

NATIONAL EXCHANGE CARRIER ASSOCIATION, INC.

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

TRANSMITTAL NO. 1665
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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.

Volume 2

DEVELOPMENT OF ACCESS ELEMENT REVENUE REQUIREMENTS

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DEVELOPMENT OF ACCESS ELEMENT REVENUE REQUIREMENTS

Section 1

INTRODUCTION

This volume describes methods and procedures used to develop calendar year 2021 Past Year Cost of Service Study (PYCOS) and 2022/2023 test period prospective revenue requirements.

LECs are classified as either cost or average schedule for the purpose of collecting PYCOS and test period cost data as described in Section 2. Section 3 of this volume describes the methods used to collect and process data, summarizes the results and discusses the development of the forecasted revenue requirement for the test period.

The forecasted revenue requirement includes allocated NECA administrative expenses in addition to LEC revenue requirements. This forecasted revenue requirement provides the starting point for the rate development processes described in Volumes 4 and 5 of this filing.

Provisions of the *USF/ICC Transformation Order*¹ require switched access revenue requirements to be frozen at base period levels, defined as amounts underlying the 2011 tariff filing², and then reduced by 5 percent annually beginning July 1, 2012. These provisions eliminate the need for NECA to develop a test period forecast of switched access revenue requirements.

¹ See *USF/ICC Transformation Order* ¶¶ 39, 851, 899. See also 47 C.F.R. §51.917.

² See *2011 Annual Access Tariff Filing*.

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DEVELOPMENT OF ACCESS ELEMENT REVENUE REQUIREMENT

Section 2

COMPANY CLASSIFICATION & DATA GUIDELINES

A. OVERVIEW

This section describes the processes NECA used to collect and prepare data for use in developing PYCOS and test period revenue requirements. Also included in this section is a description of the level of detail collected from companies and assumptions used in revenue requirement development. Exhibit 1 displays forecasted test period revenue requirements by access element.

B. DESCRIPTION OF COMPANIES

Cost companies participating in at least one of NECA's CL or TS pools operate in 602 study areas geographically dispersed throughout the country. Cost companies account for 87.1 percent of CL and 86.1 percent of TS pool revenue requirements for the upcoming test period. Details of the development of CL and TS special access revenue requirements, and derivation of test period switched access revenue requirement based on the *USF/ICC Transformation Order*, are provided in Section 2.C and Section 3 below.

Average Schedule companies participating in NECA's pools operate in 260 study areas. Average schedule companies do not prepare cost studies but settle on the basis of nationwide access settlement formulas updated annually by NECA. These formulas are the basis for the revenue requirements developed for average schedule companies in this filing. Details of the formulas used to develop revenue requirements for average schedule companies are included in

Section 3.A.3 of this volume. Average schedule study areas account for 9.8 percent of CL and 13.9 percent of TS pool revenue requirements for the upcoming test period.

Exhibit 2 in Volume 1 shows the allocation of revenue requirements among the pools by settlement type.

C. DATA GUIDELINES

CL and TS special access revenue requirements for both PYCOS and test period reflect pool participation for the upcoming test period. In addition to complying with the Commission's Part 32, 36, 54, 64, 65 and 69 rules, PYCOS and test period forecasts were developed in accordance with Commission directives including:

1. The test period is July 1, 2022 through June 30, 2023.
2. The PYCOS period is January 1, 2021 through December 31, 2021.
3. The impacts of the 2016 USF RoR Reform Order are reflected in the development of revenue requirements as follows:
 - a. The authorized rate of return is 9.75 percent for CL and special access.
 - b. Corporate operations expense limitation is applied for the PYCOS and test period years.³
 - c. Operating expense limitation is applied for the PYCOS and test period years.⁴
4. Uncapped consumer broadband-only loop costs determined using Part 36 and Part 69 rules are reassigned from the special access category to the CBOL category based on the *February 16, 2018 Order*.⁵ The impacts of the *2022 Modification of Average Schedules* are reflected in the development of revenue requirements.
5. Separations factors and category relationships, if applicable, are frozen based on amounts from calendar year 2000 data⁶, excluding the study areas that elected to

³ This calculation reflects the inclusion of broadband-only loops. See *March 23, 2018 Order* ¶ 88.

⁴ The operating expense limits for Tribal Lands and other study areas were adjusted as directed in the *Tribal Lands et al. Orders and Public Notices re: OpEx limits*.

