

DEVELOPMENT OF PROPOSED RESIDENCE, SINGLE BUSINESS AND MULTI-LINE BUSINESS END USER RATES

END USER TARIFF MEMBERS

LINE NO	COST PER LINE GROUP CATEGORY ¹	COMMON LINE REVENUE REQUIREMENT ²	MONTHLY AVERAGE ACCESS LINES ³	RATE BAND ⁴	PROPOSED MULTI-LINE BUSINESS RATES ⁵	MONTHLY AVERAGE MULTI-LINE BUSINESS LINES ³	PROPOSED RESIDENCE AND SINGLE-LINE BUSINESS RATES ⁶	MONTHLY AVERAGE RESIDENCE AND SINGLE-LINE BUSINESS LINES	
		(A)	(B)		(C) = MIN (A / B) / 12, \$9.20	(D)	(E) = MIN (A / B) / 12, \$6.50	(F) = B - D	
1	Above \$9.20	\$839,301,502	2,156,317	15	\$9.20	420,867	\$6.50	1,735,450	
2	Total	\$839,301,502	2,156,317			420,867		1,735,450	
3	NECA END-USER MULTI-LINE AVERAGE RATE = Sum of Elements of (Col C * Col D) / Total of Col D						\$9.20		
4	NECA END-USER RESIDENCE AND SINGLE-LINE BUSINESS AVERAGE RATE = Sum of Elements of (Col E * Col F) / Total of Col F						\$6.50		

NOTE:

- 1 A Study Area is assigned to the cost per line group immediately above its projected cost per line with the exception of rate band 15 which includes study areas with cost per line greater than \$9.20.
- 2 Revenue Requirement was reduced by ISDN port revenue, DS1 port revenue and SAS Revenue, and then adjusted for uncollectibles.
- 3 A PRI ISDN line is counted as 5 multi-line business access lines. A DS1 Channel Service is counted as 5 multi-line business access lines.
- 4 There are 15 rate bands. Rate bands 1 through 14 with no common line revenue requirement and lines associated are not assigned rates and are not shown. All rate bands are displayed in Volume 1 Exhibit 3 Workpaper 2.
- 5 Per FCC order, the maximum monthly End User Common Line Charge for multi-line business will be the lesser of \$9.20 or cost per line. (FCC 01-304 APPENDIX A PART 69.104 (o) (1), Nov 8, 2001).
- 6 Per FCC order, the maximum monthly charge for each residential or single-line business local exchange service subscriber line shall be the lesser of cost per line or \$6.50 beginning July 1, 2003. (FCC 01-304 APPENDIX A PART 69.104 (n) (1), Nov 8, 2001).

JUNE 16, 2017 NECA ACCESS CHARGE FILING
 TEST PERIOD: JULY 1, 2017 - JUNE 30, 2018
 END USER REVENUE AT PROPOSED RATES AND SPECIAL ACCESS SURCHARGE REVENUE

