NATIONAL EXCHANGE CARRIER ASSOCIATION, INC.

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

TRANSMITTAL NO. 1489
JUNE 16, 2016

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 and Federal Universal Service Charges.

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.

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 2016 Annual Access Tariff revisions for the 2016/2017 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 and Traffic Sensitive (TS) rates to be effective July 1, 2016. These proposed rates are designed to recover the test period common line and special access revenue requirements at the revised authorized rate of return (RoR) of 11.0 percent.[2] This filing reflects impacts on switched access rates resulting from the Commission's Universal Service Fund (USF) and Intercarrier Compensation (ICC) Transformation Order.[3] Additionally, this filing reflects impacts of the *2016 Modification of Average Schedules.*[4]

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[1] The Commission has established July 1, 2015 as the effective date for Annual Access Tariff filings made on 15 days' notice. *See July 1, 2015 Annual Access Charge Tariff Filings*, WC Docket No. 15-75, Order, 30 FCC Rcd. 2653 (2015) (*2015 Procedures Order*).

[2] *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) (*RoR USF Reform Order*).

[3] *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, *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).

Required carrier certifications are contained in Volume 1, Appendix D. Volume 1, Appendix D, Exhibit 1 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.[5] Volume 1, 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 Connect America Fund (CAF) ICC support.[6] Volume 1, 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.[7]

The frozen baseline revenue data included in this filing reflects data previously filed with the FCC and the Universal Service Administrative Company (USAC) for all study areas, except where the Commission has granted permission for a correction to be made, or has granted a waiver.[8] Specifically, this filing reflects corrections to reduce the frozen baselines for Decatur Telephone Company, Inc., Noxapater Telephone Company, Inc., and Farmers Mutual Telephone Company of Chapin d/b/a Chapin Tel. Co. (study area codes 280451, 280461 and 310694, respectively). This filing does not reflect any pending rule waiver requests to increase frozen baseline amounts. Should any of these waivers be granted, NECA will reflect revised data in Eligible Recovery amounts and CAF ICC estimates and will at

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[4] *See* National Exchange Carrier Association, Inc., 2016 Modification of Average Schedules, WC Docket No. 15-298 (filed Dec. 23, 2015) (*2015 Modification of Average Schedules*); Order, DA 16-480 (rel. May 3, 2016) (*May 3, 2016 Average Schedule Order).*

[5] 47 C.F.R. § 51.917(d)(1)(vii).

[6] 47 C.F.R. § 51.917(f)(2).

[7] These certifications will be filed with USAC on June 16, 2016 in support of carrier data underlying calculations of ARC rates and CAF ICC support amounts.

[8] *See Investigation of Certain 2012 Annual Access Tariffs,* WC Docket No. 12-233, WCB Pricing No. 12-09.

that time file a revised Tariff Review Plan (TRP) with the Commission and with USAC. In the interim, companies and NECA continue to make data certifications related to this filing that reflect frozen baseline revenue data previously filed with the Commission. An exception to this are the three study areas noted above.

This filing also reflects 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.[9] In this filing, one company has over recovery for the July 2014 – June 2015 test period and is identified in NECA's TRP by having an amount in the column showing over recovery. NECA is implementing the return of the excess recovery dollars to USAC concurrent with this annual access tariff filing. No companies have an under recovery amount for the July 2014 – June 2015 period.

This filing does not reflect frozen baseline changes, if appropriate, for Prairie Telephone Company, Inc. and Panora Communications Cooperative ("Panora") (study area codes 351271 and 351344, respectively), or the Local Switching rate increase for Panora, resulting from the April 1, 2015 acquisition of the Yale exchange by Panora. A waiver petition has been filed[10] but at time of this filing, it has not been approved. Therefore, Panora will continue to be assigned to their current Local Switching rate band in the interim. This filing does include, based on FCC staff direction, an imputation of Local Switching revenues at the higher Local Switching rate band for Panora for use in Panora's Eligible Recovery calculation, albeit this higher rate band cannot be filed before a waiver is granted.

[9] *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*).

[10] Panora Communications Cooperative and Prairie Telephone Company, Inc. Petition 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 (filed July 10, 2015).

