



Beyond the Numbers: Industry Trends and Insights From NECA Data

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Agenda

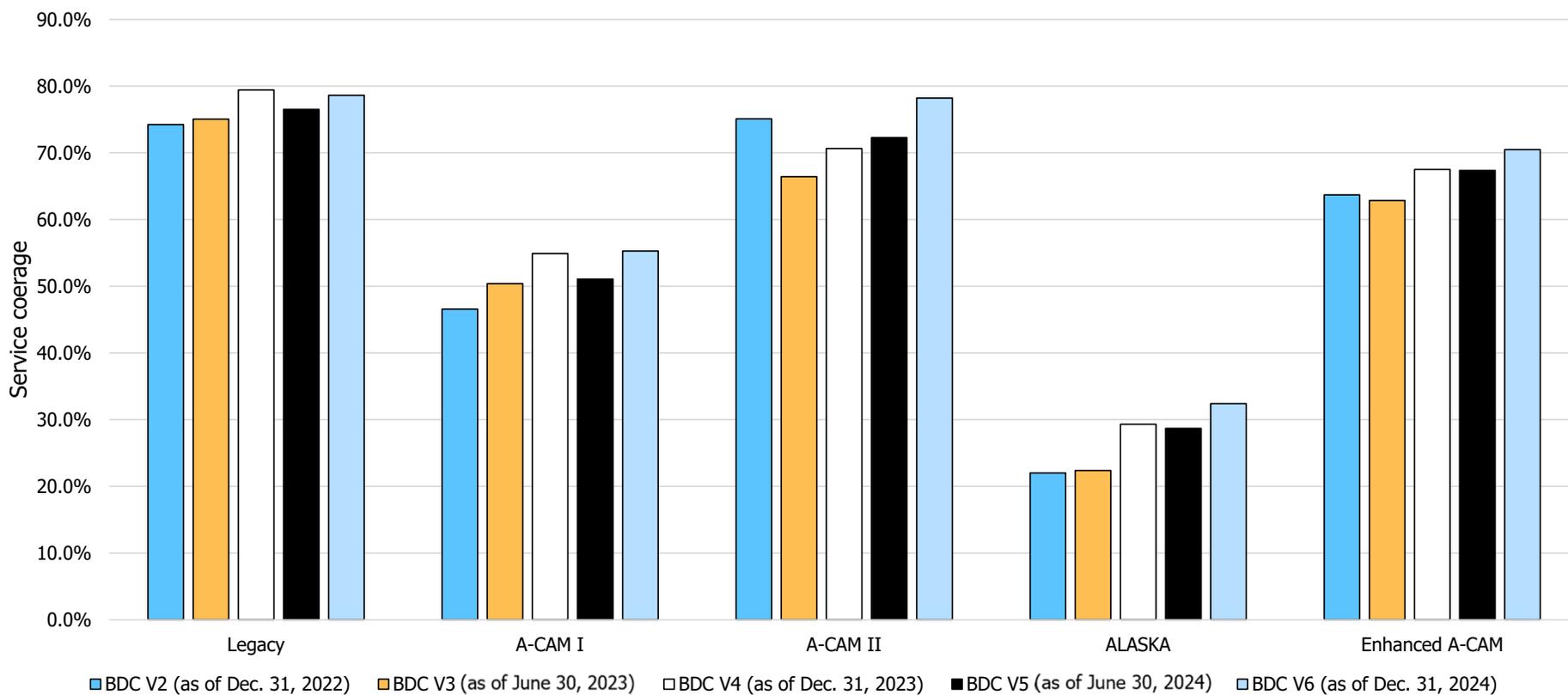


Insights from BDC

Data sources

- Broadband Data Collection (and Broadband Fabric) available in six versions:
 - V1 as of June 30, 2022, to V6 as of Dec. 31, 2024
 - Updated semiannually
- V1 is the first time BDC rolled out and the data is not very reliable; using V2-V6
- Coverage shown for locations serviced by ILEC in the ILEC's study area compared to total locations in the study area, averaged by model type
- Study areas on Enhanced A-CAM support in V2 through V4 correspond to would-be electors. The would-be Enhanced A-CAM electors are also included in legacy, A-CAM I and A-CAM II support groups for those versions

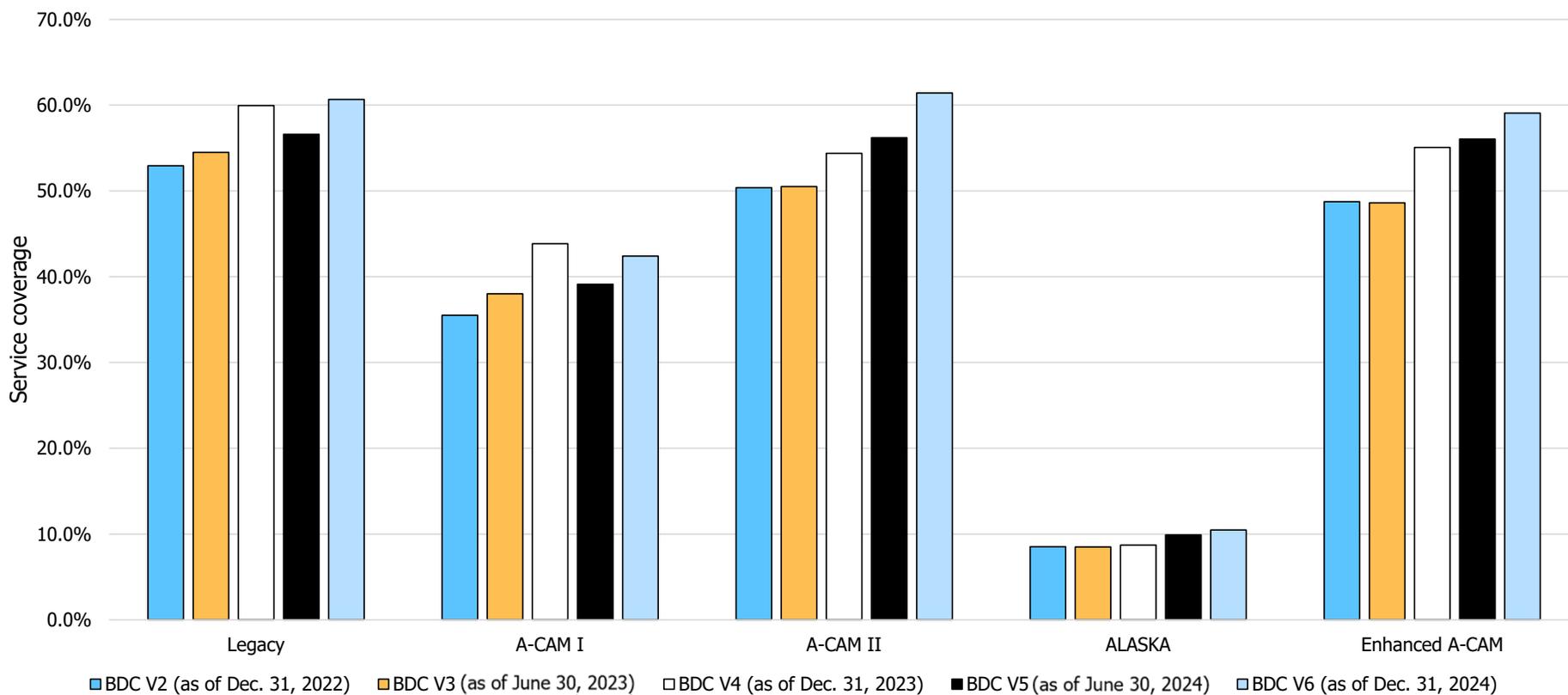
Insights from BDC 100/20 service coverage