VOLUME 4
 EXHIBIT 2

LINE NO	<u>DESCRIPTION</u>	<u>DEMAND</u> (A)	<u>SOURCES /SUMMARY</u>	<u>PROPOSED</u> <u>RATES</u> (B)	<u>SOURCES /SUMMARY</u>	<u>PROPOSED</u> <u>REVENUES</u> (C) = A * B * 12
<u>EU TARIFF MEMBERS</u>						
1	EU-CPT RESIDENCE LINE (INCLUDES CENTREX CPTS)	1,632,984	V3 EX 1	\$6.50	V4 EX 1 LINE 4	\$127,372,752
2	EU-CPT SINGLE LINE BUSINESS (INCLUDES ISDN BRI AND SLC CHARGES)	102,466	V3 EX 1	\$6.50	V4 EX 1 LINE 4	\$7,992,348
3	EU-CPT BUSINESS MULTI-LINE BUSINESS (INCLUDES CENTREX CPTS, ISDN PRI AND DS1 SLC CHARGES)	420,867	V4 EX 1	\$9.20	V4 EX 1 LINE 3	\$46,463,717
4	TARIFF MEMBER SUBTOTAL	2,156,317	LINE 1 + LINE 2 + LINE 3			\$181,828,817
<u>NON-EU TARIFF MEMBERS</u>						
5	EU-CPT RESIDENCE LINE (INCLUDES CENTREX CPTS)	16,914	V3 EX 1 WP 1	\$6.50	V3 APPENDIX A	\$1,319,292
6	EU-CPT SINGLE LINE BUSINESS (INCLUDES ISDN BRI AND SLC CHARGES)	703	V3 EX 1 WP 1	\$6.50	V3 APPENDIX A	\$54,834
7	EU-CPT BUSINESS MULTI-LINE BUSINESS (INCLUDES CENTREX CPTS, ISDN PRI AND DS1 SLC CHARGES)	9,171	V3 EX 1 WP 1	\$9.20	V3 APPENDIX A	\$1,012,478
8	NON-TARIFF MEMBER SUBTOTAL	26,788	LINE 5 + LINE 6 + LINE 7			\$2,386,604
<u>COMMON LINE POOL MEMBERS</u>						
9	TOTAL END USER SUBSCRIBER LINE CHARGE REVENUE	2,183,105	LINE 4 + LINE 8			\$184,215,421
10	SUBSCRIBER LINE UNCOLLECTIBLE				NOTE1	\$174,836
11	NET END USER SUBSCRIBER LINE CHARGE REVENUE		LINE 9 - LINE 10			\$184,040,585
12	SA SURCHARGEABLE CHANNELS (SAS) REVENUE	23	V3 EX 1 WP 1	\$25.00	NECA TARIFF 5 SEC. 17.3.1	\$6,900
13	TOTAL SUBSCRIBER LINE CHARGE + SAS REVENUE		LINE 11 + LINE 12			\$184,047,485

NOTE:
 1 Sum of carrier's (historical settlement uncollectible / historical SLC revenue) * Test Period SLC revenue.

JUNE 16, 2017 NECA ACCESS CHARGE FILING

VOLUME 4

TEST PERIOD: JULY 1, 2017 - JUNE 30, 2018

EXHIBIT 3

DEVELOPMENT OF ISDN LINE & DS1 CHANNEL SERVICE PORT COSTS AND PROPOSED RATES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>SOURCES /SUMMARY</u>	<u>AMOUNT</u>
1	BASIC ANALOG POTS INVESTMENT	2006 NECA Ports Investment Cost Study	\$106.50
2	ISDN BRI PER UNIT INVESTMENT	2006 NECA Ports Investment Cost Study	\$554.87
3	ISDN PRI PER UNIT INVESTMENT	2006 NECA Ports Investment Cost Study	\$5,645.75
4	DS1 SERVICE PER UNIT INVESTMENT	2006 NECA Ports Investment Cost Study	\$4,395.06
5	NECA POOL INTERSTATE FACTOR	2000 UNWEIGHTED RELATIVE DEM FACTOR FOR NECA POOL	0.196
6	ANNUAL CARRYING CHARGE FACTOR	NOTE 1	28.2%
7	POTS PER UNIT COST	(LINE 1 * LINE 5 * LINE 6) / 12	\$0.49
8	ISDN BRI PER UNIT COST	(LINE 2 * LINE 5 * LINE 6) / 12	\$2.56
9	ISDN PRI PER UNIT COST	(LINE 3 * LINE 5 * LINE 6) / 12	\$26.01
10	DS1 PER UNIT COST	(LINE 4 * LINE 5 * LINE 6) / 12	\$20.25
11	COST OF FIVE POTS PORTS	(LINE 7) * 5	\$2.45
<u>PORT COSTS AFTER POTS ADJUSTMENTS</u>			
12	ISDN BRI PORT AVERAGE COST	LINE 8 - LINE 7	\$2.07
13	ISDN PRI AVERAGE PORT COST	LINE 9 - LINE 11	\$23.56
14	DS1 AVERAGE PORT COST	LINE 10 - LINE 11	\$17.79
15	ISDN PRI AND DS1 AVERAGE PORT COST ²	LINE 13 * .396 + LINE 14 * .604	\$20.08
<u>PROPOSED PORT RATES</u>			
16	ISDN BRI PORT RATE	NECA TARIFF F.C.C. NO. 5 §17.1.4 (A)	\$2.23
17	ISDN PRI PORT RATE	NECA TARIFF F.C.C. NO. 5 §17.1.4 (B)	\$23.51
18	DS1 CHANNEL SERVICE PORT RATE	NECA TARIFF F.C.C. NO. 5 §17.1.5 (A)	\$23.51

NOTE:

- 1 Test Period Local Switching Revenue Requirement/Local Switching Total Plant in Service
- 2 Access Lines associated with DS1 and ISDN PRI in the 2006 study of the RDTG members were used to calculate the weighted average port cost.

