NATIONAL EXCHANGE CARRIER ASSOCIATION, INC.

ACCESS SERVICE
TARIFF F.C.C. No. 5

TRANSMITTAL NO. 1549
JUNE 18, 2018

<u>VOLUME 1:</u> <u>DESCRIPTION AND JUSTIFICATION</u>

Defines the purpose of the filing, describes the rate structure of the access services and summarizes results.

<u>VOLUME 1-2:</u> <u>TARIFF REVIEW PLAN</u>

<u>VOLUME 2:</u> <u>DEVELOPMENT OF ACCESS ELEMENT REVENUE REQUIREMENTS</u>

Provides a projection of the companies' interstate investments, expenses, revenues and taxes for the past year cost of service study and test year.

<u>VOLUME 3:</u> <u>DEVELOPMENT OF BASELINE DEMAND AND REVENUES</u>

Provides the development of the demand quantities and revenues for the test year at current rates.

<u>VOLUME 4:</u> <u>COMMON LINE RATE DEVELOPMENT</u>

Describes and documents the procedures used to develop Common Line Rates, Federal Universal Service Charges, and Consumer Broadband-only Loop rates.

<u>VOLUME 5:</u> <u>TRAFFIC SENSITIVE RATE DEVELOPMENT</u>

Describes and documents the procedures to develop recurring and non-recurring rate levels for Switched Access and Special Access services. It also describes the procedures used to develop miscellaneous charges for additional engineering, maintenance and testing of these services, as well as describing the development of Eligible Recovery, ARC rates, and CAF ICC support estimates.

Volume 1
DESCRIPTION AND JUSTIFICATION

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Volume 1

DESCRIPTION AND JUSTIFICATION

Section 1

INTRODUCTION

The National Exchange Carrier Association, Inc. (NECA) hereby files its 2018 Annual Access Tariff revisions for the 2018/2019 test period[1] to reflect the cost and demand characteristics of its pool participants. NECA proposes revisions to its Common Line (CL) revenue requirement recovery, Consumer Broadband-only Loop (CBOL) rates and Traffic Sensitive (TS) rates to be effective July 3, 2018.[2] These proposed rates are designed to recover the test period common line, CBOL, and special access revenue requirements at the revised authorized rate of return (RoR) of 10.50 percent.[3] This filing reflects impacts on switched access rates resulting from the Commission's Universal Service Fund (USF) and Intercarrier Compensation (ICC) Transformation Order.[4] This filing also reflects impacts of

[1] The Commission has established July 3, 2018 as the effective date for Annual Access Tariff filings made on 15 days' notice. *See July 1, 2018 Annual Access Charge Tariff Filings*, WC Docket No. 18-100, Order, FCC 18-335 (rel. Apr. 5, 2018) (*2018 Procedures Order*).

[2] Throughout this filing, references to Common Line do not include CBOL unless explicitly stated.

[3] *Connect America Fund*, WC Docket No. 10-90, *ETC Annual Reports and Certifications*, WC Docket No. 14-58, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking, FCC 16-33 (rel. Mar. 30, 2016) (*USF RoR Reform Order*).

[4] *Connect America Fund,* WC Docket No. 10-90, *A National Broadband Plan for Our Future,* GN Docket No. 09-51, *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135, *High-Cost Universal Service Support*, WC Docket No. 05-337, *Developing a Unified Intercarrier Compensation Regime,* CC Docket No. 01-92, *Federal-State Joint Board on Universal Service*, CC Docket No. 96- 45, *Lifeline and Link-Up*, WC Docket No. 03-109, *Universal Service – Mobility Fund*, WT Docket No. 10-208, Report and Order and FNPRM, 26 FCC Rcd. 17663 (2011). (*USF/ICC Transformation Order*), *petitions for review denied In re: FCC 11-161,* No. 11-9900 (10th Cir. May 23, 2014).

the Second Order on Reconsideration and Clarification released February 16, 2018[5] affecting CAF ICC support calculations and CBOL and special access revenue requirements and rates as described herein. In addition, this filing reflects the Report and Order and Third Order on Reconsideration released March 23, 2018[6] affecting revenue requirements described in Volume 2 and CL and CBOL revenue requirements and resulting CAF BLS support described in Volume 4.

Volume 2, Section 3.B.4 and Volume 2, Exhibit 8 reflect the change associated with the June 8, 2018 USF Forbearance Order granting temporary forbearance from the application of Universal Service Fund contribution requirements on broadband internet access transmission services provided by rural incumbent local exchange carriers.[7] Additionally, this filing reflects impacts of the *2018 Modification of Average Schedules*[8], and other orders affecting one or more carriers as described later in this text.

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[5] *Connect America Fund*, WC Docket No. 10-90, *ETC Annual Reports and Certifications,* WC Docket No. 14-58, *Developing a Unified Intercarrier Compensation*, CC Docket No. 01-92, Second Order on Reconsideration and Clarification, FCC 18-13 (rel. Feb. 16, 2018) (*February 16, 2018 Order*).

[6] *Connect America Fund*, WC Docket No. 10-90, *ETC Annual Reports and Certifications*, WC Docket No. 14-58, *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92 Report and Order, Third Order on Reconsideration, and Notice of Proposed Rulemaking, FCC 18-29 (rel. Mar. 23, 2018) (*March 23, 2018 Order*).

[7] *Petition of NTCA—The Rural Broadband Association and the United States Telecom Association for Forbearance Pursuant to 47 U.S.C. § 160(c) from Application of Contribution Obligations on Broadband Internet Access Transmission Services*, WC Docket No. 17-206, Order, FCC 18-75 (rel. June 8, 2018) (*2018 USF Forbearance Order*).

[8] *See* National Exchange Carrier Association, Inc. 2018 Modification of Average Schedules, attached to Letter from Richard A. Askoff, Executive Director - Regulatory, NECA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-346 (filed Dec. 21, 2017), and National Exchange Carrier Association, Inc. 2017 Interim Modification of Average Schedules and 2018 Further Modification of Average Schedules, attached to Letter from Richard A. Askoff, Executive Director - Regulatory, NECA, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-400, 17-346 (filed Feb. 26, 2018); Letter from Richard A. Askoff Executive Director-Regulatory, NECA, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 16-400, 17-346 (filed Feb. 27, 2018) (clarifying effective dates in the Feb. 26, 2018 letter) (collectively, *2018 Modification of Average Schedules*); National Exchange Carrier Association, Inc. 2017 Modification of Average Schedules, WC Docket No. 16-400, National Exchange Carrier

Required carrier certifications are contained in Volume 1, Appendix C. Exhibit 1 of Appendix C contains certifications to the effect that carriers are not seeking duplicative recovery in the state jurisdiction for any Eligible Recovery subject to the recovery mechanism.[9] Exhibit 2 contains certifications to the effect that carriers have complied with sections 51.917(d) and (e) of the Commission's rules, and after doing so are eligible to receive Connect America Fund (CAF) ICC support.[10] Exhibit 3 contains certifications as to the accuracy of data supplied by carriers to NECA in support of the computation of Access Recovery Charge (ARC) rates and estimated CAF ICC calculations.[11]

Exhibit 4 contains carrier certifications as to the accuracy of the carriers' CAF BLS data. The CAF BLS data certification was achieved via the Form 508 certifications filed in the *March 30, 2018 CAF BLS Filing* with USAC. For companies that updated their consumer broadband-only loop data after the filing with USAC, new certifications attesting to the accuracy of a carrier's data underlying this filing were obtained. The frozen baseline revenue data for switched access included in this filing reflects data previously filed with the FCC and the Universal Service Administrative Company (USAC) for all study areas. This filing also considers the FCC's order released on February 24, 2015, addressing companies with over- or under-recovery of the true-up test period Eligible Recovery amounts.[12] In this filing, however, there are no companies with over- or under-recovery amounts for the 2016/2017 test period.

Association, Inc. 2018 Modification of Average Schedules, WC Docket No. 17-346, Order, DA 18-527 (rel. May 21, 2018) (*May 21, 2018 Average Schedule Order).*

[9] 47 C.F.R. § 51.917(d)(1)(vii).

[10] 47 C.F.R. § 51.917(f)(2).

[11] These certifications will be filed with USAC on June 18, 2018 in support of carrier data underlying calculations of ARC rates and CAF ICC support amounts.

[12] *See Connect America Fund*, WC Docket No. 10-90, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, Order, 30 FCC Rcd. 1887 (2015) (*February 24, 2015 Order*).

Volume 2 contains cost support materials. Demand forecasting methods are described in Volume 3. Volume 4 describes CL, CBOL, and Federal Universal Service Charge (FUSC) rate development. ARC rates and CAF ICC support estimates have been developed according to sections 51.917(d) and (e) of the Commission's rules. CAF ICC support estimates have been reduced by imputed ARC revenues on broadband-only loops as required by the *USF RoR Reform Order* and are limited by the *February 16, 2018 Order*[13]. In addition, CAF ICC support estimates include the effect of approved switched access changes related to mergers/acquisitions in the February 5, 2018 order.[14] CAF ICC support estimates also incorporate the effects of the *April 19, 2018 LSS Order*[15]as described herein. The development of ARC rates and CAF ICC support estimates are included in Volume 5 along with TS rate development.