Source: FCC, NECA calculations

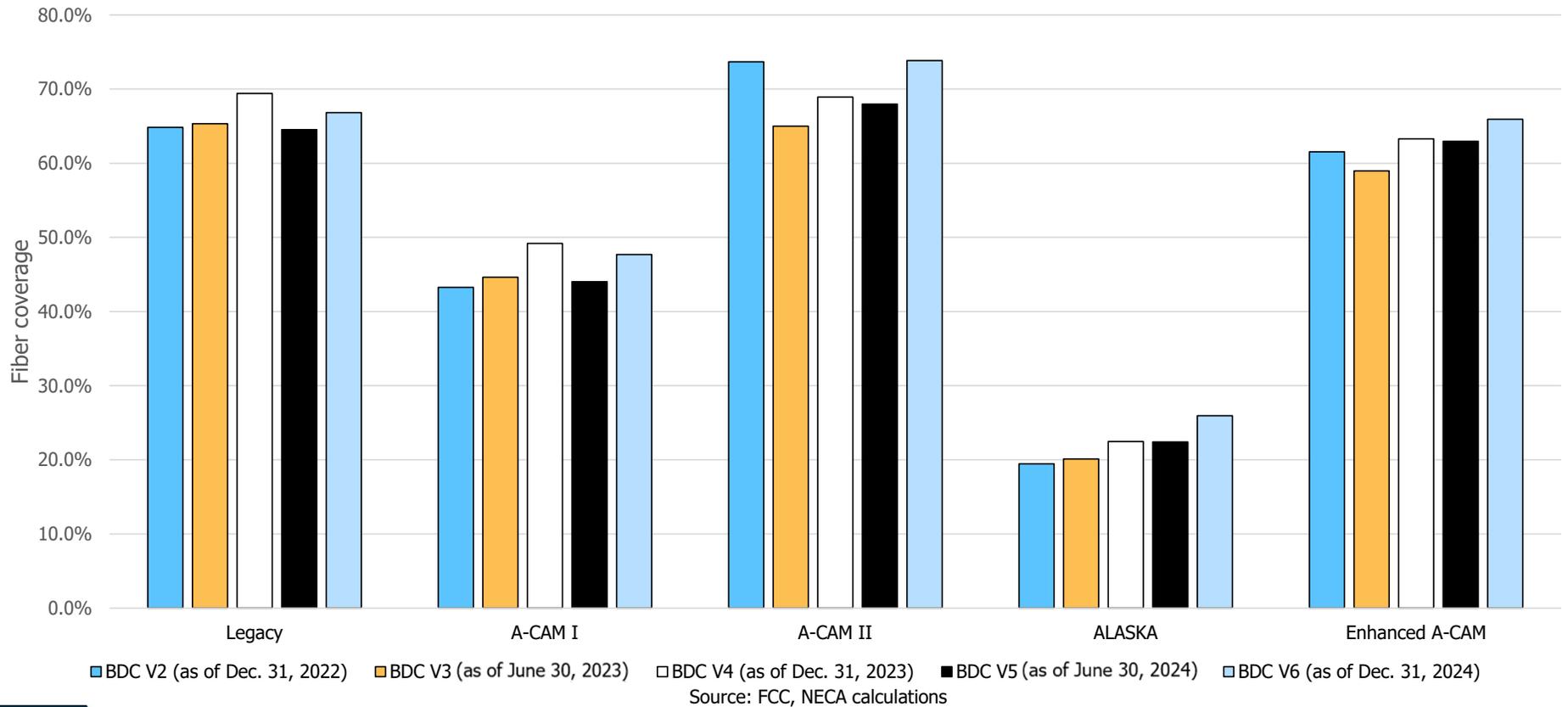
Insights from BDC

1,000/500 service coverage



Source: FCC, NECA calculations

Insights from BDC Fiber coverage



Insights from BDC

Service coverage summary

- Service coverage has been slowly increasing by all support types
- Study areas that opted into Enhanced A-CAM had about average service coverage for A-CAM I and A-CAM II and significantly above average service coverage for legacy support. That led to a drop in all coverages for legacy support study areas between V4 and V5 of BDC

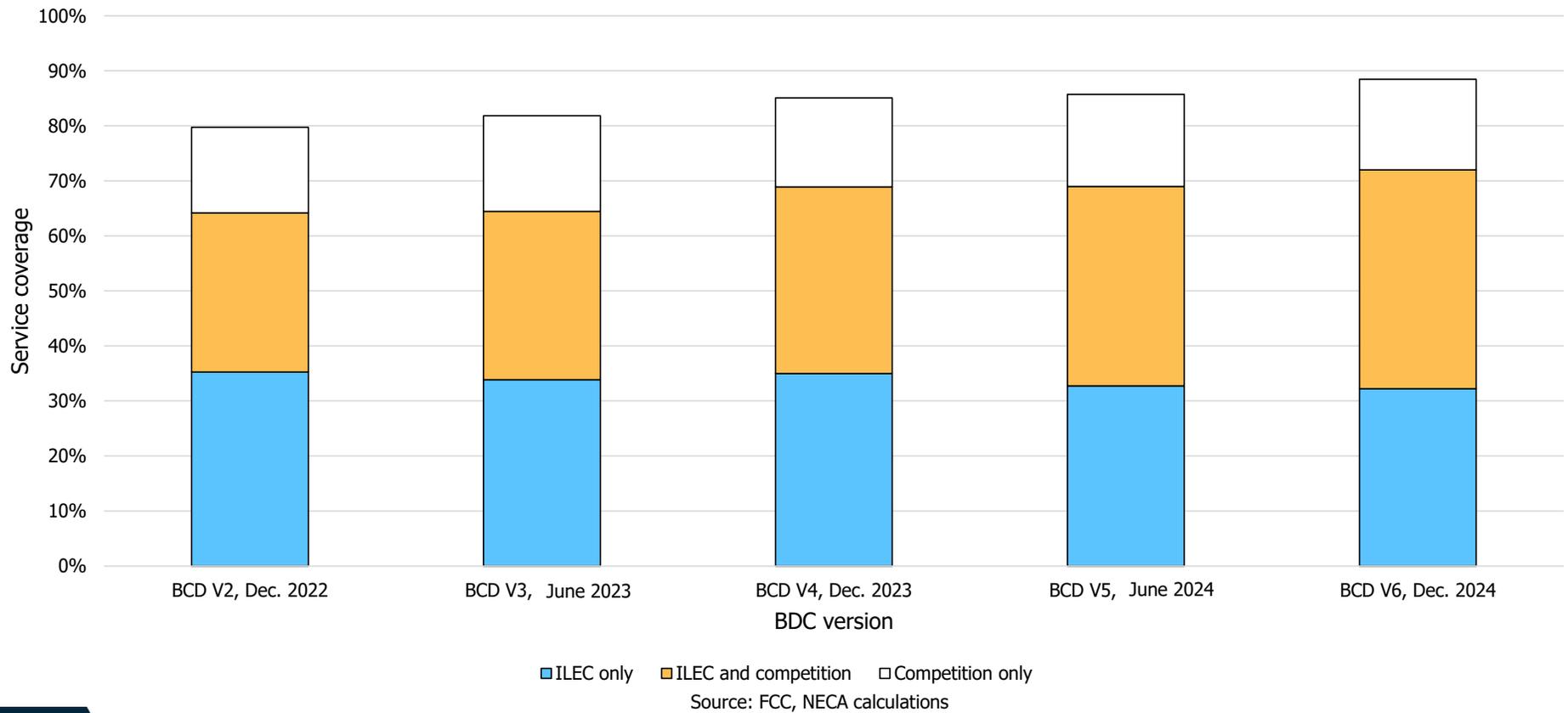
Insights from BDC

Service competition

- Considers competition from fixed broadband providers only and excludes satellite
- Service rates are defined as locations in ILEC study area served by ILEC and any eligible competitors as a fraction of total locations in the study area

