Capitol Matrix Consulting
Analysis, Advice, Advocacy

Economic and Fiscal Impacts of AB 470

This brief discusses the economic and fiscal impacts of AB 470, which allows telecommunications companies currently serving as "carriers of last resort" ("COLR") in California to be relieved of that designation in well-served areas if they fulfill numerous requirements. Our discussion is based on the July 17, 2025 amended version of the bill.

Key Findings:

- AB 470 provides a viable pathway for California to shift away from an antiquated and expensive-to-maintain copper-based telephone system, and toward modern, efficient and environmentally friendly high-speed fiber services.

- The bill provides numerous protections for customers and employees affected by the elimination of COLR status. These include continuation of basic voice services for one year, provision of comparable priced alternative services for families with incomes up to 400 percent of the federal poverty level ($128,600 for a family of four in 2025) for at least two years, and job guarantees and training for displaced workers.

- The bill requires that fiber services be made available within six years to three new households for every "plain old telephone service" (POTS) customer a COLR has at the time of receiving amended status. That translates into additional fiber services to 750,000 to 2,250,000 California households, depending on the number of POTS customers. One-half of the households receiving new fiber services would be in areas that are not in well-served (as defined in the bill and discussed below).

- The investment requirement will provide a significant economic boost to California. It could result in the addition of between 17,800 to 53,400 miles of new cable to the fiber network, which translates into $1.8 billion to $5.4 billion in new investment in fiber. (The range depends on how many existing customers a COLR has at the time of receiving amended status.)

  - The required investment could support between 2,621 and 7,862 jobs, $552 million to $1.7 billion in economic output and $28 million to $84 million in

state and local revenues related to the required expansion of the fiber network during each of the first six years after AB 470 is implemented.

  - Total investment will continue to grow as current COLR companies are relieved of the expensive costs associated with maintaining the existing copper-based system.

- More importantly, the resulting expanded access to high-speed fiber will have enduring benefits for the state, in terms of increased productivity, more business startups, better educational outcomes and higher property values. These benefits are well-documented in numerous studies that have examined the impacts of fiber services on economic activity.

  - Using the results from a recent 2024 study by the Brattle Group, we estimate the increased fiber availability resulting from AB 470 could boost household incomes by $1.1 billion to $3.3 billion, economic output by $2.5 billion to $7.4 billion, jobs by 7,770 to 23,310, and state and local revenues by $141 million to $424 million each year.

- Other major benefits include improvements in health care, environmental benefits, and more competition, more consumer choices, and lower prices in the telecommunications industry.

Background

According to the Public Advocates Office within the California Public Utilities Commission (CPUC), 952,000 customers in California currently receive voice telephony services through "carriers of last resort" (COLR).[1] The services are largely provided through outdated and increasingly problematic copper lines.[2] These lines are expensive to maintain, prone to issues like corrosion and theft, have a significant carbon footprint, and offer very slow data speeds.

Proposed change. AB 470 updates the regulatory framework for existing COLRs by allowing them to amend their status if they meet specific requirements in areas considered "well served" or uninhabited with no customers. The bill defines “well served “to mean that: (1) there are at least three different facilities-based providers in addition to the basic exchange offered by the COLR; (2) at least one provider offers landline

[1] See “AB 2797 Fact Sheet.” Public Advocates Office. June 27, 2024. https://www.publicadvocates.cpuc.ca.gov/-/media/cal-advocates-website/files/press-room/reports-and-analyses/240627-public-advocates-office-ab-2797-colr-fact-sheet.pdf.

[2] While theoretically COLR basic services can be provided through broadband and other technologies besides copper, companies are averse to doing so. This is because basic services are subject to tariffs that are reviewed by the CPUC. A COLR providing basic services through alternative technologies would be subjecting those alternative technologies (which are not currently regulated) to CPUC rate-setting regulations, which would put the COLRs at a competitive disadvantage with their non-COLR competitors that are not subject to CPUC rate regulation. The result is that virtually all COLR basic services are provided through antiquated copper systems.

service; and (3) two of the providers offer alternative voice basic services at prices comparable to the tariffed basic services, as confirmed by the CPUC. Any transition would take years to complete – potentially up to a decade or more.