Volume 2 of this filing contains cost support materials. Demand forecasting methods are described in Volume 3. Volume 4 describes CL 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, and are included in Volume 5 of this filing along with TS rate development.

The effect of CAF BLS Voice Support (previously described as Interstate Common Line Support (ICLS)) is reflected in the recovery of CL pool revenue requirements. This filing reflects the limitation of corporate operations expense amounts on CL revenue requirements as required by the *USF/ICC Transformation Order* for the calculation of CAF BLS Voice Support amounts.[11] LSS has been eliminated as a separate support mechanism for other RoR carriers as per the *USF/ICC Transformation Order*.[12] 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 are reflected in the recovery of TS pool revenue requirements.[13]

FUSCs are reflected as separate rate elements designed to recover 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. Projected test period FUSC revenue is displayed in Volume 4.

In its January 28, 2005 *Report* to the Commission, NECA stated it intended to introduce enhancements to its annual tariff filing documentation to enable the Commission to correlate reported

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

[12] *Id.* ¶ 257.

[13] The deduction of this amount attributable to LSS from a carrier's Eligible Recovery is currently under review. *See* Petition of FairPoint Communications, Inc. for Declaratory Ruling, WC Docket Nos. 07-135 and 10-90, CC Docket No. 01-92 (filed Dec. 10, 2015)(*FairPoint Dec 10, 2015 Petition*).

earnings data with proposed rates.[14] 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 final earnings results, and a reconciliation of proposed rate changes to those projections.[15] 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.[16] This analysis for TS special access revenue requirements is displayed in Volume 2 of this filing. 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*, including adjustments to average schedule company CABS costs,[17] reduced by 5 percent annually starting with the 2012/2013 test period.[18]

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[14] 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*).

[15] *Id.*

[16] *Id.*

[17] *See* National Exchange Carrier Association, Inc., 2012 Second Further Modification of Average Schedules, WC Docket No. 11-204 (filed May 25, 2012) (*2012 Second Further Modification of Average Schedules*).

[18] *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*).

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.[19] The following summarizes the changes in NECA tariff status effective July 1, 2016:

NECA Tariff	Number of Study Areas: Enter	Exit
Common Line	0	4
End User	1	4
Traffic Sensitive	2	27

For the 2016/2017 test period, there are 1,110 study areas participating in the CL pool and 996 study areas participating in the TS pool. Exhibit 1 displays those local exchange carriers (LECs) electing to change tariff participation.[20] Appendix A lists all pooling LECs and their tariff participation for the 2016/2017 test period.[21] Appendix B shows side-by-side tariff comparison for the study area electing to join NECA's tariffs.[22] Appendix C provides a list of the companies electing not to participate in NECA's Digital Subscriber Line (DSL) tariff effective July 1, 2016 as well as copies of their notifications to the

[19] 47 C.F.R. § 69.3(e)(9).

[20] NECA provided notice to the Commission of these pool election changes**.** *See* Letter from Jennifer Leonard, Director – Access Tariffs & Costs, NECA, to Matthew S. DelNero, Chief, Wireline Competition Bureau (filed Mar. 30, 2016).

[21] Appendix A reflects companies that have left the tariff since the 2015/2016 test period (including those who left outside the election period) as well as those anticipated to enter the tariff from July 1, 2016 through June 30, 2017. *See 2015 Annual Access Tariff Filing*, Vol. 1, App. A for a list of companies included in the 2015/2016 test period.

Commission. These companies are opting to offer DSL service on a detariffed common carrier basis, as permitted by the Commission's *Wireline Broadband Order*.[23]

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 Limitation on common line revenue requirements, and an authorized rate of return of 11.0 percent per the *RoR USF Reform Order*. Based on 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, including average schedule company adjustments for CABS costs, and reduced by 5 percent annually beginning with the 2012/2013 test period.[24]

Revenue requirement projections continue to reflect the shift of non-TS costs of local switch line ports from TS to CL, the reallocation of Transport Interconnection Charge (TIC) costs to all other access elements, and the reallocation of a portion of General Support Facilities (GSF) costs to the billing and collection category for those companies that use general purpose computers to provide billing and collection services to interexchange carriers (IXCs) through unregulated affiliates. These shifts are

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[22] This comparison identifies differences between the LEC's current tariff and NECA's tariff scheduled to become effective July 1, 2016. NECA tariff revisions reflect only changes from the currently effective NECA tariff.