⁵ See *February 16, 2018 Order* ¶ 9. See also 47 C.F.R. § 69.311 and 69.416.

⁶ See 47 C.F.R. § 36.3.

unfreeze their separations category relationships in 2019 as described in the 2019 Annual Access Tariff Filing.⁷ 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, 2020.⁸

6. Impacts of the *MAG Order*⁹ on revenue requirements are in accordance with the *USF/ICC Transformation Order* and are reflected as follows:
 - a. Shift of line port costs from TS to CL:
 - i. Shifts are based on 2011/2012 base period amounts and,
 - ii. Reflect the *USF/ICC Transformation Order* provision limiting corporate operations expenses on CL revenue requirements;¹⁰
 - b. Reallocation of Transport Interconnection Charge (TIC) costs to all other access elements:
 - i. Allocations are based on 2011/2012 base period amounts;
 - ii. Shifts to CL reflect the corporate operations expense limitation;¹¹
 - iii. Shifts to Switched Access (SW) elements reflect the annual 5 percent reduction of SW costs starting July 1, 2012, as required by the *USF/ICC Transformation Order*;
 - c. Reallocation of a portion of General Support Facilities (GSF) costs to the billing and collection category for those companies using general purpose computers to provide billing and collection services to IXC's through unregulated affiliates.
7. The calculation of the rate base, including cash working capital and Allowance for Funds Used During Construction (AFUDC), is in accordance with Part 65 of the Commission's rules.¹²

⁷ See 2019 Annual Access Tariff Filing Volume 2 Section 2.

⁸ 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, FCC 18-182 (rel. Dec. 17, 2018) (2018 Category Relationships Unfreeze Order) ¶ 29.

⁹ See *MAG Order*.

¹⁰ See *USF/ICC Transformation Order* ¶¶ 227-233.

¹¹ See *id.*

¹² The following study areas have changed their cash working capital methodology to a standard allowance methodology: Calaveras Tel. Co., Cascade Utilities, Inc., Clay County Rural Telephone Cooperative, Inc. d/b/a Endeavor Communications, Direct Communications Rockland, Inc., Dubois Telephone Exchange, Inc., Ducor Telephone Company d/b/a Varcomm, Haviland Tel. Co., Inc., Hood Canal Telephone Co., J.B.N. Telephone Company, Inc., Kalona Cooperative Telephone Company, Northern Telephone Cooperative, Inc., Northwestern Indiana Tel. Co., Range Telephone Cooperative, Inc., Range Telephone Cooperative, Inc., Southern Montana Telephone Company, Trans-Cascade Telephone Company, Unitel, Inc.

8. Switched access revenue requirement reflects provisions of the *USF/ICC Transformation Order*.¹³ PYCOS SW revenue requirement is based on base period switched revenue requirement, which is frozen at 2011/2012 levels, decreased by 5 percent per year. Test period switched revenue requirement is based on base period amounts reduced by 5 percent per year, less 2011/2012 NECA administrative expenses; and includes the addition of 2022/2023 NECA administration expenses allocated to the TS switched element. The development of NECA administrative expenses is detailed in Section 3.A.4 of this section.
9. NECA expenses are treated in accordance with Part 69 of the Commission's rules and reflect the addition of ARC revenues and CAF ICC support to total interstate SW revenues.¹⁴ Toll Free Database query costs are reflected as expenses for Part 32 accounting purposes and exclude the cost recovery of Local Number Portability queries.
10. The allocation of Other Billing and Collection (OB&C) expenses to the CL element associated with end user subscriber line billing is limited to 5 percent.

¹³ See *USF/ICC Transformation Order* ¶¶ 39, 851, 899. See also 47 C.F.R. § 51.917.

¹⁴ See NECA Petition for Clarification, WC Docket No. 10-90, *et al.* (filed Feb. 24, 2012).

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DEVELOPMENT OF ACCESS ELEMENT REVENUE REQUIREMENT

Section 3

REVENUE REQUIREMENT DEVELOPMENT

This section describes the development of revenue requirements. NECA's PYCOS and test period cost company revenue requirements are based on a combination of historical, current and prospective data for CL and special access. NECA projected test period average schedule company CL and special access settlements using the schedules underlying the 2022 *Modification of Average Schedules* along with projected demand and revenues described in section 3.A.3.

