NATIONAL EXCHANGE CARRIER ASSOCIATION, INC.

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

TRANSMITTAL NO. 1665
JUNE 16, 2022

VOLUME 1: DESCRIPTION AND JUSTIFICATION

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

VOLUME 1-2: TARIFF REVIEW PLAN

VOLUME 2: DEVELOPMENT OF ACCESS ELEMENT REVENUE REQUIREMENTS

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

VOLUME 3: DEVELOPMENT OF BASELINE DEMAND AND REVENUES

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

VOLUME 4: COMMON LINE RATE DEVELOPMENT

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

VOLUME 5: TRAFFIC SENSITIVE RATE DEVELOPMENT

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.

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DESCRIPTION AND JUSTIFICATION

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DESCRIPTION AND JUSTIFICATION

Section 1

INTRODUCTION

The National Exchange Carrier Association, Inc. (NECA) hereby files its 2022 Annual Access Tariff revisions for the 2022/2023 test period to reflect the cost and demand characteristics of its pool participants.[1] 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 1, 2022. These proposed rates are designed to recover the test period CL, CBOL, and special access revenue requirements at the revised authorized rate of return (RoR) of 9.75 percent.[2]

This filing does not include cost or revenue data or rates associated with special access for those companies that have elected to move their Business Data Services (BDS) to an incentive pricing model.[3] Electing carriers were required to remove their costs and revenues associated with BDS and other special access services from the NECA pool. BDS rates for study

[1] The Commission has established July 1, 2022 as the effective date for Annual Access Tariff filings made on 15 days' notice. *See July 1, 2022 Annual Access Charge Tariff Filings*, WC Docket No. 22-108, Order, DA 22-407 (rel. Apr. 15, 2021) (*2022 Procedures Order*).

[2] *See 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, 31 FCC Rcd. 3087 (2016) (*2016 USF RoR Reform Order*).

[3] *See Regulation of Business Data Services for Rate-of-Return Local Exchange Carriers*, WC Docket No. 17-144, *Business Data Services in an Internet Protocol Environment*, WC Docket No. 16-143, *Special Access for Price Cap Local Exchange Carrier*, WC Docket No. 05-25, Report and Order, 33 FCC Rcd. 10403 (2018) (*RoR BDS Order*).

areas opting to have NECA tariff those services are included in NECA Tariff F.C.C. No. 6, a separate filing.[4]

Historically, TS pool participants had to participate in the pooling of revenues and costs for both switched access and special access services. Companies moving to the BDS incentive pricing framework ("BDS Carriers") effective July 2019 or July 2020 had the option to remain in the switched access portion of the TS pool only.[5] These carriers are referred to as "TS - SW only" throughout this filing unless otherwise designated. The switched access and special access portions of the TS pool are referred to either as "TS" or "TS - SW and SP". "TS – SW" refers to study areas participating in the switched access portion of the TS pool, regardless of whether they participate in the special access portion of the pool or not.

This filing reflects the ongoing effects on switched access rates resulting from the Commission's Universal Service Fund (USF) and Intercarrier Compensation (ICC) Transformation Order[6] and the *8YY Access Charge Reform Order*.[7] This filing also reflects impacts of the Second Order on Reconsideration and Clarification, released February 16, 2018,[8]

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[4] *See* NECA Tariff F.C.C. No 6, Transmittal 1666 (filed June 16, 2022) (*2022 Tariff No. 6 Filing*).

[5] *See RoR BDS Order* ¶ 29.

[6] *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).

[7] *8YY Access Charge Reform*, WC Docket No. 18-156, Report and Order, 35 FCC Rcd. 11594 (2020) (*8YY Access Charge Reform Order*).

[8] *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, 33 FCC Rcd. 2399 (2018) (*February 16, 2018 Order*).

affecting Connect America Fund (CAF) ICC support calculations and CBOL as well as 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,[9] affecting revenue requirements described in Volume 2, and CL and CBOL revenue requirements as well as resulting CAF Broadband Loop Support (CAF BLS) described in Volume 4.

Volume 2, Section 3.B.3 and Volume 2, Exhibit 8 reflect the *2018 USF Forbearance Order* granting temporary forbearance from the application of USF contribution requirements on broadband internet access transmission services provided by rural incumbent local exchange carriers (LECs).[10] This filing also reflects the effects of the *2022 Modification of Average Schedules,*[11] and other orders affecting one or more carriers as described below.

Required carrier certifications are contained in Volume 1, Appendix D. Exhibit 1 of Appendix D contains certifications to the effect that carriers are not seeking duplicative recovery in the state jurisdiction for any Eligible Recovery subject to the CAF ICC recovery mechanism.[12] Appendix D 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

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[9] *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, 33 FCC Rcd. 2990 (2018) (*March 23, 2018 Order*).

[10] *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, 33 FCC Rcd. 5712 (2018) (*2018 USF Forbearance Order*).

[11] *See National Exchange Carrier Association 2022 Modification of Average Schedules*, attach. to Letter from Robert J. Deegan, Director-Government Relations, NECA, to Marlene H. Dortch, Secretary, FCC, WC Docket 21-473 (filed Dec. 22, 2021); *National Exchange Carrier Association, Inc. 2022 Modification of Average Schedules*, WC Docket No. 21-473, Order, DA 22-504 (rel. May 11, 2022) (*2022 Modification of Average Schedules*).

[12] 47 C.F.R. § 51.917(d)(1)(vii).

CAF ICC support.[13] Appendix D 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.[14] The frozen baseline revenue data for switched access included in this filing reflects data previously filed with the Federal Communications Commission (FCC) and 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.[15]

Exhibit 4 of Appendix D 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 31, 2022 CAF BLS filing with Universal Service Administrative Company (USAC). For companies that updated their CBOL data after the filing with USAC, new certifications attesting to the accuracy of a carrier's data underlying this filing were obtained.