[23] *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) (*Wireline Broadband Order*).

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

specified in the *MAG Order,* [25] and are described in detail in Volume 2 of this filing. These shifts also reflect the effects of the limitation on Corporate Operations Expense on common line revenue requirements.

Revenue requirement projections reflect nearly flat growth, due to network changes and continued deployment of more cost-efficient Ethernet and softswitch technologies. NECA continues to reflect the impact of the *Separations Freeze Order* in the development of projected revenue requirements. [26] Allocation factors and category relationships, where applicable, [27] in effect as of calendar year 2000, were frozen and used for test period projections.

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[25] *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*).

[26] *Jurisdictional Separations and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Report and Order, 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, until June 30, 2014, and a Further Notice of Proposed Rulemaking was released March 27, 2014 to extend the freeze through June 30, 2017. *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). *See also* Further Notice of Proposed Rulemaking, CC Docket No. 80-286, 29 FCC Rcd. 3340 (2014).

[27] The freeze of category relationships is optional for rate-of-return companies. *See* 47 C.F.R. § 36.3(b). There are 42 rate-of-return study areas in NECA's CL pool with frozen category relationships. This filing does not reflect requests by Pioneer or Terral to unfreeze their category relationships. *See* Petition of Pioneer Telephone Cooperative, Inc. for Waiver of 47 C.F.R. Section 36.3, 36.123-126, 36-141, 36.152-157, 36.191 and 36.372-382 To Unfreeze Part 36 Category Relationships, CC Docket No. 80-286 (filed Mar. 22, 2013); Petition of Terral Telephone Cooperative, Inc. for Waiver of 47 C.F.R. Section 36.3, 36.123-126, 36-141, 36.152-157, 36.191 and 36.372-382 To Unfreeze Part 36 Category Relationships, CC Docket No. 80-286 (filed Aug. 29, 2012).

Projected test period revenue requirements for 2016/2017 pool participants are displayed in Table 1. CL and TS special access revenue requirements for both Past Year Cost of Service (PYCOS) and 2016/2017 test period are calculated at an 11.0 percent RoR and reflect test period pool composition. The development of revenue requirements is described further in Volume 2.

Table 1
Summary of Revenue Requirement Changes
(in millions)

Access Element	PYCOS 2015	Test Pd. 2016/2017	Annual % Chg.*
Common Line	$1,393.1	$1,393.8	0.03%
TS Switched Access			
Interstate	N/A	$327.1	N/A
Intrastate	N/A	$186.3	N/A
Net Reciprocal Compensation	N/A	$30.8	N/A
TS Special Access	$607.4	$622.1	1.61%

* Annual percent change = (((test pd./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 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.[28] In this filing, the 2016/2017 projected Eligible Recovery and CAF ICC support includes the effects of true-up revenues and

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

exogenous costs from the 2014/2015 test period. Specifically, the true-up adjustments are for Transitional Intrastate Access Service revenue, Interstate Switched Access revenue, Reciprocal Compensation and Access Recovery Charges. The exogenous costs include incremental TRS Fund fees, Regulatory Fees and North America Numbering Plan Administration fees not recovered through capped switched access rates.[29]

Throughout this filing, views of data prior to inclusion of true-up data effects are referred to as "pre true-up view" while views of data after inclusion of true-up effects are referred to as "post true-up view".

Adjustments to the Eligible Recovery amounts underlying CAF ICC support estimates have been made to allow carriers to certify in Volume 1, Appendix D, 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.[30]

For TS pool participants for the 2016/2017 test period, there are 34 study areas that reported new double recovery events in NECA's 2016 CAF ICC Data Collection, 42 study areas that reported double recovery events in last year's 2015 CAF ICC Data Collection, and 64 study areas that reported double recovery events in the 2014 CAF ICC Data Collection, that result in a reduction to 2016/2017 Eligible Recovery. Double recovery reductions to the projected 2016/2017 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.

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[29] *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).*

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

Each of these study areas' projected 2016/2017 Eligible Recovery was reduced to avoid over recovery, as shown in NECA's TRP. The total reduction amount is displayed in Volume 5 Exhibit 11, Workpaper 2. Frozen baseline data was not adjusted for double recovery. Rather, these reductions were applied to projected 2016/2017 Eligible Recovery to avoid over recovery and to allow carriers to make the required certification that they are not seeking duplicative recovery.