The bill includes numerous obligations for a telecommunications company requesting to amend its COLR status. A key requirement is that the company make available its advanced fiber optics services to at least three times the number of residential units in the state as the number of COLR customers the telecommunications company had as of the effective date of its first request for amended status. At least one-half of the new customers would need to be in areas that were not well-served as of the effective date of the company's amended status. Each year, the company would need to provide an annual report certifying that it is increasing deployment of advanced fiber optics in compliance with its six-year commitments, both in total and in underserved communities.

A company receiving approval for amended status is also required to provide continuing service to basic exchange customers for a least 12 months, and offer for at least 24 months: (1) comparatively-priced alternative basic voice service and discounted broadband plans to consumers with household incomes of up to 400 percent of the federal poverty guidelines; (2) vouchers for eligible small business customers to cover costs associated with transitioning alarm system services from copper-wire-based systems; (3) funding for public safety agency technology upgrade grants; (4) funding to the Office of Emergency Services for grants and programs to tribal governments, community-based organizations, and local governments that focus on public outreach and awareness of modern communications; and (5) funding for workforce development program in amended status areas.

Further, the bill would require that companies receiving amended COLR status: provide funding for community-based digital literacy resources; conduct at least one informational workshop in each legislative district that includes one or more amended status area; maintain an internet website and toll-free number dedicated to answering questions regarding the amended status process; engage in fair labor practices; and provide workforce training for employees that may be impacted by the transition.

Lastly, the bill requires that union-represented workers currently involved in building and maintaining legacy copper networks be offered retention, retraining or placement in another union-represented position. Company employees involved in construction, installation or maintenance of communications systems related to the transition would be paid at prevailing wages or collectively bargained wage rates.

Analysis

By reducing reliance on expensive and antiquated copper systems and accelerating access to modern fiber optics systems, AB 470 would have numerous positive impacts on California. Two key benefits would be:

- Expanded economic activity associated with the accelerated investment in modern fiber systems that would be required under the bill for companies seeking a change of COLR status; and

- Increases in productivity, jobs, income, property values and economic output associated with the resulting availability of high-speed fiber systems to additional households and businesses in California.

Increased Investment in Modern Fiber Services

Under the current regulatory framework, COLRs must invest in and maintain two voice networks – one based on modern technology, and another based on copper. AB 470 requires a COLR who seeks a change in COLR status to direct investment towards modern fiber services, increasing the number of residential homes served by fiber broadband.

While support for and investments in copper systems would continue for years post-approval, companies will accelerate fiber investment following bill passage. As noted above, the bill requires a minimum investment over six years in fiber-optics to three new households for each POTS customer a COLR has at the time of relief. Such a requirement will translate into major new investment in fiber service. We estimated the net increase in investment under three scenarios:

- A conservative scenario, where a change of status is granted to COLRs in census blocks containing about 250,000 basic service customers (roughly one quarter of all COLR customers in California).

- A mid-range scenario, where change of status is granted to COLRs in census blocks containing 500,000 basic service COLR customers.

- A high-end scenario, where a change of status is granted to companies in census blocks containing 750,000 COLR customers (which assumes that most or all census blocks in well served areas receive an amended status).

Under this range of assumptions, total new households served could be between 750,000 and 2.3 million within the first six years of when companies seek a change from COLR status, with half of these households being in underserved areas (see **Figure 1**, next page). This would require between 17,800 and 53,400 miles of new fiber cable, and between $1.8 billion and $5.4 billion in new investment during the six-year period. Our estimates are based on survey information contained in the *Fiber Deployment Cost*

Annual Report for 2024, which examines the costs and trends in fiber broadband deployment.[3] [4]

Figure 1
Impact of AB 470 on Fiber Investment and Household Access to Fiber Services ($ in Millions)

Number of COLR Customers	250,000	500,000	750,000
6-Year Obligation for New Fiber Investment:			
– Total Households	750,000	1,500,000	2,250,000
– Households in underserved areas:	375,000	750,000	1,125,000
– Estimated miles of new fiber cable	17,800	35,600	53,400
Total Investment Over 6 Years	$1,801	$3,601	$5,402
Average Annual Amount	$300	$600	$900

Economic impact of accelerated investment in modern fiber. The accelerated investment requirement in fiber networks contained in AB 470 is substantial. It will create a significant number of jobs in the construction sector and related supply chains. This is because expansion of the fiber network is a labor-intensive process. According to the Fiber Broadband Association, labor accounts for approximately 75 percent of total fiber-related investment expenses.