The effect of CAF BLS Support is reflected in the recovery of CL pool and CBOL revenue requirements. This filing reflects the limitation of Corporate Operations Expense amounts, and includes the use of broadband-only loops in the Corporate Operations Expense formula,[16] on CL revenue requirements as required by the *USF/ICC Transformation Order* for the calculation of CAF BLS Support

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[13] *See February 16, 2018 Order* ¶ 16.

[14] *Connect America Fund*, WC Docket No. 10-90, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, *Petition of Butler-Bremer Mutual Telephone Company, Inc. for a Waiver of Sections 51.909(a), 51.917(b)(1), and 51.917(b)(7) of the Commission's Rules to modify Access rate bands and charges, and 2011 Switched Access Revenue in connection with merger of affiliated Study areas in Iowa*, WC Docket No. 15-118, *Petition of Panora Communications Cooperative and Prairie Telephone Company, Inc. for Waiver of Sections 51.909(a), 51.917(b)(1), 51.917(b)(2), and 51.917(b)(7) of the Commission's Rules to modify access rate bands and charges, and 2011 Switched Access Revenue Requirement and 2011 Base Period Revenue in connection with study area waivers in Iowa*, WC Docket No. 15-166, Order, 33 FCC Rcd. 1152 (2018).

[15] *Connect America Fund*, WC Docket No. 10-90, *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135, *FairPoint Communications, Inc. Petition for Declaratory Ruling*, Order and Declaratory Ruling, FCC 18-50 (rel. Apr. 19, 2018) (*April 19, 2018 LSS Order*).

[16] *March 23, 2018 Order* ¶ 88.

amounts,[17] as well the limitations on Operating Expenses and Capital Investment Allowance amounts required by the *USF RoR Reform Order.*[18] Operating Expense limits reflect the Order released April 5, 2018 defining adjusted limits for the Tribal Land study areas.[19] LSS has been eliminated as a separate support mechanism for other RoR carriers as per the *USF/ICC Transformation Order*.[20] The effects of Local Switching Support (LSS) included in frozen support or in CAF Phase II amounts for RoR study areas affiliated with a price cap company have been reduced by 5 percent per year starting with the 2012/2013 test period and are reflected in the recovery of TS pool revenue requirements as described in Volume 2, Section 3 and Volume 5, Section 4.B.

FUSCs are reflected as separate rate elements designed to recover CL pool members' contributions to universal service fund support mechanisms. ARC revenues are assumed to be interstate retail revenues for purposes of computing federal universal service fund assessments, and are therefore assessed a FUSC, except for limited imputed ARC revenues associated with CBOL lines which are not billed to the customer. Projected test period FUSC revenue is displayed in Volume 4.

In its January 28, 2005 *Report* to the Commission,[21] NECA stated it intended to introduce enhancements to its annual tariff filing documentation to enable the Commission to correlate reported earnings data with proposed rates. Specifically, NECA stated its annual access tariff filing would include an update of pool earnings reported in the preliminary Form 492 report filed in March, a projection of

[17] *See USF/ICC Transformation Order* ¶¶ 227-233.

[18] *USF RoR Reform Order* at ¶¶ 95-115.

[19] *Connect America Fund*, WC Docket No. 10-90, Report and Order, FCC 18-37 (rel. Apr. 5, 2018) (*Tribal Lands Report and Order*).

[20] *USF RoR Reform Order* at ¶ 257.

[21] Report on Timing of NECA Pool True-Up Submissions and FCC Form 492 Interstate Earnings Monitoring Reports, *NECA Report*, WC Docket No. 05-29, at 23 (filed Jan. 29, 2005) (*Report*).

final earnings results, and a reconciliation of proposed rate changes to those projections.[22] This reconciliation includes data and analyses relating proposed rate changes to changes in cost and demand, exits from and entrances to the pools, and earnings trends. The results of these analyses for TS special access are displayed in Section 4 of this Volume. The reconciliation is no longer necessary for TS switched access since rates and revenue requirements are prescribed by the *USF/ICC Transformation Order*.

NECA also stated in its *Report* it would provide information on total company costs, as well as several years' worth of actual cost trend data in support of earnings and tariff projections.[23] This analysis for TS special access revenue requirements is displayed in Volume 2. Analysis for TS switched access revenue requirements is no longer necessary since revenue requirements are frozen at levels underlying the *2011 Annual Access Tariff Filing*, reduced by 5 percent annually starting with the 2012/2013 test period.[24]

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[22] *Id.*

[23] *Id.*

[24] *See* NECA Tariff F.C.C. No. 5, Transmittal No. 1314 (filed June 16, 2011) (*2011 Annual Access Tariff Filing)*; NECA Tariff F.C.C. No. 5, Transmittal No. 1347 (filed June 18, 2012) (*2012 Annual Access Tariff Filing*); NECA Tariff F.C.C. No. 5, Transmittal No. 1389 (filed June 17, 2013) (*2013 Annual Access Tariff Filing*); NECA Tariff F.C.C. No. 5, Transmittal No. 1423 (filed June 16, 2014) (*2014 Annual Access Tariff Filing*); NECA Tariff F.C.C. No. 5, Transmittal No. 1455 (filed June 16, 2015) (*2015 Annual Access Tariff Filing*); NECA Tariff F.C.C. No. 5, Transmittal No. 1489 (filed June 16, 2016) (*2016 Annual Access Tariff Filing*); NECA Tariff F.C.C. No. 5, Transmittal No. 1519 (filed June 16, 2017) (*2017 Annual Access Tariff Filing*).

A. SUMMARY OF CHANGES

1. Pool Participation Changes

Current Commission rules provide for an annual NECA tariff election on March 1 of each year to go into effect for the following test period.[25] The following summarizes the changes in NECA tariff status effective July 3, 2018. Companies no longer in the CL pool have the option of tariffing their CL rates with NECA,[26] but their decision to do so does not affect the CL cost and demand data included in this filing.

	Number of Study Areas	
NECA Tariff	Enter	Exit
Common Line	0	2
End User	0	1
Traffic Sensitive	0	12

For the 2018/2019 test period, there are 642 study areas participating in the CL pool and 871 study areas participating in the TS pool. Exhibit 1 displays those local exchange carriers (LECs) electing to change tariff participation.[27] Appendix A lists all pooling LECs and their tariff participation for the 2018/2019 test period.[28] Appendix B provides a list of the exchange carriers electing not to participate in NECA's Digital Subscriber Line (DSL) or CBOL tariff effective July 3, 2018 because they are opting to offer the service on a detariffed common carrier basis, on a private carriage basis, or electing to

[25] 47 C.F.R. § 69.3(e)(9).

[26] *USF RoR Reform Order* ¶ 196.

[27] NECA previously provided notice to the Commission of these pool election changes**.** *See* Letter from Jennifer Leonard, Senior Director – Access Tariffs & Costs, NECA, to Kris Monteith, Acting Chief, Wireline Competition Bureau (filed Mar. 20, 2018).

[28] Appendix A reflects pooling companies that are projected to be in the tariff from July 3, 2018 through June 30, 2019. *See 2017 Annual Access Tariff Filing,* Vol. 1, App. A for a list of companies included in the 2017/2018 test period.

discontinue provision of a separate transmission service.[29] Specifically, Appendix B, Workpapers 1 and 2 list carriers exiting NECA's CBOL and DSL tariff, respectively, pursuant to GN Docket No. 14-28, *Protecting and Promoting the Open Internet*.[30] Appendix B Workpapers 3 and 4 list carriers exiting NECA's CBOL and DSL tariff, respectively, pursuant to CC Docket No. 02-33, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*.[31]

2. <u>Revenue Requirement Changes</u>

Revenue requirement projections for NECA's CL Pool and the special access portion of the TS pool reflect tariff participation changes, projected changes in cost company revenue requirements and average schedule settlements, the Corporate Operations Expense, Operating Expense and Capital Investment Allowance limitations on common line revenue requirements, transfer of broadband-only loop costs from special access to the CBOL element in common line consistent with Part 36 and Part 69 cost allocation rules as directed in the *February 16, 2018 Order*[32], an authorized rate of return of 10.50 percent per the *USF RoR Reform Order* and the *Tax Cuts and Jobs Act*[33] affecting corporate tax rates. Based on the *USF/ICC Transformation Order*, interstate switched access revenue requirements have been frozen at

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[29] *See Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, CC Docket Nos. 02-33, 01-337, 95-20, 9810 and WC Docket Nos. 04-242 and 05-271, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd. 14853 (2005) ¶ 94 (*Wireline Broadband Order*); *Protecting and Promoting the Open Interne*t, GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd. 5601 (2015) ¶ 460, n.1378 (*2015 Open Internet Order*), *aff'd sub nom USTA v. FCC*, No. 15-1063 (D.C. Cir. June 14, 2016); *Connect America Fund, et al.*,WC Docket No. 10-90, *et al.*, Report and Order, Order and Order on Reconsideration and Further Notice of Proposed Rulemaking, 31 FCC Rcd. 3087 (2016) ¶¶ 193-194, n. 428; *Connect America Fund, et al.*,WC Docket No. 10-90, *et al.*, Order, 31 FCC Rcd. 6856 (2016) ¶ 25.