Post true-up CAF ICC support for NECA TS pool members is estimated to be $319.6 million for the 2016/2017 test period.

Local Switching Support (LSS)

The *USF/ICC Transformation Order* indicates LSS is no longer a stand-alone support mechanism as of July 1, 2012.[31] 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 from USAC each month. The portion of this support attributable to LSS for these study areas totals $4.5 million and is deducted from projected eligible recovery prior to setting ARC rates for these study areas.[32]

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 as required by the *USF/ICC Transformation Order*.[33] In the *RoR USF Reform Order*, the Commission has defined CAF-

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

[32] *See FairPoint Dec 10, 2015 Petition*.

[33] *See id.* ¶¶ 227-233.

BLS Voice support to recover the same amounts previously recovered by ICLS.[34] The test period CAF-BLS Voice amount in NECA's CL pool is projected to be $967.6 million.

4. Demand Changes

Table 2 displays the projected change in demand between base period 2015 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.[35] Development of test period access rate element demand is discussed further in Volume 3.

[34] *RoR USF Reform Order*, ¶¶ 87-88.

[35] *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).

Table 2
Summary of Demand Changes
(in millions)

Access Element	Base Pd. 2015*	Test Pd. 2016/2017	Annual % Chg.**
Access Lines – CL	3.764	3.609	-2.8%
Interstate LS Minutes of Use (MOU) – TS	4364.8	3766.3	-8.1%
Intrastate Terminating Minutes of Use (MOU) – TS	2275.4	2015.7	-6.7%
Reciprocal Compensation Originating MOU – TS	NA	29.5	NA
Reciprocal Compensation Terminating MOU – TS	NA	58.1	NA
Special Access Constant Rate Revenue – TS***	$ 819.2	$ 783.1	-3.0%

*Base period 2015 is calendar year 2015 for access lines and special access revenue and a time period from October 1, 2014 through September 30, 2015 for interstate LS MOU, intrastate terminating MOU, reciprocal compensation originating MOU and reciprocal compensation terminating MOU.

** Annual percent change = $(((\text{test pd./base pd.})^{2/3})-1)*100$ for access lines and special access revenue.

Annual percent change = $(((\text{test pd./base pd.})^{12/21})-1)*100$ for interstate LS MOU, intrastate terminating MOU, reciprocal compensation originating MOU and reciprocal compensation terminating MOU.

*** Constant rate is defined as unbanded June 2016 rate.

5. Rate Changes

Table 3 displays some of the key rate changes proposed in this filing. The proposed change of -7.4 percent in the average TS switched access composite rate incorporates two rate changes that are described in Section 3 of this volume.[36] NECA proposes to decrease TS special access service rates by an average of 4.5 percent (4.6 percent after the billing cycle adjustment), with non-DSL rates decreasing

[36] The current TS switched composite rate was computed at current rates for the TS pool membership effective July 1, 2016. Rates charged by individual study areas will depend on their rate band placements. *See* Volume 5.

moderately and DSL rates increasing by a smaller percentage on average.[37] 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. Rates charged by individual study areas will depend on their rate band placement. The FUSC surcharge factor is set equal to the Commission's Third Quarter USF Contribution Factor.[38]

Table 3
Summary of Rate Changes from Current Rates

Element	Current Rates	Proposed Rates	Percent Change
TS Switched Access	$0.033943	$0.031417	-7.4%
TS Special Access:[39]			
• DS1 High Capacity	$1,334.06	$1,215.52	-8.9%
• ETS 100 Mbps	$1,965.74	$1,720.02	-12.5%
DSL WPP 3 Year - ADSL Voice Data			
• 1 Mbps/6 Mbps	$23.00	$24.22	5.3%
• 3 Mbps/15 Mbps	$34.07	$30.21	-11.3%

[37] This is a weighted average rate change that accounts for tariff rate changes and rate band movement.

[38] *See Proposed Third Quarter 2016 Universal Service Contribution Factor*, Public Notice, CC Docket No. 96-45, DA 16-658 (rel. Jun. 14, 2016).