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. CBOL rates have been developed consistent with the *May 10, 2022 BCM Order*.[16]

The development of ARC rates and CAF ICC support estimates are included in Volume 5 along with TS 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.[17] CAF ICC

[13] 47 C.F.R. § 51.917(f)(2).

[14] These certifications will be filed with USAC on June 16, 2022 in support of carrier data underlying calculations of ARC rates and estimated CAF ICC support amounts.

[15] *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*).

[16] *Connect America Fund*, WC Docket No. 10-90, Order, FCC 22-32 (rel. May 10, 2022) (*May 10, 2022 BCM Order*).

[17] *See* 47 C.F.R. § 51.917(d)-(e).

support estimates have been reduced by limited imputed ARC revenues on broadband-only loops, as required by the *2016 USF RoR Reform Order* and the *February 16, 2018 Order.*[18]

The effect of CAF BLS is reflected in the recovery of CL pool and CBOL revenue requirements. This filing reflects the limitation of Corporate Operations Expense amounts, including the use of broadband-only loops in the Corporate Operations Expense formula,[19] on CL revenue requirements as required by the *USF/ICC Transformation Order* for the calculation of CAF BLS amounts.[20] This filing also reflects the limitation on Operating Expense amounts required by the *2016 USF RoR Reform Order.*[21] Operating Expense limits reflect adjusted limits for Tribal Land study areas as well as for study areas whose mergers were subject to FCC-imposed conditions limiting Operating Expenses.[22]

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[18] *See February 16, 2018 Order* ¶¶ 14-18. The rule requiring RoR carriers to impute ARC revenues on CBOLs was revised to limit the imputation to better maintain the balance between end user charges and universal service support as adopted in the *USF/ICC Transformation Order.*

[19] *March 23, 2018 Order* ¶ 88.

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

[21] *2016 USF RoR Reform Order* ¶¶ 95-115.

[22] *See Connect America Fund,* WC Docket No. 10-90, Report and Order, 33 FCC Rcd. 3602 (2018); *Connect America Fund,* WC Docket No. 10-90, Order on Reconsideration, 33 FCC Rcd. 12813 (2018); *Wireline Competition Bureau Updates List of Carriers Meeting Eligibility Criteria for Tribal Opex Relief*, WC Docket No. 10-90, Public Notice, 33 FCC Rcd. 12556 (2018). *See also Joint Application of W. Mansfield Jennings Limited Partnership and Hargray Communications Group, Inc., for Consent to the Transfer of Control of ComSouth Corporation Pursuant to Section 214 of the Communications Act of 1934*, WC Docket No. 18-52, Memorandum Opinion and Order, 33 FCC Rcd. 4780 (2018); *Domestic Section 214 Applications Granted Subject to Condition*, WC Docket Nos. 17-101, 17-365, 18-68, 18-94, 18-95, 18-177, Public Notice, 33 FCC Rcd. 6784 (2018); *Domestic Section 214 Application Granted Subject to Condition*, WC Docket No. 18-223, Public Notice, 33 FCC Rcd. 9417 (2018); *Domestic Section 214 Applications Granted Subject to Condition*, WC Docket Nos. 18-301, 18-302, Public Notice, 33 FCC Rcd. 12236 (2018); *Domestic Section 214 Applications Granted Subject to Condition*, WC Docket Nos. 18-342, 18-343, Public Notice, 34 FCC Rcd. 1353 (2019); *Domestic Section 214 Application Granted Subject to Condition*, WC Docket No 19-51, Public Notice, 34 FCC Rcd. 3790 (2019); *Domestic Section 214 Applications Granted Subject to Condition*, WC Docket Nos. 19-307, 19-336, Public Notice, 34 FCC Rcd. 12819 (2019); *Domestic Section 214 Application Granted Subject to Condition*, WC Docket No. 19-338, Public Notice, 35 FCC Rcd.

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

This filing includes an update of pool earnings reported in NECA's preliminary Form 492 reports filed in March, a projection of final earnings results, and a reconciliation of proposed rate changes to those projections. 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. Results of these analyses for TS special access are displayed in Section 4 of this Volume. Reconciliation is no longer necessary for TS switched access because rates and revenue requirements are prescribed by the *USF/ICC Transformation Order*.

This filing also provides information on total company costs, as well as several years' worth of actual cost trend data in support of earnings and tariff projections. This analysis for TS special access revenue requirements is described in Volume 2. Analysis for TS switched access revenue requirements is no longer necessary because revenue requirements are frozen at levels

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2045 (2020); *Domestic Section 214 Application Granted Subject to Condition*, WC Docket No. 20-112, Public Notice, 35 FCC Rcd. 6704 (2020); *Domestic Section 214 Application Granted Subject to Condition*, WC Docket No. 20-193, Public Notice, 35 FCC Rcd. 10055 (2020); *Domestic Section 214 Application Granted Subject to Condition*, WC Docket No. 20-373, Public Notice, 35 FCC Rcd. 14654 (2020); *Domestic Section 214 Applications Granted Subject to Condition*, WC Docket Nos. 20-388, 20-389, Public Notice, 36 FCC Rcd. 320 (2021); *Domestic Section 214 Application Granted Subject to Condition*, WC Docket No. 20-432, Public Notice, 36 FCC Rcd. 1368 (2021); *Domestic Section 214 Applications Granted Subject to Condition*, WC Docket Nos. 20-275, 20-355, Public Notice, DA 21-346 (rel. Mar. 24, 2021) (*Tribal Lands et al. Orders and Public Notices re: OpEx limits).*

underlying the *2011 Annual Access Tariff Filing*, reduced by 5 percent annually starting with the 2012/2013 test period.[23]

NECA seeks confidential treatment of the data contained in this filing pursuant to the *2022 Protective Order* designated for use in the 2022 Annual Access Charge Tariff Filings proceeding.[24]

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 pool status effective July 1, 2022. 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.