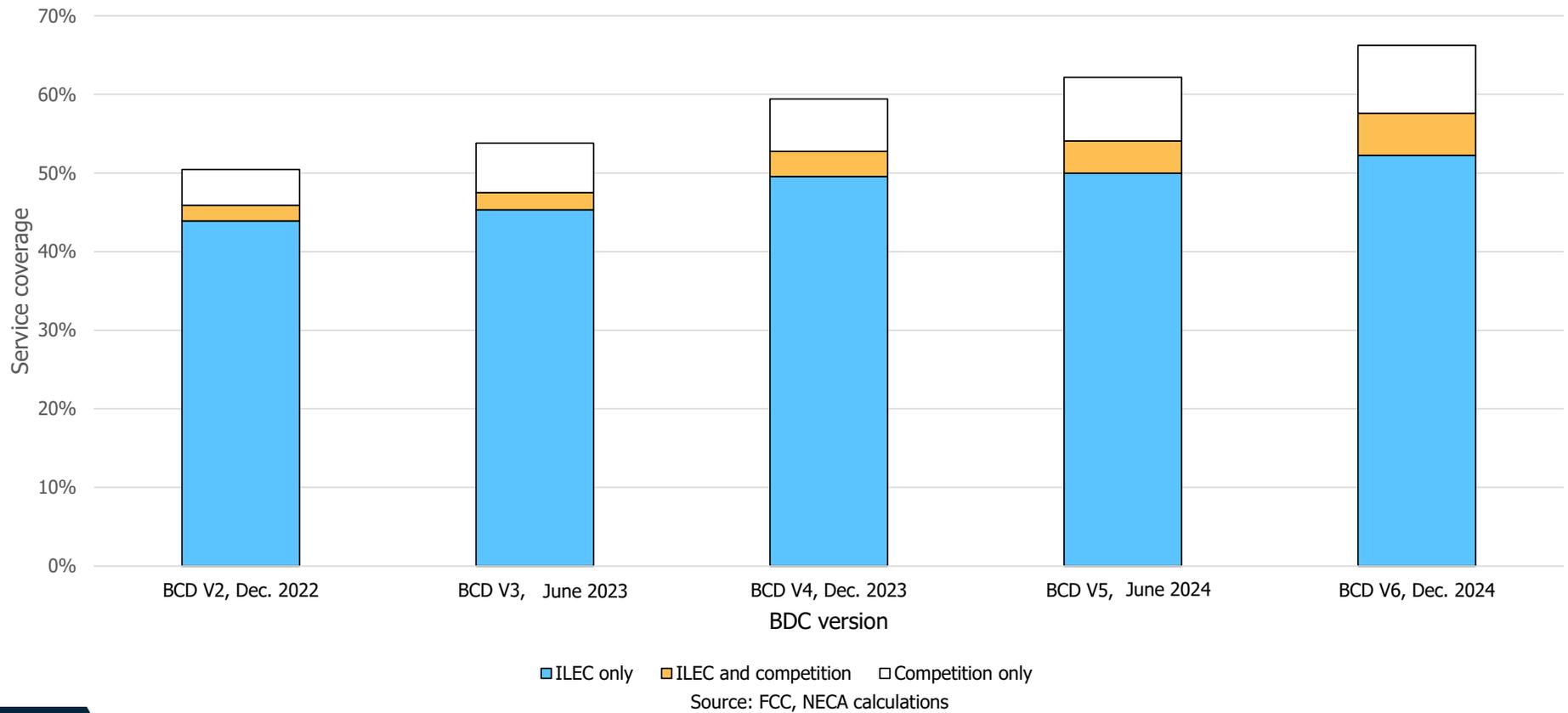
Insights from BDC

100/20 service by ILEC and competition



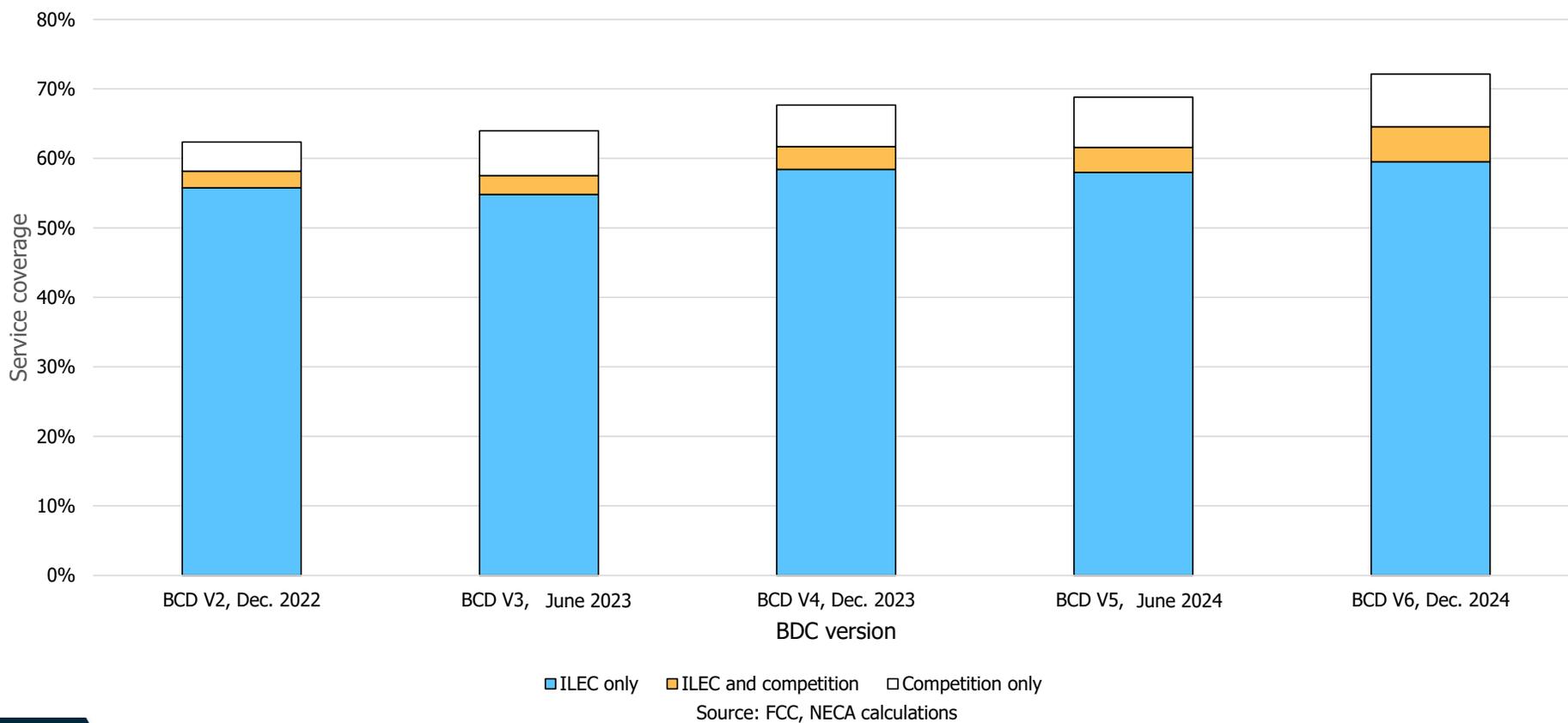
Insights from BDC

1,000/500 service by ILEC and competition



Insights from BDC

Fiber service by ILEC and competition



Insights from BDC

Competition summary

- 100/20 service coverage increased between BDC versions, mostly due to an increase in the locations served by both ILEC and competition. Shares served exclusively by ILECs and competitors changed little
- 1,000/500 service and fiber coverage also increased, but mostly due to an increase in the locations served by the ILECs, although the competition nearly doubled their high-speed coverage from Dec. 2022 to Dec. 2024
- There is significantly more competition for 100/20 service than for 1,000/500 or fiber service
- Competition is increasing over time, with competitors pushing into previously uncontested higher-speed tiers

2023 CAF BLS true-up analysis

Motivation

- In 2019-2021, CAF BLS true-up amounts were in \$50M range
- 2022 and 2023 CAF BLS true-ups were abnormally high

Year	CAF BLS true-up, \$M
2019	48.2
2020	48.4
2021	52.8
2022	98.5*
2023	107.1*

* 2022 and 2023 true-up amounts are only for NECA common line pool participants

Source: USAC budget analysis, NECA

2023 CAF BLS true-up analysis

Assumptions and definitions

- Data comes from Form 508 and Form 509 filings for NECA poolers
- Forecast misses are split into misses in revenue and revenue requirement per line and misses in demand
 - Forecast miss due to miss in demand is defined as:
 - $(\text{Forecasted revenues/revenue requirement per line}) \times (\text{the miss in lines})$
 - Forecast miss due to miss in revenues/revenue requirement per line is defined as:
 - $(\text{Actual line count}) \times (\text{the miss in revenues/revenue requirement per line})$