[39] 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, two 300+ feet channel termination charges, 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 that support 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 2015 PYCOS data and to project costs of providing interstate CL and TS special access service for the 2016/2017 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.

Cost companies participating in NECA's tariffs conduct operations in 800 study areas, geographically dispersed throughout the country. Average schedule companies provide service in 310 study areas.[40] Exhibit 2 displays the proportion of cost and average schedule companies' share of the projected revenue requirement.

[40] These study area counts are for NECA's CL pool. Study area counts for companies participating in NECA's TS pool are 705 for cost companies and 291 for average schedule companies.

A. <u>PROJECTED REVENUE REQUIREMENT FORECAST</u>

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[41], and 2015, 2016 and 2017 company-specific forecast data provided by the companies.[42] 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 2015 are not yet available from these companies.[43]

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 recent historical data for special access in order 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 2011 through 2014 for those companies participating in the NECA TS pool for the 2016/2017 test period.

For the 2016/2017 test period, NECA developed "split year" forecasts for cost company study areas using forecasted revenue requirements for 2016 and 2017. After extensive review of projected data, including historical pool cost trends and results of weighted moving average trend models, NECA

[41] 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.

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

[43] 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.

developed PYCOS and test period cost data forecasts for all cost companies at the level of detail specified in the *2016 TRP Order*[44]. The development of cost company revenue requirements is described further in Volume 2.

Average schedule companies do not perform cost studies.[45] 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 line port component of the local switching formula, and part is based on the CL TIC shift component of the transport formulas. For TS, there were 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*.[46] 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 2015 monthly settlements to reflect formulas that became effective July 1, 2015, and changes expected to result from true-ups of pool reports.[47] 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

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[44] *See Material to be Filed in Support of 2016 Annual Access Tariff Filings*, WC Docket No. 16-71, Order, 31 FCC Rcd. 3557 (2016), Erratum (rel. May 5, 2016) (*2016 TRP Order*).

[45] *See* 47 C.F.R. § 69.606. *See also, 2016 Modification of Average Schedules.*

[46] *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.

[47] For consistency, the schedules that were effective July 1, 2015 were used to calculate the entire PYCOS period for average schedule companies.

average schedule formulas underlying the *2016 Modification of Average Schedules,*[48] settlement impacts resulting from the *MAG Order*, and projected demand for access services for the test period.

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.[49] 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 and TS tariff revenue requirements in proportion to the revenues associated with each.[50] TS tariff revenue requirements include ARC revenues and post true-up CAF ICC support revenues.[51]

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

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[48] *See May 3, 2016 Average Schedule Order.*

[49] 47 C.F.R. § 69.603(g).

[50] *Id.*

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

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.

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 beginning January 2003. The development of access lines demand projections is described further in Volume 3. Service category projections were based on actual September 2015 and projected September 2016 and September 2017 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.

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).[52]
- 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

[52] This approach has been used in previous annual tariff filings. *See, e.g., 2015 Annual Access Tariff Filing.*

forecasts in to 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 revenue using time series techniques (ARIMA) and individual study area special access revenue using the UCM method. NECA used October through December 2015 voice-data and data-only DSL billing data to split DSL forecasts between voice-data and data-only DSL services, and 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 and TS rate development processes used by NECA for this filing.

A. COMMON LINE RATE DEVELOPMENT

The CL revenue requirement consists of the base factor portion (BFP)[53] and universal service contributions.[54] This revenue requirement is recovered through end user subscriber line charges, ISDN Port charges, DS1 Channel Service Port charges, the Special Access Surcharge (SAS), the FUSC and the CAF BLS Voice universal service mechanism.

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.[55] 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

[53] 47 C.F.R. § 69.501(f).

[54] 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.

[55] 47 C.F.R. §§ 69.104(n), (o) and (p).

subscriber lines in use during the corresponding annual period.[56] 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.[57] 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. [58] Five multi-line SLCs also apply for each DS1 Channel Service arrangement where the customer provides the channelization. [59]

To determine the number of applicable SLCs for 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 2016/2017 test period. Based on the computed cost per line (CPL), each study area was assigned to one of fifteen target rate bands.[60] Rate levels for each target rate band were calculated based on the average cost for study areas falling within each target rate band group. For the 2016/2017 test period all study areas have their CPL above $9.20 and are assigned to the same rate band group. Test period end user revenue is displayed in Exhibit 3.