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[23] *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*); NECA Tariff F.C.C. No 5, Transmittal 1549 (filed June 18, 2018) (*2018 Annual Access Tariff Filing*); NECA Tariff F.C.C. No. 5, Transmittal 1579 (filed June 17, 2019) (*2019 Annual Access Tariff Filing*); NECA Tariff F.C.C. No. 5, Transmittal 1607 (filed June 16, 2020) (*2020 Annual Access Tariff Filing*); NECA Tariff F.C.C. No. 5, Transmittal 1635 (filed June 16, 2021) (*2021 Annual Access Tariff Filing*).

[24] *See Procedures for Obtaining Confidential Information from 2022 Annual Access Charge Tariff Filings*, Public Notice, WC Docket No. 22-108, DA 22-591 (rel. June 1, 2022) (*2022 Protective Order*).

[25] 47 C.F.R. § 69.3(e)(9).

[26] *2016 USF RoR Reform Order* ¶ 196.

NECA Tariff	Number of Study Areas	
	Enter	Exit
Common Line	1	1
Traffic Sensitive – SW and SP	1	8
Traffic Sensitive – SW Only	0	0

For the 2022/2023 test period, there are 422 study areas participating in the CL pool. There are 671 study areas participating in the TS – SW and SP pool plus an additional 135 study areas participating in the TS-SW only part of the pool, for a total of 806 study areas participating in the TS pool. Exhibit 1 displays those LECs electing to change participation.[27] Appendix A lists all pooling LECs and their tariff participation for the 2022/2023 test period.[28] Appendix B shows side-by-side tariff comparisons for study areas electing to join NECA's tariffs.[29] Appendix C provides a list of the exchange carriers electing not to participate in NECA's Digital Subscriber Line (DSL) or CBOL tariff effective July 1, 2022 because they are opting to offer the service on a detariffed common carrier basis, on a private carriage basis, or electing to discontinue provision of a separate transmission service.[30] Specifically, Appendix C, Workpapers 1 and 2 list carriers exiting NECA's CBOL and DSL tariff, respectively.

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[27] NECA previously provided notice to the Commission of these pool election changes. *See* Letter from Susan Boylan, Senior Director – Access Tariff Cost Development, NECA, to Trent Harkrader, Chief, Wireline Competition Bureau (filed Mar. 18, 2022).

[28] Appendix A reflects pooling companies that are projected to be in the tariff from July 1, 2022 through June 30, 2023. *See 2021 Annual Access Tariff Filing,* Vol. 1, App. A for a list of companies included in the 2021/2022 test period.

[29] This comparison identifies differences between the LEC's current tariff and NECA's tariff scheduled to become effective July 1, 2022. NECA tariff revisions reflect only changes from the currently effective NECA tariff.

[30] *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 Internet*, GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd. 5601 (2015) ¶

2. Revenue Requirement Changes

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 and Operating Expense limitations on CL revenue requirements, the transfer of broadband-only loop costs from special access to the CBOL element in CL consistent with Part 36 and Part 69 cost allocation rules as directed in the *February 16, 2018 Order,*[31] and an authorized RoR of 9.75 percent per the *2016 USF RoR Reform Order*. This filing makes adjustments to expenses underlying revenue requirements to reflect Paycheck Protection Program (PPP) loan amounts for 2022 anticipated to be forgiven in the upcoming test period and are discussed in Volume 2. As required by the *USF/ICC Transformation Order*, interstate switched access revenue requirements have been frozen at the base period, defined as amounts underlying the 2011 tariff filing, and reduced by 5 percent annually beginning with the 2012/2013 test period.[32]

Special access revenue requirement projections reflect continued, but slightly decreasing, negative growth, due to the migration from voice-data lines to broadband-only loops, network changes, and continued deployment of more cost-efficient technologies. NECA continues to reflect the effect of the *Separations Freeze Order* in the development of projected revenue

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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.

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

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

requirements.[33] Allocation factors and category relationships, where applicable,[34] in effect as of calendar year 2000, were frozen and used for test period projections, with the exception of study areas that elected to unfreeze their category relationships effective July 2019, as documented in the 2019 Annual Access Tariff Filing.[35] No study areas with frozen cost category relationships that elected to move their business data services to incentive regulation for effect July 1, 2020 opted to unfreeze their cost category relationships for effect July 1, 2020.[36]

Projected test period revenue requirements for 2022/2023 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 2022/2023 test period are calculated at a 9.75 percent RoR and reflect test period pool composition. The development of revenue requirements is described further in Volume 2.

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[33] *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 has been extended on several occasions, most recently with a Report and Order on December 17, 2018, in which the FCC extended the freeze until the earlier of December 31, 2024, or the completion of comprehensive reform of the Part 36 jurisdictional separations rules. *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, 27 FCC Rcd. 5593 (2012); Report and Order, 29 FCC Rcd. 6470 (2014); Report and Order, 32 FCC Rcd. 4219 (2017); and Report and Order and Waiver, 33 FCC Rcd. 12743 (2018).

[34] For RoR companies, the freeze of category relationships was optional. *See* 47 C.F.R. § 36.3(b). There are fifteen RoR study areas in NECA's CL or TS pool with frozen category relationships for the 2022/2023 test period.

[35] See Volume 2, Section 3.A.1 and Volume 5, Section 4.B.

[36] *See RoR BDS Order* ¶ 45. *See also Jurisdictional Separations and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Report and Order and Waiver, 33 FCC Rcd. 12743 (2018) (*2018 Category Relationships Unfreeze Order*) ¶ 29.

