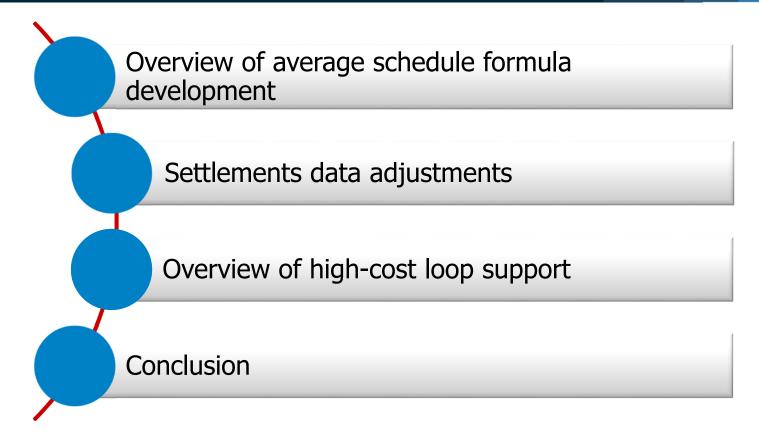


Average Schedule Update

Presented by:
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Agenda





Overview of AS formula development Average schedule versus cost companies

- Cost companies are local exchange carriers that receive compensation based on actual interstate investment and expenses
 - Calculated each year from detailed cost studies
- Average schedule companies are local exchange carriers that receive settlements through statistical formulas developed by NECA
 - Smaller local exchange carriers have limited resources
 - Average schedule method reduces administrative costs by eliminating need for detailed accounting and engineering studies



Overview of AS formula development Key steps in the average schedule study

Settlement formula development plan

Account data projections
using year-to-year growth
rates of sample companies

Revenue requirements
allocate forecast accounts

- Average schedule task group review
- NECA board approval
- File the proposed settlement formulas with the FCC
- FCC reviews and approves formulas



Cost allocation methods

using data from sample

cost companies

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Overview of AS formula development

- Average schedule task group
 - Represents the local exchange carrier industry
 - Provides input to NECA regarding the changes to their networks that can be reflected in the settlement formulas
 - Meets periodically throughout the year
 - Reviews the steps taken in developing the proposed formulas
 - Assists the NECA board of directors in evaluating final proposed formulas



Overview of AS formula development Sampling and data collections

- Samples are chosen using statistical methods to ensure sample representative of average schedule population using relevant attributes
- Five annual samples determined once every five years
 - Some companies provide data only once in the five-year period
 - No company is sampled two consecutive years within each five-year period
- Average schedule samples
 - Companies provide regulated Part 32 accounting information in annual data collections
 - About 80 companies are sampled each year



Overview of AS formula development Sampling and data collections

- Cost samples
 - Companies provide Part 32, Part 36 and Part 69 accounting information
 - About 80 companies are sampled each year
- 2025 AS study
 - Year 5 (2023) sample from 2019-2023 sample design cycle
 - 2021 and 2022 AS accounting data
 - Year 1 (2024) sample from 2024-2028 sample design cycle
 - 2022 and 2023 AS accounting data



Overview of AS formula development Cost separation and allocation methods

- Factors calculated based on 2023 cost study from sample cost companies
 - Separations factors fractions of unseparated accounts (Part 32) allocated to the interstate jurisdiction (Part 36)
 - Allocation factors fractions of Part 36 accounts allocated to access categories (Part 69)
- NECA develops statistically significant models to relate these factors to the relevant demand variables
 - Applied to sample average schedule data to derive AS factors
- Allocated accounts are used to develop the Part 69 access category revenue requirements for settlement formulas development



Overview of AS formula development Cost separation and allocation methods

- Three model forms
 - Simple, straight-line model form: P = a + bX
 - Proportional model form: P = bX
 - Weighted average ratio form: P = a



Overview of AS formula development Cost separation and allocation methods

Example – COE Category 4.11 + 4.12 (parts 36 and 69 models)

<u>COE Categories 4.11 + 4.12</u> - Wideband Exchange Line + Exchange Trunk (P36 Separations Model)