- Define transition to CBOL as a minimum between CBOL increase and POTS lines decrease

2023 CAF BLS true-up analysis

NECA CL pool true-up by source of forecast miss

CAF BLS true-up contribution, \$M*

Source of miss	Revenues miss			Revenue requirement miss			CAF BLS		
	CL	CBOL	Total	CL	CBOL	Total	CL	CBOL	Total
Demand	-3.6	19.5	16	-17.1	61.3	44.2	-13.5	41.8	28.3
RPL/RRQPL	-1.1	13	11.9	17.3	73.6	90.8	18.3	60.5	78.8
Total	-4.6	32.5	27.9	0.2	134.9	135.1	-4.8	102.3	107.1

CAF BLS true-up contribution, percentage *

Source of miss	Revenues miss			Revenue requirement miss			CAF BLS		
	CL	CBOL	Total	CL	CBOL	Total	CL	CBOL	Total
Demand	-12.7%	70%	57.3%	-12.6%	45.4%	32.8%	-12.6%	39%	26.4%
RPL/RRQPL	-3.8%	46.5%	42.7%	12.8%	54.4%	51.9%	17.1%	56.5%	73.6%
Total	-16.5%	116.5%	100%	0.1%	99.9%	100%	4.5%	95.5%	100%

* Calculation is done with full numbers; rounding errors are possible

Source: NECA

2023 CAF BLS true-up analysis

NECA CL pool demand forecast miss by source

Source of miss	CL		CBOL	
	Lines, in thousands	Percentage	Lines, in thousands	Percentage
Underforecasted CBOL transition	-27.7	67.3%	27.7	59.3%
Overforecasted CBOL transition	0.9	-2.2%	-0.9	-1.9%
Unanticipated expansion	2.9	-7%	29.8	64%
Unanticipated contraction	-17.2	41.8%	-10	-21.4%
Total	-41.1	100%	46.6	100%

* Calculation is done with full numbers; rounding errors are possible

Source: NECA

2023 CAF BLS true-up analysis

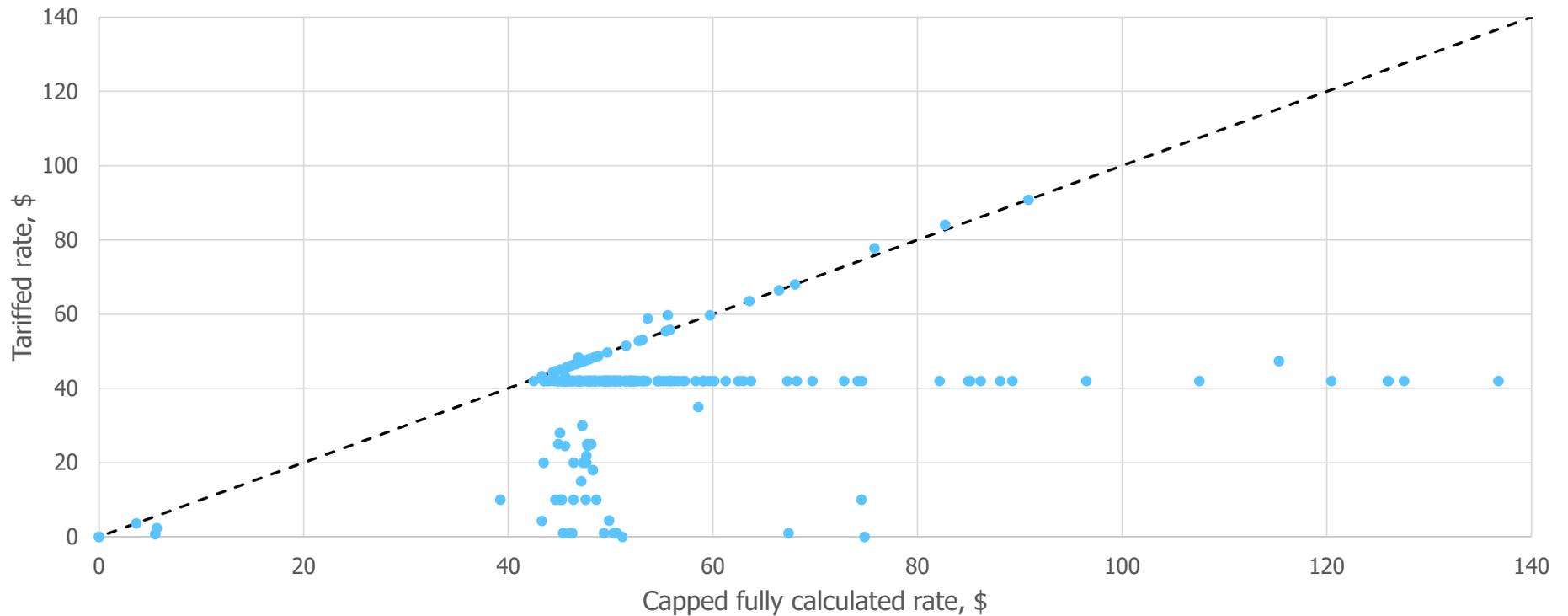
Summary

- Large CAF BLS true-up is mostly due to unanticipated increase of revenue requirement per line, with over 80% of it in CBOL
- Demand miss explains 26.4% of 2023 CAF BLS true-up, down from 40.6% for 2022 true-up
- Most of demand miss is due to underforecasting of CBOL rollout, either as a transition from POTS lines or as overall business expansion