Table 1 Summary of Revenue Requirement Changes
(in millions)

Access Element	PYCOS 2021	Test Period 2022/2023	Annual % Chg.*
Common Line (includes CBOL)	$1,237.5	$1,413.4	9.26%
TS Switched Access			
Interstate	N/A	$197.1	N/A
Intrastate	N/A	$107.2	N/A
Net Reciprocal Compensation	N/A	$17.5	N/A
TS Special Access	$280.1	$269.8	-2.47%

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

3. <u>Universal Service Support Programs</u>

<u>CAF ICC Support</u>

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 methodologies used to develop switched access Eligible Recovery, ARC rates and revenue, and estimated 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, 2022/2023 projected Eligible Recovery and CAF ICC support include the effects of true-up revenues and exogenous costs from the 2020/2021 test period, including adjustments for Transitional Intrastate Access Service revenue, Interstate Switched Access revenue, Reciprocal Compensation, and ARCs. Exogenous costs include incremental Telecommunications Relay Service (TRS) Fund fees, Regulatory Fees, and North America Numbering Plan Administration (NANPA) fees not recovered through capped switched

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

access rates.[38] An additional safeguard was added in support of this year's filing to ensure carriers receiving model based support that voluntarily reduce common line rates (excluding CBOLs) do not recover the associated foregone revenues through the reporting of incremental exogenous costs, as described in further detail in Volume 5, Section 4.

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 projected Single-Line Business (SLB) and Multi-Line Business (MLB) broadband-only loops separately, or if they were not able to differentiate between projected SLB and MLB broadband-only loops, they provided 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.9.

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. For TS pool members, the total limited imputed ARC revenues on broadband-only loop counts is $3.3 million as displayed on Line 9 of Volume 5, Exhibit 11, Workpaper 9 of 9. The total estimated CAF ICC support amount for the 2022/2023 test period for TS pool members is displayed on Line 10 of that same exhibit and has been reduced by limited imputed ARC revenues.

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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] *See Material to be Filed in Support of 2018 Annual Access Tariff Filings*, WC Docket No. 18-100, Order, 33 FCC Rcd. 3859 (2018) (*2018 TRP Order*).

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 referred to as "post true-up".

Adjustments to the Eligible Recovery amounts underlying CAF ICC support estimates have been made to ensure carriers avoid double recovery. Volume 1, Appendix D, Exhibit 1 lists carriers certifying they are not seeking duplicative recovery for any Eligible Recovery subject to the CAF ICC recovery mechanism. Under the FCC's *March 31, 2014 Clarification Order,* reductions needed to avoid double recovery are to be applied to projected Eligible Recovery amounts and not to the frozen baseline.[40]

Table 2 displays counts of study areas that have reported double recovery events in each year's 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 2022/2023 test period. Double recovery reductions to the projected 2022/2023 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 2 and 3, respectively. Frozen baseline data was not adjusted for double recovery. Rather, these reductions were applied to projected 2022/2023 Eligible Recovery to avoid over-recovery. CAF ICC support for NECA TS pool members is estimated to be $230.5M for the 2022/2023 test period.

[40] *March 31, 2014 Clarification Order* ¶ 16. *See also* 47 C.F.R. § 51.917(d)(1)(vii), effective June 19, 2014.

Table 2
Count of reported Double Recovery occurrences in CAF ICC data collection

Year Reported	Count
2014	64
2015	42
2016	34
2017	15
2018	14
2019	9
2020	9
2021	4
2022	2

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, four RoR companies in the NECA pool affiliated with a price cap company that elected to receive CAF Phase II support had previously identified duplicate cost recovery of switching-related costs.[42] Since CAF Phase II support ended in December 2021, those duplicate costs are no longer deducted from the projected Eligible Recovery amounts for these carriers.

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

[42] *See Connect America Fund,* WC Docket 10-90, *Developing a Unified Intercarrier Compensation Regime*, CC Docket 01-92, *Establishing Just and Reasonable Rates for Local Exchange Carriers,* WC Docket 07-135, *FairPoint Communications, Inc. Petition for Declaratory Ruling*, Order and Declaratory Ruling, 33 FCC Rcd. 4353 (2018) (*April 19, 2018 LSS Order*) ¶ 17.

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

In the *MAG Order*, the Commission created Interstate Common Line Support (ICLS) as an explicit universal service support mechanism.[43] ICLS was calculated on a study area basis by subtracting the sum of the study area's subscriber line charge (SLC) revenues, special access surcharge (SAS) 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*[44] and the *March 23, 2018 Order*. In the *2016 USF RoR Reform Order*, the Commission defined CAF BLS Voice support to recover the amounts previously recovered by ICLS, subject to limitations on Operating Expense amounts.[45] The test period CAF-BLS Voice amount in NECA's CL pool is projected to be $413.9M prior to implementation of the $200/line/month cap.

CAF BLS Broadband-Only Support

In the *2016 USF RoR Reform Order*, the Commission created CAF BLS Broadband-only support to support the cost of CBOLs 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 2022/2023 test period were filed by NECA on March 31, 2022 and are supplemented with more recent exchange carrier updates for use in the development of CBOL rates as discussed in

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[43] *See Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carrie*rs, CC Docket No. 00-256, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, *Access Charge Reform for Incumbent Local Exchange Carriers Subject to Rate-of-Return Regulation*, CC Docket No. 98-77, *Prescribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, CC Docket No. 98-166, Second Report and Order and Further Notice of Proposed Rulemaking in CC Docket No. 00-256, Fifteenth Report and Order in CC Docket No. 96-45, and Report and Order in CC Docket Nos. 98-77 and 98-166, 16 FCC Rcd. 19613 (2001) (*MAG Order*).

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

[45] *2016 USF RoR Reform Order* ¶¶ 87-88.

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*[46] and the *March 23, 2018 Order*, and subject to an Operations Expense limitation as required by the *2016 USF RoR Reform Order*.[47] The test period CAF BLS Broadband-only amount in NECA's CBOL tariff is projected to be $546.6M prior to implementation of the $200/line/month cap.

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

[47] *See 2016 USF RoR Reform Order* ¶¶ 95-115.

4. <u>Demand Changes</u>

Table 3 displays the projected change in demand between base period 2021 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. Development of test period access rate element demand is discussed further in Volume 3.