If interstate Cat. (4.11 + 4.12) COE is not equal to zero, then:

$$%Int. = \frac{Interstate\ COE\ Cat.\ 4.11 + Cat.\ 4.12}{Total\ COE}$$

= 0.3906 if the study area provides DSL service outside NECA tariff, or

= $0.3988 \times DSL$ Lines per Line + $0.2824 \times CBOL$ Lines per Line

<u>COE Categories 4.11 + 4.12</u> - Exchange Circuit (P69 Allocations Model)

If Special Access Revenues are not equal to zero:

$$%CL = 0.00$$

$$%CO = 0.00$$

%SA = 0.01538, if the study area provides DSL service outside NECA tariff, or

$$%TR = 0.00$$

If Special Access Revenues equal zero:

$$%CL = 0.00$$

$$%CO = 0.00$$

$$\%SA = 0.00$$

$$\%TR = 1.00$$



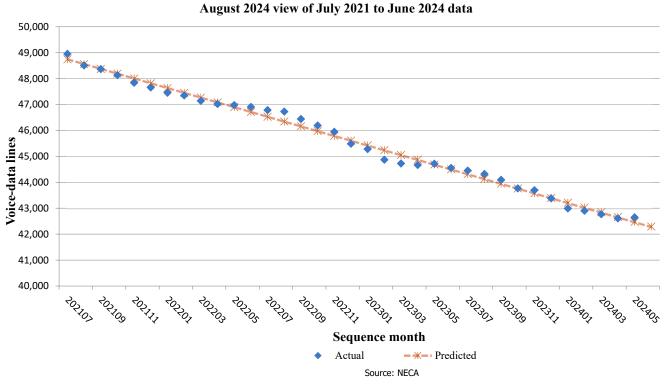
- Projection of historical accounting data to the test period (July 2026 June 2027) is necessary for the development of settlement formulas
- Account growth analysis
 - Year-over-year growth ratio for each account
 - Composite account growth ratios for additional reliability by averaging ratios from two annual samples
 - Arithmetic average of the adjusted 2023 sample annual growth ratio (2021 -> 2022) and the 2024 sample annual growth ratio (2022 -> 2023), stratified by study area size
 - Multiyear growth ratios reflect projected growth from the accounting year to the test period (4.5 years for 2022 accounts, 3.5 years for 2023 accounts)



- Demand projections using time series regression models with 36-month data
 - Calculate average monthly demand values across all sample study areas
 - Develop regression model relating demand values to monthly sequence number (i.e., number of months since starting point)
 - Use regression model to estimate monthly demand values in test period
- Access lines, DSL voice-data lines, CBOL lines and non-DSL revenues are projected from base period (July 2024 – June 2025) to test period (July 2026 – June 2027)



Example – DSL voice-data line growth model (2024 study)





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Summary – accounting and demand data projections

Data type	Base period	Test period	Years-to-test period
Accounting data (Year 1)	2022		4.5
Accounting data (Year 2)	2023	July 2026 – June 2027	3.5
Demand data	July 2023 – June 2024		2



- Non-DSL demand adjustments (TRI calculations)
 - Separate calculations performed for non-DSL ETS and other non-DSL revenues
 - Update current tariff rates from time of filing to match those in effect during settlement months, for each individual study area
 - Rate band adjustment = ratio of revenues from rates charged by each study area in its band to revenues it would have charged at uniform rates
 - Ratio period adjustment = ratio of uniform rates at the time of the filing (December) to uniform rates in each upcoming settlement month

Non-DSL ETS TRI = 1 / (rate period adjustment x rate band adjustment)



Illustrative TRI calculations

	А	В	С	С
Study area	Rate band	Rate band adjustment	Rate period adjustment	TRI = 1 / (B x C)
1	10	1.47	0.95	0.7161
2	Uniform rate	1	0.95	1.0526
5	5	0.64	0.95	1.6447