JUNE 16, 2017 NECA ACCESS CHARGE FILING

VOLUME 4

TEST PERIOD: JULY 1, 2017 - JUNE 30, 2018

EXHIBIT 4

ISDN LINE PORT REVENUE AND DS1 CHANNEL SERVICE PORT REVENUE AT PROPOSED RATES

<u>LINE NO.</u>	<u>DESCRIPTION</u>	<u>MONTHLY DEMAND</u> (A)	<u>SOURCE /SUMMARY</u>	<u>PROPOSED RATE</u> (B)	<u>SOURCE /SUMMARY</u>	<u>PROPOSED REVENUE</u> (C) = A * B * 12
1	ISDN BRI LINE PORT REVENUE	418	V3 EX 1 WP 1	\$2.23	V4 EX 3 LINE 16	\$11,186
2	ISDN PRI LINE PORT REVENUE	3,341	V3 EX 1 WP 1	\$23.51	V4 EX 3 LINE 17	\$942,563
3	DS1 CHANNEL SERVICE PORT REVENUE	529	V3 EX 1 WP 1	\$23.51	V4 EX 3 LINE 18	\$149,241
4	TOTAL ISDN LINE and DS1 PORT REVENUE		LINE 1 + LINE 2 + LINE 3			\$1,102,990

JUNE 16, 2017 NECA ACCESS CHARGE FILING

TEST PERIOD: JULY 1, 2017 - JUNE 30, 2018

VOLUME 4

EXHIBIT 5

COMMON LINE REVENUE, INCLUDING CONSUMER BROADBAND-ONLY REVENUE,
AT PROPOSED RATES

<u>LINE NO</u>	<u>DESCRIPTION</u>	<u>SOURCE /SUMMARY</u>	<u>PROPOSED REVENUES</u> ¹ (\$ Million)
1	END USER SLC REVENUE AND SAS	V4 EX 2 LINE 13 / 1,000,000	\$184.0
2	ISDN LINE PORT AND DS1 PORT REVENUE	V4 EX 4 LINE 4 COL C / 1,000,000	\$1.1
3	TOTAL COMMON LINE REVENUE	LINE 1 + LINE 2	\$185.2
4	CAF BLS VOICE (BEFORE BCM)	V2 EX 2	\$691.3
5	TOTAL COMMON LINE REVENUE INCLUDING CAF BLS VOICE	LINE 3 + LINE 4	\$876.5
6	CONSUMER BROADBAND-ONLY REVENUE	FULLY CALCULATED CBOL RATE X CONSUMER BROADBAND ONLY LOOPS X 12	\$84.9
7a	CAF BLS BROADBAND-ONLY (BEFORE BCM)	V2 EX 2	\$76.9
7b	EFFECT OF BCM ON CAF BLS SUPPORT ²	USAC	(\$23.6)
8	TOTAL CONSUMER BROADBAND-ONLY REVENUE INCLUDING CAF BLS BROADBAND-ONLY	LINE 6 + LINE 7a + LINE 7b	\$138.2
9	TOTAL COMMON LINE REVENUE INCLUDING CONSUMER BROADBAND-ONLY REVENUE AND CAF BLS SUPPORT	LINE 5 + LINE 8	\$1,014.7

NOTE:

¹ Calculations are done with full numbers.

² Calculated CBOL rates are designed to recover the effects of the BCM on CAF BLS Support.