Table 3
Summary of Demand Changes
(in millions)

Access Element	Base Pd. 2021*	Test Pd. 2022/2023	Annual % Chg.**
Total Lines – CL	1.682	1.686	0.2%
Interstate Local Switching (LS) Minutes of Use (MOU) – TS	1,713.5	1,307.0	-14.3%
Intrastate Terminating Minutes of Use (MOU) – TS	1,274.4	1,158.8	-5.3%
Special Access Constant Rate Revenue – TS***	$279.1	$250.7	-6.9%

*Base period 2021 is calendar year 2021 for access lines and special access revenue and a time period from October 1, 2020 through September 30, 2021 for interstate LS MOU and intrastate terminating MOU.
** Annual % change = $(((\text{test pd./base pd.})^{2/3})-1)*100$ for access lines and special access revenue. Annual % change = $(((\text{test pd./base pd.})^{12/21})-1)*100$ for interstate LS MOU and intrastate terminating MOU.
*** Constant rate is defined as unbanded June 2022 rate.

5. <u>Rate Changes</u>

Table 4 displays some of the key rate changes proposed in this filing. The proposed increase of 1.3 percent (rounded up from 1.2714 percent) is the average TS switched access rate change across originating non-toll free end office rates and all non-toll free transport rate elements. Switched access rate changes include the ongoing effects of the *8YY Access Charge Reform Order* and are described in Section 3 of this volume and in Volume 4.[48]

NECA proposes to increase TS special access service rates by an average across all services of 8.8 percent[49] (9.2 percent after the billing cycle adjustment[50]). Before billing cycle effects, NECA proposes an average rate increase of 7.1 percent for Ethernet Transport Service (ETS), an average rate increase of 7.8 percent for A/SDSL Voice-Data rates, an average rate decrease of 9.5 percent for the DSL Broadband-only rate which recovers the cost of second mile transport, and an average rate increase of 11.4 percent for non-DSL special access services excluding ETS. 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 2022 Universal Service Contribution Factor*, Public Notice, CC Docket No. 96-45, DA 22-623 (rel. June 9, 2022) (*Third Quarter 2022 USCF Public Notice*).

Table 4
Summary of Rate Changes from Current Rates

Element	Current Rates	Proposed Rates	Percent Change
TS SW Originating LS – Premium, Non-Toll free, Rate Band 1	$0.014395	$0.014578	1.3%
TS SW Originating LS – Premium, Toll Free Only, Rate Band 1	$0.014395	$0.007198	-50.0%
Toll Free Database Access Service Query, Basic, Per Query	$0.004248	$0.002224	-47.6%
TS Special Access:[52]			
• DS1 High Capacity Chan Term	$595.74	$663.596	11.4%
• ETS 100 Mbps Chan Term (300+ft)	$368.93	$395.115	7.1%
DSL WPP 3 Year - ADSL Voice/Data			
• 6 Mbps/1 Mbps	$22.47	$24.23	7.8%
• 25 Mbps/3 Mbps	$29.65	$31.97	7.8%

[52] The DS1 High Capacity and ADSL Voice-Data current rates are band 24 rates. The ETS 100 Mbps current rates are band 26 rates. The proposed rates are not actual tariff rates but are designed to illustrate the average rate change. Some ECs will have a rate increase while others will have a rate decrease. 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 2021 PYCOS data and to project costs of providing interstate CL and TS special access service for the 2022/2023 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 31, 2022 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 602 study areas, geographically dispersed throughout the country. Average schedule companies participating in NECA's pools provide service in 260 study areas. Companies opting to receive model-based support (referred to herein as "model" companies or study areas) were required to exit the CL pool, but have the option of listing their CL rate elements in the NECA tariff. Exhibit 2 displays the proportion of cost and average schedule pooling companies' share of 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 2021, 2022 and 2023 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 2021 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 changein special access revenue requirement growth. In its trend analyses, NECA used a consistent set of cost company historical data from 2018 through 2020 for those companies participating in the NECA TS pool for the 2022/2023 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

[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; and, (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.

companies at the level of detail specified in the *2022 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 and CBOL formula produce settlement dollar amounts per access line and CBOL line respectively that vary based on total lines (access lines and CBOL lines) per exchange. In addition, part of the average schedule company CL revenue requirement is based on frozen line port and CL Transport Interconnection Charge (TIC) shift components. For TS, there are settlement formulas for special access (DSL voice-data, non-DSL and second mile transport). Switched access settlements (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 with a 5% yearly phasedown as prescribed in the *USF/ICC Transformation Order*.[58]

PYCOS data for average schedule companies were produced by adjusting historical 2021 monthly settlements to reflect formulas that became effective July 1, 2021, 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 *2022 Modification of Average Schedules,* settlement impacts resulting from the *MAG Order*, and projected demand for access services for the test period.

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[56] *See July 1, 2022 Annual Access Charge Tariff Filings*, WC Docket No. 22-108, Order, DA 22-494 (rel. May 9, 2022) (*2022 TRP Order*).

[57] *See* 47 C.F.R. § 69.606. *See also 2022 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).

[59] For consistency, the schedules that were effective July 1, 2021 were used to calculate the entire PYCOS period for average schedule companies.

Volume 2 describes the development of projected revenue requirements included in this filing, including adjustments for anticipated PPP loan forgiveness.[60] 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 pool revenue requirements in proportion to the revenues associated with each.[62] TS pool revenue requirements include ARC revenues and CAF ICC support revenues.[63]

Volume 2, Section 3.A.4 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

[60] *See* Coronavirus Aid, Relief, and Economic Security Act, Pub. L. 116-136, 134 Stat. 281 (2020). *See also* Paycheck Protection Program and Health Care Enhancement Act, Pub. L. No. 116-139, 134 Stat. 620 (2020), Paycheck Protection Program Flexibility Act, Pub. L. No. 116-142, 134 Stat. 641 (2020), Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, 134 Stat. 1182 (2020).

[61] 47 C.F.R. § 69.603(g).

[62] *Id.*

[63] 47 C.F.R. § 69.603(g), (h)(3).

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.

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 December 2021 and projected December 2022 and December 2023 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.

