3.0	3.0	
Current Yr Q3		2.7	2.7	
Current Yr Q4		0.0	0.0	
Year to Date	124.9	8.6	133.5	

^e A report by a verifier certifying the credits being claimed in a calendar year must be submitted to the Minister by March 31 of the following year per Sub-Section 7F of the Province of Nova Scotia Air Quality Regulations.

^f NSPI can use credits for compliance with the Air Quality Regulations. Credits can start being used in 2020.

Nova Scotia Utility and Review Board

IN THE MATTER OF *The Public Utilities Act*, R.S.N.S. 1989, c.380, as amended

2019 Maritime Link Benefits Report Q3

NS Power

November 12, 2019

REDACTED

**2019 Maritime Link Benefits Report Q3
REDACTED**

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2019 Maritime Link Benefits Report Q3
REDACTED

1 **1.0 INTRODUCTION**

2
3 As part of the Consensus Agreement approved by the Nova Scotia Utility and Review Board
4 (NSUARB, Board) with respect to Nova Scotia Power Incorporated's (NS Power or Company)
5 2017-2019 Fuel Stability Plan (FSP) and Base Cost of Fuel (BCF) Application, NS Power agreed
6 to track the benefits realized for customers from the Maritime Link prior to the start of the Nova
7 Scotia Block and provide such information to customers on no less than a quarterly basis. Please
8 accept this report as NS Power's third quarter report (Q3) for 2019 in relation to Maritime Link
9 benefits tracking.

10
11 As outlined in the Company's prior reports for 2019, the Maritime Link was in service throughout
12 2018 and year to date 2019 and has provided NS Power access to a new market, reliability and
13 system loss reductions as well as providing quantifiable benefits related to energy transactions and
14 ancillary services. The Maritime Link continues to provide long term strategic benefits to Nova
15 Scotia and the Atlantic Region, and NS Power remains committed to achieving those benefits for
16 customers. NS Power will also continue working towards creating incremental value above the
17 Nova Scotia Block and promoting the economic and reliability benefits associated with the
18 Maritime Link.

19
20 In accordance with the Board's Decision dated June 11, 2018 on the confidentiality of the Maritime
21 Link Benefits Quarterly Tracking Report, NS Power provides the amount of energy flowing over
22 the Maritime Link (megawatts, not dollar amounts) each quarter on a non-confidential basis.
23 Details of total benefits achieved in 2019 will be provided in the 2019 Q4 Report.

24
25 NS Power confirms that during Q3 2019, 29,813 MWh flowed over the Maritime Link. NS Power
26 has determined that the Company has achieved a total of [REDACTED] in quantified benefits for
27 customers associated with the Maritime Link in Q3 2019, which compares with [REDACTED] in
28 benefits Q3 2018. Year to date benefits in 2019 equate to [REDACTED]. The specific details with
29 respect to the quantifiable benefits achieved in Q3 and YTD 2019 are provided in **Figure 1** in
30 **Confidential Appendix A.**

2019 Maritime Link Benefits Report Q3
REDACTED

1 In the proceeding before the NSUARB for NSP Maritime Link Incorporated's 2020 Interim Cost
2 Assessment (M09277), Bates White Economic Consulting (Bates White), on behalf of NSUARB
3 Counsel, made certain recommendations with respect to NS Power's quarterly reporting of
4 Maritime Link Benefits.¹

5
6 We recommend that NSPI's Quarterly Reporting of Maritime Link be further
7 standardized and include some reconciliation with previous quarterly reports, its
8 response to BW-IR-2 (c), and its Interim Assessment Application Supplementary
9 Evidence. At a minimum, NSPML should reconcile the [REDACTED] of benefits
10 put forth in its Interim Assessment Application Supplementary Evidence with its
11 [REDACTED] of benefits put forth in its response to BW-IR-2 (c), and restate all
12 six quarterly benefits reports to categorize all benefits to date in a consistent set of
13 benefits categories. NSPML should also elaborate on all MWh of transactions to
14 date on the Maritime Link, distinguishing between transactions flowing power from
15 Nova Scotia from those in which power flows to Nova Scotia. This
16 recommendation will enhance transparency, allow for proper comparisons of
17 benefits accrued through time, and assist future reviews of the determination and
18 calculation of those benefits.²

19
20 The NSUARB has already made a determination on the calculation of benefits and resulting hold
21 back for 2018. As such, NS Power has addressed Bates Whites' recommendations in the Q3 2019
22 Report, to the extent applicable, through **Figure 2 in Confidential Appendix A**. The Company
23 will also incorporate the same information in future Maritime Link Benefits Reports.

¹ M09277, Evidence of Bates White Economic Consulting, dated August 29, 2019, pages 25-27.

² M09277, Evidence of Bates White Economic Consulting, dated August 29, 2019, pages 26-27, lines 15-23 and 1-2.

2019 Maritime Link Benefits Report Q3
REDACTED

1 **2.0 Q3 2019 MARITIME LINK BENEFITS**

2

3 **2.1 Q3 2019 Benefits**

4

5 In Q3 2019, NS Power sent to and received from Nalcor Energy Marketing Corporation (Nalcor)
6 a total of [REDACTED] of energy through bilateral and Holyrood Offset transactions. NS Power
7 continues to be actively engaged in discussions with Nalcor in pursuit of benefits associated with
8 the use of the Maritime Link on behalf of customers.

9

10 **2.2 Additional Commentary**

11

12 Nalcor and NS Power continue to work closely together to achieve incremental value on the
13 Maritime Link. In Q3 4,127 MWh flowed from Newfoundland to Nova Scotia, and 11,958 MWh
14 flowed from Nova Scotia to Newfoundland. Opportunities in Q3 increased from Q2 due to cooler
15 weather increasing overall energy requirements. This trend is expected to continue in Q4.