JUNE 16, 2017 NECA ACCESS CHARGE FILING

TEST PERIOD: JULY 1, 2017 - JUNE 30, 2018

DEVELOPMENT OF OPTIONAL MULTI-LINE BUSINESS EUCL FUSC SURCHARGE AND REVENUE

VOLUME 4

EXHIBIT 6

LINE NO	FUSC BAND	BUSINESS CENTREX %	MULTI-LINE REVENUE ¹	BUSINESS CENTREX REVENUE ²	MLB EUCL FUSC SURCHARGE ³	PROJECTED FUSC REVENUE
			(A)	(B)	(C)	(D) = ((A - B) + B / 9) * C
1	1	LT 1%	\$70,104	\$331	17.2%	\$12,007
2	2	3.5%	\$0	\$0	17.7%	\$0
3	3	6.7%	\$1,059,398	\$71,318	18.2%	\$181,273
4	4	7.2%	\$0	\$0	18.3%	\$0
5	5	9.7%	\$1,567,128	\$154,891	18.7%	\$267,307
6	6	12.1%	\$135,350	\$16,339	19.2%	\$23,199
7	7	13.5%	\$0	\$0	19.4%	\$0
8	8	13.8%	\$1,018,992	\$140,650	19.5%	\$174,324
9	9	14.3%	\$333,298	\$47,693	19.6%	\$57,017
10	10	14.9%	\$0	\$0	19.7%	\$0
11	11	15.2%	\$18,216	\$2,760	19.8%	\$3,121
12	12	19.4%	\$0	\$0	20.7%	\$0
13	13	29.7%	\$0	\$0	23.2%	\$0
14	14	36.4%	\$39,413	\$14,352	25.3%	\$6,744
15	15	38.7%	\$126,298	\$48,797	26.1%	\$21,643
16	16	48.8%	\$0	\$0	30.2%	\$0
17	17	66.1%	\$537,206	\$354,936	41.4%	\$91,787
18	18	72.9%	\$0	\$0	48.6%	\$0
19	TOTAL		\$4,905,403	\$852,067		\$838,421

NOTE:

- 1 Following FCC Order on Reconsideration in CC Docket No. 96-45 (FCC 08-51) released on February 14, 2008, Payphone Service Provider Lines are excluded from calculation of MLB EUCL FUSC surcharges.
- 2 A study area is assigned to a rate band based on its business Centrex percentage. Bands with no projected MLB revenue are occupied by study areas adopting optional A-CAM funding that participate in NECA's Common Line tariff.
- 3 The following formula is used to calculate Multi-line FUSC surcharge for each band:
Contribution Factor/(1 - 8/9 * Business Centrex Revenue share).

JUNE 16, 2017 NECA ACCESS CHARGE FILING
TEST PERIOD: JULY 1, 2017 - JUNE 30, 2018
DEVELOPMENT OF FEDERAL UNIVERSAL SERVICE CHARGE REVENUE

VOLUME 4
EXHIBIT 7

<u>LINE NO.</u>	<u>ITEM</u>	<u>SOURCE</u>	<u>AMOUNT</u> ¹ (\$ Million)
1	PROJECTED CL RETAIL REVENUE FROM RES/SLB, ISDN PORT, DS1 PORT, AND SAS	V2 EX 9 LINE 5 COL A	\$179.6
2	PROJECTED CONSUMER BROADBAND-ONLY REVENUE	V2 EX 9 LINE 5 COL D	\$42.1
3	PROJECTED BANDED MLB REVENUE	V4 EX 6 LINE 19 COL A	\$4.9
4	PROJECTED ARC REVENUE	V2 EX 9 LINE 5 COL B	\$44.2
5	PROJECTED SPECIAL ACCESS RETAIL REVENUE	V2 EX 9 LINE 5 COL C	\$202.3
6	PROJECTED RETAIL REVENUE EXCLUDING BANDED MLB REVENUE	LINE 1 + LINE 2 - LINE 3 + LINE 4 + LINE 5	\$463.3
7	FUSC SURCHARGE	V2 EX 9 LINE 6 COL D	17.1%
8	PROJECTED FUSC SURCHARGE FROM NON-BANDED REVENUE	LINE 6 * LINE 7	\$79.2
9	PROJECTED MLB EUCL FUSC SURCHARGE FROM BANDED MLB REVENUE	V4 EX 6 LINE 19 COL D / 1,000,000	\$0.8
10	PROJECTED TEST PERIOD FUSC REVENUE	LINE 8 + LINE 9	\$80.1

NOTE: ¹ Calculations are done with full numbers.