[30] *2015 Open Internet Order* ¶ 460, n.1378.

[31] *Wireline Broadband Order* ¶ 94.

[32] *See February 16, 2018 Order* ¶ 9. *See also* 47 C.F.R. § 69.311 and 69.416.

[33] *Tax Cuts and Jobs Act*, Pub. L. No. 115-97, 131 Stat. 2054 (2017).

the base period, defined as amounts underlying the 2011 tariff filing reduced by 5 percent annually beginning with the 2012/2013 test period.[34]

Special access revenue requirement projections reflect slightly decreasing growth, due to network changes and continued deployment of more cost-efficient Ethernet, softswitch technologies, and migration from voice/data lines to broadband-only loops. NECA continues to reflect the impact of the *Separations Freeze Order* in the development of projected revenue requirements. [35] Allocation factors and category relationships, where applicable,[36] in effect as of calendar year 2000, were frozen and used for test period projections.

Projected test period revenue requirements for 2018/2019 pool participants are displayed in Table 1. CL including CBOL and TS special access revenue requirements for both Past Year Cost of Service (PYCOS) and 2018/2019 test period are calculated at an 10.50 percent RoR and reflect test period pool composition. The development of revenue requirements is described further in Volume 2.

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[34] *See USF/ICC Transformation Order* ¶¶ 39, 851, 899. *See also* 47 C.F.R. § 51.917.

[35] *Jurisdictional Separations and Referral to the Federal-State Joint Board*, Report and Order, CC Docket No. 80-286, 16 FCC Rcd. 11382 (2001) (*Separations Freeze Order*). The Separations Freeze was initially extended for three years and subsequently for three additional one-year periods. The freeze was again extended in 2012 for another two years and in 2014 through June 30, 2017. The FCC issued a Report and Order on May 15, 2017 extending the freeze through December 31, 2018. *See Jurisdictional Separations and Referral to the Federal-State Joint Board*, Order and Further Notice of Proposed Rulemaking, CC Docket No. 80-286, 21 FCC Rcd. 5516 (2006), Report and Order, 24 FCC Rcd. 6162 (2009); Report and Order, 25 FCC Rcd. 6046 (2010); Report and Order, 26 FCC Rcd. 7133 (2011); Report and Order, CC Docket No. 80-286, 27 FCC Rcd. 5593 (2012); Report and Order, CC Docket No. 80-286, 29 FCC Rcd. 6470 (2014); Report and Order, CC Docket No. 80-286, 32 FCC Rcd 4219 (2017).

[36] For rate-of-return companies, the freeze of category relationships was optional. *See* 47 C.F.R. § 36.3(b). There are 22 rate-of-return study areas in NECA's CL or TS pool with frozen category relationships.

Table 1
Summary of Revenue Requirement Changes
(in millions)

Access Element	PYCOS 2017	Test Period 2018/2019	Annual % Chg.*
Common Line (includes CBOL)	$1,086.1	$1,214.4	7.73%
TS Switched Access			
Interstate	N/A	$263.9	N/A
Intrastate	N/A	$146.3	N/A
Net Reciprocal Compensation	N/A	$23.5	N/A
TS Special Access	$450.1	$430.6	-2.90%

* Annual percent change = $(((\text{Test Period}/\text{PYCOS})^{2/3})-1)*100$

3. Universal Service Support Programs

CAF ICC Support

The *USF/ICC Transformation Order* established CAF ICC Support as a universal service support mechanism designed to recover switched access Eligible Recovery amounts not recovered through ARC rates. Section 4 of Volume 5 describes the methodologies used to develop switched access Eligible Recovery, ARC rates and revenue, and CAF ICC Support at the study area level. Test period CAF ICC support projections include the effects of prior period true-up data per FCC rules.[37] In this filing, the 2018/2019 projected Eligible Recovery and CAF ICC support includes the effects of true-up revenues and exogenous costs from the 2016/2017 test period. Specifically, the true-up adjustments are for Transitional Intrastate Access Service revenue, Interstate Switched Access revenue, Reciprocal Compensation and Access Recovery Charges. Exogenous costs include incremental TRS Fund fees, Regulatory Fees and

[37] *See* 47 C.F.R. § 51.917(d)(1)(iii).

North America Numbering Plan Administration fees not recovered through capped switched access rates.[38]

In addition, CAF ICC support amounts have been reduced by limited imputed ARC revenues on broadband-only loop counts. In NECA's CAF ICC Data Collection, companies entered the projected residential broadband-only loop counts at the exchange level. Companies either entered the projected SLB and MLB broadband-only loops separately, or if they were not able to differentiate between the projected SLB and MLB broadband-only loops, they provided the combined SLB and MLB broadband-only loops, per the *2018 TRP Order*.[39] Further details on this data, including required details supporting the use of a weighted average business ARC rates in certain cases, are described in Volume 5, Section 4.B.8.

The total limited imputed ARC revenues on residential, SLB and MLB broadband-only loops are subtracted from the CAF ICC support to derive the reduced estimated CAF ICC support that will be filed with the FCC and USAC. For TS pool members, the total limited imputed ARC revenues on broadband-only loop counts is $0.939 million as displayed on Line 9 of Volume 5, Exhibit 11, Workpaper 8 of 8. The total estimated CAF ICC support amount for the 2018/2019 test period for TS pool members is displayed on Line 10 of that same exhibit and has been reduced by limited imputed ARC revenues.

Throughout this filing, switched access data prior to inclusion of the applicable true-up period data effects are referred to as "pre true-up." Switched access data after inclusion of true-up period effects are

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[38] *Connect America Fund*, WC Docket No. 10-90, *Developing an Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, Order, 29 FCC Rcd. 3245 (2014) ¶ 15 (*March 31, 2014 Clarification Order).*

[39] *Material to be Filed in Support of 2018 Annual Access Tariff Filings*, WC Docket No. 18-100, Order, FCC 18-404 (rel. Apr. 25, 2018) (*2018 TRP Order*).

referred to as "post true-up," and data subsequent to reductions for imputed ARC revenues are referred to as "CAF ICC support."

Adjustments to the Eligible Recovery amounts underlying CAF ICC support estimates have been made to allow carriers to certify in Volume 1, Appendix C, Exhibit 1 that they are not seeking duplicative recovery for any Eligible Recovery subject to the CAF ICC recovery mechanism. The FCC's *March 31, 2014 Clarification Order* stated these reductions needed to avoid double recovery should be applied to projected Eligible Recovery amounts and not to the frozen baseline.[40]

14 study areas reported new double recovery events in NECA's 2018 CAF ICC Data Collection. 15 study areas reported double recovery events in last year's 2017 CAF ICC Data Collection, 34 study areas reported double recovery events in the 2016 CAF ICC Data Collection, 42 study areas reported double recovery events in the 2015 CAF ICC Data Collection, and 64 study areas reported double recovery events in the 2014 CAF ICC Data Collection. These counts of reported events reflect TS pool participation from each respective period, and result in a cumulative reduction to Eligible Recovery for the 2018/2019 test period. Double recovery reductions to the projected 2018/2019 Eligible Recovery amount by study area are displayed in NECA's TRP. Total interstate and total intrastate double recovery dollars are shown in Volume 5, Exhibit 11, Workpapers 1 and 2, respectively. Frozen baseline data was not adjusted for double recovery. Rather, these reductions were applied to projected 2018/2019 Eligible Recovery to avoid over-recovery and to allow carriers to make the required certification that they are not seeking duplicative recovery.

CAF ICC support for NECA TS pool members is estimated to be $284.5M for the 2018/2019 test period.

[40] *Id*. ¶ 16. *See also*, 47 C.F.R. § 51.917(d)(1)(vii), effective June 19, 2014.

Local Switching Support (LSS)

Under the *USF/ICC Transformation Order*, LSS is no longer a stand-alone support mechanism as of July 1, 2012.[41] However, there are a number of RoR companies in the NECA pool affiliated with a price cap company receiving frozen support or CAF Phase II amounts. The portion of this support attributable to LSS has been reduced by 5 percent annually starting with the 2012/2013 test period, and for these study areas totals $0.223M. That amount is deducted from projected eligible recovery prior to setting ARC rates for these study areas. This amount is significantly lower than in previous filings because of implementation of the *April 19, 2018 LSS Order*. The small amount of LSS remaining is attributable to four price cap affiliated RoR study areas that did not elect to receive CAF Phase II support, in addition to duplicate cost recovery of switching-related costs as identified by the affiliated RoR study areas that did elect to receive CAF Phase II.[42]

Connect America Fund Broadband Loop Support Voice (CAF BLS Voice)

In the *MAG Order*, the Commission created ICLS as an explicit universal service support mechanism. ICLS is calculated on a study area basis by subtracting the sum of the study area's subscriber line charge revenues, special access surcharge revenues and line port charge revenues from its projected CL revenue requirement subject to a Corporate Operations Expense limitation per the *USF/ICC Transformation Order*[43] and the *March 23, 2018 Order*. In the *USF RoR Reform Order*, the Commission defined CAF BLS Voice support to recover the amounts previously recovered by ICLS, subject to

[41] *USF/ICC Transformation Order* ¶ 257.