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[56] 47 C.F.R. § 69.104(n).

[57] 47 C.F.R. § 69.104(o).

[58] 47 C.F.R. § 69.104(p).

[59] *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).

[60] *See* Volume 4 for a discussion of the end user rate bands.

2. Federal Universal Service Charge (FUSC)

NECA pool members recover their universal service contributions via explicit end user surcharges.[61] These end user surcharges apply to interstate retail revenues including end user CL and retail special access revenues. For purposes of calculating these surcharges NECA has assumed that ARC revenues are interstate revenues subject to FUSC.

For the 2016/2017 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 2016 universal service contribution factor.[62] 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, except MLB 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.[63] For companies electing to adopt the 1/9 treatment on business Centrex service, NECA introduced MLB EUCL FUSC

[61] *See* 47 C.F.R. § 69.131.

[62] *See supra* note 38.

[63] *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 LEC's 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*).

optional rate banding in May 2003.[64] Based on the forecasted Centrex share of total multi-line business lines, each study area was assigned to one of twenty target bands.[65] Surcharge levels for each target band were calculated based on the weighted average of business Centrex share for study areas falling within each target rate band.

The optional MLB EUCL FUSC rate bands are displayed in Volume 4, Exhibit 6. Volume 4 Exhibit 7 shows the projected test period FUSC revenue of $120.2 million.

B. 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.[66] 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.[67] 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.[68] There are twenty-seven study areas exiting the NECA TS pool and two pool entries for the upcoming test period. The effect of these pool participation changes on the upcoming test period's

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

[65] *See* Volume 4 for a discussion of the MLB EUCL FUSC rate bands.

[66] *See* 47 C.F.R. § 69.114.

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

[68] *See* 47 C.F.R. § 51.909(a)(4).

switched access rates is a proposed increase of 0.589 percent. In addition, Commission rules prescribe the calculation of interstate switched access rates for exiting carriers.[69] 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 0.589 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*.[70]

In step 2 of CAF ICC reform, individual intrastate rates can be no higher than interstate rate levels.[71] For purposes of computing Eligible Recovery, ARC rates and estimated CAF ICC support amounts, NECA increased intrastate rates currently in parity with interstate rates by 0.589 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

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[69] *See* 47 C.F.R. § 51.909(a)(5).

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

[71] *See* 47 C.F.R. § 51.909(c)(1).

or correction adjustments, to compute each company's Eligible Recovery, ARC rates, and estimated CAF ICC support amounts.

1. Local Switching and Information Surcharge

The switched access local switching rate element was designed to recover costs associated with COE Category 3 investment and related expenses.[72] 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.[73] In that filing, NECA also elected to combine the terminating Local Switching and terminating Information Surcharge elements into a terminating End Office composite rate as permitted by Part 51 rules.[74] 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 0.589 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

[72] *See* 47 C.F.R § 69.106.

[73] *See* 47 C.F.R. § 51.909(d)(1).

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

- 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.

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.[75]

Local transport rates were increased by 0.589 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 in the *2011 Annual Access Tariff Filing*.

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

3. Summary of Switched Access Revenue

Exhibit 4, Workpaper 1 of this Volume summarizes switched access revenue requirement and expected revenues for the 2016/2017 test period, including ARC revenue, and post true-up CAF ICC revenue.[76] Revenue requirement and expected revenues are displayed for the interstate, intrastate, and reciprocal compensation categories.

4. Special Access Rate Development

Special Access rates proposed in this filing are, on average, 4.5 percent lower than the rates currently in effect (4.6 percent after the billing cycle adjustment).[77] However, proposed rate changes for individual special access services vary. For example, absent the effects of rate banding, rates for non-DSL services are decreasing and rates for DSL are increasing by a smaller percentage, to better align service revenues with costs.[78]

The number of special access DSL and non-DSL rate bands remains at fifty bands as established in the *2015 Annual Access Tariff Filing*. The DSL voice-data rate bands apply to DSL voice-data recurring rate elements. The DSL data-only rate bands apply to DSL data-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 2016/2017 test period.

[76] *See* 47 C.F.R. § 51.917.