Overview of AS formula development AS revenue requirement derivation

- Separations (Part 36) and allocations (Part 69) models are applied to each average schedule study area to apportion account values
 - Separations models are applied to total account values (Part 32) to determine interstate account values
 - Allocations models are applied to interstate account values (Part 36) to determine access category account values (Part 69: CL, SA, etc.)
- Allocated access category accounts are used to calculate access category revenue requirements, which are then used to develop settlement formulas
- Study area revenue requirement is further allocated into CBOL, VD and non-DSL components using separate models



Overview of AS formula development AS revenue requirement derivation

 Example – COE Category 4.13 (separations and allocations, sum of all sample study areas)

Category	What it represents	2024 study percentage
Part 36 (separations)	Interstate category portion of total for this account	10.73%
Part 69 (CL allocations)	Common line category portion of interstate for this account	99.51% of interstate (~10.68% of total)
Part 69 (SA allocations)	Special access category portion of interstate for this account	0.49% of interstate (~0.05% of total)



Overview of AS formula development Settlement formula development

Current average schedule formula	Compensates for interstate portion of costs associated with:	Basis for settlement	
Common line* – CL access line and CBOL	Subscriber lines (e.g., cable, drop, protector, circuit equipment), broadband-only loops	Access lines, exchanges, consumer broadband-only loops	
Special access – non-DSL	Dedicated special access non-DSL facilities	Special access non-DSL revenues (including ETS), exchanges	
Special access – DSL voice-data	Dedicated special access DSL facilities	DSL voice-data lines	
Special access – broadband-only second mile	Second mile cost recovery for broadband-only loops	Broadband-only lines for companies with second mile facilities	

*Note: Common line and CBOL formulas do not apply to companies on model support



Overview of AS formula development Settlement formula development

Current average schedule formula	What it calculates	What it is based on
CL rate-of-return factor	CL settlements are adjusted to reflect the achieved pool rate of return	CL pool RoR
TS and switched rate-of- return factors	TS settlements are adjusted to reflect the achieved pool rate of return	TS and switched pool RoR
High-cost loop support*	Cost per loop used for support payment	USF loops and exchanges

*Note: Common line, CBOL and HCL formulas do not apply to companies on model support



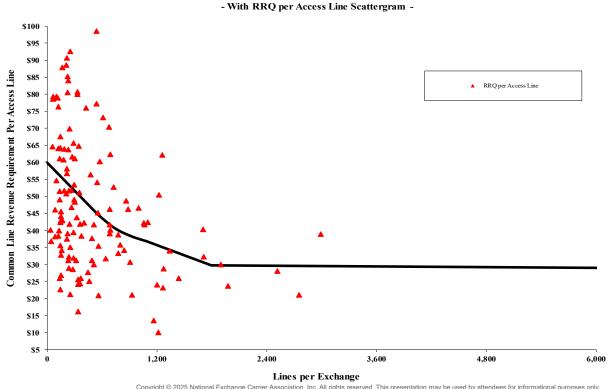
Overview of AS formula development Common line access line formula

- Current common line basic formula
 - Common line settlement = settlement access lines × common line settlement per access line
 - Common line settlement per access line:
 - If LPE 550 or less: $$60.041485 ($0.027885 \times LPE)$
 - If LPE between 550 and 1,100: \$28.762742 + (\$8,768.10 / LPE)
 - If LPE between 1,100 and 1,800: \$47.688317 (\$0.009959 \times LPE)
 - If LPE greater than 1,800: $0.8849 \times \{\$28.762742 + (\$8,768.10 / LPE)\}$



Overview of AS formula development Common line access line formula

Common line access line formula in 2025/2026





Source: NECA

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- Data-only loop revenue requirement was shifted from special access to common line per the USF reform order released on March 30, 2016*
 - These costs for average schedule companies are calculated using a CBOL formula and are recovered through end user charges and CAF BLS support
- AS CBOL settlement per broadband-only line is the product of a CBOL factor and the CL access line formula
 - Insufficiency of data for independent CBOL formula
 - Inspired by FCC rule 69.311(b), NECA developed a method to estimate the relationship between CL and CBOL revenue requirements