[42] *April 19, 2018 LSS Order* ¶ 9.

[43] *See id.* ¶¶ 227-233.

limitations on Operating Expense and Capital Investment Allowance amounts.[44] The test period CAF-BLS Voice amount in NECA's CL pool is projected to be $674.2M prior to implementation of the $250/line/month cap and the Budget Control Mechanism (BCM).

CAF BLS Broadband-Only Loop Support

In the *USF RoR Reform Order*, the Commission created CAF BLS Broadband-only support to support the cost of consumer broadband-only loops effective January 1, 2017. CAF BLS Broadband-only Loop support is calculated on a study area basis. Data used to calculate projected support amounts for the 2018/2019 test period were filed by NECA on March 30, 2018 and are supplemented with more recent exchange carrier updates for use in the development of CBOL rates as discussed in Volume 4. The data-only loop revenue requirement is shifted from the special access category to the CBOL category. The development of CBOL revenue requirement is not subject to caps or limitations for CBOL rate development per FCC clarification and is described in detail in Volume 2. However, the revenue requirement underlying the CAF BLS Broadband-only support is subject to the Corporate Operations Expense limitation per the *USF/ICC Transformation Order*[45] and the *March 23, 2018 Order*, and subject to an Operations Expense and Capital Investment Allowance limitation as required by the *USF RoR Reform Order*.[46] The test period CAF BLS Broadband-only amount in NECA's CBOL tariff is projected to be $148.8M prior to implementation of the $250/line/month cap and effects of the Budget Control Mechanism (BCM).

[44] *USF RoR Reform Order* ¶¶ 87-88.

[45] *See id.* ¶¶ 227-233.

[46] *USF RoR Reform Order*, ¶¶ 95-115.

4. Demand Changes

Table 2 displays the projected change in demand between base period 2017 and the test period for NECA pooling companies for key demand elements. The growth rates reflect the continued migration of demand towards wireless, broadband, and Voice over Internet Protocol (VoIP) services, the impacts of access avoidance activities by certain service providers, and ongoing call completion issues.[47] Development of test period access rate element demand is discussed further in Volume 3.

Table 2
Summary of Demand Changes
(in millions)

Access Element	Base Period 2017*	Test Period 2018/2019	Annual % Chg.**
Access Lines – CL	2.198	2.069	-4.0%
Interstate LS Minutes of Use (MOU) – TS	2,847.0	2,413.9	-9.0%
Intrastate Terminating Minutes of Use (MOU) – TS	1,610.9	1,471.6	-5.0%
Reciprocal Compensation Originating MOU – TS	NA	24.9	NA
Reciprocal Compensation Terminating MOU – TS	NA	42.2	NA
Special Access Constant Rate Revenue – TS***	$ 461.3	$ 425.1	-5.3%

* Base period 2017 is calendar year 2017 for access lines and special access revenue and a time period from October 1, 2016 through September 30, 2017 for interstate LS MOU, intrastate terminating MOU, reciprocal compensation originating MOU and reciprocal compensation terminating MOU.

** Annual % change = (((test period/base period)$^{2/3}$)-1)*100 for access lines and special access revenue.
Annual % change = (((test period/base period)$^{12/21}$)-1)*100 for interstate LS MOU, intrastate terminating MOU, reciprocal compensation originating MOU and reciprocal compensation terminating MOU.

*** Constant rate is defined as unbanded June 2018 rate.

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[47] *See Connect America Fund*, WC Docket No. 10-90, *A National Broadband Plan for Our Future*, GN Docket No. 09-51, *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135, *High-Cost Universal Service Support*, WC Docket No. 05-337, *Developing an Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, *Lifeline and Link-Up*, WC Docket No. 03-109, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd. 4554 (2011), Section XV. *See also*, Complaint, *Alma Communications Company d/b/a/ Alma Telephone Company, et al. v. Halo Wireless, Inc.*, Case No. TC-2011-0385 (MO PSC, June 6, 2011); *Developing an Unified Intercarrier Compensation Regime*, CC Docket No. 01-92, *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135, Declaratory Ruling, 27 FCC Rcd. 1351 (2012); *Rural Call Completion*, WC Docket No. 13-39, Notice of Proposed Rulemaking, 28 FCC Rcd. 1569 (2013); Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd. 16154 (2013).

5. Rate Changes

Table 3 displays some of the key rate changes proposed in this filing. The proposed change of 0.222 percent is the average TS switched access rate change excluding the Terminating End Office Rate change. Switched access rate changes are described in Section 3 of this volume.[48] NECA proposes to increase TS special access service rates by an average of 3.1 percent[49] (3.2 percent after the billing cycle adjustment[50]). Ethernet Transport Service (ETS) rates are decreasing. The FUSC surcharge factor is set equal to the Commission's Third Quarter USF Contribution Factor.[51]

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[48] Switched access and special access rates charged by individual study areas will depend on their rate band placements. *See* Volume 5.

[49] This is a weighted average rate change that accounts for tariff rate changes and rate band movement. Rates charged by individual study areas will depend on their rate band placement.

[50] A billing cycle adjustment is included in the special access rate setting process to account for one-half month of revenues billed at current rates. The billing cycle is estimated to be approximately one twenty-fourth of the proposed test period revenue change.

[51] *See Proposed Third Quarter 2018 Universal Service Contribution Factor*, Public Notice, CC Docket No. 96-45, DA 18-613 (rel. Jun. 13, 2018).

Table 3
Summary of Rate Changes from Current Rates

Element	Current Rates	Proposed Rates	Percent Change
TS SW Terminating End Office	$0.003567	$0.002133	-40.2%
TS SW Originating Local Switching - Premium Rate Band 1	$0.014645	$0.014678	0.2%
TS Special Access:[52]			
• DS1 High Capacity	$1,295.39	$1,370.84	5.8%
• ETS 100 Mbps	$1,377.93	$1,239.53	-10.0%
DSL WPP 3 Year - ADSL Voice/Data			
• 1 Mbps/6 Mbps	$24.50	$25.75	5.1%
• 3 Mbps/25 Mbps	$32.33	$33.97	5.1%

[52] These are illustrative TS special access composite rates. The DS1 High Capacity rates are based on two channel termination charges, two channel mileage termination charges, and 10 miles of channel mileage facility charges. The Ethernet Transport Service (ETS) rates are based on two port charges, one less than 300 feet channel termination charge, one 300+ feet channel termination charge, and an interswitch Ethernet Virtual Connection (EVC). TS special access rates are the baseline tariff rates, to which rate band discounts and premiums (shown in Volume 5, Exhibit 9, Workpapers 16-18) are applied; rates charged by individual study areas will depend on their rate band placement. For more information, please refer to Volume 5.

Volume 1

DESCRIPTION AND JUSTIFICATION

Section 2

DESCRIPTION OF STUDIES

NECA conducted several studies to develop cost support and demand information supporting the development of rates, including calculation of ARC rates, and estimated CAF ICC payments. A description of the demand data collection supporting the calculation of ARC rates and CAF ICC support is contained in Volume 5 of this filing. NECA also performed studies to develop 2017 PYCOS data and to project costs of providing interstate CL and TS special access service for the 2018/2019 test period. Studies were also used to allocate projected costs to access rate elements. In addition, access demand quantities and revenues were forecasted for the test period. Data underlying these studies were obtained from LECs through NECA-initiated data requests, as well as from reports submitted in conjunction with NECA's monthly settlement process. Form 508 data filed with USAC on March 30, 2018 was used in conjunction with subsequent exchange carrier updates in the development of CBOL rates, as described in Volume 4.

Cost companies participating in NECA's pools conduct operations in 652 study areas, geographically dispersed throughout the country. Average schedule companies provide service in 278 study areas. Companies opting to receive model-based support (referred to herein as "model" companies or study areas) and required to exit the common line pool as of January 1, 2017 have the option of listing their common line rate elements in the NECA tariff. Exhibit 2 displays the proportion of cost and average schedule pooling companies' share of the projected CL and TS revenue requirements.

A. PROJECTED REVENUE REQUIREMENT FORECAST

NECA's aggregate PYCOS and test period cost company revenue requirement projections are based on a combination of historical pool cost study trends, monthly settlement data[53], and 2017, 2018 and 2019 company-specific forecast data provided by the companies.[54] Combined use of historical cost trends, individual company budget data and statistical techniques have improved the accuracy of cost company PYCOS and test period forecasts. Cost separations studies for calendar year 2017 are not yet available from these companies.[55]

NECA continues to use independent projection techniques to evaluate the reasonability of forecast data submitted by companies. Results of the independent forecast process have enabled NECA to determine whether adjustments to company-supplied projections should be applied.