Test period projections for intrastate MOU are companies' projections gathered from NECA's CAF ICC Data Collection. To forecast interstate LS MOU demand, NECA used the Autoregressive Integrated Moving Average (ARIMA) and UCM techniques discussed further in Volume 3. Test period projections for interstate LS MOU are based on NECA's forecasts, except for companies choosing to input their own forecasts into NECA's CAF ICC Data Collection. NECA's CAF ICC Data Collection is described further in Volume 3, Appendix B.

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 Non-ETS, voice-data DSL, and ETS 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. The development of CL rates described below does not apply to companies electing model-based support, Alaska Plan support, or RoR carriers affiliated with Consolidated Communications, Inc.[64]

A. COMMON LINE RATE DEVELOPMENT

The CL revenue requirement consists of the base factor portion (BFP)[65] and universal service contributions.[66] This revenue requirement is recovered through end user SLCs, Integrated Services Digital Network (ISDN) Port charges, DS1 Channel Service Port charges, the 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 LEC end users. NECA pool members receive CAF BLS Voice from the federal universal service program as described in Volume 2. FUSC is a surcharge applied to interstate retail service revenue, including all CL end user revenue, special access retail revenue,[67] and ARC revenue.

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[64] *2016 USF RoR Reform Order* ¶¶ 21, 195.

[65] 47 C.F.R. § 69.501(f).

[66] For RoR 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.

[67] In response to the *2018 USF Forbearance Order*, companies 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.

1. <u>Subscriber Line Charges (SLCs)</u>

Sections 69.104 (n), (o), and (p) of the Commission's rules describe the End User Common Line (EUCL) rate levels for RoR LECs.[68] While EUCL is the term used in FCC rules, Subscriber Line Charge (SLC) may be more commonly used in the industry and the terms are used interchangeably herein.

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 2022/2023 test period. For the 2022/2023 test period the cost per loop (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 MLB capped rate and the $6.50 residence and single line business capped rate. The development of SLC rates is discussed in further detail in Volume 4 Section 2.

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

NECA pool members recover their universal service contributions via explicit end user surcharges.[69] These end user surcharges apply to interstate retail revenues including end user CL and retail special access revenues.[70] For purposes of calculating these surcharges NECA has assumed that billed ARC revenues are interstate revenues subject to FUSC. In this filing, all CL pool members have opted to forbear from assessing FUSC on the services addressed in the *2018 USF Forbearance Order*.

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[68] 47 C.F.R. § 69.104(n), (o) and (p).

[69] 47 C.F.R. § 69.131.

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

For the 2022/2023 test period, the FUSC surcharge factor is set as a percent of interstate retail revenue. The FUSC surcharge factor is 33.0 percent, which is the Commission's proposed third quarter 2022 universal service contribution factor.[71] This charge is applied to CL, special access retail, and ARC revenues for all companies listed in Section 17.7 (A) of NECA Tariff F.C.C. No. 5. Companies that elected optional rate banding for their MLB EUCL FUSCs are listed in Section 17.7 (B). Section 17.7 (C) of NECA Tariff F.C.C. No. 5 lists any companies opting not to forbear from charging the FUSC Surcharge Factor on ADSL, SDSL and CBOL revenues. 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 projected test period FUSC revenue of $44.2M.

B. <u>CONSUMER BROADBAND-ONLY LOOP (CBOL) RATE DEVELOPMENT</u>

For companies participating in NECA's DSL tariff, CBOL costs were removed from the TS special access category. The amount of CBOL costs removed from the TS special access category totals $333.3M for the cost and average schedule study areas in NECA's DSL tariff.

For cost companies, CBOL revenue requirements were developed consistent with Part 36 and Part 69 cost allocation rules, as directed in the *February 16, 2018 Order*.[72] For average schedule companies, the CBOL revenue requirement is based on approved average schedule formulas.[73]

The CBOL revenue requirement is recovered through a company-specific CBOL charge and the CAF BLS Broadband-only universal service mechanism. The CBOL revenue

[71] *See Third Quarter 2022 USCF Public Notice.*

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

[73] *See 2022 Modification of Average Schedules.*

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.

Volume 4 also 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 2. Total proposed test period CBOL revenue, including CAF BLS Broadband-only support is shown on Volume 4, Exhibit 5, Line 8. Total test period proposed CL revenue including CBOL revenue and CAF BLS is $1.369B and is shown in Volume 4, 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. 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.

TS switched access contains the following access elements: LS, information surcharge, and local transport.[74] 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.[75] There is one study area entering and eight study areas exiting the NECA TS switched access portion of the TS pool for the upcoming test period. The effect of these pool participation changes on the upcoming test period's switched access rates is an increase of 1.2714%.

Commission rules prescribe the calculation of interstate switched access rates for exiting carriers.[76] The required switched access rate changes for each exiting carrier, along with

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

[75] 47 C.F.R. § 51.909(a)(4).

[76] 47 C.F.R. § 51.909(a)(5).

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.

In compliance with the *8YY Access Charge Reform Order*, the rate level changes below were made to switched access rates and are in described in further detail in Volume 5 Section 4:

- The single Joint Tandem Switched Transport (JTST) access service rate for toll free calls between the originating end office and the tandem switch for tandem switched transport remains at the cap of $0.001.
- The toll free originating local switching premium and non-premium end office and information surcharge rates are reduced by 50% from their respective rates from the 2021/2022 test period.
- The proposed Toll Free Database Access Service Query rates are reduced halfway between the current rate and the final target rate of $0.0002. If a carrier's rate is below the current rate cap of $0.004248, its own capped rate was used to arrive at its proposed rate effective July 1, 2022.

NECA used interstate and intrastate 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, as described in Volume 5.

1. <u>Local switching and information surcharge</u>

The switched access local switching rate element was designed to recover costs associated with central office equipment (COE) Category 3 investment and related expenses.[77] The LS rate is charged on a per-access MOU basis.