Section 3.A describes the data collection effort and methodology used to develop PYCOS and test period revenue requirements for cost and average schedule companies. Exhibit 1 provides a summary of prospective revenue requirement data by access element including the allocation of NECA expenses. Exhibit 2, pages 3 and 4, displays prospective cost data.

Section 3.B describes the impacts of universal service support programs on revenue requirement development and the methodology used to develop the PYCOS and test period universal service support program amounts.

A. POOL COST COMPANY REVENUE REQUIREMENT AND ACCESS ELEMENT
COST ALLOCATION

This section describes the method used to develop PYCOS and projected test period revenue requirements.

1. Data Submitted by Cost Companies

NECA requested cost forecasts from all cost companies participating in NECA's pools. Forecast data includes investment, expenses, reserves, taxes and the basic separations components needed to develop revenue requirements by access element. Cost companies considered the impact of recent increases in inflation, supply chain issues and labor shortages when developing PYCOS and test period forecasts. The data form used to collect cost data from the companies is included as Exhibit 3.

NECA worked with each company to develop allocator-based revenue requirements by Part 69 element. To support this effort, NECA collected detailed information necessary to process NECA's Part 36/69 allocation program, or collected Part 69 access element detail as processed through the companies' own Part 36 and Part 69 programs.¹⁵ These data were then aggregated to the NECA pool level. Since cost separations studies for calendar year 2021 are not yet available, the PYCOS data represent NECA's estimate of the 2021 results for the 2022/2023 pool membership. Test period revenue requirement projections for cost companies are based on historical pool cost study trends, monthly settlements data, and company-specific 2022 and 2023 forecast data at the Part 69 level of detail described above.

Study area test period revenue requirement forecasts were adjusted to incorporate changes to reflect the rules implemented by the *MAG Order* and incorporate provisions of the *USF/ICC Transformation Order*, *2016 RoR USF Reform Order*, and *February 16, 2018 Order* as detailed in Section 2 and Section 3.

¹⁵ In all cases, NECA staff compared forecast data with historical cost study data. NECA staff reviews each LEC's cost study for compliance with Commission rules.

Test period 2022/2023 revenue requirement forecasts for study areas with Paycheck Protection Program (PPP) loans were adjusted by the regulated interstate portion of loan amounts anticipated to be forgiven during the 2022/2023 test period. Aggregate revenue requirements were reduced by \$0.2M for special access and \$1.0M for common line.

NECA reassigned consumer broadband-only loop costs from the special access category to the CBOL category consistent with Part 36 and Part 69 cost allocation rules.¹⁶ CBOL costs totaling \$333.3M were removed from TS for the rate-of-return companies with broadband-only demand that currently participate in NECA's DSL tariff. CBOL costs assigned to the new CBOL category for the 293 CL cost pool members that have opted to have NECA tariff their CBOL rate equal \$763.2M.

The resulting forecast data was used to determine access element revenue requirement for the three-year period 2021, 2022 and 2023 using a RoR of 9.75 percent. All forecast data were then aggregated to the total pool level, with 2022 and 2023 data averaged to develop the company-supplied CL and special access test period forecasted revenue requirement. The company-supplied special access test period revenue requirement, shown on Exhibit 5, was then compared to the NECA projected revenue requirement developed as described below.

2. Projected Revenue Requirement Forecast

NECA continues to use independent projection techniques to evaluate the reasonability of forecast data submitted by companies and to determine whether adjustments to the company-supplied special access forecasts should be applied. NECA analyzed trends of recent historical revenue requirement data for special access.

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

Specifically, NECA applied weighted moving average trends to special access costs to assess the slowdown in special access revenue requirement growth. In its trend analyses, NECA used a consistent set of historical cost company data from 2018 through 2020 for those companies participating in the NECA TS pool for the 2022/2023 test period. Historical cost study revenue requirement data recalculated at a RoR of 9.75 percent were used to project revenue requirements for calendar years 2021, 2022 and 2023. An average of 2022 and 2023 data was used to develop a test period projection.

After extensive review of the company-supplied data, historical pool cost study trends, monthly settlements data, and the results of the weighted moving average trends, NECA made adjustments to the company-supplied forecasts as described below.