Specifically, NECA applied weighted moving average trends to special access costs to assess the slowdown in special access revenue requirement growth. In its trend analyses, NECA used a consistent set of cost company historical data from 2014 through 2016 for those companies participating in the NECA TS pool for the 2018/2019 test period. After extensive review of projected data, including historical pool cost trends and results of weighted moving average trend models, NECA developed PYCOS and test period cost data forecasts for all cost companies at the level of detail specified in the

[53] Each study area that settles on a cost basis reports, through the pooling process, five categories of costs for each pool in which it participates: (1) expenses and other taxes; (2) average net investment; (3) income adjustments for Federal Income Tax (FIT); (4) amortization of investment tax credits; (5) allowance for funds used during construction. All study areas report earned access revenues.

[54] Cost data requested from companies are described in Volume 2.

[55] All cost companies in NECA's CL and TS pools conduct annual cost studies; none of the cost companies perform quarterly or monthly studies. Section 4 of this Volume discusses the inherent time lag in the identification of actual costs for cost companies that conduct annual cost separations studies.

2018 TRP Order.[56] The development of cost company revenue requirements is described further in Volume 2.

Average schedule companies do not perform cost studies.[57] The average schedule CL formula is based on a settlement dollar amount per access line, which varies based on lines per exchange. In addition, part of average schedule company CL revenue requirement is based on the frozen line port and CL TIC shift components. For TS, there are settlement formulas for central office switching, intertoll dial switching, line haul facility, line haul termination and special access. The switched access settlement formulas (central office switching, intertoll dial switching, line haul facility, line haul termination, equal access and SS7) are frozen at the 2011/2012 test period level as prescribed in the *USF/ICC Transformation Order*.[58] Line port and TIC components shifted to CL were excluded from the TS revenue requirement.

PYCOS data for average schedule companies were produced by adjusting historical 2017 monthly settlements to reflect formulas that became effective July 1, 2017, and changes expected to result from true-ups of pool reports.[59] These latter adjustments were developed using historical trends of pool true-up impacts. Projected test period revenue requirements for average schedule companies are based upon the average schedule formulas underlying the *2018 Modification of Average Schedules,*[60] settlement impacts resulting from the *MAG Order*, and projected demand for access services for the test period.

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[56] *2018 TRP Order*.

[57] *See* 47 C.F.R. § 69.606. *See also, 2018 Modification of Average Schedules*.

[58] *See National Exchange Carrier Association, Inc. 2011 Modification of Average Schedules*, WC Docket No. 10-251, *National Exchange Carrier Association, Inc. 2012 Modification of Average Schedules*, WC Docket No. 11-204, Order, 27 FCC Rcd. 6209 (2012) ¶ 5.

[59] For consistency, the schedules that were effective July 1, 2017 were used to calculate the entire PYCOS period for average schedule companies.

[60] *See May 21, 2018 Average Schedule Order*.

Volume 2 describes the development of projected revenue requirements included in this filing. The results are also included in NECA's TRP in Volume 1-2. A summary of projected revenue requirements is displayed in Exhibit 2.

B. NECA EXPENSE RECOVERY

Commission rules require NECA to allocate its Category I expenses among three sub-categories.[61] Category I expenses are those associated with the preparation and administration of NECA tariffs, the administration of pooled receipts and distributions of exchange carrier revenues resulting from NECA tariffs, and NECA's participation in Commission proceedings involving Subpart G of Part 69 of the Commission's rules. These expenses are divided between NECA's CL (including CBOL) and TS tariff revenue requirements in proportion to the revenues associated with each.[62] TS tariff revenue requirements include ARC revenues and CAF ICC support revenues.[63]

Volume 2, Section 5 describes the allocation of NECA Category I expenses.

C. PROJECTED DEMAND QUANTITIES

NECA used time series techniques to forecast interstate demand and revenue for its CL and TS pool participants. Historical data used for modeling were adjusted if necessary to reflect expected data revisions reported to the pool. These adjustments were developed using historical trends of pool true-up effects. To validate its forecasts, NECA relied on a series of statistical tests. These tests are discussed in Volume 3.

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[61] 47 C.F.R. § 69.603(g).

[62] *Id.*

[63] *See* NECA Petition for Clarification, WC Docket No. 10-90, *et al.* (filed Feb. 24, 2012).

To forecast test period CL access lines and end user revenues, NECA used an Unobserved Component Model (UCM) applied to NECA CL pool members' line count data history. The development of access lines demand projections is described further in Volume 3. Service category projections were based on actual September 2017 and projected September 2018 and September 2019 service category line count data submitted to NECA's Annual Forecast Line Count Data Collection by CL pool members. Annual Forecast Line Count Data Collection is described further in Volume 3 Appendix A. In addition, the source of the projected CBOL line demand is described in Volume 3.

To forecast interstate Local Switching (LS) MOU demand, NECA used the Autoregressive Integrated Moving Average (ARIMA) and UCM techniques discussed further in Volume 3.

Baseline interstate LS MOU forecasts were developed based on the following:

- Forecasted interstate LS MOU represent both originating and terminating usage.
- Demand response is not reflected in forecasts. Rates in this filing are calculated excluding the effects of demand response (*i.e.*, stimulation or curtailment of demand related to proposed changes in current rates).[64]
- Projected demand associated with exchange acquisitions for affected study areas are included in the forecast.

The test period projection for intrastate terminating MOU and net reciprocal compensation minutes are companies' projections gathered from NECA's CAF ICC Data Collection. The test period projections for interstate LS MOU are based on NECA's forecasts, except for companies choosing to input their own forecasts in to NECA's CAF ICC Data Collection. NECA's CAF ICC Data Collection is described further in Volume 3, Appendix B.

[64] This approach has been used in previous annual tariff filings. *See, e.g., 2017 Annual Access Tariff Filing.*

NECA's TS special access demand forecasts are a composite of projections by NECA and pool members and take into account the demand impacts of study areas entering or exiting NECA's special access and DSL tariffs. NECA forecasted total special access revenues using time series techniques (ARIMA) and individual study area special access revenue using the UCM method for the Non-DSL and voice/data DSL service categories. NECA then used sample billing data and Advanced Services Demand Data Request data to develop special access rate element forecasts. The development of special access demand projections is described further in Volume 3.

Volume 1

DESCRIPTION AND JUSTIFICATION

Section 3

RATE DEVELOPMENT OVERVIEW

This section describes the CL, CBOL and TS rate development processes used by NECA for this filing. As stated in the introduction of this filing, references to common line exclude CBOL unless otherwise noted. The development of CL rates described below does not apply to companies electing model-based support, Alaska Plan support, or Fairpoint study areas.[65]

A. COMMON LINE RATE DEVELOPMENT

The CL revenue requirement consists of the base factor portion (BFP)[66] and universal service contributions.[67] This revenue requirement is recovered through end user subscriber line charges (SLCs), ISDN Port charges, DS1 Channel Service Port charges, the Special Access Surcharge (SAS), the FUSC and the CAF BLS Voice universal service mechanism. SLC charges, ISDN line port charges, DS1 line port charges, and SAS are billed to local exchange carrier customers. NECA pool members receive CAF BLS Voice from the federal universal service program as described in Volume 2. FUSC is a surcharge

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[65] *USF RoR Reform Order* ¶¶ 21, 195.

[66] 47 C.F.R. § 69.501(f).

[67] For rate of return carriers, universal service contributions are included in the common line revenue requirement but are recovered through a separate end user charge. *See Federal-State Joint Board on Universal Service,* Report and Order, 12 FCC Rcd. 8776 (1997) ¶ 830. *See also,* 47 C.F.R. § 69.131.

applied to interstate retail service revenue, including all common line end user revenue, special access retail revenue[68], and Access Recovery Charge (ARC) revenue.

1. Subscriber Line Charges

Sections 69.104 (n), (o), and (p) of the Commission's rules describe the End User Common Line (EUCL) rate levels for RoR LECs.[69] For residential and single-line business local exchange subscriber lines, the maximum monthly charge is the lesser of $6.50 or one-twelfth of the projected annual revenue requirement for the EUCL element divided by the projected average number of local exchange service subscriber lines in use during the corresponding annual period.[70] For Multi-Line Business (MLB) lines, the maximum monthly EUCL is the lesser of $9.20 or one-twelfth of the projected annual revenue requirement for the EUCL element divided by the projected average number of local exchange service subscriber lines in use during the corresponding annual period.[71] One single-line EUCL charge is applied for integrated services digital network (ISDN) Basic Rate Interface (BRI) service, and no more than five multi-line business End User Common Line charges are applied for each ISDN Primary Rate Interface (PRI) service. [72] Five multi-line SLCs also apply for each DS1 Channel Service arrangement where the customer provides the channelization.[73]

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[68] In response to the *2018 USF Forbearance Order*, companies will no longer charge NECA's FUSC Surcharge Factor on ADSL, SDSL and CBOL charges if the company has chosen to cease its USF contributions on these services pursuant to the relief granted in the order.

[69] 47 C.F.R. §§ 69.104(n), (o) and (p).

[70] 47 C.F.R. § 69.104(n).

[71] 47 C.F.R. § 69.104(o).

[72] 47 C.F.R. § 69.104(p).