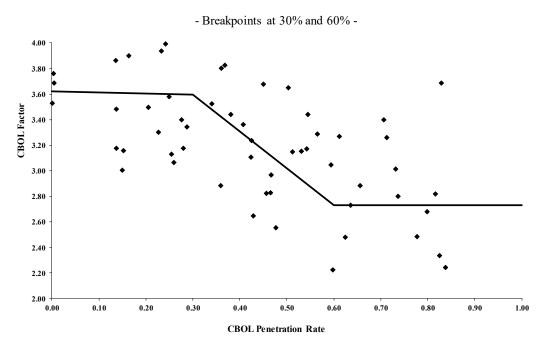
- Consumer broadband-only loop formula:
 - Settlement = corporate operations expense and Opex limit factor × PPP loans adjustment factor × (CBOL factor × common line settlement per access line) × broadband-only lines
- Improvement of CBOL factor development over past three study years:
 - Prior to 2023 study: One-size-fits-all factor
 - Average ratio of CL RRQs at 100% and 25% allocation (surrogate method)
 - 2023 study: Three-tiered CBOL factors
 - Used actual sample cost company CBOL and CL RRQs
 - Stratified by CBOL penetration rates



- Improvement of CBOL factor development over past three study years (cont.)
 - 2024 study: Three-tiered regression model consisting of two downward-sloping lines followed by a flat line
- Current (2025-2026) CBOL factor:
 - If CBOL_L 30% or less: 3.62234 (0.08528 × CBOL_L)
 - If CBOL_L between 30% and 60%: $4.46249 (2.88579 \times CBOL_L)$
 - If CBOL_L greater than 60%: 2.73102



CBOL factor fit to CBOL deployment data









Overview of AS formula development Settlement formula adjustments

- Settlement formulas are adjusted for the following:
 - Corporate operations expense and OPEX limits (CL and CBOL only)
 - ~1.18% reduction for the current 2025 settlement formulas
 - Paycheck Protection Program loans (if applicable)
 - Adjustment factor applied to compensate for forgiven PPP loans following COVID
 - ~0.17% reduction for the current 2025 settlement formulas
 - Line port and TIC shift amounts, frozen at 2011 tariff filing level
 - Up to 18% of calculated total settlements
 - CL, TS and switched rate-of-return factors



Overview of AS formula development Average schedule trends

Recent average schedule formula changes
 Study years

Formula	2020	2021	2022	2023	2024	Formula % of total in 2024
Common line access line	5.4%	8.9%	-1.4%	4.5%	9.8%	25.3%
Common line CBOL	6%	2%	1.3%	-5.3%	8.1%	47.9%
Special access total	5.6%	0%	6.2%	1%	8.5%	14.6%
Switched access	-5%	-5%	-5%	-5%	-5%	9.9%
Traffic sensitive total	0.9%	-2.2%	1.1%	-1.7%	2.6%	24.5%
Overall total	3.7%	2.8%	0.3%	-1.4%	6.9%	100%

Source: NECA



Overview of AS formula development

- Why do average schedule formulas change?
 - Investment patterns
 - Accumulated depreciation levels
 - Expense trends
 - Demand changes
 - Technology changes
 - Rule changes



Settlement data adjustments

- What causes prior period data changes?
 - New demand data from AS companies reported to settlements
 - Any change to achieved RoR
 - New data from cost companies
 - New data from average schedule companies
 - New support amounts from USAC
 - AS settlements are adjusted to reflect the pool achieved rate of return via the RoR factor formulas



Settlement data adjustments

- Common line pool RoR adjustment
 - Trues up to the authorized 9.75% rate of return
- Traffic sensitive pool RoR adjustments
 - Switched RoR for the switched portion of the TS pool trues up to 11.25%
 - Combined switched and special access RoR (9.75%) adjustment
- ROR formulas example
 - CL RoR factor = $0.716898 + (2.90361 \times CL RoR)$



Settlement data adjustments

- Tools for anticipating settlement changes
 - NECA AS webpage (Member Services > Average Schedule Company Resources > Worksheets and Tools)
 - Login required
 - Settlement analysis worksheet
 - AS forecasting tool
 - Default: Future years = current year
 - Test alternative rates of return and future year demand inputs