To estimate the full impact of the additional investment, we utilized the proprietary IMPLAN input-output model for of the California economy, to estimate the direct impacts of the additional fiber investment spending on employment, income and output by the telecommunications companies as well as the multiplier effects (sometimes called "ripple effects") of that spending on businesses in the supply chains.[5]

As indicated in **Figure 2,** the additional investment could directly and indirectly support between 2,621 to 7,862 jobs each year. About 60 percent of the totals – or 1,563 to 4,690

[3] "Fiber Deployment Cost Annual report 2024." Fiber Broadband Association. https://fiberbroadband.org/wp-content/uploads/2025/01/FBA_Cartesian_Fiber-Deployment-Cost-Annual-Report-2024.pdf.
[4] Key assumptions behind our estimate of total investment for each scenario are an average cost $19.16 per foot of fiber deployment and a weighted average distance between residences of 125 feet, reflecting a mix of urban and rural fiber deployment. Our average cost-per-foot estimate reflects a 50%-50% mix of arial and underground deployment, along with the average of "high" and "low" cost estimates for each type of deployment shown in the Fiber Broadband Association Annual report for the Western Region of the U.S.
[5] More specifically, IMPLAN is an input-output modeling system that enables users to calculate the direct, indirect, and induced impacts of a change in output and/or spending in one industry (or a business within the industry) on other industries located within a geographical region, such as the nation, a state, a county, a metropolitan statistical area, or one or more contiguous zip codes. Indirect impacts account for economic activity generated by businesses in the supply chain of goods and services used by the targeted business or industry in its production process, while induced impacts account for the economic activity generated by suppliers of goods and services to the households of employees of the targeted business or industry and its suppliers. Indirect and induced impacts are collectively referred to as "multiplier impacts." IMPLAN is widely used by academic institutions, federal, state, and local government agencies, and private companies for economic impact analyses.

jobs each year - would be employees *directly* involved in fiber deployment, while the other 40 percent of the job totals would be employees of businesses in the supply chains that provide goods and services to the fiber companies and the households of their employees. As indicated in Figure 2, the additional investment would also support $215 million to $644 million in income and $552 million to $1.7 billion in economic output during each of the first six years following implementation. State and local government revenues could increase by between $28 million and $84 million annually during this period.[6]

With California's unique landscape and complex geography, we emphasize that these are conservative estimates. The impacts are also likely to expand over time as companies shift away from copper systems and the resulting savings in maintenance costs are redeployed into investments in fiber and other new technologies. The above estimates also exclude local community grants, workforce reskilling, small business migration assistance, and digital divide outreach required in AB 470, as well as the benefits stemming from the growth in skilled trade jobs that will be needed to maintain the expanded fiber network in the future.

Figure 2
Economic Benefits of Additional Investment in Fiber
Includes Direct and Multiplier Impacts
($ in Millions)

Number of COLR Customers	250,000	500,000	750,000
Households Receiving Access to Fiber	750,000	1,500,000	2,250,000
Ongoing Impacts			
– Jobs	2,621	5,242	7,862
– Labor Income	$215	$430	$644
– Economic Output	$552	$1,103	$1,655
– State and local taxes	$28	$56	$84

Ongoing Benefits of Additional High-Speed Internet Access

Increased access to high-speed internet through fiber networks will bring substantial economic benefits to California. A wide body of research indicates that expanded access to fiber services can lead to GDP growth, new business formation, increased productivity, additional jobs and earnings, higher property values, and improved

[6] These estimates represent the full impact of the investment requirement, which applies regardless of future economic circumstances. To the extent that telephone companies were to apply some investment that they would have undertaken under existing law – absent the explicit investment requirement in the bill – toward the AB 470 requirement, the net impact of the bill could be somewhat lower. Given the size of the investment requirement contained in AB 470, however, any such reduction would be modest.

education outcomes.[7] The benefits of high-speed fiber have been found to be the greatest for communities that previously were not well-served, which is an important finding given that AB 470 directs one-half of the required fiber-related investment toward previously underserved communities.