[73] *See National Exchange Carrier Association Petition to Amend Section 69.104 of the Commission's Rules*, WC Docket No. 04-259, RM-10603, Order Granting Petition For Rulemaking, Notice of Proposed Rulemaking, and Order Granting Interim Partial Waiver, 19 FCC Rcd. 13591 (2004).

To determine the number of applicable SLCs for those pooling LECs participating in NECA's end user tariff, NECA divided one-twelfth of each study area's projected test period CL revenue requirement by its projected average number of local exchange service subscriber lines for the 2018/2019 test period. For the 2018/2019 test period the CPL for all study areas exceeds $9.20, therefore all study areas are assigned to the highest rate band group. Since the CPL for all study areas exceeds the capped rate, all pooling study areas will charge the $9.20 multi-line business capped rate and the $6.50 residence and single line business capped rate.

2. <u>Federal Universal Service Charge (FUSC)</u>

NECA pool members recover their universal service contributions via explicit end user surcharges.[74] These end user surcharges apply to interstate retail revenues including end user CL and retail special access revenues.[75] For purposes of calculating these surcharges NECA has assumed that billed ARC revenues are interstate revenues subject to FUSC, and that all common line pool members will opt to forbear from assessing FUSC on services addressed in the *2018 USF Forbearance Order*.

For the 2018/2019 test period, the FUSC surcharge factor is set as a percent of interstate retail revenue. The FUSC surcharge factor is 17.9 percent, which is the Commission's proposed third quarter 2018 universal service contribution factor.[76] This charge is applied to CL, special access retail,[77] and ARC revenues for all companies listed in Section 17.7 (A) of NECA Tariff F.C.C. No. 5, except MLB

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[74] *See* 47 C.F.R. § 69.131.

[75] Companies may forbear from charging FUSC on ADSL, SDSL and CBOL charges. *See 2018 USF Forbearance Order*.

[76] *See supra* note 51.

[77] Companies may forbear from charging FUSC on ADSL, SDSL and CBOL charges. *See 2018 USF Forbearance Order*.

EUCL revenues of companies that elected for MLB EUCL FUSC optional rate banding, listed in Section 17.7 (B) of NECA Tariff F.C.C. No. 5.

The Commission's *Centrex Waiver* granted an interim waiver of section 54.712 of the Commission's rules to allow LECs that continue to recover contribution costs from Centrex customers using the 1/9 equivalency ratio allowed by section 69.153 of the Commission's rules to recover remaining contribution costs associated with Centrex customers from other MLB customers.[78] For companies electing to adopt the 1/9 treatment on business Centrex service, NECA introduced MLB EUCL FUSC optional rate banding in May 2003.[79] Based on the forecasted Centrex share of total multi-line business lines, a percent surcharge factor was calculated for each study area. Each study area was then assigned to one of twenty target bands. The optional MLB EUCL FUSC rate bands are discussed in further detail in Volume 4, and displayed in Volume 4, Exhibit 6. Volume 4, Exhibit 7 shows the projected test period FUSC revenue of $38.5M.

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[78] *See Federal-State Joint Board on Universal Service*, CC Docket Nos. 96-45, 98-171, 90-571, 92-237, 99-200, 95-116, 98-170, Order and Second Order on Reconsideration, 18 FCC Rcd. 4818 (2003) (*Centrex Waiver Order*). In its February 14, 2008 *Order on Reconsideration* the Commission ruled a LEC may not charge a marked up USF contribution expense line-item amount on payphone lines related to the LECs use of the Commission's Centrex adjustment. *See Federal-State Joint Board on Universal Service*, CC Docket Nos. 96-45, 98-171, 90-571, 92-237, 99-200, 95-116, 98-170, Order Reconsideration, 23 FCC Rcd. 2567 (2008) (*Order on Reconsideration*).

[79] *See* National Exchange Carrier Association, Inc., Access Tariff Revisions, Transmittal No. 985 (filed May 16, 2003).

B. CONSUMER BROADBAND-ONLY LOOP (CBOL) RATE DEVELOPMENT

For companies participating in NECA's DSL tariff, consumer broadband-only loop costs were removed from the TS special access category. The amount of CBOL costs removed from the TS special access category totals $113.5M for the cost and average schedule study areas in NECA's DSL tariff.

For cost companies, the CBOL revenue requirement is developed consistent with Part 36 and Part 69 cost allocation rules as directed in the February 16, 2018 Order.[80] For average schedule companies, the CBOL revenue requirement is based on approved average schedule formulas.[81]

The CBOL revenue requirement is recovered through a company-specific CBOL charge and the CAF BLS Broadband-only universal service mechanism. The CBOL revenue requirements discussed in detail in Volume 2 and CBOL demand described in Volume 3 were used to develop company-specific CBOL rates, as described in Volume 4.

In addition, Volume 4 describes the development of projected end user revenues for the CL pool as well as the development of CBOL revenue projections. Test period end user revenue is displayed in Exhibit 3. Total proposed test period CBOL revenue including CAF BLS Broadband-only support with the estimated effect of Budget Control Mechanism is shown on Exhibit 5 Line 8. Total test period proposed common line revenue including CBOL revenue and CAF BLS support with the estimated effect of Budget Control Mechanism is $1.097B and is shown on Exhibit 5 Line 9.

C. TRAFFIC SENSITIVE RATE DEVELOPMENT

Special access rates are developed to recover the revenue requirements described in Volume 2 using demand described in Volume 3. TS special access is composed of a single access element.[82]

[80] *See February 16, 2018 Order* ¶9. *See also* 47 C.F.R. § 69.311 and 69.416.

[81] *See May 21, 2018 Average Schedule Order*.

Development of TS rates is discussed in detail in Volume 5. Exhibit 4 of this Volume displays TS demand and revenues for the test period. A billing cycle adjustment is included in the special access rate setting process.

TS switched access contains the following access elements: local switching, information surcharge, and local transport.[83] In compliance with the *USF/ICC Transformation Order*, switched access rates are capped. A subsequent rule clarification requires NECA to adjust rates when companies enter or exit the TS pool.[84] There are twelve study areas exiting the NECA TS pool for the upcoming test period. The effect of these pool participation changes on the upcoming test period's switched access rates is a proposed increase of 0.222 percent. In addition, Commission rules prescribe the calculation of interstate switched access rates for exiting carriers.[85] The required switched access rate changes for each exiting carrier, along with calculated pool exit effects on special access rate changes for each exiting carrier, are displayed in NECA's TRP on the SW Access Rate Effects and SP Access Rate Effects tabs.

NECA proposes to increase interstate switched access rates by 0.222 percent, with the exception of the terminating End Office rate element. NECA transitioned the terminating End Office rate element downward, as described in Volume 5, in compliance with the Commission's *USF/ICC Transformation Order*.[86]

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[82] *See* 47 C.F.R. § 69.114.

[83] *See* 47 C.F.R. §§ 69.106, 69.109, and 69.301(a).

[84] *See* 47 C.F.R. § 51.909(a)(4).

[85] *See* 47 C.F.R. § 51.909(a)(5).

[86] *See* 47 C.F.R. § 51.909(c)(1), effective June 19, 2014.

In step 2 of CAF ICC reform, individual intrastate rates can be no higher than interstate rate levels.[87] For purposes of computing Eligible Recovery, ARC rates and estimated CAF ICC support amounts, NECA increased in its CAF ICC Data Collection website the intrastate rates currently in parity with interstate rates by 0.222 percent, with the exception of the terminating End Office rate element, to stay in parity, while intrastate rates already below interstate rates were not adjusted. Companies entered proposed intrastate rates in the intrastate TRP section of NECA's CAF ICC Data Collection. NECA calculated the non-CMRS reciprocal compensation rate as the lower of the interstate composite rate and the effective originating/terminating non-CMRS reciprocal compensation rate. Companies provided originating and terminating CMRS reciprocal compensation rates. NECA used the interstate, intrastate, and reciprocal compensation rates and associated demand projections, along with revenue and exogenous cost true ups and any double recovery or correction adjustments, to compute each company's Eligible Recovery, ARC rates, and estimated CAF ICC support amounts.

1. <u>Local Switching and Information Surcharge</u>

The switched access local switching rate element was designed to recover costs associated with COE Category 3 investment and related expenses.[88] The local switching (LS) rate is charged on a per-access MOU basis.

In its *2014 Annual Access Tariff Filing*, NECA established separate originating and terminating end office elements as required by Part 51 rules.[89] In that filing, NECA also elected to combine the terminating Local Switching and terminating Information Surcharge elements into a terminating End

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[87] *See* 47 C.F.R. § 51.909(c)(1).

[88] *See* 47 C.F.R § 69.106.

[89] *See* 47 C.F.R. § 51.909(d)(1).

Office composite rate as permitted by Part 51 rules.[90] The originating Information Surcharge rate and the originating Local Switching rate remain separate in this filing as in prior filings. These originating rates were increased by 0.222 percent for Traffic Sensitive pool participation changes.

NECA's Local Switching rates are composed of eight rate bands. The proposed rate band assignments are capped per the *USF/ICC Transformation Order*, as described in Volume 5.