Demand trends

CBOL rates distribution for legacy companies

Current CBOL rates distribution (August 2025)



Source: NECA

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Demand trends

CBOL rates summary for legacy and model companies

Legacy companies	Minimum	Average (weighted)	Median	Maximum
Tariffed rate	\$0	\$33.91	\$42	\$90.84
Fully calculated capped rate	\$0	\$47.34	\$46.16	\$237.23

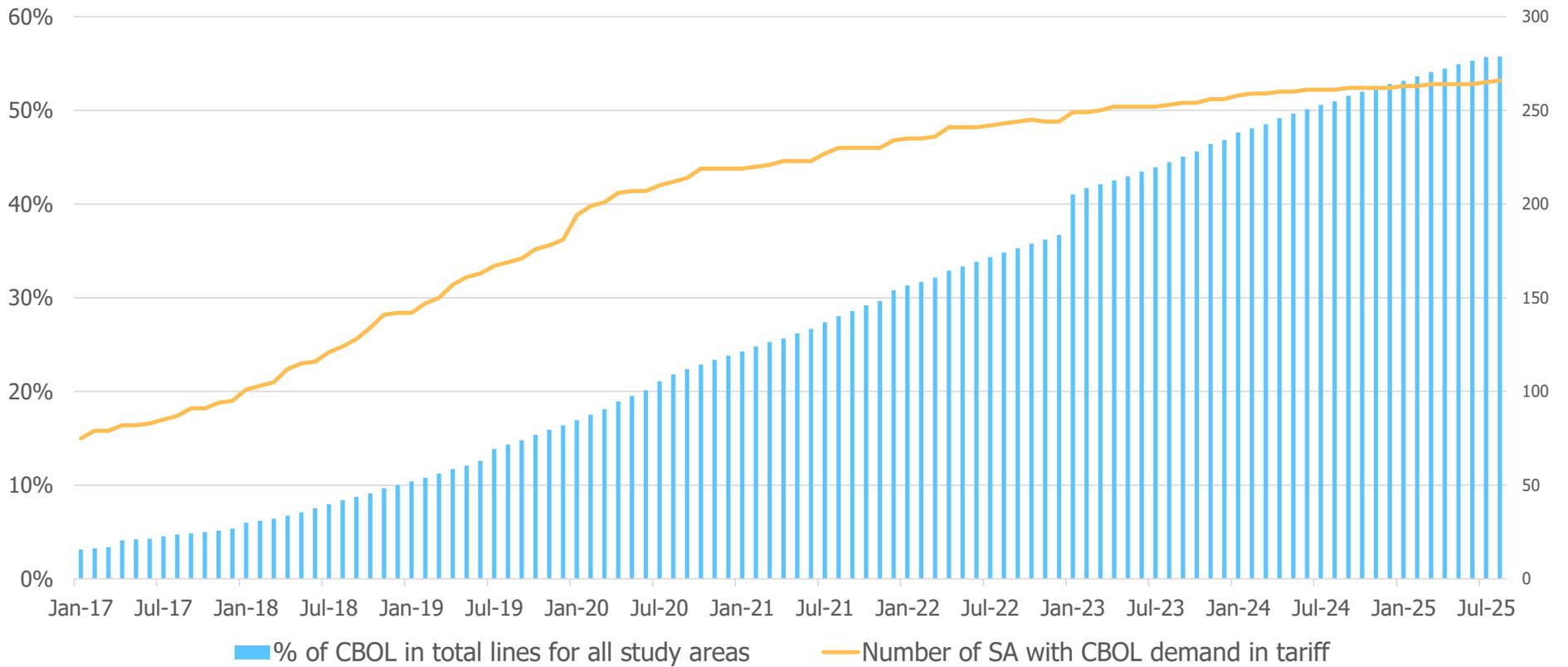
Model companies	Minimum	Average	Median	Maximum
Tariffed rate	\$0	\$37.22	\$42	\$42