[77] *See* 47 C.F.R § 69.106.

The originating information surcharge rate and the originating LS rate remain separate in this filing as in prior filings. There are two sets of LS and information surcharge rates in the tariff, identified as "toll free" and "non-toll free".

NECA's LS 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 for non-toll free traffic is charged on a per MOU basis for each termination, facility mile, and usage of the tandem switch. Tandem switched transport for toll-free traffic between the originating end office and the tandem switch is charged on a per MOU basis via the Joint Tandem Switched Transport rate.

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.

Switched access flat-rated charges for entrance facilities, direct trunked transport, and miscellaneous charges for SS7 Interconnection and multiplexing are set equal to the proposed special access rates for equivalent services. Non-toll free tandem switched transport charges for terminations and facilities were derived from direct trunked transport charges.[78]

Local transport rate band assignments were capped as described in Volume 5. 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 and displays switched access revenue requirement and expected interstate and intrastate revenues for the 2022/2023 test period, including ARC revenue and CAF ICC revenue.[79]

4. Special Access Rate Development

NECA proposes to increase TS special access service rates by an average of 8.8 percent (9.2 percent after the billing cycle adjustment).[80] However, proposed rate changes for individual special access services vary. Beginning in January 2017, A/SDSL broadband-only rates are set to recover second mile transport costs.[81]

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

[79] *See* 47 C.F.R. § 51.917.

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

[81] Average composite rate changes displayed in Table 4 include the effects of rate band assignments.

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*. 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 2022/2023 test period.

Volume 1

DESCRIPTION AND JUSTIFICATION

Section 4

TRAFFIC SENSITIVE 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 2021) to develop test period forecasts and proposed rates.
2. Three views of 2021 special access earnings: an initial view that corresponds to the March 2022 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 5 below displays the adjustments made to the March 2022 view of 2021 reported data to derive the 2021 projected levels defined as PYCOS. The resulting PYCOS data assumes the 2022/2023 test period pool composition, average schedule formulas in effect for the

2021/2022 test period, rates in effect for the 2021/2022 test period, and a 9.75 percent RoR. By making these adjustments, PYCOS and test period data become comparable. To develop PYCOS, three basic types of adjustments are made to reported special access data: (1) projection adjustments; (2) average schedule to cost company conversions; and (3) pool participation changes during the upcoming test period.

Table 5
PYCOS ANALYSIS FOR 2021
SPECIAL ACCESS (in millions)

	Pool Reported as of March 2022	Projection Adjustments	Conversions to Cost	Exit & Entrant Effects	2021 PYCOS at 9.75% RoR
Revenues	296.419	1.977	N/A	-19.342	279.054
Average Schedule (AS) Revenue Requirement (RRQ)	32.241	-0.103	-0.092	-0.483	31.563
Cost Company (CC) RRQ	253.981	-3.463	0.058	-12.512	238.064
NECA Expenses	9.926	0.027	N/A	N/A	9.953

The first column entitled "Pool Reported as of March 2022" displays actual data reported to NECA for calendar year 2021. 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, 2021. 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 $1.977M is the net result of the 3.9 percent special access rate increase in July 2021 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 2021. Another example of known changes is average schedule formula changes that took effect in July 2021. Data for the first half of 2021 were adjusted to reflect the formulas in effect beginning in July 2021. Remaining projection adjustments are consistent with the latest cost and demand projections for the entire time span from January 2021 through June 2023. The cost company revenue requirement 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 2021 pool results: average schedule to cost conversions, and entries and exits from the pool effective July 2022. Average Schedule companies have the option to convert to cost. For those companies that chose to do so during 2021 or during the test period, NECA calculates the effect these conversions have on the entire 2021 calendar year. The column entitled "Conversions to Cost" shows the results of this change: a $0.092M decrease in average schedule revenue requirement and a $0.058M 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 2021 PYCOS reflecting the pool membership for the upcoming 2022/2023 test period.

Table 6 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 priced out at current rates to compare to PYCOS revenue at current rates, is then restated at proposed rates to equal the projected revenue requirement. The projected revenue requirement reflects a 9.75 percent RoR as displayed in the last column, last row, of Table 6.

Table 6

DERIVATION OF SPECIAL ACCESS 2022/2023 TEST PERIOD FILED AMOUNTS
SPECIAL ACCESS RATE ANALYSIS (in millions)

	Mar 2022 View of 2021 Pooled Reported	2021 PYCOS (Revenue at Constant Rates *)	Annual Growth Rates For 22/23 Test Period	22/23 Test Period (Revenue at Constant Rates *)	22/23 Test Period (Revenue at Current Banded Rates **)	22/23 Test Period at Proposed Rates ***
	A	B	C	D = B * (1 + C) ^ (3/2)	E	F
Total Revenue	$296.419	$279.054	-6.90%	$250.687	$247.902	$269.767
AS RRQ	$32.241	$32.077	-4.86%	$29.767	$29.767	$29.767
CC RRQ	$253.981	$238.064	-1.85%	$231.503	$231.503	$231.503
NECA EXP	$9.926	$9.953	-10.01%	$8.497	$8.497	$8.497
Total RRQ	$296.148	$280.093	-2.47%	$269.767	$269.767	$269.767
RoR	9.93%				5.01%	9.75%

* Constant rate is defined as unbanded June 2022 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 2022.
*** Rate adjustments include a 8.82% increase in revenue for the test period.

DERIVATION OF SPECIAL ACCESS PROPOSED RATE CHANGE

ROW 1	Total Test Period Revenue at June 2022 Rates and Bands	$247.902
ROW 2	Total Test Period Revenue Requirement	$269.767
ROW 3	Test Period Revenue Surplus (Deficit) at June 2022 Rates and Bands	($21.866)
ROW 4	% Special Access Rate Change (ROW 3 / ROW 1 * (-100))	8.82%
ROW 5	% Special Access Rate Change Adjusted for Billing Cycle Effect****	9.19%
ROW 6	Total Filed Billed Revenue (ROW 1 * (1 + ROW 4))	$269.767

**** 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 2021 change on a monthly basis as participating carriers submit true-up data. At the time of the March 28, 2022 Form 492 filing, the February 2022 view of pool earnings was reported to the Commission.[82] In this filing, NECA submits the March 2022 view of TS special access pool earnings and NECA's Projected View of 2021 TS special access pool earnings.[83] The data is summarized in Table 7 below.