2. Local Transport

Local Transport rate elements consist of four main categories:

- Direct Trunked Transport
- Tandem Switched Transport
- Dedicated Signaling Transport
- Entrance Facilities

Direct Trunked Transport rate elements recover a portion of the costs between the customer's serving wire center and telephone company end offices or access tandems. Direct Trunked Transport facilities are dedicated to the use of a single customer and are ordered by the customer as either: Voice Grade, High Capacity DS1, High Capacity DS3, Synchronous Optical Channel OC3, or Synchronous Optical Channel OC12. Direct Trunked Transport is flat-rated.

Tandem Switched Transport rate elements recover a portion of the costs between a customer's serving wire center and an end office, or between a tandem switch and an end office, including the tandem switch. Tandem Switched Transport is charged on a per MOU basis for each termination, facility mile, and usage of the tandem switch.

[90] *See* 47 C.F.R. § 51.909(d)(3)(iii), effective June 19, 2014.

Entrance Facilities charges recover a portion of the costs for the dedicated communications path between the customer's designated serving wire center and the customer's premises. Entrance Facilities are flat-rated and ordered by customers as either: Voice Grade, High Capacity DS1, High Capacity DS3, Synchronous Optical Channel OC3, or Synchronous Optical Channel OC12.

In the *2011 Annual Access Tariff Filing*, switched access flat-rated charges for Entrance Facilities, Direct Trunked Transport, and miscellaneous charges for SS7 Interconnection and multiplexing were set equal to the proposed special access rates for equivalent services. Tandem Switched Transport charges for terminations and facilities were derived from Direct Trunked Transport charges.[91]

Local transport rates were increased by 0.222 percent and rate band assignments were capped as described in Volume 5. As a result, there continue to be eleven dedicated transport rate bands, as originally proposed in the *2011 Annual Access Tariff Filing*.

3. Summary of Switched Access Revenue

Exhibit 4, Workpaper 1 of this Volume summarizes switched access revenue requirement and expected revenues for the 2018/2019 test period, including ARC revenue and CAF ICC revenue.[92] Revenue requirement and expected revenues are displayed for the interstate, intrastate, and reciprocal compensation categories.

4. Special Access Rate Development

NECA proposes to increase TS special access service rates by an average of 3.1 percent (3.2 percent after the billing cycle adjustment).[93] However, proposed rate changes for individual special

[91] *See* 47 C.F.R. § 69.111(b) and (c).

[92] *See* 47 C.F.R. § 51.917.

[93] Rates charged by individual study areas depend on their rate band placement. *See* Volume 5.

access services vary. Since January 2017, A/SDSL Broadband-only rates continue to be set to recover second-mile transport costs.[94]

The number of special access DSL, non-DSL and ETS rate bands remains at fifty as originally established in the *2015 Annual Access Tariff Filing*. NECA proposes to reduce rates for ETS, with larger reductions applied to Multimedia Virtual Circuit Channels and several elements at speeds of 250 Mbps and above: ETS Basic Ports, ETS Channel Terminations up to 300 feet, ETS Interswitch Ethernet Virtual Connections, and ETS Extended Ethernet Virtual Connections. The DSL voice/data rate bands apply to DSL voice/data recurring rate elements. The DSL broadband-only rate bands apply to DSL broadband-only recurring rate elements. The calculation of special access rates is described in detail in Volume 5, Section 3. Volume 1, Exhibit 4, Workpapers 2 through 5 display all special access demand and revenue for the 2018/2019 test period.

[94] Average composite rate changes displayed in Table 3 include the effects of rate band assignments.

Volume 1

DESCRIPTION AND JUSTIFICATION

Section 4

EARNINGS AND ATTRIBUTION ANALYSIS

This section provides an overview of NECA's earnings and attribution analysis and is divided into three parts:

1. A special access attribution analysis that summarizes adjustments made to base year reported pool results (in this case calendar year 2017) to develop test period forecasts and proposed rates.
2. Three views of 2017 special access earnings: an initial view that corresponds to the March 2018 Form 492 Report, an intermediate view, and a most recent projected view.
3. A scorecard comparing filed forecasts for special access demand and revenue requirement growth to latest view of actual.

Attribution and earnings analyses were not performed for TS switched access since switched access rates have been capped and revenue requirements have been frozen at levels underlying the *2011 Annual Access Tariff Filing* reduced by 5 percent a year based on the *USF/ICC Transformation Order*.

A. <u>ATTRIBUTION ANALYSIS</u>

The attribution analysis explains how proposed special access rates relate to current pool earnings levels. Table 4 below displays the adjustments made to the March 2018 view of 2017 reported data to derive the 2017 projected levels defined as PYCOS. The resulting PYCOS data assumes the 2018/2019 test period pool composition, average schedule formulas in effect for the 2017/2018 test period, rates in effect since July 1, 2017 for the 2017/2018 test period, and an 10.50 percent rate of return. By making these adjustments PYCOS and test period data become comparable. To develop PYCOS, four basic types of adjustments are made to reported special access data: (1) projection adjustments; (2) average schedule to cost company conversions; (3) pool participation changes during the upcoming test period; and (4) rate of return adjustments.

Table 4
PYCOS ANALYSIS FOR 2017
SPECIAL ACCESS (in millions)

	Pool Reported as of March 2018	Projection Adjustments	Conversions to Cost	Exit & Entrant Effects	RoR Change Adjustments	2017 PYCOS at 10.50% RoR
Revenues	$523.925	-$32.506	N/A	-$30.103	N/A	$461.316
Average Schedule RRQ	$60.740	-$5.799	-$2.709	$0.000	-$0.226	$52.006
Cost Company RRQ	$455.949	-$47.234	$1.711	-$25.367	-$1.723	$383.336
NECA Expenses	$15.556	-$0.848	N/A	N/A	N/A	$14.708

The first column entitled “Pool Reported as of March 2018” displays actual data reported to NECA for calendar year 2017. The totals for the year are the summation of data reported monthly to NECA. Each month’s data depends on the rates in effect that month, the pool composition in that month and whether the company was a cost company or average schedule company in that month.

The first set of adjustments to actual data to produce PYCOS data are projection adjustments. Some of the projection adjustments are known effects, such as a rate change occurring on July 1, 2017. Because PYCOS must be priced-out at current rates, revenue levels in the months prior to the rate change must be adjusted to conform to the July effective rates. The revenue adjustment of -$32.506M is the net result of a negative revenue adjustment that resulted from the 3.3 percent special access rate increase in July 2017 applied to the first six months of the year, in addition to an adjustment as a result of the DSL pool changes and companies exiting the TS pool in July 2017. Another example of known changes is average schedule formula changes that took effect in July 2017. Data for the first half of 2017 were adjusted to reflect the formulas in effect beginning in July 2017. Remaining projection adjustments are consistent with the latest cost and demand projections for the entire time span from January 2017 through June 2019. The cost company projection is based on the forecasting methodology described in Volume 2.

Consistency in pool composition is critical for evaluation of growth rates linking PYCOS to the test period. Two types of pool composition adjustments were made to 2017 pool results: average schedule to cost conversions, and entries and exits from the pool effective July 2018. Average Schedule companies have the option to convert to cost. For those companies that chose to do so during 2017 or during the test period, NECA calculates the effect these conversions have on the entire 2017 calendar year. The column entitled "Conversions to Cost" shows the results of this change: a $2.709M decrease in average schedule revenue requirement and a $1.711M increase in cost company revenue requirement. Similarly, the next column shows the effect of pool elections for the upcoming test period. Exits reduce revenue and revenue requirements and entries increase them, resulting in the 2017 PYCOS reflecting the pool membership for the upcoming 2018/2019 test period. The second to last column displays the effect of changing the authorized rate of return from 10.75 percent to 10.50 percent on revenue requirements: a $0.226M decrease on average schedule revenue requirements and a $1.723M decrease on cost company revenue requirements.

Table 5 displays the derivation of the test period data at proposed rates. This is done in two steps: first, PYCOS data are grown to test period levels; and second, the test period revenue projection, which is at current rates to compare to PYCOS revenue at current rates, is then retargeted to equal the projected revenue requirement. The projected revenue requirement reflects a 10.50 percent rate of return as displayed in the last column, last row, of Table 5.

Table 5

DERIVATION OF SPECIAL ACCESS 2018/2019 TEST PERIOD FILED AMOUNTS
SPECIAL ACCESS RATE ANALYSIS (in millions)

	Mar 2018 View of 2017 Pooled Reported	2017PYCOS (Revenue at Constant Rates*)	Annual Growth Rates For 18/19 Test Period	18/19 Test Period (Revenues at Constant Rates*)	18/19 Test Period (Revenues at Current Banded Rates**)	18/19 Test Period (Revenues at July 2018 Rates***)
	A	B	C	D = B * (1 + C) ^ (3/2)	E	F
Total Revenue	$523.925	$461.316	-5.31%	$425.077	$417.675	$430.587
AS RRQ	$60.740	$52.006	-0.21%	$51.844	$51.844	$51.844
CC RRQ	$455.949	$383.336	-3.17%	$365.247	$365.247	$365.247
NECA EXP	$15.556	$14.708	-5.57%	$13.496	$13.496	$13.496
Total RRQ	$532.245	$450.050	-2.90%	$430.587	$430.587	$430.587
RoR	10.01%				10.21%	10.50%

* Constant rate is defined as unbanded June 2018 rate. The annual growth is defined for each category as ((Test Period at Constant Rate / PYCOS) ^ (2/3))-1.