Note: Data as of July 2025

Source: NECA

Demand trends

Average broadband-only lines share in CL pool

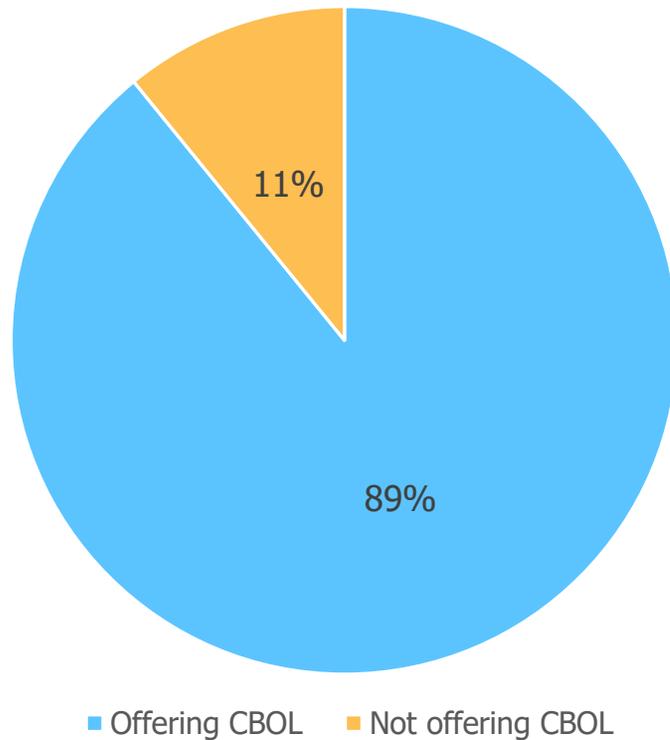


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Demand trends

Study areas in CL pool as of July 2025

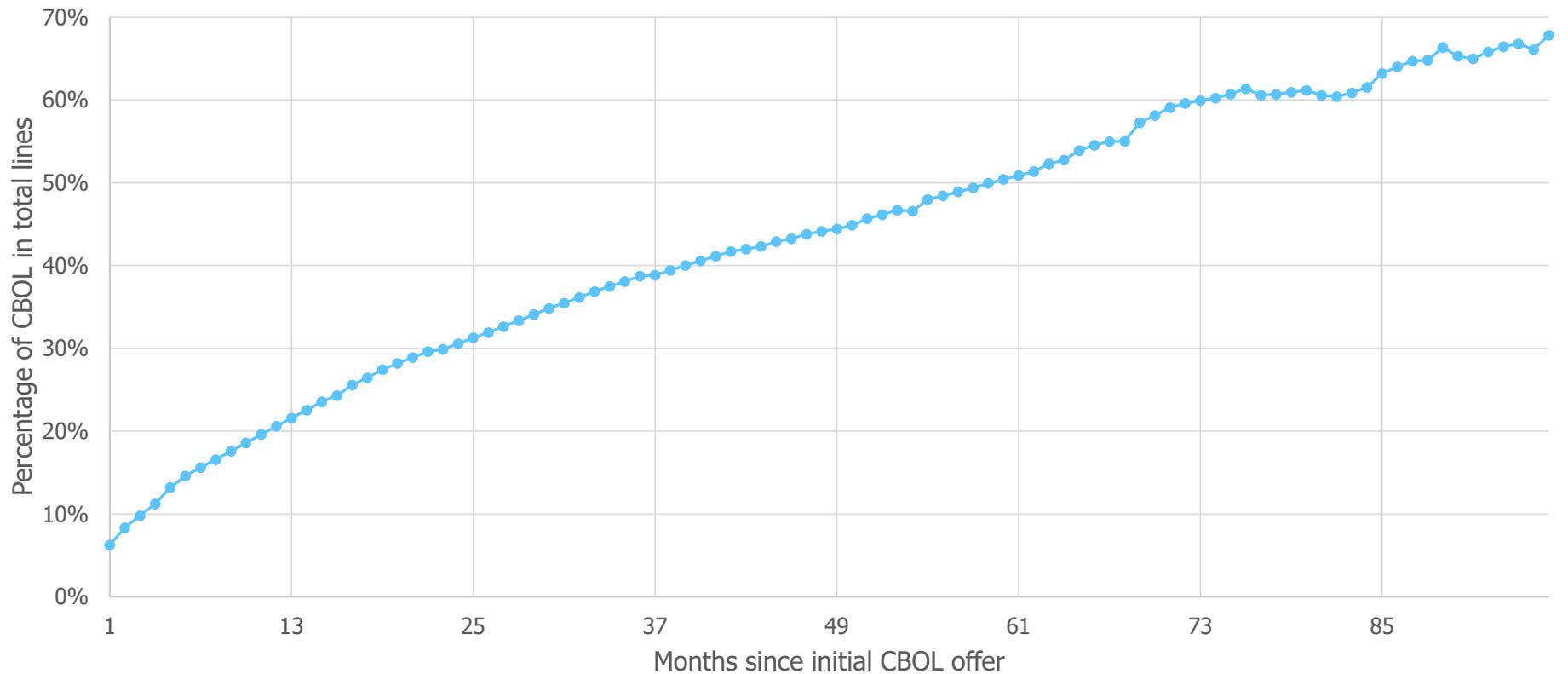


Study areas offering CBOL	CBOL share in CL
Bottom 5%	20.98%
Bottom 25%	43.92%
Median (50%)	57.18%
Top 25%	71.3%
Top 5%	91.81%
Maximum	99.72%

Source: NECA

Demand trends

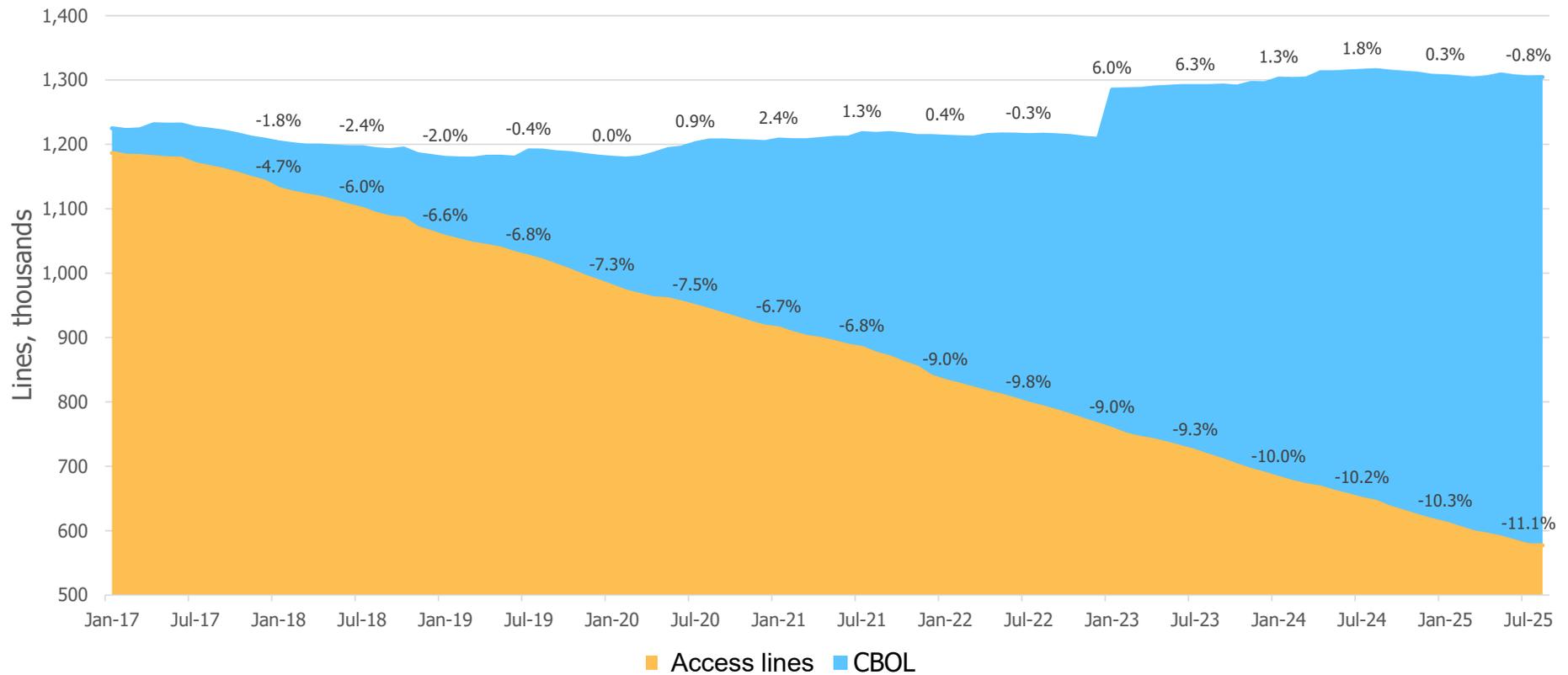
CBOL rates distribution for legacy companies



Source: NECA

Demand trends

Lines in CL pool



Source: NECA

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Demand trends

Common line demand forecast misses/pool performance

Period	Lines	Forecast (in thousands)	Actual (in thousands)	Forecast miss (in thousands)	Forecast miss % (forecast/actual-1)*	RoR**
TP 23/24	CL	722	689	(32)	4.7%	7.47%
	CBOL	585	614	29	-4.7%	
TP 24/25	CL	643	616	(26)	4.3%	9.07%
	CBOL	671	693	22	-3.2%	