Historically, company-supplied special access revenue requirements have been under-forecasted, and adjustments to special access revenue requirements have been made by NECA in prior annual filings to be consistent with average yearly growth rates. Based on the data in Exhibit 5, the average annual growth rate from 2018 to 2020 for the consistent sample of companies is approximately -1.8 percent. This is compared with -2.2 percent average annual growth from 2021 through 2023 reflected in the company-supplied forecasts. The slight decrease in costs is mainly driven by the migration from voice-data lines to broadband-only loops, replacement of more expensive T1s with cheaper Ethernet, network consolidations and increasingly depreciated equipment. To balance the results of historical trend analyses with the company supplied forecasts, NECA adjusted the test period company-supplied forecasts from \$228.7M to \$231.5M, a difference of \$2.8M, resulting in a test period over PYCOS growth rate of -1.9 percent, as compared to the company-supplied test period over PYCOS growth rate of - 2.0 percent.

Exhibit 4 summarizes special access revenue requirements and growth rates underlying this filing. Data underlying the development of the special access trend results are shown on Exhibit 5.

3. Average Schedule Companies

Average schedule companies' settlement amounts were developed by settlement category and assigned to Part 69 elements. PYCOS revenue requirements were produced using historical 2021 monthly settlements based on average schedule formulas in effect on July 1, 2021 using the authorized RoR of 9.75 percent.¹⁷ Test period average schedule settlement projections were produced based on the *2022 Modification of Average Schedules* formulas for effect July 1, 2022 and the projected level of demand quantities for the test period. The test period projections include the impacts of the *MAG Order*, the corporate operations and operating expense limitation on CL revenue requirements. This tariff filing reflects changes to projected TS switched average schedule revenue requirement to conform with the requirements of the Commission's *USF/ICC Transformation Order*.¹⁸ According to the Order, NECA developed average schedule companies' switched access revenue requirement, recovered through the Central Office, Line Haul Distance Sensitive, Line Haul Non-Distance Sensitive, Intertoll Dial Switching, Signaling System 7, and Equal Access formulas, using 2011/2012 tariff filing frozen switched TS baseline revenue requirements, adjusted by CABS cost and reduced by 5 percent per year beginning July 1, 2012.

Exhibit 6 displays an attribution analysis to reconcile the test period average schedule

¹⁷ Settlements for each month were adjusted to reflect expected remaining changes resulting from true-ups of pooling data developed using historical trends of pool true-up impacts.

¹⁸ *USF/ICC Transformation Order* ¶¶39, 851, 899. *See also* 47 C.F.R. § 51.917.

forecast with the *2022 Modification of Average Schedules*. The *2022 Modification of Average Schedules* displays CL and TS settlement levels, calculated using the September 2021 view of July 2021 demand data. These CL and special access values are displayed in Column (A) of Exhibit 6. In contrast, the 2022/2023 test period settlements use projected demand data. These values are shown in Column (L) of Exhibit 6. The reconciliation steps are shown in Column (B) through Column (K) of Exhibit 6.

4. NECA Expense Recovery

This filing reflects the Commission's rules governing NECA expense recovery.¹⁹ These rules require Category I expenses associated with the preparation, defense, and modification 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, be divided among three components in proportion to the revenues associated with each component. The three components are:

- (1) Category I.A, expenses apportioned by the Universal Service Fund and Lifeline Assistance revenues.
- (2) Category I.B, expenses apportioned by the sum of NECA CL Pool and CAF BLS revenues.
- (3) Category I.C, expenses apportioned by NECA TS pool revenues, including ARC revenues and CAF ICC support.

Exhibit 7 displays NECA administrative expenses divided among the three components. In this filing, NECA allocated Category I.B expenses to each individual study area based on the proportion of the study area's CL interstate revenue, defined as CL revenue requirement

¹⁹ See 47 C.F.R. § 69.603.

including CBOL, to the total pool CL revenue requirement including CBOL. NECA allocated Category I.C (*i.e.*, TS) administrative expenses between TS switched access and TS special access rate elements based on the relative pooled interstate revenues. Switched access revenues are defined as the sum of projected interstate billed switched access revenue, Access Recovery Charge (ARC) revenue, and Connect America Fund Intercarrier Compensation (CAF ICC) support,²⁰ and pooled special access revenue is defined as interstate special access revenue requirement. NECA expenses allocated to each element are allocated to individual study areas using the same method as for CL described above.