** Current banded rates are the rates in effect as of June 2018.

*** Rate adjustments include a 3.09 percent increase in revenue for the test period.

DERIVATION OF SPECIAL ACCESS PROPOSED RATE CHANGE

ROW 1	Total Test Period Revenue at June 2018 Rates and Bands	$417.675
ROW 2	Total Test Period Revenue Requirement	$430.587
ROW 3	Test Period Revenue Surplus (Deficit) at June 2018 Rates and Bands	($12.912)
ROW 4	% Special Access Rate Change (ROW 3 / ROW 1 * (-100))	3.09%
ROW 5	% Special Access Rate Change Adjusted for Billing Cycle Effect****	3.22%
ROW 6	Total Filed Billed Revenue (ROW 1 * (1 + ROW 4))	$430.587

**** Row 5 adjusts test period revenue upward for the billing cycle effect in July.

B. THREE "FORM 492" REPORT VIEWS

Actual pool earnings results for 2017 change on a monthly basis as participating carriers submit true-up data. At the time of the March 30, 2018 Form 492 filing, the February 2018 view of pool earnings was reported to the Commission.[95] In this filing, NECA submits the March 2018 view of TS special access pool earnings and NECA's projected Final View of 2017 TS special access pool earnings.[96] The "Latest Projected" column is consistent with the growth projections used to develop proposed rate changes designed to target the authorized RoR.

Table 6
March Form 492 Report, March Pool Results and Final Projections for 2017
(in millions)

Special Access

		March 492 Report*	March 2018 Pool Results	Final Projected Pool Results
1	Total Revenues	$370,476	$523,924	$524,037
2	Total Expenses and Taxes	$317,617	$456,648	$454,826
3	Oper. Inc. (Net Return) (Line 1 – Line 2)	$52,859	$67,276	$69,211
4	Rate Base – (Avg. Net Investment)	$526,024	$672,253	$653,554
5	Rate of Return Annualized	10.05%	10.01%	10.59%

**Based on February 2018 pool results. Form 492 reports for the companies participating in both NECA's CL and TS pools. In January 2017, companies electing model based support were required to exit the CL pool. Therefore, the March 2018 filing of the Form 492 report does not include revenues and costs of TS pool participants electing model based support. Reported rates of return are, however, calculated based on the entire TS pool and comparable across columns.

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[95] *See* Letter from Suzanne L. Yerdon, NECA, to Steven Steckler, WCB (filed Mar. 28, 2018), attaching FCC Form 492.

[96] The "Latest Projected View" is defined as NECA's current best estimate of earnings that would be calculated as of the close of the twenty-four month true-up window.

C. SCORECARD

Comparing historical filed and trued-up forecasts provides an added source of information to judge the reasonableness of current growth projections. Summaries of filed versus actual demand and revenue requirements are shown below.

1. Demand Growth Comparisons: Filed to Actual for Access Lines, Switched MOU and Special Access Revenue

NECA bases its demand forecasts on historical data, and uses statistical forecasting methods weighting recent historical years more heavily than earlier ones. For a consistent sample of study areas, the table below compares filed forecasts with actual results for test periods 2012/2013 through 2018/2019.

Table 7
Lines, Interstate MOU, and Special Access
Revenue Growth *

Summary of Lines Growth

Test Period	Filed Lines Growth	Reported March 2018 Latest View Lines Growth
2012/2013	-4.1%	-4.4%
2013/2014	-3.8%	-4.2%
2014/2015	-3.4%	-4.0%
2015/2016	-3.4%	-3.3%
2016/2017	-2.8%	-2.9%
2017/2018	-3.0%	-3.3%
2018/2019	-4.0%	N/A

Summary of Interstate MOU Growth

Test Period	Filed MOU Growth**	Reported March 2018 Latest View MOU Growth
2012/2013	-11.9%	-7.3%
2013/2014	-5.5%	-8.9%
2014/2015	-7.3%	-8.5%
2015/2016	-8.0%	-9.2%
2016/2017	-8.1%	-11.4%
2017/2018	-9.5%	-12.1%
2018/2019	-9.0%	N/A

Summary of Special Access Revenue Growth

Test Period	Filed Special Access Revenue Growth	Reported March 2018 Latest View Special Access Revenue Growth
2012/2013	9.2%	5.6%
2013/2014	5.3%	2.1%
2014/2015	-1.3%	-5.2%
2015/2016	-5.6%	-5.3%
2016/2017	-3.0%	-3.4%
2017/2018	-4.7%	-5.0%
2018/2019	-5.3%	N/A

*   Growth rate reflects March 2018 projections used in the annual filing.
** Data based on the CAF ICC Data Collection

NECA's access line decline has remained relatively steady between -4.4 percent and -2.9 percent annually since the 2012/2013 projection. This year's 2018/2019 test period projection is -4.0 percent.

NECA's TS interstate minutes growth continues with a slightly decreasing negative trend over the past few test periods. The 2018/2019 test period projection is -9.0 percent. Continued TS interstate minute declines overall reflect the continued migration of demand towards wireless, broadband, and VoIP services; and impacts of access avoidance activities by certain providers.

NECA's special access revenue growth rate has continued to be negative since the 2014/2015 test period. The projected growth rate continues to be negative at -5.3 percent for test period 2018/2019. The special access revenue decline reflects the migrations from T1 or T3 services to ETS, IXC's optimization of their networks, decline in demand for backhaul services by wireless companies, and the maturity of DSL services.

2. <u>Revenue Requirement Growth Comparisons: Filed to Actual for Special Access</u>

Prior to 2005, NECA's Annual Tariff Filings relied heavily on company-supplied forecast data to develop cost company revenue requirements. Subsequent to 2005, cost company revenue requirement projections have been based on company projections as well as trending techniques explained in more detail in Volume 2. The 2018/2019 projected special access revenue requirement growth rate continues a downward trend seen for several years, reflecting declining special access revenue requirement growth and is -2.8 percent as shown in the last section of Table 8. The projected decline in growth suggests the high growth initial deployment phase for services such as DSL has passed for many companies. For average schedule companies, settlement projections were calculated based on the formulas underlying the *2018 Modification of Average Schedules* to take effect in July 2018 and the projected level of demand quantities for the test year. These projections are explained in more detail in Volume 2.

Table 8
Summary of Revenue Requirement Growth*

Cost Companies

	Special Access	
Test Period	Filed Growth	Latest View Growth
2012/2013	2.9%**	10.0%
2013/2014	2.7%	6.1%
2014/2015	4.1%	-0.3%
2015/2016	5.7%	-0.9%
2016/2017	0.7%	-1.9%
2017/2018	-0.9%	-6.5%
2018/2019	-3.2%	N/A

Average Schedule Companies

	Special Access	
Test Period	Filed Growth	Latest View Growth
2012/2013	-0.4%**	3.0%
2013/2014	10.9%	10.8%
2014/2015	-3.8%	-3.8%
2015/2016	-2.2%	-1.1%
2016/2017	9.9%	9.9%
2017/2018	-8.3%	-8.5%
2018/2019	-0.2%	N/A

* March 2018 view (excludes NECA expenses)
** Filed growth rate from December 2012 filing. The June 2012 filed growth rates: Cost 1.5%, A/S 4.9%, Total 2.1%.

Total Special Access
Cost and Average Schedule Companies

Test Period	Filed Growth	Latest View Growth
2012/2013	2.6%**	9.1%
2013/2014	3.9%	6.7%
2014/2015	3.3%	-0.7%
2015/2016	4.9%	-0.9%
2016/2017	1.8%	-0.5%
2017/2018	-1.9%	-6.7%
2018/2019	-2.8%	N/A

* March 2018 view (excludes NECA expenses)
** Filed growth rate from December 2012 filing. The June 2012 filed growth rates: Cost 1.5%, A/S 4.9%, Total 2.1%.

D. SUMMARY

The attribution section gives a detailed account of NECA's special access ratemaking methodology. In sequential order the tables:

1. describe adjustments used to derive PYCOS from 2017 reported financial data
2. display projected growth rates linking PYCOS to test period projections
3. summarize rate change calculations

The earnings section gives three views of NECA special access pool earnings for 2017. It includes the February View filed with the Commission and two other views, the March View underlying NECA's rate development described in the attribution section and a latest projected view using the growth rates underlying the filing. The final view offers a more representative view of 2017 earnings than the March report.

The scorecard section is a means for judging the adequacy of the growth rates used to develop test period revenue and revenue requirement projections. It shows proposed growth rates are reasonable.

Together, these sections show NECA's TS special access rate changes are reasonable in light of historical data, and are targeted to earn the authorized rate of return.