* Calculation is done with full numbers; rounding errors are possible

** Authorized RoR is 9.75% for all four test periods

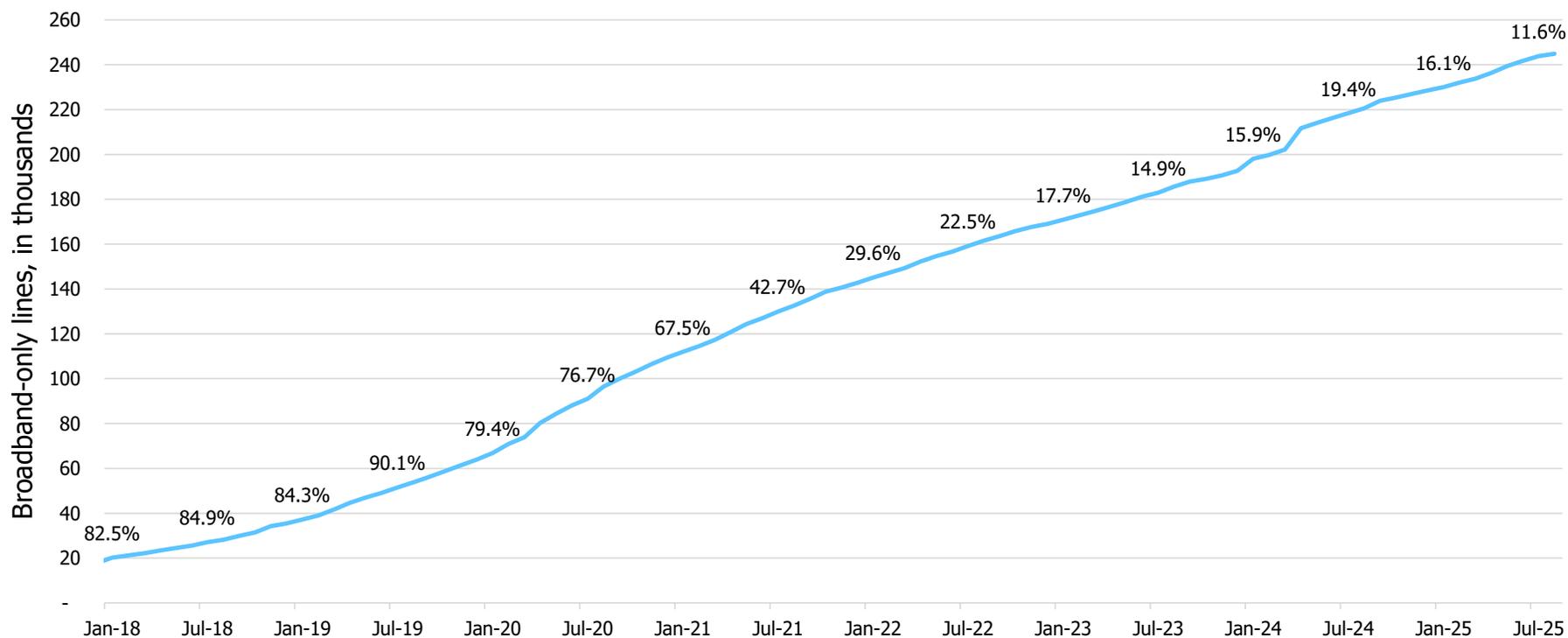
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Demand trends

Broadband-only lines

Consistent sample of DSL tariff participants



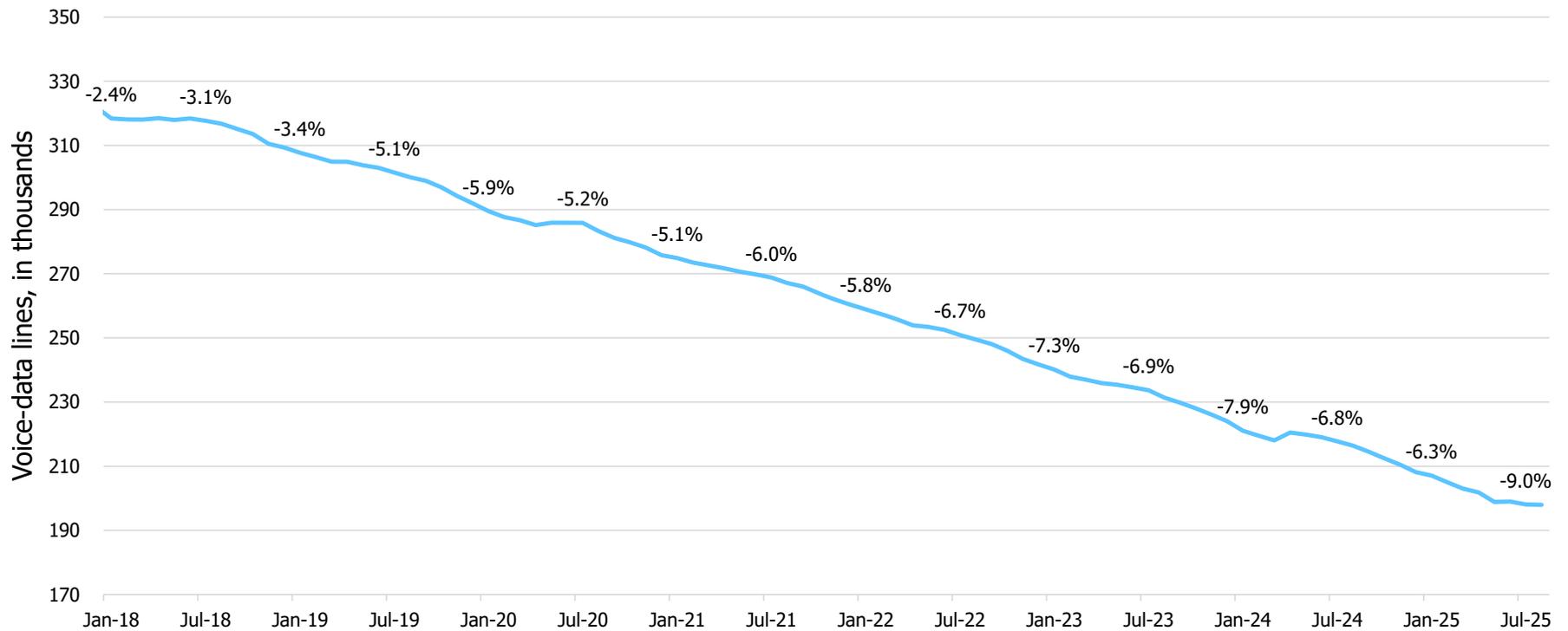
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Demand trends