[82] *See* Letter from Stela Stefanova, Senior Director, NECA, to Marlene H. Dortch, FCC Secretary (filed Mar. 28, 2022), attaching FCC Form 492 reports.

[83] The "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.

Table 7
March Form 492 Report, March Pool Results and Final Projections for 2021
(in millions)

Special Access

		March 492 Report*	March 2021 Pool Results	Final Projected Pool Results
1	Total Revenues	$295.795	$296.419	$296.545
2	Total Expenses and Taxes	$259.953	$259.716	$259.861
3	Oper. Inc. (Net Return) (Line 1 – Line 2)	$35.842	$36.703	$36.684
4	Rate Base – (Avg. Net Investment)	$376.400	$369.622	$372.428
5	Rate of Return Annualized	9.52%	9.93%	9.85%

*Based on February 2022 pool results. Form 492 reports for the companies participating in NECA's Traffic Sensitive pool during entire 2021.

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 2016/2017 through 2022/2023.

A continued decline in NECA's access lines, and growth in broadband-only lines, has occurred over the past few years. The first chart in Table 8 labeled "Summary of Lines Growth" now contains broadband-only lines in addition to access lines for the periods 2018/2019 and later. The sum of access lines plus broadband-only lines has been growing since the 2018/2019 test period. This year's 2022/2023 test period projection of access lines plus broadband-only lines is 0.2 percent.

Table 8
Lines, Interstate MOU, and Special Access
Revenue Growth *

Summary of Lines Growth**

Test Period	Filed Lines Growth	Reported March 2022 Latest View Lines Growth
2016/2017	-2.8%	-2.9%
2017/2018	-3.0%	-3.3%
2018/2019	-1.0%	-0.7%
2019/2020	-0.7%	0.8%
2020/2021	-0.6%	1.8%
2021/2022	1.2%	1.1%
2022/2023	0.2%	N/A

Summary of Interstate MOU Growth

Test Period	Filed MOU Growth***	Reported March 2022 Latest View MOU Growth
2016/2017	-8.1%	-11.4%
2017/2018	-9.5%	-12.1%
2018/2019	-9.0%	-10.6%
2019/2020	-8.0%	-11.9%
2020/2021	-10.9%	-3.1%
2021/2022	-8.2%	-15.0%
2022/2023	-14.4%	N/A

Summary of Special Access Revenue Growth

Test Period	Filed Special Access Revenue Growth	Reported March 2021 Latest View Special Access Revenue Growth
2016/2017	-3.0%	-3.4%
2017/2018	-4.7%	-5.0%
2018/2019	-5.3%	-6.9%
2019/2020	-7.0%	-6.8%
2020/2021	-5.8%	-6.8%
2021/2022	-5.9%	-8.4%
2022/2023	-6.9%	N/A

* Growth rate reflects March 2022 projections used in the annual filing.

** Lines represent access lines for test periods prior to 2018/2019. Starting in test period 2018/2019, lines represent access lines and broadband-only lines.

*** Data based on the CAF ICC Data Collection

NECA's TS interstate minutes growth continues with a negative trend over past test periods. The 2022/2023 test period projection is -14.4 percent. Continued TS interstate minute declines overall reflect the continued migration of demand towards broadband, wireless, and VoIP services.

NECA's special access revenue growth rate continues to be negative. The projected growth rate is -6.9 percent for test period 2022/2023. The special access revenue decline reflects the migrations from DS1 or DS3 services to ETS, IXC's optimization of their networks, and the conversions of DSL voice-data to CBOL.

2. Revenue Requirement Growth Comparisons: Filed to Actual for Special Access

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 2022/2023 projected special access revenue requirement growth rate continues to be negative, consistent with the increase in broadband-only loops. However, the growth rate is slightly less negative than in recent years due to the offsetting effects of increasing inflation, supply chain issues and labor shortages. The projected growth rate is -2.2 percent as shown in the last section of Table 9. For average schedule companies, settlement projections are calculated based on the formulas underlying the *2022 Modification of Average Schedules* to take effect in July 2022 and the projected level of demand quantities for the test year. These projections are explained in more detail in Volume 2.

Table 9
Summary of Revenue Requirement Growth*
Cost Companies

	Special Access	
Test Period	Filed Growth	Latest View Growth
2016/2017	0.7%	-1.9%
2017/2018	-0.9%	-5.7%
2018/2019	-3.2%	-2.3%
2019/2020	-3.3%	-3.6%
2020/2021	-2.8%	-4.0%
2021/2022	-3.1%	-4.3%
2022/2023	-1.8%	N/A

Average Schedule Companies *

	Special Access	
Test Period	Filed Growth	Latest View Growth
2016/2017	9.9%	9.9%
2017/2018	-8.3%	-8.5%
2018/2019	-0.2%	-0.3%
2019/2020	-1.9%	-1.5%
2020/2021	-3.4%	-3.3%
2021/2022	-1.5%	-2.4%
2022/2023	-4.9%	N/A

Total Special Access
Cost and Average Schedule Companies *

Test Period	Filed Growth	Latest View Growth
2016/2017	1.8%	-0.5%
2017/2018	-1.9%	-6.1%
2018/2019	-2.8%	-2.0%
2019/2020	-3.1%	-3.4%
2020/2021	-2.9%	-3.9%
2021/2021	-2.9%	-4.1%
2022/2023	-2.2%	N/A

* March 2022 view (excludes NECA expenses)

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 2021 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 2021. 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 projected view offers a more representative view of 2021 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 RoR.