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

[78] 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 rate-making methodology 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 2015) to develop test period forecasts and proposed rates.

2. Three views of 2015 special access earnings: an initial view that corresponds to the March 2016 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*, including average schedule company adjustments for CABS costs, and then 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. The table below displays the adjustments made to the March 2016 view of 2015 reported data to derive the 2015 projected levels defined as PYCOS. The resulting PYCOS data assumes the 2016/2017 test period pool composition, average schedule formulas in effect for the 2015/2016 test period, rates in effect since July 1, 2015 for the 2015/2016 test period, and an 11.0 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 period starting January 2015 and the upcoming test period; and (4) rate of return adjustments.

Table 4
PYCOS ANALYSIS FOR 2015
SPECIAL ACCESS (in millions)

	Pool Reported as of March 2016	Projection Adjust-ments	Conversions to Cost	Exit & Entrant Effects	RoR Change Adjust-ments	2015 PYCOS at 11.0% RoR
Revenues	$756.526	$153.960	N/A	-$91.243	N/A	$819.243
Average Schedule RRQ	$74.143	-$3.115	-$0.736	-$2.901	-$0.262	$67.129
Cost Company RRQ	$635.812	-$27.451	$0.606	-$83.125	-$2.486	$523.356
NECA Expenses	$16.015	$0.873	N/A	N/A	N/A	$16.888

The first column entitled “Pool Reported as of March 2016” displays actual data reported to NECA for calendar year 2015. 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, 2015. 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 $153.960 million is the net result of a positive revenue adjustment that resulted from the 15.4 percent special access rate increase in July 2015 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 2015. Another example of known changes is average schedule formula changes that took effect in July 2015. Data for the first half of 2015 were adjusted to reflect the formulas in effect beginning in July 2015. Remaining projection adjustments are consistent with the latest cost and demand projections for the entire time span from January 2015 through June 2017. 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 2015 pool results: average schedule to cost conversions, and entries and exits from the pool effective July 2016. Average Schedule companies have the option to convert to cost. For those companies that chose to do so during 2015 or during the test period, NECA calculates the effect these conversions have on the entire 2015 calendar year. The column entitled “Conversions to Cost” shows the results of this change: a $0.736 million decrease in average schedule revenue requirement and a $0.606 million 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 2015 PYCOS reflecting the pool membership for the upcoming 2016/2017 test period. The second to last column displays the effect of changing the authorized rate of return from 11.25 percent to 11.0 percent on revenue requirements: a $0.262 million decrease on average schedule revenue requirements and a $2.486 million decrease on cost company revenue requirements.

The next table 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 an 11.0 percent rate of return as displayed in the last column, last row, of Table 5.

Table 5

DERIVATION OF SPECIAL ACCESS 2016/2017 TEST PERIOD FILED AMOUNTS
SPECIAL ACCESS RATE ANALYSIS (in millions)

	Mar 2016 View of 2015 Pooled Reported	2015 PYCOS	Annual Growth Rates For 16/17 Test Period	16/17 Test Period (Revenues at Constant Rate*)	16/17 Test Period (Revenues at June 2016 Rate and Band)	16/17 Test Period (Revenues at July 2016 Rate**)
	A	B	C	D = B * (1 + C) ^ (3/2)	E	F
Total Revenue	$756.526	$819.243	-2.96%	$783.131	$651.114	$622.051
AS RRQ	$74.143	$67.129	9.90%	$77.339	$77.339	$77.339
CC RRQ	$635.812	$523.356	0.70%	$528.893	$528.893	$528.893
NECA EXP	$16.015	$16.888	-4.27%	$15.818	$15.818	$15.818
Total RRQ	$725.970	$607.373	1.60%	$622.051	$622.051	$622.051
RoR	13.36%				13.39%	11.0%

* Constant rate is defined as unbanded June 2016 rate. The annual growth is defined for each category as ((Test Period at Constant Rate / PYCOS) ^ (2/3))-1.
** Rate adjustments include a -4.5% decrease in revenue for the test period.