Voice-data lines

Consistent sample of DSL tariff participants

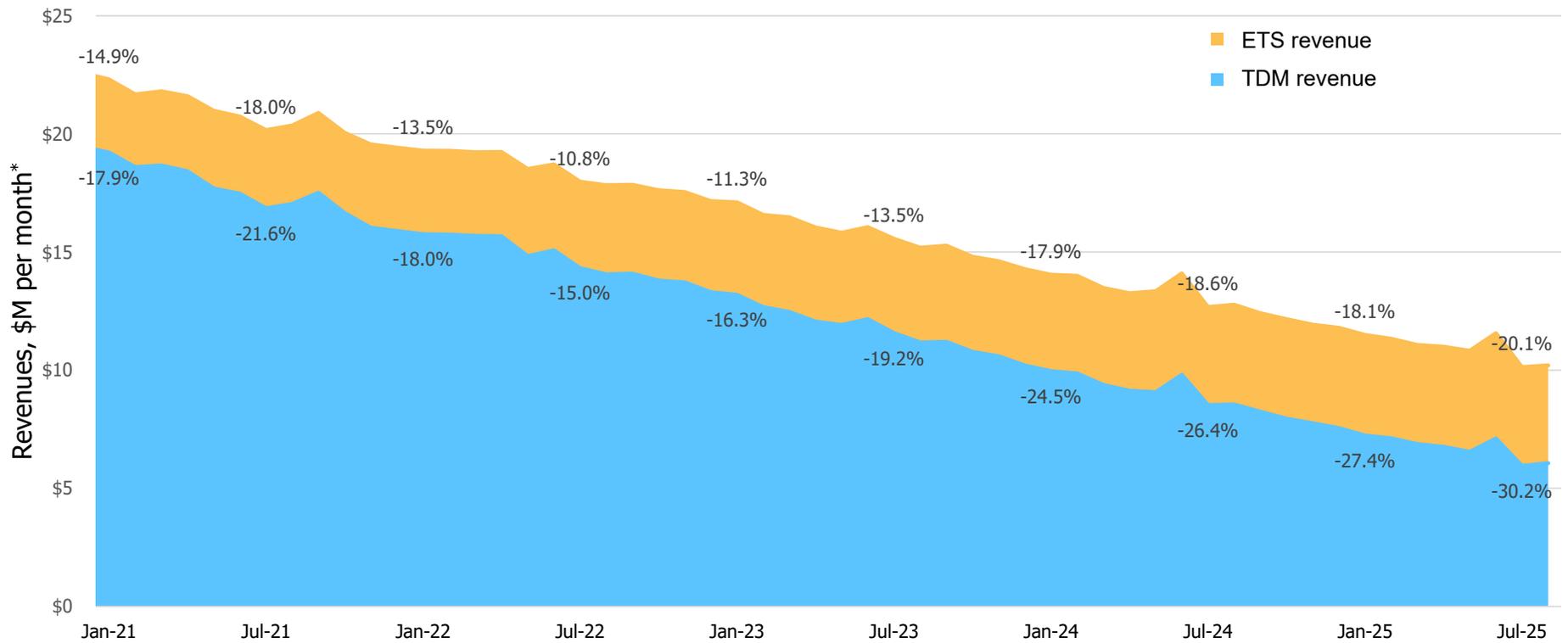


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Demand trends

Ethernet transport service and time-division multiplexing revenue



*Revenues represent unbanded revenues at July 2025 uniform rate

Source: NECA

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Demand trends

Special access demand forecast misses/pool performance

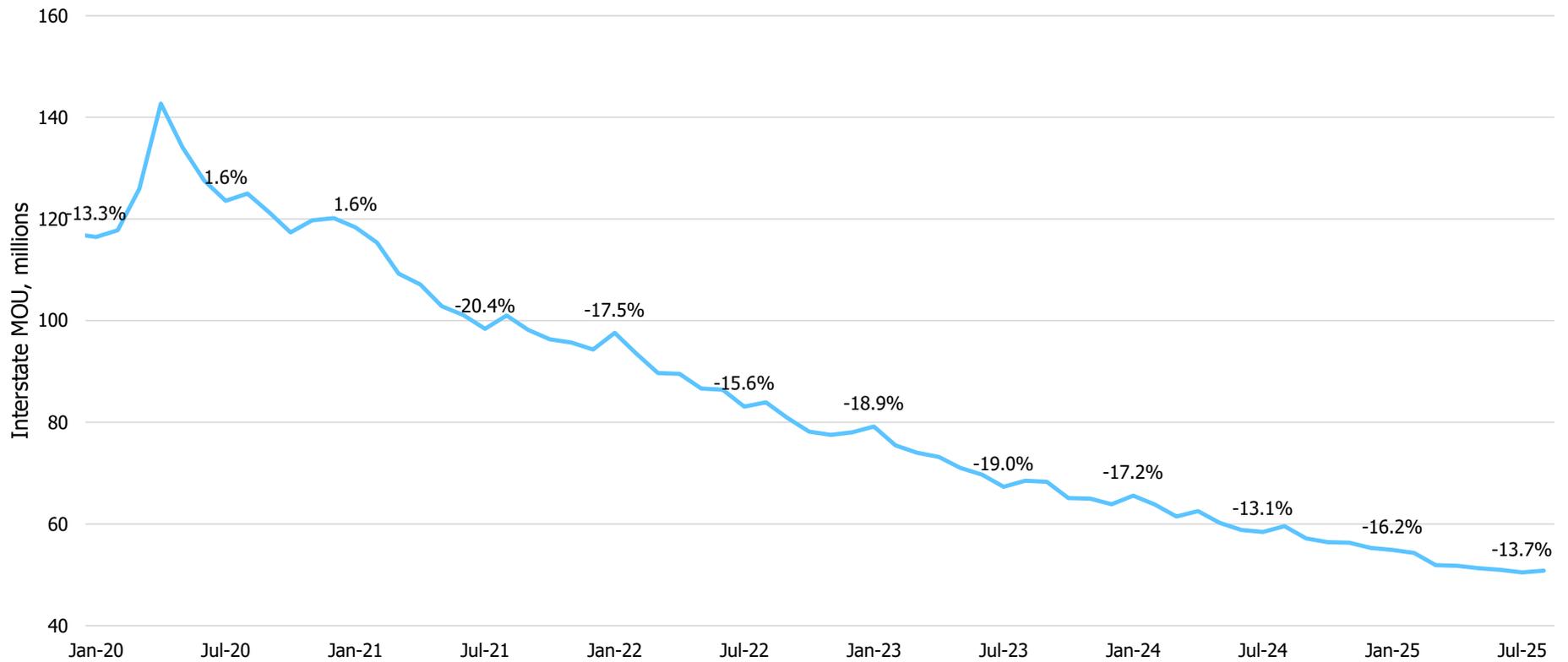
Period	Forecast (in millions)	Actual (in millions)	Forecast miss (forecast/actual-1, %)	RoR*	Authorized RoR
TP21/22	\$294	\$284.7	3.2%	8.74%	9.75%
TP22/23	\$269.8	\$262.4	2.7%	8.48%	9.75%
TP23/24	\$253.8	\$242.1	4.6%	6.82%	9.75%
TP24/25	\$223.2	\$214	4.1%	8.34%	9.75%

* August 2025 view

Source: NECA

Demand trends

Switched minutes of use



Source: NECA

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Demand trends

Switched access forecast misses/pool performance

Period	Forecast MOU	Actual MOU	Forecast miss (forecast/actual-1, %)	RoR*
TP21/22	1,720	1,530	12.4%	9.67%
TP22/23	1,307	1,214	7.6%	10.61%
TP23/24	1,074	1,001	7.3%	11.17%
TP24/25	770	756	1.8%	11.29%

* Views of RoR in the table for all periods are as reported prior to beginning of CAF ICC support true-ups. SWA RoR will reach 11.25% after CAF ICC true-up is completed

Source: NECA

Demand trends

Summary

- CBOL demand keeps growing faster than access lines decline. CBOL comprises over half of CL pool lines
- Non-ETS revenues decline while ETS shows slow growth
- Switched MOU continue post-pandemic decline

thank you!



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Acronyms

- A-CAM Alternative Connect America Cost Model
- BDC Broadband Data Collection
- CAF BLS Connect America Fund Broadband Line Support
- CAF ICC Connect America Fund Intercarrier Compensation
- CBOL Consumer Broadband Only Loop
- CL Common Line
- DSL Digital Subscriber Line
- ETS Ethernet Transport Service
- FCC Federal Communications Commission
- Gbps Gigabits per second
- HCL High-Cost Loop
- ILEC Incumbent Local Exchange Carrier

Acronyms

- M Million
- MOU Minutes of Use
- NECA National Exchange Carrier Association
- RoR Rate of Return
- RRQ Revenue Requirement
- SPA Special Access
- SWA Switched Access
- TDM Time Division Multiplexing
- TP Test Period
- US United States
- USAC Universal Service Administrative Company