16

17 NS Power sold and purchased from Nalcor [REDACTED] MWh of energy for the month of July 2019,
18 [REDACTED] MWh of energy for the month of August and [REDACTED] MWh of energy for the month of
19 September 2019.

20

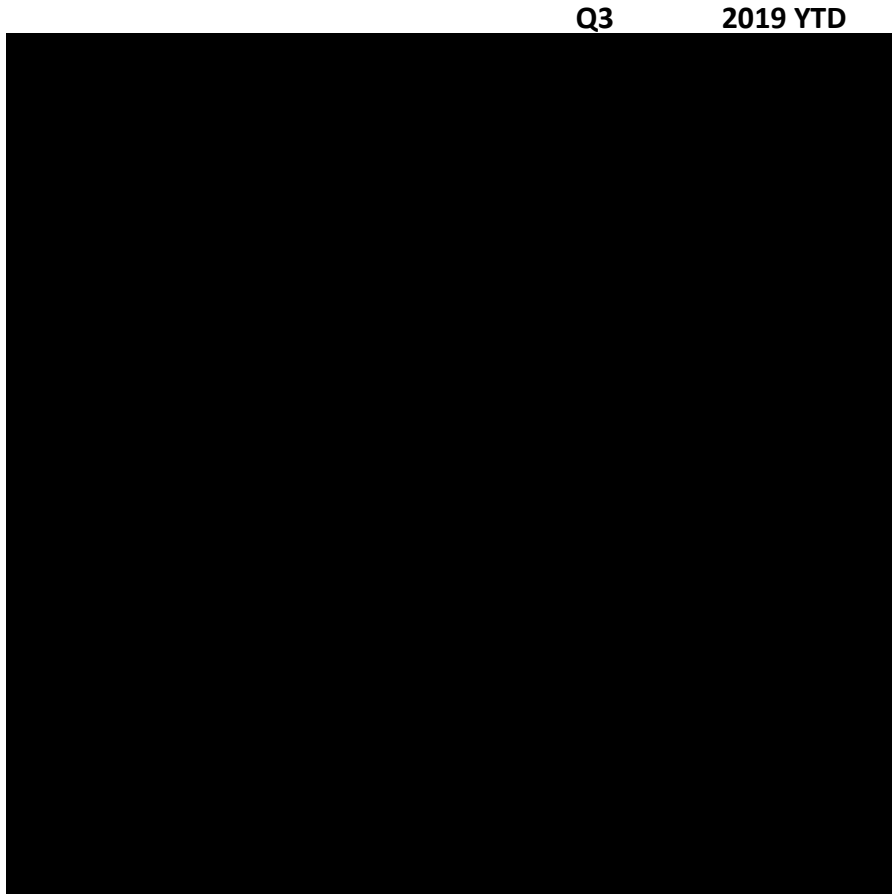
21 Value was also created through the sale of wheel-through transmission from the New Brunswick
22 border to Bottom Brook, Newfoundland; [REDACTED] in July 2019, [REDACTED] in August 2019, and
23 [REDACTED] in September 2019.

**2019 Maritime Link Benefits Report Q3
REDACTED**

Appendix A

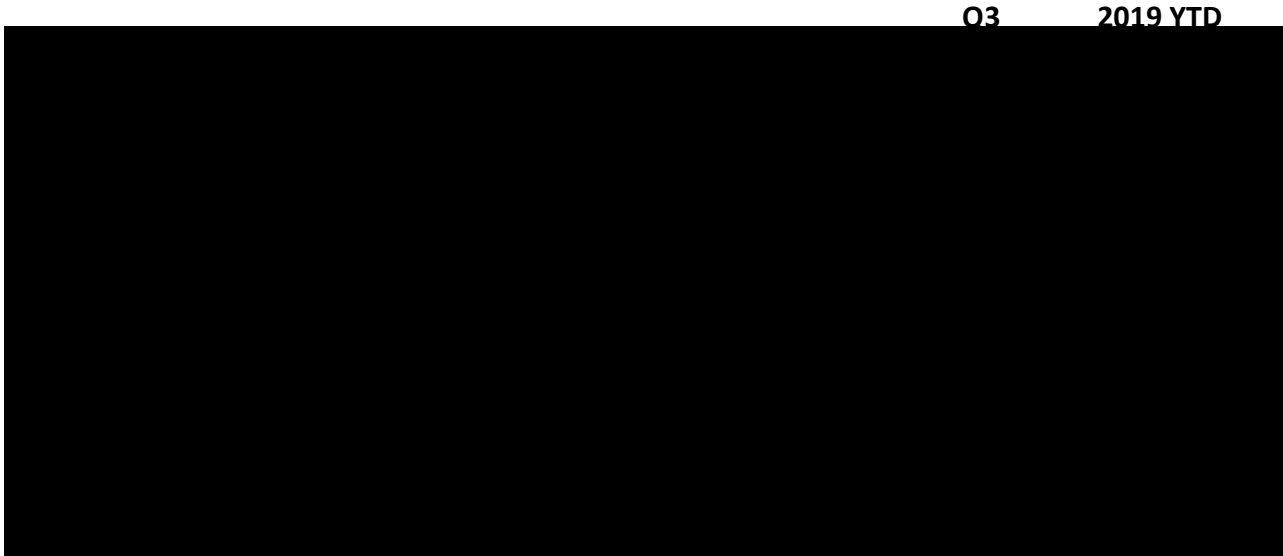
2019 Benefits to End of Q3

Figure 1. 2019 Q3 & YTD Benefits



**2019 Maritime Link Benefits Report Q3
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Figure 2. 2019 Q3 & YTD Benefits



1