DERIVATION OF SPECIAL ACCESS PROPOSED RATE CHANGE

ROW 1	Total Test Period Revenue at June 2016 Rates and Bands	$651.114
ROW 2	Total Test Period Revenue Requirement	$622.051
ROW 3	Test Period Revenue Surplus (Deficit) at June 2016 Rates and Bands	$29.063
ROW 4	% Special Access Rate Change (ROW 3 / ROW 1 * (-100))	-4.46%
ROW 5	% Special Access Rate Change Adjusted for Billing Cycle Effect***	-4.65%
ROW 6	Total Filed Billed Revenue (ROW 1 * (1 + ROW 4))	$622.051

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

B. THREE "FORM 492" REPORT VIEWS

Actual pool earnings results for 2015 change on a monthly basis as participating carriers submit true-up data.[79] At the time of the March 28, 2016 Form 492 filing, the February 2016 view of pool earnings was reported to the Commission.[80] In this filing, NECA submits the March 2016 view of TS special access pool earnings and NECA's projected Final View of 2015 TS special access pool earnings.[81] The "Latest Projected" column is consistent with the growth projections used to develop proposed rate changes designed to target the authorized RoR.

[79] *See Report* at 6, *supra* note 12.

[80] *See* Letter from Suzanne L. Yerdon, NECA, to Steven Steckler, WCB (filed Mar. 28, 2016), attaching FCC Form 492.

[81] 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.

Table 6
March Form 492 Report, March Pool Results and Final Projections for 2015
(in millions)

Special Access

		March 492 Report*	March 2016 Pool Results	Final Projected Pool Results
1	Total Revenues	$747.499	$756.526	$756.583
2	Total Expenses and Taxes	$612.928	$620.627	$621.014
3	Oper. Inc. (Net Return) (Line 1 – Line 2)	$134.572	$135.899	$135.569
4	Rate Base – (Avg. Net Investment)	$1,008.361	$1,017.333	$999.037
5	Rate of Return Annualized	13.35%	13.36%	13.57%

*Based on February 2016 pool results.

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 2010/2011 through 2016/2017.

Table 7
Summary of Lines Growth

Test Period	Filed Lines Growth	Reported March 2016 Latest View Lines Growth
2010/2011	-5.5%	-5.5%
2011/2012	-5.1%	-5.0%
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%*	N/A

Summary of Interstate MOU Growth

Test Period	Filed MOU Growth**	Reported March 2016 Latest View MOU Growth
2010/2011	-11.4%	-11.5%
2011/2012	-12.9%	-11.4%
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%*	N/A

* Growth rate reflects March 2016 projections used in the annual filing

** Data based on the CAF ICC Data Collection

Summary of Special Access Revenue Growth

Test Period	Filed Special Access Revenue Growth	Reported March 2016 Latest View Special Access Revenue Growth
2010/2011	9.4%	13.8%
2011/2012	12.5%	15.4%
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%*	N/A

* Growth rate reflects March 2016 projections used in the annual filing

NECA's access line forecast improved slightly from -5.5 percent in 2010/2011 to –5.1 percent in the 2011/2012 test period and access lines loss has been declining since, with a forecast for the 2016/2017 test period of -2.8 percent.

NECA's TS interstate minutes decline has remained relatively steady for the past few test periods, at approximately -8.0 percent to -9.0 percent annually. This is a slower decline from the -11.5 percent growth for the 2010/2011 test period. 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 slowed down significantly since the 2011/2012 test period. The special access revenue growth rate was negative for the first time for the current view of the test period 2014/2015, and the filed growth rate continues to be negative for test period 2016/2017. 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. 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 2016/2017 projected special access revenue requirement growth rate reflects the slowing trend in special access growth and is 1.8 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 *2016 Modification of Average Schedules* to take effect in July 2016 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
2010/2011	4.9%	12.1%
2011/2012	4.7%	11.5%
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%	N/A

Average Schedule Companies

	Special Access	
Test Period	Filed Growth	Latest View Growth
2010/2011	4.3%	8.6%
2011/2012	5.5%	11.5%
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%	N/A

* March 2016 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

Test Period	Filed Growth	Latest View Growth
2010/2011	4.8%	11.4%
2011/2012	4.9%	11.5%
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%	N/A

* March 2016 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 2015 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 2015. 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 realistic view of 2015 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 proposed demand growth and TS special access rate changes are reasonable in light of historical trends, and are targeted to earn the authorized RoR.