- Support for nonmodel companies with high local loop costs
- HCL support per loop based on each ILEC's cost per loop
 - Cost companies' SACPL is determined using actual costs
 - Average schedule companies' SACPL is determined with HCL CPL formula



https://www.numiconsult.com



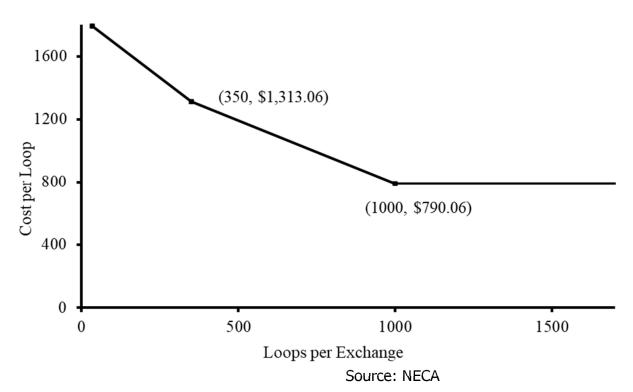
- SACPL is compared to frozen national average cost per loop
 - National average CPL is \$647.87 since July 2015
- If SACPL greater than 115% of frozen NACPL, ILEC qualifies for HCL support
 - Pro rata adjustment factor applied to meet the fund cap
 - Projected factor for 2026 is around 58%
 - Other support limits may also apply



- Cost companies' SACPL
 - ILECs annually report account level data
 - E.g., cable and wire facility investment (2410) or network operations expenses (6530)
 - ILEC SACPL calculated using 26-step algorithm
- Average schedule companies' SACPL
 - Computing categorization factors from Subset 3 cost companies
 - Determining sample AS companies' loop costs using these factors
 - Developing the HCL CPL formula, relating CPL to loops per exchange



Proposed average schedule CPL formula for 2026





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- Uncapped payment per loop (EAPL) algorithm
 With a frozen NACPL of \$647.87 since July 2015:
 - If CPL < = \$745.05 (115% of NACPL) then uncapped EAPL = 0
 - If \$745.05 < CPL <= \$971.81 (150% of NACPL), then uncapped EAPL = 0.65 x (CPL \$745.05)
 - If CPL > \$971.81, thenuncapped EAPL = \$147.39 + 0.75 x (CPL \$971.81)
- Capped EAPL = uncapped EAPL x pro rata adjustment factor
- Total annual HCL payments = capped EAPL x USF loops



- 2026 AS HCLS payment
 - 65 nonmodel AS study areas qualify for HCLS payments in 2026, for a total projected payment of around \$7.4M
 - Currently 57 nonmodel AS study areas receive HCLS payments, for a total of \$5.9M



Conclusion NECA appreciates company feedback

- Member company involvement
 - We want to hear from members!
- Comments, suggestions or concerns?
 - Please contact your NECA regional office
- Contact NECA prior to implementing major network configuration changes
 - We can help assess settlement and support impact of planned changes



thank you.



Scholow | Scholo



Acronyms

AS Average Schedule

ASTG Average Schedule Task Group

COE Central Office Equipment

CWF Cable and Wire Facilities

CAF BLS Connect America Fund Broadband Loop Support

CBOL Consumer Broadband-Only Loop (Line)

CBOL_L
 CBOL Penetration Rate (CBOL per Loop/Line)

CL Common Line

DSL Digital Subscriber Line

EAPL Expense Adjustment Per Loop

EC Exchange Carrier

ETS Ethernet Transport Service

FCC Federal Communications Commission

HCL High-Cost Loop

HQ Headquarters



Acronyms

LPE Loops (Lines) per Exchange

NACPL National Average Cost Per Loop

NECA National Exchange Carrier Association

OpEx
 Operating Expense

RoR Rate of Return

RRQ Revenue Requirement

SA Special Access

SACPL Study Area Cost Per Loop

TIC Transport Interconnection Charge

TP Tariff Period

TRI Tariff Rate Index

TS Traffic Sensitive

USF Universal Service Fund

VD Voice-Data