B. IMPACTS OF UNIVERSAL SERVICE SUPPORT PROGRAMS ON RECOVERY OF REVENUE REQUIREMENTS

1. Connect America Fund Broadband Loop Support (CAF BLS)

In the *MAG Order*, the Commission created ICLS as an explicit universal service support mechanism. ICLS was calculated on a study area basis by subtracting the sum of the study area's projected end user revenue, special access surcharge revenue and line port charge revenue from its projected CL revenue requirement. Calculations reflected the impact of the corporate operations expense limitation on CL revenue requirement.²¹ In the *2016 RoR USF Reform Order*, the Commission defined CAF BLS Voice support to recover the same amounts previously recovered by ICLS, subject to limitations on Operating Expense amounts. Test period CAF BLS Voice for companies in NECA's CL pool is projected to be \$413.9M. In the *2016*

²⁰ See NECA Petition for Clarification, WC Docket No. 10-90, *et al.* (filed Feb. 24, 2012) (*2012 NECA Clarification Order*).

²¹ See *USF/ICC Transformation Order* ¶¶ 227-233.

RoR USF Reform Order, the Commission also expanded the CAF BLS mechanism to recover CBOL costs (CAF BLS Broadband-only). CAF BLS Broadband-only support for the 352 NECA CL tariff participants that have opted to have NECA tariff their CBOL rate totals \$546.6M for test period 2022/2023.

2. CAF ICC Support

In the *USF/ICC Transformation Order*, the Commission established CAF ICC support to partially offset Eligible Recovery resulting from prescribed capping of interstate switched access rates and the reduction in intrastate terminating switched access rates. CAF ICC support is calculated on a study area basis by subtracting the study area's ARC revenue from its Eligible Recovery which, for test period 2022/2023, is defined as the difference between its base year revenue requirement reduced by 5 percent annually as prescribed in the *USF/ICC Transformation Order* and its switched access charge revenue calculated based on the *USF/ICC Transformation Order*. The effects of the 2020/2021 true-up of revenues and exogenous costs as prescribed by Section 51.917(d)(1)(iii) of the Commission's rules²² is also reflected as an adjustment to 2022/2023 Eligible Recovery.

Estimated test period CAF ICC support for companies in NECA's TS pool is projected to be \$230.5M. This amount reflects the impact of the test period 2020/2021 true-up, the limited ARC revenue imputation on broadband-only loops required by the *2016 RoR USF Reform Order* and the *February 16, 2018 Order*, as well as adjustments related to the *8YY Access Charge Reform Order*.

²² See 47 C.F.R. § 51.917(d)(1)(iii).

3. Universal Service Contributions

NECA member companies' universal service contribution amount was calculated using a single contribution factor based on interstate and international end user telecommunications revenues or interstate retail revenue (IRR).²³

The projected universal service contribution amount for NECA's CL pool members is derived from data included in the FCC Public Notice and test period demand projections supplied to NECA by pool members. NECA CL pool companies report subscriber line charge rates and subscriber line counts. NECA followed these steps to develop its test period universal service contribution projection:

- For companies incurring universal service contribution expense,²⁴ quarterly IRR for the test period was calculated as the sum of Subscriber Line Charge revenue (excluding lifeline revenues), ISDN port revenue, DS1 line port revenue, Special Access Surcharge revenue, ARC retail revenue and special access retail revenue. Effective July 3, 2018, rural ILECs were eligible to forbear from assessing FUSC on ADSL, SDSL and CBOL revenues. In this filing, all CL pool members have opted to forbear from assessing FUSC on these services.²⁵
- Universal service contribution amounts were calculated for the test period by summing the IRR for each quarter of the test period²⁶ and multiplying the resulting sum by the universal service contribution factor.²⁷

²³ See 47 C.F.R. § 54.709 (a)(1).

²⁴ Section 17.7 of NECA F.C.C. Tariff No. 5 lists NECA pool participants that contribute to Federal Universal Service Fund.

²⁵ See 2018 USF Forbearance Order.

²⁶ The quarterly universal service contribution calculation used projected interstate retail revenues. The contribution base is the sum of the four quarters IRR beginning in the third quarter of 2022.

²⁷ *Proposed Third Quarter 2022 Universal Service Contribution Factor*, Public Notice, CC Docket No. 96-45, DA 22-623 (rel. June 9, 2022).

Based on the above methodology, NECA projects the test period universal service contribution amount for NECA's CL Pool members listed in Section 17.7 (A) of NECA F.C.C Tariff No. 5 to be \$44.2M.

Exhibit 8 displays the projected test period universal service contribution levels on applicable end user retail revenues.