Our estimates of ongoing benefits from additional access to fiber are based on empirical findings from a recent 2024 study by the Brattle Group.[8] The Brattle study compared a variety of economic indicators for households in census tracts that received fiber access in 2017 and 2018 to similarly situated households that did not have fiber access during the 2014 to 2021 period studied. They found that average household in the group receiving fiber services experienced a $1,450 increase in annual earnings and had a 0.72 percent higher probability of employment as compared to their counterparts not receiving fiber services. These impacts are generally consistent with employment and income effects found in other studies conducted in Europe and the U.S. in recent years. One finding unique to the Brattle study, however, was that significant incremental benefits occurred even in areas that previously had access to quality (albeit slower) broadband services.

Applying the results of the Brattle study to California, we estimate that AB 470 could result in ongoing annual increases of between 7,770 and 23,310 jobs, $1.1 billion and $3.3 billion in household income, $2.5 billion to $7.4 billion in economic output, and $141 million and $424 million in state and local revenue per year.

Figure 3
Ongoing Economic Impacts from Increased Access to Fiber Services
($ in Millions)

Number of COLR Customers	250,000	500,000	750,000
Households Receiving Access to Fiber	750,000	1,500	2,250
Annual Impacts			
– Jobs	7,770	15,540	23,310
– Household Income	$1,088	$2,175	$3,263
– Economic Output	$2,472	$4,943	$7,415
– State and local taxes	$141	$283	$424

[7] See "Socioeconomic Benefits of High-Speed Broadband Availability and Service Adoption: A Survey." Wolfgang Briglauer et al. Telecommunications Policy, Elsevier. June 2024.
https://www.sciencedirect.com/science/article/pii/S0308596124001058
[8] See "Economic Benefits of Fiber Deployment. The Brattle Group, November 20, 2024. https://fiberbroadband.org/wp-content/uploads/2024/11/2024.11.20-Benefits-of-Fiber-Deployment-Brattle-FINAL.pdf

Other Benefits

In addition to the positive economic impacts discussed above, AB 470 would have significant benefits in several other areas. These include:

- **Health benefits.** Internet service provided over fiber lines is highly reliable and has lower latency than high-speed broadband technologies.[9]Thus, it is well-suited for telemedicine, remote patient monitoring, and related patient care. Such benefits would be particularly large in rural settings where patients are less likely to have access to local medical services.

- **Increased competition**. By facilitating greater investments in job- and economic-inducing technologies like fiber or wireless, the bill will foster greater competition within the telecommunications industry, leading to more choices and lower prices for consumers.[10]

- **Environmental benefits.** The shift from copper to fiber lines has multiple environmental benefits. Fiber is lighter and less bulky, requires less maintenance, and uses 80 percent less energy than copper.[11] Additionally, fiber lines are comprised of glass, a widely abundant and accessible resource, while copper has become a valuable commodity better suited for batteries in renewable energy applications or electric vehicles.

Conclusion

AB 470 provides California with a pathway to move beyond antiquated copper-based phone systems in a responsible manner that greatly limits financial and service-related disruptions to customers and employees currently tied to the antiquated copper system. The accelerated shift toward fiber will have substantial economic, health, educational, and environmental benefits to California. In the near term, the state will benefit from billions of dollars in investment in fiber systems, which will support thousands of jobs, hundreds of millions of dollars in labor income, potentially over $1 billion in economic output, and tens of millions in annual state and local government revenues. More importantly, the acceleration in access to high-speed fiber services will have large and enduring impacts on business formation, household incomes, jobs, economic output and revenues to state and local governments in California.

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[9] See, for example, "Association Between Broadband Capacity and Telehealth Utilization Among Medicare Fee-for-Service Beneficiaries During the COVID-19 Pandemic." Ambrish Pandet et al. National Library of Medicine. April 5, 2023. https://pmc.ncbi.nlm.nih.gov/articles/PMC10076155/.

[10] See "2024 Broadband Pricing Index." USTelecom. December 16, 2024. https://ustelecom.org/research/2024-bpi/.

[11] Source: "Greener Connections, Understanding the Environmental Impacts of Fiber and Copper Communications Networks." Ramboll. https://www.ustelecom.org/research/greener-connections-understanding-the-environmental-impacts-of-fiber-and-copper-communications-networks/